This meeting is being audio recorded for public record.
Borough Council Meeting
**June 16, 2025 @ 6:30 PM**

| | |
|---|---|
| Jim Cherry, Chair | Term Expires: |
| Jason Birl | Term Expires: |
| Allen Burke | Term Expires: |
| Matther Clapp | Term Expires: |
| Thomas Dougherty | Term Expires: |
| Alex Katz | Term Expires: |
| Stephen Mitten | Term Expires: |

**Borough Council Meeting:**

1) Call to Order
2) Roll Call
3) Citizen Comments on Items not on the Agenda
4) Reports
5) Old Business
    a. Approval of May meeting minutes
    b. Planning Commission open issues
        i. Review & discussion of Build-to Ordinance draft
        ii. Rec Space or fee in lieu, (97.A19.19)
        iii. Preservation ordinance
        iv. Any other issues
6) New Business
    a. 700 S High Street, West Chester University
    b. Resignation of Jason Birl and vacancy
7) Other Business
8) Adjournment

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Agendas are posted to www.west-chester.com by noon 3 business days prior to the meeting.

West Chester Borough Planning Commission (PC) Meeting Minutes
Regular Meeting
May 27, 2025
6:30 PM

## 1) Call to Order

Meeting called to order at 6:30 PM by Chairperson James Cherry.

## 2) Roll Call

PC members present included J. Birl, A. Burke J. Cherry, M. Clapp, T. Dougherty, A. Katz and S. Mitten.

## 3) Announcements

J. Cherry noted the ongoing development at 211 Dean St.

A. Burke recognized and thanked T. Dougherty for his presentation to Borough Council (BC) on preservation.

## 4) Citizen comments on items not on the agenda

Joanne Smith (539 N. Church St.) asked who is the new Director of Building, Housing and Code Enforcement. J. Cherry replied that there is currently no Director and that R. Reiner remains the Interim Director.

## 5) Reports

None.

## 6) Old Business

### a. Approval of April 2025 meeting minutes

***J. Cherry moved to approve the April 2025 minutes. S. Mitten seconded the motion.***

There were no citizen comments.

***The motion passed with a vote of 6-0; A. Burke abstained because he was absent from the April meeting.***

### b. PC Open Issues

### i. Review and Discussion of Build-to Ordinance draft

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J. Cherry indicated this ordinance amendment was still in progress.

**ii. Recreation fee in lieu**

J. Cherry indicated this ordinance amendment was still in progress.

**iii. Preservation Ordinance**

T. Dougherty indicated a draft ordinance amendment would be ready for PC review in June 2025.

**7) New Business**

**a. 401 West Washington Street, Elks Home of West Chester: Phil Neill, Howell Surveying, Lot line change.**

J. Cherry asked who/what initiated the change. The applicant explained that the general objective was to ensure the parking lot and driveway used by Elks Terrace apartment residents (and the liability associated with parking lot and the driveway) are the property of Elks Terrace and not the Elks Home.

A. Burke expressed concern regarding the two existing issues discussed at the working session: 1) the existing non-conformity associated with impervious coverage, which will remain a non-conformity with this lot line change; and 2) the official map, which indicates a proposed future right-of-way through the current property to connect/complete N. Wayne St.

***M. Clapp moved to recommend approval of the Draft plan with one condition: resolve the final comment from the Zoning Officer regarding lot areas. J. Cherry seconded the motion.***

Public comment:

Lisa Kearns (312 W. Biddle St.) - Neighbors are concerned this is a prelude to development. The applicant indicated this was not a prelude to development.

N. Scimone (BC) - What is the purpose of this change? Applicant reiterated that the general objective was to transfer the parking lot and the driveway to the Elks Terrace apartment property.

***The motion passed with a vote of 5-1. The votes were as follows:***

***J. Birl - yes***

***A. Burke - no***

***J. Cherry - yes***

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***M. Clapp - yes***

***A. Katz - abstained due to newness.***

***S. Mitten - yes***

***T. Dougherty - yes; requested that a note be included in the motion regarding the official map and right of way issue.***

**b. 210-214 West Washington Street, Axel Square, LLC. : Scott Zwizanski, P.E. Final Land Development plan, townhomes.**

J. Cherry thanked applicants and noted outstanding issues: consultant comments; street lights; radius of the curb at Patton and Birdseye.

Applicant noted Belgian block was proposed along Patton Alley; J. Cherry agreed with that approach, along with a reduced radius.

A. Burke noted the overall fire hazard associated with the property is already being significantly reduced by replacing the automotive repair shop and older buildings with new residences that are less likely to burn.

T. Dougherty noted the fire code requires 150 ft hoses on trucks; firefighters could pull sufficient hose from Washington St. or Patton Alley to fight a fire in the rear of the proposed homes.

Robert Ott from Community Resilience Consulting asked if proposed curb will be mountable, why not make it 90 degrees and consistent with all other corners?

T. Dougherty presented several sketches comparing the proposed elevations with existing neighbors to the west on Washington and other examples of 3-story townhouses in the Borough; he illustrated how the front facades (windows, doors, etc.) could be tweaked to more closely align with the neighborhood.

A. Burke concurred with what T. Dougherty presented.

J. Birl noted T. Dougherty's proposed design changes are simpler and encouraged applicant to follow the design suggestions.

M. Clapp, A. Katz, S. Mitten concurred. M. Clapp noted that the side (east and west) elevations indicated the brick on the front would be wrapped around the sides and supported this approach.

J. Cherry noted saving on some design features would allow the applicant to spend a bit more on the front door or other smaller features.

N. Scimone (BC) noted a neighborhood's character can be built through differences, not necessarily through similarities or sameness.

Lisa Kearns (312 W. Biddle St.) thought the proposed buildings do not fit as-is.

Applicant presented the rear view.

J. Cherry noted inconsistent lighting; applicant reiterated the AI rendered the lighting incorrectly. T. Dougherty noted the rear elevation is a better opportunity for differentiation. J. Cherry asked about the depth of the rear decks; applicant indicated 4-6 ft.

Lisa Kearns (312 W. Biddle St.) agreed that the brick wrapping around the sides would help the new homes fit in the neighborhood.

A. Burke asked what is the reason for the peaked roof? He noted it is inconsistent with the neighborhood. T. Dougherty noted pitched roofs are common in the Borough and often more durable.

***M. Clapp moved to recommend approval of the final plan with the following conditions: 1) include a waiver from the requirement for streetlights OR install streetlights on Washington and Patton per the Code; 2) reduce the curb radius at Patton and Birdseye to 10 ft with a mountable curb, which prioritizes pedestrian safety, is consistent with other alley curb radii in the Borough and still accommodates fire trucks and firefighting capabilities; and 3) resolve all remaining consultant comments. J. Birl seconded.***

No additional public comments.

***The motion passed with a vote of 7-0.***

***M. Clapp moved to recommend that if street lights are installed along Washington St. And Patton Alley and safe light levels can be maintained, the Borough remove existing cobra lights at Washington St. and Birdseye Alley (1 light), across the street on Washington St. (1) and along Patton Alley (2). J. Cherry seconded.***

No public comments.

***The motion passed with a vote of 7-0.***

**c. 700 S High Street, West Chester University: Brian Nagle, West Chester University Master Plan**

J. Cherry expressed appreciation for WCU's submittal and desire for conversation with WCU. He highlighted the following aspects of the plan: 1) significant impacts if Church St. is pedestrianized; 2) lack of changes at High and Rosedale; 3) Sykes expansion and vehicle turnaround; 4) the Borough as a pedestrian town; 5) the northeast corner to expand "superblock."

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J. Birl noted the need to eliminate the No Turn on Red sign on W. Nields St. onto S. New St.

A. Burke asked about a presentation from WCU. N. Scimone indicated R. Reiner was working on scheduling a presentation/meeting with WCU. A. Burke also noted the static enrollment data for WCU and the lost parking along Church St. if it is pedestrianized. Finally, he noted this Master Plan was a response by WCU to the Borough's and Townships' many requests/complaints.

T. Dougherty noted P. McCoy meets with WCU regularly and they have a good working relationship.

**8) Adjournment**

***J. Cherry moved to adjourn the meeting. M. Clapp seconded the motion. The motion passed with a vote of 7-0 and the meeting was adjourned at 8:00 PM.***

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UNIVERSITY
CAMPUS MASTER PLAN
20230517
V7 JANUARY 2025

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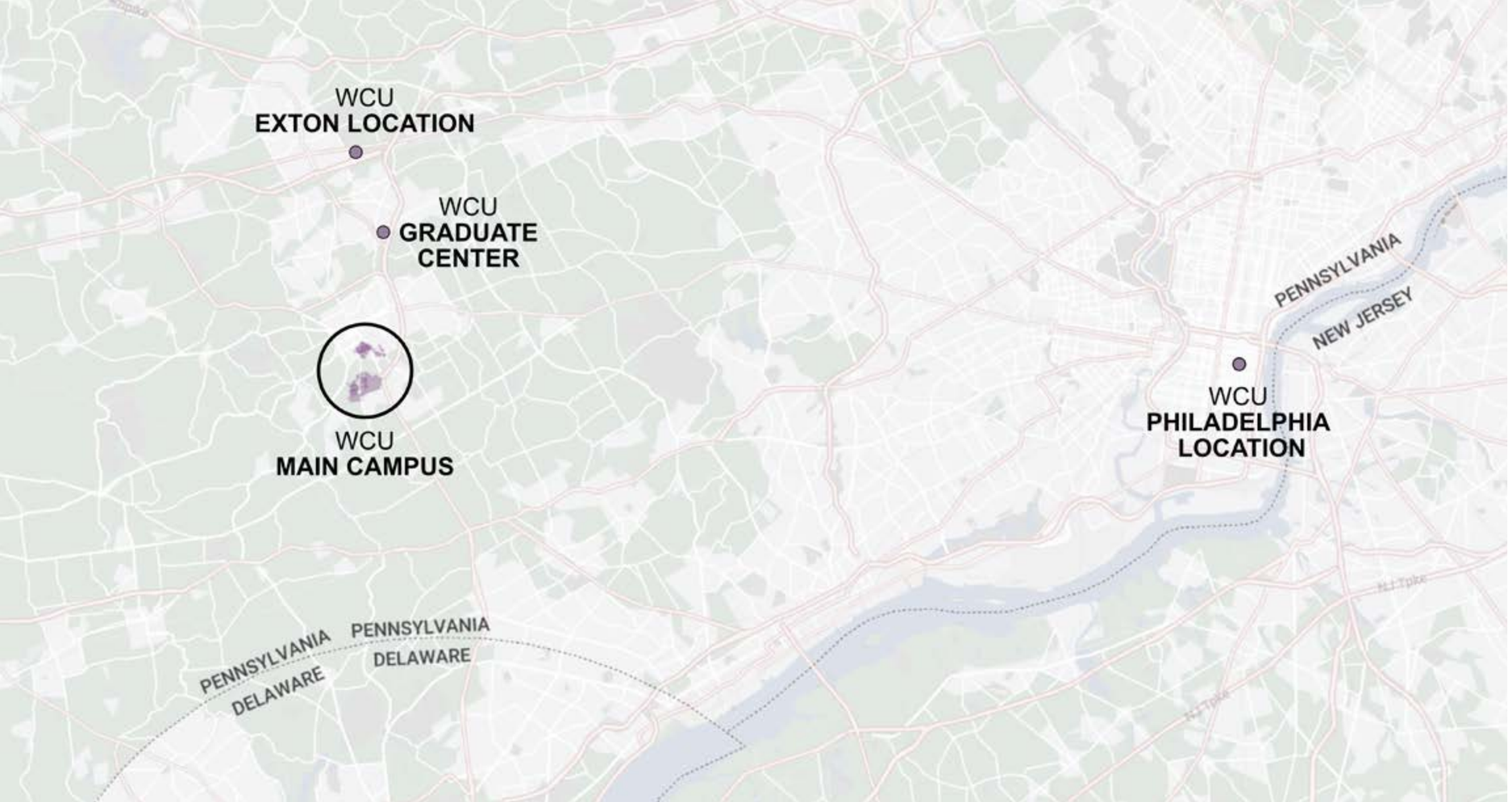
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# SECTION 1.
# EXECUTIVE SUMMARY




# A. CONTEXT

## CAMPUS LOCATIONS

Founded in 1871, West Chester University (WCU) is a public research university with its main campus in West Chester, PA and satellite campus locations including a Graduate Center, an Exton location, and in Center City Philadelphia. WCU is the largest of the 10 state-owned universities belonging to the Pennsylvania State System of Higher Education (PASSHE) and the sixth largest university in the state of Pennsylvania.

## PROJECT SCOPE

In 2023, WCU selected EwingCole, Architects, Engineers & Planners to provide a comprehensive update to the 2015 Master Plan, with a specific focus on improving and increasing the number of total student housing beds at WCU's North Campus and South Campus. Additionally this Campus Master Plan (CMP) is intended to fulfill the University's need to maintain compliance with jurisdictional oblications as they relate to West Chester Borough and West Goshen Township Planned Univeristy Campus District (PUC) and as such includes:

- University Enrollment Report and Projection Analysis
- University Housing Report and Analysis
- University Campus Transporation Study
- University Campus Parking Study
- Conceptual Stormwater Management Study
- Master Site Plan

This work began with the planning team taking into account past studies executed by WCU comissioned and completed after the 2015 campus plan. Additionally, an assessment of existing facilities, including building engineering systems was completed. A space utilization study was performed to identify and prioritize ongoing deferred maintenance activities. Site systems, parking, circulation, landscape opportunities, and financial analysis are also part of the overall framework that informs the recommendations of this updated Master Plan.



# B. GOALS & OBJECTIVES

## MASTER PLAN GOALS

The 2024 Campus Master Plan (CMP) is guided by both **aspirational and functional goals.** Functionally, the goals of the master plan are to:

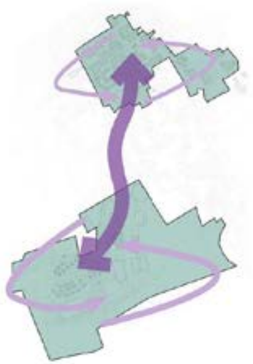
**GUIDE NEAR AND LONG-TERM DEVELOPMENT**, through an integrated approach to growth.

**ESTABLISH CRITERIA FOR EVALUATION**, by identifying key issues and potential capital costs.

**PROVIDE A FRAMEWORK FOR IMPLEMENTATION**, by prioritizing projects, needs and initiatives.

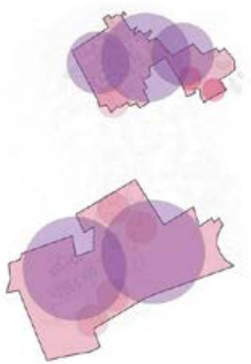
Aspirational goals of the master plan are linked to broader themes of Connectivity, Experience and Identity. These include

Reframe Campus **Connectivity**



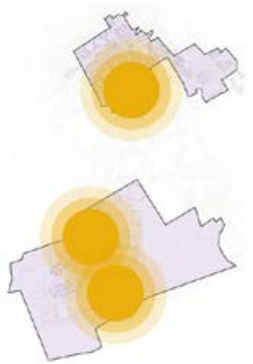
by strengthening campus circulation, open spaces, pathways and linkages that support social and physical connection. This includes identifying opportunities for passive and active recreation in relation to existing and proposed buildings and reinforcing landscape hierarchies across campus - particularly at the North Campus "Superblock" where building density is greatest.

Enhance Living & Learning **Experience**



by providing places that support health, wellness and sustainability. This includes rethinking how residential life and support services are programmed, both within student housing locations, as well as what support services are clustered together for improved synergy.

Strengthen Campus **Identity**



by reinforcing the notion of a welcoming campus that supports a sense of belonging through access to student support programs and by creating memorable experiences. This includes the integration of new buildings or additions with open space, and the role of landscape planning and streetscape design to help orchestrate user experience.

# C. JURISDICTIONAL REQUIREMENTS

## PASSHE, TOWNSHIPS, BOROUGH, & ZONING

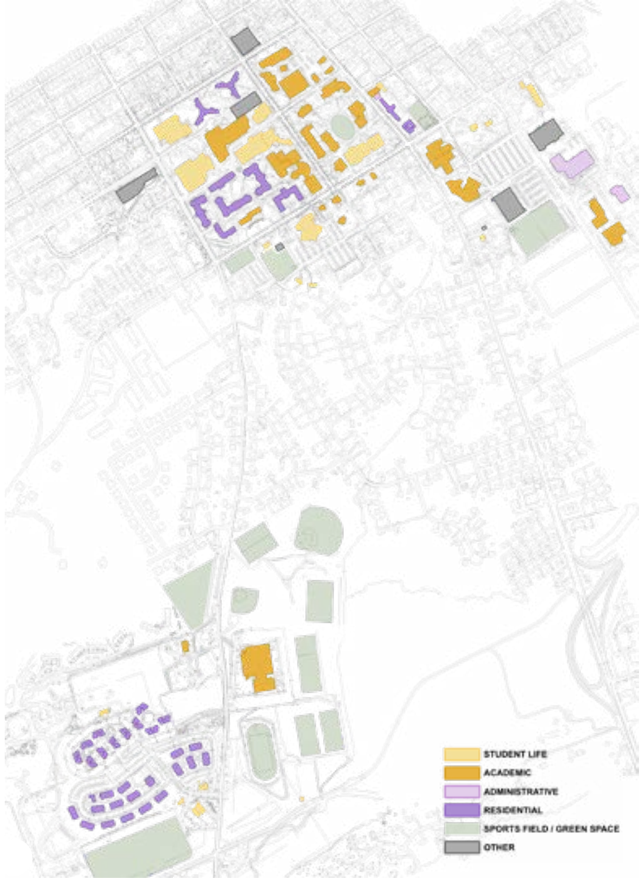
The North Campus and South Campus span three different municipalities, with specific zoning requirements that impact development including parking, building type, size and open space.

**Borough of West Chester Requirements:** Most buildings on the North Campus fall into the "Superblock," which is a zone bounded by S. New Street, S. High Street, W. Rosedale Avenue, and Sharpless Street. The Borough of West Chester requires a 5-year outlook for the master plan.

**West Goshen Township:** The remainder of the buildings on the North Campus and the Athletic Facilities on the South Campus, are in West Goshen Township, which requires a 5-year outlook for the master plan.

**East Bradford Township:** The remainder of the buildings on the South Campus (mostly residential apartments) are within East Bradford Township.

**Westtown Township:** This adjacent jurisdiction has an interest in the development of University facilities.




## JURISDICTIONAL PARAMETERS

The work of the Comprehensive Master Plan document is intended to satisfy jurisdictional requirements set forth by the authorities previously noted. Each of these jurisdictions have provided a Planned University Main Campus Overlay District (PUC) for development planning purposes.

### BOROUGH OF WEST CHESTER

The current zoning district known as the PUC - Planned University Campus District was established in September 2021. The PUC area of the University is bounded by South High Street, University Avenue, Reynolds Alley, Sharpless Street, South New Street, and West Rosedale Avenue and is considered a stand-alone lot for the application of the area and bulk requirements for the PUC District.

- 90ft max building height
- All campus facilities allowed

### WEST GOSHEN TOWNSHIP

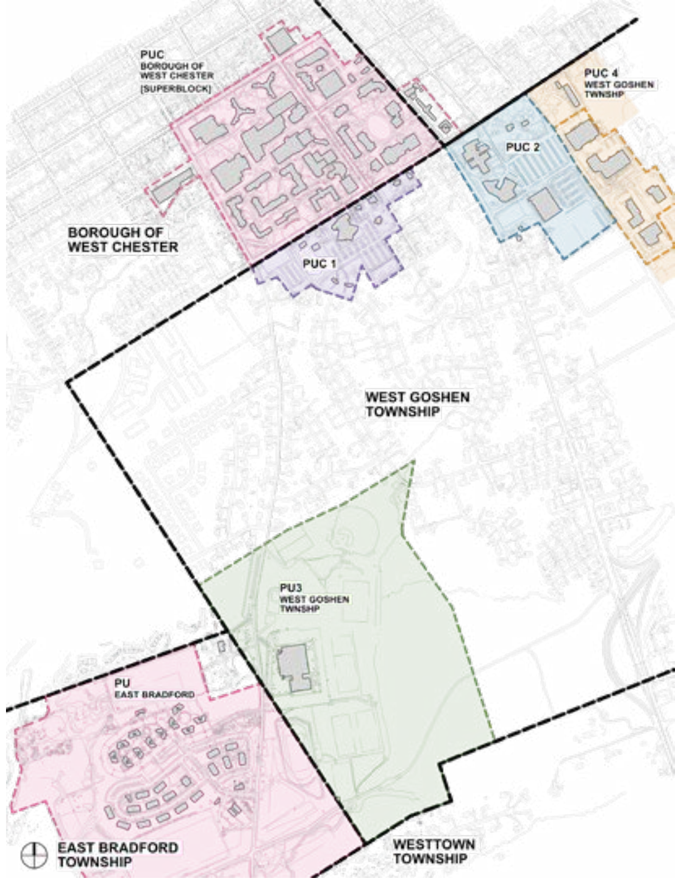
The current zoning district known as the Planned University Main Campus Overlay District (PUC) was established in May 2021. The PUC includes four (4) sub districts referred to as PUC Class 1, PUC Class 2, PUC Class 3, and PUC Class 4.

- No student housing allowed
- 50ft max or 4 stories

### EAST BRADFORD TOWNSHIP

The current zoning district known as the PU Planned University District was established in April 2003.

- 40ft max or 3 stories
- 1 parking space per student bed



The Borough of West Chester and West Goshen Township as well as PASSHE, require a specific set of items to be included and considered in a master plan submission, as indicated in the chart below. PASSHE requires an implementation plan for recommendations spanning Short-Term (0-5 year); Mid-Term (5-10 year); and Long-Term (10-20 year).

Additionally, the University will submit a Campus Master Plan to East Bradford Township as part of the University's update to the Campus-wide Master Plan in accordance with Section 115-145 of the East Bradford Township Zoning Ordinance.

| | BOROUGH OF WEST CHESTER / WEST GOSHEN TOWNSHIP* | PASSHE |
|---|---|---|
| 1 | A University Enrollment Report & Projection Analysis | Physical Analysis of the Campus |
| 2 | A University Housing Report & Analysis | Solution Development |
| 3 | A University Main Campus Transportation Study | Space Allocations |
| 4 | A University Main Campus Parking Study | Site |
| 5 | A Comprehensive Stormwater Management Strategy | Buildings |
| 6 | A Master Site Plan | Infrastructure |
| 7 | The University shall be responsible for all improvements required by the Township Subdivision and Land Development Ordinance and other applicable ordinances and regulations for each phase of the University Campus Plan. | |

* 5 Years for Borough of West Chester & West Goshen Township

0-5 Short Term; 5-10 Mid Term; 10-20 Long Term



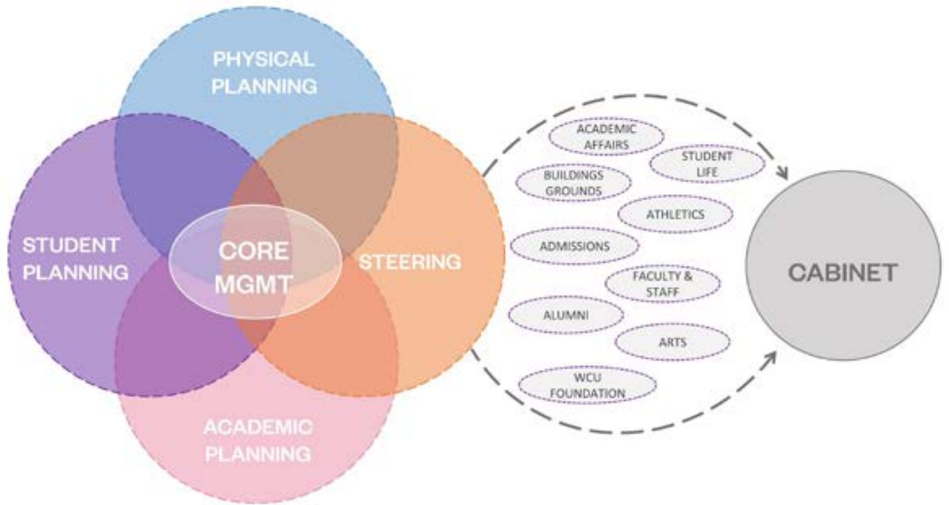
# D. PARTICIPANTS & PROCESS

## PROCESS

The master plan preparation process was managed by a core team led by EwingCole in collaboration with key stakeholders representing Student Support Services, Residence Life, Faculty & Staff, Academic Affairs, Athletics, Admissions, Arts, and Facilities & Grounds. Additional insight and support were offered through the Steering Committee, with input from the Executive Committee.

The Core Team met bi-weekly to manage the process and to advance activities related to each phase. Milestone meetings were open to all stakeholders, in addition to several open forums that included input from students and faculty at large.

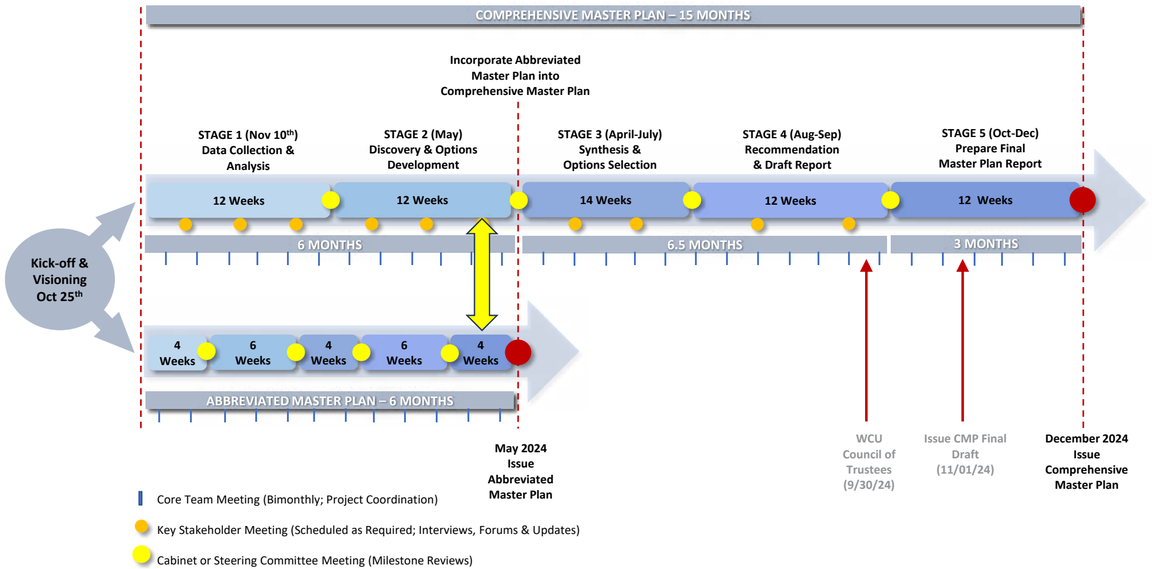
Additional members of the **EwingCole Master Planning Team** included **OJB, Landscape Architects; Chester Valley Civil Engineers; Porter-Khouw Food Service Consultants; CFP Inc., Space Utilization Analysts; Becker & Frondorf, Cost Estimating; PFM and Watchdog, Real Estate Management Services; MGT, Housing Need Analysts.**



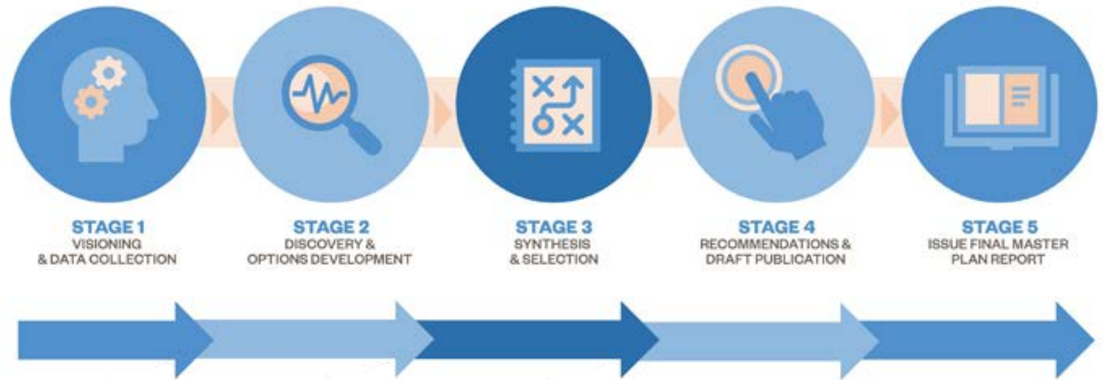
# E. MASTER PLAN METHODOLOGY & TIMELINE

## PROCESS

The master plan was accomplished over a 15-month period, with a significant first milestone at six-months, with the issuance of the Abbreviated Master Plan. Note that the Abbreviated Master Plan, which was focused on Student Housing Development, was accomplished prior to the more Comprehensive Campus Master Plan. It was important to WCU leadership to first understand and reach consensus on Student Housing strategies for increased bed-count, and then, how those strategies would be integrated into the final master plan recommendations




The master planning effort was accomplished with a **5 Stage Planning Process**, bracketed by a Visioning Workshop and culminating with the delivery of the Final Report. The work progressed sequentially, with evaluation and analysis, each stage building upon the next.



# F. KEY OUTCOMES & RECOMMENDATIONS

## RECOMMENDATIONS

By far, the most immediate recommendation is to begin the **implementation for the upgrade and expansion of student housing** and supporting residential life services.

The master plan also identifies a variety of other recommendations. Key among them are the renovation and **expansion of Sykes Student Union** to include additional dining, a **new Welcome Center** and a placeholder location for a future multi-level parking deck. Other recommendations include a **new Commons Building** at the South Campus, improvements to Campus Walk (Church Street) and upgrades along W. Rosedale Avenue.

### STUDENT HOUSING DEVELOPMENT STRATEGY

A comprehensive Student Housing Development Study (a.k.a. Abbreviated Master Plan) was competed in June 2024 by the EwingCole team. Currently, WCU includes a mix of housing assets that are both self-managed and affiliated housing that is managed by University Student Housing (USH). The goal of the study was to develop strategies for increasing the number of WCU-managed beds and to bring them up to the same or similar standards as USH.

**Construct New Lawrence Hall:** The team analyzed the impact of new construction, partial additions and renovations, in response to how to achieve the most beds in a planning sensitive manner over a 10-year period. Through evaluation and discussion with WCU's leadership team, the best strategy for the North Campus starts with the demolition of existing Lawrence Center, an older building which currently does not maximize the site. Support services currently housed in Lawrence Center will be temporarily or permanently relocated to allow for a new Lawrence Residence Hall to be constructed. The strategy for decanting programs is addressed later in this report.

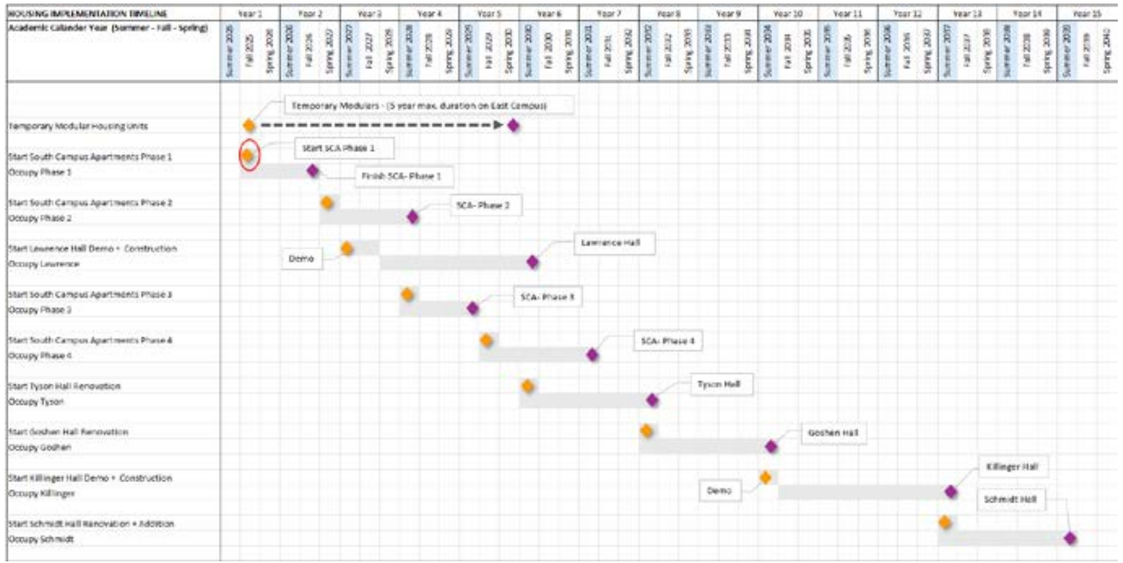
**Multi-Year Housing Upgrades:** Following the completion of Lawrence Hall, a multi-year strategy for upgrading existing WCU-managed student housing on the North Campus is recommended, as funding allows. This includes the renovation of Tyson, Goshen and Schmidt Halls, and the full replacement of Killinger Hall to maximize the number of beds and student support programs into a larger building.

**Renovate and Expand South Campus Student Apartments:** Simultaneously, a strategy for renovation and expansion to the existing Apartments on the South Campus will be initiated in a series of 4-phases. Currently, there are eleven two and three-story apartment buildings. The intent is to add an additional floor to each building, upgrade the existing apartments, and add new beds.

**Temporary Modular Housing:** To help achieve these goals, a zone of Temporary Modular Housing (128 beds) will be located at the M-1 parking lot on the East Campus. This will provide some flexibility by helping to balance the total number of beds while the new Lawrence Hall is constructed and South Campus Apartments are renovated. Note that these modular units are considered "additional" beds but serve as swing space as the existing beds are taken off-line for renovation and renewal. The temporary modular housing is permitted to remain in place for a period of five years from the date of initial occupancy.

**Implementation Strategy:** Ultimately, the master plan illustrates that it is possible to increase the total number of self-managed housing from 5,349 beds to 6,239 beds over a 10–15-year period, as financing allows.

The Student Housing Implementation Strategy illustrated on the following diagram tracks the balance of beds as projects are completed.



# SECTION 2.
# CAMPUS CONTEXT & DATA GATHERING

# A. PREVIOUS STUDIES & REPORTS

## OVERVIEW

Building and Grounds projects that were recommended in the 2015 Master Plan and that have been completed include:

- Demolition of Speakman Hall & Construction of SECC (Science Engineering Center & Commons)
- Provision of additional dining options at 701 S. High St. (Saxby's & QDOBA)
- Renovation of Ruby Jones Hall
- Renovation of Anderson Hall
- Improvements to President's Walk

The 2024 Master Plan also incorporates findings and relevant considerations from earlier studies including:

- Sykes Student Union Feasibility Study.
- FHG Library Renovation Study.
- Old Library Study for Welcome Center.
- Student Housing Improvement Study (Killinger & Schmidt) with Student Housing Market & Feasibility Study.

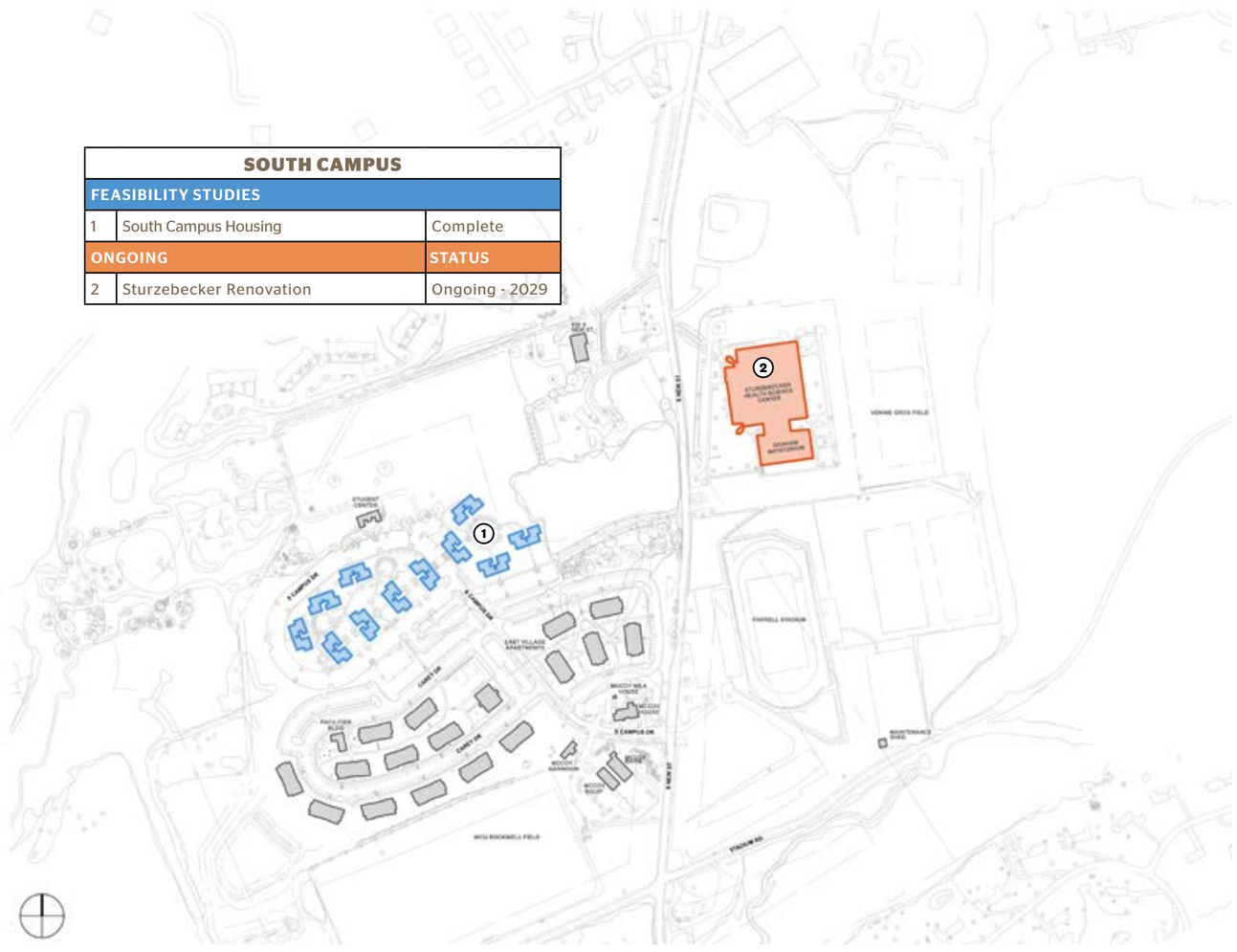
The results of these studies have been carried forward and integrated with the 2024 Master Plan, but with the following two clarifications:

1. The Old Library, which is a historic campus building, needs considerable repair, regardless of its intended use. Building system and accessibility upgrades are required. The 2024 Master Plan does recommend that the Old Library be upgraded to current standards, but not renovated as a Welcome Center.
2. As a result of the 2024 Student Housing Development Study, Killinger Hall is not recommended to be renovated in place, but eventually demolished and replaced with a larger residence hall that maximizes the potential of the site by increasing the number of allowable floors and thereby increasing the total number of beds.

| NORTH CAMPUS | | |
|---|---|---|
| **COMPLETED PROJECTS** | | |
| 1 | Demolish Speakman Hall & Construct "The Commons" + Garage | |
| 3 | 701 S. High St New Dining | |
| 4 | Renovate Ruby Jones Hall (Minor) | |
| 5 | Renovate Anderson Hall Spaces Vacated by Business Depts. | |
| 6 | President's Walk (Phase 1) | |
| **FEASIBILITY STUDIES** | | |
| 7 | Library Plaza Renovation | |
| 8 | Sykes Student Union Expansion | |
| 9 | FHG Library Renovation | |
| 10 | Old Library Renovation | |
| 11 | Student Housing Improvements | |
| **ONGOING** | | **STATUS** |
| 12 | BPMC Mechanical HVAC Upgrades | Complete |
| 13 | Geothermal Well Field Expansion | In Planning |
| 14 | FHG Library Roof Replacement | 2027 |
| 15 | Blue Phone Upgrades (Video & Audio) | Ongoing |
| 16 | Security/Safety Screens at Parking Garages | Ongoing |
| 17 | Replacement/Deployment Programs for IT & AV Systems | Ongoing |



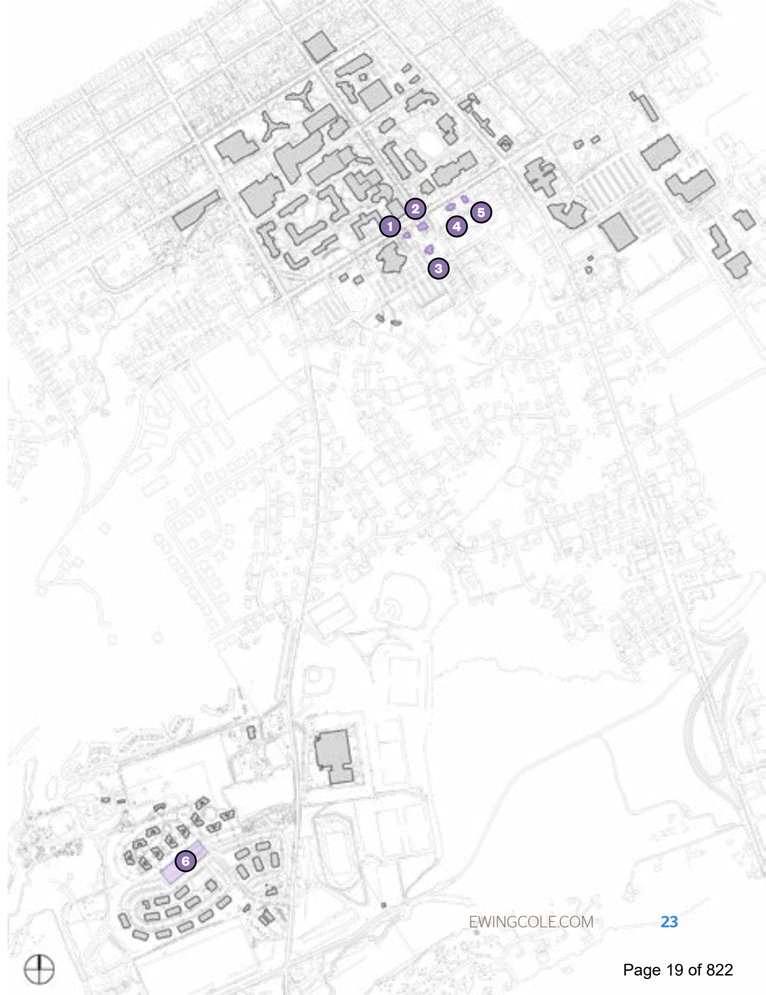
| SOUTH CAMPUS | | |
|---|---|---|
| **FEASIBILITY STUDIES** | | |
| 1 | South Campus Housing | Complete |
| **ONGOING** | | **STATUS** |
| 2 | Sturzebecker Renovation | Ongoing - 2029 |




## BUILDING DEMOLITION RECOMMENDATION

The following buildings on North & South Campus are recommended for demolition in support of the proposed Master Plan Projects.

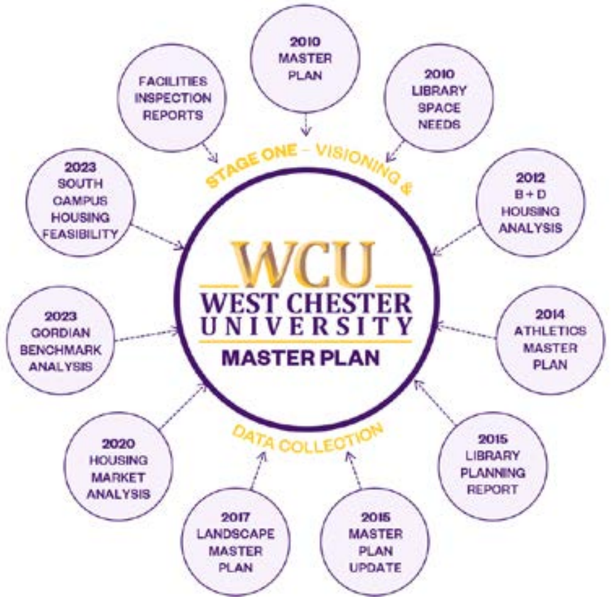
1. McKelvie Hall
2. Messikomer Hall
3. 101 Norfolk
4. 30 W Rosedale
5. 28 W Rosedale
6. Parking (Future Potential Commons Building Site)



Several of the recommendations highlighted in the 2015 Master Plan are also carried forward as recommendations in the 2025 Master Plan. These include:

- Sykes Student Union expansion for events, student support services and dining
- Multi-level parking structure behind Sykes Student Union
- FHG Library Renovations, based on the programming study developed by WCU
- Pedestrianization of S Church Street, in coorperation with West Chester Borough, while allowing emergency vehicle access
- Renovation of the Science Center Complex within the context of ongoing deferred maintenance
- Renovation of the Old Library to meet current standards for building systems and accessibility
- Renovation of Sturzebecker Health Science Center, which is scheduled for completion in 2029

The 2025 CMP Update took into account a myriad of previously completed studies and reports. Those studies and reports were evaluated in the context of the current campus culture and needs. As such, previously suggested recomendations and capital projects have been incorporated into this CMP update.








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# B. CURRENT STUDIES & REPORTS

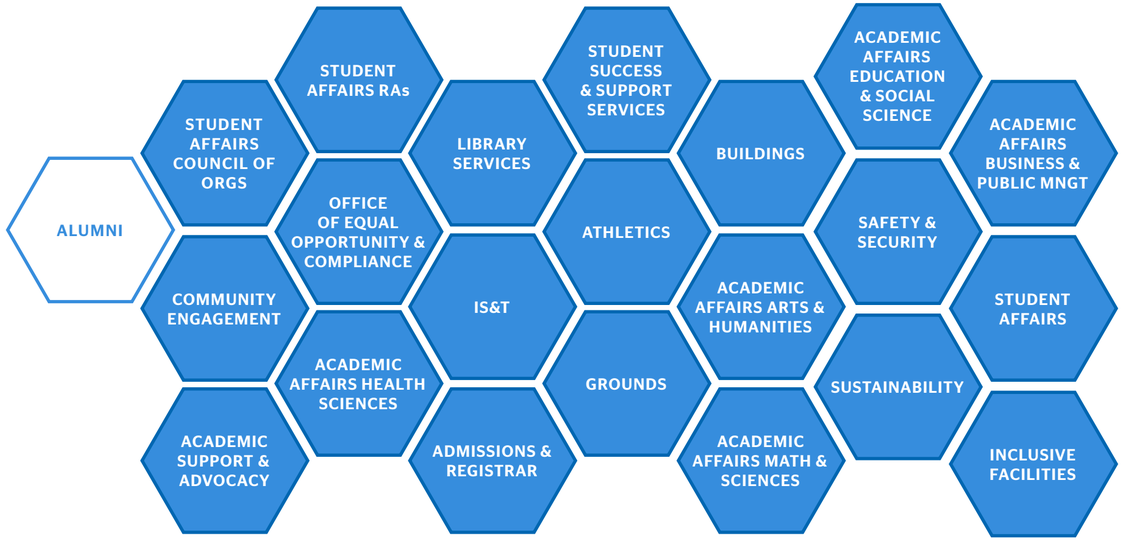
## INFORMING 2024 CMP

As part of the 2024 Master Plan data gathering and information discovery process, several notable studies were completed that inform the recommendations in this report, including:

- MGT Housing Study (informed housing strategies).
- Student Housing Development Study (informed programming of room types, student support services, bed count scenarios and conceptual block-and-stack options).
- Existing Facilities Assessments (informed Deferred Maintenance planning).
- Space Utilization and Needs Analysis (informed efficiency and availability of space).
- Campus Dining Study (identified issues, needs and expansion locations).

Additionally, valuable information was generated through bi-weekly project meetings and other events including:

- Benchmark Surveys & Workshops (provided feedback related to potential projects, initiatives, and issues from the larger WCU community including faculty, staff and students).
- Interviews with Key Stakeholders (provided valuable insight into campus issues and academic program needs).
- Milestone Presentations with WCU core leadership team (provided oversight and input related to master planning strategies and evaluation of priorities).




Over the course of the CMP process the planning team met with a broad cross section of the WCU campus community. In cooperation with WCU leadership, twenty two (22) stakeholder groups were identified. Via stakeholder meetings the planning team was afforded the opportunity to gain insight direclty from hundred individuals representing the diverse make up of the WCU campus community.

# SECTION 03.
# ISSUES & NEEDS

# A. CAMPUS OBJECTIVES

## OVERVIEW

The 2024 Campus Master Plan is guided by both **aspirational and functional goals**. Functionally, a master plan needs to provide a framework for implementation of recommended projects and initiatives, based on key issues and priorities of the institution.

Aspirational goals - or themes - focus on improving connectivity, enhancing user experience and reinforcing WCU's identity and brand. These themes are touchstones that accompany the physical recommendations of the campus master plan. For example, integrating the configuration of buildings with open space, improving user experience along campus pathways with site furnishings, creating iconic identifiable spaces, such as the President's Oval, in other parts of the campus, realigning student support programs at residence halls for increased access and synergy, and enhancing the visual image of WCU at key campus gateways through landscape and streetscape design.



# B. RESIDENTIAL LIFE

## 2024 STUDENT HOUSING DEVELOPMENT STUDY OUTCOMES

- Recommended opportunities for swing space locations
- Established program benchmark criteria
- Identified buildings for major renovation and/or addition
- Identified sites and strategies for new construction
- Determined potential implementation scenarios



## EXISTING ASSETS

Currently WCU includes a mix of housing assets that are both self managed and affiliated housing that is managed by University Student Housing (USH). These twelve (12) campus facilities are home to more than 5,300 students in total between both the "north" campus and the "south" campus. The University offers community-style (traditional dorm rooms) and suites on campus while offering apartment housing at the South Campus location.

The WCU managed housing accounts for more than 2,400 student beds. The majority of these units are traditional housing with the exception of the apartment offerings within College Arms and the South Campus Apartments.

| | |
|---|---|
| College Arms | 97 |
| Goshen | 558 |
| Killinger | 308 |
| Schmidt | 438 |
| Tyson | 558 |
| South Campus Apartments | 499 |
| | 2,458 Beds |

The USH managed housing is primarily suite-style units and is home to nearly 3,000 students.

| | |
|---|---|
| Allegheny | 636 |
| Brandywine | 622 |
| Commonwealth | 651 |
| University | 265 |
| East Village Apartments | 264 |
| The Village Apartments | 524 |
| | 2,962 Beds |

Generally, the USH managed buildings are newer, constructed between 2004 and 2014. The WCU managed buildings are older with College Arms being circa 1920s and majority of the University owned buildings having been constructed between 1959 and 1971 with exception of the South Campus apartments constructed in 1993.

As of Fall 2024, WCU has capacity for 5,420* student beds or ~31.5% of the total enrollment of 17,171** students.

- 14,449 undergraduate students
- 2,722 graduate students

*The 5,420 Total bed capacity includes swing space.
**Enrollment numbers are per WCU Office of Institutional Research.


College Arms Apartments (WCU)


Tyson Hall (WCU)


Commonwealth Hall (USH)


Goshen Hall (WCU)


South Camous Apartments (WCU)


East Village Apartments (USH)


Killinger Hall (WCU)


Allegheny Hall (USH)


The Village Apartments (USH)


Schmidt Hall (WCU)


Brandywine Hall (USH)


University Hall (USH)

## STUDENT HOUSING PLAN DRIVERS

The WCU campus has strong collegiate attributes that include iconic spaces and places. Through a combination of renovations, additions and new construction, there is an opportunity for future student housing to:

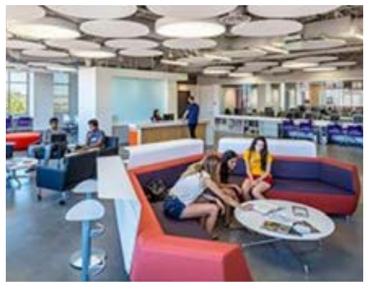
- Increase the total number of student beds available on campus.
- Bring parity to the quality of housing offered by the University (both WCU and USH operated).
- Provide housing options to maintain all 1st year students on campus and ideally, the ability to house 1st and 2nd year students on campus.
- Offer a variety of options, and price points.
- Create places to empower and support the University's mission for building community on campus.
- Create opportunities for students to build community, both within residence halls and exterior spaces. Create places, both within residence halls and exterior open spaces, that empower and support the University's mission to improve and enhance student experiences.
- Accommodate physical accessibility.
- Address students' increased request for additional privacy.
- Accommodate the increasing level of student expectations.
- Build upon existing relationships between campus spaces.
- Reinforce the University image and brand.
- Address and prioritize the deferred maintenance needs of aging housing stock.
- Define an actionable implementation strategy that provides the necessary phasing consideration and/or swing space for renovation projects acknowledging an academic calendar.
- Establish a road map / framework that aligns with University's fiscal capacity over time.



## PROGRAMMING & PLANNING CONSIDERATIONS FOR HOUSING

- Expected occupants.
- Increased demand for amenities.
- Technology integration.
- Co-living spaces.
- Health, wellness and sustainability focus.
- Remote and hybrid learning adaptation.
- Cultural and international accommodations.
- Proximity to student transit.
- Safety, security and accessibility.
- Diversity of occupancy types (Single, Double, Triple) and variety of room types including Traditional Style, Suite Style, Pod Style, Apartment Style.

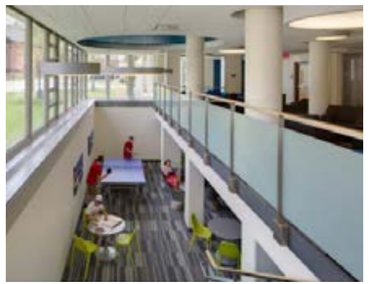
USC Iovvine Young Academy



University of Delaware Ceasar Rodney Hall

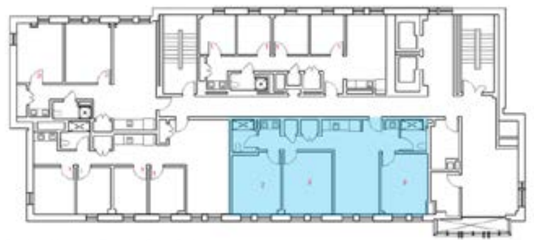


The Ohio State University South High Rises






Student Housing Trends - First Year Housing



Student Housing Trends - Suite Style

### FIRST YEAR HOUSING ELEMENTS

#### CONFIGURATION

- Traditional Double Loaded Corridor
- Traditional Racetrack
- Pod Style
- Neighborhood Sizes 30-40

#### UNIT TYPE MIX

- Doubles (Primary)
- Medical Singles w/ Private Restroom (2 per 30-40)

#### RESIDENT ASSISTANTS (RA) AND ROOM ACCOMMODATIONS

- Recommend 1 RA per 30-40 students

#### TOILETS, SHOWERS, AND SINKS

- Provide single user rooms
- Recommend ratio of 1 per 6 students minimum

#### FLOOR LEVEL AMENITIES

- Floor lounge (flexible student configuration)
- Group study
- Corridor lounge
- Laundry

### SUITE STYLE HOUSING ELEMENTS

#### UNIT MIX

- 4-6 Bed Unit (single and doubles)

#### UNIT AMENITY

- Private Living Area
- Kitchenette
- In-suite Laundry

#### FLOOR AMENITY

- Lounge Area
- Quiet Study

## NORTH CAMPUS - KEY ISSUES & OPPORTUNITIES

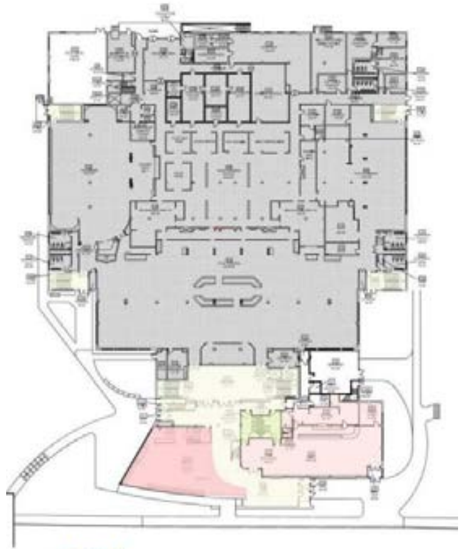
Through evaluation and discussion with WCU's leadership team, the best strategy for the North Campus starts with the demolition of the existing Lawrence Center, an older building which currently does not maximize the potential of the site. Support services currently housed in Lawrence Center will be temporarily or permanently relocated to allow for a new Lawrence Residence Hall to be constructed.

- Demolition of the existing Lawrence Center and construction of a new Lawrence Hall is the best opportunity to yield the greatest number of new beds in the short term.
- A new Lawrence Hall can improve pathway connections and open space synergies with the Student Recreation Center and SECC.
- Student Support Services can be realigned at the ground floor of Lawrence Hall, including additional café, classrooms and potentially the relocation of the Food Pantry from Commonwealth Hall, thus freeing up space for WCU Health Services in Commonwealth Hall.
- A comprehensive renovation strategy for Tyson, Goshen and Schmidt Halls will extend the life of these structures and provide a better mix of occupancy types.
- Killinger Hall is not recommended to be renovated in place, but eventually demolished and replaced with a larger residence hall that maximizes the potential of the site by increasing the number of allowable floors and thereby increasing the total number of beds and the ability to incorporate student support services.

The adjacent chart and diagram illustrates student support services in the existing Lawrence Center, as well as the older, unused cafeteria space that was replaced by the new cafeteria in the SECC.

| EXISTING PROGRAM | |
|---|---|
| Level 1 | |
| Einstein Bagel | 2,425 sf |
| Chickie's & Pete's | 3,700 sf |
| Unused Dining / Servery | 46,000 sf |
| Level 2 | |
| Academic Success Program | 1,400 sf |
| Career Development Center | 5,400 sf |
| Learning Asst & Resource Center | 4,500 sf |
| Office of Educational Accessibility** | 1,400 sf |
| Exploratory Studies Academic Advising | 1,500 sf |
| Residence Life & Housing | 3,500 sf |
| University College Dean's Suite | 1,400 sf |
| Center or Women & Gender Equity | 1,300 sf |
| Counseling Center | 4,050 sf |

** At the time of this report, OEA has been temporarily relocated to Wayne Hall.







Existing Lawrence Center Program

## SOUTH CAMPUS - KEY ISSUES & OPPORTUNITIES

The age and condition of WCU apartments at the South Campus requires significant upgrades. As part of a multi-year renovation strategy, it is also possible to add another floor to these freestanding apartment buildings, thereby increasing the total number of beds.

- The large open tract of land, known as the Glen Echo site, is situated between the student apartments and the neighborhood. By increasing the bed-count through the multi-year apartment renovation, the Glen Echo site – which is an open recreational field – remains as a buffer to the neighborhood.
- Strengthening the connection between South Campus housing and South Campus Athletic functions can be accomplished with improved streetscape, pathway design, lighting and signage, to reinforce a sense of place.
- Any increases to parking can be mitigated by utilizing the large surface parking lots across New Street, at the athletic fields. During field day or large events, students would be required to temporarily relocate their cars.
- Expansion to the existing Southside building or a new Commons Building with food service and shared meeting space is recommended as a strategy to reinforce a sense of community at the South Campus. Food service options could also be integrated with athletics programs.



## TEMPORARY HOUSING CONSIDERATIONS

In response to the need to advance a robust housing renewal campaign, the University initiated analysis of opportunities to provide temporary on-campus modular housing to allow existing housing stock to be taken offline while minimizing impact to campus wide bed count offering. The Team worked with the University to evaluate multiple site locations and configurations on North, East, and South Campus locations.

The evaluations considered a variety of modular buildings that were readily available to WCU as well as bed count, proximity to other campus amenities and functions, access to necessary utilities, and jurisdictional constraints.

The University elected to implement a plan to provide 128 beds in a temporary modular configuration at the site identified as Lot M-1 (former parking area). It should be noted that the provision of these modular housing units are not "additional" beds for the University's total bed count but rather are intended to allow for swing space to allow renovation work that cannot be achieved over the course of a summer term.

This does however maximize the University's ability to offer on-campus housing solutions in lieu of students having to seek accommodations off-campus in an artificially inflated / overpriced housing market in areas directly adjacent to the University. Note that Lot M-1 is intended to revert to surface parking when North Campus bed-count goal is achieved. The temporary modular housing is permitted to remain in place for a period of five years from the date of initial occupancy.



M-1 Lot Aerial



M-1 Lot Street View




North and East Campus Site Considerations



South Campus Site Considerations

# C. ACADEMIC & STUDENT PROGRAMS

## OVERVIEW

Key planning issues related to Academic & Student Programs include:

- Continue to address deferred maintenance of existing buildings, infrastructure, technology, and interior spaces, to improve the longevity of facilities and quality of campus life.
- Provide a dedicated space for a new Welcome Center, which would house multi-purpose meeting and presentation space, as well as office and support space for Admissions.
- Accommodate increased demand for dining and student support spaces, specifically for clubs, associations and study areas for commuter students at Sykes Student Union.
- Provide additional large, multi-purpose spaces that can host academic lectures, forums and community events.

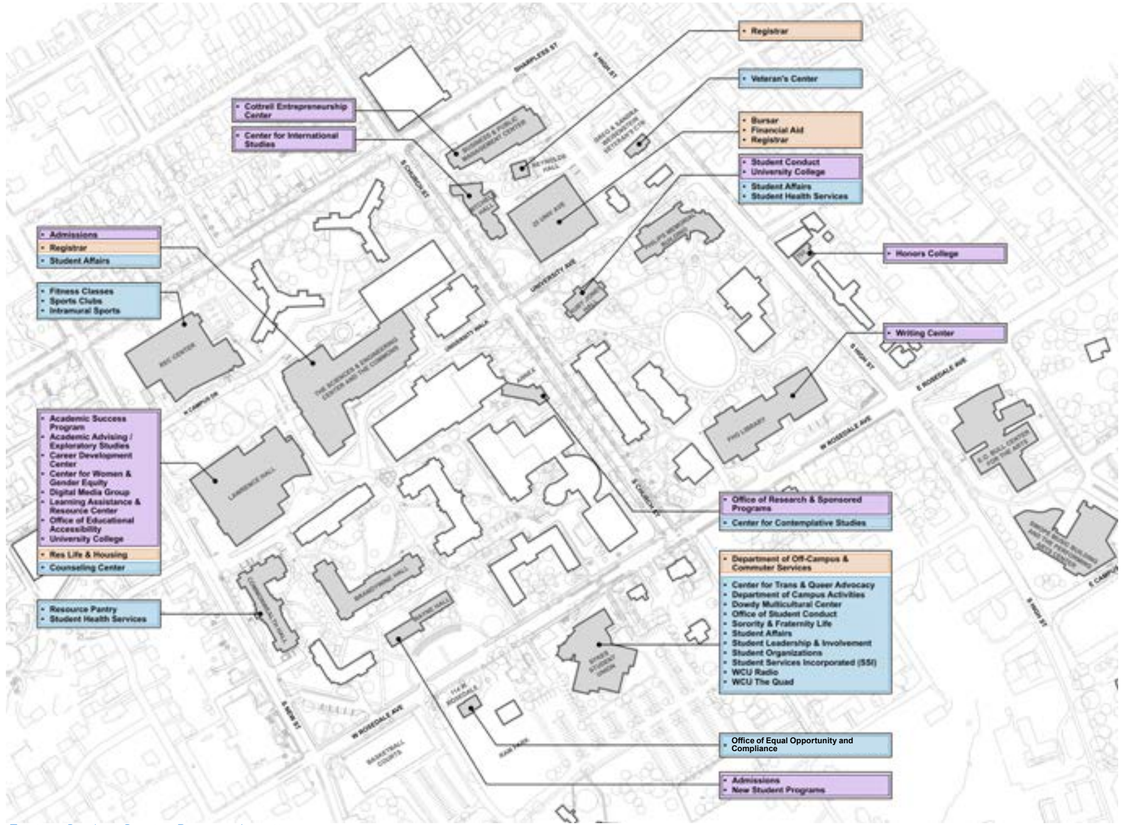
As WCU has grown, many of the program needs that support academic and student services have been impacted by the availability of adequate space. If that space exists, the physical condition of the space is often in need of renovation, system upgrades, or becomes inefficient due to evolving (expanding) program needs.

## SPACE UTILIZATION

When a new academic building is constructed, it often is so well used, that it becomes overused, as in the case of the Business School, due to demand for classrooms of a particular size, specific technology, or the amount of informal student study and gathering space that was incorporated into the final construction. The SECC is another example of a successful new building that is over utilized, because there is not enough existing space in other buildings - such as the Sykes Student Union - to offset demands for increased access to food service or areas to host large events.

Over time, many of the programs that support students have been located based on where space is available, often decentralizing programs that would benefit from being grouped together. While not a reflection of the quality of programs, the daily life of students (and faculty) is impacted by a "convenience factor." Student Support Services are currently scattered across the campus and in some cases, require realignment to make it more convenient for students to access those services.

The following diagram shows the dispersion of student programs across campus, as well as a strategy for decanting programs in Lawrence Center to allow for demolition.

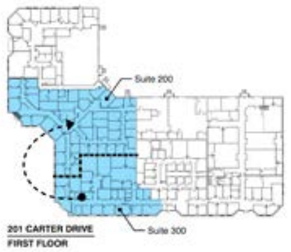

Registrar
Veteran's Center
Bursar
Financial Aid
Registrar
Student Conduct
University College
Student Affairs
Student Health Services
Honors College
Writing Center
Cottrell Entrepreneurship Center
Center for International Studies
Admissions
Registrar
Student Affairs
Fitness Classes
Sports Clubs
Intramural Sports
Academic Success Program
Academic Advising / Exploratory Studies
Career Development Center
Center for Women & Gender Equity
Digital Media Group
Learning Assistance & Resource Center
Office of Educational Accessibility
University College
Res Life & Housing
Counseling Center
Resource Pantry
Student Health Services
Office of Research & Sponsored Programs
Center for Contemplative Studies
Department of Off-Campus & Commuter Services
Center for Trans & Queer Advocacy
Department of Campus Activities
Dowdy Multicultural Center
Office of Student Conduct
Sorority & Fraternity Life
Student Affairs
Student Leadership & Involvement
Student Organizations
Student Services Incorporated (SSI)
WCU Radio
WCU The Quad
Office of Equal Opportunity and Compliance
Admissions
New Student Programs
SHARPLESS ST
S HIGH ST
S CHURCH ST
UNIVERSITY AVE
W ROSEDALE AVE
E ROSEDALE AVE
S CAMPUS DR
S COLLEGE ST
S NEW ST
HOLLINGER FIELD
BASKETBALL COURTS
RWC CENTER
LAWRENCE HALL
BRANDYWINE HALL
CHESTNUT HALL
THE SCIENCES & ENGINEERING CENTER AND THE COMMONS
SYKES STUDENT UNION
FRANCIS HARVEY GREEN HALL
PHILLIPS MEMORIAL BUILDING
PHILLIPS HALL
HOEY & LAWRENCE RESTAURANTS
BUSINESS & PUBLIC MANAGEMENT CENTER
PHILLIPS HALL
ANNEX
PHILLIPS MEMORIAL BUILDING
PHILLIPS HALL
FIRST NIGHT HALL
PHILLIPS MEMORIAL BUILDING

The map below indicates proposed Lawrence program relocations.
Programs in 201 Carter and Brandywine Hall must first be relocated before Lawrence program relocations can take place.

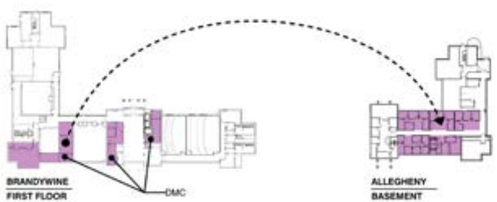
The two best options for realigning student support programs are to incorporate them into new construction as Lawrence Hall is built, and Sykes Center is expanded. Long-term, as the new Killinger Hall is constructed, there is also an opportunity to incorporate student support functions.




Relocation of Existing Student Service Program Locations




Initial Program Relocation at 201 Carter Drive




Initial Program Relocation from Brandywine Hall to Allegheny Hall




Relocation of Existing Lawrence Center Student Service Programs. The Office of Educational Accessibility has been temporarily relocated to Wayne Hall at the time of this report.

# D. SPACE UTILIZATION NEEDS & ANALYSIS

## OVERVIEW

As part of the discovery process, Comprehensive Facilities Planning, Inc. conducted a space utilization and needs analysis to identify WCU's space needs based on defined programs and enrollment goals. Current and projected instructional space needs are analyzed in relation to the PASSHE space model and the Alternate space model. Note that the full report is included via the Appendix.

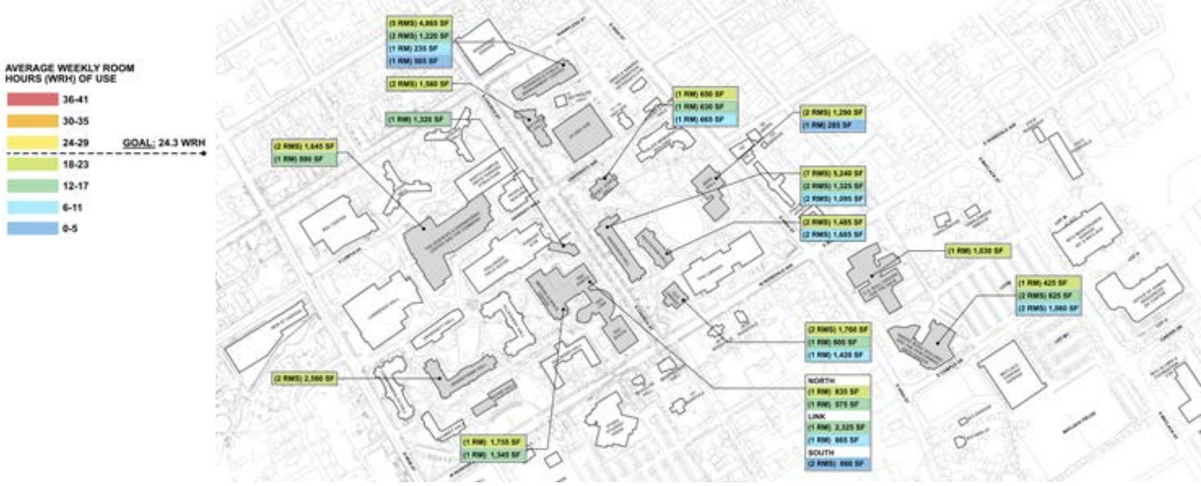
## METHODOLOGY

The study was developed through a data-driven modeling process based on a "snapshot in time" of conditions found and reported for the University (Fall 2023 and Spring 2024). Basic data collected includes the on-campus full-time equivalent (FTE) student enrollment, class schedule, personnel, library collections, building floor plans, and the building space inventory. This information was used to document the current utilization and to establish the relative quantities of space needed to support the current and future demand.

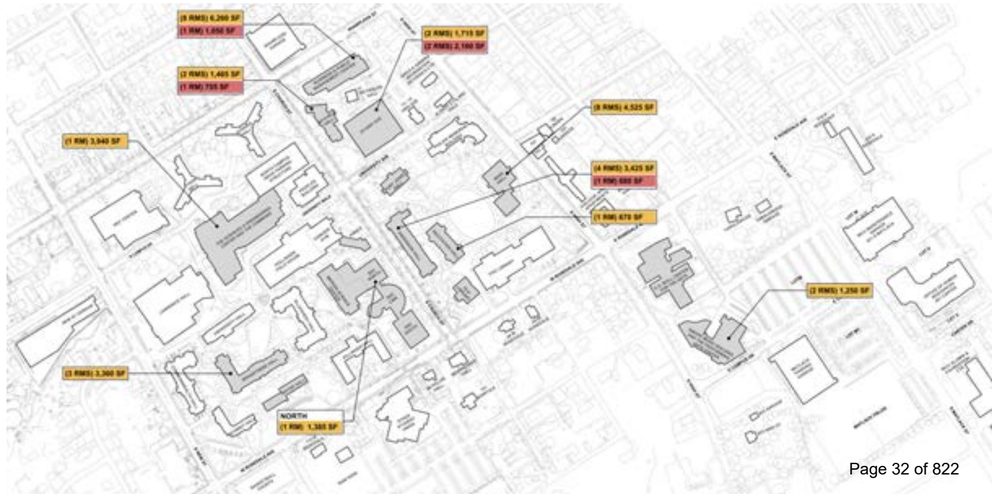
## PASSHE GUIDELINES & ALTERNATIVE METHOD

The Pennsylvania State System of Higher Education (PASSHE) space planning guidelines were applied for the office calculation. The remaining space types: classroom, teaching lab, research lab, library/study, general use, special use, support and health care are compared to the PASSHE guidelines using an Alternative method.

- The Alternative calculation methodology differs from the Pennsylvania State System of Higher Education (PASSHE) process in that the space need is calculated at the department level and rolls the result to the college or division level and finally to the campus level.
- The PASSHE calculations provide a campus wide "allocation" of space-by-space type (classrooms, instructional lab, research, etc.) using campus wide personnel and enrollment data multiplied by an appropriate "space factor". While this provides useful data at the campus level for capital planning, it does not provide detail as to which units have space surpluses or deficits.
- While the Alternate method uses the same "space factors" as PASSHE, the input data, personnel, enrollment etc. is at the department level and based on the current or proposed operating practices. This provides space surpluses or deficits by space type and by primary room type category.
- The space needs analysis is quantitative. All existing space is counted regardless of its quality or suitability. Conducted at a campus wide level, the analysis is intended for use within the context of long-range planning. The study is not intended to replace detailed program plan level analysis.




Underutilized Classrooms (Above) Overutilized Classrooms (Below)



## SPACE NEEDS BY ROOM TYPE & ASSIGNMENT

The current and projected space needs are sorted by major room type in Figure 01 and 02 using the Alternate Calculation and PASSHE. The projected need is based on an enrollment of 12,435 full-time equivalent (FTE) students.

| Room Type Description | Current ASF | Current ASF Need | Surplus (Deficit) | Projected ASF Need | Surplus (Deficit) | Comments |
|---|---|---|---|---|---|---|
| Classrooms | 148,891 | 152,181 | (3,290) | 163,461 | (14,570) | Deficit due to 20 ASF/seat applied |
| Teaching Laboratories | 105,126 | 116,475 | (11,349) | 116,475 | (11,349) | |
| Open Laboratories | 31,794 | 31,810 | (16) | 31,810 | (16) | |
| Research Laboratories | 46,519 | 48,296 | (1,777) | 51,479 | (4,960) | |
| Offices | 332,543 | 294,759 | 37,784 | 303,859 | 28,684 | Projected Need TBD |
| Library/Study | 107,089 | 91,022 | 16,067 | 93,323 | 13,766 | |
| Special Use Facilities | 28,355 | 27,701 | 654 | 27,701 | 654 | |
| Athletic/PE/Recreation | 171,417 | 200,555 | (29,138) | 207,605 | (36,188) | Need TBD |
| Assembly Facilities | 48,543 | 46,676 | 1,867 | 47,459 | 1,084 | |
| Exhibition Space | 4,849 | 7,800 | (2,951) | 8,192 | (3,343) | Art Gallery/Museum |
| Food Facilities | 53,237 | 67,534 | (14,297) | 71,944 | (18,707) | |
| Student Lounge | 14,429 | 29,160 | (14,730) | 31,118 | (16,689) | |
| Merchandising | 14,044 | 14,830 | (786) | 15,809 | (1,765) | Bookstore |
| Recreation | 18,882 | 18,882 | 0 | 18,882 | 0 | Game Rooms/Social Areas |
| Meeting Rooms | 26,914 | 25,872 | 1,042 | 27,119 | (205) | |
| Support Facilities | 126,902 | 61,132 | 65,770 | 63,266 | 63,636 | Includes shop/central storage |
| Health Care Facilities | 5,091 | 3,999 | 1,092 | 4,234 | 857 | |
| Inactive/Unknown | 49,597 | 0 | 49,597 | 0 | 49,597 | |
| **Total** | **1,334,222** | **1,238,684** | **95,539** | **1,283,736** | **50,486** | |

Figure 01: WCU Alternate Current Space Need by Room Type

| Room Type Description | Current ASF | Current ASF Need | Surplus (Deficit) | Projected ASF Need | Surplus (Deficit) | Comments |
|---|---|---|---|---|---|---|
| Classrooms | 148,891 | 139,786 | 3,790 | 149,172 | (281) | |
| Teaching Laboratories | 136,920 | 190,270 | (53,350) | 203,045 | (66,125) | |
| Research Laboratories | 46,519 | 36,676 | 9,843 | 36,676 | 9,843 | |
| Offices | 332,543 | 303,036 | 29,507 | 303,036 | 29,507 | Projected Need TBD |
| Library/Study | 107,089 | 142,463 | (35,374) | 146,776 | (39,687) | |
| Special Use Facilities | 28,355 | 24,474 | 3,881 | 26,113 | 2,242 | |
| Athletic/PE/Recreation | 171,417 | 260,597 | (89,180) | 274,125 | (102,708) | |
| Assembly Facilities | 48,543 | 86,203 | (37,660) | 90,898 | (42,355) | |
| Exhibition Space | 4,849 | 12,617 | (7,768) | 13,400 | (8,551) | Art Gallery/Museum |
| Food Facilities | 53,237 | 118,055 | (64,818) | 125,096 | (71,859) | |
| Student Lounge | 14,429 | 13,117 | 1,312 | 13,900 | 529 | |
| Merchandising | 14,044 | 0 | | 0 | 14,044 | Included with Lounge |
| Recreation | 18,882 | 0 | | 0 | 18,882 | PASSHE does not include this room type |
| Meeting Rooms | 26,914 | 11,653 | 15,261 | 12,435 | 14,479 | |
| Support Facilities | 126,902 | 67,255 | 59,647 | 72,000 | 54,902 | Includes shop/central storage |
| Health Care Facilities | 5,091 | 5,496 | (405) | 5,731 | (640) | |
| Inactive/Unknown | 49,597 | 0 | 49,597 | 0 | 49,597 | office/labs/vacant |
| **Total** | **1,334,222** | **1,411,698** | (77,476) | **1,472,403** | (138,181) | |

Figure 02: WCU PASSHE Current Space Need by Room Type

## OFFICE SPACE METRICS

Office space needs are calculated by multiplying the number of authorized positions by an office square foot module designated for each position. Figure 03 summarizes the WCU Main Campus office space need according to the staffing levels and PASSHE Guidelines as compared to the existing facilities space inventory. Student organization space is included in the office calculation but needs further input regarding overall space need. Personnel identified with office space located at the Graduate Center are not included in the FTE totals.

| Position Type | FTE | Module | Additive | ASF Need |
|---|---|---|---|---|
| Faculty | 791.9 | 150 | 40 | 150,457 |
| Executive/Managerial | 492.5 | 150 | 40 | 93,567 |
| Clerical | 179.9 | 150 | | 26,979 |
| Graduate Students | 120.8 | 120 | | 14,496 |
| Student Workers | 164.8 | 70 | | 11,536 |
| Student Organization Offices (TBD) | | | | 6,000 |
| **Total ASF Need** | | | | **303,036** |
| **Existing ASF** | | | | **332,543** |
| **Surplus** | | | | **29,507** |

Figure 03: WCU Main Campus Office Space Summary

The office space need illustrates the following major findings:

- The surplus of office space is likely due to the office service calculation using the PASSHE model.
- Average office size in the position type category is likely due to mismatches of personnel to room types in the inventory.
- A total of 1,593 rooms are classified as office space (excludes students) in the existing inventory. This compares to a combined total of 1,629 administrative, faculty, coaches or staff positions (excludes the personnel without office). The difference may indicate shared office use by assistant coaches and clerical staff.
- The existing space identified as office service may include circulation space, and student workers. Multiple use within a single space makes it difficult to accurately distribute appropriate room use.

## CLASSROOM SUMMARY & METRICS

The classrooms were analyzed to determine whether sufficient instructional space exists for the current and future profile of student population and course offerings. Specifically, the analysis documents the utilization of the classroom supply, determines the classroom capacity to meet current and future enrollments, and recommends utilization strategies for meeting these needs.

Figure 04 is a summary of the classrooms with scheduled use. The WCU Main Campus supply includes 142 General Use Classrooms, for a total of 117,088 assignable square feet (ASF). In addition, there are 9 Department classrooms 11 lecture halls, and 5 Seminar rooms for a total of 143,029 assignable square feet (ASF) and 5,862 assignable square feet (ASF) of classroom service space.

| Campus | Rooms | Count | Seats | ASF | ASF/Seat | Service | Total ASF |
|---|---|---|---|---|---|---|---|
| **Main** | General Use Classroom | 142 | 6,069 | 117,088 | 19.29 | 5,774 | |
| | Department Classroom | 9 | 161 | 3,938 | 24.46 | 88 | |
| | Lecture Hall | 11 | 1,447 | 20,714 | 14.32 | | |
| | Seminar Room | 5 | 38 | 1,289 | 33.92 | | |
| | **Total Inventory** | **167** | **7,715** | **143,029** | | **5,862** | **148,891** |
| **Graduate Ctr.** | General Use Classroom | 10 | 266 | 8,199 | 30.8 | | |
| **Exton** | General Use Classroom | 2 | N/A | 1788 | | | |
| **Philly** | General Use Classroom | N/A | N/A | N/A | | | |

Figure 04: Summary of classrooms with scheduled use

The PASSHE Classroom model assumes an ALL-DAY utilization goal of 37.5 Weekly Room Hours (WRH) 67% Station Occupancy (SO) and 20 ASF/Seat for the allocation. The Alternate Classroom model recommends a DAY utilization goal of 24.3 Weekly Room Hours (WRH) 64% Station Occupancy (SO) and 20 ASF/seat for modeling the classroom needs.

On the West Chester University Main Campus, classrooms are currently scheduled from 8:00 AM to 4:30 PM Monday to Friday, Friday ends by 3:00 PM. Therefore, the alternative classrooms needs are based on 40.5 hours available for scheduling classrooms during the daytime hours. Based on the available hours to schedule, classroom utilization goals of 24.3 Weekly Room Hours (WRH) and 64% Station Occupancy (SO) are recommended for modeling the classroom needs.

The Alternate classroom utilization expectation goals recommended for the WCU Main Campus for the daytime hours used in the alternate calculation are:

- 24.3 Average Weekly Room Hours of Use
- 68% Student Station Occupancy
- 20 ASF per Seat

Figure 05 identifies the classroom utilization in Fall 2023 and Spring 2024.

| | | | Day: 8:00 AM - 4:30 PM | | | All Hours-PASSHE | | |
|---|---|---|---|---|---|---|---|---|
| **Campus** | **Term** | **Rooms** | **WRH** | **Avg WRH** | **SO%** | **WRH** | **Avg WRH** | **SO%** |
| WCU Main | Fall 2023 | 154 | 3,513.0 | 22.8 | 67.6% | 4,430.9 | 28.8 | 64.0% |
| WCU Main | Spring 2024 | 154 | 3,349.9 | 21.8 | 64.0% | 4,200.3 | 27.3 | 60.3% |
| Grad Center | Fall 2023 | 10 | 64.6 | 6.5 | 58.4% | 168.6 | 16.9 | 53.6% |
| Grad Center | Spring 2024 | 10 | 49.4 | 4.9 | 52.8% | 144.5 | 14.5 | 52.2% |
| | **Goal/Capacity** | | | **24.3** | **68.0%** | | **38.0** | **67.0%** |

Figure 05: Classroom utilization in Fall 2023 & Spring 2024

### West Chester Main Campus

- The Fall 2023 total Day Avg. WRH rate of 22.8 falls below the expected utilization rate of 24.3.
- The total SO% of 67.6% is below the expected seat fill of 68.0%.
- Average 18.4 ASF/seat for classrooms is slightly below the recommended average of 20 ASF/seat.

### Graduate Center

- The Fall 2023 total Day Avg. WRH rate of 6.5 falls below the expected utilization rate of 24.3.
- The total SO% of 58.4% is below the expected seat fill of 68.0%.
- Average 30.8 ASF/seat for the classrooms exceeds the recommended average of 20 ASF/seat.



Figure 06 identifies the classroom utilization by building by Average Weekly Room Hours (WRH). on the West Chester Campus. The Hours Available column identifies the opportunity to increase the number of hours in the classrooms in each building if the utilization factors can be achieved. Negative numbers indicate the hours have exceeded the goal and there is no capacity for additional hours of use. The hours available column shows that 229 hours are still available (76 more 3-hour classes) in the classrooms if the 24.3 Avg. WRH goal could be met.

| Building | Rooms | WRH | Avg. WRH | SO% | Seats | ASF | ASF / Seat | Hrs Avail 24.3 | Rms Avail 24.3 |
|---|---|---|---|---|---|---|---|---|---|
| 25 Univ Ave | 9 | 262.2 | 29.1 | 78.6% | 377 | 7,665 | 20.3 | (43.5) | (1.8) |
| Anderson | 19 | 409.3 | 21.5 | 74.5% | 868 | 13,592 | 15.7 | 52.4 | 2.2 |
| Brandywine | 5 | 126.2 | 25.3 | 61.1% | 384 | 7,032 | 18.3 | (4.7) | (0.2) |
| Bus and Pub | 24 | 598.8 | 25.0 | 77.8% | 1,163 | 26,074 | 22.4 | (15.6) | (0.6) |
| E. O. Bull | 1 | 21.8 | 21.8 | 85.1% | 45 | 1,048 | 23.3 | 2.5 | 0.1 |
| Ehinger Annex | 1 | 15.1 | 15.1 | 67.5% | 40 | 1,308 | 32.7 | 9.2 | 0.4 |
| Main | 22 | 573.8 | 26.1 | 62.4% | 1,085 | 18,256 | 16.8 | (39.2) | (1.6) |
| Merion | 3 | 60.3 | 20.1 | 57.1% | 232 | 4,213 | 18.2 | 12.7 | 0.5 |
| Mitchell | 10 | 269.6 | 27.0 | 49.0% | 512 | 7,484 | 14.6 | (26.6) | (1.1) |
| Old Library | 4 | 62.3 | 15.6 | 75.3% | 185 | 4,049 | 21.9 | 34.9 | 1.4 |
| Recitation | 14 | 319.8 | 22.8 | 64.9% | 513 | 10,369 | 20.2 | 20.4 | 0.8 |
| Ruby Jones | 4 | 69.0 | 17.3 | 60.9% | 162 | 2,748 | 17.0 | 28.2 | 1.2 |
| Sci Comp L | 2 | 25.4 | 12.7 | 78.2% | 236 | 3,463 | 14.7 | 23.2 | 1.0 |
| Sci Comp N | 3 | 4.3 | 21.4 | 63.6% | 160 | 2,765 | 17.3 | 8.7 | 0.4 |
| Sci Comp S | 2 | 56.8 | 28.4 | 79.6% | 107 | 1,731 | 16.2 | (8.2) | (0.3) |
| Sci Eng Center | 8 | 93.6 | 24.2 | 64.4% | 661 | 11,212 | 17.0 | 0.8 | 0.0 |
| SOM/PAC | 10 | 11.3 | 21.1 | 57.6% | 278 | 5,222 | 18.8 | 31.7 | 1.3 |
| Sturzebecker | 11 | 123.1 | 11.2 | 72.1% | 471 | 9,172 | 19.5 | 144.2 | 5.9 |
| Wayne | 2 | 50.3 | 25.1 | 67.2% | 77 | 1,707 | 22.2 | (1.7) | (0.1) |
| **Total** | **154** | **3,513.0** | **22.8** | **67.6%** | **7,556** | **139,110** | **18.4** | **229.2** | **9.4** |
| **Goals** | | | **24.3** | **68.0%** | | | **24** | | |

Figure 06 - Classroom utilization by Average Weekly Room Hours (WRH)

## PRELIMINARY FINDINGS & RECOMMENDATIONS

1. The current supply of classrooms is sufficient to meet the current and projected demand, assuming utilization factors can be met.

2. There is an opportunity to optimize classroom capacity by creating more classrooms to accommodate 20-39 students. The best fit would suggest fewer rooms in the 1-19 and 30-39 size range, and six more rooms in the 20-29 seat size range. The amount of space required depends on the ASF/seat used.

3. Increasing the classroom ASF/seat will provide the opportunity to create active learning style rooms with furniture and technology that allow for collaborative instruction.

4. If utilization is increased for several labs with six or fewer hours within the same discipline, it may be possible to consolidate the number of labs and repurpose the rooms to accommodate the programs with a need for additional laboratory space. Further review of research space needs will be needed to verify the calculated space needs.

5. The existing office space is sufficient to accommodate any future personnel but may not be in the preferred location to meet the desired affinities. Note that there are 155 rooms in the inventory classified as an office with unknown assignments.

# E. HIGHEST & BEST USE

## EVALUATION

Several key buildings on campus were evaluated for "highest and best use" as part of the 2024 Master Plan. These include: Wayne Hall, Killinger Hall, College Arms, FHG Library, Old Library, and Sykes Student Union.

### WAYNE HALL

Wayne Hall is a nine-story building, of approximately 92,000 gross square feet. It was converted from residential use to academic use over a decade ago, and is now home to various offices, classrooms, research labs and departmental space for:

- Admissions
- Communication & Media
- Educational Foundations & Policy Studies
- History
- New Student Programs
- Office of Clinical Experiences & Candidate Services
- Psychology
- Women's and Gender Studies

While the structure can certainly be reconverted back to a residence hall, the larger issue is that there is no available space on or near campus to house the approximately 58,684 square feet of useable academic space, not to mention the additional renovation and potential leasing costs that would be incurred under this strategy. Therefore, after evaluation, there was consensus with WCU's leadership team that **leaving Wayne Hall programs in place** makes the most sense, financially and strategically.



### KILLINGER HALL

Killinger Hall was evaluated by the master planning team for both renovation, addition, and replacement considerations. The existing 3-story building was purpose-built as a traditional residence hall in 1959 and is outmoded by today's standards for campus living. The building also has extensive and ongoing maintenance issues.

A 2017 Feasibility Study explored opportunities for renovation and modest expansion, including upgrades to bathrooms, interior finishes, building systems and improvements to common spaces. However, that study did not consider the full potential of the site, which allows for meaningful expansion. If the existing Killinger Hall is demolished and **replaced with a new Killinger Hall**, then the number of beds and student support services is increased significantly. Additionally, a new Killinger Hall has the potential to provide a **pedestrian bridge connection** across W. Rosedale Avenue, that could connect to the Sykes Student Union and proposed Welcome Center Expansion.



## COLLEGE ARMS

College Arms is a three-building complex with structures constructed in 1920, 1930, and 1970 respectively and is currently used as apartment-style student housing. The buildings in this complex have a variety of maintenance needs, including exterior façade rehabilitation, repairs to sloped floor requiring structural enhancements, ceiling repairs and areas with moisture infiltration. Additionally, none of the buildings are fully accessible and will require upgrades for compliance.

As a part of the evaluations for both the Student Housing Development Study and the Campus Master Plan, the **consensus is for College Arms to remain in use as student housing,** acknowledging the deferred maintenance issues noted above.



721 South High Street



731 South High Street



733 South High Street

## FHG LIBRARY

Francis Harvey Green (FHG) Library is prominently situated at the intersection of High Street and Rosedale Avenue and includes a plaza that serves as a gateway to the campus. FGH Library was built in two phases. The earlier 2-story building was constructed in 1966 and encompasses over 60,000 square feet. The newer 6-story building was constructed in 1976 and encompasses over 86,000 square feet. Both buildings require upgrades to mechanical, electrical and telecom systems. Additionally, roof replacement and facade repairs are to be implemented as part of the deferred maintenance program. A strategic plan for reprogramming the interior spaces of the buildings is currently being developed by WCU Library Services.

The master plan supports **the recommendation to upgrade and modernize FGH** to ensure that it continues to serve students and faculty needs.



## OLD LIBRARY

Old Library was constructed in 1902 and is prominently situated at the intersection of Church Street (Campus Walk) and W. Rosedale Avenue. As part of the Quadrangle Historic District, it is an iconic example of neoclassical academic architecture. An earlier renovation study completed in 2018 suggested that the Old Library be gutted and repurposed for a Welcome Center and Admissions functions. This study also addressed upgrading building systems, and correcting accessibility issues by resizing restrooms, and adding a new stair and elevator at the east side of the building.

The 2024 Master Plan also recommends the complete renovation and necessary code related upgrades to the Old Library, although not for use as a Welcome Center and Admissions functions.
Factors contributing to this include:

- Currently, the building houses offices, classrooms, exhibit and support space for the Anthropology Department. There is no immediate space available on campus to relocate Anthropology.
- Tour groups have used the steps of the Old Library as a gathering space, but this is not an ideal way to accommodate prospective students and their families, especially during inclement weather, and with no access to restrooms.
- Based on 2024 Master Plan discussions, greater synergies can be achieved if a new Welcome Center is considered as an addition to the Sykes Student Union. In this scenario, a number of functions could be shared, including restrooms, access to larger, multi-purpose meeting rooms and availability of dining. There is also the ability to park behind Sykes, either with additional surface parking or a future multi-level parking deck.

**The recommendation, therefore, is to renovate Old Library** to house Anthropology offices, classrooms, exhibits as well as offices and support for Undergraduate and Graduate Administration.



Building Section with new Service Addition and Elevator



Plan & Section Graphics from 2018 Old Library Renovation + Addition Study



## SYKES STUDENT UNION

Sykes Student Union is situated across from the North Campus along W. Rosedale Avenue. The building is well used and has undergone several renovations. One of the challenges is the flow of students back and forth across W. Rosedale Avenue, which is not ideal. Another challenge is the limitation of the existing footprint to expand dining and other student support functions.

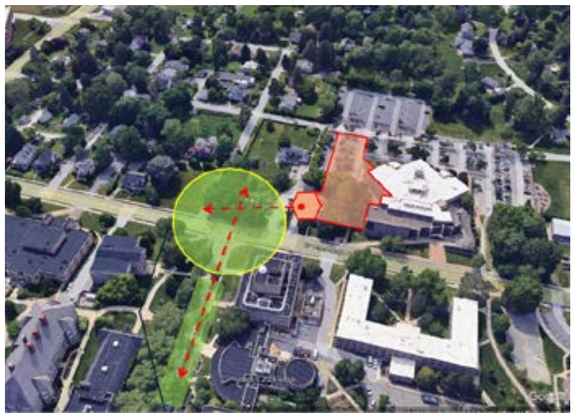
Renovating and expanding Sykes has been discussed in previous studies, including the 2015 Master Plan. While streetscape design and traffic calming improvements can be initiated, the challenges to the existing building footprint will continue to exist. A **building expansion (to the east)** along W. Rosedale Avenue, can alleviate program pressures for dining, multi-purpose meeting space for events, lectures, additional student support space for clubs and associations, and **a new Welcome Center including the Admissions office.** The expansion could be planned to accept a future pedestrian bridge across W. Rosedale Avenue, which would emanate from the future new Killinger Hall.




A new Welcome Center would eliminate the need to use other building spaces and improve the experience for potential students and their families. Since WCU does not currently have a Welcome Center, most of supporting functions are dispersed in several buildings on campus, including SECC, Lawrence Center, Wayne Hall, and Messikomer Hall. Positioning a **new Welcome Center as part of a Sykes Student Union Expansion**, has the potential to create an iconic exterior plaza at the end of S Church Street, which, along with the planned demolition of Messikomer, 28 & 30 W Rosedale houses, would also support improvements to W. Rosedale Avenue and the creation of a new programmable open space across Church Street in a prominent location.




Proposed Welcome Center Location



# F. DEFERRED MAINTENANCE

## OVERVIEW

Another contributing issue to the adequacy of academic and student spaces, is the backlog of Deferred Maintenance for the campus. The care of buildings and grounds is an ongoing and complex activity, specifically due to the amount of funding that is available in any given year. This leads to a constant reprioritization of what projects are the most important to accomplish. Replacing a leaking roof takes precedence over an interior space upgrade, for example.

As part of the information gathering phase of the master plan, the Existing Buildings Assessment included a visual survey and evaluation of over 80 buildings on campus, noting the condition of building exteriors and interiors, and adequacy of building mechanical, electrical, plumbing and fire protection systems. Summary analysis focused attention on facility systems that are in poor or fair condition to help in the prioritization of deferred maintenance projects. The full report is included via the Appendix.

It is recommended that WCU i**ncrease the annual deferred maintenance budget** over the coming years to facilitate repairs and replacements that have been identified across campus facilities.

**BUILDING CONDITION EVALUATION FORM**

| No. | Building Name | Year Constructed | Year renovated | Building area | Construction Type |
|---|---|---|---|---|---|
| **115** | **BOG - Merion Science Center** | 1995 | | 79,135 | II-B |

| COMPONENT | | SYSTEMS | TYPE | CONDITION RATING GOOD | FAIR | POOR | COMMENTS |
|---|---|---|---|---|---|---|---|
| 1.0 Exterior Building Condition | 1.1 | Foundations/Structure | Concrete | X | | | |
| | 1.2 | Walls | Masonry | X | | | |
| | 1.3 | Roof | Low-slope | | | | |
| | 1.4 | Windows | Aluminum | X | | | |
| | 1.5 | Door | Aluminum / HM | X | | | |
| | 1.6 | Other | | | | | |
| 2.0 Interior conditions | 2.1 | Walls | CMU | X | | | |
| | 2.2 | Ceiling | ACT | X | | | |
| | 2.3 | Flooring | Tile, VCT, CPT | X | | | |
| 3.0 Accessibility | 3.1 | Building suitable | | X | | | Elevator provided |
| | 3.2 | Accessible route | | X | | | Ramps at entrances |
| 4.0 HVAC Systems | 4.1 | Cooling Source | (2) roof mounted air cooled chillers, (2) 400 ton Trane water cooled chillers located in basement, (1) Baltimore Air Coil cooling tower on roof | | | X | Cooling tower has significant corrosion on fill and housing. |
| | 4.2 | Heating Source | Steam plant consisting of (3) steam boilers and condensate receiver serve the Air handlers in Merion, Science Center North, South, and Link. (2) Aerco Benchmark 3000 gas fired hot water boilers serve Merion perimeter heating and VAV reheat. | | | X | Boiler flues exhaust to same area as mechanical room air intake. |
| | 4.3 | Air Distribution Equipment | (3) variable volume air handlers serve classroom areas, one for each floor. (2) constant volume air handlers in basement serve the laboratories. Animal lab air handler is 100% outside air and utilized filter banks with HEPA and carbon filters. | | | X | Basement laboratory air handlers are approaching expected end of service life. |
| | 4.4 | Hydronic Distribution - CHW | (6) base mounted end suction pumps located in basement serving secondary chilled water, primary chilled water, and condenser water systems. | | | X | Secondary pump casing insulation is damaged. Chemical bypass feeder is heavily corroded. No continuous vapor barrier at AHU connections leading to damaged insulation from sweating. |
| | 4.5 | Hydronic Distribution - HW | (2) 7.5 HP base mounted end suction pumps. | | | X | Minor corrosion on pump housing, impeller, and flanges. |
| | 4.6 | Controls | Electronic DDC controls | | | | |
| | 4.7 | Other | | | | | |
| 5.0 Plumbing Systems | 5.1 | Hot water generation | | | x | | New Bradford-White electric water heater, and new Intelihot gas-fired water heater. |
| | 5.2 | Domestic Water Booster Pump(s) | | | | | - |
| | 5.3 | Domestic Water Recirc Pump(s) | | | | | - |
| | 5.4 | Sump Pumps(s) | | | | | - |
| | 5.5 | Sewage Ejector(s) | | | | x | Needed for basement waste. Waste from above by gravity. |
| | 5.6 | Domestic Water Distribution | | | | | 8-inch combined DW/FP service into the building. Splits to a 6-inch FP and 3-inch DW service. |
| | 5.7 | Sanitary System | | | | | |
| | 5.8 | Storm System (Primary) | | | x | | |
| | 5.9 | Storm System (Secondary) | | | x | | |
| | 5.10 | Gas Distribution | | | x | | |
| | 5.11 | Medical Air | | | x | | Beacon med air skid provided for laboratories |
| | 5.12 | Drinking fountains | | | x | | |
| 6.0 Electrical Systems | 6.01 | Service Equipment | 15kV Primary Switch<br>Eaton Section - 1500kVA 13.2kV-480/277V | X | x | | Lack of arc flash labels on some equipment. Existing Siemens electrical distribution is near end of life. Capacitor bank on service may cause electrical issues. |
| | 6.02 | Normal Distribution System | Mix of panel manufacturers, MCC in mechanical | | X | X | MCC is outdated, replace with distribution panel and VFDs |
| | 6.03 | Emergency Distribution System | 350kW, 480/277V, 3phase nat gas generator | | | X | Gen set and ATS 1 & 2 are obsolete |
| | 6.04 | Exterior Lighting | | | | | |
| | 6.05 | Interior Lighting | Fluorescent lighting | | X | | Replace fixtures with LED type fixtures. Upgrade lighting controls to meet current energy code requirements. |
| | 6.06 | Emergency Lighting | Fixtures acted up by gen set | | | | |
| | 6.07 | Lightning Protection System | | | | | |
| 7.0 Fire Alarm Systems | 7.01 | Devices | Simplex | X | | | |
| | 7.02 | Equipment | Simplex 4100U | X | | | |
| 8.0 Fire Protection Systems | 8.1 | Wet Pipe System | | | | | 8-inch combined DW/FP service into the building. Splits to a 6-inch FP and 3-inch DW service. |
| | 8.2 | Dry Pipe System | | | | | |
| | 8.3 | Stand Pipes | | | | | |
| | 8.4 | Fire Pump | | | | | |
| | 8.5 | Other | | | | | |
| | 8.6 | Other | | | | | |
| 9.0 Security Systems | 9.1 | Access control | Card readers at entrance/exit locations | X | | | |
| | 9.2 | Security Cameras | Interior and exterior IP Cameras | X | | | |
| | 9.3 | Intrusion Detection | NA | | | | |
| | 9.4 | Mass Notification System | Within notification area of coverage | | x | | |
| | 9.5 | Blue light systems | Emergency Blue Light phone at building perimeter | x | | | |
| | 10 | Grounding service | WCU Network | x | | | |
| | 10 | Campus backbone infrastructure | DM-FOC campus backbone cable | | X | | |
| | 10 | Data Center | NA | | | | |
| | 10 | MDF | Dedicated to Telecom Systems | | | | Cat 5e, 6, 6a structured cable system. |
| | 11 | IDF's | NA | | | | |
| 11.0 Audio Visual (AV) Systems | 11 | Conference rooms | Projectors, screens, ceiling speakers, Video Switching, Video conferencing system | | X | | |
| | 11 | Class Rooms | Projectors, screens, ceiling speakers, and other elements appropriate for classroom environment. | | X | | |
| | 11 | Auditorium | NA | | | | |
| | 11 | Media centers | NA | | | | |
| | 12 | Outdoor forums | NA | | | | |
| 12.0 Other Technology | 12 | Other Technology | NA | | | | |
| | 12 | Other Technology | NA | | | | |

**SYSTEMS**

- Exterior
- Interior
- Accessibility
- HVAC
- Plumbing
- Electrical
- Fire Alarm
- Fire Protection
- Security
- Telecom
- Audio-visual

115 – MERION SCIENCE CENTER



**BUILDING CONDITION ASSESSMENT**

**Year Constructed:** 1995
**Gross Square Footage**: 73,888 gsf
**Construction Type**: II-B
**Stories above grade:** 3
**Fully Sprinklered:** Y

**1.0 Exterior Building Conditions**

**1.1** The Merion Science Center consists of a 3-story building with a basement and a 1-story addition, which connects to the Schmucker Science center north building. The exterior materials consist of brick veneer, metal panel and cast stone sill and coping; all observed to be in good condition. There is a greenhouse structure attached to the south façade; not assessed. There is a large mechanical well with metal grating on the west side of the building. The condition and function not assessed.

**1.2** Roofing: The building has built-up low slope roofing assemblies. Condition of roofing and flashing to be reviewed.

**1.3** Fenestration: Consists of aluminum framed windows and storefront systems with insulated glazing. All in good condition.

**2.0 Interior conditions**

**2.1** Interior partitions: Primarily painted concrete masonry units; all observed to be in good condition.

**2.2** Ceilings: Suspended acoustic tile throughout; observed to be in good condition.

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## HISTORIC RESOURCES

Part of the logic for how to prioritize Deferred Maintenance is to consider those buildings that are part of the historic legacy of WCU. These structures are significant to the character and longevity of the campus and maintaining them is important so that they keep integrity and do not fall into disuse.
For example:

- The Quadrangle Historic District has been part of the National Register of Historic Places since 1981. These buildings include Philips Memorial Hall, Ruby Jones Hall, Recitation Hall, Anderson Hall and the Old Library.
- Philips Memorial Hall appears to be well maintained.
- Ruby Jones Hall and Anderson Hall have had recent renovations.
- Recitation Hall requires system upgrades, primarily related to electrical infrastructure.
- Old Library needs significant upgrades, including accessibility and code-related issues, upgrades to technology and building systems, and exterior masonry repairs. The Old Library warrants higher priority on the list of buildings needing deferred maintenance attention.




WCU Historic Resources



1. Philips Memorial Hall



2. Ruby Jones Hall



3. Anderson Hall



4. Recitation Hall



5. Old Library

## ONGOING DEFERRED MAINTENANCE PRIORITIES

Other priorities for deferred maintenance include:

- Addressing significant building deficiencies in the Science Center Complex (comprised of Merion Science Center, Science Complex North, Science Center Link, Science Center South).
- FHG Library Renovations (as outlined in the FHG Strategic Plan).
- Geothermal Well Field Upgrades and Expansion (to increase capacity of the existing wells due to current campus demand is greater than the original design capacity of the existing geothermal well system).
- Upgrading and improving the HVAC system at Swope Music & Performing Arts Center (ongoing).
- Upgrading and replacing the existing roof system at FHG Library (ongoing).

The site plan on the following page indicates deferred maintenance project priorities on the North Campus.

| PRIORITIZED RECOMMENDATIONS | | |
|---|---|---|
| **PRIORITIZED RECOMMENDATIONS** | | |
| 1 | Old Library (Historic Resource) | |
| 2 | Geothermal Upgrades | |
| **ONGOING** | | |
| 3 | HVAC at Swope Music Building | |
| 4 | FHG Re-roofing | |




Prioritized Recommendations Map

# G. CAMPUS WIDE DINING ANALYSIS

## OVERVIEW

Overall, the campus dining analysis recommends a range of 20,000 – 30,000 additional square feet of new dining space on campus, to complement the dining facilities at the SECC and other satellite venues, and to provide a greater variety of food choice and access options. Recommendations are based on the size of the student population and in support of the goal of having more students live on campus during their first two years. The detailed Dining Analysis Report is provided via the Appendix.

## METHODOLOGY

- Assessed all 13 Campus Dining Locations.
- Completed 8 focus group sessions (Student Affairs; Foundation / Alumni; Admissions; Athletics; Residence Life; Business & Finance; Dining Contracts; Off-Campus / Sykes). Completed Initial Assessment and recommendations for existing facilities.
- Incorporated Campus Wide Survey Results.

## KEY FINDINGS AND RECOMENDATIONS

### SHORT-TERM (0 – 3 YEARS)

- Anytime Dining concept (not all you care to eat).
- Expand Commons Dining Hours and Offerings (7am – Midnight 7 days per week).
- Update Meal Plans (4-tier unlimited plans).
- Just Walk Out (Amazon concept for both North & South campuses).
- Keep food trucks in short term.
- Consider café concept at future Lawrence (Panera example).

The Commons dining hall is currently operating at about 60% utilization. Several short-term recommendations to maximize the use of this space include:

- Optimizing hours of operation and on-board days.
- Enhancing meal variety and selection.
- Introducing non-food amenities.
- Improving meal plans.

These targeted strategies are designed to boost engagement, meet the diverse needs of the campus community, and ensure the facility is used to its full potential.

The Commons Anytime Dining Hall recomendations feature extended hours from 7:00 a.m. to Midnight, 7 days a week and an updated menu profile. All menu items will be available continuously throughout all hours of operation and students will

| Meal Plan | Access | Flex Dollars | Extra Perks |
|---|---|---|---|
| Platinum Unlimited | Unlimited Access to the Commons & South Campus | $350 | 5 Guest Meals & Parents Eat Free |
| Gold Unlimited | Unlimited Access to the Commons & South Campus | $250 | 5 Guest Meals |
| Silver Unlimited | Unlimited Access to the Commons & South Campus | $150 | 5 Guest Meals |
| Bronze Unlimited | Unlimited Access to the Commons & South Campus | $0 | 5 Guest Meals |
| Commuter 75 Plan | 75 Meals/Semester in the Commons & South Campus | $350 | N/A |
| Commuter 30 Plan | 30 Meals/Semester in the Commons & South Campus | $300 | N/A |

Meal Plans

have access to unrestricted take-out.
Meal Plans are recommended to be updated to include four tiers of unlimited plans varying in the amount of flex dollars. These plans are mandatory for North Campus Residents. It is recommended to keep food trucks, which are managed by West Chester Borough, along Church Street in the short-term due to capacity constraints at the Commons and at Sykes.

The Common's Anytime Dining Hall's updated menu is recommended to feature an array of menu categories informed by survey responses, including popular items such as chicken tenders, cheeseburgers, and subs. Additionally, there will be a comprehensive allergen-friendly and vegan station to cater to diverse dietary needs. Favorites from Einstein's Bagels and Chickie's and Pete's can be incorporated into the daily menu.

The goal of these recommendations is to shift the focus and student traffic into a community-driven location in the Commons. This aims to create an atmosphere conducive to the spontaneous formation of relationships between students and faculty. By fostering a vibrant and inclusive environment, these changes are intended to enhance the overall campus experience and strengthen the sense of community at WCU.



**NORTH CAMPUS**

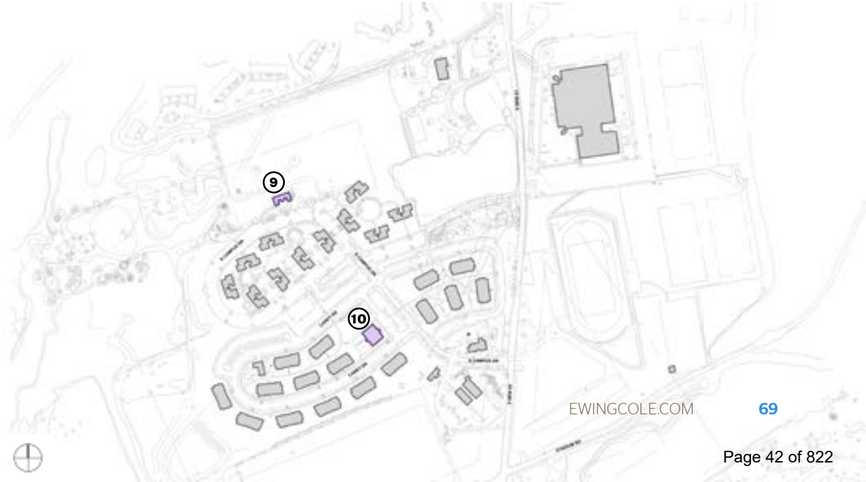
1. Power Up
2. The Commons Anytime Dining Hall
   - Freshens
   - Amazon Just Walk Out at Rammy's
3. Food Trucks*
   - *Managed by Borough not WCU
4. P.O.D. at Main Hall
5. Saxby's and QDOBA
6. Starbucks
7. Sykes Ram's Head Food Court
   - B+F
   - Bento Sushi
   - Chick-fil-A
   - EcoGrounds
   - The Spread & Greens To Go
8. P.O.D. at E.O. Bull

**SOUTH CAMPUS**

9. Southside
10. Amazon Just Walk Out at the Village




Short Term North Campus Dining (Above) Short Term South Campus Dining (Below)



## LONG-TERM (3 – 10 YEARS)

- Expand +23,000 sf at Sykes with additional beds on campus.
- Consider food truck offerings long term (in event of Church St pedestrianization)
- New 10,000 - 15,000 sf Dining concept at South Campus (7am-10pm 7 days per week).

Increasing the number of beds by ~220 on the South Campus, along with implementing mandatory meal plans, will significantly boost dining revenue. This surge in demand justifies the need for a robust dining venue on the South Campus, with the capacity to accommodate all resident students and athletes practicing there. Additionally, this venue is recommended to be open to the public after athletic events, creating an opportunity to serve the broader WCU community.

A new 10,000 - 15,000 sq. ft. South Campus Anytime Dining Hall is recommended to be built, featuring hours from 7:00 a.m. to 10:00 p.m., 7 days a week, and including a menu profile comparable to the Commons Anytime Dining Hall. All menu items will be available continuously throughout all hours of operation and students will have access to unrestricted take-out. The increase of beds on North Campus could require an additional 23,000 sq. ft. at Sykes, when the building is expanded. With these improvements to dining programs, food trucks will no longer be required, however, this is up to the discretion of WCU. Currently food trucks park along Church Street. However, in the event that Church Street is pedestrianized, some reasonable accommodation on campus to locate food trucks should be planned for daily and/or special events.

The recommendation is that Meal Plans would be mandatory for North and South Campus Residents. Longer hours and unlimited take-out options at centralized dining locations on campus will provide students with a safe and wholesome area where they can easily access nutritious meals at their convenience. This approach will play a crucial role in mitigating any food insecurity issues on campus, ensuring that all students have reliable access to healthy meals. Improvements to the Meal Plans can be effectively leveraged during the recruitment of prospective students, highlighting the WCU's commitment to student welfare and overall well-being. Additionally, it will encourage current students to remain on campus for longer periods, fostering a stronger sense of community and engagement.



**NORTH CAMPUS**

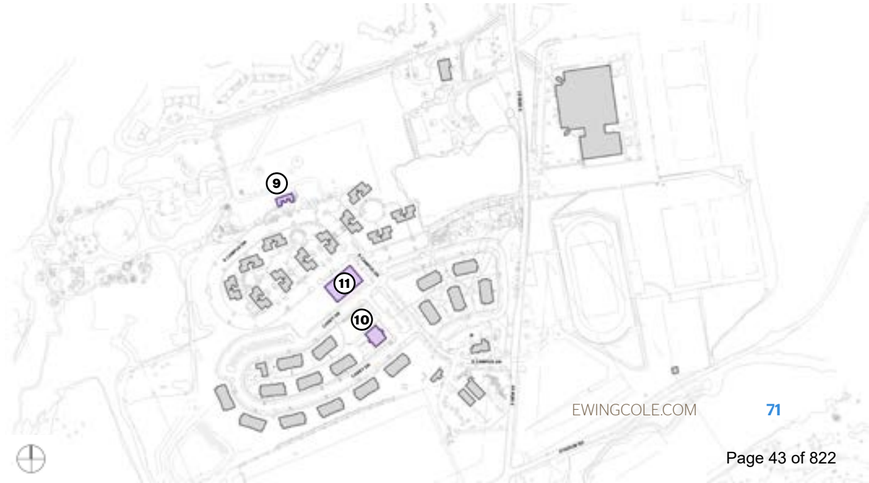
1. Power Up
2. The Commons Anytime Dining Hall
   - Freshens
   - Amazon Just Walk Out at Rammy's
3. Lawrence Hall
   - Just Walk Out
   - Saxby's
4. P.O.D. at Main Hall
5. Saxby's and QDOBA
6. Starbucks
7. Syke's Student Union Expansion
   - B+F
   - Bento Sushi
   - Chick-fil-A
   - EcoGrounds
   - The Spread & Greens To Go
8. P.O.D. at E.O. Bull

**SOUTH CAMPUS**

9. Southside
10. Amazon Just Walk Out at the Village
11. South Campus Commons Dining




Long Term North Campus Dining (Above) Long Term South Campus Dining (Below)



# SECTION 04.
# SITE & LANDSCAPE

# A. BUILDINGS & GROUNDS

## OVERVIEW

Site conditions at the North and South Campus vary greatly. Analysis of the landscape and circulation issues gives insight into potential improvements that accompany master plan recommendations. A variety of prevalent issues emerged through meetings with WCU's Facilities Group, including:

- Prioritization of deferred maintenance projects
- Amount and availability of outdoor space – planted, open, recreation
- Acknowledgement of existing and future planned geothermal well fields and ongoing energy study
- Universal access to campus places and spaces
- Building and landscape maintenance requirements
- Parking considerations
- Improved opportunities for community gathering (indoors and outdoors).
- Encourage best practices for student / campus safety and security.
- Align with campus sustainability objectives.

The existing public roadways create clear boundaries for the North Campus as shown on the following diagram. While most of the campus favors pedestrian movement, there are also significant interruptions where vehicles and pedestrians clash.




North Campus is bounded by public streets

# B. NORTH CAMPUS

## OBSERVATIONS & OPPORTUNITIES

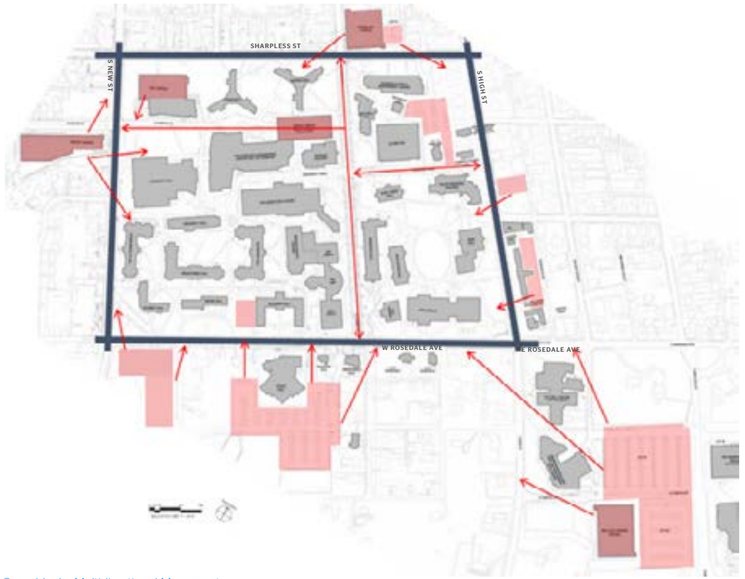
### SUPERBLOCK

The highest density of buildings on the North Campus is within the zone known as the "Superblock." Major public streets define edges of the superblock which is bounded by Sharpless Street, W Rosedale Avenue, S High Street and New Street. Within the superblock, there is multi-directional movement, across internal campus streets, pathways and external streets. Most parking is located outside of the superblock, at the edges of the site, except for the Student Recreation Center Garage and the Commons Parking Garage.

### CLASH POINTS

The boundaries of the superblock create circulation "clash points" due to multi-modal use along the perimeter streets as well as within campus streets. Clash points occur between pedestrians, automobile access to parking garages and truck access to loading docks. Several of the service zones on the North Campus are not segregated from pedestrian traffic, including at Tyson & Goshen Halls, Lawrence Center and Killinger Hall.

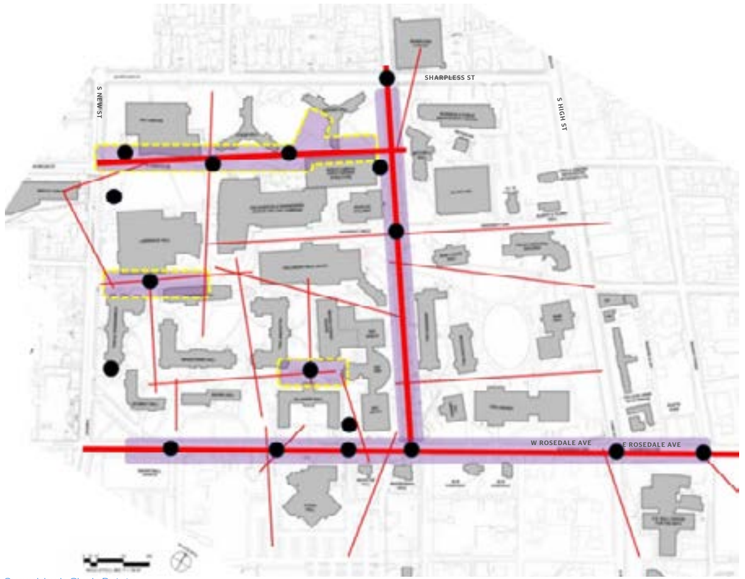
One of the most challenging clash points is along the access road to the Commons Parking Garage from S New Street. This road also connects to parking and service areas for the Student Recreation Center, SECC, Tyson Hall and Goshen Hall. This road also intersects primary pathways that students use to go to the Student Recreation Center, SECC, Dining and Residence Halls.




Superblock - Multidirectional Movement

One of the opportunities to reduce the clash points at Tyson and Goshen Halls is to reorient service access to Goshen Hall and restrict (and redirect) the current pedestrian path that runs along the north edge of the Commons Parking Garage. Examples of how this can be achieved are illustrated in the Recommendations Section of this report.

The other significant clash points occur along W Rosedale Avenue, due to the high level of pedestrian traffic to and from Sykes Student Union. Safety conditions can be improved by adding traffic calming devices at key crossings, specifically at Sykes and at the intersection of S Church Street and W Rosedale Avenue. In the future, with the development of a new Killinger Hall, a pedestrian bridge could span Rosedale and connect to Sykes Student Union, further improving traffic safety.




Superblock Clash Points

## GATEWAYS

North campus "gateways" occur at key intersections along W Rosedale Avenue, at S New Street and S High Street, and at the intersection of S Church Street / University walk. These locations are key image and branding opportunities for WCU that can be enhanced through attention to landscape, planting, lighting and signage. The intersection of S Church Street and W Rosedale Ave becomes a primary opportunity that can enhance the North Campus. For example:

- Expansion of Sykes Student Union to the east along Rosedale, could include a new Welcome Center, with a new front-door and plaza at the foot of S Church Street.
- A new exterior space can be a gathering place for tours, photos, and outdoor events.
- An improved intersection would provide a better way for commuter students to cross Rosedale from parking behind Sykes and provide convenient access for prospective students and their families visiting the campus.




GATEWAYS
CORRIDORS / PATHS
LANDSCAPE OPPORTUNITY
1 Lawrence Open Space & Bus Pavilion
2 Tyson / Goshen Landscape
3 Church Street Corridor
4 University Ave Corridor
3 Church Street Corridor
4 University Ave Corridor
5 University Gateway
6 Rosedale & New St Corner
7 Ceremonial Gateway
8 Regional / Civic Gateway
9 President's Walk Extension
10 Meadows at Poetry Center

North Campus Gateways

## CONNECTIONS

The superblock is spatially organized into three zones: the Academic Quad, organized around the central landscaped oval; the middle Transitional Zone, organized around S Church Street / University Walk; and the Residential Zone, in which buildings, pathways and smaller green spaces or plaza occur. The Residential Zone does not currently have an exterior space that is hierarchically equivalent to the Academic Zone or the Transitional Zone. There is an opportunity here to create a new iconic green space across from the Student Recreation Center and the SECC.




GATEWAYS
CORRIDORS / PATHS
LANDSCAPE OPPORTUNITY
1 Academic Quad
2 Church St Transition
3 Residential

North Campus has three spatial zones: Academic, Residential, and Transitional Zones

# C. SOUTH CAMPUS

## OBSERVATIONS & OPPORTUNITIES

The South Campus is accessed from New Street, with buildings and grounds organized on both sides of the street.

The East parcel is home to Farrell Stadium, Sturzebecker Health Sciences Center, multiple athletic fields, surface parking and open landscape areas, including the Gordon Environmental Center. Note that the renovation of Sturzebecker is scheduled for completion by year 2029.

The West parcel is home to apartment-style student housing, which is comprised of WCU-managed beds, known as South Campus Apartments and USH-managed beds, known as The Village Apartments and East Village Apartments. Units are accessed via perimeter loop roads and surface parking. Just north of the South Campus Apartments, is an open landscape zone known as the Glen Echo Site, which borders on residential neighborhoods.

The South Campus Apartments need complete renovation to achieve parity with USH-managed beds. As part of the renovation strategy, it is possible to increase the bed-count if another floor is added to each of the buildings.

### CREATE A SENSE OF PLACE

In addition to improving the existing South Campus Apartments and increasing the overall bed count, there is an opportunity to bolster the sense of place by:

- Positioning a new Commons Building with dining and event space at the heart of the South Campus, or expanding the existing Southside building. This shared-use building could be programmed to offer dining options that align with athletic and training programs.

- Creating a more intentional connection between west and east parcels could be achieved by a new pedestrian pathway, with improved lighting, signage and landscape. This new pathway would emanate from the new Commons Building and connect to Sturzebecker Health Sciences Center, thus creating a new gateway along New Street.

- Keeping the Glen Echo site as green space for passive recreation. Existing pathways through the open landscape could be added to create recreational loops and connect to the Gordon Environmental Center.

- Adding a bike lane along S New Street to improve safety and connections between North and South campus. Note that this would require collaboration and input between WCU and the surrounding community.

- As more beds and a new Commons Building are added to the South Campus, a parking strategy could entail allowing students to use the surface parking (Lot Q and R) next to Farrell Stadium, with the provision that on game days, those cars would need to park in other locations. This would reduce the need to add additional surface parking and preserve open space. Note that a more detailed implementation plan would be needed to clarify this approach.




South Campus Gateways




New St bisects the South Campus into an East and West parcel

# D. TRANSPORTATION & PARKING ANALYSIS

## OVERVIEW

The full Transportation & Parking Analysis Report is in the Appendix.

## PRELIMINARY TRANSPORTATION EVALUATION

### TRAFFIC COUNTS/INTERSECTIONS

Vehicle and pedestrian counts were completed during the weekday morning (7:00-10:00 A.M.) and weekday evening (3:00-6:00 P.M.) peak time periods at the 25 intersections/locations (see aerials included in the Appendix). These counts were completed in early December 2023 or late April 2024 when classes were in session.

### PEAK HOURS

Utilizing the 3-hour peak period (7:00-10:00 A.M. and 3:00-6:00 P.M.) a peak hour, which is the highest four consecutive 15-minute intervals (i.e. 7:30-8:30 A.M.), is determined for each intersection. The weekday A.M. and weekday P.M. peak hour traffic and pedestrian volumes are shown in the attached Figures.

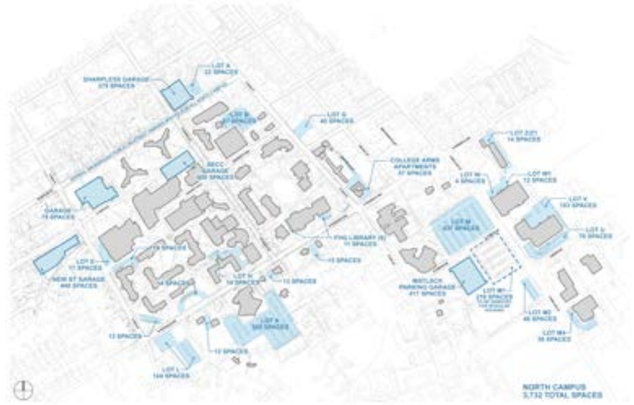
### CAPACITY ANALYSIS

Capacity analyses were conducted for the weekday A.M. and weekday P.M. peak hours at the study area intersections for Existing Conditions. These analyses were conducted according to the methodologies contained in the Highway Capacity Manual, 6th Edition (HCM) using Synchro 11 software, a Trafficware product.

### INTERSECTION OPERATIONS

A level of service (LOS) and queue matrix for the study area intersections are attached for the peak hours evaluated (included in the Appendix).

Preliminary evaluation of the **critical traffic items** based on results of the analysis indicate that overall, all intersections operate at a good level of service (ILOS B or better), and all movements except one operate at LOS C or better. At the S High Street / Sharpless Street intersection, the eastbound approach operates at LOS E. Future analysis will need to evaluate if roadway improvements are required at any of the intersections in accordance with relevant ordinances. The future analysis will include the planned intersection improvements at the S New Street/W Rosedale Avenue intersection.




Existing Parking at North Campus




Existing Parking at South Campus

## PRELIMINARY PARKING EVALUATION

### EXISTING PARKING

Approximately 6,000 parking spaces are illustrated on the adjacent site plans.

- 3,547 North Campus
- 2,187 South Campus
- 500+ Borough of West Chester Campus Adjacent

### PARKING COUNTS

Spot parking occupancy counts were completed during the weekday afternoon (11:00 A.M.-1:00 P.M.) and the weekday evening (4:00-6:00 P.M.) peak time periods at the parking areas in both the University's North Campus and South Campus. The surface lot counts were performed using drone imagining, and the parking garage counts were performed manually by a technician. These counts were completed in late April 2024 when classes were in session.

### PARKING OCCUPANCY DATA

The following tables summarize the parking occupancy data collected North Campus and South Campus. This chart represents a sampling of mid-day peek and late afternoon times evaluated. **Of the nearly 1500 spots observed there were more than 350 available during the peak times.**

Preliminary evaluation of the **critical parking items** based on the results of the analysis indicate that the observed midday parking occupancy was higher than the observed evening parking demand. Additionally, the midday parking occupancy was identified as 80% on the North Campus and 48% on the South Campus.

Occupancy levels of specific lots vary, with some being near, or at, the number of spaces provided, and others being less than 50% occupied. Additionally, evening parking occupancy was identified at 47% at North Campus and 40% at South Campus. Note that future analysis will need to be completed as the master plan is implemented, in accordance with the applicable ordinance requirements.

| Count Date and Approximate Count Time: | | 12/05 @ 11:00am-1:00pm | | | 12/05 @ 5:00-7:00pm | | | 12/06 @ 11:00 am-1:00pm | | | 12/06 @ 5:00 pm-7:00pm | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Parking Lot | Total Spaces Provided | # Occupied | # Unoccupied | % Occupied | # Occupied | # Unoccupied | % Occupied | # Occupied | # Unoccupied | % Occupied | # Occupied | # Unoccupied | % Occupied |
| New Street Garage | 447 | 371 | 76 | 83.0% | 304 | 143 | 68.0% | 387 | 60 | 86.6% | 305 | 142 | 68.2% |
| Student Recreation Center Garage | 79 | 41 | 38 | 51.9% | 38 | 41 | 48.1% | 31 | 48 | 39.2% | 32 | 47 | 40.5% |
| The Commons Garage | 457 | 376 | 81 | 82.3% | 224 | 233 | 49.0% | 371 | 86 | 81.2% | 205 | 252 | 44.9% |
| Sharpless Parking Garage | 383 | 237 | 146 | 61.9% | 141 | 242 | 36.8% | 226 | 157 | 59.0% | 158 | 225 | 41.3% |
| A Lot | 22 | 22 | 0 | 100% | 7 | 15 | 31.8% | 22 | 0 | 100% | 6 | 16 | 27.3% |
| B Lot | 57 | 52 | 5 | 91.2% | 10 | 47 | 17.5% | 51 | 6 | 89.5% | 24 | 33 | 42.1% |
| G Lot | 40 | 31 | 9 | 77.5% | 13 | 27 | 32.5% | 37 | 3 | 92.5% | 12 | 28 | 30.0% |
| Totals | 1485 | 1130 | 355 | 76.1% | 737 | 748 | 49.6% | 1125 | 360 | 75.8% | 742 | 743 | 50.0% |

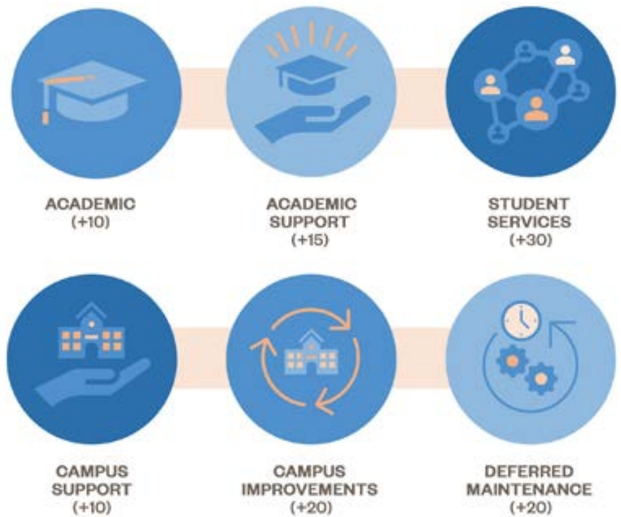
Summary of classrooms with scheduled use

# SECTION 05.
# COMPREHENSIVE MASTER PLAN

# A. OVERARCHING THEMES, PROJECTS, & INITIATIVES

## DISCOVERY PHASE

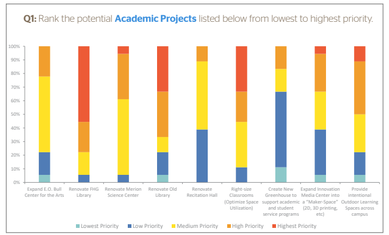
The discovery phase of the master planning process resulted in over one-hundred potential projects, initiatives and recommendations. The prioritization of those projects and initiatives, were vetted through a series of Stakeholder Meetings, with additional strategic input from the Steering Committee and WCU leadership. All of the key stakeholder groups at WCU were interviewed and included in update presentations, as master plan recommendations coalesced.

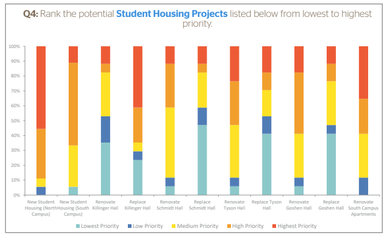


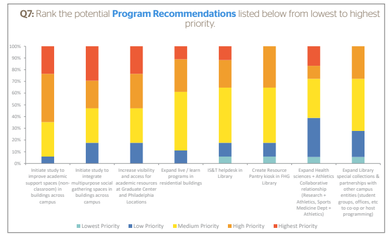

**+100**

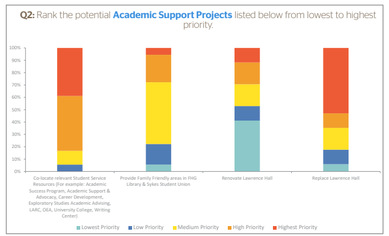
**Potential Projects Initiatives or Studies**

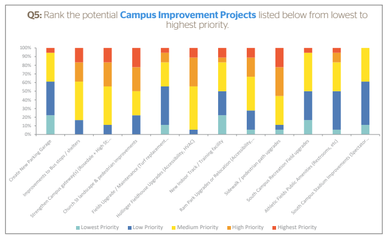
+ NEW CONSTRUCTION
+ MAJOR ADDITIONS
+ MAJOR RENOVATIONS
+ MINOR RENOVATIONS
+ DEFERRED MAINTENANCE

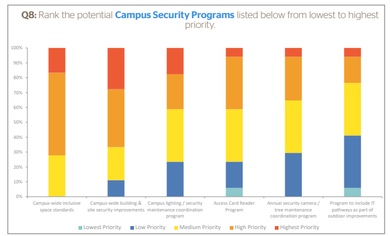


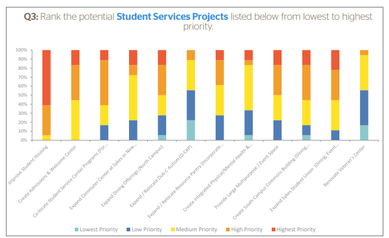



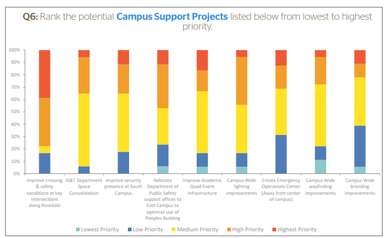



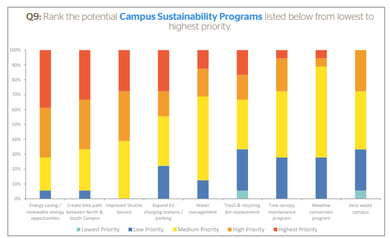




Exerpt of Results from Steering Committee Surveys

## COMMON ISSUES & THEMES

A series of overarching themes resulted from the Stakeholder Meetings and reinforced via steering committee updates. The projects identified as part of the Master Plan recommendations are in support of these themes, which are summarized below.

The most immediate recommendation  by far is to begin the implementation for the upgrade and expansion of student housing and supporting residential life services.

At South Campus, the first priority is the phased upgrade and expansion to South Campus Apartments. Expansion to the Southside building or a new Commons Building with food service, meeting and event space is also planned.

At North Campus, the first priority is to decant the remaining student support functions in Lawrence Center, so that the structure can be demolished and a new Lawrence Hall constructed.

Future phases for upgrading or replacing beds at North Campus are accomplished in a phased implementation plan as funding allows.

Another important recommendation is the renovation and expansion of Sykes Student Union to include additional space for dining, large events, student organizations, and provision for a Welcome Center & Admissions Offices.

Improvements to Church Street (Campus Walk) and upgrades along W. Rosedale Avenue, including a new plaza and streetscape improvements associated with the new Welcome Center, will improve pedestrian safety and provide a new iconic open space to reinforce WCU's brand.

A placeholder location for a future multi-level parking deck that is attached to the Sykes expansion is recommended.




*Many of the issues identified during Individual Stakeholder Meetings had common themes that impact Master Plan recommendations.*



Projects were distilled into six main categories and further prioritized and organized into campus districts.

**HOUSING**
- Lawrence Hall – Demo & Build New Housing
- College Arms Apartments Renovation
- South Campus Apartments – Full Reno w/ Vertical Expansion
- Tyson Hall – Full Reno w/ Addition
- Goshen Hall – Full Reno w/ Addition
- Killinger Hall – Demo & Build New Housing
- Schmidt Hall – Full Reno w/ Entry Addition

**ACADEMIC**
- Science Center Complex Renovation
- Old Library Renovation
- FHG Library Renovation
- Sturzebecker Renovation
- EO Bull Center for the Arts Expansion & Landscape Improvements

**STUDENT SERVICES**
- Improve or Build New South Campus Commons Building
- Expand Sykes for Student Services, Dining, Welcome Center, & Parking

**CAMPUS IMPROVEMENTS**
- S Church St & University Ave Improvements
- Rosedale Ave Improvements
- Future Open Space
- Land Acquisition to Complete "Superblock"
- S New St and W Rosedale Ave Recreation Addition
- Improved gateway at S New St Across from Sturzebecker and Athletic Fields
- Improvements at Farrell Stadium
- Athletic Field Amenities (restrooms, concessions, etc)
- President's Walk Extension
- Planning Study for Tanglewood Residence & Grounds (highest & best use of property)

**CAMPUS SUPPORT**
- 210 & 220 East Rosedale
- Maintenance Garage
- 201 Carter Utilization
- 204 Carter vacant
- Alumni & Foundation Center
- 887 Matlack – relocate public safety

**CAMPUS IMPROVEMENT PROGRAMS - SUSTAINABILITY**
- Existing Geothermal Deferred Maintenance
- New St multimodal Campus Connector
- Gordon Preserve Connections
- Bike-share Program



# B. MASTER PLAN RECOMMENDATIONS (BY DISTRICT)

## CAMPUS DISTRICTS & LANDSCAPE FRAMEWORKS

Master plan recommendations illustrated in this report are organized by "campus districts" which are based on the current use and configuration of the campus. For example, the North Campus superblock is comprised of a predominately Academic District and a Residential District. The parcel along Rosedale Avenue is predominately a Student Support Services District. The east part of the campus is a mix of Academic and Facility Support. The South Campus is comprised of a Residential District and an Athletic and Health Sciences District.

**Recommendations and improvements are described per district**, categorized below, which include multiple types of buildings, infrastructure, programs, and spaces.

Campus buildings and landscapes create synergies that result in the visual character of spaces. For a physical environment as varied as WCU, it is useful to have a framework for landscape solutions that are scaled to use or specific location. Landscape solutions for a Residential Zone may be different from an Academic Zone, or areas that border public streets. Having a landscape framework is a way to create a dynamic campus that bolsters the brand identity of WCU.



### DISTRICT A PROJECTS

**NORTH CAMPUS ACADEMIC & SUPPORT**

- Science Center Complex Renovations
- Old Library Renovation
- FHG Library Renovation
- College Arms Apartments Renovation
- Church St Improvements
- Land acquisition to complete "superblock" (Corner of Sharpless & S High St)

### DISTRICT B PROJECTS

**NORTH CAMPUS HOUSING & SUPPORT**

- Lawrence Hall - Demo & Build New Housing
- Existing Geothermal Deferred Maintenance
- Tyson Hall - Full Reno w/ Addition
- Goshen Hall - Full Reno w/ Addition
- Killinger Hall - Demo & Build New Housing
- Schmidt Hall - Full Reno w/ New Entry Addition

### DISTRICT C PROJECTS

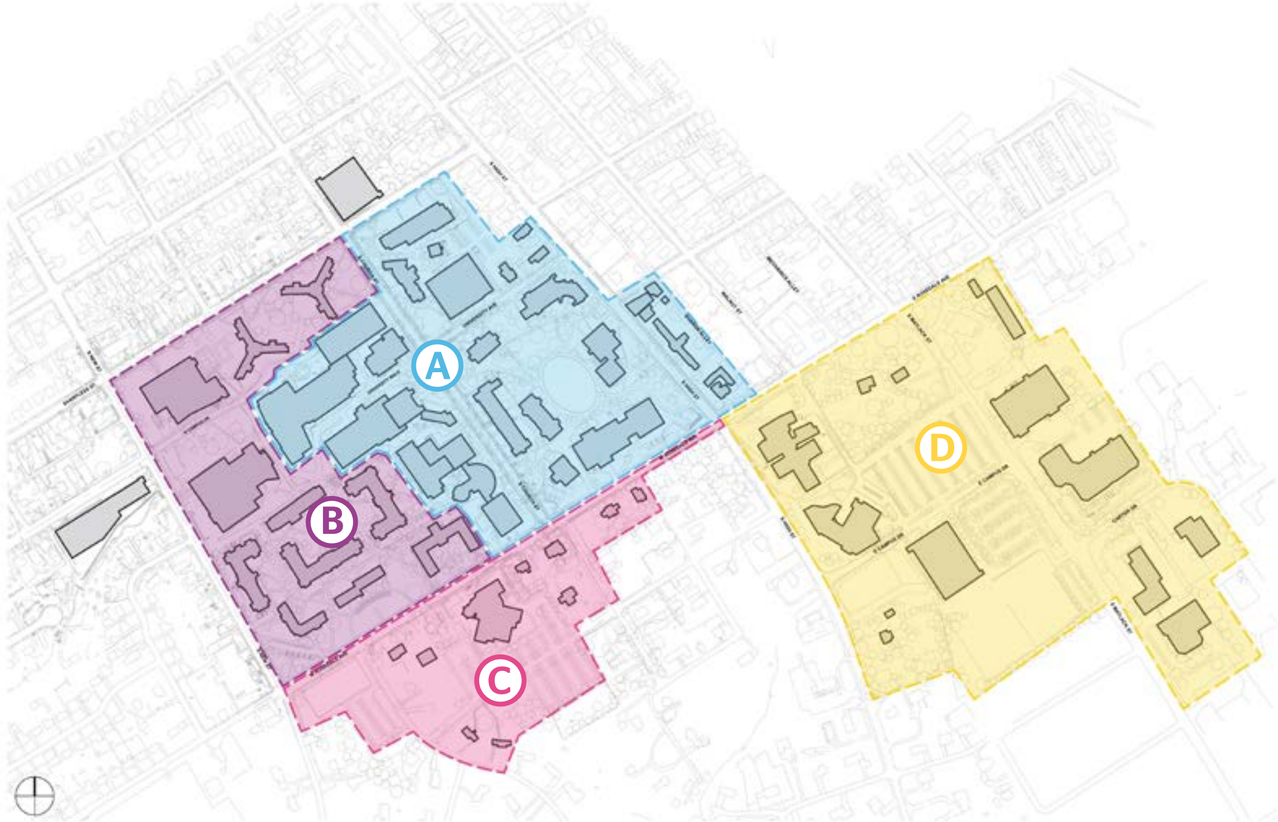
**NORTH CAMPUS STUDENT SERVICES & SUPPORT**

- Sykes Expansion - Student Services & Welcome Center
- Rosedale Ave Improvements
- Existing Geothermal Deferred Maintenance
- Future Open Space (Across S Church St)
- Sykes Student Union Parking Deck
- Recreation Improvements (Corner of W Rosedale Ave & S New St)

### DISTRICT D PROJECTS

**EAST CAMPUS ACADEMIC & SUPPORT**

- Temporary Housing
- Removal of Temporary Housing & Reinstate M1 Lot as Parking
- E.O. Bull Center for the Arts Addition & Landscape improvements
- Planning Study for Tanglewood Residence & Grounds (Highest and Best Use of Property)
- President's Walk Extension (Landscape)
- 210 & 220 East Rosedale
- Maintenance Garage
- 201 Carter Utilization
- 204 Carter vacant
- Alumni & Foundation Center
- 887 Matlack – relocate public safety




North Campus Districts

## DISTRICT E PROJECTS

### SOUTH CAMPUS HOUSING & SUPPORT

- South Campus Apartments Renovation & Vertical Expansion
- Expansion to Southside or New South Campus Commons Building
- South Campus Gateway Connection to Sturzebecker and Athletic Fields

## DISTRICT F PROJECTS

### SOUTH CAMPUS ATHLETICS & SUPPORT

- Sturzebecker Renovation
- Farrell Stadium Improvements
- Athletic field amenities (restrooms, concessions, etc)
- Gordon Preserve Trail Connections
- S New St. Multi-modal Transportation




South Campus Districts


W ROSEDALE AVE
S HIGH ST

## DISTRICT A PROJECTS
### NORTH CAMPUS ACADEMIC & SUPPORT

### 0-5 YEARS
1. Science Center Complex Renovation
2. Old Library Renovation
3. FHG Library Renovation
4. College Arms Apartments Renovation

### 6-10 YEARS
5. S Church St & University Ave Improvements

### 10+ YEARS
6. Land acquisition to complete "superblock" (corner of Sharpless & S High St)




North Campus

## SCIENCE CENTER COMPLEX RENOVATION

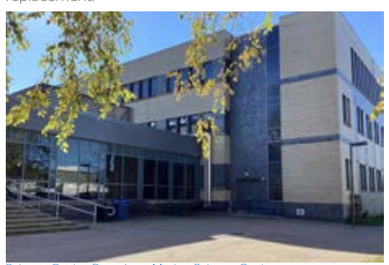
The Science Center is a complex of three interconnected buildings that house teaching labs, classrooms, student support spaces and offices.

Merion Science Center, constructed in 1995, consists of a 3-story, 73,888 SF building with a basement and a 1-story addition, which connects to the Science Center North and Merion Science Center on the first level.

Science Center North, constructed in 1965, is a 3-story 48,287 SF building with a basement level. The building has linkages to the Science Center – south and the Merion Science Center to the west on the first level.

Science Center South (SSC), constructed in 1968, is comprised of a 5-story, 75,226 SF building with a basement, and a 1-story link and planetarium, which connects to the Science Center North building.

Ongoing mechanical, plumbing, telecom, audio/visual and security system upgrades have been documented in the Existing Building Assessment Report. These include replacing the generator, changing interior lighting fixtures to LED type, and upgrading existing Category 5e cabling to Category 6 to align with current industry standards. Additionally, the 2023 Gordian Report recommends repairing spalling cast stone and masonry on the exterior facades and a full roof replacement.



Science Center Complex · Merion Science Center

## FHG LIBRARY RENOVATION

The FHG Library, constructed in 1966, consists of a 2-story, 60,042 SF building and connects to the FHG Phase II library, which is a 6-story, 86,009 SF building. Both structures have basement levels. A variety of building system upgrades were identified as part of the Existing Building Assessment Report, including recommendations for mechanical, plumbing, electrical, telecom, audio/visual and security. Additionally, roof replacement and facade repairs are to be implemented as part of the deferred maintenance program. The ongoing Library Strategic Plan is based in part on a 2015 Concept for renovation and reprogramming both buildings, with the goal of modernizing interior spaces to more effectively support staff resources and current student needs.

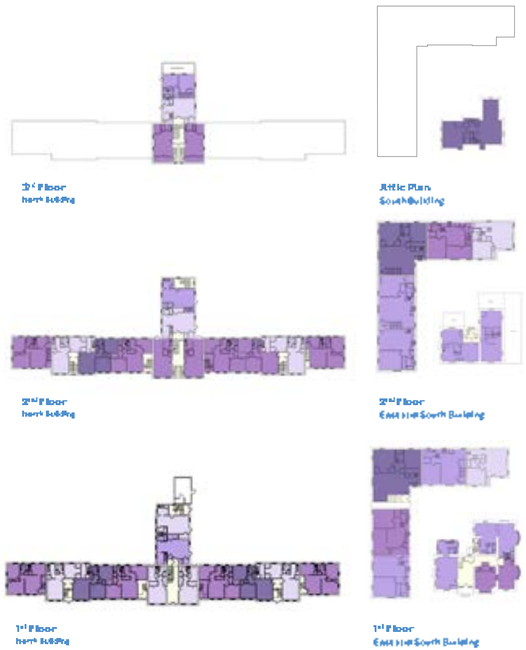
While there is a list of deferred maintenance projects associated with the FHG Library as noted above, these projects should be coordinated with the findings and recommendations of the Library Strategic Plan.



FHG Library

## COLLEGE ARMS APARTMENTS RENOVATION

Continued use of the buildings for student housing to accommodate up to 97 beds, acknowledging the variety of deferred maintenance issues as part of on-going renovations.





721 South High Street



731 South High Street



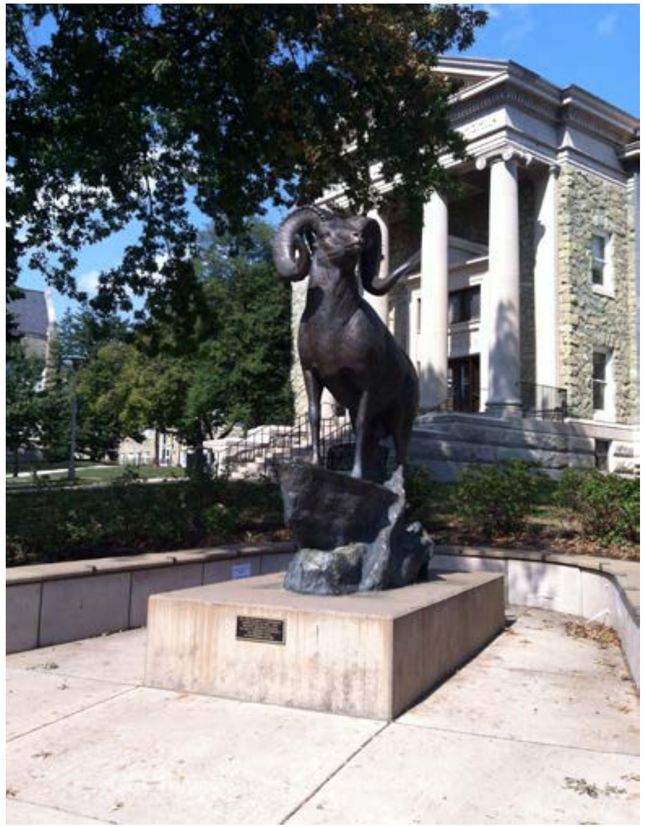
733 South High Street

## OLD LIBRARY RENOVATION

Full renovation and system upgrades, to meet current building and accessibility standards is a minimum recomnedation of this study. Program use of the Old Library is suggested to contain Anthropology offices, exhibits and support, as well as offices for Undergraduate and Graduate Student Affairs.

The challenging grade change between the street and the library entrance makes it inaccessible for visitors. The library lacks a social space for students and visitors to gather. And the iconic statue of the West Chester Ram is tucked away off the main path beneath existing trees. The Campus Master Plan envisions reconnecting the Old Library to the campus by transforming S. Church Street into an accessible green corridor for pedestrians. This shift from a car-focused street to a pedestrian-friendly space will allow campus programs to extend outdoors, creating more vibrant, interconnected spaces. The landscape design proposes to relocate the ram statue to sit proudly at the end of the corridor, becoming a prominent gateway feature that draws people in and celebrates the university.

The design will introduce a new courtyard at the Old Library, which will serve as a gathering space that invites students and visitors to relax and socialize. The design team sees an opportunity to integrate art into the courtyard to enhance the sense of arrival to the library and create a unique experience.









Building Section with new Service Addition and Elevator



LEVEL 3



LEVEL 2



LEVEL 1

Plans, Landscape Plan, and Section from Previous Old Library Welcome Center Study

## S CHURCH STREET & UNIVERSITY AVE IMPROVEMENTS

S Church Street and University Avenue offer an opportunity to tie the North campus together to support the creation of a true live and learn community. As West Chester University has built across these roadways, the character of the streets has remained fragmented with stately trees on both sides, although many continue to decline with age and stress. WCU has an opportunity to work with local governments to pedestrianize segments of these roadways within the heart of North Campus, unlocking pedestrian connectivity and safety throughout, and providing new programming to build upon the University's rich landscape character.

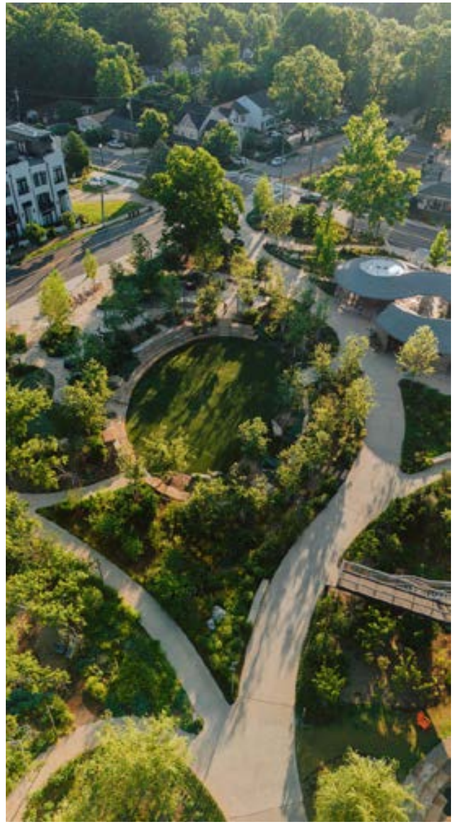
With the closing of S Church Street to regular, public vehicular traffic, a new green spine can be created knitting the campus together. The existing roadway can be raised and reinterpreted as a series of rooms and spaces that can be active or passive, large and small, while serving the variety of programmatic needs the University has. Service and emergency vehicle access would still be available, but concealed within the new structure of pathways and lawns.

A key linchpin to the new pedestrian mall will be the intersection of University Avenue and S Church Street. A new energy should be focused on this crossroads building upon the existing University Avenue lawn and capturing the flow of the existing President's Walk around the Academic quad. With the removal of vehicular traffic from this area, expanded lawns, plaza space and seating areas can capture and support significant campus activity and daily use of the University, students, and community.

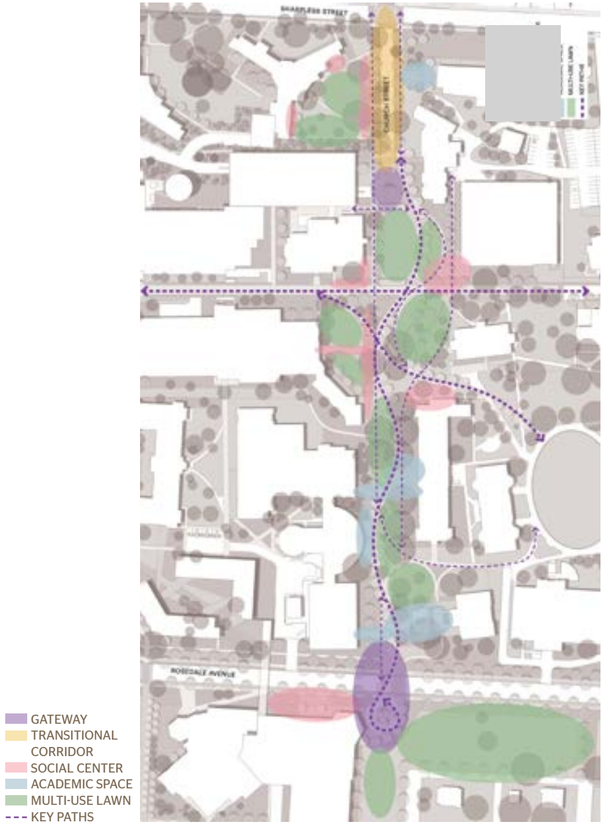








Example Landscapes for Consideration







Church St & University Ave Landscape Plan


SHARPLESS ST
S NEW ST

## DISTRICT B PROJECTS
### NORTH CAMPUS HOUSING & SUPPORT

### 0-5 YEARS
1. Lawrence Hall - Demo & Build New Housing
2. Existing Geothermal Deferred Maintenance

### 6-10 YEARS
3. Tyson Hall - Full Reno w/ Addition
4. Goshen Hall - Full Reno w/ Addition

### 10+ YEARS
5. Killinger Hall - Demo & Build New Housing
6. Schmidt Hall - Full Reno w/ New Entry Addition




North Campus

## LAWRENCE HALL

Demolition of the existing Lawrence Center and construction of new Lawrence Hall as part of a multi-year initiative to improve and increase the number of WCU-managed beds on campus. Prior to demolition, various Student Services and Support Programs will be decanted to temporary or permanent locations.

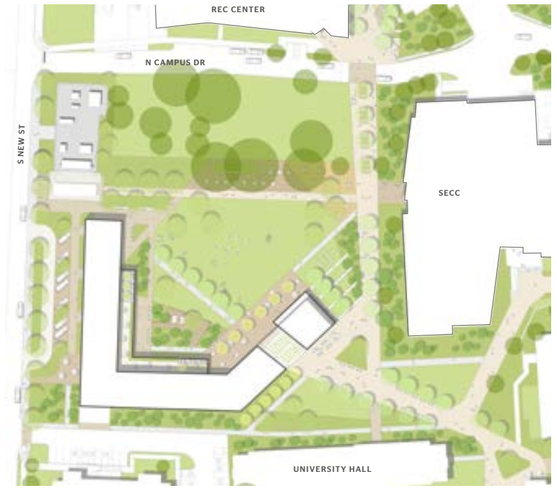
The first floor of the new Lawrence Hall will accommodate a variety of student-facing programs and services, including dining or cafe. The upper floors of the building are residential units. The new structure is positioned to take advantage of the existing open space known as Plum Run and will provide additional programmable open space for passive recreation, thus creating a new residential quad, bounded by Lawrence Hall, the SECC and the Student Recreation Center.

The existing landscape is characterized by significant topographic movement with the southeastern area near Hollinger Fieldhouse and University Hall sitting significantly higher than the northwestern corner of the site at the intersection of New Street and North Campus Drive at the interface of the Plum Run Creek corridor.

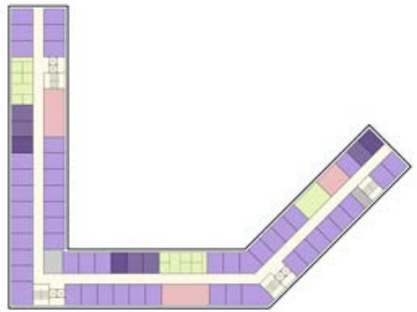
This new orientation supports focused transitions on grade allowing for a refocused plaza at Hollinger Fieldhouse and University Hall to support improved circulation through campus. The building's western face will also allow for a distillation of vehicular circulation and the creation of a dedicated bus stop and parking off of S New Street. Students will now be able to enter campus with clarity as to where they want to go and without concern of dodging car traffic.

The landscape takes cues from and reinforces the existing campus forest canopy and historic Plum Run creek. A mix of canopy and understory trees are intended to build upon the existing character while immersing students in a safe and ecologically friendly environment.





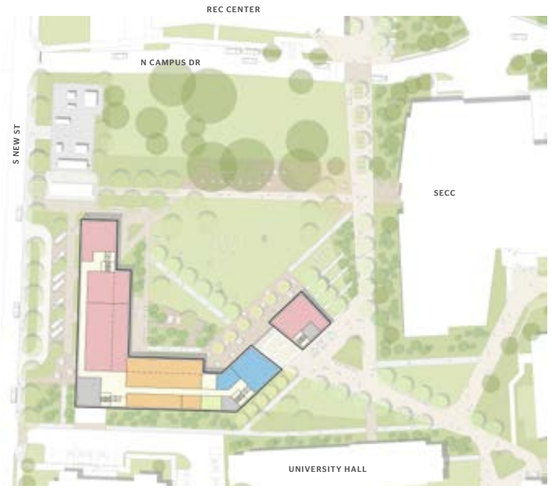

Site Plan



Typical Floor Plan

**PROGRAM KEY**

- ACADEMIC SUPPORT
- AMENITY
- BED - ADA SINGLE
- BED - DOUBLE
- BED - RA
- BUILDING SUPPORT
- CIRCULATION
- STUDENT AFFAIRS
- STUDENT SUPPORT
- TOILET ROOMS




Ground Floor Plan

### KEY ATTRIBUTES

- Relocated bus stop
- Improved programmable outdoor space
- Direct campus connection

### HOUSING METRICS

- 6-8 Stories
- 700-780 Bed Capacity
- Student Amenity (+/- 28 sf/student)
- Res Life support
- Live Learn Community Opportunity
- Building Support
- Dining Amenity

## TYSON & GOSHEN HALLS

Multi-year phased renovation and upgrade of the existing buildings will improve parity with newer campus housing by rebalancing (reducing) the total number of beds per floor to provide a better quality of space for students. Building system and exterior façade upgrades are envisioned, along with strategic, modest additions to the central core of each building to improve functionality. Modifications to the loading service area at Goshen Hall are also recommended to reduce circulation clashes and improve the open space between the two Halls.

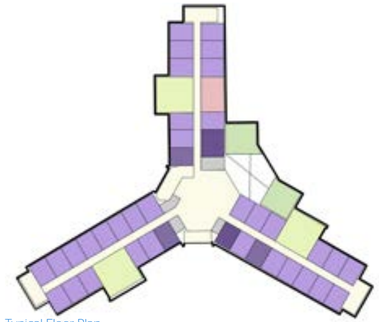
Tyson and Goshen Halls are located adjacent to residential neighborhoods to the north amongst a significant existing campus forest canopy, and have access to key amenities at the Student Recreation Center and Commons. The proposed landscape intends to build upon these key programming conditions.

To the west, active recreation is reinterpreted to enhance use and connectivity with the recreation center. Between Tyson and Goshen Halls, residential focused programming builds upon and connects to the interior design while immersing students in the ecological history of Plum Run Creek and the existing tree canopies. The circulation pulls students from the recreation run corridor at Lawrence Hall and SECC through Tyson and Goshen Halls, further separating pedestrians from vehicles and back of house use in this area.

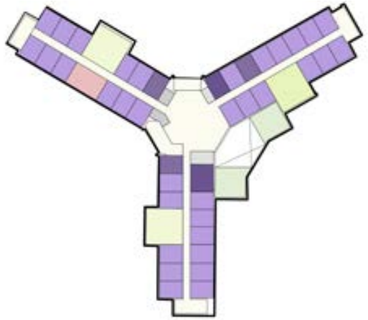





Site Plan



Typical Floor Plan



PROGRAM KEY
- ACADEMIC SUPPORT
- AMENITY
- BED - ADA SINGLE
- BED - DOUBLE
- BED - RA
- BUILDING SUPPORT
- CIRCULATION
- STUDENT AFFAIRS
- STUDENT SUPPORT
- TOILET ROOMS




Ground Floor Plan

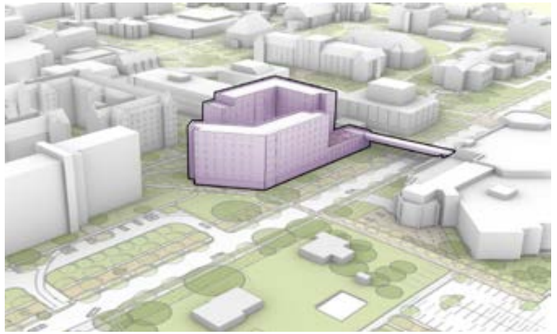
### KEY ATTRIBUTES
- Improved service & pedestrian access
- Improved programmable exterior space
- Live Learn Community Opportunity with Addition

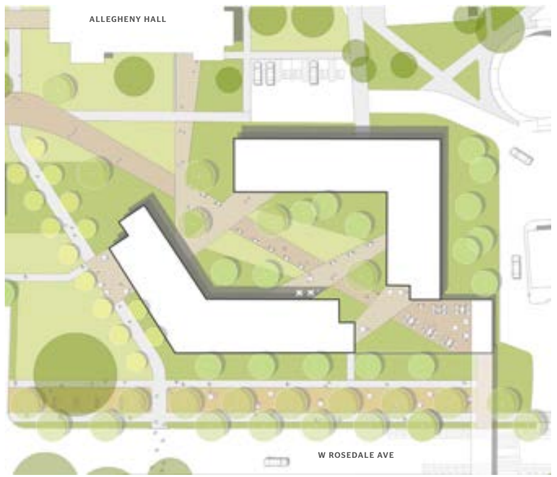
### HOUSING METRICS
- 7 Stories
- 420-445 Bed Capacity
- Student Amenity (+/- 25 sf/student)
- Res Life support
- Improved Building Support

## KILLINGER HALL

The existing older residence hall does not meet current expectations for residential life. Additionally, it does not take full advantage of the allowable height and density within the superblock. Similar to the objectives of a new Lawrence Hall, a re-envisioned Killinger Hall will significantly increase bed capacity and create opportunities for socialization space, program space, in addition to beds. Positioned along W Rosedale Avenue, a new Killinger Hall could potentially include a pedestrian bridge connecting to Sykes Student Union, across Rosedale, improving safety and creating greater campus synergies for full time and commuter students.

Killinger Hall's position at a nexus between the community lots, Sykes Student Union and amenities in the northern core of the campus will allow for programmatic variety of landscape spaces to support students and the school community.





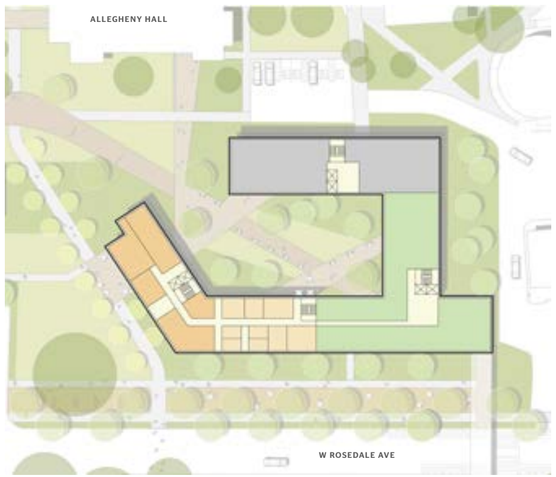

Site Plan



Typical Floor Plan

**PROGRAM KEY**

- ACADEMIC SUPPORT
- AMENITY
- BED - ADA SINGLE
- BED - DOUBLE
- BED - RA
- BUILDING SUPPORT
- CIRCULATION
- STUDENT AFFAIRS
- STUDENT SUPPORT
- TOILET ROOMS




Ground Floor Plan

### KEY ATTRIBUTES

- Bridge connection to Sykes Student Union
- Live Learn Community Opportunity
- Elevated exterior program opportunity
- Create campus gateway

### HOUSING METRICS

- 6-8 stories
- 545-585 Bed Capacity
- Student Amenity (+/- 30 sf/student)
- Res Life Support
- Building Support

## SCHMIDT HALL

Due to the existing building's location, prominently sited at the corner of S New Street and W Rosedale Avenue, a building addition is recommended to reinforce this corner as a campus gateway and to provide the necessary space to increase amenity offerings. The basement level should also be expanded to create opportunities for daylight access to basement programs.

At the ground level, a lobby expansion affords the opportunity to resolve accessibility issues, as well create a more welcoming and secure entry lobby commons. Renovations to the existing building include overall interior upgrades such as lighting, signage, building systems and security, as well as exterior improvements.

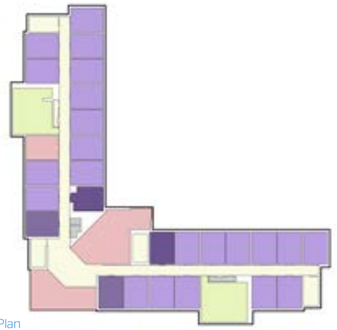
The improved landscape removes the parking in front of Schmidt Hall and refocuses the building's main entrance to the streetscape. A path connects the courtyard to a plaza that sits at the intersection of the two streets, creating a transition zone and arrival moment for students. The landscape vision proposes an art installation that sits at the center of this plaza, further enhancing the sense of prominence and arrival.

At the rear side of Schmidt Hall, another courtyard space is introduced, mirroring the experience at the entry and providing a secondary area for students with more privacy. Existing trees are preserved, and flexible lawns border the pathways and building, offering spaces for recreation and relaxation.






Site Plan



Typical Floor Plan

**PROGRAM KEY**

- ACADEMIC SUPPORT
- AMENITY
- BED - ADA SINGLE
- BED - DOUBLE
- BED - RA
- BUILDING SUPPORT
- CIRCULATION
- STUDENT AFFAIRS
- STUDENT SUPPORT
- TOILET ROOMS




Ground Floor Plan

### KEY ATTRIBUTES

- Improve accessibility
- Improve programmable exterior space

### HOUSING METRICS

- 8 stories
- 3720-400 Bed Capacity
- Student Amenity (+/- 26 sf/student)
- Res Life Support
- Building Support

## DISTRICT C PROJECTS
### NORTH CAMPUS STUDENT SERVICES & SUPPORT

### 0-5 YEARS
1. Sykes Expansion - Student Services & Welcome Center
2. Rosedale Ave Improvements
3. Existing Geothermal Deferred Maintenance

### 6-10 YEARS
4. Future Open Space (Across S Church St)

### 10+ YEARS
5. Sykes Student Union Parking Deck
6. Recreation Improvements (Corner of W Rosedale Ave & S New St)




North Campus

## SYKES STUDENT UNION EXPANSION

Sykes Student Union serves the WCU community and is an important destination for commuter students and full-time students. The existing building is at capacity and would benefit from increased space for dining, bookstore, office space for student organizations and multi-purpose space for large events and lectures.

### WELCOME CENTER

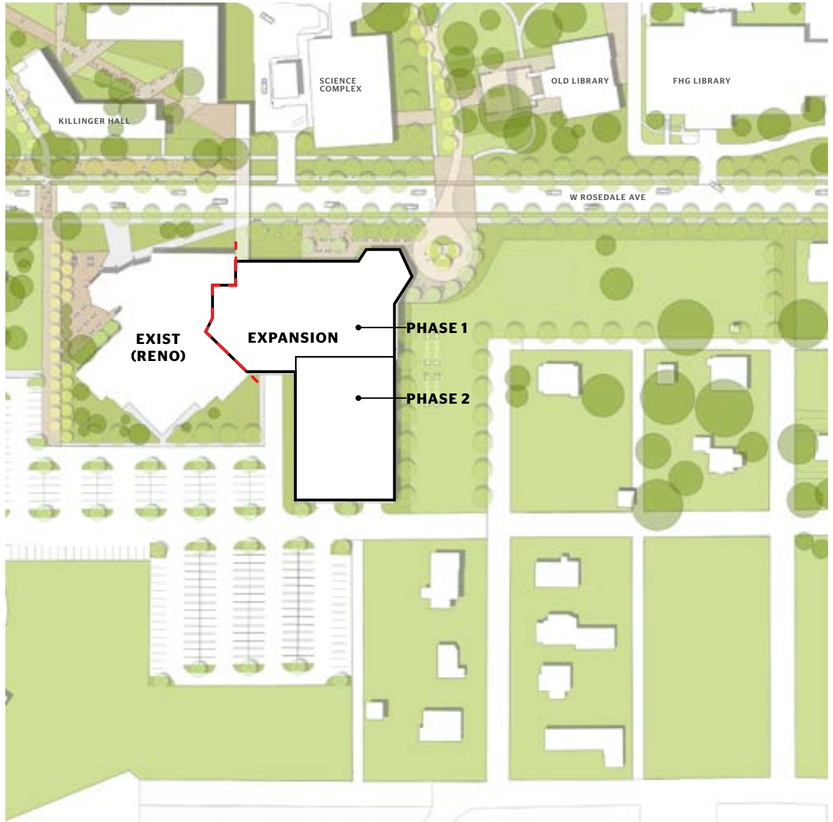
As part of the Sykes Student Union expansion, a new Welcome Center is recommended to be positioned directly east of Sykes in order to share core functions, access to dining, restrooms, and multi-use meeting space. The Welcome Center program would contain gathering and presentation rooms, as well as offices and support space for Admissions.

### WELCOME CENTER PLAZA

The front door of the Welcome Center can be situated across from Church Street, along Rosedale Avenue, with the potential to create a new plaza or courtyard for tour groups to gather. This new exterior space is ideally located at the foot of Church Street and serves as a new gateway to the campus. One or more of the existing houses that are slated for demolition could also be an opportunity to create a new programmable open space across Church Street that is accessible and visible.

### FUTURE PARKING DECK

A multi-level parking garage is positioned behind the Welcome Center and can be built in the future, providing direct access to both the Welcome Center and the proposed new Welcome Center Plaza.



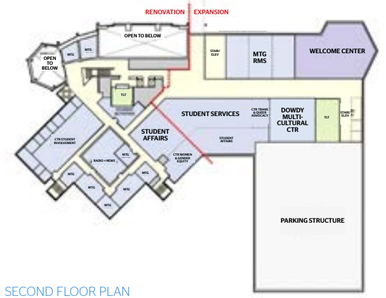

Site Plan



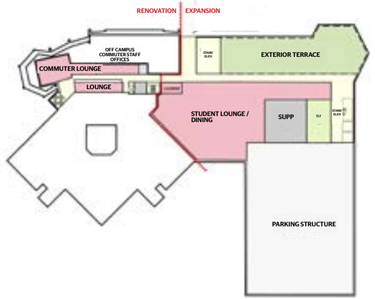

GROUND FLOOR




FIRST FLOOR PLAN




SECOND FLOOR PLAN




THIRD FLOOR PLAN

## S NEW ST & W ROSEDALE AVE RECREATION AREA

The S New St. & W Rosedale Ave Recreation area is designed as a dynamic hub for outdoor sports and recreation, featuring a series of flexible sports courts that cater to a variety of activities. The courts are integrated into a richly planted landscape, providing a visually appealing and calming environment that fosters focus and engagement. Surrounding this active space, thoughtful landscape design helps to screen the adjacent parking lot and busy street, creating a more peaceful and immersive setting for students. This separation from the distractions of traffic and parking enhances the experience, allowing students to concentrate fully on their training or play. The landscape not only supports the recreational needs of the campus but also contributes to the overall sense of community and well-being.




New Recreation Area at corner of S New St & W Rosedale Ave







## GEOTHERMAL SYSTEM

Ongoing maintenance and improvement to the capacity of the existing geothermal system is recommended as part of the overall Buildings & Grounds deferred maintenance program. The existing sytem appears to be operating beyond capacity (thus inefficiently) and in need of immediate improvements and expansion. Repair of existing sysgtems and previously identified well field expansion(s) should be implemented.



## ROSEDALE AVENUE IMPROVEMENTS

Rosedale Avenue is a significant edge of West Chester University's North campus because it is anchored by two existing gateways at S High Street and S New Street. Both of these intersections are vital to the university experience as the intersection of High Street is a significant link to the region connecting the core of West Chester Borough to the US 202 corridor. S New Street is the primary physical thoroughfare connection between South and North Campus.

Between these gateways, the streetscape is varied with great assets in large street trees near Killinger Hall and Sykes Student Union, but also fraught with numerous curb cuts and limited safe pedestrian crossing opportunities, creating a lack of cohesiveness. Limited sidewalk capacity exacerbates the unfriendly conditions for pedestrians.

The Rosedale corridor is envisioned as two separate character zones along North Campus with the S Church Street intersection serving as the transition. Heading west from S Church Street to S New Street, the streetscape should redefine its focus to pedestrians leveraging its adjacency to Schmidt, Wayne and Killinger Halls. The relocation of existing parking at Schmidt Hall to Wayne Hall will open the corner of S New Street and W Rosedale Avenue to becoming a more welcoming gateway to campus. In addition, the reductions of curb cuts, the campus edge along Rosedale Avenue should be reconfigured to enlarge the planting street for street tree replanting and a widened sidewalk to support better pedestrian flow. Reducing the lawn areas will also be key and these spaces should be leveraged for supplemental flex programming and seating.

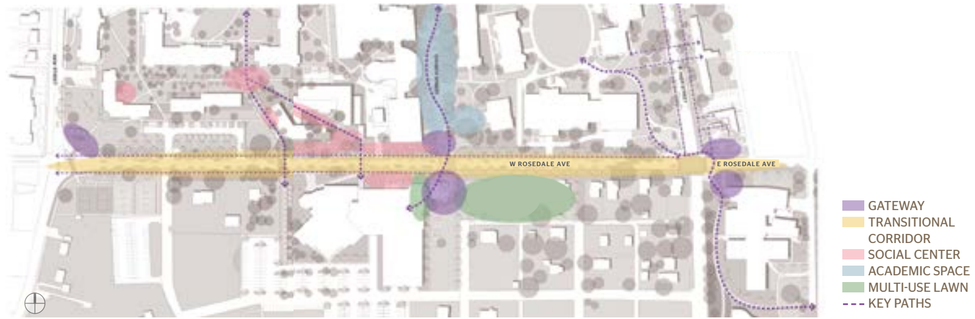
Pedestrian safety at key crosswalks, such as those at Killinger Hall and Sykes Student Union, can be improved by adding traffic calming measures including raising the crosswalk to curb height. At the S Church Street intersection, a new, significant plaza is suggested, linking the entry to the proposed Welcome Center with Church Street Walk and the iconic Old Library with the Ram Statue.

With S Church Street and the Old Library serving as the transition to the Eastern Segment of Rosedale, the emphasis should be on reducing the presence of parking at the back of FHG Library fronting and building upon the existing Gateway at S High Street. A focus should be on density of planting along this edge and building upon the street tree forest canopy to the East. Tactful use of paving materials should highlight crosswalks and curb cuts while blending the plaza into the streetscape.

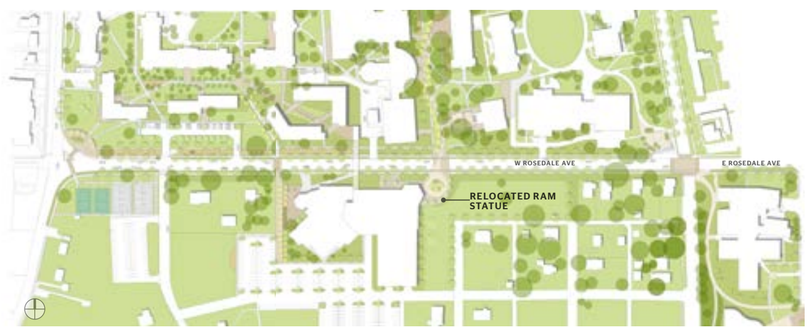




Example Landscape Opportunities for Consideration




Rosedale Ave - Landscape Programmatic Framework




Rosedale Ave Improvements Site Plan

## DISTRICT D PROJECTS
### EAST CAMPUS ACADEMIC & SUPPORT

### 0-5 YEARS
1. Temporary Housing
2. Removal of Temporary Housing & Reinstate M1 Lot as Parking

### 6-10 YEARS

### 10+ YEARS
3. E.O. Bull Center for the Arts Addition & Landscape improvements
4. Planning Study for Tanglewood Residence & Grounds (Highest and Best Use of Property)
5. President's Walk Extension (Landscape)

### CAMPUS SUPPORT PROJECTS*
*Campus Support Projects can be implemented at any time
- 210 & 220 East Rosedale
- Maintenance Garage
- 201 Carter Utilization
- 204 Carter vacant
- Alumni & Foundation Center
- 887 Matlack – relocate public safety




North Campus

## TEMPORARY HOUSING

The University elected to implement a plan to provide 128 beds in a temporary modular configuration at the site identified as Lot M-1 (former parking area). The provision of these modular units are not "additional" beds for the University's total bed count but are intended as swing space to allow the University to take existing beds off-line for deferred maintenance and renovation work that cannot be achieved over the course of a summer term.




Temporary Housing Plan

## E.O. BULL EXPANSION & LANDSCAPE IMPROVEMENTS

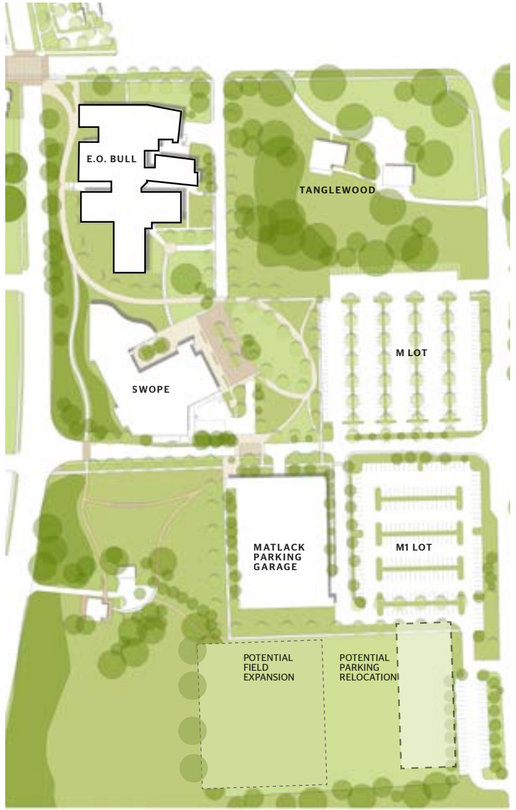
Landscape, streetscape, lighting and signage upgrades are anticipated for the Arts & Music Buildings. Interior renovations, accessibility and building system upgrades are included in the overall deferred maintenance program. There is also potential to expand the footprint of E.O. Bull along Rosedale Avenue to provide increased studio and event space.

## PLANNING STUDY FOR PRESIDENT'S WALK AND TANGLEWOOD RESIDENCE & GROUNDS

This plan shows President's Walk redesigned to function as a prominent connector for students and visitors arriving at E.O Bull Center and the Swope Music Building.

The new plaza is an expansion of the existing entry to Swope and establishes a more prominent gateway to the campus. The area will include water features, flexible seating areas, and tree groves that can host various groups of people and program. To accommodate the new plaza, a portion of the M Lot could be relocated south of M1 Lot with some minor adjustments to the boundaries of the existing field.

A more focused programming study to understand the issues and potential for these spaces is recommended as part of the master plan.




East Campus Site Plan

## DISTRICT E PROJECTS
### SOUTH CAMPUS HOUSING & SUPPORT

### 0-5 YEARS
1. South Campus Apartments Renovation & Vertical Expansion

### 6-10 YEARS
2. New South Campus Commons Building
2A. Alternate Location for Commons Building
3. South Campus Gateway Connection to Sturzebecker and Athletic Fields

### 10+ YEARS




South Campus

## RENOVATION & ADDITION TO EXISTING STUDENT HOUSING

South Campus Apartments need complete renovation to achieve parity with USH-managed beds. As part of the renovation strategy, it is possible to increase the bed-count if another floor is added to each of the buildings. In addition, it is recommended to completely renovate the systems and finishes of each building.

## GLEN ECHO SITE

The large tract of land, known as the Glen Echo site, is situated between the student apartments and the neighborhood. By increasing the bed-count through the multi-year renovations to South Campus Apartments, the Glen Echo site is recommended to remain an open recreational field, as a buffer to the neighborhood.






Site Plan

### KEY ATTRIBUTES

- Complete renovation of all building systems & finishes
- Addition of full story (3rd floor to each building to add 4 units = 20 beds per building)
- Phased over 6 years

### HOUSING METRICS

- 11 Buildings Wood Framed Construction
- 7 Buildings 3 1/2 Story
- 4 Buildings 3 Story
- 719 Beds Total (220 New Apartment Style Beds)



## NEW COMMUNITY BUILDING

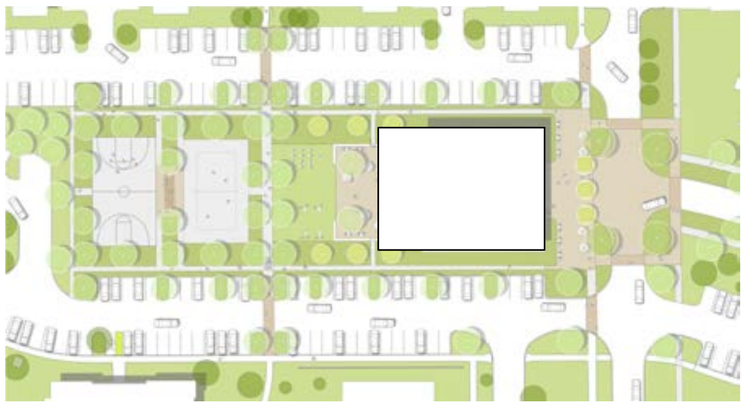
The existing Southside building at the edge of the Glen Echo site can be renovated and expanded to serve anticipated increased population on South Campus. This location, however, is not as well integrated with the new entry drive and pathway connecting to Sturzebecker Health Sciences Center.

Alternatively, a new Commons Building with dining, multi-purpose rooms and event space can be located within the existing surface parking lot between the South Campus Apartments and the Village Apartments.

This shared-use building can be programmed to offer dining options that align with athletic and training programs and help to create a sense of community for the South Campus.

There is also an opportunity to consider underutilized facilities, such as the McCoy Farm House & McCoy Barn, to better serve South Campus' community needs.



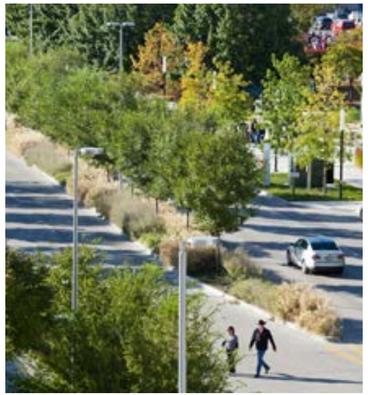



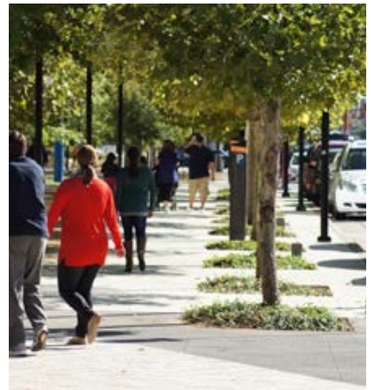
Site Plan

## NEW GATEWAY CONNECTION

Currently both the Sturzebecker Health Science Center, Ferrell Stadium with associated athletic facilities and South Campus apartments lack defined entrances highlighting their prominence and connection to West Chester University's North campus. With the realignment of the athletics entrance and a new central entry drive to the apartments, the four-way intersection will create a new sense of hierarchy and sense of place for the South campus through improved streetscape, pathway design, lighting and signage.

The new entry drive and pathway connecting Sturzebecker with the residential zone, is anchored by the proposed new Community Building, which is situated at the end of the roadway.







Site Plan

## DISTRICT F PROJECTS
### SOUTH CAMPUS ATHLETICS & SUPPORT

### 0-5 YEARS
1. Sturzebecker Renovation

### 6-10 YEARS
2. Farrell Stadium Improvements
3. Athletic field amenities (restrooms, concessions, etc)

### 10+ YEARS
4. Gordon Preserve Trail Connections
5. New St. Multi-modal Transportation




South Campus

## STURZEBECKER RENOVATION

The renovation of Sturzebecker is ongoing and scheduled for completion by year 2029.

## FARRELL STADIUM IMPROVEMENTS

Long-term recommendations include renovation and technology upgrades to the press box, as well as related projects that are part of the ongoing deferred maintenance program.

## ATHLETIC FIELD AMENITIES

Ongoing care and maintenance of the athletic fields as part of the deferred maintenance program.

## GORDON NATURAL PRESERVE

The Master Plan aims to improve existing walking connectivity to the Gordon Preserve and to better tie into the adjacent residential community. Through a network of paths and a resilient planting palette, this landscape design aims to strengthen the community's relationship to the Preserve while also protecting its ecosystems and habitats.

## S NEW STREET MULTI-MODAL TRANSPORTATION

Adding a bike lane along S New Street to improve safety and connections between North and South campus is recommended. Note that this would require collaboration and input between WCU and the surrounding community.



Sturzebecker Health Science Center



Farrell Stadium



Gordon Natural Preserve



Proposed bike lane along S New St Lined with Flexible Bollards for Safety



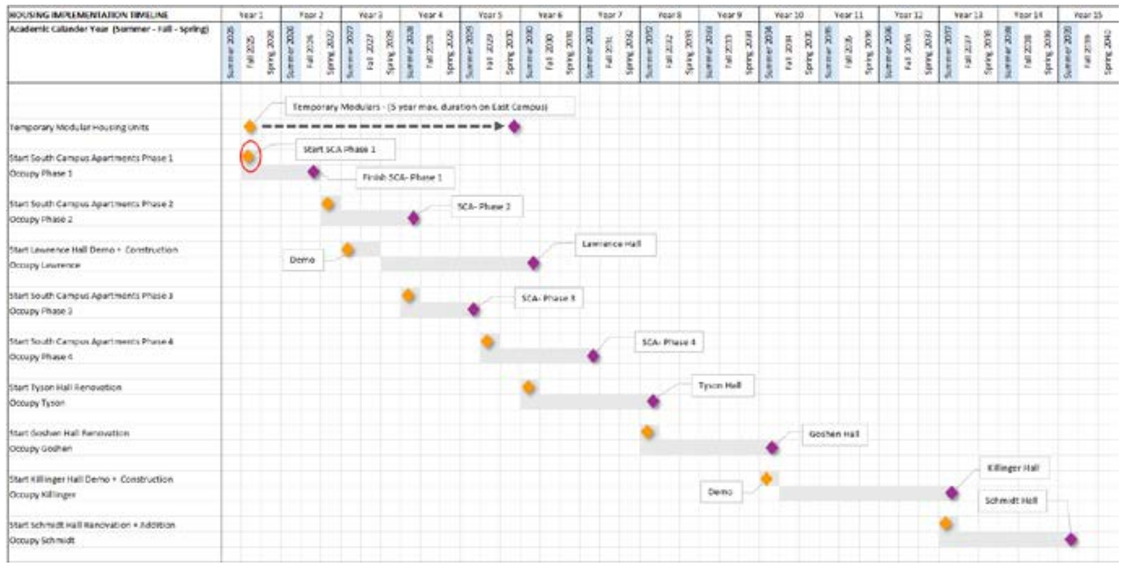
# SECTION 06.
# IMPLEMENTATION STRATEGY

# A. TIMELINE

## OVERVIEW

Construction and renovation timelines for student housing expansion projects are the primary determinants for overall master plan project implementation. The chart below indicates the strategy to increase the number of beds on camp over the next decade.

The following sequencing of recommended projects outlined in the master plan can be subject to the availability of funding, changes to project priorities or other factors that impact the development of projects.




Housing Implementation Timeline

**2025 – 2030 | 0-5 YEARS**

- College Arms Apartments Renovation
- Science Center Complex Renovation
- Old Library Renovation
- FHG Library Renovation
- Lawrence Hall – Demo & Build New Housing
- Existing Geothermal Deferred Maintenance
- Sykes Student Union Expansion (Student Services, Dining, & Welcome Center)
- Rosedale Ave Improvements
- Temporary Housing
- Removal of temporary housing & reinstate M1 Lot as parking
- South Campus Apartments – Full Reno w/Vertical Expansion
- Improve or Build New South Campus Commons Building (location to be determined)
- Renovate Sturzebecker

**2031 – 2035 | 6-10 YEARS**

- S Church Street & University Ave Improvements
- Tyson Hall – Full Reno w/ Addition
- Goshen Hall – Full Reno w/ Addition
- Future Open Space (Across Church St)
- South Campus Gateway connection to Sturzebecker and athletic fields
- Farrell Stadium Improvements
- Athletic field amenities (restrooms, concessions, etc)

**2035 | 10+ YEARS**

- Land acquisition to complete "superblock" (Corner of Sharpless & S High St)
- Killinger Hall – Demo & Build New Housing
- Schmidt Hall – Full Reno w/ New Entry Addition
- Sykes Student Union Parking Deck
- Recreation Improvements (corner of W Rosedale Ave & S New St)
- EO Bull Center for the Arts Expansion & Landscape Improvements
- Planning Study for Tanglewood Residence & Grounds (highest and best use of property)
- President's Walk Extension (Landscape)
- Gordon Preserve Trail Connections
- S New St Multi-Modal Transportation

CMP Project Implementation Timeline

*The following campus support projects which are not included in the above timeline can be implemented at any time

- 210 & 220 East Rosedale
- Maintenance Garage
- 201 Carter Utilization
- 204 Carter vacant
- Alumni & Foundation Center
- 887 Matlack – relocate public safety

## PROJECT SEQUENCING (0-5 YEARS)

1. South Campus Apartments, with the intent for all beds to be online within 6 years. During the last year, temporary housing can be taken down and areas returned to use as surface parking.
2. South Campus Commons (alternate location 2A)
3. Sturzebecker Renovation
4. New Lawrence Hall, including decanting existing Lawrence Center programs, new beds, student support services, café and recreational space.
5. Science Center Complex Renovation
6. Old Library Renovation
7. FHG Library Renovation
8. College Arms Apartments Renovation
9. Existing geothermal deferred maintenance
10. Rosedale Avenue Gateway and improvements including traffic calming at pedestrian crossings, landscape, signage, and a new signal at intersection of W Rosedale and S New Street.
11. Renovation and expansion of Sykes Student Union to include included Dining, Student Support, Welcome Center and Admissions.
12. Temporary Housing
13. Remove temporary housing & reinstate M1 Lot as parking

### CAMPUS SUPPORT PROJECTS*

*Campus support projects can be implemented at any time

- 210 & 220 East Rosedale
- Maintenance Garage
- 201 Carter Utilization
- 204 Carter vacant
- Alumni & Foundation Center
- 887 Matlack – relocate public safety




South Campus




North Campus

## PROJECT SEQUENCING (6-10 YEARS)

1. South Campus Gateway, including connecting paths linking the proposed Commons Building to Sturzebecker Health Sciences Center and athletic fields.
2. Farrell Stadium Improvements.
3. Athletic Field Amenities.
4. Tyson Hall Renovation w/ Addition.
5. Goshen Hall Renovation w/ Addition.
6. S Church Street & University Ave Improvements, including conversion to pedestrian way.
7. Future Open Space adjacent to the new Welcome Center Plaza along Rosedale Avenue.




South Campus




North Campus

## PROJECT SEQUENCING (10+ YEARS)

1. S New Street Multi-modal campus connector (bike lane & signage).
2. Trail connections at Gordon Environmental Center.
3. Schmidt Hall Full Renovation & New Entry Addition
4. Recreation Improvements at the corner of S New Street and W Rosedale Avenue.
5. Demolition of existing Killinger Hall and construction of new Killinger Hall for housing.
6. Construct multi-level Parking Garage behind Sykes Student Union.
7. Land Acquisition for properties at the corner of Sharpless and High Streets.
8. President's Walk Extension (Landscape)
9. E.O. Bull Center for the Arts Expansion & Landscape Improvements.
10. Planning study for President's Walk and Tanglewood Residence & Grounds.




South Campus




North Campus




WCU
WEST CHESTER
UNIVERSITY

EWING
COLE

OJB

CVE ChesterValley
ENGINEERS

TPD

PORTER Khouw Consulting
Foodservice Planning & Design
Social Architecture

BECKER & FRONDORF
project management + cost estimating

pfm

WATCHDOG
REAL ESTATE PROJECT MANAGEMENT



**Final Report**

JANUARY 7, 2025 (REVISED)

# Student Housing Study

## West Chester University


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# EXECUTIVE SUMMARY

MGT Consulting (MGT) was engaged to conduct a student housing study for West Chester University. This project started in September 2024 with a kick-off call to discuss project parameters. The project was designed to identify demand for additional student housing on or near WCU's West Chester campus. The analysis includes a survey and analysis of student preferences and the development of a demand estimate for student housing.

## Current State of University Housing

West Chester University is housing 5,289 students as of Fall 2024, with a total of 5,383 beds, resulting in an approximate 98% occupancy rate. This is an increase from Fall 2021, when 5,010 students lived in residence halls on campus. This represents a 2.5% increase in student housing. During this same timeframe, WCU experienced a slight enrollment decline from Fall 2020 to Fall 2024, losing 550 students, representing a 3.2% enrollment decline. The loss represents 286 graduate students and 264 undergraduate students.

## Stakeholder Engagement

MGT designed a student survey with input from West Chester University. The purpose of the survey was to collect information on students' current housing situation and information on desired unit types at estimated rents. WCU distributed the survey to 17,171 students enrolled in Fall 2024, and 2,131 students accessed the survey. After removing students under age 18, those who do not take classes primarily on the West Chester Campus, and those that did not answer questions beyond the demographic items, **1,959 valid responses were recorded**. The electronic survey was posted on October 2, 2024, and closed on October 21st. As an incentive to respond to the survey, six gift card prizes totaling $250 were awarded to randomly selected survey respondents. With 1,959 valid responses from a distribution of 17,171, the survey had an overall **11.4% response rate**.[1]

## Demand Analysis

MGT's demand methodology considers demand from students who live off campus. The methodology for calculating demand uses the responses to student survey questions asking if respondents would have lived in their preferred unit if it had been available at the start of the 2024–25 academic year.

The first step in calculating demand is to determine a capture rate for off-campus, full-time students using the following equation:

$$\text{Capture Rate} = \frac{\text{Number of Full-Time Off-Campus Respondents Definitely Interested in Housing}}{\text{Number of Full-time Off-campus Respondents}}$$

The capture rate reflects the percentage of respondents based on full-time enrollment status at two levels of interest (e.g., definitely interested, might be interested). A "closure" rate is

[1] MGT assumed that all students had equal access to the survey.

necessary to reflect that not all students who express interest in housing will sign a lease. For incremental demand, a 50% closure rate for those who indicated that they "definitely would have lived" in the housing and a 25% closure rate for those who indicated that they "might have lived" in the housing was used. The full-time enrollment is multiplied by the capture rate, and then the closure rate is applied to yield the demand range.[2] This demand is explicitly based on the description of the units that included the rental rates proposed for the housing. The West Chester survey analysis indicates demand for **2,386 additional beds**. See **Exhibit 13** for additional information.

[2] The level of response to the survey and the size of West Chester's off-campus, full-time enrollment results in a confidence interval in the results of plus or minus 6.0% at a 95% confidence level—the plus-or-minus figure seen in many survey or poll results, for example, if the confidence interval is 3.0% and 50% percent of the sample picks an answer; it is 95% certain that if the entire population had been asked the same question, between 47% (50%-3%) and 53% (50%+3%) would have picked that answer. MGT uses the midpoint of the range as an estimate of demand.

# Current State of University Housing

Student housing is very popular at West Chester University. Many students who wish to live on campus are currently unable because of the lack of available spaces. At WCU, housing is prioritized for first year students. Returning students (sophomore, juniors and seniors) must participate in a housing lottery to attempt to secure a housing space on campus. WCU managed housing has used a lottery for the last two years, our campus partner and other housing provider, University Student Housing (USH), will use a lottery for Fall 2025 and is expected to continue the process into the future. Both housing providers open the returning student application process in late October for the following academic year. WCU also offers an Off-Campus Housing Fair in late October.

## Total Number of Students Living On-Campus

West Chester University is housing 5,289 students as of Fall 2024, as shown in **Exhibit 1**. This is approximately a 98% occupancy rate and an increase from Fall 2021, when 5,010 students lived in residence halls on campus. Fall 2022 and Fall 2023 housed 71 and 70 students more, respectively, with 5,358 students living on campus in Fall 2022 and 5,359 students living on campus in Fall 2023.

*Exhibit 1. Total Number of Students Living On WCU Campus*

| Residence Hall | Fall 2021 | Fall 2022 | Fall 2023 | Fall 2024 |
|---|---|---|---|---|
| Allegheny Hall | 626 | 638 | 639 | 638 |
| Brandywine Hall | 612 | 624 | 625 | 626 |
| College Arms* | 77 | 92 | 92 | 33 |
| Commonwealth Hall | 642 | 659 | 660 | 654 |
| East Village | 264 | 264 | 264 | 263 |
| Goshen Hall | 468 | 539 | 545 | 536 |
| Killinger Hall | 285 | 304 | 296 | 304 |
| Schmidt Hall | 390 | 427 | 432 | 418 |
| South Campus Apartments | 416 | 478 | 476 | 487 |
| The Village | 518 | 524 | 524 | 522 |
| Tyson Hall | 449 | 544 | 542 | 543 |
| University Hall | 263 | 265 | 264 | 265 |
| **TOTALS** | **5,010** | **5,358** | **5,359** | **5,289** |

*College Arms bed off-line for renovation.

## Total Number of Residence Hall/Student Housing Beds Available On-Campus

West Chester University maintains 5,383 beds as of Fall 2024, as noted in **Exhibit 2**. This is an increase of 130 beds from Fall 2021 and represents a 2.5% increase in student housing. The increase is a result of 10 or fewer beds added in College Arms, Goshen Hall, Killinger Hall, Schmidt Hall, South Campus Apartments, and Tyson Hall. Allegheny Hall, Brandywine Hall, and Commonwealth Hall all experienced a decrease of eight or fewer beds, while East Village, The Village, and University Hall did not have any change in beds. Small changes in bed spaces are due to a variety of factors including, accommodations spaces, permanently offline beds, emergency housing, or small facility renovations that alter the availability of bed spaces.

*Exhibit 2. Designed Occupancy in WCU Housing*

| Residence Hall | Trendlines | Fall 2021 | Fall 2022 | Fall 2023 | Fall 2024 |
|---|---|---|---|---|---|
| Allegheny Hall | | 626 | 638 | 639 | 638 |
| Brandywine Hall | | 612 | 624 | 625 | 626 |
| College Arms | | 77 | 92 | 92 | 33 |
| Commonwealth Hall | | 642 | 659 | 660 | 654 |
| East Village | | 264 | 264 | 264 | 263 |
| Goshen Hall | | 468 | 539 | 545 | 536 |
| Killlinger Hall | | 285 | 304 | 296 | 304 |
| Schmidt Hall | | 390 | 427 | 432 | 418 |
| South Campus Apartments | | 416 | 478 | 476 | 487 |
| The Village | | 518 | 524 | 524 | 522 |
| Tyson Hall | | 449 | 544 | 542 | 543 |
| University Hall | | 263 | 265 | 264 | 265 |
| **TOTALS** | | **5010** | **5358** | **5359** | **5289** |

## Historical Enrollment Trends

WCU experienced a slight enrollment decline from Fall 2020 to Fall 2024, losing 550 students, representing 3.2% of the total enrollment. The loss represents 286 graduate students and 264 undergraduate students.

*Exhibit 3. Historical Enrollment Trends*

| | Graduate | Undergraduate | Total |
|---|---|---|---|
| Fall 2019 | 3,054 | 14,637 | 17,691 |
| Fall 2020 | 3,008 | 14,713 | 17,721 |
| Fall 2021 | 3,143 | 14,471 | 17,614 |
| Fall 2022 | 2,883 | 14,392 | 17,275 |
| Fall 2023 | 2,732 | 14,344 | 17,076 |
| Fall 2024 | 2,722 | 14,449 | 17,171 |

## Rental Registration Forms for Off-Campus Student Homes

WCU maintains a list of rental properties for off-campus student housing. The list, located in Appendix 1, includes 736 rental listings totaling 1,223 rooming units and 1,803 dwelling units.

# Stakeholder Engagement

MGT designed a student survey with input from West Chester University. The purpose of the survey was to collect information on students' current housing situation and information on desired unit types at estimated rents. WCU distributed the survey to 17,171 students enrolled in Fall 2024, and 2,131 students accessed the survey. After removing students under age 18, those who do not take classes primarily on the West Chester Campus, and those that did not answer questions beyond the demographic items, **1,959 valid responses were recorded**. The electronic survey was posted on October 2, 2024, and closed on October 21st. As an incentive to respond to the survey, six gift card prizes totaling $250 were awarded to randomly selected survey respondents. With 1,959 valid responses from a distribution of 17,171, the survey had an overall **11.4% response rate**.[3]

Survey responses were tabulated by living situation: students who live on campus and students who live off campus. The largest share of respondents were first-year students at WCU (37%), followed by sophomores (26%), juniors (21%) and seniors (10%). The overwhelming majority (97%) are currently enrolled full-time at WCU, as shown in **Exhibit 4.**

*Exhibit 4. Survey Respondent Class Level and Status.*

| Level | Count | Percentage |
|---|---|---|
| Freshman | 727 | 37% |
| Sophomore | 501 | 26% |
| Junior | 408 | 21% |
| Senior | 202 | 10% |
| Graduate student | 119 | 6% |
| Certificate-seeking student | 2 | 0% |
| **Status** | **Count** | **Percentage** |
| Full-time (undergraduate 12 or more credits, graduate students 6 or more credits) | 1,908 | 97% |
| Part-time | 51 | 3% |

The largest shares of students identify as female (74%), age 18-19 (57%), and reside in Pennsylvania (88%), as shown in **Exhibit 5.** Nearly three-quarters identify as White (73%) while 13% are Black/African American. Most are not responsible for housing a spouse/partner or children (95%).

[3] MGT assumed that all students had equal access to the survey.

*Exhibit 5. Survey Respondent Demographics.*

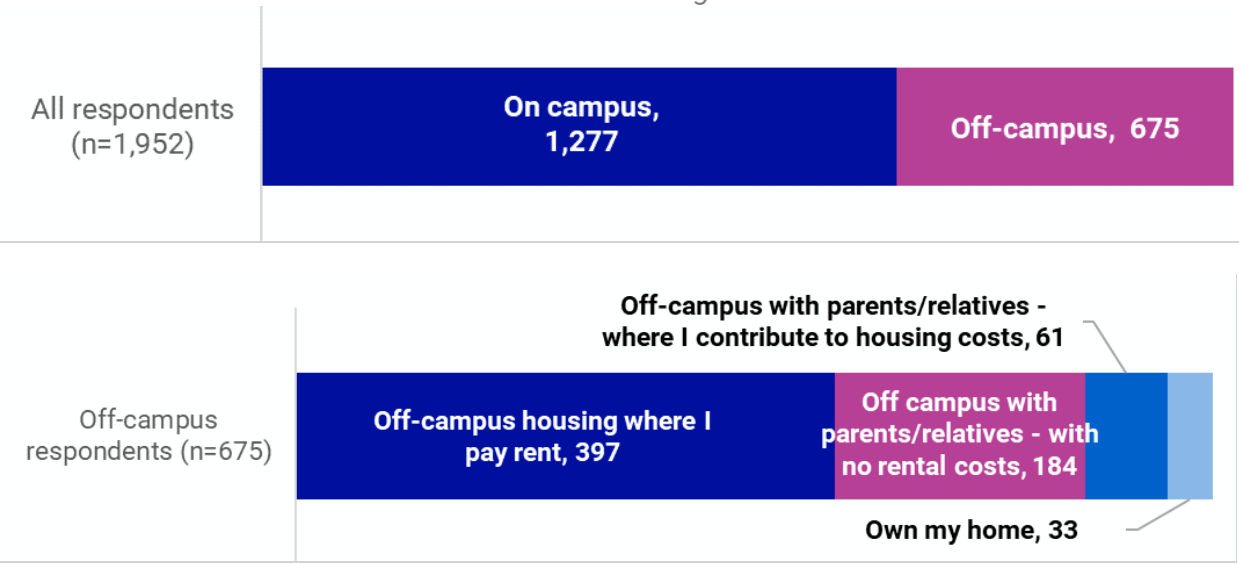
| Gender identity | Count | Percentage |
|---|---|---|
| Female | 1,441 | 74% |
| Male | 456 | 23% |
| Non-binary | 38 | 2% |
| Prefer not to answer | 18 | 1% |
| Other | 4 | 0% |
| **Age** | **Count** | **Percentage** |
| 18-19 | 1,109 | 57% |
| 20-22 | 683 | 35% |
| 23-24 | 87 | 4% |
| 25 or over | 78 | 4% |
| **Permanent address** | **Count** | **Percentage** |
| Pennsylvania | 1,715 | 88% |
| New Jersey | 147 | 8% |
| Delaware | 41 | 2% |
| Maryland | 17 | 1% |
| Elsewhere in the United States | 30 | 2% |
| Another Country | 6 | 0% |
| **Race/ethnicity** | **Count** | **Percentage** |
| Asian or Pacific Islander | 98 | 5% |
| Black/African-American | 267 | 13% |
| Hispanic | 144 | 7% |
| Native American or Alaska Native | 13 | 1% |
| White/Caucasian | 1,545 | 73% |
| Other | 18 | 1% |
| Prefer not to answer | 23 | 1% |
| **Responsibility for housing dependents** | **Count** | **Percentage** |
| Yes | 95 | 5% |
| No | 1,864 | 95% |

The survey instrument is provided in **Appendix 2** and compete response tabulations may be found in the **Addendum** to this report.

## Current Living Situation

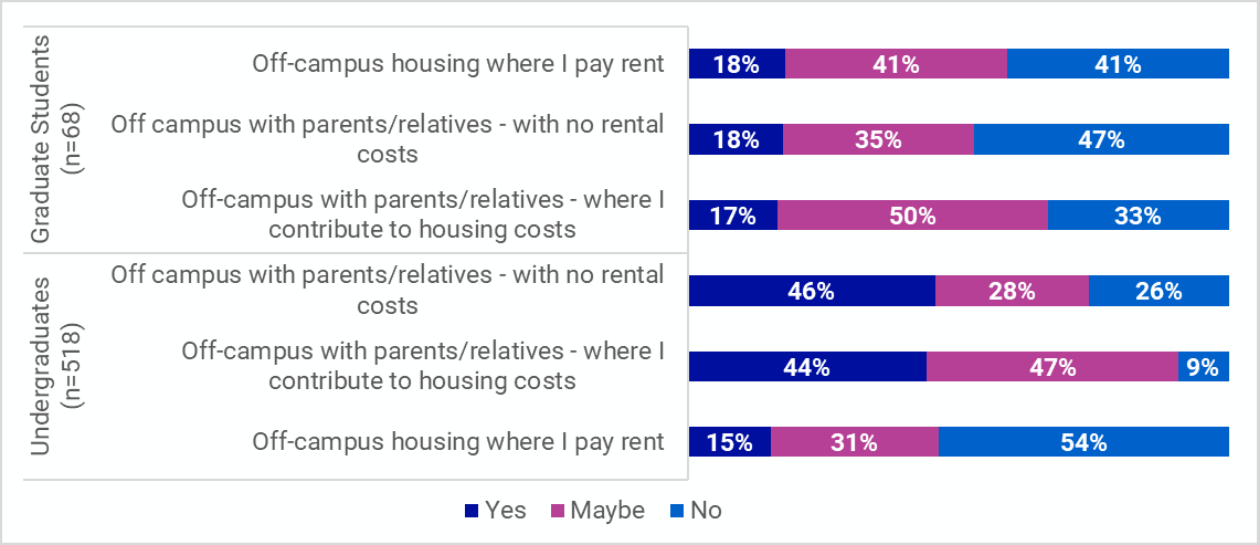
Nearly two-thirds of respondents (65%) report living on campus at the WCU, while 35% of respondents live off campus. Of those who live off campus, 59% live with live in off-campus rental housing, 27% live parents/relatives and have no rental costs, 9% live with parents/relatives and do contribute to housing costs, and while 8% own their own home. Breakdowns of all respondents and off campus students are shown in **Exhibit 6** with 'n' being the number of survey respondents for each category.

*Exhibit 6. Current Living Situation.*




The majority of full-time undergraduate student respondents (58%) and 59% of graduate students who indicate they live off-campus would consider living on campus in the future (among non-homeowners). The breakdown by living situation is shown below, with the strongest interest in campus housing coming from respondents who live with family and contribute to housing costs (91% of undergraduates and 67% of graduate students in this group indicate some level of interest), as shown in **Exhibit 7**.

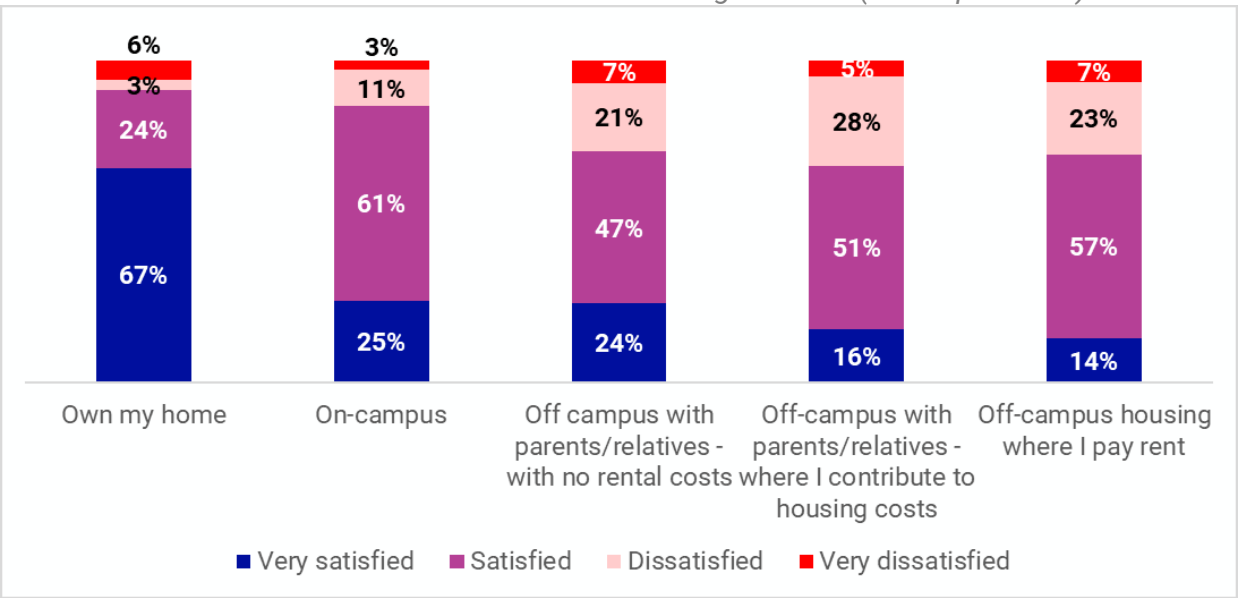
*Exhibit 7. Would consider living on campus?*




Respondents were asked about their satisfaction with their current housing situation. Of the 1,950 respondents to this question, 23% are very satisfied, 58% are satisfied, 15% are dissatisfied, and 4% are very dissatisfied. Those who own their own home typically express the greatest levels of satisfaction with their current living situation. Among non-homeowners, the highest shares of very satisfied respondents are those who live on campus (25%) or with family and have no rental costs (24%), followed by off-campus residents who live with family but contribute to housing costs (16%). The breakdown of satisfaction and current living situation is in **Exhibit 8**.

Those in campus housing are some of the most satisfied with their current living situation (86% very satisfied or satisfied).

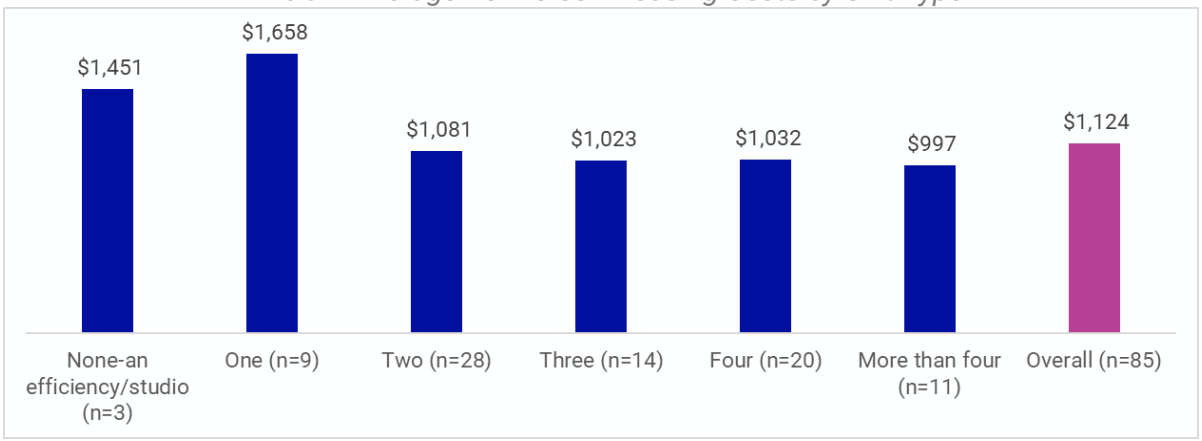
*Exhibit 8. Satisfaction Based on Current Living Situation (All Respondents).*




## Rental Housing Among Single Student Renters

Single student renters who do not share a bedroom pay an average of $1,124 per month in personal housing costs. Average personal housing costs rental rates by number of bedrooms are shown in **Exhibit 9**. More than one-third (40%) indicate that utilities are included in their monthly rent.

*Exhibit 9. Average Per Person Housing Costs by Unit Type.*

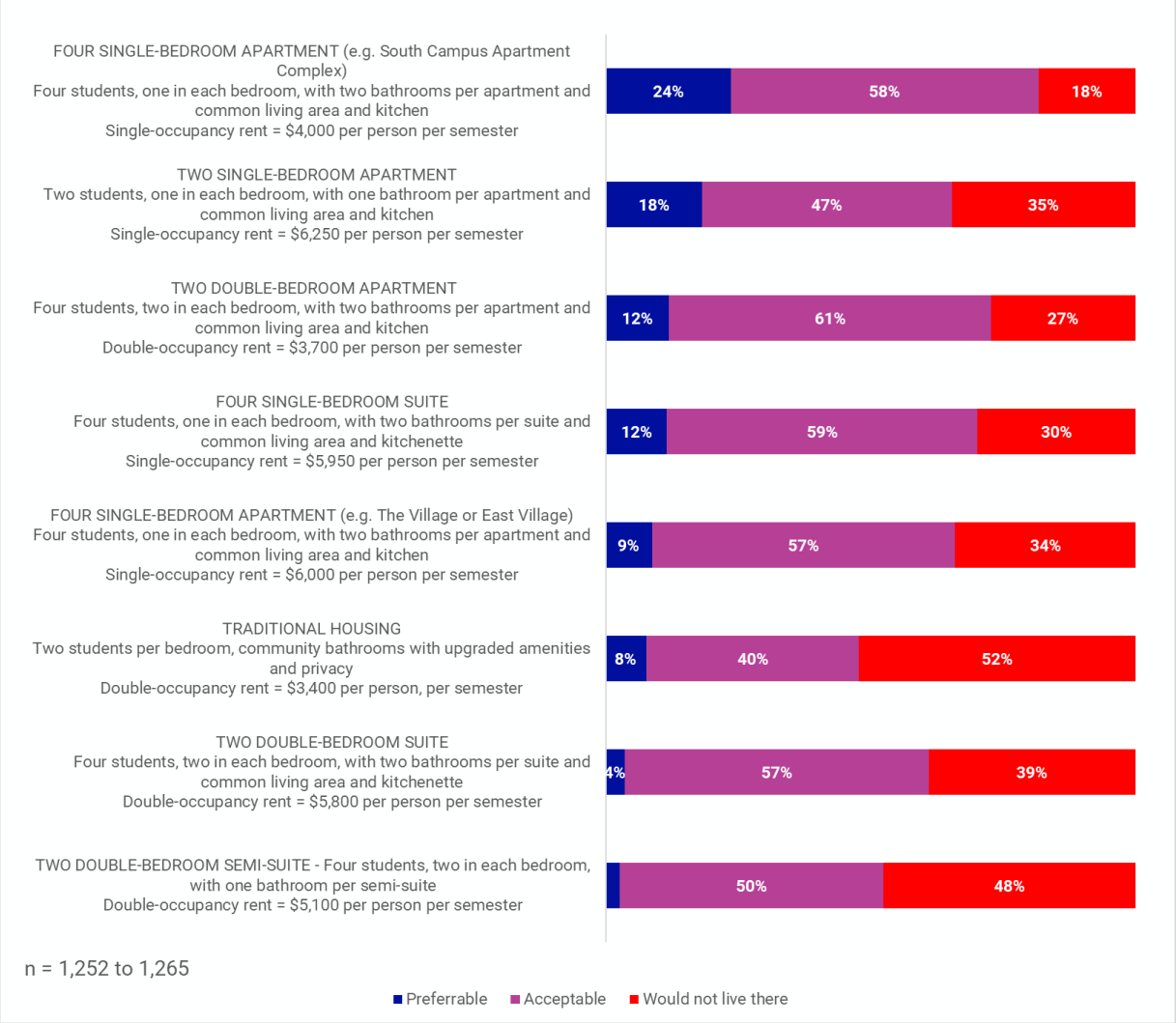



Of those that do pay separately for utilities, the cost of utilities for their unit averages $163 per month, including electricity, gas, basic cable, Internet, trash, and water/sewer).

## Interest in Housing by Type Among Single Student Renters

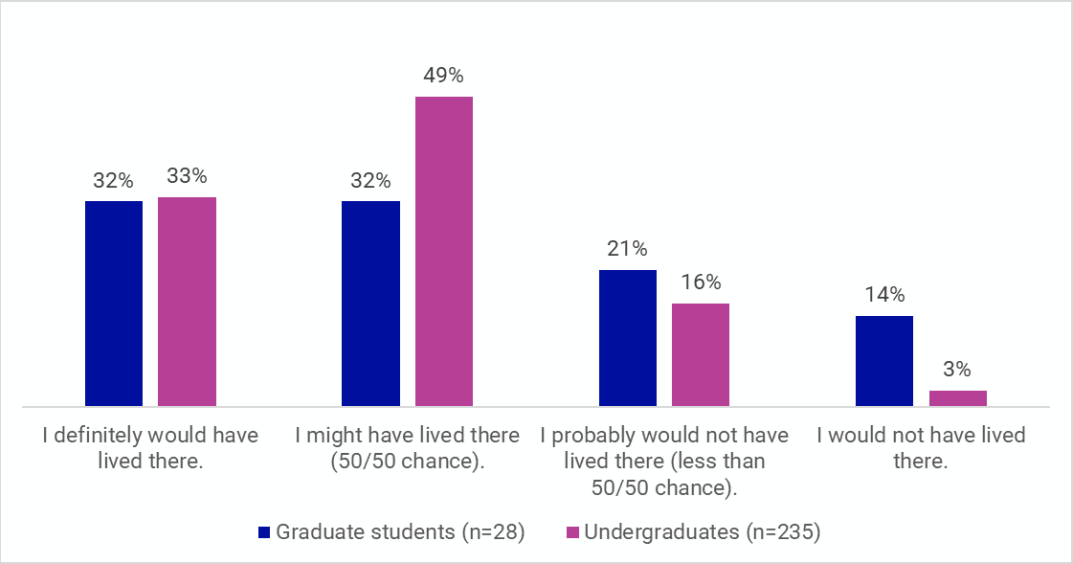
Single students were asked about their unit preferences to gauge relative interest in traditional, suite, and apartment units, and results are shown in **Exhibit 10**. The survey instructed respondents to select "Preferrable," to select "Acceptable" for any unit type they would live in if their preferred unit were not available, and to select "Would not live there" for units where they would not live. The most frequently preferred unit was the four-single-occupancy-bedroom apartment (South Campus Apartment Complex); 24% of respondents preferred this unit and 58% found it acceptable. The second most popular was the two-single-occupancy bedroom; 18% preferred this unit and 47% rated it acceptable.

*Exhibit 10. Unit Preference, Single Student Respondents.*




When off-campus respondents (non-homeowners, without dependents) were asked if they would have chosen to live on campus if their preferred unit had been available, 33% of undergraduates and 32% of graduate students responded they definitely would have lived there, while 49% and 32%, respectively, responded that they might have lived there. **Exhibit 11** illustrates the full breakout of responses.

*Exhibit 11. Would you have chosen to live on campus if your preferred unit had been available.*




Survey respondents who were extremely or somewhat interested in particular units were shown a list of rental rate ranges to assess their price sensitivity by unit type, and the results are shown in **Exhibit 12**. As shown, between half and two-thirds of respondents were willing to pay the lowest rate offered on the survey for any given unit. However, at least 20% were willing to pay more than the lowest rate offered for every unit option. Few students (between 8% and 21% found the rates presented to be unacceptable. The units with the largest shares of "not willing to pay these rates" responses were the double-occupancy suite (18%) and the single-occupancy studio (21%).

*Exhibit 12. Willingness to Pay Per Month for Rent Among Single Students*

| | Unit type | Rental Rate | % |
|---|---|---|---|
| Double-occupancy | Double-occupancy room with a bathroom and living room shared between four residents | $400 to $450 | **60%** |
| | | $451 to $500 | 17% |
| | | $501 to $550 | 5% |
| | | I'm not willing to pay these rates. | 18% |
| | | n= | 1,113 |
| | Double-occupancy room in a two-bedroom one-bathroom apartment with a bathroom, living room, and kitchen shared between four residents | **$550 to $600** | **67%** |
| | | $601 to $650 | 21% |
| | | $651 to $700 | 4% |
| | | I'm not willing to pay these rates. | 8% |
| | | n= | 666 |
| Single-occupancy | Single-occupancy room with a bathroom and living room shared between four residents | **$550 to $600** | **62%** |
| | | $601 to $650 | 23% |
| | | $651 to $700 | 4% |
| | | I'm not willing to pay these rates. | 10% |
| | | n= | 1,089 |
| | Single-occupancy studio apartment with a bathroom, living room, and kitchen. | **$800 to $850** | **55%** |
| | | $851 to $900 | 18% |
| | | $901 to $950 | 6% |
| | | I'm not willing to pay these rates. | 21% |
| | | n= | 1,089 |
| | Single-occupancy room in a two-bedroom one-bathroom apartment with a bathroom, living room, and kitchen shared between two residents | $700 to $750 | **59%** |
| | | $751 to $800 | 21% |
| | | $801 to $850 | 6% |
| | | I'm not willing to pay these rates. | 15% |
| | | n= | 1,099 |
| | Single-occupancy room in a four-bedroom two-bathroom apartment with a bathroom, living room, and kitchen shared between four residents | $600 to $650 | **52%** |
| | | $651 to $700 | 22% |
| | | $701 to $750 | 4% |
| | | I'm not willing to pay these rates. | 10% |
| | | n= | 948 |

# Demand Analysis

## Incremental Demand

MGT's methodology for incremental demand centers on the off-campus population. The methodology for calculating demand uses the responses to the question on the survey asking where respondents "would have lived" had their preferred unit type been available for the current academic year. The first step in calculating demand is to determine a capture rate using the following equation:

$$\text{Capture Rate} = \frac{\text{Number of Full-Time Off-Campus Respondents Definitely Interested in Housing}}{\text{Number of Full-Time Off-Campus Respondents}}$$

The capture rate reflects the percentage of respondents' level of interest (e.g., definitely interested). A "closure" rate is necessary to reflect that not all students who express interest will sign a lease. MGT assumes a 50 percent closure rate for those who indicated that they "definitely would have lived" in the housing and a 25 percent closure rate for those who indicated that they "might have lived" in the housing (or 50 percent of those with a 50/50 interest). Enrollment is multiplied by the capture rate; then the closure rate is applied to yield the demand. This demand is explicitly based on the description of the units that included the rental rates proposed for the housing.[4]

**Exhibit 13** shows the mid-point of incremental demand of all upper division students, based on respondents' choice of unit, and the pricing quoted. Demand would amount to **2,386 beds**, the midpoint of a range of 1,995 to 2,776 based on the sample size and the total population, if WCU had the sample housing type and capacity available for this academic year. This demand is from full-time student respondents.

*Exhibit 13. Off-Campus Student Demand for On-Campus Housing.*

| Fall 2024 | Full-Time Off-Campus Headcount Enrollment | Definitely Interested | | Might Be Interested | | Potential Incremental Demand | Range | Potential Demand 95% Confidence Interval | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | *Capture Rate* | *50% Closure* | *Capture Rate* | *25% Closure* | | | | | |
| Freshman | 1,095 | 24.1% | *132* | *55.2%* | *151* | **283** | ±49 | **234** | **to** | **332** |
| Sophomore | 1,880 | 41.5% | *390* | *50.0%* | *235* | **625** | ±84 | **541** | **to** | **709** |
| Junior | 2,423 | 29.9% | *362* | *45.5%* | *275* | **637** | ±108 | **529** | **to** | **745** |
| Senior | 2,351 | 27.7% | *325* | *46.8%* | *275* | **600** | ±105 | **495** | **to** | **705** |
| Graduate student | 996 | 32.1% | *160* | *32.1%* | *80* | **240** | ±44 | **196** | **to** | **285** |
| **Total** | **8,745** | | **1,369** | | **1,017** | **2,386** | ±390 | **1,995** | **to** | **2,776** |

[4] The level of response to the survey and the size of West Chester's enrollment result in a confidence interval in the results of plus or minus 6.0% at a 95% confidence level—the plus-or-minus figure seen in many survey or poll results, for example, if the confidence interval is 3.16% and 50% percent of the sample picks an answer; it is 95% certain that if the entire population had been asked the same question, between 47% (50%-3%) and 53% (50%+3%) would have picked that answer. MGT uses the midpoint of the range as an estimate of demand.

# Legal Disclaimer

MGT's analysis of the feasibility of new housing at West Chester University relies on the accuracy of information provided by West Chester University and the local market as well as near-term and long-term assumptions influenced by factors outside of MGT's control and for which may adversely impact the West Chester University and/or its third-party development partners' expansion plans. Changes to West Chester University's financial health, construction materials, and costs, as well as state, local, and global economic conditions, may impact both the demand for the program, costs, and/or the project's financial feasibility. Additional risks to the expansion plans include but are not limited to changes to program demand, competitive programs, regulatory changes, as well as general acts of disaster.

# Appendix 1: Off-Campus Student Housing Registration

Information provided by Borough of West Chester on August 28, 2024.

| Rental Type | Address of Rental Property | Owner Name | Owner's Mailing Adress | Number of Rooming Units | Number of Dwelling Units | Total Number of Tenants | Total Number of Off-Street Parking Spaces? | Unit Number |
|---|---|---|---|---|---|---|---|---|
| EXISTING | 225 East Washington Street, West Chester PA 19380 | Samuel G Dayton IV | 225 East Washington Street, West Chester PA 19380, APT #1 | 0 | 3 | 1 | 0 | 3 |
| EXISTING | 322 W Barnard Street | Rachel Langan | 635 N Church Street | 0 | 1 | 4 | 2 | 322 |
| EXISTING | 316 S Walnut St | Cleo Elkiinton | 1234 West Chester Pike West Chester Pa 19382 | 3 | 1 | 5 | 3 | 2 |
| EXISTING | 225 S. Adams Street West Chester, PA 19382 | Benson Daniel and Rachel Daniel | 222 Oliver Dr Chester Springs, PA 19425 | 1 | 1 | 1 | 0 | 1 |
| EXISTING | 222 West Union St West Chester, PA 19382 | Patrick Mahoney | 108 W Hillcrest Ave havertown, 19083 | 0 | 2 | 4 | 2 | 2 |
| EXISTING | 223 W Miner St | Phil Carnuccio | 1009 Squires Rd WC PA 19382 | 0 | 3 | 7 | 6 | 1 |
| EXISTING | 225 W Miner St | TM Realty | 227 W Miner St | 0 | 2 | 3 | 0 | 2 rear |
| EXISTING | 317 Hannum Ave | John Rafferty | 795 W. Strasburg Rd, West Chester, PA 19382 | 3 | 1 | 2 | 0 | |
| NEW | 402 W Miner St, West Chester, PA 19382 | Amanda & Joe Nichols | 343 Barn Hill Rd, West Chester PA 19382 | 1 | 1 | 2 | 1 | 1 |
| EXISTING | 219 West Miner Street | Jeremiah and Louise Kane | 1035 Squires Drive WC 19382 | 0 | 4 | 4 | 0 | 1 |
| EXISTING | 140 Lacey St. West Chester PA 19382 | Nicole Christie | 166 Trimble Rd. Thornton PA 19373 | 1 | 1 | 4 | 2 | |
| EXISTING | 531 S Walnut St West Chester Pa 19382 | Erna Schultz Trust | 1729 Hoopersville rd Fishing creek Md 21634 | NA | 1 | 4 | 3 | 1 |
| EXISTING | 531 S Walnut St West Chester Pa 19382 | Erna Schultz Trust | 1729 Hoopersville rd Fishing creek Md 21634 | NA | 1 | 4 | 3 | 1 |
| EXISTING | 412 W Miner St | 412 W Miner LLC | 43 Paoli Plaza PO Box 772 PAOLI, PA 19301 | 0 | 3 | 6 | 3 | 1 |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| EXISTING | 25 East Washington Street | Nguyen Investment Property, LLC | PO BOX 1472 WEST CHESTER, PA 19380 | 0 | 5 | 5 | 0 | 1W |
| EXISTING | 117 E. Washington St. West Chester, PA 19380 | Vick D. Sutton & Christian A. Sutton | 420 West Union St. West Chester, PA 19382 | 0 | 2 | 4 | 1 | 1 |
| EXISTING | 18 N New St | William Hicks | PO Box 3113 West Chester, PA 19381 | 0 | 2 | 5 | 2 | 1 |
| EXISTING | 21 S Walnut St | William | PO BOX 3113 WEST CHESTER, PA 19381 | 5 | 1 | 6 | 0 | Apartment |
| EXISTING | 28 N New St | William | PO Box 3113 West Chester, PA 19381 | 0 | 3 | 2 | 6 | 1st Floor Office |
| EXISTING | 22 N New St | William | PO Box 3113 West Chester, PA 19381 | 0 | 1 | 2 | 1 | N/A |
| EXISTING | 26 N New St | William Hicks | PO Box 3113 West Chester, PA 19381 | 0 | 2 | 2 | 2 | N/A |
| EXISTING | 30 N New St | William | PO Box 3113 West Chester, PA 19381 | 0 | 3 | 3 | 3 | Apt 1 |
| EXISTING | 31 N New St | William Hicks | PO Box 3113 West Chester, PA 19381 | 0 | 1 | 1 | 1 | 3rd Floor |
| EXISTING | 33 S High St | William Hicks | PO Box 3113 West Chester, PA 19381 | 0 | 3 | 3 | 3 | 2nd Floor, Apt 1 |
| EXISTING | 502 Keystone Alley | Chad Laurence | 1807 Masters Way Chadds Ford, PA 19317 | 1 | 1 | 1 | 2 | 502 |
| EXISTING | 200 W Marshall St | William Hicks | PO Box 3113 West Chester, PA 19381 | 0 | 1 | 3 | 1 | N/A |
| EXISTING | 115 S Walnut St West Chester | Core Realty, Property Manager for Landlord | 3200 CONCORD RD STE 103 ASTON PA 19014 | 0 | 3 | 4 | 3 | 1 |
| EXISTING | 404 W Union Street | Rudi Property Mgt | 636 N Speakman La'ne West Chester PA 19380 | 0 | 5 | 7 | 5 | 1 |
| EXISTING | 444 West Chestnut | Samuel E Flammini | 1215 Rhode Island Lane, Downingtown, PA 19335 | 1 | 1 | 3 | 1 | 1 |
| EXISTING | 236 West Barnard St. West Chester, PA 19382 | JOHNS BROTHERS PROPERTY MANAGMENT | 10 W Lafayette St. West Chester, Pa 19380 | 0 | TWO | 6 | 0 | ONE |
| EXISTING | 327 W BARNARD ST | DAVID B.YARNALL & Gretchen C. Yarnall | 510 s Wawaset rd WC 19382 | 0 | 2 | 4 | 2 | 1 |
| EXISTING | 227 W union st | DAVID B.YARNALL & Gretchen C. Yarnall | 510 s wawaset rd wc 19382 | 0 | 2 | 5 | 1 | 1 |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| EXISTING | 237 W Union st | DAVID B.YARNALL & Gretchen C. Yarnall | 510 s wawaset rd wc 19382 | 0 | 2 | 5 | 2 | 1 |
| EXISTING | 312 W Chestnut Street | William Hicks | PO Box 3113 West Chester, PA 19381 | 0 | 1 | 3 | 0 | N/A |
| EXISTING | 132 W Gay Street | Kelly Faggioli | 1255 Lisle Ln, Chester Springs, PA 19425 | 0 | 4 | 4 | 4 | 2 Front |
| EXISTING | 314 W Miner St | Carnuccio | 1009 Squires Rd WC PA 19382 | 0 | 4 | 4 | 2 | 2B |
| EXISTING | 121 Hemlock Aly | T Farnesi | 301 E Marshall St | 0 | 1 | 2 | 1 | 121 Hemlock |
| EXISTING | 17 South Walnut Street | Nguyen Investment Property, LLC | P.O. BOX 1472 WEST CHESTER, PA 19380 | 0 | 4 | 4 | 0 | UNIT A |
| EXISTING | 37 Sturbridge Lane West Chester PA 19380 | Alyssa Gordon | 37 Sturbridge Lane West Chester, PA 19380 | 4 | 1 | 4 | 0 | |
| EXISTING | 21 West Barnard Street West Chester PA 19382 | Alyssa Gordon | 37 Sturbridge Lane West Chester PA 19380 | 4 | 1 | 4 | 0 | |
| EXISTING | 504 S High St | Jeffrey Bryant and Warren Bryant | 986 E Penn Dr West Chester, PA 19380 | 0 | 2 | 7 | 6 | 1 |
| EXISTING | 120 W Miner St | Swan Real Estate Investments, LLC | 937 Paoli Pike, # 1021 | 0 | 5 | 3 | 0 | 1 |
| EXISTING | 103 S Walnut Street West Chester, Pa 19382 | S&S Zukin Investments LLC | PO Box 883 West Chester, Pa 19381 | 2 | 2 | 4 | 0 | 1 |
| EXISTING | 413 west union st | Frances Herron | 339 west union st | 5 | 3 | 4 | 2 | 2 |
| EXISTING | 339 W Miner St | David Rivell and Ash Swayne | P.O. Box 505 West Chester, PA 19381 | 0 | 4 | 5 | 4 | 1 |
| EXISTING | 218 W Union St | 218 W Union LLC | 43 Paoli Plaza PO Box 772 PAOLI, PA 19301 | 0 | 2 | 4 | 2 | 1 |
| EXISTING | 722 South Adams Street West Chester PA 19382 | huifang zheng | 3932 Powell Road Chester Springs PA 19425 | 1 | 1 | 2 | 3 | 1 |
| EXISTING | 119 E. Nields St., West Chester PA 19382 | Stephen Spangler Jr. | 978 Lieds Road, Coatesville PA 19320 | 4 | 1 | 4 | 0 | 1 |
| EXISTING | 712 South Adams Street | ATO Properties LLC | 835 Lincoln Ave Unit A-1 West Chester, PA 19380 | 3 | 1 | 2 | 2 | 1 |
| EXISTING | 146 E Miner St. | BB Real Estate Investments, LLC | 9 Fawn Fawn Ln. Chadds Ford PA 19317 | 0 | 2 | 5 | 2 | 1 |
| EXISTING | 224 S Matlack St., West Chester PA 19382 | BB Real Estate Investments | 9 Fawn Ln., Chadds Ford PA 19317 | 0 | 1 | 2 | 0 | 1 |
| EXISTING | 537 s Franklin st | Paul vile | 1126 s 47th st Philadelphia pa 19143 | 0 | 1 | 3 | 0 | 537 s Franklin ( 1 unit home ) |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| EXISTING | 101 E. Rosedale Ave | WCOCH | 327 S. High Street West Chester pa 19382 | 0 | 1 | 4 | 4 | |
| EXISTING | 105 E. Rose Ave WC PA 19382 | WCOCH | 327 S. High St. WC PA 19382 | 0 | 1 | 4 | 4 | |
| EXISTING | 537 s Franklin st | Paul vile | 1126 s 47th st Philadelphia pa 19143 | 0 | 1 | 3 | 0 | 537 s Franklin ( 1 unit home ) |
| EXISTING | 329 S. High Street | WCOCH | 327 S. High Street WC PA 19382 | 0 | 2 | 3 | 0 | 329-1 |
| EXISTING | 435 S. High Street WC PA 19382 | WCOCH | 327 S. High Street | 0 | 1 | 4 | 4 | |
| EXISTING | 241 West Union Street | Teresa M & J Stephen Deleo | 2160 Lincolnshire Rd | 0 | 3 | 3 | 2 | 3 |
| | 316 S Walnut St | Cleo Elkinton | 26959 Sunburst Path Millsboro De 19966 | 3 | 1 | 5 | 3 | 1 |
| | 635 S. Matlack Street | WCOCH | 327 S. High Street | 0 | 1 | 2 | 2 | |
| EXISTING | 241 West Union Street | Teresa M & J Stephen Deleo | 2160 Lincolnshire Rd | 0 | 3 | 4 | 2 | 3 |
| EXISTING | 114 N Wayne Street West Chester Pa, 19380 | Stanford & Elsa Properties LLC | PO Box 883 West Chester, Pa 19381 | 1 | 1 | 4 | 2 | 1 |
| EXISTING | 127 E Gay Street West Chester, Pa 19380 | Gay Street Development Company LLC | PO Box 883 West Chester, Pa 19381 | 3 | 3 | 4 | 5 | 1 |
| EXISTING | 132 E washington st west chester | Linda Springer | springer realty po box 2061 West Chester, Pa 19380 | 0 | 3 | 6 | 0 | 1 |
| EXISTING | 128 Linden Street | Daniel Hamm | 1543 Pennsbury Drive West Chester Pa 19382 | 1 | 1 | 3 | 2 | |
| EXISTING | 322 W. Chestnut St., West Chester, PA 19380 | Micaela Sunday | 302 W. Lafayette St., West Chester, PA 19380 | 0 | 1 | 1 | 0 | 0 |
| EXISTING | 120 S Matlack Street | Mike Timmins | 214 Vernon St, Media, PA 19063 | 0 | 1 | 2 | 0 | |
| EXISTING | 111 S Walnut Street West Chester PA 19382 | Michael Louis | 843 Plumtry Drive West Chester PA 19382 | 2 | 2 | 4 | 2 | 2 |
| EXISTING | 502 s walnut street west chester pa 19382 | JJNJ properties LLC | 1708 rosewood lane chadds ford pa 19317 | 0 | 2 | 6 | 1 | 502 s walnut |
| EXISTING | 113 W Gay Street West Chester, Pa 19380 | 107-115 W Gay Street. LLC | PO Box 883 West Chester, Pa 19381 | 4 | 4 | 5 | 0 | 1 |
| EXISTING | 135 E Gay Street West Chester, Pa 19380 | 135 E Gay Street LLC | PO Box 883 West Chester, Pa 19381 | 2 | 2 | 3 | 3 | 1 |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| EXISTING | 155 W Gay Street West Chester, Pa 19380 (Lease Written: 101 N Darlington Street) | Gay Street Development Company LLC | PO Box 883 West Chester, Pa 19381 | 2 | 2 | 3 | 0 | 1 |
| EXISTING | 327 N High Street West Chester, Pa 19380 | 327 North High Street, LLC | PO Box 883 West Chester, Pa 19381 | 4 | 4 | 6 | 1 | 1 |
| EXISTING | 416 West Union Street West Chester PA 19382 | H. Thomas Sutton | 420 West Union Street West Chester PA 19382 | 0 | 5 | 6 | 0 | 1 |
| EXISTING | 247 W Barnard St | David Donahue | 993 N Penn Dr West Chester, PA 19380 | 2 | 2 | 3 | 0 | 247 |
| EXISTING | 414 S Brandywine St West Chester PA 19382 | 501 Price 5 LLC | 200 Three Tun Rd Malvern PA 19355 | 0 | 4 | 4 | 0 | 2N |
| EXISTING | 227 W Chestnut St | Greg Morenko | 1750 Teresa Court Downingtown, PA 19335 | 2 | 2 | 5 | 0 | 1 |
| EXISTING | 227 W Chestnut St | Greg Morenko | 1750 Teresa Court Downingtown, PA 19335 | 2 | 2 | 5 | 0 | 1 |
| EXISTING | 341 Sharpless Street | Barbara McGinley | PO Box 72824, Thorndale, PA, 19.372 | 0 | 1 | 3 | 0 | 341 |
| EXISTING | 442 N High Street, Third Floor | John Saling | PO Box 72824, Thorndale, PA, 19372 | 0 | 1 | 2 | 0 | 442 |
| EXISTING | 119 E Miner Street | Carla Jepson | PO Box 72824, Thorndale, PA, 19372 | 0 | 1 | 2 | 0 | 119 |
| EXISTING | 131 East Union Street | John Houtmann | 737 Yorklyn Road, Hockessin, DE 19707 | 1 | 1 | 2 | 0 | 131 E Union |
| EXISTING | 201 Price St., West Chester PA 19382 | West Chester Church of the Nazarene | 424 S. Darlington St. West Chester, PA 19382 | 0 | 1 | 4 | 2 | |
| EXISTING | 220 Dean St. West Chester, PA 19382 | West Chester Church of the Nazarene | 424 S. Darlington St. West Chester PA 19382 | 0 | 1 | 2 | 1 | |
| EXISTING | 718 S. New Street West Chester, PA 19382 | Calvary Lutheran Church | 730 S. New Street West Chester, PA 19382 | 1 | 1 | 1 | 0 | |
| EXISTING | 230 South Walnut Street West Chester, PA 19380 | Wayne C & Barbara A Megill Irrevocable Trust dated 1991 | 330 Kennett Pike, Suite 207, Chadds Ford, PA 19317 | 2 | 1 | 4 | 0 | 1 |
| | 400 Hannum | Jeff Harlan | P. O. Box 1171 Coatesville, PA 19320 | 3 | 4 | 7 | 0 | 3 |
| EXISTING | 423 Dean Street West Chester, PA 19380 | Paul & Deborah Hettler | 980 Jefferis Bridge Road West Chester, PA 19382 | 0 | 2 | 6 | 0 | 1 |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| EXISTING | 116 W Barnard Street, Unit A/2nd Floor<br><br>West Chester, PA 19382 | Michael T. Rody | 14 S Church Street, 1st Floor<br>West Chester, PA 19382 | 0 | 3 | 3 | 2 | 116 Barnard Street, 2nd Floor |
| EXISTING | 561 West Marshall Street<br>West Chester, PA 19380 | Scott Ward | 1830 Gary Road<br>Stewartsville, NJ 08886 | 2 | 1 | 2 | 1 | 1 |
| EXISTING | 128 East Gay Street<br>West Chester, PA 19380 | Rebel Properties LLC | 980 Jefferis Bridge Road<br>West Chester, PA 19382 | 0 | 3 | 5 | 4 | 1 |
| EXISTING | 116 East Barnard Street, Unit A/2nd :Floor<br>West Chester PA 19382 | Michael T. Rody | 14 South Church Street, 1st Floor,<br>West Chester, PA 19382 | 0 | 3 | 3 | 3 | Unit A/2nd Floor |
| EXISTING | 100 Goshen Road Carriage House,<br>West Chester PA 19380 | Tait Norden | 100 Goshen Road,<br>West Chester Pa 19380 | 0 | 1 | 1 | 2 | 1 |
| EXISTING | 25 W Barnard Street | Nanci Austin | 505 N. Walnut Street | 2 | 2 | 2 | 1 | 1 |
| EXISTING | 505 N. Walnut Street | Nanci Austin | 505 N. Walnut Street | 1 | 1 | 1 | 2 | |
| EXISTING | 541 S Franklin Street<br>West Chester, PA 19382 | Avery Laurence | 514 Cheltenham Court<br>Lititz, PA 17543 | 4 | 1 | 4 | 0 | 1 |
| EXISTING | 125 W Union Street | Matthew Wise | 950 N Hill Drive<br>West Chester, PA 19380 | 1 | 1 | 2 | 2 | 1 |
| EXISTING | 700 S Adams Street | Joseph Scavitto | 500 Hanley Lane, Downingtown, PA 19335 | 1 | 1 | 2 | 1 | 1 |
| EXISTING | 700 S Adams Street | Joseph Scavitto | 500 Hanley Lane, Downingtown, PA 19335 | 1 | 1 | 2 | 1 | 1 |
| EXISTING | 719 S Adams St<br>West Chester, PA 19380 | Rita & Jay Schwartz | 1223 West Chester Pike<br>West Chester, PA 19382 | 2 | 1 | 2 | 2 | 1 |
| EXISTING | 118 E Miner St | Joel Smith | 1011 Dunvegan Rd<br>West Chester, PA 19382 | 0 | 2 | 4 | 4 | 1 |
| EXISTING | 305 S. Walnut St | Jaramillo Real Estate Holdings LLC, Gustavo Mesa | 305 Joseph Dr. West Chester, PA 19380 | 0 | 6 | 8 | 7 | 1 |
| EXISTING | 309 S. Adams St | Bernard P. Schaffer, Elizabeth O. Schaffer | 136 Grubb Rd.<br>Malvern, PA 19355 | 0 | 1 | 2 | 0 | 309 |
| EXISTING | 125 Linden St | Bernard P. Schaffer, Elizabeth O. Schaffer | 136 Grubb Rd.<br>Malvern, PA 19355 | 0 | 1 | 2 | 0 | 125 |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| EXISTING | 301 S. Adams St | Bernard P. Schaffer, Elizabeth O. Schaffer | 136 Grubb Rd. Malvern, PA 19355 | 0 | 1 | 3 | 0 | 301 |
| EXISTING | 126 N. Wayne St. | Willow Lake Ventures LLC | 136 Grubb Rd. Malvern, PA 19355 | 0 | 1 | 3 | 2 | 126 |
| EXISTING | 120 N. Wayne St | Willow Lake Ventures LLC | 136 Grubb Rd. Malvern, PA 19355 | 0 | 1 | 3 | 2 | 120 |
| EXISTING | 118 N. Wayne St. | Willow Lake Ventures LLC | 136 Grubb Rd. Malvern, PA 19355 | 0 | 1 | 3 | 2 | 118 |
| EXISTING | 8 N. New St | Willow Lake Ventures LLC | 136 Grubb Rd. Malvern, PA 19355 | 0 | 2 | 3 | 6 | 1 |
| EXISTING | 436 N Church St. | Grubb Road LLC | 136 Grubb Rd. Malvern, PA 19355 | 0 | 6 | 8 | 0 | 1 |
| EXISTING | 124 W Union St | Dan Herman | 731 Price St West Chester, PA 19382 | 1 | 1 | 2 | 2 | 1 |
| EXISTING | 605 W Market St. Unit 42 West Chester, PA 19382 | Dan Herman | 731 Price St West Chester, PA 19382 | 1 | 1 | 3 | 1 | 1 |
| EXISTING | 123 S Matlack St West Chester, PA 19382 | Dan Herman | 731 Price St West Chester, PA 19382 | 1 | 1 | 2 | 0 | 1 |
| NEW | 605 W Market St Unit #4 West Chester, PA 19382 | Dan Herman | 731 Price St. West Chester, PA 19382 | 1 | 1 | 2 | 1 | 1 |
| EXISTING | 136 W. Market Street | Katie Mackrides | 361 N Central Blvd, Broomall, PA 19008 | 0 | 5 | 5 | o | 1 R |
| EXISTING | 121 W Market Street | Vasiliki | 4 Paxon Circle Broomall, PA 19008 | 0 | 4 | 4 | 1 | 1 E |
| EXISTING | 125 E Barnard St | Romano | 125 E Barnard St | 0 | 2 | 1 | 2 | 1 |
| EXISTING | 516 S Walnut St | Kevin Alekna | 516 s walnut st | 4 | 1 | 4 | 3 | 2A |
| EXISTING | 16 S Church Street | Katie Mackrides | 361 N Central Blvd Broomall, PA 19008 | 0 | 2 | 3 | 2 | 1 |
| EXISTING | 117 MAGNOLIA ST WEST CHESTER PA 19382 | DIANE H HAMMELL TRUST | 9230 MARBLE STONE DR NAPLES, FL 34120 | 1 | 1 | 3 | 1 | 117 |
| EXISTING | 12 S Matlack St | Alison Maguire | 526 S Franklin St West Chester PA 19382 | 1 | 1 | 4 | 1 | |
| EXISTING | 115 MAGNOLIA ST WEST CHESTER PA 19382 | DIANE H HAMMELL TRUST | 9230 MARBLE STONE DR NAPLES FL 34120 | 1 | 1 | 2 | 2 | 115 |
| EXISTING | 152 E Gay Street West Chester, Pa 19380 | Stanford & Elsa Zukin Family Trust | PO Box 883 West Chester, Pa 19381 | 3 | 3 | 5 | 2 | 2 |
| EXISTING | 348 W Gay Street West Chester, Pa 19380 | West Chester Market Street Development | PO Box 883 West Chester, Pa 19381 | 3 | 3 | 5 | 3 | 1A |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | | Company LLC | | | | | | |
| EXISTING | 7 N Matlack Street West Chester, Pa 19380 | 7-11 N Matlack Street, LLC | PO Box 883 West Chester, Pa 19381 | 3 | 3 | 5 | 0 | 1 |
| EXISTING | 401 W. Union St. | Gary Hewitt | 401 W. Union St. West Chester, PA 19382 | 0 | 1 | 2 | 1 | 2 |
| EXISTING | 18-20 S Church Street | Katie Mackrides | 361 N Central Blvd Broomall, PA 19008 | 0 | 5 | 6 | 5 | Apt 1 |
| EXISTING | 109 S Walnut Street 2nd floor | Michael Louis | 843 Plumtry Drive West Chester PA 19382 | 2 | 2 | 4 | 0 | 2 |
| EXISTING | 122 Justin Dr. | Maria Ramos | 522 Raymond Dr., West Chester, PA, 19380 | 3 | 1 | 6 | 2 | |
| EXISTING | 140 Lacey St | Nicole Christie Skinner | 166 Trimble Rd. Thornton PA 19373 | 1 | 1 | 4 | 2 | |
| EXISTING | 127 Union St. | Noel Hedgecock | 602 Dean St. | 1 | 1 | 3 | 0 | 1 |
| | 223 W Barnard St | Michael Kahler | 1212 Hall Rd West Chester, PA 19380 | 0 | 2 | 3 | 2 | Apt A (front) |
| EXISTING | 307 West Chestnut St | Monica Scherer | 321 2nd Ave | 0 | 1 | 3 | 2 | 1 |
| EXISTING | 420 college ave | Michael and Kellie Keenan | 904 Greystone drive West Chester, Pa 19380 | 1 | 1 | 2 | 2 | 420 college ave |
| EXISTING | 117 N Darlington St | Ivan Kaplan | 111 w market st west chester, pa 19382 | 0 | 2 | 2 | 0 | 1 |
| EXISTING | 116 E Barnard Street, Unit C West Chester, PA 19382 | Michael T. Rody | 14 S Church St, 1st Floor West Chester, PA 19382 | 0 | 3 | 1 | 1 | 116 Barnard Street, Unit C |
| EXISTING | 401 S Matlack Street West Chester | Michael Louis | 843 Plumtry Drive | 1 | 1 | 2 | 0 | 1 |
| EXISTING | 400 N Church Street West Chester PA 19380 | Eric Norquist | 705 Dean Court West Chester PA 19382 | 5 | 5 | 6 | 2 | 1 |
| EXISTING | 253 Dean Street West Chester PA 19382 | Eric Norquist | 705 Dean Court West Chester PA 19382 | 2 | 2 | 3 | 2 | 1 |
| EXISTING | 401 S Matlack Street West Chester | Michael Louis | 843 Plumtry Drive West Chester | 1 | 1 | 2 | 401 | 1 |
| EXISTING | 225 S. Adams Street West Chester PA 19382 | Benson Daniel and Rachel Daniel | 222 Oliver Dr Chester Springs, PA 19425 | 1 | 1 | 1 | 0 | |
| EXISTING | 322 North High Street | Nancy Winther | 1010 Farm Lane West Chester 19382 | 0 | 2 | 2 | 3 | 2 |
| EXISTING | 115 N darlington | Charlotte Fabian | 123 Bradford Avenue | 0 | 1 | 3 | 0 | 1 |

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|---|---|---|---|---|---|---|---|---|
| EXISTING | 239 W Barnard St, Unit B AKA 238 Hemlock Aly West Chester, PA 19382 | Margaret Westbrook | 239 Dean St West Chester, PA 19382 | 1 | 1 | 2 | 0 | 1 |
| NEW | 413 N New Street, West Chester, PA 19380 | Kaitlin Munnelly | 521 E Union Street, West Chester, PA 19382 | 3 | 1 | 2 | 2 | 413 N New Street |
| EXISTING | 121 Hemlock Aly | Farnesi Carlson | 301 E Marshall St, Wc PA 19380 | 0 | 1 | 2 | 1 | |
| EXISTING | 425 West Barnard St., West Chester, PA 19382 | Timothy Lutz | 423 West Barnard St. West Chester, PA 19382 | 0 | 1 | 2 | 0 | 1 |
| EXISTING | 121 S. Walnut Street | Gary Hewitt | 401 W. Union St. West Chester PA 19382 | 0 | 3 | 6 | 4 | A |
| EXISTING | 137 E Miner St. West Chester, PA | David Nicholson | 1442 Pottstown Pk Suite 352 West Chester PA, 19380 | 4 | 4 | 4 | 4 | 1 |
| EXISTING | 117 S. Walnut | Sharon and Tony Murphy | 973 Jefferies Bridge Road, West Chester PA 19382 | 0 | 3 | 5 | 3 | Apt 1 |
| | 137 Leadline Lane, West Chester PA 19382 | Lynn&Kevin Sherlock | 137 Leadline Lane, West Chester PA 19382 | 1 | 1 | 2 | 0 | 1 |
| NEW | 306 W. BARNARD ST | Amedeo Cianci | 1 WOODSIDE FARM DRIVE GERNET VALLEY, PA 19060 | 0 | 3 | 6 | 0 | 2 |
| NEW | 306 W. Barnard St West Chester, PA 19382 | Amedeo Cianci | 1 Woodside Farm Drive Garnet Valley, PA 19060 | 0 | 3 | 6 | 0 | 2 |
| EXISTING | 714 S Brandywine Street West Chester PA 19382 | Florian and Laura Reuter | 18 Hanover dr west Chester Pa 19382 | 1 | 1 | 2 | 2 | 1 |
| EXISTING | 127 West Barnard Street West Chester PA 19382 | Lynn & Kevin Sherlock | 137 Leadline Lane | 1 | 1 | 2 | 0 | 127 West Barnard St |
| NEW | 306 W. Barnard St West Chester, PA 19382 | Amedeo Cianci | 1 Woodside Farm Drive Garnet Valley, PA 19060 | 0 | 3 | 6 | 0 | 2 |
| NEW | 714 S Brabdywine Street | Florian Reuter | 18 Hanover Dr West Chester PA | 0 | 1 | 2 | 0 | 0 |
| | 714S Brandywine Street | Florian Reuter | 18 Hanover Dr West Chester PA 19382 | 0 | 1 | 2 | 0 | |
| | 118 S Matlack St | Jonathan Cleck | 495 Timberline Trl West Chester, PA 19382 | 2 | 1 | 2 | 0 | 118 S Matlack (No unit #) |
| NEW | 714 S Brandywine St | Florian Reuter | 18 Hanover Dr. West Chester, PA | 4 | 1 | 2 | 1 | 714 S Brandywine St |
| EXISTING | 130 W Union St | Gustavo & Rosemary Correa | 135 W Union St | 0 | 1 | 1 | 4 | 130 |
| EXISTING | 212 West Miner Street | Nader Afshar | 1221 Parkerville Road | 0 | 7 | 7 | 1 | 1 |

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|---|---|---|---|---|---|---|---|---|
| EXISTING | 410 West Union Street | James W. MacFadden Jr. | 410 West Union Street West Chester, PA 19382 | 0 | 2 | 2 | 0 | 2 |
| EXISTING | 206 S Walnut St WC PA 19382 | Doug Nowak | 514 Raymond Drive, WC PA 19380 | 0 | 1 | 3 | 2 | |
| | 410 West Union Street | James W. MacFadden Jr. | 410 West Union Street West Chester, PA. 19382 | 0 | 3 | 4 | 0 | 1 |
| EXISTING | 116 E. Barnard Street, Unit B West Chester, PA 19382 | Michael T. Rody | 14 S Church Street West Chester, PA 19382 | 0 | 3 | 1 | 1 | 116 Barnard Street, Unit B |
| NEW | 131 E Miner Street, WC, PA | Betsy Gallagher | 110 Coppers Trail, Wilmimgton, PA 28411 | 4 | 1 | 4 | 4 | 1 |
| EXISTING | 602 sharpless st | Patricia belutty | 1168 arrowhead drive West Chester pa 19382 | 0 | 1 | 1 | 1 | |
| EXISTING | 396 est nield | Martha b Coyle | 1113 butternut rd. Glen mills Pa 19342 | 0 | 1 | 3 | 4 | 396 |
| EXISTING | 118 e nield | Martha b coyle | 1113 butternut rd Glen mills Pa 19342 | 0 | 1 | 1 | 2 | 118 |
| EXISTING | 712 s franklin | Martha b coyle | 1113 butternut rd glen mills Pa 19342 | 0 | 2 | 3 | 4 | A |
| EXISTING | 125 e nield | Martha b coyle | 1113 butternut rd. Glen mills. Pa 19342 | 5 | 6 | 6 | 1 | 1 and 2 |
| EXISTING | 102 north Church St | Jay S Shur | 238 East Chestnut St | 0 | 4 | 6 | 0 | 4 |
| | 103 West Gay St | Jay S Shur | 238 East Chestnut ST | 0 | 3 | 3 | 0 | 1 |
| EXISTING | 110 Price Street | Donna Wilusz | 17 Huntingdon Way Sewell, NJ 08080 | 0 | 2 | 5 | 0 | 1 |
| EXISTING | 225 W Miner Street 3rd floor unit, West Chester, PA 19382 | TM Realty | 227 W Miner St, WC PA 19382 | 0 | 2 | 3 | 0 | 2 rear |
| EXISTING | 227 West Chestnut ST. West Chester PA 19380 | Greg Morenko | 1750 Teresa Court Downingtown, PA 19335 | 0 | 2 | 5 | 1 | 2 |
| EXISTING | 225 W Chestnut St West Chester PA 19380 | Morenko Properties, LLC | 1750 Teresa Court Dowingtown PA 19335 | 0 | 2 | 5 | 6 | 2 |
| EXISTING | 730 N. New Street | Robert Hall | P.O.Box 1232 West Chester PA 19380 | 2 | 1 | 2 | 4 | |
| EXISTING | 206 S Walnut St, Unit 2 | Doug Nowak | 514 Raymond Drive, WC PA 19380 | 0 | 1 | 3 | 2 | 2 |
| EXISTING | 121 W Barnard St., West Chester PA | Edward (Ted) Worrell | 842 Topaz Dr., West Chester PA 19382 | 0 | 2 | 3 | 0 | 1 |
| NEW | 401 East Gay St | Sean Metrick | 401 East Gay St | 0 | 2 | 4 | 32 | 1 |
| EXISTING | 21 West Barnard Street West Chester PA 19382 | Alyssa Gordon | 37 Sturbridge Lane West Chester PA 19380 | 4 | 1 | 4 | 0 | 21 West Barnard Street |
| EXISTING | 125 West Chestnut Street | Michael Earyes | 1199 Muirfield Drive; West Chester, PA 19382 | 3 | 3 | 3 | 2 | Apt A |

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|---|---|---|---|---|---|---|---|---|
| EXISTING | 222 N. Darlington Street West Chester PA 19380 | Sarah & Ray Bieg | 1165 Skelp Level Road Downingtown PA 19335 | 0 | 1 | 1 | 0 | Twin (1 unit) |
| EXISTING | 228 West Miner Street | Butler House LLC/ Tilmann Stahl | 228 W Miner St, Apt. 1 West Chester, PA 19382 | 0 | 5 | 5 | 5 | 2E |
| EXISTING | 317 S Walnut Street West Chester, Pa 19382 | 315 and 317 South Walnut Street LLC | PO Box 883 West Chester, Pa 19381 | 3 | 3 | 6 | 4 | 1 |
| EXISTING | 111 Dean Street West Chester, Pa 19382 | S&S Zukin Investments LLC | PO Box 883 West Chester, Pa 19381 | 1 | 1 | 4 | 4 | 1 |
| | 544 Raymond Drive | Mohammad W. AL-Sabbagh | 35765 Nightshade Lane Solon, OH 44139 | 0 | 1 | 3 | 0 | 1 |
| EXISTING | 118 W. Union st. West Chester, PA 18382 | David and Helen Trajtenberg | 140 E. Marshall St. West Chester, PA 19380 | 3 | 1 | 2 | 2 | 1 |
| EXISTING | 11 East Miner Street | Hugo Hur | 8 Fox Run Lane, Newtown Square, PA 19073 | 3 | 2 | 3 | 2 | 11 |
| EXISTING | 26 west miner street, WC. 19382 | Patricia Doran | 332 Box Elder Drive, West Chester, PA, 19380 | 1 | 1 | 3 | 0 | 26 W. MINER St |
| EXISTING | 420 N Everhart Street, Apt. 223 West Chester, PA, 19380 | Arnold /Jinni Kapp | 4747 Macgregor Dr. Schwenksville, PA 19473 | 2 | 2 | 2 | 2 | 223 |
| EXISTING | 719 S Penn St | Delancy Ct LLC | 15 Delancy Ct. Phoenixville, PA 19460 | 1 | 1 | 2 | 2 | 719 S Penn St |
| | 146 E Miner St., West Chester PA 19382 | BB Real Estate | 842 Topaz Dr., West Chester PA 19382 | 0 | 2 | 4 | 1 | 2 |
| EXISTING | 133 west biddle st | vince mackay | 224 green tree dr.west chester pa 19382 | 1 | 1 | 1 | 1 | 133 west biddle st. |
| EXISTING | 125 Hemlock Aly, WC PA 19382 | Tom Farnesi | 301 E Marshall St WC PA 19380 | 0 | 1 | 2 | 1 | 125 Hemlock |
| EXISTING | 31 S Walnut St WC PA 19382 | Lawrence Carnuccio | 19 Upper Crest Dr, W Mildford, NJ 07480 | 0 | 1 | 1 | 0 | C |
| EXISTING | 103 Dean Street, West Chester, PA 19382 | Dennis & Melissa Messinger | 103 Dean Street, West Chester, PA 19382 | 4 | 5 | 4 | 2 | |
| EXISTING | 219 West Miner Street, WC, PA 19382 | Jeremiah and Louise Kane | 1035 Squires Drive, WC, PA 19382 | 0 | 4 | 5 | 0 | 1 |
| EXISTING | 20 West Virginia Ave West Chester PA | Joanne Smith/Robert Whetstone | 539 N Church Street West Chester PA | 0 | 1 | 0 | 1 | |
| EXISTING | 301 W Chestnut Street West Chester PA 19380 | Wilfredo Soto | 507 Hansen Drive West Chester PA 19380 | 1 | 1 | 1 | 1 | 1 |
| EXISTING | 303 W Chestnut Street West Chester PA 19380 | Wilfredo Soto | 507 Hansen Drive West Chester PA 19380 | 1 | 1 | 4 | 0 | 1 |

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| EXISTING | 207 DiBaptiste Lane West Chester 19382 | Curt DeWolf | 1261 Surrey Road West Chester 19382 | 1 | 1 | 2 | 2 | 1 |
| EXISTING | 313 W Union Street | Timothy | 1046 W Niels Lane | 1 | 1 | 2 | 2 | 1 |
| EXISTING | 339 West Union Street | Francis Noel Herron | 339 West Union st Unit 1 West Chester Pa 19382 | 2 | 3 | 2 | 3 | 2 |
| NEW | 413 West Union st | Frank Herron | 339 West Union st West Chester Pa 19382 | 6 | 3 | 6 | 3 | 1 |
| EXISTING | 220 N Franklin St West Chester, PA | Megill Homes, LLC | 330 Kennett Pike, Suite 207, Chadds Ford, PA 19317 | 1 | 1 | 2 | 0 | |
| EXISTING | 212 Price St. 1st floor. West Chester, Pa | KENDRA LYNN BOYER | 212 Price St. 2nd Fl. West Chester Pa | 0 | 2 | 1 | 1 | 1 |
| EXISTING | 230 S Walnut Street | Wayne C Megill & Barbara A Megill Irrevocable Trust | 330 Kennett Pike, Suite 207, Chadds Ford, PA 19317 | 2 | 1 | 2 | 4 | 1 |
| EXISTING | 312 n church st | Toni pollick | 1630 whitetail run Chester springs, pa 19425 | 1 | 1 | 0 | 0 | 312 n church st |
| EXISTING | 17 Price St. West Chester, Pa. 19382 | Jerry Schauer | 102 Crosspointe Dr. West Chester, Pa. 19380 | 1 | 1 | 2 | 2 | 1 |
| EXISTING | 506 E. Nields St. West Chester, Pa. 19382 | Jerry Schauer | 102 Crosspointe Dr. West Chester, Pa. 19380 | 1 | 1 | 2 | 2 | 1 |
| EXISTING | 506 E. Nields St. West Chester, Pa.19380 | Jerry Schauer | 102 Crosspointe Dr. West Chester, Pa. 19382 | 1 | 1 | 2 | 3 | 1 |
| EXISTING | 14 east market st west Chester pa 19382 | Nicolae tupan | 14 east market st west Chester pa | 3 | 1 | 0 | 0 | |
| EXISTING | 331 W Gay Street | Timothy J Nanni | 494 Clarks Ln West Chester, PA 19382 | 2 | 2 | 3 | 0 | 1 |
| | 115 S Worthington St | Nicholas A Dwyer and zkatharine W Dwyer | 222 E Linden St Kennett Square PA 19348 | 0 | 1 | 4 | 0 | 1 |
| EXISTING | 420 N. Everhart St. Unit 114, West Chester, Pa. 19380 | Joyce Ann Hamid | 224 Sills Lane, Downingtown, Pa.19335 | 0 | 1 | 2 | 0 | 114 |
| EXISTING | 713 S. Matlack St | Spencer & Pamela Ring | 849 Conner Rd West Chester, PA 19380 | 0 | 1 | 1 | 3 | 1 |
| EXISTING | 715 S. Matlack St West Chester, PA 19382 | Spencer Ring Jr | 849 Conner Rd West Chester, PA 19380 | 0 | 1 | 4 | 4 | 1 |
| EXISTING | 394 E Nields | JMB Real Estate Holdings LLC | P.O. Box 63 west chester Pa 19381 | 1 | 1 | 4 | 4 | 1 |
| EXISTING | 629 S Walnut St, West Chester, PA | Diane E Sagnella | 415 Price St, West Chester, PA | 1 | 1 | 2 | 1 | 1 |

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| EXISTING | 101 S Walnut Street West Chester, Pa 19382 | 101 South Walnut Street, LLC | PO Box 883 West Chester, Pa 19381 | 2 | 2 | 4 | 2 | 1 |
| EXISTING | 423 W Rosedale Ave | Troy Cummings | 10 W Rosedale Ave West Chester , Pa 19382 | 1 | 1 | 4-Feb | 0 | 2023423 |
| EXISTING | 122 East Chestnut St. | Joseph Messina | 44 Ashton Way | 0 | 2 | 5 | 3 | 1 |
| | 239 Dean Street West Chester, PA 19380 | Jeffery Budden | Chris Harmer, Manager 20 W. Chestnut St Ste 1 West Chester, PA 19380 | 0 | 1 | 2 | 1 | 1 |
| EXISTING | 2 SHERMAN ALY WEST CHESTER PA 19382 | MICHAEL | 724 PEACH TREE DRIVE WEST CHESTER PA 19380 | 0 | 1 | 3 | 0 | 2 SHERMAN ALY |
| | 205 WOLLERTON ST | RICHARD PILOTTI | 922 PAOLI PIKE WEST CHESTER PA 19380 | 1 | 1 | 2 | 0 | 1 |
| EXISTING | 310 E Barnard St | Marcus & Sandra Boeber | PO Box 863 west Chester pa 19381 | 1 | 1 | 5 | 0 | |
| EXISTING | 219 West Miner St., West Chester, PA 19382 | Jeremiah and Louise Kane | 1035 Squires Dr., Westchester, PA 19382 | Zero | Four | 5 | 0 | One |
| EXISTING | 326 W. Barnard St. | Sarah Hudgings | 519 Sharpless Street West Chester | One house | 1 | 3 | 2 | 326 W Barnard |
| EXISTING | 318 Michaels Aly | Jared Ogden | 300 River Station Blvd, Apt 362 | 1 | 1 | 2 | 3 | |
| EXISTING | 39 S. High Street west chester pa 19382 | Chris Knight | 166 Dilworthtown Rd West chester pa 19382 | 1 | 5 | 5 | 0 | 1 |
| EXISTING | 408 West Miner Street | Patricia Graf | 408 West Miner Street West Chester, PA 19382 | 2 | 2 | 4 | 0 | 408 W. Miner St FL 1 |
| EXISTING | 311 S. Brandywine St. West Chester, PA 19382 | H. Thomas & Vicki D. Sutton | 420 West Union St. West Chester, PA 19382 | 0 | 1 | 1 | 0 | 1 |
| EXISTING | 731 north Walnut St. | Linda Hickman | PO Box 256 West Chester PA 19381 | 0 | 1 | 1 | 2 | 1 |
| EXISTING | 715 S Wayne Street | Katherine Wiggins | 5951 NE 22nd Terr Fort Lauderdale FL 33308 | 0 | 1 | 2 | 1 | 715 S Wayne Street |
| EXISTING | 715 S Wayne Street West Chester PA 19382 | katherine wiggins | 5951 NE 22nd Terr Fort Lauderdale FL 33308 | 0 | 1 | 2 | 2 | 715 S Wayne St |
| EXISTING | 128 West Chestnut Street | Tyler Kuhn | 1223 Indian Trail Drive, Downingtown PA 19335 | 4 | 1 | 4 | 4 | 1 |
| EXISTING | 26 West Union Street | Whomestead LLC | 26 West Union Street | 0 | 5 | 2 | 2 | 2 |

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|---|---|---|---|---|---|---|---|---|
| EXISTING | 213 South New Streeet | William F Lynch | 526 North Church Street West Chester PA | 1 | 1 | 1 | 0 | 213 S New St |
| EXISTING | 120 Lacey St | Anthony DeRemer | 120 Lacey St. West Chester, Pa 19382 | 1 | 1 | 2 | 0 | 1 |
| EXISTING | 212 W Miner Street, West Chester, PA 19382 | Nader Afshar | 1221 Parkerville Road, Kennett Square, PA 19348 | 0 | 7 | 7 | 1 | 5 |
| | 418 W. Miner Street West Chester, PA 19382 | Will Rutledge | 340 Goldco Circle Golden, Co 80403 | 0 | 2 | 3 | 0 | 1 |
| EXISTING | 207 DiBaptiste Lane West Chester 19382 | Curt DeWolf | 1261 Surrey Road West Chester 19382 | 1 | 1 | 2 | 2 | 1 |
| NEW | 725 South Penn Street | Matthew Tweedie | 725 S Penn Street | 2 | 1 | 1 | 0 | 1 |
| EXISTING | 325 W Washington Street | Chris Gagnier | 1520 Montvale Circle West Chester, Pa 19380 | 1 | 1 | 3 | 1 | 1 |
| EXISTING | 249-251 E Chestnut St | Thomas Acchione | 610A Reservoir Rd West Chester, PA 19380 | 0 | 3 | 5 | 0 | 249 |
| EXISTING | 125 South Darlington Street | Mary C Lister | 560 Grand St, 4R, Brooklyn NY 11211 | 1 | 1 | 2 | 0 | N/A |
| EXISTING | 125 East Market Street | Peter & Anne Seelaus | 510 Timberline Trail West Chester Pa 19382 or PO Box 1009 Media Pa 19063 | 2 | 2 | 4 | 4-Feb | 1 |
| EXISTING | 133 East Market Street | Peter & Anne Seelaus | 510 Timberline Trail West Chester PA 19382 | 4 | 4 | 4 | 4 | 1 |
| EXISTING | 322 Dean Street West Chester 19382 | Konstantinos Botos | 7 Paxon Circle Broomall PA 19008 | 2 | 1 | 4 | 4 | A |
| NEW | 24 W Miner Street, West Chester, PA, 19382 | Ben & Kelli McIntosh | 1012 Laurel Drive, West Chester, PA, 19380 | 4 | 1 | 3 | 0 | |
| EXISTING | 107 N.Bradford ave | Chris Latyak | 203 Afton Way West Chester PA 19380 | 1 | 1 | 2 | 1 | |
| EXISTING | 231 S Adams St | Rachel Coyle-Repischak | 1411 Stallion Lane West Chester, PA 19380 | 1 | 1 | 1 | 2 | 231 S Adams St |
| EXISTING | 620 N Matlack St | woodrow | 620 n matlack st | 0 | 1 | 1 | 10 | 1 |
| EXISTING | 202-204 East Market St | CareLink Community Support Services of PA Inc | 106 Chesley Dr, Media PA 19063 | 0 | 4 | 3 | 5 | 1 |
| EXISTING | 320 W Gay St | Jim Hudgings | 409 W. Union St West Chester, PA 19382 | 0 | 5 | 8 | 0 | 1A |
| EXISTING | 126 West Chestnut St | Christine Morales | 301 Oak Lane West | 1 | 1 | 2 | 0 | 126 |
| EXISTING | 7 s new st | Catherine Miller | 102 shinnecock hill avondale pa 19311 | 2 | 1 | 2 | 0 | 7 s new st |

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|---|---|---|---|---|---|---|---|---|
| EXISTING | 701 E Barnard St, West Chester, PA 19382 | Kevin Tyndall | 1501 Cardiff Ter, West Chester, PA 19380 | 0 | 1 | 1 | 1 | 701 E Barnard St |
| EXISTING | 429 s church st | brian hutchinson | 1203 farmington lane | 0 | 2 | 4 | 0 | 1 |
| EXISTING | 422 West Barnard St | Robert and Delores Court | 422 West Barnard St | 0 | 2 | 1 | 0 | 2 |
| EXISTING | 425 W Barnard St. | Timothy Lutz | 423 W Barnard St. West Chester PA 19382 | 0 | 1 | 2 | 0 | 1 |
| EXISTING | 118 W. Union St. West Chester, PA 19382 | David Trajtenberg | 140 E. Marshall St. West Chester, PA 19380 | 1 | 1 | 2 | 0 | 1 |
| EXISTING | 211 E. Market St. - Residential | Chester Springs Property Associates LLC | 1326 Yellow Springs Rd | 2 | 2 | 4 | 4 | 211 - 2nd floor Residential |
| EXISTING | 320 S Walnut Street #1<br><br>West Chester, PA 19382 | Chris Smith | 320 S Walnut Street #2<br>West Chester, PA 19382 | 1 | 1 | 2 | 1 | 1 |
| EXISTING | 406 Dean Street Unit 1 | Dustin + Jaclyn Kasper | 912 N New Street West Chester, PA 19380 | 1 | 1 | 2 | 2 | 1 |
| EXISTING | 2 West Gay street | Mayfield Investments LLC | 1229 Valley Road Glen Mills pa 19342 | 0 | 4 | 8 | 0 | Apartment 1 |
| EXISTING | 329 W Miner Street | Chesco Rentals LLC (Christine Malinowski) | PO Box 72212 Thorndale, PA 19372 | 0 | 5 | 6 | 0 | CH |
| EXISTING | 542 S. Adams St | Kathleen Singleton | 582 Clearview Rd | 3 | 1 | 1 | 0 | 542 S Adams St Rm #1 |
| EXISTING | 113 S Adams St | Anthony Saletta | 402 W Gay St | 1 | 1 | 1 | 2 | N/A |
| EXISTING | 230 Wollerton Sr | T&M Realty | 227 W Miner St | 0 | 2 | 3 | 0 | 1 |
| EXISTING | 427 west barnard street | Helene clair | 907 copes lane, west chester, PA 19380 | 0 | 1 | 1 | 0 | |
| EXISTING | 321 South Matlack Street | Ronald Carson | 135 E Union Street West Chester | 1 | 1 | 2 | 2 | 321 |
| EXISTING | 322 South Matlack Street West Chester | Ronald Carson | 135 E Union Street West Chester Pa 19382 | 1 | 1 | 4 | 0 | 322 South Matlack |
| EXISTING | 136 west gay street | ilysa biles | 1033 welsh ayers way downingtown pa 19335 | 1 | 1 | 2 | 1 | 1 |
| EXISTING | 433 West Miner Street | Brandon Oâ€™Neill | 433 W Miner Street | 0 | 2 | 2 | 4 | A |
| EXISTING | 123 S Church Street | Brandon O'Neill | 433 W Miner Street | 0 | 3 | 3 | 0 | 1st Floor |
| EXISTING | 132 E Miner Street | Roger Brown, Estate of | 126 Chichester Road | 0 | 1 | 1 | 0 | 132 E Miner St |

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|---|---|---|---|---|---|---|---|---|
| | | Josephine Burke | Monroe Township, NJ 08831 | | | | | |
| EXISTING | 235 E CHESTNUT ST | Roger Brown, Estate of Josephine Burke | 126 Chichester Road Monroe Township, NJ 08831 | 0 | 1 | 1 | 0 | 235 E Chestnut St |
| EXISTING | 336 E Miner St West Chester, PA 19382 | Bethel Ame Church Of West Chester | 334 E Miner St West Chester, PA 19382 | 0 | 1 | 2 | 0 | 336 E Miner St |
| EXISTING | 24 South New St | Deborah Deaver | 504 E. 63Rd St Apt 23-P New York, NY 10065 | 0 | 1 | 1 | 0 | Upstairs Residential |
| EXISTING | 131 SHARPLESS ST | Deborah Deaver | 504 E. 63Rd St Apt 23-P New York, NY 10065 | 0 | 1 | 2 | 1 | 131 Sharpless St |
| EXISTING | 113 DEAN ST | Gary Deaver | 1353 Mark Drive West Chester, PA 19380 | 0 | 2 | 4 | 2 | UNIT 1 |
| EXISTING | 113 Dean Street -- please void last submitted one where I didn't include unit 2 info | Gary Deaver | 1353 Mark Drive West Chester, PA 19380 | 0 | 2 | 4 | 2 | UNIT 1 |
| EXISTING | 325 North Darlington Street | Alyssa Yori | 800 E Swedesford Road Exton Pa 19341 | 1 | 1 | 2 | 2 | 1 |
| EXISTING | 439 Sharpless Street | Keith Renaldo | 218 North Church Street, Suite 218 E | 1 | 1 | 2 | 2 | 1 |
| EXISTING | 515 West Marshall Street | Derek Brogan | 219 Wencin Way West Chester PA 19382 | 1 | 1 | 2 | 4 | Steven Karaszkiewiez, Anna Marie Georgina Waller |
| EXISTING | 516 South Matlack Street West Chester, Pa 19382 | Brett Terry & David Chu | 803 General Howe Drive West Chester, Pa 19382 | 1 | 1 | 4 | 3 | Marissa Kelly |
| EXISTING | 514 S Church Street | Robert Coldwell | 389 W Turnberry Ct West Chester Pa 19382 | 0 | 1 | 4 | 2 | Jeffrey Beatty |
| | 227 N. Walnut St. | David Swintek | 120 W. Market St. West Chester, PA 19382 | 0 | 4 | 5 | 0 | Shelby Senior |
| | 520 S, Church Street | Albert and Margaret Congleton | 965 W. miner Street West Chester, Pa | 1 | 1 | 4 | 4 | 520 S church |
| EXISTING | 141 sharpless st | Ross Fisher | 141 sharpless street | 1 | 1 | 3 | 2 | 2 |
| EXISTING | 741 S Matlack St | Adam and Emily Bagelman | 110 Berwick Drive, WC PA 19382 | 0 | 2 | 5 | 2 | 2 |
| EXISTING | 22 N Darlington St | Elizabeth Campbell | 208 N Benjamin Dr. West Chester PA, 19382 | 1 | 1 | 2 | 0 | 1 |
| | 221 east nields street | Orazio Nastase | 549 South Matlack St | 0 | 2 | 8 | 4 | 221-1 |
| EXISTING | 25 Price St. | Anthony Bisazza | 1004 Woodtone Rd. | 2 | 2 | 5 | 0 | 2 |

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|---|---|---|---|---|---|---|---|---|
| EXISTING | 230 Price Street | HNR Associates | 620 S. Franklin Street, Office B-18 West Chester, PA 19382 | 6 | 0 | 7 | 0 | 230P-1 SUBLET |
| EXISTING | 301 S. New St. West Chester, PA 19382 | Stephen Smith | 315 Lafayette Rd Coatesville,PA 19320 | 0 | 2 | 6 | 0 | 1 |
| | 315 Lafayette Road Apt 2 West Chester, PA 19382 | Stephen Smith | 315 Lafayette Rd Coatesville, PA 19620 | 0 | 2 | 4 | 0 | 2 |
| EXISTING | 620 S Franklin St, B-15 | Prith Ruprai | 6209 Connie Lane Colleyville, TX 76034 | 0 | 1 | 3 | 1 | B-15 |
| EXISTING | 610 S. Walnut St West Chester, PA 19382 | Stephen Smith | 315 Lafayette Rd Coatesville,PA 19320 | 0 | 1 | 4 | 2 | |
| | 305 S. New St West Chester, PA 19382 | Stephen Smith | 315 Lafayette Rd Coatesville, PA 19382 | 0 | 1 | 4 | 2 | |
| EXISTING | 305 S. New St West Chester, PA 19382 | Stephen Smith | 315 Lafayette Rd Coatesville, PA 19320 | 0 | 1 | 4 | 2 | |
| EXISTING | 520 south darlington | Mike Lockwood | 955 conner rd 19380 | 1 | 1 | 4 | 4 | 1 |
| EXISTING | 34 N New St | William Hicks | PO Box 3113 West Chester, PA 19381 | 0 | 1 | 4 | 3 | N/A |
| NEW | 115 S Walnut St #3 West Chester | Core Realty, Property Manager for Landlord | 3200 Concord Rd STE 103 Aston PA 19014 | 0 | 1 | 1 | 1 | 3 |
| EXISTING | 227 W Miner Street | TM Realty | 227 W Miner St | 0 | 2 | 2 | 0 | 2 Front |
| EXISTING | 301 S. New St Apartment 2 West Chester, PA 19382 | Stephen Smith | 315 Lafayette Rd Coatesville,PA 19320 | 0 | 1 | 4 | 0 | 2 |
| EXISTING | 301 S. New St Apartment 1 West Chester, PA 19382 | Stephen Smith | 315 Lafayette Road Coatesville,PA 19320 | 0 | 1 | 2 | 0 | 1 |
| EXISTING | 329 W BARNARD ST | DAVID B.YARNALL & Gretchen C. Yarnall | 510 s Wawaset rd WC pa 19382 | 0 | 2 | 6 | 0 | 1 |
| EXISTING | 329 W BARNARD ST | DAVID B.YARNALL & Gretchen C. Yarnall | 510 s wawaset rd wc 19382 | 0 | 2 | 6 | 0 | 1 |
| EXISTING | 329 W BARNARD ST | DAVID B.YARNALL & Gretchen C. Yarnall | 510 s wawset rd wc 19382 | 0 | 2 | 6 | 0 | 2 |
| EXISTING | 232 Price st | DAVID B.YARNALL & Gretchen C. Yarnall | 510 s wawaset rd wc pa 19382 | 0 | 6 | 11 | 6 | 1 |
| EXISTING | 232 Price st | DAVID B.YARNALL & | 510 s wawaset rd wc 19382 | 0 | 6 | 11 | 6 | 2 |

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|---|---|---|---|---|---|---|---|---|
| | | Gretchen C. Yarnall | | | | | | |
| EXISTING | 232 Price | DAVID B.YARNALL & Gretchen C. Yarnall | 510 s wawset rd wc 19382 | 0 | 6 | 11 | 6 | 6 |
| EXISTING | 112 E Nields st | DAVID B.YARNALL & Gretchen C. Yarnall | 510 s wawaet rd wc 19382 | 0 | 1 | 4 | 4 | 1 |
| EXISTING | 605 s Matlack St | DAVID B.YARNALL & Gretchen C. Yarnall | 510 s wawaset rd wc 19382 | 0 | 1 | 4 | 4 | 1 |
| EXISTING | 134 Lacey st | DAVID B.YARNALL & Gretchen C. Yarnall | 510 s wawaset rd wc 19382 | 0 | 2 | 6 | 0 | 1 |
| EXISTING | 134 Lacey st | DAVID B.YARNALL & Gretchen C. Yarnall | 510 s wawaset rd wc 19382 | 0 | 2 | 6 | 0 | 2 |
| EXISTING | 432 S WALNUT ST | DAVID B.YARNALL & Gretchen C. Yarnall | 510 s wawset rd | 0 | 2 | 6 | 4 | 1 |
| EXISTING | 432 s Walnut st | DAVID B.YARNALL & Gretchen C. Yarnall | 510 s wawaset rd wc 19323 | 0 | 2 | 6 | 4 | 2 |
| EXISTING | 227 W union st | DAVID B.YARNALL & Gretchen C. Yarnall | 510 s wawaset rd | 0 | 2 | 5 | 1 | 2 |
| EXISTING | 237 W Union st | DAVID B.YARNALL & Gretchen C. Yarnall | 510 s wawaset rd wc 19382 | 0 | 2 | 5 | 2 | 2 |
| EXISTING | 521 S Matlack st | DAVID B.YARNALL & Gretchen C. Yarnall | 510 s wawaet rd wc 19382 | 0 | 1 | 4 | 4 | 1 |
| EXISTING | 21 s Church st | DAVID B.YARNALL & Gretchen C. Yarnall | 510 s wawaset rd wc 19382 | 0 | 1 | 2 | 1 | 1 |
| EXISTING | 305 S. New St West Chester, PA 19382 | Stephen Smith | 315 Lafayette Road Coatesville, PA 19320 | 0 | 1 | 4 | 2 | 1 |
| EXISTING | 305 S. New St West Chester, PA 19382 | Stephen Smith | 315 Lafayette Road Coatesville, PA 19320 | 0 | 1 | 4 | 2 | 1 |
| EXISTING | 9 S. New Street | HNR Associates | 620 S. Franklin Street, Office B-18 West Chester, PA 19382 | 0 | 1 | 4 | 0 | 9SN |
| EXISTING | 726 S Adams St | Jeffrey Bryant and John Becker | 986 E Penn Dr West Chester, PA 19380 | 0 | 1 | 3 | 1 | 1 |

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|---|---|---|---|---|---|---|---|---|
| EXISTING | 137 Price Street | Fred Walbuesser | 512 Washington Ave. Downingtown, PA 19335 | 1 | 3 | 3 | 1 | 1 |
| EXISTING | 610 S. Walnut St West Chester, PA 19382 | Stephen Smith | 315 Lafayette Road Coatesville, PA 19320 | 0 | 1 | 4 | 2 | |
| EXISTING | 122 Lacey Street | Nguyen Investment Property | P.O. BOX 1472 WEST CHESTER, PA 19380 | 0 | 1 | 4 | 0 | 1 |
| EXISTING | 21 price st west chester pa | Daniel Hamm | 1543 pennsbury dr west chester pa 19382 | 1 | 1 | 4 | 1 | |
| EXISTING | 529 South Walnut Street, unit 1 | Steven Kotroba | 13 Timber La. Thornton, pa 19373 | 0 | 2 | 8 | 0 | 1 |
| EXISTING | 529 South Walnut Street unit 2 | Steven Kotroba | 13 Timber La. Thornton, Pa 19373 | 0 | 2 | 4 | 0 | 2 |
| EXISTING | 141 E. Neilds St | 141 Associates, LLC | c/o Mike Santoleri 17 Campus Blvd, Ste 155 Newtown Square, PA 19073 | 1 | 1 | 3 | 0 | 1 |
| NEW | 538 South Matlack St. | E Spencer Ring Jr/Pamela Ring | 849 Conner Road West Chester PA 19380 | 1 | 1 | 4 | 2 | 538 South Matlock St. |
| EXISTING | 121 E Nield | Martha B. Coyle | 1113 Butternut Road Glen Mills PA 19342 | 3 | 4 | 6 | 0 | First Fl. |
| EXISTING | 303 S New Street West Chester, PA 19382 | Rudi Property Mgt | 636 N Speakman Lane West Chester, PA 19380 | 0 | 2 | 6 | 1 | A |
| EXISTING | 610 S. Walnut St West Chester, PA 19382 | Stephen Smith | 315 Lafayette Road Coatesville,PA 19320 | 0 | 1 | 4 | 2 | |
| EXISTING | 327 South High Street | WCOCH | 327 S. High St. | 0 | 1 | 4 | 2 | 327-2 |
| EXISTING | 301 S. New St Apartment 2 West Chester, PA 19382 | Stephen Smith | 315 Lafayette Road Coatesville, PA 19320 | 0 | 1 | 4 | 0 | |
| EXISTING | 135 E Barnard St, West Chester PA 19382 | Chris Harmer | 1313 Stonegate Drive, Downingtown PA 19335 | 0 | 1 | 3 | 0 | 1 |
| | 411 S Matlack St. West Chester PA 19380 | Chris Harmer | 1313 Stonegate Drive Downingtown PA 19335 | 0 | 1 | 4 | 4 | 1 |
| | 22 S New St West Chester PA 19380 | Chris Harmer | 1313 Stonegate Drive Downingtown PA 19335 | 0 | 2 | 5 | 3 | 1 |
| EXISTING | 539 S Franklin St. West Chester. PA. 19382 | Robert Knowlton | 5232 Oleander Rd. Drexel Hill. PA. 19026 | 4 | 4 | 4 | 4 | 539 |
| EXISTING | 620 S Franklin St. Apt B16. West Chester. PA. 19382 | Robert Knowlton | 5232 Oleander Rd. Drexel Hill. PA. 19026 | 2 | 2 | 3 | 3 | B16 |

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|---|---|---|---|---|---|---|---|---|
| EXISTING | 701 S Walnut St West chester Pa | Cleo Elkinton | 26959 Sunburst Path Millsboro De 19966 | 4 | 1 | 4 | 0 | 1 |
| EXISTING | 643 S. Matlack Street | WCOCH | 327 S. High Street | 0 | 1 | 4 | 2 | |
| EXISTING | 509 S Matlack Street | Adam and Emily Bagelman | 110 Berwick Dr, WC PA 19382 | 0 | 1 | 4 | 2 | |
| EXISTING | 612 S Matlack Street | Adam and Emily Bagelman | 110 Berwick Dr, WC PA 19382 | 0 | 1 | 4 | 4 | |
| EXISTING | 227 Wollerton St | Tom Mohr | 1401 Highland Rd, Downingtown, PA 19335 | 0 | 1 | 4 | 0 | |
| EXISTING | 723 S. Walnut Street | WCOCH | 327 S. High Street | 0 | 1 | 4 | 2 | |
| EXISTING | 725 S. Walnut Street | WCOCH | 327 S. High Street | 0 | 1 | 4 | 2 | |
| EXISTING | 750 S. Franklin Street | WCOCH | 327 S. High Street | 0 | 1 | 4 | 2 | |
| EXISTING | 143 e nields st | Jay McIntyre | 821 S New St West Chester, PA 19382 | 821 S New St | 1 | 4 | 0 | 1 |
| EXISTING | 435 East Nields St | Jay McIntyre | 821 S New St West Chester PA 19382 | 1 | 1 | 4 | 0 | 1 |
| | 710 S Franklin St | Jay McIntyre | 821 S New St West Chester, PA 19382 | 1 | 1 | 4 | 4 | 1 |
| EXISTING | 128 W Gay Street West Chester, Pa 19380 | Gay Street Development Company LLC | PO Box 883 West Chester, Pa 19381 | 3 | 3 | 9 | 3 | 1 |
| EXISTING | 201 S High Street West Chester, Pa 19382 | South West Chester Development Company, LLC | PO Box 883 West Chester, Pa 19381 | 3 | 3 | 9 | 2 | 1 |
| EXISTING | 740 South Matlack Street | Ed Woods | 1264 Cardinal Ave West Chester, PA 19380 | 0 | 2 | 8 | 8 | 1 |
| EXISTING | 226 S Walnut Street West Chester, Pa 19382 | Zukin Investment LP | PO Box 83 West Chester, Pa 19381 | 2 | 2 | 8 | 2 | 1 |
| EXISTING | 131 W Market Street West Chester, Pa 19380 | West Chester Market Street Development Company LLC | PO Box 883 West Chester, Pa 19381 | 1 | 1 | 4 | 0 | 1 |
| EXISTING | 123-129 W Market Street West Chester, Pa 19380 | Mid-Atlantic Society Hill, LLC | PO Box 883 West Chester, Pa 19381 | 3 | 3 | 12 | 2 | WM123 |

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|---|---|---|---|---|---|---|---|---|
| EXISTING | 151 W Gay Street West Chester, Pa 19380 (Lease Address 111 N Darlington Street West Chester, Pa 19380) | Gay Street Development Company LLC | PO Box 883 West Chester, Pa 19381 | 3 | 3 | 12 | 0 | 1 |
| EXISTING | 401 W Miner Street West Chester, Pa 19382 | Zukin Development Corporation | PO Box 883 West Chester, Pa 19381 | 4 | 4 | 13 | 0 | 1 |
| EXISTING | 147 W Gay Street West Chester, Pa 19380 | Gay Street Development Company LLC | PO Box 883 West Chester, Pa 19381 | 3 | 3 | 8 | 0 | 1 |
| | 221 N Church Street West Chester, Pa 19380 | 221-227 N. Church Street, LLC | PO Box 883 West Chester, Pa 19381 | 2 | 2 | 5 | 2 | 1 |
| EXISTING | 136 E Gay Street West Chester, Pa 19380 | Mid-Atlantic Society Hill, LLC | PO Box 883 West Chester, Pa 19381 | 1 | 1 | 3 | 0 | 1 |
| EXISTING | 313 north high st west chester, pa 19380 | KIMBERLY PHELPS | 313 N High St Apt 1 West Chester, pa 19380 | 0 | 1 | 4 | 4 | 2 |
| EXISTING | 9 N Matlack Street West Chester, Pa 19380 | 7-11 N Matlack Street, LLC | PO Box 883 West Chester, Pa 19381 | 3 | 3 | 8 | 2 | 1 |
| EXISTING | 142 W Gay Street West Chester, Pa 19380 | Gay Street Development Company LLC | PO Box 883 West Chester, Pa 19381 | 2 | 2 | 6 | 4 | 1 |
| EXISTING | 129-131 E Gay Street West Chester, Pa 19380 | Gay Street Development Company LLC | PO Box 883 West Chester, Pa 19381 | 2 | 2 | 6 | 0 | 1 |
| EXISTING | 311 S New Street West Chester Pa 19380 | JJNJ properties LLC | 1708 Rosewood Lane Chadds Ford Pa 19317 | 0 | 1 | 4 | 4 | 311 s new |
| | 311 S New Street West Chester Pa 19380 | JJNJ properties LLC | 1708 Rosewood Lane Chadds Ford Pa 19317 | 0 | 1 | 4 | 4 | 311 s new |
| EXISTING | 27 Price St | N&N Ventures, LLC | 31 New Whitehorse Way Malvern, PA 19355 | 0 | 1 | 4 | 0 | 1 |
| EXISTING | 126 E. Nields St. | Timothy C. Graham | 117 Linden St. West Chester, PA 193821 | 0 | 1 | 4 | 2 | 1 |
| EXISTING | 25 E Barnard St. | Marianne Storm | 1121 Park West Blvd. Ste B154 Mount Pleasant, SC 29466 | 8 | 2 | 8 | 0 | 1 |
| EXISTING | 703 S Walnut Street | James Hay | 201 N Deerwood Drive | 4 | 1 | 4 | 4 | |
| EXISTING | 406 Dean Street Unit 2 | Dustin + Jaclyn Kasper | 912 N New Street West Chester, PA 19380 | 4 | 1 | 4 | 0 | 2 |

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|---|---|---|---|---|---|---|---|---|
| EXISTING | 703 S Walnut Street | James Hay | 201 N Deerwood Avenue West Chester, PA 19380 | 1 | 4 | 4 | 4 | |
| EXISTING | 537 S. Matlack | N&N Ventures, LLC | 31 New Whitehorse Way Malvern, PA | 0 | 1 | 4 | 1 | 1 |
| EXISTING | 137 Lacey West Chester Pa | Carroll Properties LLC | 128 Bantery Rd West Chester Pa 19380 | 4 | 1 | 4 | 0 | 1 |
| EXISTING | 221 Sharpless St West Chester pa | Carroll Properties LLC | 128 Bantery Rd West Chester PA 19380 | 4 | 1 | 4 | 2 | 1 |
| EXISTING | 307 S New St West Chester pa | Carroll Properties LLC | 128 Bantery Rd West Chester Pa 19380 | 4 | 1 | 4 | 2 | 1 |
| EXISTING | 139 Lacey St West Chester Pa 19382 | Carroll Properties LLC | 128 Bantery Rd West Chester Pa 19380 | 4 | 1 | 4 | 0 | 1 |
| EXISTING | 207 S. .Walnut | 207 S. Walnut LP | 31 New Whitehorse Way Malvern, PA 19355 | 0 | 3 | 9 | 6 | 1 |
| EXISTING | 518 S. Church St | N&N Ventures | 31 New Whitehorse Way Malvern, PA 19355 | 0 | 1 | 4 | 1 | 1 |
| EXISTING | 133 Dean St | N&N Ventures, LLC | 31 New Whitehorse Way Malvern, PA | 5 | 1 | 12 | 4 | 1 |
| EXISTING | 300 w barnard st | jc housing llc | 225 s church st suite 206 | 0 | 1 | 4 | 0 | |
| EXISTING | 204 Price Street | SEA Bagelman LLC | PO Box 3381 West Chester, PA 19381 | 0 | 3 | 12 | 6 | 1 |
| EXISTING | 201 S. Walnut Street | Kathleen DiPeso | 854 Brandywine Rd West Chester, PA 19380 | 3 | 11 | 12 | 4 | First Floor |
| EXISTING | 201 S. Walnut Street | Kathleen DiPeso | 854 Brandywine Road West Chester, PA 19380 | 3 | 11 | 12 | 4 | 3rd Floor |
| | 201 S. Walnut Street | Kathleen DiPeso | 854 Brandywine Road West Chester, PA 19380 | 3 | 11 | 12 | 4 | 2nd Floor |
| EXISTING | 31 Dean Street | Kathleen DiPeso | 854 Brandywine Road West Chester, PA 19380 | 3 | 11 | 12 | 4 | Rear Apt. |
| EXISTING | 309 s new street west chester pa 19382 | JJNJ properties LLC | 1708 rosewood lane chadds ford pa 19317 | 0 | 1 | 4 | 0 | 309 s new |
| EXISTING | 31 Dean Street | Kathleen DiPeso | 854 Brandywine Rd West Chester, PA 19380 | 0 | 2 | 7 | 2 | Rear Apt. |
| EXISTING | 31 Dean Street | Kathleen DiPeso | 854 Brandywine Rdla West Chester, PA 19380 | 0 | 2 | 7 | 2 | Front Apt |

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|---|---|---|---|---|---|---|---|---|
| EXISTING | 29 Price Street, West Chester, PA 19382 | Michael T. Rody | 14 S. Church Street 1st Floor West Chester, PA 19382 | 0 | 1 | 4 | 29 | 29 Price Street |
| EXISTING | 29 Price Street, West Chester, PA 19382 | Michael T. Rody | 14 S Church St, 1st FL West Chester, PA 19382 | 0 | 1 | 4 | 29 | 29 Price Street |
| EXISTING | 227 South Darlington Street | Bruce Herald | 727 Mercers Mill Ln West Chester PA 19382 | 0 | 1 | 4 | 0 | 1 |
| EXISTING | 132 Lacey Street | Robert Tresca | PO Box 72824, Thorndale, PA, 19372 | 0 | 1 | 4 | 0 | 132 |
| EXISTING | 21 S New Street | Eaton Hopkins | PO Box 72824, Thorndale, PA, 19372 | 0 | 3 | 6 | 0 | 21 S New |
| EXISTING | 123 Linden Street | Gregory A Hill | 515 Southern Dr West Chester PA 19380 | 0 | 1 | 4 | 0 | 123 Linden Street |
| EXISTING | 607 South Walnut Street | Nguyen Investment Property | PO BOX 1472 WEST CHESTER, PA 19380 | 0 | 2 | 6 | 0 | 2 |
| EXISTING | 121 Linden St West Chester PA 19382 | Gregory A Hill | 515 Southern Dr West Chester PA 19380 | 0 | 1 | 4 | 0 | 121 Linden St |
| EXISTING | 119 Lacey St West Chester PA 19382 | Gregory A Hill | 515 Southern Dr West Chester PA 19380 | 0 | 1 | 4 | 0 | 119 Lacey St |
| EXISTING | 133 Magnolia Street West Chester PA 19382 | Gregory A Hill | 515 Southern Dr West Chester PA 19380 | 0 | 1 | 4 | 4 | 133 Magnolia St |
| EXISTING | 135 Magnolia St West Chester PA 19382 | Gregory A Hill | 515 Southern Dr West Chester PA 19380 | 0 | 1 | 4 | 4 | 135 Magnolia St |
| EXISTING | 22 Price Street West Chester PA 19382 | Gregory A Hill | 515 Southern Dr West Chester PA 19380 | 0 | 1 | 4 | 4 | 22 Price St |
| EXISTING | 501 S Matlack Street | SEA Bagelman LLC | PO Box 3381 West Chester, PA 19381 | 0 | 2 | 8 | 6 | 1 |
| | 211 S Walnut | 200 Walnut LLC | PO Box 3381 West Chester, PA 19381 | 0 | 3 | 11 | 2 | 1 |
| NEW | 423 South Church St | Jon and Kim Ruggeri | 423 South Church | 4 | 1 | 4 | 0 | 0 |
| EXISTING | 423 South Church St | Jon and Kim Ruggeri | 602 Scott Ave North Cape May, NJ 08204 | 4 | 1 | 4 | 0 | 0 |
| EXISTING | 315 S Walnut Street West Chester, Pa 19382 | 315 and 317 S Walnut Street LLC | PO Box 883 West Chester, Pa 19381 | 5 | 5 | 9 | 4 | 4 |
| EXISTING | 35 S Darlington Street | Martin Bryce | PO Box 72824, Thorndale, PA, 19372 | 0 | 1 | 4 | 0 | 35 |
| EXISTING | 509 S High Street | 509 S High Lp | PO box 3381 West Chester, PA 19381 | 0 | 3 | 9 | 6 | 1 |

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|---|---|---|---|---|---|---|---|---|
| EXISTING | 10 e barnard st | jason chen | 304 berkley ln west chester pa 19380 | 0 | 1 | 4 | 304 | |
| EXISTING | 130 E. Union St | J. Brian Seidel | 3750 Main St Apt 210 Philadelphia, PA 19127 | 4 | 1 | 4 | 0 | 130 E Union |
| EXISTING | 311 s new street west chester pa 19382 | JJNJ properties LLC | 1708 Rosewood Lane Chadds ford pa 19317 | 0 | 1 | 4 | 0 | 311 s new |
| | 211 w barnard street wc pa 19382 | jeffrey gressel | 180 thornton road thornton pa 19373 | 1 | 1 | 4 | 3 | 1 |
| EXISTING | 111 E Miner St | 111 AH LLC | 908 Old Fern Hill Rd West Chester, PA 19380 | 1 | 1 | 4 | 0 | 1 |
| EXISTING | 633 South Walnut street | Christos Tagalidis | 103 Davis ave Broomall pa 19008 | 0 | 3 | 7 | 0 | 1 |
| EXISTING | 514 S Walnut St | Sam Heinz | 833 Church Ave W.C. PA 19382 | 1 | 1 | 4 | 4 | 1 |
| EXISTING | 510 S High Street | Brian Nelson | 905 Pine Valley Cir West Chester Pa 19382 | 0 | 1 | 4 | 4 | 510 |
| NEW | 118A Price Street West Chester, PA 19382 | Doug Bonaduce | 1250 Parkersville Road Kennett Square, PA 19348 | 0 | 1 | 3 | 0 | A |
| EXISTING | 118B Price Street West Chester, PA 19382 | Doug Bonaduce | 1250 Parkersville Road Kennett Square, PA 19348 | 0 | 1 | 4 | 0 | B |
| EXISTING | 13 w barnard st | jason chen | 304 berkley ln west chester | 0 | 1 | 4 | 0 | |
| | 509 S High | 509 S High Lp | PO Box 3381 West Chester, PA 19381 | 0 | 3 | 9 | 6 | 1 |
| EXISTING | 215 S Walnut | 200 Walnut LLC | PO Box 3381 West Chester, PA 19381 | 0 | 3 | 11 | 4 | 1 |
| EXISTING | 217 S Walnut | 200 Walnut LLC | PO Box 3381 West Chester, PA 19381 | 0 | 4 | 8 | 2 | 1 |
| NEW | 123 E Market Street | Denise Wroten | 138 E Market Street | 0 | 1 | 4 | 0 | 2 |
| EXISTING | 525 S Matlack | Thomas Wroten | 138 E Market Street | 0 | 2 | 4 | 0 | 1 |
| NEW | 435 S Walnut | Tom and Denise Wroten | 138 e market street | 0 | 3 | 7 | 0 | 1 |
| EXISTING | 124 Linden Street West Chester PA 19381 | Greg Harkins | 1115 Talleyrand Road West Chester PA 19381 | 0 | 2 | 7 | 4 | 1 |
| EXISTING | 128 Magnolia Street | Greg Harkins | 1115 Talleyrand Road | 0 | 2 | 4 | 4 | 1 |

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|---|---|---|---|---|---|---|---|---|
| | West Chester PA 19381 | | West Chester PA19381 | | | | | |
| EXISTING | 621 S. Walnut St. | Richard Herring JR | 631 S. Walnut St. West Chester, Pa. 19382 | 0 | 6 | 23 | 12 | 1F |
| EXISTING | 536 South Matlack Street | Orazio Nastase | 549 South Matlack St West Chester pa 19382 | 0 | 1 | 3 | 549 | 536 |
| EXISTING | 543 South Matlack St | Orazio Nastase | 549 South Matlack St West Chester Pa 19382 | 0 | 1 | 4 | 2 | 543 |
| EXISTING | 545 S Matlack St | Orazio Nastase | 549 s Matlack st west Chester pa 19382 | 0 | 1 | 4 | 2 | 545 |
| EXISTING | 215 E Nields st | Orazio Nastase | 549 South Matlack St | 0 | 1 | 4 | 2 | 215 |
| EXISTING | 217 e nields St | Orazio Nastase | 549 S Matlack St | 0 | 1 | 4 | 2 | 217 |
| EXISTING | 222 E nields St | Orazio Nastase | 549 S matlack ST | 0 | 1 | 4 | 2 | 222 |
| EXISTING | 224 E nields St | Orazio Nastase | 549 s matlack st | 0 | 1 | 4 | 0 | 224 |
| EXISTING | 226 E nields st | Orazio Nastase | 549 S Matlack st | 0 | 1 | 4 | 2 | 226 |
| EXISTING | 703 S Walnut St | James D Hay | 201 N Deerwood Dr. West Chester, Pa. 19382 | 4 | 1 | 4 | 0 | |
| EXISTING | 13 w barnard st | xing chen | 304 berkley ln west chester pa | 0 | 1 | 4 | 0 | |
| EXISTING | 411 South Walnut Street | Nguyen Investment Property LLC | P.O. BOX 1472 WEST CHESTER, PA 19380 | 0 | 4 | 16 | 0 | 1 |
| EXISTING | 427 S. Church St. | Timothy C. Graham | 120 W. Market St. West Chester, PA 19382 | 0 | 3 | 5 | 0 | 3 |
| EXISTING | 427 S. Church St. | Timothy C. Graham | 120 W. Market St. West Chester, PA 19382 | 0 | 3 | 5 | 0 | 1 |
| EXISTING | 200 Brandywine Rd Collegeville, PA 19426 | BRIAN AND LINDA HAMM | 200 Brandywine Rd Collegeville, PA 19426 | 1 | 1 | 3 | 1 | B21 |
| EXISTING | 532 S. Walnut St. West Chester Pa 19382 | Judith L Walker | 343 Sharpless St. West Chester Pa 19382 | 0 | 1 | 4 | 2 | 1 |
| EXISTING | 614 S Walnut St, West Chester PA, 19382 | Penn Tau Alumni and Volunteer Corporation | 614 S Walnut St, West Chester PA, 19382 | 5 | 1 | 10 | TBD | N/A |
| EXISTING | 518 South Franklin Street West Chester PA 19382 | Anthony Volk | P.O. Box 2570 West Chester PA 19380 | 4 | 1 | 4 | 4 | 1 |
| EXISTING | 137 E Barnard St | 137 AH LLC | 908 Old Fern Hill Rd | 1 | 1 | 4 | 0 | 1 |

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|---|---|---|---|---|---|---|---|---|
| EXISTING | 222 E Gay St | 222 AH LLC | 908 Old Fern Hill Rd | 1 | 1 | 4 | 2 | 1 |
| EXISTING | 203 W Union St | Alison Maguire | 526 S Franklin St, West Chester PA 19382 | 1 | 1 | 4 | 0 | |
| EXISTING | 105 N Darlington Street West Chester, Pa 19380 | 105 N Darlington Streeet LLC | PO Box 883 West Chester, Pa 19381 | 1 | 1 | 4 | 0 | 105 |
| EXISTING | 11 N Matlack Street West Chester, Pa 19380 | 7-11 N Matlack Street, LLC | PO Box 883 West Chester, Pa 19381 | 2 | 2 | 7 | 3 | 1 |
| EXISTING | 128 W Gay Street West Chester, Pa 19380 | Gay Street Development Company LLC | PO Box 883 West Chester, Pa 19381 | 3 | 3 | 10 | 3 | 1 |
| EXISTING | 129-131 E Gay Street West Chester, Pa 19380 | Gay Street Development Company LLC | PO Box 883 West Chester, Pa 19381 | 2 | 2 | 6 | 0 | 1 |
| EXISTING | 223 Sharpless Street | Alison Maguire | 526 S Franklin St, WEst Chester PA 19382 | 1 | 1 | 4 | 2 | |
| EXISTING | 137 E Gay Street West Chester, Pa 19380 | Zukin Development Corporation | PO Box 883 West Chester, Pa 19381 | 3 | 3 | 7 | 4 | 1 |
| EXISTING | 151 W Gay Street West Chester, Pa 19380 (Lease Address 111 N Darlington Street West Chester, Pa 19380) | Gay Street Development Company LLC | PO Box 883 West Chester, Pa 19381 | 3 | 3 | 12 | 0 | 1 |
| EXISTING | 223 N Church Street West Chester, Pa 19380 | 221-227 N. Church Street, LLC | PO Box 883 West Chester, Pa 19381 | 2 | 2 | 6 | 2 | 1 |
| EXISTING | 234 W Gay Street West Chester, Pa 19380 | Zukin Investment LP | PO Box 883 West Chester, Pa 19381 | 1 | 1 | 4 | 2 | 1 |
| EXISTING | 9 N Walnut Street West Chester, Pa 19382 | Historic West Chester Development Company LLC | PO Box 883 West Chester, Pa 19381 | 3 | 3 | 12 | 0 | 1 |
| EXISTING | 20 N Darlington St, Unit 2 | Westbrook Brown Realty LLC | 239 Dean St West Chester, PA 19382 | 0 | 1 | 2 | 0 | 2 |
| EXISTING | 522 S Matlack St | 522 AH, LLC | 908 Old Fern Hill Rd | 1 | 1 | 4 | 4 | 1 |
| EXISTING | 524 S Matlack St | 524 AH, LLC | 908 Old Fern Hill Rd | 1 | 1 | 4 | 4 | 1 |
| EXISTING | 526 S Matlack St | 526 AH, LLC | 908 Old Fern Hill Rd | 1 | 1 | 4 | 4 | 1 |
| EXISTING | 604 S High St | 604 AH, LLC | 908 Old Fern Hill Rd | 1 | 1 | 4 | 4 | 1 |
| EXISTING | 606 S High St | 606 AH, LLC | 908 Old Fern Hill Rd | 1 | 1 | 4 | 4 | 1 |

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|---|---|---|---|---|---|---|---|---|
| EXISTING | 518 South Franklin Street West Chester PA 19382 | Anthony Volk | P.O. Box 2570 West Chester PA 19380 | 0 | 1 | 4 | 0 | 518 S Franklin St. WC 19382 |
| EXISTING | 749 S. Franklin Street | Jim Quinn | 1 Watersmeet Circle Glen Mills, PA 19342 | 3 | 1 | 3 | 0 | 1 |
| EXISTING | 201 W. Union Street | Jim Quinn | 1 Watersmeet Circle Glen Mills, PA 19342 | 4 | 1 | 4 | 0 | 1 |
| EXISTING | 136 Lacey Street | matthew herkins | PO Box 801 Unionville Pa 19375 | 0 | 1 | 4 | 0 | 136 Lacey |
| | 133 Lacey Street Unit A | matthew herkins | PO Box 801 Unionville Pa 19375 | 0 | 2 | 4 | 4 | 133 Lacey Street A |
| | 133 Lacey Street B | matthew herkins | PO Box 801 Unionville,Pa 19375 | 0 | 2 | 1 | 4 | 133 Lacey Street B |
| EXISTING | 437 E. Nields Street | Jeff Heim/ Tim Off | 832 Kenmara Drive West Chester PA 19380 | 1 | 1 | 4 | 0 | 437 E. Nields Street |
| EXISTING | 117 Price Street | Martin Bryce | PO Box 72824 Thorndale, PA, 19372 | 0 | 1 | 4 | 2 | |
| EXISTING | 305 East Rosedale Ave | Paramjit Jittla | 306 N Kent Road | 4 | 1 | 4 | 4 | 1 |
| EXISTING | 529 S Matlack Street | Paramjit Jittla | 306 N Kent Road Broomall, PA 19008 | 4 | 1 | 4 | 2 | 1 |
| EXISTING | 615 S Matlack Street | Amit Deka | 30 Country Village Way Media PA 19063 | 4 | 1 | 4 | 2 | 1 |
| | 610 South High Street | Emidio F Barbati | 610 south high street | 4 | 1 | 4 | 0 | 2 |
| EXISTING | 522 S. Walnut Street | Kevin Treiber / Jasmine Scavo-Treiber | 522 S. Walnut St | 4 | 1 | 2 | 0 | A |
| | Unit B21 620 S Franklin St West Chester, PA 19382 | BRIAN AND LINDA HAMM | 200 Brandywine Rd Collegeville, PA 19426 | 1 | 1 | 2 | 1 | B21 |
| EXISTING | 532 S WALNUT ST WEST CHESTER PA 19382 | JUDITH L WALKER | 343 SHARPLESS ST WEST CHESTER PA 19382 | 0 | 1 | 4 | 2 | 1 |
| | 519 South Matlack Street | matthew herkins | PO Box 801 Unionville Pa 19375 | 0 | 1 | 4 | 4 | 519 South Matlack |
| EXISTING | 613 S. Matlack St. | Thomas Madonna | 706 Valley Green Court, Philadelphia, PA 19128 | 0 | 1 | 3 | 2 | 1 |
| EXISTING | 112 Linden St. West Chester PA 19382 | Edwin and Joan Baldwin | 927 Marie Rochelle Dr. West Chester PA 19382 | 0 | 1 | 4 | 0 | 2 |
| EXISTING | 144 West Union Stree | Nguyen Investment Property LLC | P.O. BOX 1472 WEST CHESTER, PA 19380 | 0 | 4 | 14 | 0 | 1 |
| EXISTING | 11 S New St, West Chester pa | Windle Properties | 1833 W Strasburg Rd, Coatesville Pa 19320 | 4 | 1 | 4 | 0 | 1 |

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|---|---|---|---|---|---|---|---|---|
| EXISTING | 620 S. Franklin Street, Unit A-02 West Chester, PA 19382 | Michael DeWald | 216 Claude Street Annapolis, MD 21401 | 0 | 1 | 3 | 0 | A-02 |
| | 133 Lacey street | matthew herkins | PO Box 801 Unionville pa 19375 | 0 | 2 | 4 | 4 | 133 Lacey Street A |
| EXISTING | 133 Lacey Street B | matthew herkins | PO Box 801 Unionville Pa 19375 | 0 | 2 | 1 | 1 | 133 Lacey Street B |
| EXISTING | 123 West Barnard Street | Nguyen Investment Property LLC | P.O. BOX 1472 WEST CHESTER, PA 19380 | 0 | 3 | 5 | O | 3 |
| EXISTING | 601 S Walnut St, West Chester, PA 19382 | David Nicholson | 1442 Pottstown Pk Suite 352 West Chester PA, 19380 | 2 | 2 | 6 | 0 | Unit 1 |
| EXISTING | 403 S. Church Street, West Chester PA 19382 | Tom and Danae Hudzina | 1233 Palomino Drive, West Chester PA 19380 | 6 | 1 | 10 | 4 | 2A |
| EXISTING | 330 North High Street | Andrew P. Motel | 330 North High Street | 0 | 3 | 3 | 0 | 1 |
| EXISTING | 306 W Barnard st West Chester, PA 19382 | Amedeo Cianci | 1 Woodside Farm Drive Garnet Valley, PA 19060 | 0 | 3 | 6 | 0 | 1 |
| EXISTING | 137 East Nields Street | Brett Terry | 803 General Howe Drive | 1 | 1 | 4 | 1 | 1 |
| EXISTING | 708 South Franklin Street | Brett Terry | 803 General Howe Drive | 1 | 1 | 4 | 1 | 1 |
| EXISTING | 532 South Matlack Street | Brett Terry | 803 General Howe Drive | 1 | 1 | 4 | 2 | 1 |
| NEW | 306 W. Barnard St West Chester, PA 19382 | Amedeo Cianci | 1 Woodside Farm Drive Garnet Valley, PA 19060 | 0 | 3 | 6 | 0 | 1 |
| EXISTING | 721 S Penn St West Chester, PA 19382 | Dale M Bradish | 700 University Bay Dr # 302 Madison, WI 53705 | 1 | 1 | 2 | 2 | 721 S Penn St |
| EXISTING | 518 S Matlack Street | SEA Bagelman LLC | PO Box 3381 West Chester, PA 19381 | 0 | 1 | 4 | 4 | |
| NEW | 31 Price St., West Chester, PA 19382 | E Two, LLC | 1106 Lafayette Rd., Wayne, PA, 19087 | 4 | 1 | 4 | 4 | 1 |
| EXISTING | 31 Price St., West Chester, PA | E Two, LLC | 1106 Lafayette Rd., Wayne, PA, 19087 | 4 | 1 | 4 | 4 | 1 |
| EXISTING | 124 e nield | Martha b coyle | 1113 Butternut Rd., Glenn Mills PA 19342 | 0 | 1 | 4 | 4 | 124 |
| EXISTING | 702 S Franklin | Martha B Coyle | 1113 Butternut Rd., Glen Mills PA 193422 | 0 | 1 | 4 | 4 | 702 |
| EXISTING | 700 S Franklin | Martha B Coyle | 1113 Butternut Rd., Glen Mills PA 19342 | 0 | 1 | 4 | 4 | 709 |
| EXISTING | 26 S. Walnut St West Chester PA 19382 | Hur and Morenko, LLC | 1750 Teresa Court Downingtown PA 19335 | 0 | 2 | 5 | 6 | 2 |
| EXISTING | 435 E Nields St | Jay McIntyre | 821 S New St. West Chester, PA 19382 | 821 S New St | 1 | 4 | 0 | 1 |

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|---|---|---|---|---|---|---|---|---|
| EXISTING | 143 E Nields St | Jay McIntyre | 821 S New St West Chester, PA 19382 | 0 | 1 | 4 | 0 | 1 |
| EXISTING | 143 E Nields St | Jay McIntyre | 821 S New St West Chester, PA 19382 | 0 | 1 | 4 | 0 | 1 |
| EXISTING | 710 S Franklin St | Jay McIntyre | 821 S New St West Chester, PA 19382 | 821 S New St | 1 | 4 | 0 | 1 |
| EXISTING | 403 S. Church Street | Tom Hudzina | 1233 Palomino Drive, West Chester, PA 19380 | 4 | 1 | 10 | 4 | 2A |
| EXISTING | 620 S. Franklin Street, Unit A-07 | Robert & Peggy Leu | 485 Freedom View Lane Phoenixville, PA 19460 | 0 | 1 | 3 | 0 | RG A-07 |
| EXISTING | 33 price st, w chester, pa | E Two, llc | 1106 Lafayette rd, wayne, pa, 19087 | 4 | 1 | 4 | 4 | 1 |
| EXISTING | 11 N Matlack Street West Chester, Pa 19380 | 7-11 N Matlack Street, LLC | PO Box 883 West Chester, Pa 19381 | 2 | 2 | 6 | 6 | 1 |
| EXISTING | 137 E Gay Street West Chester, Pa 19380 | Zukin Development Corporation | PO Box 883 West Chester, Pa 19381 | 3 | 3 | 7 | 6 | 1 |
| EXISTING | 147 W Gay Street West Chester, Pa 19380 | Gay Street Development Company LLC | PO Box 883 West Chester, Pa 19381 | 3 | 3 | 9 | 3 | 1 |
| EXISTING | 147 W Gay Street West Chester, Pa 19380 | Gay Street Development Company LLC | PO Box 883 West Chester, Pa 19381 | 3 | 3 | 9 | 3 | 1 |
| EXISTING | 151 W Gay Street West Chester, Pa 19380 (Lease Address 111 N Darlington Street) | Gay Street Development Company LLC | PO Box 883 West Chester, Pa 19381 | 3 | 3 | 12 | 3 | 1 |
| EXISTING | 401 W Miner Street West Chester, Pa 19382 | Zukin Development Corporation | PO Box 883 West Chester, Pa 19381 | 4 | 4 | 13 | 0 | 1 |
| EXISTING | 9 N Matlack Street West Chester, Pa 19380 | 7-11 N Matlack7-11 N Matlack Street, LLC Street, LLC | PO Box 883 West Chester, Pa 19381 | 3 | 3 | 8 | 0 | 1 |
| EXISTING | 223 N Church Street West Chester, Pa 19380 | 221-227 N. Church Street, LLC | PO Box 883 West Chester, Pa 19381 | 2 | 2 | 5 | 2 | 1 |
| EXISTING | 425 S Matlack St. West Chester PA 19382 | Edwin(Ted) and Joan Baldwin | 927 Marie Rochelle Dr West Chester ,PA 19382 | 4 | 1 | 4 | 2 | 1 |
| | 321 W Union St | Pam McGillian | 1007 Windy Knoll Rd West Chester, PA 19382 | 1 | 1 | 4 | 2 | 1 |
| EXISTING | Ramsgate Court Townhomes 620 S. Franklin Street | Grant Nelson, HNR Associates | 620 S. Franklin St, Office B-18 West Chester, PA 19382 | 0 | 14 | 46 | 0 | see attached |

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|---|---|---|---|---|---|---|---|---|
| | West Chester, PA 19382 | | | | | | | |
| EXISTING | 31 E. Miner Street West Chester, PA 19382 | Grant Nelson, HNR Associates | 620 S. Franklin St, Office B-18 West Chester, PA 19382 | 0 | 1 | 4 | 0 | 31EM |
| EXISTING | 8 South Everhart Ave West Chester, Pa. 19382 | Joe and Nancy Domsohn | 8 Williams Way Downingtown, Pa. 19335 | 0 | 1 | 4 | 0 | 8 South Averhart Ave. West Chester, Pa. 19382 |
| | 321 W Union st | Pam McGillian | 1007 Windy Knoll Rd West Chester, PA 19382 | 1 | 1 | 4 | 2 | 1 |
| EXISTING | 305 East Rosedale Ave | Paramjit Jittla | 306 N Kent Road Broomall PA 19008 | 4 | 1 | 4 | 0 | 1 |
| | 407 S Matlack | SEA Bagelman LLC | PO Box 3381 West Chester, PA 19381 | - | 1 | 4 | 0 | |
| EXISTING | 22 N Darlington St | Elizabeth Campbell | 208 N Benjamin Dr. West Chester, PA 19382 | 1 | 1 | 2 | 0 | 2nd Floor |
| EXISTING | 143 E. Miner St | Joseph Wonder LTD | 520 William Ebbs Lane | 4 | 1 | 4 | 1 | 1 |
| EXISTING | 122 Lacey Street | Nguyen Investment Property, LLC | P.O. BOX 1472 WEST CHESTER, PA 19380 | 0 | 1 | 4 | 0 | 1 |
| EXISTING | 620 S. Franklin Street, Unit C-30 West Chester, PA 19382 | Donna Day | c/o HNR Associates 620 S. Franklin St, Office B-18 West Chester, PA 19382 | 0 | 1 | 3 | 0 | RG C-30 |
| EXISTING | 620 S. Franklin Street, Unit A-14 West Chester, PA 19382 | Donna Day | c/o HNR Associates 620 S. Franklin St, Office B-18 West Chester, PA 19382 | 0 | 1 | 3 | 0 | RG A-14 |
| EXISTING | 620 S. Franklin Street, Unit C-30 West Chester, PA 19382 | Donna Day | c/o HNR Associates 620 S. Franklin St, Office B-18 West Chester, PA 19382 | 0 | 1 | 3 | 0 | RG C-30 |
| EXISTING | 620 S. Franklin Street, Unit E-51 West Chester, PA 19382 | Michael Day | c/o HNR Associates 620 S. Franklin St, Office B-18 West Chester, PA 19382 | 0 | 1 | 3 | 0 | RG E-51 |
| EXISTING | 620 S Franklin D-43 | DON YAO & ELLEN LEE | 1365 STEEPLE CHASE RD, DOWNINGTOWN, PA | 1 | 1 | 2 | 2 | D43 |
| EXISTING | 616 South Matlack Street West Chester, Pa 19382 | Brett Terry | 803 General Howe Drive West Chester, Pa 19382 | 1 | 1 | 4 | 2 | 1 |
| EXISTING | 23 Price Street West Chester PA 19382 | James & Carrie Cavanaugh | 9082 Barrister Court Jacksonville FL 32257 | 1 | 1 | 4 | 0 | 1 |

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|---|---|---|---|---|---|---|---|---|
| | 208 w union | Michael OReilly | 353 hill road honey brook pa 19344 | 1 | 1 | 2 | 0 | 1 |
| EXISTING | 218 Linden St | Spencer Ring Jr | 849 Conner Rd | 0 | 1 | 4 | 4 | 1 |
| EXISTING | 620 S. Franklin Street, Unit A-05 | Kenneth Marsalis, East PA Properties LLC | c/o HNR Associates 620 S. Franklin Street, Office B-18 West Chester, PA 19382 | 0 | 1 | 3 | 0 | RG A-05 |
| EXISTING | 620 S. Franklin Street, Unit #F-49 | Kenneth Marsalis, East PA Properties LLC | c/o HNR Associates 620 S. Franklin St, Office B-18 West Chester, PA 19382 | 0 | 1 | 4 | 0 | RG F-49 |
| EXISTING | 530 s matlack st | jc housing llc | 304 berkley ln | 0 | 1 | 4 | 4-Feb | |
| EXISTING | 620 S Franklin Street, Unit C24 West Chester, PA 19382 | Josh Davis | 440 Gelsinger Road Sinking Spring, PA 19608 | 1 | 1 | 2 | 1 | C24 |
| NEW | 33 price St, w. Chester, pa | E Two llc | 1106 lafayette rd, wayne, pa, 19087 | 4 | 1 | 4 | 0 | 1 |
| EXISTING | 202 PRICE STREET | PHOEBE TURNER WOODSIDE PROPERTIES | 360 MARLBORO ROAD KENNETT SQ PA 19348 | 0 | 3 | 6 | 0 | 1 |
| EXISTING | 434 S Walnut | Denise Wroten | 138 e market street | 0 | 3 | 8 | 0 | 1 |
| EXISTING | 223 N Church Street West Chester, Pa 19380 | 221-227 N. Church Street, LLC | PO Box 883 West Chester, Pa 19381 | 2 | 2 | 5 | 2 | 1 |
| EXISTING | 100 Price Street West Chester, PA 19382 | Michael T. Rody | 14 S Church Street West Chester, PA 19382 | 0 | 2 | 5 | 1 | 100 Price 1st FL |
| EXISTING | 201 N. Adams St. | Alan Herring | P. O. Box 160 | 2 | 2 | 3 | 0 | 1 |
| EXISTING | 201 N. Adams St. | Alan Herring | P. O. Box 160 West Chester, PA 19381 | 2 | 2 | 3 | 0 | 1 |
| | 137 East Market Street | Peter & Anne Seelaus | 510 Timberline Trail West Chester PA 19382 or PO Box 1009 Media PA 19063 | 2 | 2 | 5 | 4 | 1 |
| EXISTING | 307 S New St West Chester Pa, 19380 | Carroll Propertiers LLC | 128 Bantery Rd West Chester Pa 19380 | 4 | 1 | 4 | 1 | 1 |
| EXISTING | 131 Magnolia Street, west Chester, Pa 19382 | Ronald and Roberta Dell | 1410 Ponds Edge Road, West Chester, PA 19382 | 4? | 1 | 4 | 4 | |
| EXISTING | 29 Price Street West Chester, PA 19382 | Michael T Rody | 14 S Church, 1st FL West Chester, PA 19382 | 0 | 1 | 5 | 5 | 29 Price |
| EXISTING | 112 E NIELDS ST | DAVID B & GRETCHEN C YARNALL | 510 S WAWASET RD | 0 | 1 | 4 | 2 | 1 |

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|---|---|---|---|---|---|---|---|---|
| EXISTING | 620 S. Franklin Street, Unit B-17 | Loki Associates | Loki Associates<br>c/o HNR Associates<br>620 S. Franklin St, Office B-18<br>West Chester, PA 19382 | 0 | 1 | 3 | 0 | RG B-17 |
| EXISTING | 112 E NIELDS ST | DAVID B.YARNALL & Gretchen C. Yarnall | 510 S WAWASET RD | 0 | 1 | 4 | 2 | 1 |
| EXISTING | 302 w barnard st | jc housing llc | 304 berkley ln | 0 | 1 | 4 | 0 | |
| EXISTING | 230 Price Street | HNR Associates | 620 S. Franklin Street, Office B-18<br>West Chester, PA 19382 | 6 | 7 | 7 | 0 | 230P-1 |
| EXISTING | 620 S. Franklin Street, Unit B-20 | Louis Ma | c/o HNR Associates<br>620 S. Franklin Street, Office B-18<br>West Chester, PA 19382 | 0 | 1 | 3 | 0 | B-20 |
| EXISTING | 620 S. Franklin Street, Unit B-21 | Brian Hamm | 200 Brandywine Rd<br>Collegeville, PA 19426 | 0 | 1 | 2 | 0 | B-21 |
| EXISTING | 620 S. Franklin St, Unit C-25 | Celeste A. Dragwa | c/o HNR Associates<br>620 S. Franklin Street, Office B-18<br>West Chester, PA 19382 | 0 | 1 | 4 | 0 | RG C-25 |
| | 203 Sharpless St. | Timothy C. Graham | 117 Linden St.<br>West Chester, PA 19382 | 0 | 1 | 4 | 0 | 1 |
| | 205 SHARPLESS ST | Timothy C. Graham | 117 Linden St.<br>West Chester, PA 19382 | 0 | 1 | 4 | 0 | 1 |
| EXISTING | 705 S Walnut St, West Chester PA 19382 | Corey Lonberger | PO Box 526, Wayne PA 19382 | 5 | 1 | 7 | 0 | 705 |
| EXISTING | 620 S Franklin Street F50, West Chester, PA 19082 | Corey Lonberger | PO Box 526, Waye PA 19087 | 2 | 1 | 3 | 1 | 620 |
| EXISTING | 144 W Union Street, Unit 2 | Nguyen Investment Property LLC | PO Box 1472<br>West Chester, PA 19380 | 0 | 4 | 4 | 0 | 2 |
| EXISTING | 525 S High Street, Unit 1<br>West Chester, PA 19380 | Nguyen Investment Property LLC | PO Box 1472<br>West Chester, PA 19380 | 0 | 4 | 4 | 0 | 1 |
| EXISTING | 123 W Barnard Street<br>West Chester, PA 19380 | Nguyen Investment Property LLC | PO Box 1472<br>West Chester, PA 19380 | 0 | 2 | 2 | 0 | 1 |
| EXISTING | 620 S Franklin Ave. west Chester Pa 19382 | Astro Group | PO Box 228<br>Newtown Square, Pa 19073 | 1 | 1 | 4 | 4 | C35 |
| EXISTING | 534 S matlack | Keith Klaus | 984 meadowview lane | 4 | 0 | 4 | 4 | 1 |
| EXISTING | 612 South Matlack St | Emily Bagelman | 110 Berwick Dr WC PA 19382 | 0 | 1 | 4 | 2 | |

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|---|---|---|---|---|---|---|---|---|
| EXISTING | 610 South Matlack Street West Chester, Pa 19382 | Brett Terry | 803 General Howe Drive West Chester, Pa 19382 | 1 | 1 | 4 | 3 | 1 |
| EXISTING | 413 South Matlack Street West Chester, Pa 19382 | Brett Terry | 803 General Howe Drive West Chester, Pa 19382 | 1 | 1 | 4 | 3 | 1 |
| EXISTING | 610 south high st west chester pa 19382 | Emidio Barbati | 610 south high st west chester pa 19382 | Four | Two | Fou | Zer | 2nd floor |
| EXISTING | 25 E Washington St - Unit 2 Rear | Nguyen Investment Property | PO Box 1472 West Chester, PA 19380 | 0 | 3 | 3 | 0 | Joaquin Hernandez Castaneda |
| EXISTING | 125 E Nield | Martha B Coyle | 1113 Butternut Rd. Glen Mills PA 19342 | 5 | 6 | 6 | 1 | Devon Kennedy |
| EXISTING | 16 Price St | Dan McCullough | Po Box 80722, Valley Forge, PA 19484 | 0 | 1 | 4 | 2 | Charlotte Thamm |
| EXISTING | 602 S High | SEA Bagelman LLC | PO Box 3381 West Chester, PA 19381 | 0 | 2 | 8 | 4 | Evan Donovan, markis De'Von Rogers, John Ferguson, Ryan D'Aversa |
| EXISTING | 400 East Nields Street West Chester, Pa 19382 | Brett Terry | 803 General Howe Drive West Chester, Pa 19382 | 1 | 1 | 4 | 4 | Bryce Daly |
| | 17 W Barnard Street | Richard Haly | 609 Sugartown Road Malvern Pa 19355 | 4 | 1 | 4 | 0 | Karlee Duda |
| EXISTING | 140 East Nields st West Chester Pa 19382 | Sandra & Robert Marron | 339 Penwyllt Ct Exton Pa 19341 | 4 | 1 | 4 | 2 | Mason Kline |
| EXISTING | 142 East Nields St West Chester PA 19382 | Sandra & Robert Marron | 339 Penwyllt ct Exton Pa 19341 | 4 | 1 | 4 | 2 | Ian Chowder |
| EXISTING | 605 S Walnut St, West Chester PA 19382 | Nguyen Investment Property | PO Box 1472 West Chester, PA 19380 | 0 | 4 | 4 | 0 | Louis Barreto |
| EXISTING | 204 W Gay Street, Unit 2 | Nguyen Investment Property | PO Box 1472 West Chester, PA 19380 | 0 | 2 | 2 | 0 | Tanner Treadway |
| EXISTING | 117 Linden St. | Timothy C. Graham | 117 Linden St. West Chester, PA 19382 | 4 | 0 | 7 | 0 | Kaleigh O'brien |
| | 111 Linden St. | Timothy C. Graham | 117 Linden St. West Chester, PA 19382 | 0 | 1 | 4 | 0 | Alyssa Bendekovits |
| | 126 E. Nields St. | Timothy C. Graham | 117 Linden St. West Chester, PA 19382 | 0 | 1 | 4 | 0 | Claire Andrews |
| NEW | 335 Hannum Ave West Chester, PA 19380 | Matthew Barbella | 319 W Washington St West Chester, PA 19380 | 1 | 1 | 2 | 2 | |
| EXISTING | 100 S. Darlington Street | TAHC LLC | 327 S. High St West Chester PA 19382 | 0 | 5 | 8 | 8 | |

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|---|---|---|---|---|---|---|---|---|
| EXISTING | 116 Dean Street West Chester Pa 19382 | WCOCH | 327 S. High Street West Chester PA 19382 | 0 | 7 | 26 | 14 | |
| EXISTING | 116 Dean Street West Chester Pa 19382 | WCOCH | 327 S. High Street West Chester PA 19382 | 0 | 7 | 26 | 14 | |
| EXISTING | 118 Linden Street West Chester PA 19382 | WCOCH | 327 S. High Street West Chester PA 19382 | 4 | 1 | 10 | 5 | |
| EXISTING | 120 Linden Street WC PA 19382 | WCOCH | 327 S. High Street WC PA 19382 | 0 | 2 | 8 | 5 | |
| EXISTING | 301 S. High Street WC PA 19382 | TAHC LLC | 327 S. High Street WC PA 19382 | 0 | 2 | 6 | 0 | |
| EXISTING | 309 Dean St | WCOCH | 327 S. High Street | 0 | 2 | 8 | 4 | |
| EXISTING | 419-25 S. Walnut Street WC PA 19382 | wcoch | 327 S. High Street | 37 | 1 | 60 | 20 | |
| EXISTING | 420 S. Walnut Street WC PA 19382 | WCOCH | 327 S. High Street | 0 | 12 | 25 | 0 | |
| EXISTING | 437 S. High Street WC PA 19382 | WCOCH | 327 S. HIGH STREET | 2 | 3 | 14 | 6 | |
| EXISTING | 439 S. High St WC PA 19382 | wcoch | 327 S. High St. WC PA 19283 | 0 | 3 | 10 | 4 | |
| EXISTING | 500 S. High Street | WCOCH | 327 S. High Street | 0 | 3 | 10 | 6 | |
| EXISTING | 500 S. Walnut Street | WCOCH | 327 S. High Street | 7 | 0 | 13 | 9 | |
| EXISTING | 502 S. High Street | WCOCH | 327 S. High Street | 8 | 0 | 13 | 9 | |
| EXISTING | 511 S. Walnut Street | WCOCH | 327 S. High Street | 7 | 0 | 13 | 6 | |
| EXISTING | 519 S. High Street | WCOCH | 327 S. High Street | 0 | 2 | 8 | 4 | |
| EXISTING | 521 S. High Street | WCOCH | 327 S. High Street | 0 | 2 | 6 | 6 | |
| EXISTING | 535 S. Walnut Street | WCOCH | 327 S. High Street | 0 | 4 | 16 | 8 | |
| EXISTING | 604 S. Walnut Street | WCOCH | 327 S. High Street | 0 | 3 | 10 | 6 | |
| EXISTING | 615 Mechanic Alley | WCOCH | 327 S. High Street | 0 | 14 | 56 | 28 | |
| EXISTING | 622 S. Walnut Street | WCOCH | 327 S. High Street | 1 | 3 | 8 | 2 | |
| | 623 S. Walnut Street | WCOCH | 327 S. High Street | 0 | 2 | 8 | 4 | |
| EXISTING | 625 S. Walnut Street | WCOCH | 327 S. High Street | 0 | 2 | 8 | 4 | |
| EXISTING | 628 S. Walnut Street | WCOCH | 327 S. High St | 8 | 0 | 15 | 7 | |
| EXISTING | 630 S. Walnut Street | WCOCH | 327 S. High Street | 0 | 5 | 20 | 10 | |
| EXISTING | 641 S. Matlack Street | WCOCH | 327 S. High Street | 0 | 2 | 8 | 4 | |
| EXISTING | 703 S Matlack Street | Wes Gerstekorn | 220 Durley Dr, Broomall PA 19008 | 0 | 2 | 6 | 0 | |
| EXISTING | 741 S Matlack St | Adam and Emily Bagelman | 110 Berwick Dr WC PA 19382 | 0 | 2 | 5 | 2 | |
| EXISTING | 509 S Church St WC PA 19382 | Kevin Patrick | 4434 Aberdale Rd, Phila, PA 19136 | 6 | 0 | 6 | 3 | |
| EXISTING | 121 Magnolia Street | Jeanette Kramer | 6 W Rhoades Ave WC PA 19382 | 0 | 2 | 6 | 0 | |

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|---|---|---|---|---|---|---|---|---|
| EXISTING | 136 Magnolia St | Myrta Warner | PO Boc 90 Lane, SC 29564 | 0 | 2 | 6 | 0 | |
| EXISTING | 18 Price St WC PA 19382 | Dan McCullough | PO Box 80722 Valley Forge, PA 19484 | 0 | 2 | 6 | 3 | |
| EXISTING | 122 W Chestnut St | Phil Carnuccio | 1009 Squires Rd WC PA 19382 | 0 | 2 | 6 | 0 | |
| EXISTING | 709 S. Walnut Street | WCOCH | 327 S. High Street | 11 | 0 | 15 | 7 | |
| EXISTING | 733 S. Walnut Street | WCOCH | 327 S. High Street | 0 | 18 | 54 | 36 | |
| EXISTING | 735 S. Walnut St | WCOCH | 327 S. High Street | 0 | 3 | 8 | 6 | |
| EXISTING | 737 S. Walnut Street | WCOCH | 327 S. High Street | 0 | 3 | 8 | 6 | |
| EXISTING | 741 S. Walnut Street | WCOCH | 327 S. High Street | 0 | 24 | 96 | 48 | |
| EXISTING | 746 S. Franklin Street | WCOCH | 327 S. High Street | 0 | 12 | 48 | 24 | |
| EXISTING | 203 S Walnut Street West Chester, Pa 19382 | South West Chester Development Company, LLC | PO Box 883 West Chester, Pa 19381 | 5 | 5 | 8 | 2 | |
| EXISTING | 116-118 E Gay Street West Chester, Pa 19380 | Gay Street Development LLC | PO Box 883 West Chester, Pa 19381 | 11 | 11 | 25 | 3 | |
| EXISTING | 119 E Gay Street West Chester, Pa 19380 | Gay Street Development Company LLC. | PO Box 883 West Chester, Pa 19381 | 6 | 6 | 14 | 0 | |
| EXISTING | 200 E Gay Street West Chester, Pa 19380 | Historic West Chester Development Company LLC | PO Box 883 West Chester, Pa 19381 | 6 | 6 | 14 | 3 | |
| EXISTING | 13 S Church Street West Chester, Pa 19382 | Historic West Chester Development Company LLC | PO Box 883 West Chester, Pa 19381 | 5 | 5 | 10 | 0 | |
| EXISTING | 121 E Gay Street West Chester, Pa 19380 | Gay Street Development Company LLC | PO Box 883 West Chester, Pa 19381 | 15 | 15 | 24 | 4 | |
| EXISTING | 106-108 W Market Street West Chester, Pa 19382 | West Chester Market Street Development Company LLC | PO Box 883 West Chester, Pa 19381 | 5 | 5 | 16 | 1 | |
| EXISTING | 33-39 W Market Street West Chester, Pa 19380 | 33, 35, 37, 39 West Market Street, LLC | PO Box 883 West Chester, Pa 19381 | 5 | 5 | 14 | 0 | |
| EXISTING | 100-104 N New Street West Chester, Pa 19380 | Stanford & Elsa Zukin Properties LLC | PO Box 883 West Chester, Pa 19381 | 6 | 6 | 12 | 0 | |
| EXISTING | 122 E Gay Street West Chester, Pa 19380 | Gay Street Restaurant Development LLC | PO Box 883 West Chester, Pa 19381 | 5 | 5 | 11 | 3 | |

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|---|---|---|---|---|---|---|---|---|
| EXISTING | 109 W Gay Street West Chester, Pa 19380 | 107-115 W Gay Street, LLC | PO Box 883 West Chester, Pa 19381 | 6 | 6 | 9 | 3 | |
| EXISTING | 40 E Market Street West Chester, Pa 19382 | WC Restaurant Development LLC | PO Box 883 West Chester, Pa 19381 | 10 | 10 | 29 | 4 | |
| EXISTING | 130-134 E Gay Street West Chester, Pa | Mid-Atlantic Society Hill, LLc | PO Box 883 West Chester, Pa 19381 | 8 | 8 | 17 | 0 | |
| EXISTING | 17/19 North Walnut Street | Christine Smith | 507 W Pleasant Grove Rd West Chester PA 19382 | 4 | 1 | 4 | 0 | |
| EXISTING | 209/11 S High Street | Christine Smith | 507 W Pleasant Grove Rd West Chester PA 19382 | 2 | 6 | 8 | 4 | |
| EXISTING | 216 E Gay Street | Christine Smith | 507 W Pleasant Grove Rd West Chester PA 19382 | 2 | 6 | 6 | 0 | |
| EXISTING | 322 S Walnut Street | Christine Smith | 507 W Pleasant Grove Rd West Chester PA 19382 | 3 | 5 | 10 | 3 | |
| EXISTING | 427 S Walnut Street | Christine Smith | 507 W Pleasant Grove Rd West Chester PA 19382 | 3 | 4 | 8 | 1 | |
| EXISTING | 429 S Walnut Street | Christine Smith | 507 W Pleasant Grove Rd West Chester PA 19382 | 4 | 7 | 10 | 4 | |
| EXISTING | 522 S Darlington Street | Christine Smith | 507 W Pleasant Grove Rd West Chester PA 19382 | 3 | 4 | 6 | 0 | |
| EXISTING | 315 S Walnut Street West Chester, Pa 19382 | 315 and 317 S Walnut Street LLC | PO Box 883 West Chester, Pa 19381 | 5 | 5 | 9 | 4 | |
| EXISTING | 231 Sharpless Street West Chester, Pa 19382 | 231 Sharpless Street LLC | PO Box 883 West Chester, Pa 19381 | 17 | 17 | 22 | 17 | |
| EXISTING | 344 W Gay Street West Chester, Pa 19380 | 340-344 W Gay Street, LLC | PO Box 883 West Chester, Pa 19381 | 10 | 10 | 17 | 10 | |
| EXISTING | 2-4 S Brandywine Street West Chester, Pa 19382 | S&S Zukin Investments LLC | PO Box 883 West Chester, Pa 19381 | 16 | 16 | 25 | 28 | |
| EXISTING | 525 S Walnut Street | High Expectations | PO Box 72824, Thorndale, PA, 19372 | 0 | 6 | 14 | 0 | |
| EXISTING | 333 W Barnard Street | Martin Bryce | PO Box 72824, Thorndale, PA, 19372 | 0 | 2 | 4 | 2 | |
| EXISTING | 547 South Matlack St | Orazio Nastase | 549 South Matlack St West Chester pa 19382 | 0 | 2 | 6 | 3 | |

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|---|---|---|---|---|---|---|---|---|
| EXISTING | 549 South Matlack Street | Orazio Nastase | 549 South Matlack St | 0 | 1 | 4 | 2 | |
| EXISTING | 201-2 East nields Street | Orazio Nastase | 549 S Matlack st | 0 | 1 | 4 | 2 | |
| | 201-1 East Nields St | Orazio Nastase | 549 S matlack St | 0 | 1 | 2 | 1 | |
| EXISTING | 601 South Matlack St | Orazio Nastase | 549 South Matlack st | 0 | 2 | 6 | 3 | |
| EXISTING | 603 South Matlack St | Orazio Nastase | 549 South Matlack St | 0 | 2 | 6 | 3 | |
| EXISTING | 211 East Nields st | Orazio Nastase | 549 S matlack St | 0 | 3 | 8 | 4 | |
| EXISTING | 221 E Nields Street | Orazio Nastase | 549 S Matlack st | 0 | 2 | 8 | 549 | |
| EXISTING | 329 Dean St | Orazio Nastase | 549 S Matlack St | 0 | 2 | 8 | 2 | |
| EXISTING | 232 E Gay St | 232 AH LLC | 908 Old Fern Hill Rd | 3 | 1 | 12 | 7 | |
| EXISTING | 314 S Walnut St | 314 AHB LLC | 908 Old Fern Hill Rd | 3 | 1 | 6 | 5 | |
| EXISTING | 503 S Walnut St | 503 AH LLC | 908 Old Fern Hill Rd | 6 | 1 | 6 | 0 | |
| EXISTING | 513 S High St | 513 AH LLC | 908 Old Fern Hill Rd | 2 | 1 | 6 | 6 | |
| EXISTING | 100-104 N New Street West Chester, Pa 19380 | Stanford & Elsa Zukin Properties LLC | PO Box 883 West Chester, Pa 19381 | 6 | 6 | 14 | 0 | |
| EXISTING | 13 S Church Street West Chester, Pa 19382 | Historic West Chester Development Company LLC | PO Box 883 West Chester, Pa 19381 | 5 | 5 | 10 | 0 | |
| EXISTING | 130-134 E Gay Street West Chester, Pa 19380 | Mid-Atlantic Society Hill, LLC | PO Box 883 West Chester, Pa 19381 | 8 | 8 | 15 | 0 | |
| EXISTING | 221 S Walnut Street West Chester, Pa 19382 | South West Chester Development Company LLC | PO Box 883 West Chester, Pa 19381 | 5 | 5 | 5 | 3 | |
| EXISTING | 231 Sharpless Street West Chester, Pa 19382 | 231 Sharpless Street LLC | PO Box 883 West Chester, Pa 19381 | 17 | 17 | 21 | 17 | |
| EXISTING | 234-236 W Market Street West Chester, Pa 19382 | 234-236 West Market Street, LLC | PO Box 883 West Chester, Pa 19381 | 5 | 5 | 13 | 0 | |
| EXISTING | 308 S Church Street West Chester, Pa 19382 | Zukin Investments LP | PO Box 883 West Chester, Pa 19381 | 13 | 13 | 29 | 7 | |
| EXISTING | 33-39 W Market Street West Chester, Pa 19380 | 33, 35, 37, 39 West Market Street, LLC | PO Box 883 West Chester, Pa 19381 | 5 | 5 | 13 | 0 | |
| EXISTING | 345 W Chestnut Street West Chester, Pa 19382 | Stanford & Elsa Zukin Family Trust | PO Box 883 West Chester, Pa 19381 | 7 | 7 | 12 | 10 | |
| EXISTING | 2-4 S Brandywine Street West Chester, Pa 19382 | S&S Zukin Investments LLC | PO Box 883 West Chester, Pa 19381 | 16 | 16 | 30 | 18 | |
| EXISTING | 600 S Walnut St | 600 AH, LLC | 908 Old Fern Hill Rd | 7 | 1 | 9 | 9 | |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| EXISTING | 400 N Church Street West Chester PA 19380 | Eric Norquist | 705 Dean Court West Chester PA 19382 | 5 | 5 | 6 | 2 | |
| EXISTING | 1 N. Matlack Street | Livingston McDaniel LP | 119 Glenloch Drive Landenberg, PA 19350 | 8 | 1 | 8 | 0 | |
| EXISTING | 620 S. Franklin Street West Chester, PA 19382 | Kenneth Marsalis | East Pennsylvania Properties, LLC 1883 W. Royal Hunte Drive, Ste 200A Cedar City, Utah 84720 | 0 | 11 | 38 | 0 | see attached |
| EXISTING | 109 W Gay Street West Chester, Pa 19380 | 107-115 W Gay Street, LLC | PO Box 883 West Chester, Pa 19381 | 6 | 6 | 7 | 6 | |
| EXISTING | 100-104 N New Street West Chester, Pa 19380 | Stanford & Elsa Zukin Properties LLC | PO Box 883 West Chester, Pa 19381 | 6 | 6 | 14 | 0 | |
| EXISTING | 116-118 E Gay Street West Chester, Pa 19380 | Gay Street Restaurant Development LLC | PO Box 883 West Chester, Pa 19381 | 11 | 11 | 25 | 4 | |
| EXISTING | 119 E Market Street West Chester, Pa 19380 | Zukin Properties Trusts | PO Box 883 West Chester, Pa 19381 | 5 | 5 | 6 | 2 | |
| EXISTING | 121 E Gay Street West Chester, Pa 19380 | Owner Name Gay Street Development Company LLC | PO Box 883 West Chester, Pa 19380 | 15 | 15 | 28 | 10 | |
| EXISTING | 130-134 E Gay Street West Chester, Pa 19380 | Mid-Atlantic Society Hill, LLC | PO Box 883 West Chester, Pa 19380 | 8 | 8 | 14 | 0 | |
| EXISTING | 200 E Gay Street West Chester, Pa 19380 | Historic West Chester Development Company LLC | PO Box 883 West Chester, Pa 19381 | 6 | 6 | 15 | 6 | |
| EXISTING | 308 S Church Street West Chester, Pa 19382 | Zukin Investment LP | PO Box 883 West Chester, Pa 19381 | 13 | 13 | 27 | 8 | |
| EXISTING | 29 E Gay Street West Chester, Pa 19380 | Stanford & Elsa Zukin Family Trust | PO Box 883 West Chester, Pa 19381 | 11 | 11 | 14 | 0 | |
| EXISTING | 221 S Walnut Street West Chester, Pa 19382 | South West Chester Development Company, LLC | PO Box 883 West Chester, Pa 19381 | 5 | 5 | 6 | 3 | |
| EXISTING | 209 W Chestnut Street West Chester, Pa 19380 | Zukin Investment LP | PO Box 883 West Chester, Pa 19381 | 5 | 5 | 6 | 3 | |
| EXISTING | 344 W Gay Street West Chester, Pa 19380 | 340-344 West Gay Street, LLC | PO Box 883 West Chester, Pa 19381 | 10 | 10 | 17 | 15 | |
| EXISTING | 2-4 S Brandywine Street West Chester, Pa 19382 | S&S Zukin Investments LLC | PO Box 883 West Chester, Pa 19381 | 16 | 16 | 34 | 19 | |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| EXISTING | 130 W. Barnard Street, West Chester, PA 19382 | Diana Seip | 405 Wrigley Blvd, Cochranville, PA 19330 | House | House | 2 | 2 | |
| EXISTING | 312 S Walnut St | Cleo Elkiinton | 26959 Sunburst Path Millsboro DE19966 | 4 | 1 | 4 | 3 | 2 |
| EXISTING | 27 S Church Street, West Chester, PA 19382 | Megill Homes, LLC | 330 Kennett Pike, Suite 207, Chadds Ford, PA 19317 | 3 | 1 | 2 | 3 | 1 |
| EXISTING | 221 N Church Street West Chester, Pa 19380 | 221-227 N. Church Street, LLC | PO Box 883 West Chester, Pa 19381 | 2 | 2 | 5 | 2 | 1 |
| | 515 s matlack street | Lydia &Eliazar serrano | 513 s matlack street | 1 | 1 | 3 | 3 | |
| EXISTING | 359 E. Biddle Street West Chester, PA 19380 | Steven & Lynn Ayers | 1107 Queens Way West Chester, PA 19382 | 0 | 1 | 2 | 1 | |
| EXISTING | 515 s matlack street | Lydia &Eliazar serrano | 513 s matlack street | 1 | 1 | 3 | 3 | |
| EXISTING | 419-25 S. Walnut Street | WCOCH | 327 S. High Street | 37 | 1 | 64 | 20 | |
| EXISTING | 712 S New St. West Chester, Pa 19382 | TD III Properties | 1074 Edgewood Chase Dr. Glen Mills, Pa 19342 | 1 | 1 | 4 | 4 | |
| EXISTING | 209 E Market St. | Chester Springs Property Associates LLC | 117 W GAY ST, SUITE 324 | 1 | 1 | 1 | 2 | 209 |
| EXISTING | 630 S WALNUT STREET | WCOCH | 327 S. HIGH ST | 0 | 5 | 19 | 0 | |
| EXISTING | 440 N High, West Chester PA | Chesco Rentals (440 N High) LLC Attn: Christine Malinowski | PO Box 72212 Thorndale, PA 19372 | 0 | 6 | 7 | 0 | |
| EXISTING | 308 S Church Street West Chester, Pa 19382 | Zukin Investments LP | PO Box 883 West Chester, Pa 19381 | 13 | 13 | 27 | 7 | |
| EXISTING | 400 W Gay St | T Saletta properties LLC | 402 W Gay St | 0 | 2 | 1 | 0 | A |
| EXISTING | 22 S Church St | NUCC enterprises | 19 Upper Crest Dr, W Milford, NJ 07480 | 0 | 2 | 8 | 3 | |
| EXISTING | 24 S Church Street | NUCC enterprises | 19 Upper Crest Dr., West Milford, NJ 07480 | 0 | 3 | 10 | 3 | |
| EXISTING | 119 Wollerton West Chester, PA 19382 | John Keitch | 119 W. Miner St West Chester, PA 19382 | 1 | 1 | 1 | 1 | |
| EXISTING | 121 Magnolia St | Jeanette Kramer | 6 W Rhoades Ave, WC PA 19382 | 0 | 2 | 6 | 0 | |
| EXISTING | 301 S Church Street | Eaton Hopkins | PO Box 72824 Thorndale, PA, 19372 | 0 | 2 | 7 | 0 | |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| EXISTING | 126-132 Dean Street | High Expectations | PO Box 72824, Thorndale, PA, 19372 | 0 | 10 | 22 | 10 | |
| EXISTING | 326 N. Walnut Street West Chester Pa. 19380 | Marquell Tate | 326 N. Walnut Street West Chester PA. 19380 | 60 | 60 | 54 | N/A | |
| EXISTING | 501 S Walnut | Martin Bryce | PO Box 72824, Thorndale, PA, 19372 | 1 | 1 | 4 | 0 | |
| EXISTING | 201 W. Miner Street West Chester, PA 19382 | Paula M. Coulter | 10745 Cervone Drive Meadville, PA 16335 | 0 | 4 | 4 | 4 | Dorothy Swisher |
| EXISTING | 408 West Miner Street | Patricia Graf | 808 Edna Jane Lane West Grove, PA 19390 | 2 | 2 | 4 | 0 | Austin Graf |
| EXISTING | 408 N. Church St. | Kristine DellaVecchia | 410 N. Church St. | 3 | 3 | 3 | 0 | Frank Olszewski |
| EXISTING | 319 West Gay Street West Gay Street | Chad Weldon | 319 West Gay Street West Chester, PA 19380 | 3 | 3 | 3 | 0 | Merisa Ginel & Ehtan Bridghouse |
| EXISTING | 303 W. Union St. | Edward Bardzik | P.O. Box 17931 Boulder, CO 80308 | 0 | 1 | 2 | 2 | Lisa Lee |
| EXISTING | 305 W. Union St. | Edward Bardzik | P.O. Box 17931 Boulder, CO 80308 | 0 | 1 | 3 | 1 | Terri Nappi |
| EXISTING | 515 s matlack street | Lydia &Eliazar Serrano | 513 s matlack street | 1 | 1 | 3 | 0 | Mario todaro |
| EXISTING | 116 E Barnard Street, Unit C West Chester, PA 19382 | Michael T. Rody | 14 S Church St, 1st Floor West Chester, PA 19382 | 0 | 1 | 1 | 1 | Sam Wilden |

# Appendix 2: Student Housing Survey

**SURVEY AGREEMENT**

**Purpose:** To determine plans for students' preferences in the design of new residence hall on the West Chester campus.

**Confidentiality:** The information you provide is anonymous. Your personal identification information (e.g., name, email address) will not be connected to your survey responses. Your personal identification information will never be shared in reports.

**Security:** Data from this survey will be stored on equipment and software programs purchased by the university and a company called MGT Consultants, that has been hired by WCU. Access to individual's responses will be limited to MGT Consultants and will be stored with password protection.

**Use of Results**: This is not a research study. Students' responses will be aggregated and shared with groups within and outside WCU to support the design and construction of the new residence hall.

**Voluntary Participation:** Your participation is entirely voluntary. There is no penalty for not participating in the survey or for withdrawing from the survey. Your decision to participate/not participate in the survey will not affect your relationship with the university.

**Risks:** There is always some level of risk when submitting information online. To minimize this risk, please clear your internet history and close your browser after submitting the survey.

**Benefits:** There are no direct benefits for participating in the survey.

**Timeline:** This survey will close on October 18, 2024.

We encourage you to take the time to complete the survey, even if you are not interested in campus housing at this time. As an incentive, Amazon gift cards, in the amounts shown below will be awarded to six randomly selected students who complete the survey by October 18, 2024.

**First Prize: $100**
**Second Prize: $50**
**Four additional prizes: $25 each**

To be eligible, you must supply contact information on the form that will pop up after you have successfully submitted your survey. You may only enter once.

**Contact:** For questions about this survey, please contact, please contact Diana Goldstein at dgoldstein@mgt.us.

1. I am at least 18 years old and I consent to participate in this survey.
    - Yes
    - No

2. On which campus do you primarily attend classes?
    - West Chester
    - Philadelphia
    - Exton
    - I attend online classes only

*Skip To: End of Survey If I am at least 18 years old and I consent to participate in this survey. = No*

3. What is your class standing?
    - Freshman
    - Sophomore
    - Junior
    - Senior
    - Graduate student
    - Certificate-seeking student

4. Are you enrolled full- or part-time?
    Full-time (undergraduate 12 or more credits, graduate students 6 or more credits)
    Part-time

5. Are you enrolled in in-person or online classes?
    - Entirely in-person
    - Hybrid - some in-person and some online classes
    - Entirely online

6. Are you a first-generation college student?
    - Yes
    - No
    - I don't know

7. Where is your permanent residence?
    - Pennsylvania
    - Delaware
    - Maryland
    - New Jersey
    - Elsewhere in the United States
    - Another country

8. What is your age?
    - Under 18
    - 18-19
    - 20-22
    - 23-24
    - 25 or over

9. What is your gender?
    - Female
    - Male
    - Non-binary
    - Prefer not to answer

10. What is your race/ethnicity? (Select all that apply.)
    - Asian or Pacific Islander
    - Black/African-American
    - Hispanic
    - Native American or Alaska Native
    - White/Caucasian
    - Other (please specify): _____
    - Prefer not to answer

11. Where do you live?
    - On-campus
    - Off-campus

*Display This Question:*
*If Where do you live? = On-campus*

12. Where do you live on campus?
    - Allegheny Hall
    - Brandywine Hall
    - College Arms Apartments
    - Commonwealth Hall
    - East Village Apartments
    - Goshen Hall
    - Killinger Hall
    - Schmidt Hall
    - South Campus Apartment Complex
    - Tyson Hall
    - University Hall
    - Village Apartments

*Display This Question:*
*If Where do you live? = Off-campus*

13. Where do you live off campus?
    - Off-campus housing where I pay rent
    - Off campus with parents/relatives - with no rental costs
    - Off-campus with parents/relatives - where I contribute to housing costs
    - Own my home

14. How satisfied or dissatisfied are you with your current housing situation?
    - Very satisfied
    - Satisfied
    - Dissatisfied
    - Very dissatisfied

15. Do you live with a spouse/partner or dependent children?
    - Yes
    - No
    -

*Display This Question:*
*If Where do you live? = Off-campus*

16. Would you ever consider living in campus housing in the future?
    - Yes
    - Maybe
    - No

*Skip To: Q47 If Would you ever consider living in campus housing in the future? = No*
*Display This Question:*
*If Where do you live off campus? = Off-campus housing where I pay rent*

**Tell Us about the Off-Campus Housing You Rent**

*Display This Question:*
*If Where do you live off campus? = Off-campus housing where I pay rent*

17. Including yourself, how many people live in the housing unit where you live?
- I live by myself; I am the only one who lives in my housing unit
- Two (myself and one other person)
- Three (myself and two other people)
- Four (myself and three other people)
- More than four (myself and four or more other people)

*Display This Question:*
*If Where do you live off campus? = Off-campus housing where I pay rent*

18. How many bedrooms are in your apartment/rental unit?
- None—an efficiency/studio
- One
- Two
- Three
- Four
- More than four

*Display This Question:*
*If Where do you live off campus? = Off-campus housing where I pay rent*

19. How many bathrooms are in your apartment/rental unit? (A half bath is a bathroom with no shower or tub.)
- One
- One and a half
- Two
- Two and a half
- Three
- More than three

*Display This Question:*
*If Where do you live off campus? = Off-campus housing where I pay rent*

20. Do you share a bedroom?
- No
- Yes

*Display This Question:*
*If Where do you live off campus? = Off-campus housing where I pay rent*

21. What is your lease term?
- Twelve months
- Academic year (9 or 10 months)
- Six months
- Semester
- Month-to-month since the beginning of my lease
- Month-to-month starting at the end of my original lease term
- Other (please specify): _____

*Display This Question:*
*If Where do you live off campus? = Off-campus housing where I pay rent*

22. How do you rent your unit?

- Furnished
- Partially furnished
- Unfurnished

*Display This Question:*
*If Where do you live off campus? = Off-campus housing where I pay rent*

23. What is **your share** of monthly housing costs?

Your share of rent: _____
Your share of utilities (electricity, gas, water/sewer, trash): _____
Your share of other housing costs (basic cable, Internet, landline): _____
Total: _____

*Display This Question:*
*If Where do you live off campus? = Off-campus housing where I pay rent*

24. Does your rent include any utilities?

- Yes
- No

*Display This Question:*
*If Does your rent include any utilities? = Yes*

25. Which utilities are included in your rent? (Select all that apply.)
- Electricity
- Gas
- Heat
- Water/sewer
- Trash

*Display This Question:*
*If Where do you live off campus? = Off-campus housing where I pay rent*

26. What other features or services are included in your rent? (Select all that apply.)
- Internet
- Cable TV
- Local telephone
- Parking
- Garage

*Display This Question:*
*If Where do you live off campus? = Off-campus housing where I pay rent*

27. Have you ever lived on campus at WCU and then decided to move off campus?
- Yes
- No

*Display This Question:*
*If Have you ever lived on campus at WCU and then decided to move off campus? = Yes*

28. What are the reason(s) you decided to move off campus? (Select all that apply.)
- Community bathrooms
- Cooking facilities
- Cost
- Meal plan options and flexibility
- My friends were moving off campus
- Preference for more space
- Private bedroom
- Rules, regulations, and policies in general
- Wanted a more independent lifestyle
- Some other reason (Please specify.) _____

*Carry Forward Selected Choices from "What are the reason(s) you decided to move off*

29. What are the most important factors you considered in your decision of where to live this academic year? Please choose the top five.
- Community bathrooms
- Cooking facilities
- Cost
- Meal plan options and flexibility
- My friends were moving off campus
- Preference for more space
- Private bedroom
- Rules, regulations, and policies in general
- Wanted a more independent lifestyle
- Some other reason (Please specify.) _____

*Carry Forward Selected Choices from "What are the most important factors you considered in your decision of where to live this academic year? Please choose the top five."*

30. Please rank order the factors you chose in the previous questions by their importance in your decision of where to live this academic year.

_____ Community bathrooms
_____ Cooking facilities
_____ Cost
_____ Meal plan options and flexibility
_____ My friends were moving off campus
_____ Preference for more space
_____ Private bedroom
_____ Rules, regulations, and policies in general
_____ Wanted a more independent lifestyle
_____ Some other reason (Please specify.)

31. Descriptions and floorplans of several potential new housing options are provided below. Following the detailed descriptions, you will be asked to identify your preferred housing option, and any that you would find acceptable. Assume that the estimated rents include furnishings, utilities, basic cable TV, and Internet, and are based on an academic year lease. Rates **do not** include cost of a meal plan. Please select only one as **preferred**. Mark

as **acceptable** any unit plan you would live in if your preferred choice were not available. Mark all others as **would not live there**.

NOTE: Floor plans are samples only - to show concepts - and are not to scale. Mark all others as **would not live there**. NOTE: Floor plans are samples only - to show concepts - and are not to scale.

Please select only one as **preferred**. Mark as **acceptable** any unit plan you would live in if your preferred choice were not available. Mark all others as **would not live there**.

| | Preferrable | Acceptable | Would not live there |
|---|---|---|---|
| **TRADITIONAL HOUSING** Two students per bedroom, community bathrooms with upgraded amenities and privacy<br>Double-occupancy rent = $3,400 per person, per semester | | | |
| **TWO DOUBLE-BEDROOM SEMI-SUITE** Four students, two in each bedroom, with one bathroom per semi-suite Double-occupancy rent = $5,100 per person per semester | | | |
| **TWO DOUBLE-BEDROOM SUITE** Four students, two in each bedroom, with two bathrooms per suite and common living area and kitchenette Double-occupancy rent = $5,800 per person per semester | | | |
| **FOUR SINGLE-BEDROOM SUITE** Four students, one in each bedroom, with two bathrooms per suite and common living area and kitchenette Single-occupancy rent = $5,950 per person per semester | | | |
| **TWO DOUBLE-BEDROOM APARTMENT** Four students, two in each bedroom, with two bathrooms per apartment and common living area and kitchen Double-occupancy rent = $3,700 per person per semester | | | |
| **FOUR SINGLE-BEDROOM APARTMENT (e.g. South Campus Apartment Complex)** Four students, one in each bedroom, with two bathrooms per apartment and common living area and kitchen Single-occupancy rent = $4,000 per person per semester | | | |
| **FOUR SINGLE-BEDROOM APARTMENT (e.g. The Village or East Village)** Four students, one in each bedroom, with two bathrooms per apartment and common living area and kitchen Single-occupancy rent = $6,000 per person per semester | | | |
| **TWO SINGLE-BEDROOM APARTMENT** Two students, one in each bedroom, with one bathroom per apartment and common living area and kitchen Single-occupancy rent = $6,250 per person per semester | | | |

32. Please think back to when you were selecting the housing you live in now. If your preferred unit had been available on campus for the current academic year at the estimated rent and with your preferred features, would you have lived in the proposed housing?

- I definitely would have lived there.
- I might have lived there (50/50 chance).
- I probably would not have lived there (less than 50/50 chance).
- I would not have lived there.

33. Why would you not have been interested in living in the proposed housing?
- I prefer existing WCU housing
- I already own a home
- I am concerned about the level of rules and regulations
- I do not want to move
- I live with my parents/guardians
- The housing is too expensive
- Cost of required meal plan is too high
- I have a pet
- Some other reason (Please specify.) _____

34. If you would not have considered living in the proposed housing because the rent is too high for your housing budget, what would be your level of interest in the same units at lower rates, as follows?

| | Occupancy | Per Person, Per Semester |
|---|---|---|
| TRADITIONAL HOUSING | Double | $2,825 |
| TWO DOUBLE-BEDROOM SEMI-SUITE | Double | $4,725 |
| TWO DOUBLE-BEDROOM SUITE | Double | $5,300 |
| FOUR SINGLE-BEDROOM SUITE | Single | $4,800 |
| TWO DOUBLE-BEDROOM APARTMENT | Double | $3,075 |
| FOUR SINGLE-BEDROOM APARTMENT (e.g. South Campus Apartment Complex) | Single | $3,350 |
| FOUR SINGLE-BEDROOM APARTMENT (e.g. The Village or East Village) | Single | $5,350 |
| TWO SINGLE-BEDROOM APARTMENT | Single | $5,500 |

- I definitely would have lived there.
- I might have lived there (50/50 chance).
- I probably would not have lived there (less than 50/50 chance).
- I would not have lived there

*Display This Question:*
*If If you would not have considered living in the proposed housing because the rent is too high for... != I definitely would have lived there.*

35. Still too expensive? What would be your level of interest at the following rates?

| | Occupancy | Per Person, Per Semester |
|---|---|---|
| TRADITIONAL HOUSING | Double | $2,750 |
| TWO DOUBLE-BEDROOM SEMI-SUITE | Double | $4,620 |
| TWO DOUBLE-BEDROOM SUITE | Double | $5,100 |
| FOUR SINGLE-BEDROOM SUITE | Single | $4,700 |
| TWO DOUBLE-BEDROOM APARTMENT | Double | $3,025 |
| FOUR SINGLE-BEDROOM APARTMENT | Single | $3,100 |
| FOUR SINGLE-BEDROOM APARTMENT | Single | $5,000 |
| TWO SINGLE-BEDROOM APARTMENT | Single | $5,250 |

- I definitely would have lived there.
- I might have lived there (50/50 chance).
- I probably would not have lived there (less than 50/50 chance).
- I would not have lived there

36. Please add any additional comments you wish to make here. Also, check to make sure that you did not accidentally miss a question.

Thanks for taking the West Chester University Housing Survey!

You may enter your name and email address through the link below to be entered into the drawing for incentive prizes. Note that your contact information will not be associated with your survey response.

Click here to enter the drawing!

# BOROUGH OF WEST CHESTER
# CONDITIONAL USE APPLICATION

**Property Address:** See enclosed plan showing subject West Chester University of Pennsylvania properties in West Chester Borough

**Name of Applicant:** West Chester University of Pennsylvania

Mailing Address: 700 S. High Street, West Chester, PA 19382

Telephone Number: 610-436-1000 / Fax Number: N/A

Email Address: N/A

**Attorney:** Brian L. Nagle, Esquire / MacElree Harvey, Ltd.

Mailing Address: 700 S. High Street, West Chester, PA 19382

Telephone Number: 610-840-0224 / Fax Number: 610-430-8245

Zoning District: Planned University Campus District / Proposed Use:
Approval of a "University Campus Plan" for the university-owned property in West Chester Borough.
See Narrative in Support of Application.

Zoning Code Sections Relating to Application: Section 112-314 of the West Chester Borough Zoning Ordinance

***** Attach report in accordance with Section 112-113 and any specific section governing the proposed conditional use with the appropriate fee.***

**Note:** All conditional use applications will be forwarded to the Borough's Planning Commission for comment. Applicant attendance is recommended. Historic carriage house applications will be forwarded to the Borough's Historical and Architectural Review Board for review and comment. Applicant attendance is recommended.

_____ _____

***Signature of Applicant*** Brian L. Nagle, Esquire, Attorney-in-Fact ***Date***

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***For Borough Official Use Only***

*Fee Paid $*_____ *Date Application Submitted*_____

Borough Official _____

Name Signature Application #

BEFORE THE BOROUGH COUNCIL OF WEST CHESTER BOROUGH

In Re: West Chester University of Pennsylvania's Application for Conditional Use for Approval of University Campus Plan

**Narrative in Support of Application**

## I. Introduction & Background

West Chester University of the Pennsylvania State System of Higher Education (the "Applicant") is the record owner of those subject parcels of real property located in the Planned University Campus District of West Chester Borough (together, the "Properties"). The Properties are used for educational uses with associated improvements and accessory uses and improvements incidental to the existing educational use.

The Applicant seeks conditional use approval of its University Campus Plan providing certain University projects in West Chester Borough (the "Borough") over the life of the University Campus Plan. In conformity with the stated purpose of the Planned University Campus District, the Applicant's University Main Campus Plan provides for the orderly, coordinated, and unified development of its campus and related uses through long-range planning, strengthens and preserves surrounding neighborhoods, and advances the mission of West Chester University of the Pennsylvania State System of Higher Education.

## II. Request for Conditional Use Approving University Campus Plan

The Applicant requests that the Borough Council grant Conditional Use approval for its University Main Campus Plan in the Borough pursuant to Section 112-314 of the West Chester Borough Zoning Ordinance ("Ordinance"), subject to future land development approval for each specified project.

The Applicant is specifically seeking approval of the enclosed "Master Plan for West Chester University Campus Improvements", which constitutes the Master Site Plan component required per Section 112-314.C(3)(f) of the Ordinance ("Master Site Plan"). The University Campus Plan consists of the Master Site Plan as well as the other components required by Section 112-314.C(3) of the Ordinance. For all projects shown on the Master Site Plan, the ultimate land development application for each project will reflect the actual building footprint, layout, and related details.

The Applicant will demonstrate compliance with the Ordinance's criteria for University Campus Plans and their associated components, Conditional Use criteria, and all other applicable requirements at the time of the hearing on the instant application.

## III. Conclusion

The Applicant will present testimony and evidence in support of its Application at the time of the hearing before the Borough Council and hereby requests approval of the Application.

Respectfully submitted,

MacELREE HARVEY, LTD.

Dated: March 31, 2025

_____

Brian L. Nagle
MacElree Harvey, Ltd.
17 West Miner Street
P.O. Box 660
West Chester, PA 19381-0660
(610) 436-0100
*Attorney for Applicant*

WCU
WEST CHESTER
UNIVERSITY

West Chester University's Office of Institutional Research

# ENROLLMENT REPORT
# AND PROJECTION ANALYSIS

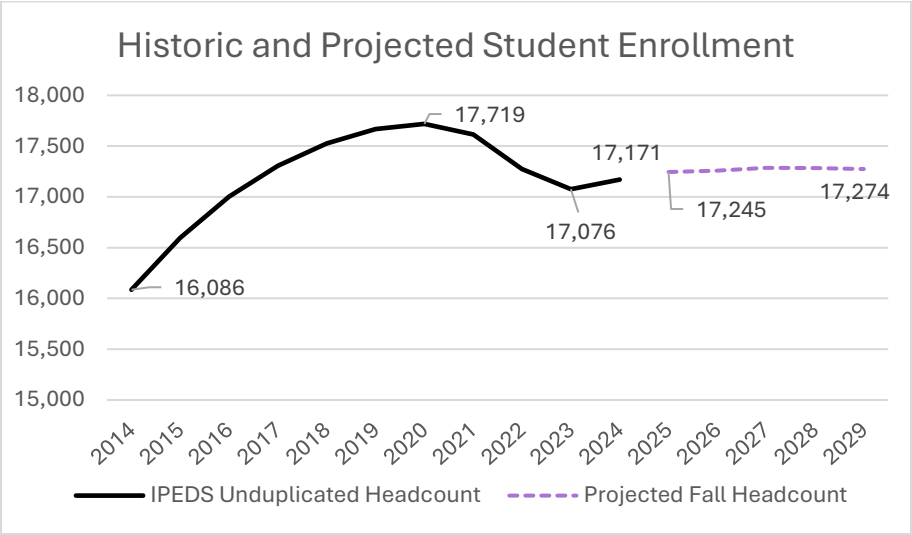
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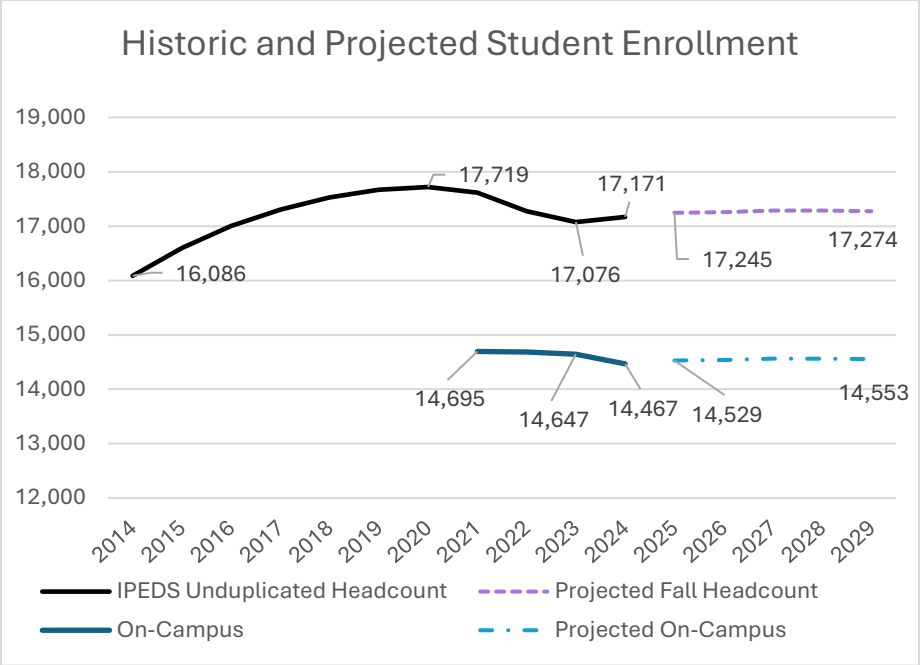
# Executive Summary

Student Enrollment

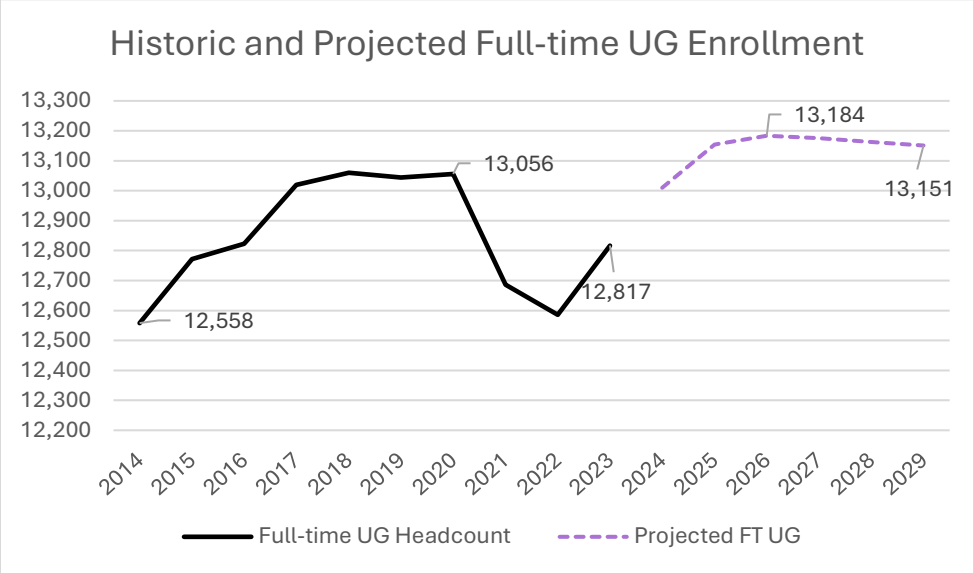
West Chester University reached its peak enrollment in the fall of 2020 with 17,719 students—14,713 undergraduate and 3,008 graduate students. From fall 2021 through fall 2023, enrollments declined to a low of 17,076 (14,344 UG; 2,742 GR). This fall WCU's student enrollment increased by fewer than 100 students—a 0.56% growth over prior year. WCU anticipates that fall enrollment growth over the next five years will remain low with total enrollment growing from 17,245 to 17,285 in fall 2028 before starting to decline again until a steady-state of around 17,260 is reached 6 years and further out.




Over the last four years, about 85% of WCU's total enrollment has been on-campus. Here "on-campus" is defined as having enrolled in at least one course on WCU's main campus. The other 15% of students were taking 100% of their courses online or off-campus—this includes students enrolled at Philadelphia, DCCC Marple, Exton, or Graduate Center, and students completing student teaching, internships, clinicals, practicum, or field courses where no courses were completed at the main campus.

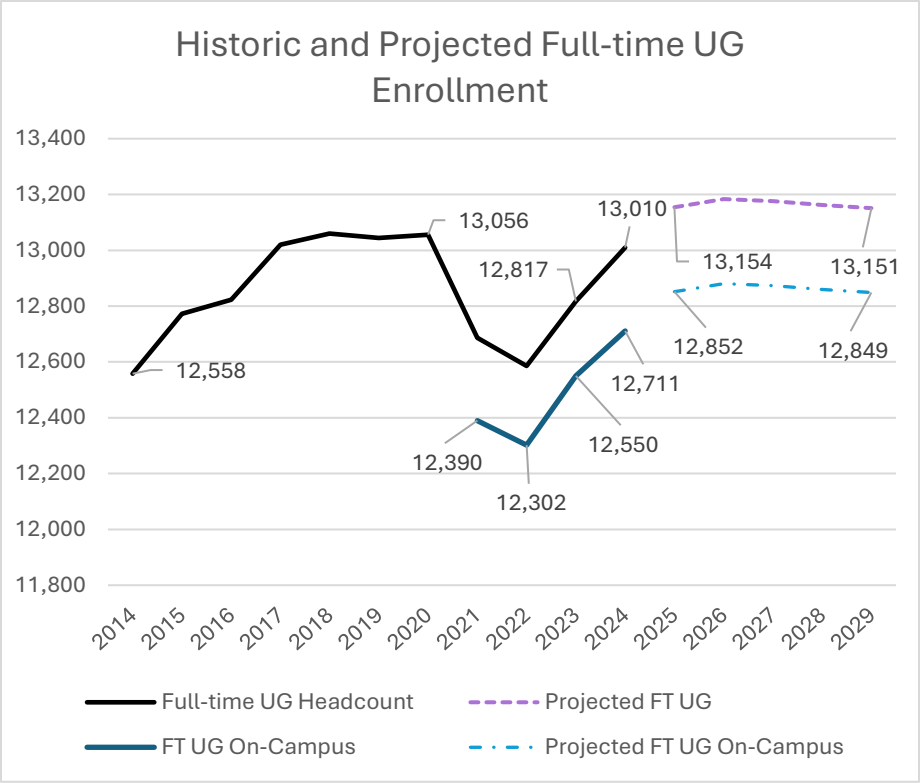



From 2014 through 2024, West Chester University hit a peak **full-time undergraduate** student enrollment of 13,056 in fall of 2020. Full-time undergraduate student declined from fall 2021 through fall 2023. In fall 24, WCU reached 12,817 full-time UG students. Projections for the next five years anticipate a high of 13,184 full-time UG students in fall 2026 (due to increased new FY targets) followed by another decline.




For fall terms, online and off-campus enrollments are primarily occurring in the graduate population. From fall 2021 through fall 2024, about 98% of the full-time undergraduate population was attending at least one course on main campus. About 300 full-time undergraduates attend 100% online or at off-campus locations. As full-time

undergraduate total enrollments climb over the next few years, WCU anticipates that the on-campus full-time UG population will reach a peak of about 12,850.




Additional information on student enrollment can be found in detailed charts on the pages that follow.
All student enrollment data are IPEDS unduplicated headcounts at the time of the fall census 15th day of classes—the high-point of student enrollment during any given year.

Enrollment projections are completed and updated after the census date each fall and spring term. Targets are set for new degree-seeking students, including new first-year and transfer students and new graduate Master's and doctoral students. A statistical model is used to project the retention of students in 104 different 'buckets' from fall to spring and spring to fall. Targets for new populations are added to the anticipated returning population to project fall and spring term total enrollments out 5 years. Projections are not done at the major, campus, or instruction mode level. Projections for "on-campus" students assumed that future proportions of on- and off-campus would be similar to current rates.

Faculty and Staff

The faculty and staff fall IPEDS census occurs at the end of October each year. In fall 2024, WCU had a total of 1,925 employees—995 faculty (641 tenured or tenure track and 354 adjuncts) and 930 staff. As requested, full-time and part-time breakouts are below. [Note: Not all full-time faculty are T/TT; not all part-time faculty are adjuncts.]

| | Full-time | Part-time | Total |
|---|---|---|---|
| Faculty | 707 | 288 | 995 |
| Non-faculty employees | 864 | 66 | 930 |
| Total employees | 1571 | 354 | 1,925 |

Student Enrollment Data

| CLASS | TOTAL ENROLLMENT - FALL | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | FULL-TIME | | | | | PART-TIME | | | | | TOTAL | | | | |
| | 2020 | 2021 | 2022 | 2023 | 2024 | 2020 | 2021 | 2022 | 2023 | 2024 | 2020 | 2021 | 2022 | 2023 | 2024 |
| **UNDERGRADUATE** | | | | | | | | | | | | | | | |
| Freshmen** | 3,517 | 3,438 | 3,868 | 4,093 | 4,105 | 83 | 86 | 108 | 118 | 100 | 3,600 | 3,524 | 3,976 | 4,211 | 4,205 |
| Sophomores | 3,153 | 2,965 | 2,798 | 3,132 | 3,256 | 160 | 165 | 171 | 156 | 142 | 3,313 | 3,130 | 2,969 | 3,288 | 3,398 |
| Juniors | 3,179 | 3,120 | 2,888 | 2,826 | 2,998 | 285 | 365 | 307 | 266 | 269 | 3,464 | 3,485 | 3,195 | 3,092 | 3,267 |
| Seniors | 3,196 | 3,146 | 3,019 | 2,751 | 2,641 | 868 | 873 | 862 | 731 | 658 | 4,064 | 4,019 | 3,881 | 3,482 | 3,299 |
| Irregular/Transients | 12 | 17 | 13 | 15 | 10 | 260 | 296 | 358 | 256 | 270 | 272 | 313 | 371 | 271 | 280 |
| Indep/Distance Learning | | | | | | | | | | | 0 | 0 | 0 | 0 | 0 |
| Subtotal | 13,057 | 12,686 | 12,586 | 12,817 | 13,010 | 1,656 | 1,785 | 1,806 | 1,527 | 1,439 | 14,713 | 14,471 | 14,392 | 14,344 | 14,449 |
| **GRADUATE** | | | | | | | | | | | | | | | |
| Graduate | 971 | 1,032 | 940 | 954 | 982 | 1,807 | 1,857 | 1,694 | 1,503 | 1,445 | 2,778 | 2,889 | 2,634 | 2,457 | 2,427 |
| Professional/Doctoral | 56 | 42 | 53 | 47 | 42 | 174 | 212 | 196 | 228 | 253 | 230 | 254 | 249 | 275 | 295 |
| Subtotal | 1,027 | 1,074 | 993 | 1,001 | 1,024 | 1,981 | 2,069 | 1,890 | 1,731 | 1,698 | 3,008 | 3,143 | 2,883 | 2,732 | 2,722 |
| TOTAL | 14,084 | 13,760 | 13,579 | 13,818 | 14,034 | 3,637 | 3,854 | 3,696 | 3,258 | 3,137 | 17,721 | 17,614 | 17,275 | 17,076 | 17,171 |

## On-campus Student Enrollment

| CLASS | TOTAL ON-CAMPUS ENROLLMENT - FALL | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | FULL-TIME | | | | | PART-TIME | | | | | TOTAL | | | | |
| | 2020 | 2021 | 2022 | 2023 | 2024 | 2020 | 2021 | 2022 | 2023 | 2024 | 2020 | 2021 | 2022 | 2023 | 2024 |
| **UNDERGRADUATE** | | | | | | | | | | | | | | | |
| Freshmen** | | 3,433 | 3,862 | 4,087 | 4,097 | | 77 | 96 | 103 | 74 | | 3,510 | 3,958 | 4,190 | 4,171 |
| Sophomores | | 2,948 | 2,778 | 3,116 | 3,233 | | 115 | 120 | 118 | 102 | | 3,063 | 2,898 | 3,234 | 3,335 |
| Juniors | | 3,064 | 2,844 | 2,773 | 2,927 | | 238 | 199 | 167 | 161 | | 3,302 | 3,043 | 2,940 | 3,088 |
| Seniors | | 2,936 | 2,805 | 2,559 | 2,444 | | 538 | 568 | 445 | 363 | | 3,474 | 3,373 | 3,004 | 2,807 |
| Irregular/Transients | | 9 | 13 | 15 | 10 | | 132 | 287 | 228 | 100 | | 141 | 300 | 243 | 110 |
| Indep/Distance Learning | | | | | | | | | | | | | | | |
| Subtotal | | 12,390 | 12,302 | 12,550 | 12,711 | | 1,100 | 1,270 | 1,061 | 800 | | 13,490 | 13,572 | 13,611 | 13,511 |
| **GRADUATE** | | | | | | | | | | | | | | | |
| Graduate | | 622 | 550 | 546 | 528 | | 534 | 512 | 443 | 388 | | 1,156 | 1,062 | 989 | 916 |
| Professional/Doctoral | | 26 | 33 | 27 | 32 | | 23 | 17 | 20 | 8 | | 49 | 50 | 47 | 40 |
| Subtotal | | 648 | 583 | 573 | 560 | | 557 | 529 | 463 | 396 | | 1,156 | 1,062 | 989 | 916 |
| TOTAL | | 13,038 | 12,885 | 13,123 | 13,271 | | 1,657 | 1,799 | 1,524 | 1,196 | | 14,646 | 14,634 | 14,600 | 14,427 |

For the purpose of these counts, "on-campus" includes any student with at least one course taken on WCU's main campus.
In fall 2020, WCU was 100% remote due to COVID. Data are not available to calculate the exact number (very small) of students who had in-person classes on WCU's main campus.

| FALL UNDERGRADUATE ENROLLMENT BY GENDER | | | | | |
|---|---|---|---|---|---|
| | 2020 | 2021 | 2022 | 2023 | 2024 |
| Males | 5,879 | 5,788 | 5,854 | 5,887 | 6,060 |
| Females | 8,834 | 8,681 | 8,532 | 8,453 | 8,385 |
| Not Reported | | 2 | 6 | 4 | 4 |
| TOTAL | 14,713 | 14,471 | 14,392 | 14,344 | 14,449 |

| FALL UNDERGRADUATE ENROLLMENT BY ORIGIN | | | | | |
|---|---|---|---|---|---|
| | 2020 | 2021 | 2022 | 2023 | 2024 |
| In-State | 13,312 | 13,138 | 13,027 | 12,872 | 12,937 |
| Out-of-State | 1,368 | 1,300 | 1,326 | 1,439 | 1,473 |
| International | 33 | 33 | 39 | 33 | 39 |
| TOTAL | 14,713 | 14,471 | 14,392 | 14,344 | 14,449 |

| FALL UNDERGRADUATE ENROLLMENT BY AGE | | | | | |
|---|---|---|---|---|---|
| | 2020 | 2021 | 2022 | 2023 | 2024 |
| 17 or under | 173 | 208 | 263 | 169 | 194 |
| 18-19 | 5,138 | 4,950 | 5,080 | 5,545 | 5,554 |
| 20-21 | 5,660 | 5,656 | 5,581 | 5,473 | 5,540 |
| 22-23 | 2,011 | 2,015 | 1,952 | 1,856 | 1,887 |
| 24-25 | 605 | 566 | 500 | 451 | 483 |
| 26-29 | 496 | 467 | 424 | 350 | 301 |
| 30 and over | 630 | 609 | 592 | 500 | 490 |
| TOTAL | 14,713 | 14,471 | 14,392 | 14,344 | 14,449 |

**Class-standing is determined here by cumulative credits earned.
This number includes new FY and new TR with less than 30 TR credits

| Projected Enrollment Changes | | | | | |
|---|---|---|---|---|---|
| | 2025 | 2026 | 2027 | 2028 | 2029 |

| CLASS | ENROLLMENT PROJECTIONS - FALL | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | FULL-TIME | | | | | PART-TIME | | | | | TOTAL | | | | |
| | 2025 | 2026 | 2027 | 2028 | 2029 | 2025 | 2026 | 2027 | 2028 | 2029 | 2025 | 2026 | 2027 | 2028 | 2029 |
| **UNDERGRADUATE** | | | | | | | | | | | | | | | |
| Freshmen | 4,040 | 4,043 | 3,907 | 3,903 | 3,900 | 98 | 98 | 95 | 95 | 95 | 4,138 | 4,141 | 4,002 | 3,998 | 3,995 |
| Sophomores | 3,418 | 3,430 | 3,424 | 3,421 | 3,416 | 149 | 140 | 149 | 149 | 149 | 3,567 | 3,570 | 3,573 | 3,570 | 3,566 |
| Juniors | 3,019 | 3,174 | 3,167 | 3,164 | 3,163 | 263 | 253 | 263 | 263 | 260 | 3,282 | 3,427 | 3,430 | 3,427 | 3,423 |
| Seniors | 2,667 | 2,527 | 2,668 | 2,665 | 2,662 | 615 | 615 | 619 | 619 | 619 | 3,282 | 3,142 | 3,287 | 3,284 | 3,281 |
| Irregular/Transients | 10 | 10 | 10 | 10 | 10 | 270 | 270 | 270 | 270 | 270 | 280 | 280 | 280 | 280 | 280 |
| Indep/Distance Learning | | | | | | | | | | | | | | | |
| Subtotal | 13,154 | 13,184 | 13,176 | 13,163 | 13,151 | 1,395 | 1,376 | 1,396 | 1,396 | 1,393 | 14,549 | 14,560 | 14,572 | 14,559 | 14,545 |
| GRADUATE | | | | | | | | | | | | | | | |
| Graduate | 1,006 | 1,017 | 1,028 | 1,034 | 1,035 | 1,395 | 1,386 | 1,392 | 1,398 | 1,399 | 2,401 | 2,403 | 2,419 | 2,432 | 2,434 |
| Professional/Doctoral | 42 | 42 | 42 | 42 | 42 | 253 | 253 | 253 | 253 | 253 | 295 | 295 | 295 | 295 | 295 |
| Subtotal | 1,048 | 1,059 | 1,070 | 1,076 | 1,077 | 1,648 | 1,639 | 1,645 | 1,651 | 1,652 | 2,696 | 2,698 | 2,714 | 2,727 | 2,729 |
| TOTAL | 14,203 | 14,243 | 14,245 | 14,238 | 14,228 | 3,043 | 3,015 | 3,041 | 3,047 | 3,046 | 17,245 | 17,257 | 17,286 | 17,285 | 17,274 |

**On-campus Student Enrollment Projections**

| ON-CAMPUS ENROLLMENT PROJECTIONS - FALL | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | FULL-TIME | | | | | PART-TIME | | | | | TOTAL | | | | |
| CLASS | 2025 | 2026 | 2027 | 2028 | 2029 | 2025 | 2026 | 2027 | 2028 | 2029 | 2025 | 2026 | 2027 | 2028 | 2029 |
| UNDERGRADUATE | | | | | | | | | | | | | | | |
| Freshmen | 4,032 | 4,035 | 3,899 | 3,895 | 3,892 | 73 | 73 | 70 | 70 | 70 | 4,105 | 4,108 | 3,970 | 3,966 | 3,963 |
| Sophomores | 3,394 | 3,406 | 3,400 | 3,397 | 3,392 | 107 | 101 | 107 | 107 | 107 | 3,501 | 3,506 | 3,507 | 3,504 | 3,499 |
| Juniors | 2,948 | 3,099 | 3,092 | 3,089 | 3,088 | 157 | 151 | 157 | 157 | 156 | 3,105 | 3,250 | 3,249 | 3,246 | 3,244 |
| Seniors | 2,468 | 2,339 | 2,469 | 2,466 | 2,463 | 339 | 339 | 341 | 341 | 341 | 2,807 | 2,678 | 2,810 | 2,808 | 2,805 |
| Irregular/Transients | 10 | 10 | 10 | 10 | 10 | 100 | 100 | 100 | 100 | 100 | 110 | 110 | 110 | 110 | 110 |
| Indep/Distance Learning | | | | | | | | | | | | | | | |
| Subtotal | 12,852 | 12,888 | 12,870 | 12,858 | 12,846 | 776 | 764 | 776 | 776 | 774 | 13,628 | 13,652 | 13,646 | 13,634 | 13,620 |
| GRADUATE | | | | | | | | | | | | | | | |
| Graduate | 541 | 547 | 553 | 556 | 556 | 375 | 372 | 374 | 375 | 376 | 916 | 919 | 926 | 931 | 932 |
| Professional/Doctoral | 32 | 32 | 32 | 32 | 32 | 8 | 8 | 8 | 8 | 8 | 40 | 40 | 40 | 40 | 40 |
| Subtotal | 573 | 579 | 585 | 588 | 588 | 383 | 380 | 382 | 383 | 384 | 956 | 959 | 966 | 971 | 972 |
| TOTAL | 13,425 | 13,467 | 13,455 | 13,445 | 13,434 | 1,159 | 1,144 | 1,158 | 1,160 | 1,158 | 14,583 | 14,611 | 14,613 | 14,605 | 14,592 |

| Housing Occupancy - Fall 2024* | | |
|---|---|---|
| | Affiliated Housing | WCU Residence Halls |
| Freshman | 1619 | 1528 |
| Sophomores | 788 | 432 |
| Juniors | 334 | 233 |
| Seniors | 197 | 88 |
| All Graduate | 33 | |
| TOTAL | | |

March 27, 2025
TPD# WCU.00004

Info@TPDinc.com

# West Chester University Master Plan

## Transportation Impact Study

*West Chester Borough, West Goshen Township, and East Bradford Township, Chester County, PA*

**For Submission To:**
West Chester Borough, West Goshen Township, and East Bradford Township

EXHIBIT
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# WEST CHESTER UNIVERSITY
# MASTER PLAN
# TRANSPORTATION IMPACT STUDY

*FOR SUBMISSION TO:*

West Chester Borough, West Goshen Township, and East Bradford Township,
Chester County, PA

Prepared For:
West Chester University

March 27, 2025
*TPD # WCU.00004*

Prepared By:
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# EXECUTIVE SUMMARY

The purpose of this study is to examine the potential traffic impact associated with the West Chester University Master Plan on the roadway network in West Chester Borough, West Goshen Township, and East Bradford Township, Chester County, PA:

1. The study area intersections included in this TIS are as follows:
   - South New Street & Sharpless Street
   - Darlington Street & Sharpless Street
   - Church Street & Sharpless Street
   - Reynolds Alley &Sharpless Street
   - South High Street & Sharpless Street
   - South High Street & East Nields Street
   - South High Street & University Avenue
   - Reynolds Alley & University Avenue
   - Church Street & University Avenue
   - South High Street & Linden Street
   - South High Street & Rosedale Avenue
   - Matlack Street & Rosedale Avenue
   - Matlack Street & Carter Drive
   - Church Street (both legs) & Rosedale Avenue
   - Ped Crosswalk & Rosedale Avenue
   - South New Street & Rosedale Avenue
   - South New Street & Nields Street/Campus Drive
   - South New Street & Pomona Hill Drive
   - South New Street & Glen Echo Field Access
   - South New Street & 855 S. New Street Access
   - South New Street & S. Campus Drive
   - South New Street & Tigue Road/Stadium Drive
   - Matlack Street & E. Campus Drive
   - Matlack Street & southern M2 Lot Driveway
   - High Street & E. Campus Drive
2. The WCU campus is generally divided into the "north campus" which is situated within West Chester Borough and West Goshen Township, and the "south campus", which is situated in West Goshen Township and East Bradford Township.
3. The Master Plan includes the providing connectivity between the north and south campus and enhancements to the residential and learning experiences by adding and renovated beds and educational space.

4. The proposed Master Plan consists of adding an estimated ±819 new beds on campus. Enrollment is not anticipated to increase in line with the additional beds, but rather the additional beds are anticipated to accommodate existing students who currently commute to campus and/or currently live off-campus. Additionally, the following roadway segments within West Chester Borough are proposed to be closed to vehicular traffic and open for pedestrian traffic only to enhance pedestrian mobility, subject to the Borough's review and approval:
   - Church Street from North Campus Drive (Parking Garage Access) to University Avenue.
   - University Avenue from approximately 120' west of Reynolds Alley to Church Street.
   - The southern leg of Church Avenue at Rosedale Avenue.

   The Church Street and University Avenue closures would both include turnaround loops and the portion of roadway remaining open would be converted to two-way traffic.

5. This Master Plan traffic study considers the planned High Street corridor improvements, between W. Miner Street and E. Rosedale Avenue, and the South New Street/Rosedale Avenue intersection improvements.

6. Based on the WCU Enrollment Projected Report data, from 2023 to 2029 enrollment is anticipated to increase by 0.19% on average per year.

7. Under 2040 projected conditions with implementation of the planned improvements and with the WCU Master-Plan, the study area intersections are anticipated to operate at the same overall intersection level of service (ILOS) as under existing conditions, during the weekday A.M. and P.M. peak hours. All levels of service at the study area intersection are anticipated to comply with the applicable PennDOT and municipal requirements.

8. WCU currently implements a number of Transportation Demand Management (TDM) measures in order to reduce parking and traffic in the area and to create a pedestrian friendly environment, including the following:
   - Shuttle system to both on-campus and off-campus locations
   - Discounted transit fare program
   - Carpool preferential parking
   - On-site car-sharing vehicles
   - Commuter information center
   - Flexible or alternative work hours for workers
   - TDM education programs directed at the students and employees

9. Traffic Planning and Design Inc. (TPD) recommends the following in conjunction with the Master Plan from a traffic perspective:
   - Pursue a pedestrian path/walkway along New Street, between the North Campus and South Campus.
   - As an additional TDM measure, consider implementing real time display of parking garage utilization.
   - As specific Land Development applications are pursued for projects contemplated under the WCU Master Plan, monitor and evaluate traffic and pedestrian circulation in the immediate area the given application.
   - Continue to monitor and provide convenient shuttle service to facilitate parking in lots that may be more remote to a desired building/destination on campus.
   - In conjunction with specific Land Development applications, provide pedestrian paths/walkways to facilitate pedestrian connections to the specific application.

- In conjunction with specific applications which would close Church Street and University Avenue, further evaluate the traffic/pedestrian impact in the area.
- Coordinate any possible modifications with PennDOT as appropriate (i.e. University Avenue conversion).
- Provide high-volume bike storage area on campus, as needed in high bike use areas.
- Coordinate special events with the Borough, Townships and social media as appropriate.
- Investigate improving signage/wayfinding to key areas on WCU.

**10.** Levels of Service (LOS) for the study area intersections have been summarized in matrix form. **Tables I and II** detail the overall intersection LOS for each study area intersection.

**TABLE I**
**OVERALL INTERSECTION LEVEL OF SERVICE SUMMARY**

| Intersection | Peak Hour | Existing | 2040 Projected Conditions with Planned Improvements | Meets LOS Requirements? |
|---|---|---|---|---|
| South New Street & Sharpless Street | AM | A (9.2) | A (9.8) | Yes |
| | PM | A (10.0) | B (11.2) | |
| Darlington Street & Sharpless Street | AM | A (0.4) | A (0.4) | Yes |
| | PM | A (0.9) | A (1.0) | |
| Church Street & Sharpless Street | AM | A (3.0) | A (4.1) | Yes |
| | PM | A (3.4) | A (5.0) | |
| Reynolds Alley & Sharpless Street | AM | A (1.0) | A (0.8) | Yes |
| | PM | A (1.6) | A (1.4) | |
| South High Street & Sharpless Street | AM | A (2.3) | B (10.5) | Yes |
| | PM | A (4.5) | B (13.1) | |
| South High Street & East Nields Street | AM | A (1.6) | A (1.6) | Yes |
| | PM | A (1.4) | A (1.5) | |
| South High Street & University Avenue | AM | A (0.6) | A (4.2) | Yes |
| | PM | A (0.8) | A (4.5) | |
| Reynolds Alley & University Avenue | AM | A (0.5) | A (0.9) | Yes |
| | PM | A (0.4) | A (0.7) | |
| Church Street & University Avenue | AM | A (8.9) | A (0.0) | Yes |
| | PM | A (5.5) | A (0.0) | |
| South High Street & Linden Street | AM | A (4.6) | A (5.0) | Yes |
| | PM | A (8.1) | A (8.9) | |

*Projected = With Planned Improvements and WCU Master Plan*

**TABLE II**
**OVERALL INTERSECTION LEVEL OF SERVICE SUMMARY**

| Intersection | Peak Hour | Existing | 2040 Projected Conditions with Planned Improvements | Meets LOS Requirements? |
|---|---|---|---|---|
| South High Street & Rosedale Avenue | AM | B (14.4) | B (15.1) | Yes |
| | PM | B (16.0) | B (16.5) | |
| Matlack Street & Rosedale Avenue | AM | B (13.6) | C (16.7) | Yes |
| | PM | B (13.4) | C (16.4) | |
| Matlack Street & Carter Drive | AM | A (3.1) | A (3.9) | Yes |
| | PM | A (4.0) | A (4.7) | |
| Rosedale Avenue & Church Street | AM | B (11.7) | A (2.7) | Yes |
| | PM | B (12.7) | A (2.6) | |
| South New Street & Rosedale Avenue | AM | B (15.5) | C (26.8) | Yes |
| | PM | B (15.9) | C (26.7) | |
| South New Street & Nields Street/Campus Drive | AM | A (6.4) | A (7.8) | Yes |
| | PM | A (8.8) | B (10.4) | |
| South New Street & Pomona Hill Drive | AM | A (8.9) | A (9.4) | Yes |
| | PM | A (9.9) | B (10.7) | |
| South New Street & Glen Echo Field Access | AM | A (0.0) | A (0.0) | Yes |
| | PM | A (0.1) | A (0.1) | |
| South New Street & 855 S. New Street Access | AM | A (1.8) | A (1.8) | Yes |
| | PM | A (1.8) | A (1.9) | |
| South New Street & S. Campus Drive | AM | A (3.3) | A (3.4) | Yes |
| | PM | A (3.8) | A (4.0) | |
| South New Street & Tigue Road/Stadium Drive | AM | A (7.9) | A (8.1) | Yes |
| | PM | A (8.3) | A (8.7) | |
| Matlack Street & E. Campus Drive | AM | A (3.8) | A (4.1) | Yes |
| | PM | A (2.7) | A (2.9) | |
| Matlack Street & southern M2 Lot Driveway | AM | A (0.2) | A (0.2) | Yes |
| | PM | A (0.1) | A (0.1) | |
| High Street & E. Campus Drive | AM | A (1.6) | A (1.6) | Yes |
| | PM | A (2.0) | A (2.4) | |

*Projected = With Planned Improvements and WCU Master Plan*

THOMAS COMITTA ASSOCIATES, INC.
Town Planners & Landscape Architects

M E M O R A N D U M

TO: West Chester Borough Officials, Staff and Consultants
700 S. High Street (West Chester University Master Plan) Team

FROM: Thomas J. Comitta, AICP, CNU-A, RLA
Erin L. Gross, AICP, RLA

DATE: May 14, 2025

SUBJECT: **REVIEW COMMENTS: 700 S. HIGH STREET -
WEST CHESTER UNIVERSITY MASTER PLAN, DATED 4-2-2025**

Please note the enclosed Review Comments pertaining to the following documents that we received on April 14, 2025, and to a site visit on May 5, 2025, including:

- Narrative in support of Application, prepared by MacElree Harvey, Ltd., dated March 31, 2025;
- West Chester University of Pennsylvania's Application for Conditional Use for Approval of University Campus Plan: Narrative in Support Application, submitted by MacElree Harvey, Ltd., dated March 31, 2025;
- West Chester University: Campus Master Plan, prepared by Ewing Cole, dated revised January 2025;
- Enrollment Report and Projection Analysis (Appendix A), prepared by West Chester University's Office of Institutional Research (received 4-14-2025);
- West Chester University: Student Housing Development Study (Appendix B), prepared by Ewing Cole, dated revised Jdanaury 2025;
- Student Housing Study: Final Report (Appendix C), prepared by MGT, dated revised January 7, 2025;
- Transportation Impact Study – West Chester University Master Plan (Appendix D), prepared by TPD, dated March 27, 2025;
- West Chester University Parking Study – West Chester University Master Plan (Appendix E), prepared by TPD, dated March 27, 2025;
- Conceptual Stormwater Management Report – West Chester University Master Plan (Appendix F), prepared by CVE, dated revised 4-2-2025; and
- Master Plan for West Chester University (7 sheets)(Appendix G), prepared by CVE, dated 4-2-2025.

Please call if there are any questions.

THOMAS COMITTA ASSOCIATES, INC.
Town Planners & Landscape Architects

**REVIEW COMMENTS: 700 S. HIGH STREET -**
**WEST CHESTER UNIVERSITY MASTER PLAN, DATED 4-2-2025**

May 14, 2025

Please note the Review Comments below pertaining to the documents listed on the Cover Memorandum, and address the portions of the Master Plan located within West Chester Borough.

## 1. Overview

1.1. The portion of West Chester University that is located in the Borough is in the Planned University Main Campus Overlay District (PUC). The Applicant is seeking Conditional Use approval for the Master Plan per Section 112-314 of the Zoning Ordinance (ZO), subject to future land development approval for each project.

The Applicant indicates that the University Campus Plan consists of the Master Site Plan as well as the other components required by Section 112-314.C(3) of the Ordinance. Further the Applicant indicates that for all projects shown on the Master Site Plan, the ultimate land development application for each project will reflect the actual building footprint, layout, and related details.

## 2. Planned University Campus (PUC) District

2.1. Forthcoming submissions will need to demonstrate compliance with the dimensional requirements of Section 112-314.B.(ZO).

2.2. Section 112-314.D.(ZO) requires an Implementation Schedule to be provided as part of the Conditional Use Application, and include a schedule and time frame for: all recommended improvements included the transportation study, parking study and stormwater management strategy. Section 6. of the Master Plan Report includes an Implementation Strategy, and outlines a Timeline and Project Sequencing (0-5 years, 6-10 years, and 10+ years). TCA defers to the Borough and Borough Engineer relative to the detail needed and provided for the Implementation Schedule.

2.3. Section 112-314.E.(ZO) requires a University Enrollment Report to be submitted as part of the Conditional Use Application. The Applicant has submitted an Enrollment Report and Projection Analysis (Appendix A). TCA defers to the Borough on the content of this Report.

2.4. Section 112-314.F.(ZO) requires a University Housing Report and Analysis to be submitted as part of the Conditional Use Application. The Applicant has submitted a Student Housing Development Study (Appendix B) and a Student Housing Study (Appendix C). TCA defers to the Borough on the contents of these Reports.

2.5. Section 112-314.G.(ZO requires a University Campus Transportation Study to be submitted as part of the Conditional Use Application. The Applicant has submitted a Transportation Impact Study (Appendix D). TCA defers to the Borough and Borough Engineer on the content of this Report.

2.6. Section 112-314.H.(ZO) requires a University Campus Parking Study to be submitted as part of the Conditional Use Application. The Applicant has submitted a Campus Parking Study (Appendix E). TCA defers to the Borough and Borough Engineer on the content of this Report.

2.7. Section 112-314.I.(ZO) requires a Conceptual Stormwater Management Strategy to be submitted as part of the Conditional Use Application. The Applicant has submitted a Conceptual Stormwater Management Strategy (Appendix F). TCA defers to the Borough and Borough Engineer on the content of this Report.

2.8. Section 112-314.J.(ZO) requires a Master Site Plan to be submitted as part of the Conditional Use Application. The Applicant has submitted a Master Site Plan (Appendix G) and a Master Site Plan Report. Please note the comments below.

a. Gateways & Connections (Ewing Cole Master Plan, pages 78-79)

(1) Please coordinate the Gateways, Corridors/Paths and the Landscape Opportunities on the Gateways and Connections exhibits.

(2) Please clarify what is envisioned by a “Landscape Opportunity”. For example, might these include pedestrian gathering opportunities?

(3) The Connections exhibit should include the pink color in the Legend.

(4) Additional pedestrian gathering space opportunities could be considered for selected corners of the north campus, such as the southeast and southwest corners of Church Street and Sharpless Street.

b. Church Street & University Ave Improvements (Ewing Cole Master Plan, pages 102-103)

(1) TCA defers to the Borough Engineer relative to the implications of closing South Church Street to vehicular traffic flow, especially along High Street. However, we believe the concept of closing South Church Street needs to be further discussed with Borough Council (as the Borough would need to adopt an Ordinance in order to vacate a portion of South Church Street).

(2) Please clarify the improvements that are envisioned for the Church Street Pedestrianization. For example, more information should be provided relative to the removal of the vehicular thoroughfare.

(3) Please clarify the enhancements/amenities that are envisioned for the Gateway, transitional Corridor, Social Center, Academic Space, and Multi-use Lawns.

(4) Please clarify how this space will connect/transition to Rosedale Avenue. For example, what type of pedestrian accommodations are contemplated at this intersection?

c. Rosedale Avenue Improvements (Ewing Cole Master Plan, pages 122-123, but not depicted in CVE Master Plan drawings)

(1) Please clarify the enhancements/amenities that are envisioned for the Gateway, transitional Corridor, Social Center, Academic Space, and Multi-use Lawns.

(2) Please clarify why the Church Street Pedestrianization Area is depicted as "Academic Space".

d. Pedestrian Connections and Network.
More information should be provided relative to the overall pedestrian connections and network within the North and South Campuses, and between the 2 Campuses (and the relationship to the Superblock and Clash Points information provided on pages 76 and 77) (Also see comment 3.2. relative to pedestrian crossing).

e. Multi-modal Transportation Stations/Campus Connector/Paths (Depicted on the CVE Plans)
Please clarify what enhancements are envisioned for the Multi-modal Transportation Stations/Campus Connector/Paths.

2.9. Section 112-314.K.(ZO) requires that all buildings and facilities depicted on the University Campus Plan be designed to improve the sustainability of the campus and all proposed buildings must be designed to meet the U.S. Green Building Council's LEED Silver Certification criteria. The Applicant should indicate their intent of how they plan to achieve these design criteria, and provide more information in forthcoming submissions for individual buildings.

## 3. Pedestrian Orientation, Streetscape Enhancements, and Connectivity

3.1. Overall Wayfinding Signage Program.
In order to promote greater pedestrian orientation through the campus, we recommend that an Overall Wayfinding Signage program be created and included as part of the Master Plan.

3.2. Connectivity
The Master Plan should better demonstrate the connectivity that will be created throughout different areas of the Campus, and the "connective tissue" that will used. The Master Plan should better describe pedestrian amenities, streetscape elements, etc., that are proposed which would help to link together the pedestrian network, pedestrian gathering spaces, and different areas of campus, in order to create a sense of place and continuity throughout the campus.

For example, as part of the Master Plan at other campuses, low piers have been placed at key street/sidewalk intersections to create the "connective tissue". Such piers typically have the school logo and a wayfinding map.

3.3. Safe Pedestrian Crossing Program.
In order to promote safe pedestrian circulation at intersections of streets, alleys, and driveways, we recommend that a Crosswalk Program be created and included as part of the Master Plan (whereby at least continental crosswalks are line striped or relined striped at intersections).

In addition, we recommend future coordination with PennDot relative to the feasibility of implementing Rapid Flashing Beacons at key crossings, especially across High Street.

**REVIEW COMMENTS: 700 S. HIGH STREET -
WEST CHESTER UNIVERSITY MASTER PLAN, DATED 4-2-2025**

May 14, 2025

3.4. Street Tree Program.
In the 1960's and 1970's, West Chester University had a Campus Landscape Architect (Greg Trembly, RLA). Mr. Trembly began a Street Tree Program with tree replacements and installations throughout the Campus. We recommend that a similar program be established in the future and coordination with the Borough Tree Commission.

Please call if there are any questions.

# BOROUGH OF WEST CHESTER
# CONDITIONAL USE APPLICATION

**Property Address:** See enclosed plan showing subject West Chester University of Pennsylvania properties in West Chester Borough

**Name of Applicant:** West Chester University of Pennsylvania

Mailing Address: 700 S. High Street, West Chester, PA 19382

Telephone Number: 610-436-1000 / Fax Number: N/A

Email Address: N/A

**Attorney:** Brian L. Nagle, Esquire / MacElree Harvey, Ltd.

Mailing Address: 700 S. High Street, West Chester, PA 19382

Telephone Number: 610-840-0224 / Fax Number: 610-430-8245

Zoning District: Planned University Campus District / **Proposed Use:**

Approval of a "University Campus Plan" for the university-owned property in West Chester Borough.
See Narrative in Support of Application.

Zoning Code Sections Relating to Application: Section 112-314 of the West Chester Borough Zoning Ordinance

***** Attach report in accordance with Section 112-113 and any specific section governing the proposed conditional use with the appropriate fee.***

**Note:** All conditional use applications will be forwarded to the Borough's Planning Commission for comment. Applicant attendance is recommended. Historic carriage house applications will be forwarded to the Borough's Historical and Architectural Review Board for review and comment. Applicant attendance is recommended.

*Signature of Applicant* Brian L. Nagle, Esquire, Attorney-in-Fact — *Date* 3-31-25

---

*For Borough Official Use Only*

*Fee Paid $* _____ *Date Application Submitted* _____

Borough Official _____

Name Signature Application #

RECEIVED
By wendy mecke at 12:51 pm, Apr 01, 2025

MacElree Harvey
SINCE 1880
INITIATIVE IN PRACTICE

MacElree Harvey, Ltd.
Attorneys at Law
17 West Miner Street
West Chester, PA 19382
610-436-0100 | main
macelree.com

Brian L. Nagle
bnagle@macelree.com
d | 610-840-0224
f | 610-430-8245

April 1, 2025

***Via Hand Delivery***

West Chester Borough Council
Attn: Sean Metrick, Borough Manager
401 East Gay Street
West Chester, PA 19380

**Re: Conditional Use Application of West Chester University of the Pennsylvania State System of Higher Education; University Main Campus Plan**

Dear Sean:

I am submitting on behalf of my client, West Chester University of the Pennsylvania State System of Higher Education (the "University"), five (5) copies of the following:

- Application for Conditional Use;
- Narrative in Support of Application;
- West Chester University Master Plan Report by Ewing Cole and the following separately marked appendices thereto:
    - Appendix "A" – Enrollment Report and Projection Analysis by West Chester University Office of Institutional Research
    - Appendix "B" -- Student Housing Development Study by Ewing Cole
    - Appendix "C" – Student Housing Study by MGT
    - Appendix "D" – Transportation Impact Study by TPD
        - Five (5) copies of Executive Summary
        - One complete physical copy and electronic copy submitted with application
    - Appendix "E" – Parking Study by TPD
    - Appendix "F" – Conceptual Stormwater Management Report w/ Stormwater Management Plan by Chester Valley Engineers (to be submitted separately)
    - Appendix "G" – Master Plan for West Chester University Campus Improvements by Chester Valley Engineers (to be submitted separately)
- Electronic copy of the above Application and associated materials (submitted separately)
- Application fee of $800.00.

Please let me know if you require additional physical copies of any materials.

Additionally, the University hereby grants the Borough Council an extension of the timeframe within which the Borough is required to commence the hearing on the Application through August 31, 2025. Thus,

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Check # 139542 / MacElree Harvey LTD

commencement of the hearing on the Application on or before August 31, 2025 shall be considered timely under the applicable timeframes of the Pennsylvania Municipalities Planning Code.

Very truly yours,



Brian L. Nagle

/cfg
Enclosures

cc: Nathan M. Cline, P.E., Borough Engineer (w/enclosures) *[via Electronic Mail Only]*
Kristin S. Camp, Esquire, Solicitor (w/enclosures) *[via Electronic Mail Only]*
Mike Barbieri, Zoning Officer (w/enclosures) *[via Electronic Mail Only]*
West Chester University of the Pennsylvania State System of Higher Education

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BEFORE THE BOROUGH COUNCIL OF WEST CHESTER BOROUGH

In Re: West Chester University of Pennsylvania's Application for Conditional Use for Approval of University Campus Plan

**Narrative in Support of Application**

## I. Introduction & Background

West Chester University of the Pennsylvania State System of Higher Education (the "Applicant") is the record owner of those subject parcels of real property located in the Planned University Campus District of West Chester Borough (together, the "Properties"). The Properties are used for educational uses with associated improvements and accessory uses and improvements incidental to the existing educational use.

The Applicant seeks conditional use approval of its University Campus Plan providing certain University projects in West Chester Borough (the "Borough") over the life of the University Campus Plan. In conformity with the stated purpose of the Planned University Campus District, the Applicant's University Main Campus Plan provides for the orderly, coordinated, and unified development of its campus and related uses through long-range planning, strengthens and preserves surrounding neighborhoods, and advances the mission of West Chester University of the Pennsylvania State System of Higher Education.

## II. Request for Conditional Use Approving University Campus Plan

The Applicant requests that the Borough Council grant Conditional Use approval for its University Main Campus Plan in the Borough pursuant to Section 112-314 of the West Chester Borough Zoning Ordinance ("Ordinance"), subject to future land development approval for each specified project.

The Applicant is specifically seeking approval of the enclosed "Master Plan for West Chester University Campus Improvements", which constitutes the Master Site Plan component required per Section 112-314.C(3)(f) of the Ordinance ("Master Site Plan"). The University Campus Plan consists of the Master Site Plan as well as the other components required by Section 112-314.C(3) of the Ordinance. For all projects shown on the Master Site Plan, the ultimate land development application for each project will reflect the actual building footprint, layout, and related details.

The Applicant will demonstrate compliance with the Ordinance's criteria for University Campus Plans and their associated components, Conditional Use criteria, and all other applicable requirements at the time of the hearing on the instant application.

## III. Conclusion

The Applicant will present testimony and evidence in support of its Application at the time of the hearing before the Borough Council and hereby requests approval of the Application.

Respectfully submitted,

MacELREE HARVEY, LTD.

Dated: March 31, 2025

Brian L. Nagle
MacElree Harvey, Ltd.
17 West Miner Street
P.O. Box 660
West Chester, PA 19381-0660
(610) 436-0100
*Attorney for Applicant*

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160785.75985

1025 Andrew Drive, Suite 110, West Chester, PA 19380
610.326.3100 | INFO@TPDINC.COM
WWW.TPDINC.COM

**March 27, 2025**

Michelle Ginsburg
West Chester University
700 S. High Street
West Chester, PA 19383

**RE: West Chester University Parking Study**
West Chester University Master Plan
*West Chester Borough, West Goshen Township, and East Bradford Township, Chester County PA*
TPD No. WCU.00004

Dear Michelle:

Traffic Planning and Design, Inc. (TPD) has completed this parking study in conjunction with the West Chester University (WCU) Master Plan study. The WCU campus is generally divided into the "north campus" which is situated within West Chester Borough and West Goshen Township, and the "south campus", which is situated in West Goshen Township and East Bradford Township.

The Master Plan includes providing connectivity between the north and south campus, enhancements to the residential and learning experiences by adding and renovating beds and educational space, in addition to other campus improvements. Based on the Enrollment Projected Report data, an estimated 198 students are anticipated to be enrolled in the Fall of 2029 compared to the Fall of 2023 (i.e. parking counts below performed in the 2023-24 school year). It is TPD's understanding that the changes in enrollment will result in no discernable changes to the current personnel/staffing for WCU, which is a total of 1,928 Full Time Equivalent staff (as of the Fall 2023).

In addition, the Master Plan includes adding an estimated 819 new beds on campus. Enrollment is not anticipated to increase in line with the additional beds, but rather the additional beds are anticipated to accommodate existing students who currently commute to campus and/or currently live off-campus. Furthermore, the following roadway segments within West Chester Borough are proposed to be closed to vehicular traffic and open for pedestrian traffic only in order to enhance pedestrian mobility, subject to the Borough's review and approval:

- Church Street from North Campus Drive (Parking Garage Access) to University Avenue.
- University Avenue from approximately 120' west of Reynolds Alley to Church Street.
- The southern leg of Church Avenue at Rosedale Avenue.

In conjunction with the above road closures on Church Street and University Avenue, a portion of on-street parking is anticipated to be eliminated.

This report has been prepared in accordance with the following ordinances:

- West Chester Borough Section 112-314.H *Planned University Campus District, University Campus Parking Study.*
- West Goshen Township Section 84-141, *Planned University Main Campus Overlay District, University Main Campus Parking Study.*



**Appendix E**

## Data Collection

In accordance with the West Chester Borough and West Goshen Township ordinances, parking occupancy counts were completed during the weekday afternoon (11:00 A.M.-1:00 P.M.) and the weekday evening (5:00-7:00 P.M.) peak time periods at the parking areas in both the University's North Campus and South Campus. The surface lot counts were performed using drone imaging, and the parking garage counts were performed manually by a technician. These counts were completed on Thursday, April 25, 2024, when classes were in session. The University's parking areas are illustrated on the **attached** Parking Plans prepared by CVE, dated 1/27/25.

## Existing Parking

Results of the parking counts are summarized in **Table 1** below. A detailed inventory of parking areas at the time the parking counts were completed is **attached**.

**TABLE 1**
**EXISTING PARKING COUNT SUMMARY**

| Campus | Type | Total Spaces | Midday Peak | | Evening Peak | |
|---|---|---|---|---|---|---|
| | | | Occupied | Unoccupied | Occupied | Unoccupied |
| North Campus | Off-Street | 3471[1] | 2809 | 657 | 1653 | 1818 |
| | On-Street | 275 | 180 | 95 | 118 | 157 |
| | ***Subtotal*** | ***3746[1]*** | ***2899*** | ***752*** | ***1771*** | ***1975*** |
| South Campus | Off-Street | 2190 | 1055 | 1135 | 881 | 1309 |
| | On-Street | 0 | 0 | 0 | 0 | 0 |
| | ***Subtotal*** | ***2190*** | ***1055*** | ***1135*** | ***881*** | ***1309*** |
| Total | Off-Street | 5661[1] | 3864 | 1792 | 2534 | 3127 |
| | On-Street | 275 | 180 | 95 | 118 | 157 |
| | **Total** | ***5936[1]*** | ***4044*** | ***1887*** | ***2652*** | ***3284*** |

1. *The 204 Carter Drive Lot with 46 parking spaces was added in January 2025, and is not included in this total, as it was not open at the time the parking occupancy counts were completed.*

As shown in **Table 1**, the existing parking demand of the WCU campus is 4,044 spaces for both the north and south campus. The peak parking demand for the north campus is 2,899 spaces. The peak parking demand for the south campus is 1,055 spaces.

## Future Parking

As part of the master plan project, road closures are proposed to enhance pedestrian mobility on the campus, and would eliminate a portion of on-street parking on Church Street and University Avenue. It is estimated that ±52 on-street parking spaces would be eliminated with the closure of Church Street to vehicular traffic, and ±24 on-street parking spaces would be eliminated with the closure of University Avenue to vehicular traffic. Additionally, the off-street Lot M1 will temporarily be utilized for modular housing which will temporarily reduce the parking spaces in this lot by 135 spaces, leaving 68 spaces in lot M1. The future parking space inventory is summarized in **Table 2**.

**TABLE 2**
**FUTURE PARKING COUNT SUMMARY**

| Campus | Type | Total Future Spaces |
|---|---|---|
| North Campus | Off-Street | 3343[1] |
| | On-Street | 199 |
| | ***Subtotal*** | ***3542[1]*** |
| South Campus | Off-Street | 2190 |
| | On-Street | 0 |
| | ***Subtotal*** | ***2190*** |
| Total | Off-Street | 5533[1] |
| | On-Street | 199 |
| | **Total** | ***5732[1]*** |

1. *The 204 Carter Drive Lot with 46 parking spaces was added in January 2025, and is not included in this total, as it was not open at the time the parking occupancy counts were completed.*

## Parking Analysis

To determine if the proposed parking is sufficient to support the future anticipated enrollment of WCU based on the Master Plan projections, the peak parking demand was evaluated based on the Institute of Transportation Engineers' (ITE) Parking Generation Manual, 6th Edition, 2023. For the WCU Master plan, Land Use Code #550 (University/College), was used to calculate the peak parking demand during a typical weekday based on the 2029 projected student enrollment.

As noted, the student enrollment projection analysis indicates an estimated additional 198 students will be enrolled in the Fall of 2029 when compared to the 2023-24 school year when the parking counts were conducted. The parking demand for the estimated additional 198 students was calculated based on ITE data and added to the existing parking demand based on parking counts to determine the future parking demand.

**Table 3** shows the ITE parking generation data and the associated calculations for the weekday (Monday-Friday) average peak parking demand for the estimated additional 198 students projected to be enrolled in 2029. Please note, while the ITE peak parking demand calculation is based on using students as the variable, the resultant peak parking demand encompass all parking users (i.e. students, staff, visitors, etc.). In addition, the calculated peak paring demand rate based on the existing peak parking demand (**Table 1**) and the existing enrollment is approximately 75% of the ITE peak parking demand rate below. As such, the use of the ITE represents a conservative evaluation.

**TABLE 3**
**ITE PARKING DEMAND: WEEKDAY (MONDAY-FRIDAY)**

| Land Use | ITE # | X | Average Rate (Weekday) | Peak Parking Demand |
|---|---|---|---|---|
| University/College | 550 | 198 students[1] | P = 0.32*(X) | 64 spaces |

*P = Peak Parking Demand; X = independent variable (total increase in student enrollment)*
*1 = Based on student enrollment data, includes full-time and part-time undergraduate and graduate students.*

As shown in **Table 3**, based on the ITE data, the 2029 projected student enrollment increase is anticipated to have a peak parking demand of 64 spaces. As summarized in **Table 1**, during the peak parking period, 657 off-street parking spaces are unoccupied on the North Campus. Accounting for the temporary loss of 135 off-street spaces due to the modular housing in Lot M1, 522 off-street parking spaces would be unoccupied. According to the West Chester Borough University Campus District Ordinance, "85% of existing, unused areas allocated for off-street parking…may be credited towards the satisfaction of the university campus plan's projected parking requirements." The West Goshen Township Ordinance has similar language regarding an unused off-street parking credit, with credit being 95%. In order to provide a conservative evaluation, the lower 85% credit was applied to the North Campus unused off-street parking. As such, the additional demand of 64 spaces will be sufficiently accommodated by the currently unused 443 (85% of 522 spaces) off-street parking spaces located on the North Campus. In addition, as noted in **Tables 1 and 2**, the off-street parking totals do not include the 204 Carter Drive Lot (46 additional parking spaces) that was added in January 2025. Also, as noted in **Table 1**, the South Campus has in excess of 1,100 available off-street parking spaces during the midday and evening peak time periods.

In addition, as noted previously, the additional peak parking demand includes all parking users (i.e. students, staff, visitors, etc.). As such, the additional peak parking demand of 64 will be dispersed over the various WCU parking lots, and are not anticipated to be concentrated in one given parking area. Given the substantial number of available parking spaces and the relatively limited number of additional parking required based on the Master Plan enrollment projections, the anticipated change in parking demand relative to current conditions is anticipated be limited. However, it is recommended that the parking be monitored in the future with specific WCU land development applications.

WCU currently implements a number of Transportation Demand Management (TDM) measures in order to reduce parking in the area consistent with the West Chester Borough Parking Guide, including the following:

- Shuttle system to both on-campus and off-campus locations
- Discounted transit fare program
- Carpool preferential parking
- On-site car-sharing vehicles
- Commuter information center
- Flexible or alternative work hours for workers
- TDM education programs directed at the students and employees

Furthermore, WCU currently has parking procedures in place during football games, which are planned to be remain. These procedures include temporarily restricting parking in lots by the Stadium as games approach, temporarily moving this parking to North Campus lots (M, M-1, M-2, and Matlack Garage), and utilization of the WCU shuttle service by students and fans.

## Recommendations

TPD has made the following recommendations in relation to Parking for the proposed WCU Master Plan:

- As specific Land Development applications are pursued for projects contemplated under the WCU Master Plan, monitor and evaluate parking in the immediate area the given application.
- Continue to monitor and provide convenient shuttle service to facilitate parking in lots that may be more remote to a desired building/destination on campus.
- In conjunction with specific Land Development applications, provide pedestrian paths/walkways to facilitate pedestrian connections to the specific application.

Sincerely,

TPD

Guido W. DiMartino, P.E.
*Regional Leader – Transportation Planning*

**Attachments**




## EXISTING FEATURES LEGEND

- EXISTING TOWNSHIP LINE
- EXISTING ZONING LINE
- EXISTING BUILDING
- EXISTING 2' CONTOURS
- EXISTING 10' CONTOURS
- EXISTING SPOT ELEVATION
- EXISTING FENCE LINE
- EXISTING EDGE OF PAVING
- EXISTING CURB
- FLOOD PLAIN
- EXISTING LIGHT POLE
- STREAM LINE
- EXISTING STORM INLET
- EXISTING STORM MANHOLE
- EXISTING SIGN
- EXISTING UTILITY POLE
- EXISTING POST
- EXISTING DECIDUOUS TREE
- EXISTING CONIFEROUS TREE
- EXISTING TREE & SHRUB LINE
- EXISTING MANHOLE (SAN, STORM, GAS, WATER, WATER, ELECTRIC, TELEPHONE, ETC.)

Scale in Feet
0 24 48 72 96 120 240 360 480
1" = 120'

| NO. | DATE | REVISION |
|---|---|---|
| | | |

# PARKING PLAN
FOR
# WEST CHESTER UNIVERSITY
WEST GOSHEN TOWNSHIP, EAST BRADFORD TOWNSHIP, WEST CHESTER BOROUGH - CHESTER COUNTY - PENNSYLVANIA

ChesterValley ENGINEERS, INC.
112 Moores Road, Suite 200, Malvern, PA 19355
610-644-4623
www.chestervalley.com

PROJECT NO. 22002
F.B.

| SCALE | DATE | DRAWN BY | CHECKED BY | DRAWING |
|---|---|---|---|---|
| 1"=120' | 01/27/2025 | ND | NC | |

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EXCAVATIONS, TRENCHING, AND SHORING
ALL EXCAVATIONS, TRENCHING, AND SHORING OPERATIONS SHALL COMPLY WITH THE REQUIREMENTS OF THE FOLLOWING UNITED STATES DEPARTMENT OF LABOR OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION PUBLICATIONS OR THE LATEST REVISIONS THERETO:

(1) CONSTRUCTION INDUSTRY STANDARDS AND INTERPRETATIONS (OSHA 2207) SUBPART "P", PART 1926/1910 - "EXCAVATIONS, TRENCHING AND SHORING"

(2) "EXCAVATIONS AND TRENCHING OPERATIONS" (OSHA 2226) DATED 1985 (REVISED).

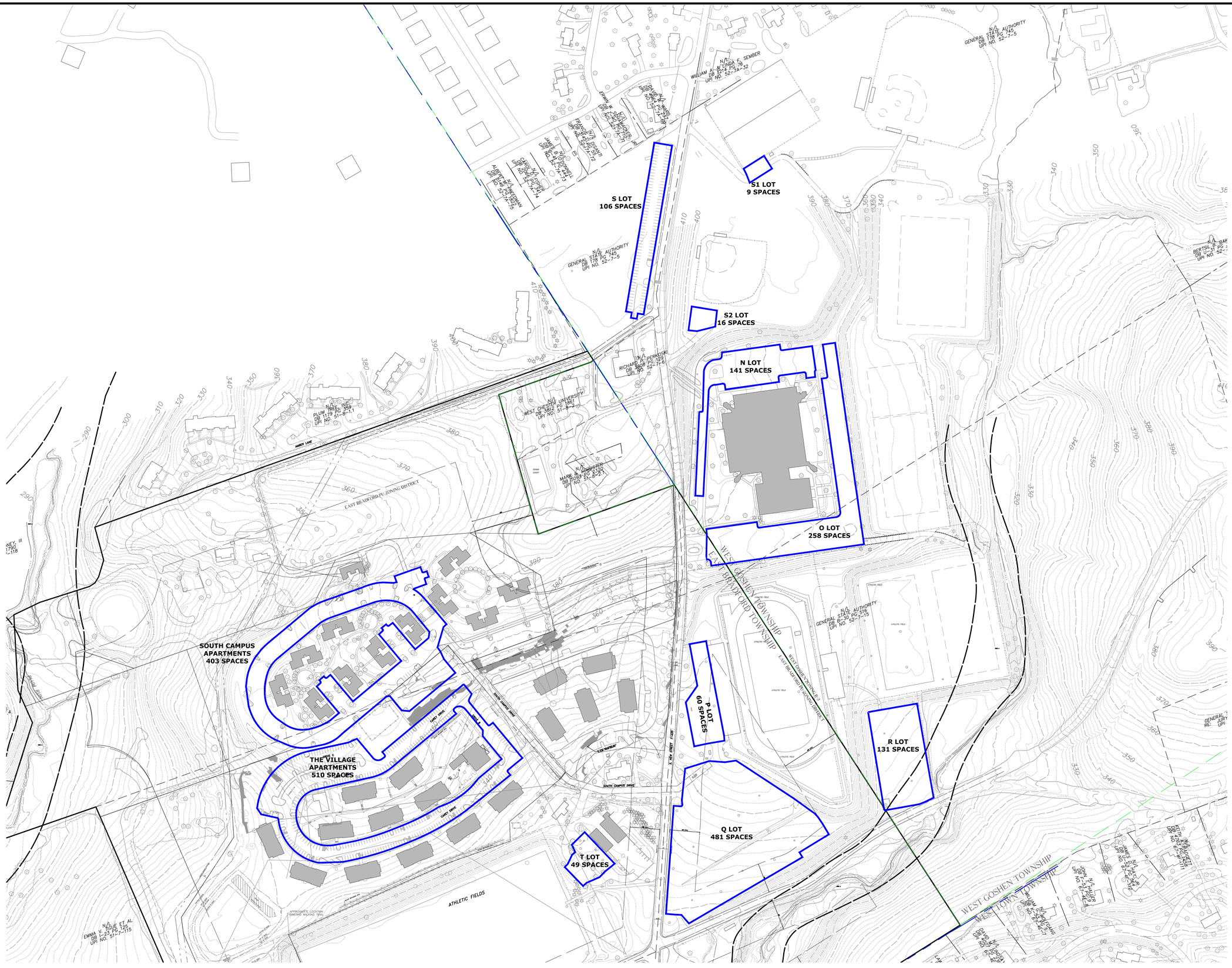
PENNSYLVANIA ACT 187 REQUIREMENTS
UNDERGROUND UTILITIES SERIAL NOs.:

SEE SHEET ___ FOR FACILITY OWNER'S DESIGNATED OFFICE ADDRESS AND TELEPHONE NUMBER.

PENNSYLVANIA ONE CALL SYSTEM, INC
CALL 3 WORKING DAYS BEFORE YOU DIG
1-800-242-1776
POCS SERIAL NUMBER: ____



[SCVE-X:2000\2000 West Chester University\dwg\Sheets\SHT 01 PARKING-NORTH AND SOUTH.dwg, 1/29/2025 9:08:03 AM,




COPYRIGHT
CHESTER VALLEY ENGINEERS, INC., CIVIL ENGINEERS & SURVEYORS, EXPRESSLY RESERVES ITS COMMON LAW COPYRIGHT AND ALL OTHER PROPRIETARY RIGHTS IN THESE PLANS. ALL DRAWINGS, SPECIFICATIONS AND COPIES THEREOF ARE AND SHALL REMAIN THE PROPERTY OF CHESTER VALLEY ENGINEERS, INC. AND ARE NOT TO BE USED IN WHOLE OR IN PART ON THIS PROJECT AND ARE NEITHER TO BE USED ON ANY OTHER PROJECT, NOR ARE THEY TO BE ASSIGNED TO ANY THIRD PARTY WITHOUT FIRST OBTAINING THE EXPRESSED WRITTEN PERMISSION AND CONSENT OF CHESTER VALLEY ENGINEERS, INC. ANY RE-USE WITHOUT WRITTEN PERMISSION, VERIFICATION, CONSENT OR ADAPTATION BY CHESTER VALLEY ENGINEERS, INC., FOR THE SPECIFIC PURPOSE INTENDED, WILL BE AT THE THIRD PARTY'S SOLE RISK AND WITHOUT LIABILITY OR LEGAL EXPOSURE TO CHESTER VALLEY ENGINEERS, INC. THE THIRD PARTY SHALL FURTHER INDEMNIFY AND HOLD HARMLESS CHESTER VALLEY ENGINEERS, INC., FROM ALL CLAIMS, DAMAGES, LOSSES, AND EXPENSES ARISING THERETO OR RESULTING THEREFROM.

NOTE TO USER OF THESE PLANS:
WARNING! THE INFORMATION CONTAINED ON THIS PLAN MAY NOT BE CONSISTENT WITH CONDITIONS IN THE FIELD. ANY PERSON OR ORGANIZATION USING OR RELYING ON THESE PLANS MUST CONTACT CVE FOR VERIFICATION OF ANY APPARENT DISCREPANCY BEFORE PROCEEDING WITH ANY CONSTRUCTION. CVE DOES NOT GUARANTEE THAT ALL SUBSURFACE STRUCTURES ARE SHOWN. THE CONTRACTOR SHALL VERIFY THE LOCATION AND ELEVATION OF ALL UNDERGROUND UTILITIES AND STRUCTURES BEFORE THE START OF WORK.

EXCAVATIONS, TRENCHING, AND SHORING
ALL EXCAVATIONS, TRENCHING, AND SHORING OPERATIONS SHALL COMPLY WITH THE REGULATIONS OF THE PENNSYLVANIA STATES DEPARTMENT OF LABOR OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION PUBLICATIONS, OR THE LATEST REVISIONS THERETO.
(1) CONSTRUCTION INDUSTRY STANDARDS AND INTERPRETATIONS (OSHA 2207) SUBPART "P", PART 1926/1910 – "EXCAVATIONS, TRENCHING AND SHORING"
(2) "EXCAVATIONS and TRENCHING OPERATIONS" (OSHA 2226) DATED 1985 (REVISED).

PENNSYLVANIA ACT 187 REQUIREMENTS
UNDERGROUND UTILITIES SERIAL NOs.:
CHESTER VALLEY ENGINEERS, INC. DOES NOT GUARANTEE THE ACCURACY OF THE LOCATIONS FOR EXISTING SUBSURFACE UTILITY STRUCTURES SHOWN ON THE PLANS, NOR DOES CHESTER VALLEY ENGINEERS, INC. GUARANTEE THAT ALL SUBSURFACE STRUCTURES ARE SHOWN. THE CONTRACTOR SHALL VERIFY THE LOCATION AND ELEVATION OF ALL UNDERGROUND UTILITIES AND STRUCTURES BEFORE THE START OF WORK.

SEE SHEET ___ FOR FACILITY OWNER'S DESIGNATED OFFICE ADDRESS AND TELEPHONE NUMBER.

PENNSYLVANIA ONE CALL SYSTEM, INC.
CALL 3 WORKING DAYS BEFORE YOU DIG
1-800-242-1776
POCS SERIAL NUMBER: ____

UNIFORM PARCEL IDENTIFIER:

| NO. | DATE | REVISION |
|---|---|---|
| | | |

**PARKING PLAN**
FOR
**WEST CHESTER UNIVERSITY**
WEST GOSHEN TOWNSHIP, EAST BRADFORD TOWNSHIP, WEST CHESTER BOROUGH - CHESTER COUNTY - PENNSYLVANIA

ChesterValley ENGINEERS, INC.
112 Moores Road, Suite 200, Malvern, PA 19355
610-644-4623
www.chesterv.com

| PROJECT NO. | P.B. |
|---|---|
| 22002 | |

| SCALE | DATE | DRAWN BY | CHECKED BY | DRAWING |
|---|---|---|---|---|
| 1"=120' | 01/27/2025 | ND | NC | |

J:\CVE-22000\22002-West Chester University\dwg\Sheets\SHT 01 PARKING-NORTH AND SOUTH.dwg 1/29/2025 8:37:10 AM,

***WCU - North Campus - Preliminary Parking Data***

| Lot Letter | Name | Location | Total Available Spaces | Thursday 4/25/2024 | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | Midday | | | Evening | | |
| | | | | Occupied | Unoccupied | % Occupied | Occupied | Unoccupied | % Occupied |
| | New St Garage | New Street/Nields Street | 448 | 406 | 42 | 91% | 289 | 159 | 65% |
| | Student Recreation Center Garage | New Street/Sharpless Street | 79 | 41 | 38 | 52% | 26 | 53 | 33% |
| | The Commons Garage | Church Street/N Campus Drive | 458 | 408 | 50 | 89% | 263 | 195 | 57% |
| | Sharpless Parking Garage | Sharpless Steet/Church Street | 379 | 286 | 93 | 75% | 175 | 204 | 46% |
| A | A Lot | Sharpless Garage Surface Lot | 22 | 21 | 1 | 95% | 3 | 19 | 14% |
| B | B Lot | Reynolds Alley | 57 | 45 | 7 | 79% | 24 | 33 | 42% |
| G | G Lot | High Street/Linden Street | 40 | 29 | 11 | 73% | 29 | 11 | 73% |
| | Matlack Parking Garage | East Campus Drive/Matlack St | 417 | 290 | 127 | 70% | 110 | 307 | 26% |
| On-Street | S. New St, Street Parking | Sharpless to Rosedale | 63 | 23 | 40 | 37% | 14 | 49 | 22% |
| On-Street | S. Church St, Street Parking | Sharpless to Rosedale | 73 | 57 | 16 | 78% | 39 | 34 | 53% |
| On-Street | Sharpless Street Parking | New St to Church St | 99 | 64 | 35 | 65% | 32 | 67 | 32% |
| On-Street | University Avenue Street Parking | High Street to Church Street | 40 | 36 | 4 | 90% | 33 | 7 | 83% |
| E | Lot E | Lawrence Hall | 17 | 16 | 1 | 94% | 9 | 8 | 53% |
| | Schmidt Hall | New St/Rosedale Ave | 13 | 6 | 7 | 46% | 1 | 12 | 8% |
| L | Lot L | Basketball Courts | 124 | 123 | 1 | 99% | 21 | 103 | 17% |
| | 114 Rosedale | | 12 | 11 | 1 | 92% | 1 | 11 | 8% |
| K | Lot K | Sykes Hall (south side) | 302 | 292 | 10 | 97% | 239 | 63 | 79% |
| J | J-Lot (Messikomer Hall) | Rosedale Ave/Church St | 13 | 12 | 1 | 92% | 3 | 10 | 23% |
| I | I-Lot (30 Rosedale Ave) | 28 W Rosedale Ave | 15 | 14 | 1 | 93% | 3 | 12 | 20% |
| M | Lot M | High St/E Campus Drive | 437 | 404 | 33 | 92% | 260 | 177 | 59% |
| M1 | Lot M1 | Matlack Surface Lot | 203 | 148 | 55 | 73% | 53 | 150 | 26% |
| M2 | M2 | Matlack Fields surface lot | 40 | 8 | 32 | 20% | 5 | 35 | 13% |
| Z/Z1 | Lot Z/Z1 | 220 E Rosedale Ave | 14 | 14 | 0 | 100% | 2 | 12 | 14% |
| W | Lot W | | 4 | 3 | 1 | 75% | 0 | 4 | 0% |
| W1 | Lot W1 | | 12 | 11 | 1 | 92% | 2 | 10 | 17% |
| V | Lot V | | 84 | 75 | 9 | 89% | 16 | 68 | 19% |
| U | Lot U | | 70 | 30 | 40 | 43% | 20 | 50 | 29% |
| H | H-Lot | Between SSC & Killinger | 14 | 14 | 0 | 100% | 9 | 5 | 64% |
| | 624 S. High Street | | 6 | 3 | 3 | 50% | 1 | 5 | 17% |
| | Sharon Alley | 701-703 S High Street | 11 | 4 | 7 | 36% | 4 | 7 | 36% |
| | 809 Roslyn Avenue | | 5 | 3 | 2 | 60% | 4 | 1 | 80% |
| | 811 Roslyn Avenue | | 3 | 2 | 1 | 67% | 0 | 3 | 0% |
| M4 | M4-Lot (887 S Matlack Street) | | 38 | 6 | 32 | 16% | 3 | 35 | 8% |
| | Business Pubic Affairs Building | Sharpless St/Reynolds Alley | 2 | 0 | 2 | 0% | 1 | 1 | 50% |
| | College Arms Apartments | S. High Street/Rosedale Ave | 57 | 33 | 24 | 58% | 29 | 28 | 51% |
| | FHG Library (S) | | 11 | 4 | 7 | 36% | 4 | 7 | 36% |
| | FHG Library (West) - Old | | 7 | 5 | 2 | 71% | 5 | 2 | 71% |
| | Filano Hall | High Street/University Ave | 5 | 3 | 2 | 60% | 1 | 4 | 20% |
| | Main Hall Loading Dock | | 2 | 0 | 2 | 0% | 1 | 1 | 50% |
| | Mitchell Hall (Rear) | Church Street | 3 | 1 | 2 | 33% | 0 | 3 | 0% |
| | Phillips Memorial Building | University Ave/High St | 3 | 1 | 2 | 33% | 2 | 1 | 67% |
| | Wayne Hall | Rosedale Ave/Roslyn Ave | 14 | 13 | 1 | 93% | 10 | 4 | 71% |
| | Brandywine Hall | | 18 | 18 | 0 | 100% | 18 | 0 | 100% |
| | Church Street (People/Ehinger) | North side of People's Bldg | 7 | 1 | 6 | 14% | 2 | 5 | 29% |
| | 823 S. High Street | | 5 | 5 | 0 | 100% | 5 | 0 | 100% |
| Total | | | 3746 | 2989 | 752 | 80% | 1771 | 1975 | 47% |

Estimated number of spaces: 1 street parking space = 20 ft

Estimated number based on tree cover blocking some spaces from drone image.

Not counted. Assumed to be fully occupied.

***WCU - South Campus - Preliminary Parking Data***

| Lot Letter | Name | Location | Total Available Spaces | Drone Image Thursday 4/25/26 | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | Midday | | | Evening | | |
| | | | | Occupied | Unoccupied | % Occupied | Occupied | Unoccupied | % Occupied |
| Q | Q-Lot (Farrel Stadium Lot South) | Stadium Rd/New St | 481 | 200 | 281 | 42% | 167 | 314 | 35% |
| P | Farrel Stadium Front (P Lot) | New St, east side | 60 | 7 | 53 | 12% | 5 | 55 | 8% |
| R | R-Lot (Stadium Lot Southeast) | Stadium Rd | 131 | 65 | 66 | 50% | 57 | 74 | 44% |
| N | N-Lot | North of O-Lot | 141 | 25 | 116 | 18% | 4 | 137 | 3% |
| O | O-Lot (Sturzebecker/Natatorium Lot/O-Lot) | New Street, east site | 258 | 125 | 133 | 48% | 85 | 173 | 33% |
| S | S Lot | New Street, west side | 106 | 16 | 90 | 15% | 8 | 98 | 8% |
| | Village Apartments | S Campus Drive/New St | 510 | 379 | 131 | 74% | 389 | 121 | 76% |
| | South Campus Apartments | S. Campus Drive | 403 | 216 | 187 | 54% | 157 | 246 | 39% |
| S1 | S1-Lot (Tennis Courts) | | 9 | 3 | 6 | 33% | 9 | 0 | 100% |
| S2 | S2-Lot (Softball Fields) | | 15 | 1 | 14 | 7% | 0 | 15 | 0% |
| | 850 S. New Street | | 8 | 6 | 2 | 75% | 0 | 8 | 0% |
| S3 | S3-Lot (Serpico Lot) | Baseball Field | 10 | 3 | 7 | 30% | 0 | 10 | 0% |
| T | T-Lot (Hockey Fields) | S. New Street/S Campus Dr | 49 | 9 | 40 | 18% | 0 | 49 | 0% |
| T1 | McCoy Farmhouse Grounds | S. Campus Dr, north side | 9 | 0 | 9 | 0% | 0 | 9 | 0% |
| Total | | | 2190 | 1055 | 1135 | 48% | 881 | 1309 | 40% |

Estimated number based on tree cover blocking some spaces from drone image.

# MASTER PLAN
## FOR
# WEST CHESTER UNIVERSITY CAMPUS IMPROVEMENTS
## WEST CHESTER BOROUGH - WEST GOSHEN & EAST BRADFORD TOWNSHIPS - CHESTER COUNTY - PENNSYLVANIA




**WEST GOSHEN TOWNSHIP**
**PLANNED UNIVERSITY MAIN CAMPUS OVERLAY DISTRICT CLASS 1**
**PUC1**

| | REQUIRED | PROPOSED |
|---|---|---|
| MAXIMUM LOT COVERAGE | 50% | 15.3% |
| MINIMUM GREEN AREA | 15% | 50.5% |
| SETBACKS | | |
| PRINCIPAL USE: | | |
| CONTIGUOUS TO RESIDENTIAL USE | 50 FT. | |
| ALONG W. ROSEDALE AVE. | 20 FT. | |
| ALL OTHER BOUNDARIES | 30 FT. | |
| SURFACE PARKING LOTS: | | |
| CONTIGUOUS TO RESIDENTIAL USE | 25 FT. | |
| ALL OTHER BOUNDARIES | 10 FT. | |
| MAXIMUM BUILDING HEIGHT | 60 FT. | |
| MINIMUM BUILDING SEPARATION[3] | 20 FT. | |

**WEST GOSHEN TOWNSHIP**
**PLANNED UNIVERSITY MAIN CAMPUS OVERLAY DISTRICT CLASS 2**
**PUC2**

| | REQUIRED | PROPOSED |
|---|---|---|
| MAXIMUM LOT COVERAGE | 50% | 13.6% |
| MINIMUM GREEN AREA | 15% | 54.6% |
| SETBACKS | | |
| PRINCIPAL USE: | | |
| CONTIGUOUS TO RESIDENTIAL USE | 50 FT. | |
| ALONG W. ROSEDALE AVE. | 20 FT. | |
| ALL OTHER BOUNDARIES | 30 FT. | |
| SURFACE PARKING LOTS: | | |
| CONTIGUOUS TO RESIDENTIAL USE | 25 FT. | |
| ALL OTHER BOUNDARIES | 10 FT. | |
| MAXIMUM BUILDING HEIGHT | 60 FT. | |
| MINIMUM BUILDING SEPARATION[3] | 20 FT. | |

**WEST GOSHEN TOWNSHIP**
**PLANNED UNIVERSITY MAIN CAMPUS OVERLAY DISTRICT CLASS 3**
**PUC3**

| | REQUIRED | PROPOSED |
|---|---|---|
| MAXIMUM LOT COVERAGE | 50% | 1.7% |
| MINIMUM GREEN AREA | 15% | 89.2% |
| SETBACKS | | |
| PRINCIPAL USE: | | |
| CONTIGUOUS TO RESIDENTIAL USE | 50 FT. | |
| ALONG E. ROSEDALE AVE. | 20 FT. | |
| ALL OTHER BOUNDARIES | 30 FT. | |
| SURFACE PARKING LOTS: | | |
| CONTIGUOUS TO RESIDENTIAL USE | 25 FT. | |
| ALL OTHER BOUNDARIES | 10 FT. | |
| MAXIMUM BUILDING HEIGHT | 60 FT. | |
| MINIMUM BUILDING SEPARATION[3] | 20 FT. | |

**WEST GOSHEN TOWNSHIP**
**PLANNED UNIVERSITY MAIN CAMPUS OVERLAY DISTRICT CLASS 4**
**PUC4**

| | REQUIRED | PROPOSED | |
|---|---|---|---|
| MAXIMUM LOT COVERAGE | 50% | 24.0% | NO DEVELOPMENT PROPOSED IN CLASS 4 |
| MINIMUM GREEN AREA | 15% | 40.1% | |
| SETBACKS | | | |
| PRINCIPAL USE: | | | |
| CONTIGUOUS TO RESIDENTIAL USE | 50 FT. | | |
| ALONG W. ROSEDALE AVE. | 20 FT. | | |
| ALL OTHER BOUNDARIES | 30 FT. | | |
| SURFACE PARKING LOTS: | | | |
| CONTIGUOUS TO RESIDENTIAL USE | 25 FT. | | |
| ALL OTHER BOUNDARIES | 10 FT. | | |
| MAXIMUM BUILDING HEIGHT | 60 FT. | | |
| MINIMUM BUILDING SEPARATION[3] | 20 FT. | | |

**WEST CHESTER BOROUGH**
**PLANNED UNIVERSITY CAMPUS DISTRICT – PUC**

| | REQUIRED | PROPOSED |
|---|---|---|
| SETBACKS | | |
| MINIMUM PERIMETER | 20 FEET | |
| CONTIGUOUS TO SHARPLESS ST | 30 FEET | |
| SURFACE PARKING LOTS | | |
| MINIMUM SETBACK | 20 FEET | |
| CONTIGUOUS TO RESIDENTIAL USE | 30 FEET | |
| MAXIMUM IMPERVIOUS COVERAGE | 80% | 52.9% |
| MINIMUM GREEN SPACE | 20% | 47.1% |
| MAXIMUM BUILDING HEIGHT | 90 FEET | |

**EAST BRADFORD TOWNSHIP**
**PLANNED UNIVERSITY MAIN CAMPUS OVERLAY – PU**

IMPROVEMENTS IN EAST BRADFORD TOWNSHIP ARE SHOWN FOR INFORMATION ONLY

## SHEET INDEX



| SHEET NO. | TITLE |
|---|---|
| | COVER SHEET |
| 2A | NORTH CAMPUS 0–5 YEAR IMPROVEMENTS |
| 2B | SOUTH CAMPUS 0–5 YEAR IMPROVEMENTS |
| 3A | NORTH CAMPUS 6–10 YEAR IMPROVEMENTS |
| 3B | SOUTH CAMPUS 6–10 YEAR IMPROVEMENTS |
| 4A | NORTH CAMPUS 10+ YEAR IMPROVEMENTS |
| 4B | SOUTH CAMPUS 10+ YEAR IMPROVEMENTS |



## GENERAL NOTES

1. APPLICANT:
   WEST CHESTER UNIVERSITY OF THE PENNSYLVANIA
   STATE SYSTEM OF HIGHER EDUCATION
   201 CARTER DRIVE, SUITE 200
   WEST CHESTER, PA 19383
2. RECORD OWNER:
   PROPERTIES OF THE UNIVERSITY ARE OWNED BY A COMBINATION OF ENTITIES INCLUDING, THE COMMONWEALTH OF PENNSYLVANIA, DEPARTMENT OF GENERAL SERVICES, AND WEST CHESTER UNIVERSITY.
3. CONTACT INFORMATION:
   DAVID MCNAMARA
   SENIOR ASSOCIATE VICE PRESIDENT OF FACILITIES
   201 CARTER DRIVE, ROOM 327
   WEST CHESTER, PA 19382
   DMCNAMARA@WCUPA.EDU
4. SITE BEING:

   NORTH CAMPUS: BOROUGH OF WEST CHESTER AND WEST GOSHEN TOWNSHIP

   SUPERBLOCK PARCELS BOUNDED BY THE NORTHERLY SIDE OF WEST ROSEDALE AVENUE, THE WESTERLY SIDE OF HIGH STREET, THE SOUTHERLY SIDE OF SHARPLESS STREET, AND THE EASTERLY SIDE OF SOUTH NEW STREET.

   NORTH CAMPUS PARCELS INCLUDING PLANNED UNIVERSITY BUILDINGS AND STUDENT RESIDENTIAL BUILDINGS ALONG THE SOUTHERLY SIDE OF WEST ROSEDALE AVENUE, THE EASTERLY SIDE OF HIGH STREET, AND MATLACK STREET.

   SOUTH CAMPUS: EAST BRADFORD TOWNSHIP AND WEST GOSHEN TOWNSHIP

   SOUTH CAMPUS PARCELS INCLUDING PLANNED UNIVERSITY BUILDINGS AND STUDENT RESIDENTIAL BUILDINGS ALONG SOUTH CAMPUS DRIVE, CAREY DRIVE, SOUTH NEW STREET AND THE ATHLETICS STADIUM.
5. TOPOGRAPHY AND IMPROVEMENTS ARE COMPILED FROM PRIOR LAND DEVELOPMENTS PLANS PREPARED BY CHESTER VALLEY ENGINEERS AND OTHERS. INFORMATION IS FROM FIELD SURVEYING, AERIAL TOPOGRAPHY AND PUBLICLY AVAILABLE DATA.
6. THE UNIVERSITY IS SERVED BY EXISTING PUBLIC SEWER AND WATER SERVICES.

Scale in Feet
0 60 180 300 600 900 1,200
120 240
1" = 300'

UNIFORM PARCEL IDENTIFIER:

COVER SHEET

| NO. | DATE | REVISION |
|---|---|---|

**MASTER PLAN**
**FOR**
**WEST CHESTER UNIVERSITY**
WEST GOSHEN TOWNSHIP, EAST BRADFORD TOWNSHIP, WEST CHESTER BOROUGH - CHESTER COUNTY - PENNSYLVANIA

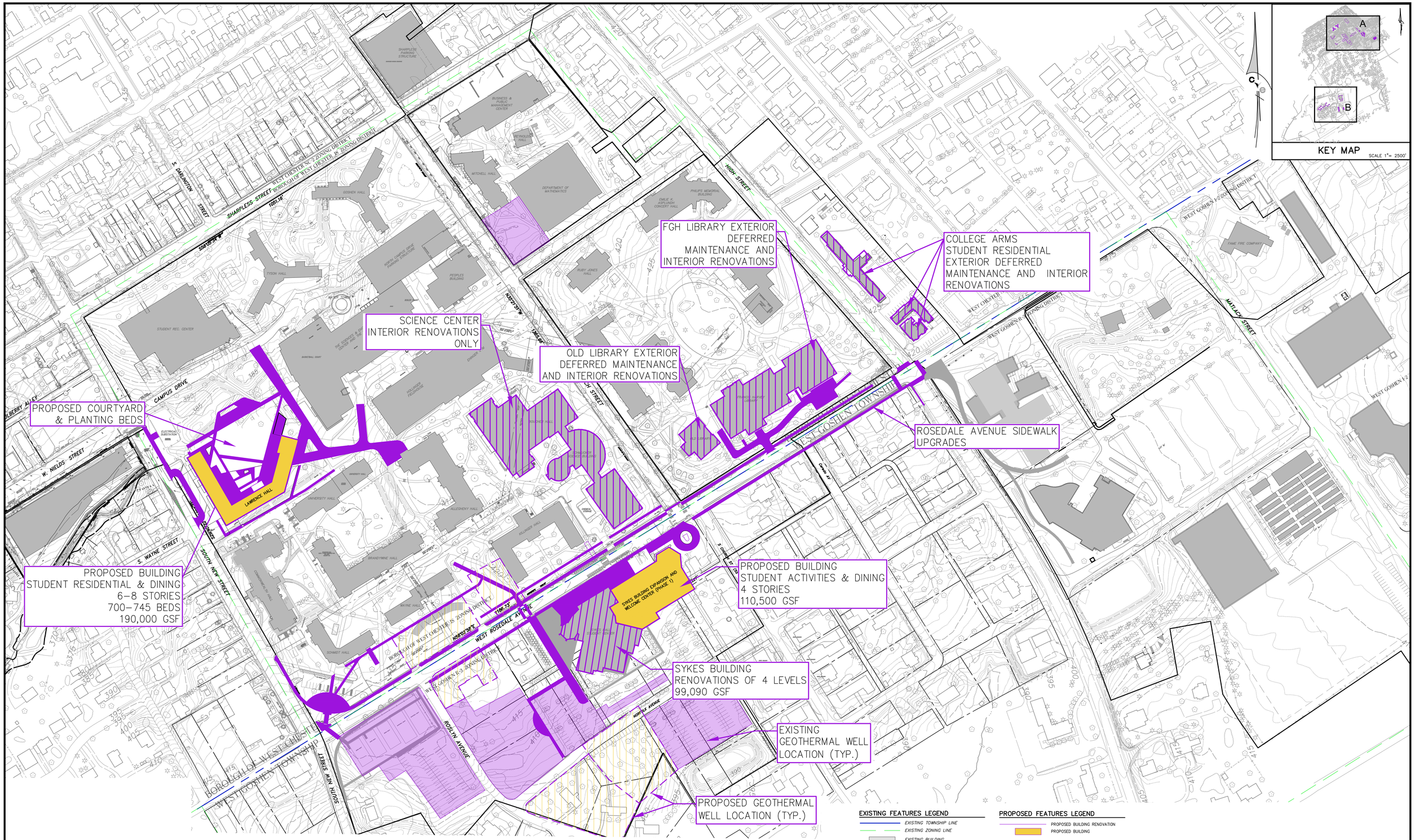

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PROJECT NO. 22002
F.B.

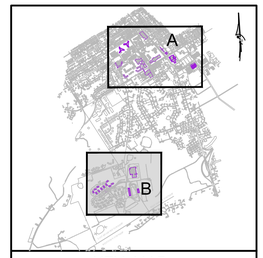
| SCALE | DATE | DRAWN BY | CHECKED BY | DRAWING |
|---|---|---|---|---|
| 1" = 300' | 04/02/2025 | ND | NC | |

Appendix G

J:\CVE-22000\22000 West Chester University\dwg\Sheets\SAT 01 COVER.dwg, 4/7/2025 9:56:48 AM,


PROPOSED COURTYARD & PLANTING BEDS
SCIENCE CENTER INTERIOR RENOVATIONS ONLY
FGH LIBRARY EXTERIOR DEFERRED MAINTENANCE AND INTERIOR RENOVATIONS
OLD LIBRARY EXTERIOR DEFERRED MAINTENANCE AND INTERIOR RENOVATIONS
COLLEGE ARMS STUDENT RESIDENTIAL EXTERIOR DEFERRED MAINTENANCE AND INTERIOR RENOVATIONS
ROSEDALE AVENUE SIDEWALK UPGRADES
PROPOSED BUILDING STUDENT RESIDENTIAL & DINING 6–8 STORIES 700–745 BEDS 190,000 GSF
PROPOSED BUILDING STUDENT ACTIVITIES & DINING 4 STORIES 110,500 GSF
SYKES BUILDING RENOVATIONS OF 4 LEVELS 99,090 GSF
EXISTING GEOTHERMAL WELL LOCATION (TYP.)
PROPOSED GEOTHERMAL WELL LOCATION (TYP.)
SYKES BUILDING EXPANSION AND WELCOME CENTER (PHASE 1)
LAWRENCE HALL
KEY MAP
SCALE 1"= 2500'
A
B
S. DARLINGTON STREET
SHARPLESS STREET
HIGH STREET
CAMPUS DRIVE
W. MEGLOS STREET
S. WAYNE STREET
SOUTH NEW STREET
WEST ROSEDALE AVENUE
NORTH AVENUE
ROSLYN AVENUE
MATLACK STREET
WEST GOSHEN TOWNSHIP
BOROUGH OF WEST CHESTER
WEST CHESTER R-3 ZONING DISTRICT
WEST GOSHEN R-2 ZONING DISTRICT
WEST GOSHEN R-1 ZONING DISTRICT
WEST CHESTER NC ZONING DISTRICT
BOROUGH OF WEST CHESTER IS ZONING DISTRICT
S 66°35'54" W 1051.16'
N 53°23'47" W 1355.90'
N 60°02'58" E 1186.73'
BUSINESS & PUBLIC MANAGEMENT CENTER
SHARPLESS PARKING STRUCTURE
GOSHEN HALL
MITCHELL HALL
DEPARTMENT OF MATHEMATICS
PHILIPS MEMORIAL BUILDING
EMILE K. ASPLUNDH CONCERT HALL
RUBY JONES HALL
TYSON HALL
PEOPLES BUILDING
ROPER CAMPUS PARKING STRUCTURE
STUDENT REC. CENTER
BASKETBALL COURT
DE SCIENCE & TECHNOLOGY CENTER AND THEATRE
HOLLINGER FIELDHOUSE
ESHER
ROSCHER HALL
FHG LIBRARY
OLD LIBRARY
ROSEDALE AVENUE
ELECTRICAL SUBSTATION
UNIVERSITY HALL
ALLEGHENY HALL
KILLINGER HALL
BRANDYWINE HALL
WAYNE HALL
GRADUATION PLAZA
SCHMIDT HALL
ROSEDALE HALL
FAME FIRE COMPANY
WEST GOSHEN FIRE COMPANY
420
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KEY MAP SCALE 1"= 2500'

SOUTH CAMPUS YEARS 0-5 PROJECTS

- -STURZEBECKER BUILDING INTERIOR RENOVATIONS
- -SOUTH CAMPUS APARTMENT ADDITIONS
- -SOUTH CAMPUS COMMONS ADDITION OR NEW BUILDING IN TO ALTERNATE LOCATION

SOUTH CAMPUS 0-5 YEARS

| NO. | DATE | REVISION |
|---|---|---|
| | | |

**MASTER PLAN**
FOR
**WEST CHESTER UNIVERSITY**
WEST GOSHEN TOWNSHIP, EAST BRADFORD TOWNSHIP, WEST CHESTER BOROUGH - CHESTER COUNTY - PENNSYLVANIA

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| PROJECT NO. | F.B. |
|---|---|
| 22002 | |

| SCALE | DATE | DRAWN BY | CHECKED BY | DRAWING |
|---|---|---|---|---|
| 1" = 100' | 04/02/2025 | ND | NC | |

Scale in Feet
0 20 40 60 80 100 200 300 400
1" = 100'

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(2) "EXCAVATIONS AND TRENCHING OPERATIONS" (OSHA 2226) DATED 1985 (REVISED).

SEE SHEET ___ FOR FACILITY OWNER'S DESIGNATED OFFICE ADDRESS AND TELEPHONE NUMBER.

PENNSYLVANIA ONE CALL SYSTEM, INC.
CALL 3 WORKING DAYS BEFORE YOU DIG
1-800-242-1776
POCS SERIAL NUMBER: _____



P:\CVE 22000\22002 West Chester University\dwg\Sheets\SHT 01 NORTH 0-5.dwg, 4/2/2025 9:57:47 AM,

GOSHEN HALL ADDITION
7 STORIES
420–445 BED CAPACITY
118,760 GSF

TYSON HALL ADDITION
7 STORIES
420–445 BED CAPACITY
108,040 GSF

CHURCH ST PEDESTRIANIZATION

RAM PARK RELOCATION



KEY MAP
SCALE 1"= 2500'



Scale in Feet
0 20 40 60 80 100 200 300 400
1" = 100'

**NORTH CAMPUS YEARS 6–10 PROJECTS**
–TYSON HALL & GOSHEN HALL EXPANSIONS AND RENOVATIONS
–CHURCH STREET RENOVATED TO BE PEDESTRIAN ONLY
–RAM PARK RELOCATION ACROSS CHURCH STREET

NORTH CAMPUS 6-10 YEARS

| NO. | DATE | REVISION |
|---|---|---|
| | | |

**MASTER PLAN**
FOR
**WEST CHESTER UNIVERSITY**
WEST GOSHEN TOWNSHIP, EAST BRADFORD TOWNSHIP, WEST CHESTER BOROUGH - CHESTER COUNTY - PENNSYLVANIA

ChesterValley ENGINEERS, INC.
102 Moores Road, Suite 200, Malvern, PA 19355
610-644-4623
www.chesterv.com

PROJECT NO. 22002
F.B.

| SCALE | DATE | DRAWN BY | CHECKED BY | DRAWING |
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| 1" – 100' | 04/02/2025 | ND | NC | |

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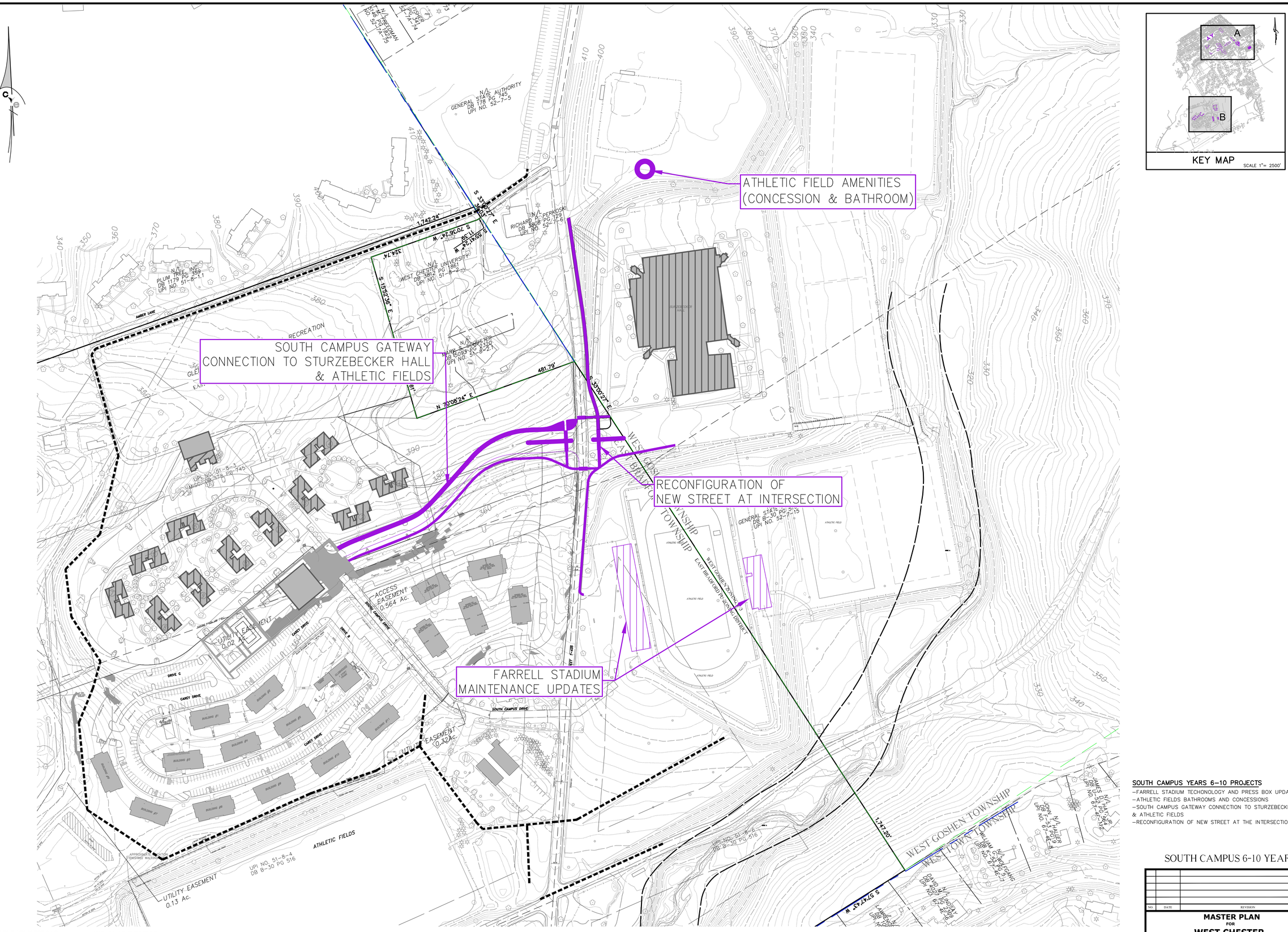
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PENNSYLVANIA ONE CALL SYSTEM, INC.
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POCS SERIAL NUMBER: _____

UNIFORM PARCEL IDENTIFIER:

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SOUTH CAMPUS YEARS 6–10 PROJECTS

- FARRELL STADIUM TECHONOLOGY AND PRESS BOX UPDATES
- ATHLETIC FIELDS BATHROOMS AND CONCESSIONS
- SOUTH CAMPUS GATEWAY CONNECTION TO STURZEBECKER HALL & ATHLETIC FIELDS
- RECONFIGURATION OF NEW STREET AT THE INTERSECTION

SOUTH CAMPUS 6-10 YEARS

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1-800-242-1776
POCS SERIAL NUMBER: _____

Scale in Feet
0 20 40 60 80 100 200 300 400
1" = 100'

| NO. | DATE | REVISION |
|---|---|---|
| | | |

**MASTER PLAN**
FOR
**WEST CHESTER UNIVERSITY**
WEST GOSHEN TOWNSHIP, EAST BRADFORD TOWNSHIP, WEST CHESTER BOROUGH - CHESTER COUNTY - PENNSYLVANIA

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610-644-4623
www.chestervc.com

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|---|---|---|---|---|
| 1" = 100' | 04/02/2025 | ND | NC | |

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LAND ACQUISITION AT CORNER OF SHARPLESS AND HIGH ST

E.O. BULL EXPANSION & RENOVATION
80,630 GSF
(55,630 GSF RENOVATION)
(25,000 GSF ADDITION)
2 STORIES

PRESIDENT'S WALK LANDSCAPE UPGRADES

MULTI-MODAL TRANSPORTATION STATION

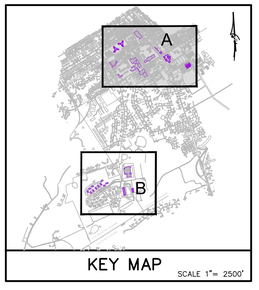
NEW KILLINGER HALL WITH BRIDGE TO SYKES BLDG
6-8 STORIES
545-585 BED CAPACITY
184,250 GSF

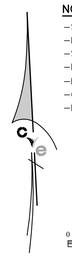
NEW PARKING DECK
4 STORIES
96,000 GSF
250 PARKING SPACES
(SYKES BLDG PHASE 2)

SCHMIDT HALL ENTRYWAY ADDITION & RENOVATION
8 STORIES
370-385 BED CAPACITY
91,980 GSF

OUTDOOR RECREATIONAL IMPROVEMENTS

UPGRADED PARKING LOT & STRIPING




## NORTH CAMPUS YEARS 10+ PROJECTS

- -SYKES STUDENT UNION PARKING DECK & PARKING LOT UPGRADE
- -KILLINGER HALL DEMOLITION & NEW BUILD WITH PEDESTRIAN BRIDGE
- -SCHMIDT HALL FULL RENOVATION & NEW ENTRY ADDITION
- -E.O. BULL CENTER FOR THE ARTS EXPANSION & RENOVATIONS
- -PRESIDENT'S WALK UPGRADES
- -OUTDOOR RECREATION AREA LANDSCAPE UPGRADES & IMPROVEMENTS
- -LAND ACQUISITION OF CORNER AT HIGH ST AND SHARPLESS ST

Scale in Feet
0 20 40 60 80 100 200 300 400
1" = 100'

# NORTH CAMPUS 10+ YEARS

| NO. | DATE | REVISION |
|---|---|---|
| | | |

**MASTER PLAN**
FOR
**WEST CHESTER UNIVERSITY**
WEST GOSHEN TOWNSHIP, EAST BRADFORD TOWNSHIP, WEST CHESTER BOROUGH - CHESTER COUNTY - PENNSYLVANIA

ChesterValley ENGINEERS, INC.
112 Moores Road, Suite 200, Malvern, PA 19355
610-644-4623
www.chestervy.com

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UNIFORM PARCEL IDENTIFIER:

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MULTI-MODEL CAMPUS CONNECTOR / PATH
(BIKE LANE & SIGNAGE)

MULTI-MODEL TRANSPORTATION
STATION
(Q-LOT)

TRAIL CONNECTIONS TO GORDON PRESERVE

GORDON PRESERVE TRAIL
CONNECTIONS

GLEN ECHO SITE - RESIDENTIAL RECREATION
EAST BRADFORD PU ZONING DISTRICT

WEST GOSHEN TOWNSHIP
EAST BRADFORD TOWNSHIP
WEST GOSHEN PA ZONING R-3
EAST BRADFORD PA ZONING DISTRICT

N/L WEST CHESTER UNIVERSITY
DB 3812 PG 861
UPI NO. 52-8-2

N/L PLUM TREE, INC.
DB 1179 PG 359
UPI NO. 51-8-1.1

N/L RICHARD P. PERKOSKI
DB 3906 PG 1759
UPI NO. 52-7-6

N/L MARK S. COMSTER
DB 5093 PG 2320
UPI NO. 51-8-2.1

N/L GENERAL STATE AUTHORITY
DB 178 PG 745
UPI NO. 52-7-5

N/L GENERAL STATE AUTHORITY
DB B-30 PG 516
UPI NO. 52-7-15

N/L GENERAL STATE AUTHORITY
DB 178 PG 745
UPI NO. 52-7-18.5

UPI NO. 51-8-4
DB B-30 PG 516

UPI NO. 51-8-6
DB B-30 PG 516

N/L JAMES C. SWANG
UPI NO. 67-4-45.7

N/L DAVID M. LANESKY
UPI NO. 67-4-45.6

N/L JOHN A. THALER
UPI NO. 67-4-45.5

N/L JAMES C. SWANG
UPI NO. 67-4-45.4

N/L THALER
UPI NO. 67-4-45.3

N/L THALER
UPI NO. 67-4-45.2

N/L THALER
UPI NO. 67-4-45.1

ACCESS EASEMENT
0.564 Ac.

UTILITY EASEMENT
0.02 Ac.

UTILITY EASEMENT
0.32Ac.

UTILITY EASEMENT
0.13 Ac.

S. NEW STREET F-629

SOUTH CAMPUS DRIVE

CAREY DRIVE

DRIVE A

DRIVE C

AMBER LANE

SURZEBECKER HALL

ATHLETIC FIELDS

KEY MAP
SCALE 1"= 2500'

SOUTH CAMPUS YEARS 10+ PROJECTS
- GORDON PRESERVE TRAIL CONNECTIONS
- S NEW STREET MILTI-MODEL TRANSPORTATION STATION
- S NEW STREET MULTI-MODEL CAMPUS CONNECTOR / PATH (BIKE LANE & SIGNAGE)

SOUTH CAMPUS 10+ YEARS

| NO. | DATE | REVISION |
|---|---|---|
| | | |

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www.chester.com

| PROJECT NO. | F.B. |
|---|---|
| 22002 | |

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| | 04/02/2025 | ND | NC | |

Scale in Feet
0 20 40 60 80 100 200 300 400
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# Conceptual Stormwater Management Report

**for**

# West Chester University Master Plan

**Borough of West Chester & Township of West Goshen**
**Chester County, Pennsylvania**
**CVE Project No. 22002**

**prepared for:**

## West Chester University

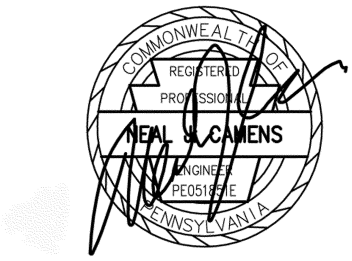
**Pennsylvania State System of Higher Education**
**201 Carter Drive, Suite 200**
**West Chester, PA 19383**

**prepared by:**

## Chester Valley Engineers, Inc.

**112 Moores Road, Suite 200**
**Malvern, PA 19355**

**Dated: March 28, 2025**
**Revised: April 2, 2025**




**Neal Camens, P.E.**
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**Appendix**

**F**

## INTRODUCTION

This document is prepared in accordance with the Borough of West Chester Planned University Campus District[1] and the Township of West Goshen Planned University Main Campus Overlay District[2]. The Borough of West Chester and Township of West Goshen require that the university prepare and submit a university campus plan that accommodates five years of growth and development of the university campus.[3,4] The campus plan must include a conceptual stormwater management strategy that is based on projected three-year growth. The strategy must conceptually meet the criteria and approach outlined in the site design process of the borough and township.[5,6]

Portions of the campus are also located in East Bradford Township within the Planned University District. East Bradford Township requires a campus development plan; such a plan is anticipated to be prepared in conjunction with future land development applications.

West Chester University's master plan includes the expansion of facilities over the next five and ten years; it includes building additions, new buildings, and internal renovations to existing buildings. Stormwater management is required for construction of new exterior impervious areas.

The North Campus expansion includes temporary student housing, an activities and dining building, and a residential/dining center. The South Campus expansion includes the renovation and addition to Southside Commons or the construction of a new South Campus Commons building. Each project will be designed and constructed according to the ordinances of the municipality where it is located.

The site design process outlined by West Chester Borough and West Goshen Township are nearly identical.[7,8] Any development should evaluate what existing natural features can be protected, which existing features can be improved or incorporated into the site design, and which existing features must be considered for alteration, disturbance, or removal. Development, whether new development or redevelopment, will aim to maximize infiltration and the protection or improvement of existing features. To achieve these objectives, site design should minimize the disturbed area, minimize the total area and continuity of impervious surfaces, and minimize peak rate and volume discharges. Stormwater stormwater control measures (SCMs) selected should prioritize nonstructural and vegetation SCMs over surface and subsurface structural SCMs.

[1] Borough of West Chester §112-314
[2] Township of West Goshen §84-134
[3] Borough of West Chester § 112-314.C.2
[4] Township of West Goshen §84-134.B
[5] Borough of West Chester §112-314.I
[6] Township of West Goshen §84-142.A-B
[7] Borough of West Chester §94-304
[8] Township of West Goshen §71-16

This conceptual report analyzes the anticipated development of West Chester University that adds buildings, landscaping, or paving over the next five years within the Borough of West Chester and the Township of West Goshen and makes preliminary recommendations on the method and location of future SCMs.

## STORMWATER MANAGEMENT OBJECTIVES

West Chester University is in the Lower Brandywine Creek watershed, which is tributary to the Christina River. Plum Run flows from northeast to southwest from the north campus of West Chester University. Unnamed Tributary (00079) of Plum Run flows through the south campus of West Chester University, from north to south. Plum Run and its Unnamed Tributary (00079) have a Warm Water Fishes (WWF) designated use per Pennsylvania Code, Chapter 93, Title 25. The Pennsylvania Integrated Water Quality and Assessment Report identifies Plum Run and Unnamed Tributary (00079) as impaired due to agriculture and urban runoff/storm sewers. Plum Run is part of the Christina River basin, which has established high-flow and low-flow Total Maximum Daily Load (TMDL) limits.

The design intent of stormwater management systems is to mitigate increases in stormwater peak discharge rate, control excess stormwater volume, and attenuate water quality impacts to Plum Run that are a direct result of development. Stormwater management design requirements in West Chester Borough and West Goshen Township differentiate between new development and redevelopment regulated activities.

Proposed development within East Bradford Township is required to meet the general standards for stormwater management as well as additional standards defined specifically for the Planned University District. Stormwater management meeting these requirements will be designed and implemented in conjunction with individual land development projects within East Bradford Township.

Expansion of West Chester University buildings and landscaping areas will require drainage-area specific stormwater management design. The stormwater management ordinances of both municipalities require a comparison of the pre-development land cover condition to the proposed post-development condition. The requirements listed in this report generally apply to the net increase in volume, impacts to quality, and increase in peak rate that are the consequence of new development or redevelopment.

The proposed expansion projects include a mix of new development and redevelopment, with different design standards applying to the respective areas. Different stormwater requirements will apply to each area.[9,10]

[9] Township of West Goshen §71-21.D.3

[10] Borough of West Chester §94-309.D.3

For example, in new development, the predevelopment conditions must consider all of the existing impervious surface area as meadow ground cover, and in redevelopment, the predevelopment conditions must consider at least 40% of the existing impervious surface area as meadow ground cover.[11,12]

The conceptual stormwater management design must meet the following objectives:

1) **Volume Control:** The postconstruction total runoff volume shall not exceed the predevelopment total runoff volume for all storms equal to or less than the two-year, twenty-four-hour duration precipitation (design storm).[13,14] The volume of a minimum of one inch of runoff from all regulated impervious surfaces shall be infiltrated.[15,16]

2) **Water Quality Control:** Water quality improvements shall be achieved in conjunction with achieving the infiltration requirements of the stormwater management standards.[17,18] Runoff from disturbed areas shall be treated for water quality prior to entering existing waterways or water bodies. Pretreatment SCMs should be used when selected stormwater management measures do not provide water quality treatment.[19,20]

3) **Peak Rate Control:** West Chester Borough and West Goshen Township have the same stormwater peak rate control requirements.[21,22]

| Peak Rate Control Standards | | |
|---|---|---|
| Postconstruction Design Storm Frequency (24-hour duration) | Predevelopment Design Storm | |
| | New Development Regulated Activity | Redevelopment Regulated Activity |
| 2-Year | 1-Year | 2-Year |
| 5-Year | 2-Year | 5-year |
| 10-Year | 2-Year | 10-Year |
| 25-Year | 25-Year | 25-Year |
| 50-Year | 50-Year | 50-Year |
| 100-Year | 100-Year | 100-Year |

[11] Township of West Goshen §71-21.D.2.c
[12] Borough of West Chester §94-309.D.2.c
[13] Borough of West Chester §94-304.A
[14] Township of West Goshen §71-17.A
[15] Borough of West Chester §94-306.B
[16] Township of West Goshen §71-17.A
[17] Borough of West Chester §94-305.E
[18] Township of West Goshen §71-17.E
[19] Borough of West Chester §94-305.F
[20] Township of West Goshen §71-17.F
[21] Borough of West Chester §94-308
[22] Township of West Goshen §71-20

## STORMWATER MANAGEMENT IMPLEMENTATION

### Volume Control

Surface and subsurface infiltration basins are the preferred method of stormwater management for volume control. Generally, infiltration basins are effective in areas with well-drained soils. They are not advised in areas with hydric soils, a seasonally high water table, or karst topography.

According to NRCS, the eastern portion of West Chester University main campus is situated on UrlB and UrlD soils (Urban land, Gladstone complex). Gladstone complex soils contain Cokesbury as a minor component, which is a hydric soil constituent. Hydric soils were not reported during 2021 infiltration testing for the President's Walk project, and that project area was within the extent of UrlB soils. The conceptual stormwater management has been prepared as though hydric soils are not an issue, but further testing at the time of detailed design would be necessary to confirm that is the case.

Conceptually, stormwater management facilities can be sized based on a loading ratio of 5:1 impervious area within drainage area to stormwater management feature area, and 8:1 total drainage area to stormwater management feature area. (See *Exhibit 1, Loading Area Ratio Calculations*) Above ground and below ground stormwater management infiltration basins should be proposed as close to each source of stormwater runoff as possible. Infiltration testing is required at the bottom elevation of stormwater management facilities and should include a check for a limiting zone two feet below the infiltration elevation. Infiltration facilities should maintain at least two (2) feet of vertical separation between the bottom of the facility and the top of the limiting zone. If infiltration rates are not sufficient to infiltrate the required volume of stormwater, alternatives such as managed release or rain gardens may be used. Given the suitability of existing on-site soils, it is expected that sufficient volume reduction requirements will be met with the use of infiltration-method stormwater management facilities.

### Water Quality Control

A combination of quality pretreatment methods and Antidegradation Best Available Combination of Technologies (ABACT) devices should be implemented throughout the various projects planned during the next three years of West Chester University expansion. Stormwater control measures should implement stringent quality control strategies because Plum Run and Unnamed Tributary (00079) to Plum Run are impaired water bodies, and Christina River has a Total Maximum Daily Load (TMDL) requirement for its tributaries.

Above and below ground infiltration basins remove stormwater pollutants at such levels required to satisfy West Goshen Township, West Chester Borough, and Pennsylvania Code requirements. (See Exhibit 2: Pennsylvania Stormwater Best Practices Manual – Appendix A: Infiltration Basin Pollutant Removal Efficiency and Exhibit 3: Pennsylvania Stormwater Best Practices Manual – Appendix A: Subsurface Infiltration Bed Pollutant Removal Efficiency) In unlikely scenarios where pollutant-removal targets are not achieved, further pre-treatment methods can be employed in stormwater management facilities that trap or remove coarse materials and other pollutants before they enter the stormwater system.

Any regulated new development or redevelopment associated with the University expansion will necessitate the development of an Erosion and Sediment Control Plan, which includes the implementation and maintenance of erosion and sediment control best-management practice devices to minimize the potential for accelerated erosion and sedimentation that are a direct result of earth disturbance and construction activities. Furthermore, a project that proposes earth disturbance that exceeds one (1)-acre will require a NPDES Permit.

Stormwater discharges are to surface waters that are tributary to a watercourse with a TMDL. Stormwater discharges into TMDL-regulated water bodies face stricter obligations under the Clean Water Act and Pennsylvania's stormwater management laws, including mandatory pollution reduction requirements and compliance with specific pollutant allocations. The proposed stormwater management facilities meet Clean Water Act and Pennsylvania stormwater management laws.

**Peak Rate Control**

Stormwater management features will be designed and constructed that control the increase in peak rate that is a consequence of West Chester University facility expansion. Regulated activities requiring SCMs will comply with the West Chester Borough and West Goshen Township peak flow rate control requirements. Runoff from proposed development will be collected within the project limits and conveyed to stormwater management facilities, which depending on infiltration test results would include above or below ground infiltration beds or managed release concept facilities.

The size of proposed stormwater facilities are based on conceptual loading area ratios. Given that the drainage area to each stormwater facility is under the target loading area ratio, it is expected that sufficient peak rate reduction requirements will be met if infiltration or managed release stormwater facilities are implemented.

**University MS4 Permit**

West Chester University holds NPDES permit no. PAG130169 for operating a small municipal separate storm sewer system (MS4). The key points of this permit are education and reduction in existing pollution levels. Compliance with the criteria noted above is still required, and stormwater measures associated with new development or redevelopment are tabulated separately from MS4 permit compliance projects.

## STORMWATER MANAGEMENT FOR SPECIFIC EXPANSION PROJECTS

Refer to Exhibit 4: *Conceptual Stormwater Management Plan* for a preliminary map of post-development drainage boundaries and stormwater management areas for each expansion project with regulated. The contributing impervious areas include paved areas and proposed buildings. The required area to manage stormwater resulting from the proposed development is directly proportional to the amount of impervious area in each drainage area.

**Lawrence Hall**

The proposed building and landscaping associated with the Lawrence Hall will result in approximately 75,000 to 100,000 SF of impervious area. Conceptually, the drainage area that would be captured by proposed stormwater management facilities will range between 125,000 and 140,000 SF. Two stormwater facilities with a combined footprint of 20,000 to 22,000 SF would provide sufficient treatment. (See *Exhibit 1: Loading Area Ratio Calculations*) The infiltration BMPs selected for the Lawrence Hall improvements are subject to the requirements of the Borough of West Chester.[23]

Two stormwater facilities are proposed. One underground infiltration bed is recommended under the new courtyard and planting beds, and one underground infiltration bed is recommended under or adjacent to the driveway reconfiguration. The courtyard system would capture stormwater that comes from roof drains, new paving, and landscaped areas. Given that Lawrence Hall is a redevelopment and reduction in building footprint compared to the existing condition, the proposed stormwater management facility system could be smaller than shown on *Exhibit 4.* The second system to the west of proposed Lawrence Hall would capture and treat stormwater runoff from the proposed driveway. The proposed stormwater system should be located outside of the South New Street right-of-way. Because there is an existing parking lot in the same location as the proposed improvements, redevelopment requirements would apply. Both systems would discharge to Plum Run. Conceptually, there is sufficient space available to adequately treat stormwater volume, quality, and rate for all Lawrence Hall expansion projects.

[23] Borough of West Chester §94-306

**Francis Harvey Green Library Exterior Renovations**

The proposed exterior improvements south of Francis Harvey Green Library will add between 10,000 and 15,000 SF of impervious area, and have a capture area of approximately 15,000 to 25,000 SF. One underground infiltration bed with a footprint of 2,500 to 3,500 SF of treatment area would be sufficient to treat stormwater. (See *Exhibit 1: Loading Area Ratio Calculations*)

The proposed underground infiltration bed would capture redevelopment areas and new impervious surfaces. The treatment system should be located outside of Rosedale Avenue right-of-way and should be located at least 25 feet from the library. The lowest elevation of the infiltration system should be set below the elevation of nearby subgrade elements. The system would discharge to Plum Run. Conceptually, there is ample space to design and install a stormwater management system that meets the volume, rate, and quality targets set by the Borough of West Chester.

**Rosedale Avenue Sidewalk Upgrades**

The proposed sidewalk upgrades along Rosedale Avenue are projected to add between 35,000 and 50,000 SF of impervious area. The drainage area that would be treated by the associated stormwater management facilities is approximately 85,000 to 105,000 SF. (See *Exhibit 1: Loading Area Ratio Calculations*) Proposed stormwater facilities that provide between 12,000 and 14,000 SF of treatment would be sufficient to meet management targets. (See *Exhibit 1: Loading Area Ratio Calculations*)

The proposed underground infiltration trenches and beds along Rosedale Avenue should be located outside of the right of way. Since parcels adjoining the sidewalk improvements near the southwest corner of High Street and Rosedale Avenue are not owned by West Chester University, stormwater from these areas will be compensated for with facilities located along University owned property.

At the northeast intersection of South New Street and West Rosedale Avenue an underground infiltration bed would be appropriate, but it should be designed to stay out of an existing utility easement that parallels West Rosedale Avenue to its north. In areas along Rosedale Avenue where West Chester University owns property the stormwater from proposed sidewalks can be treated using facilities positioned outside of the right of way to manage for volume, rate, and quality. Discharge from Rosedale Avenue sidewalk improvements would flow to Plum Run.

Conceptually, there is sufficient area to design and implement stormwater management facilities along Rosedale Avenue outside of the public right of way that will meet the requirements of the Borough of West Chester and West Goshen Township.

**Sykes Building Expansion and Welcome Center (Phase 1)**

The Sykes Building Expansion and Welcome Center (Phase 1) development proposes between 30,000 and 40,000 SF of impervious area, and a stormwater facility would need to manage runoff from between 110,000 and 120,000 SF of drainage area. Three stormwater facilities with a combined footprint of 15,000 to 16,000 SF would be sufficient to meet management objectives. (See *Exhibit 1: Loading Area Ratio Calculations*)

The parking lot south of the Sykes Building is a potential location for an underground infiltration bed. In the existing condition the site already drains to the south. The treatment system should be located at least 25 feet from an existing or proposed building, and the bottom elevation of the infiltration BMP should be at or below building subgrade elements. If there are subgrade elements to building the bottom of the infiltration BMP should be lower.

Two more underground infiltration facilities would be suitable for runoff west of the Sykes Building. The first would be perpendicular to West Rosedale Avenue and would collect runoff from west and southwest of the Sykes Building. The discharge point would be south of the Sykes Building and could potentially be linked to the outfall from the other infiltration bed. The other infiltration facility should be parallel to the sidewalk along West Rosedale Avenue but should be outside of the road right of way.

Conceptually, there is adequate space to design and construct stormwater management facilities that meet West Goshen Township volume, peak rate, and quality requirements.

**Conclusions**

Based on this conceptual analysis, it is expected that sufficient area is available to facilitate effective stormwater management via infiltration methods for the improvements shown in the 0-5 Year Period on the West Chester University Master Plan to meet rate, volume, and quality requirements set forth in the Borough of West Chester and West Goshen Township ordinances.

# Exhibit 1:
## *Loading Area Ratio Calculations*

112 Moores Road
Suite 200
Malvern, PA 19355

**Date:** 3/13/2025
**Last Revised:** 4/2/2025

## Loading Area Ratio Calculations

| Region | Approximate Impervious Area (SF) | Approximte Drainage Area (SF) | SWM Facility Area (SF) | Impervious Loading Ratio[1] | Overall Loading Ratio[2] |
|---|---|---|---|---|---|
| Lawrence Hall Student Residential and Dining Center | 75,000 to 100,000 | 125,000 to 140,000 | 20,000 to 22,000 | 3.75 to 4.55 | 6.25 to 6.36 |
| Francis Harvey Green Library Exterior Renovations | 10,000 to 15,000 | 15,000 to 25,000 | 2,500 to 3,500 | 4.00 to 4.29 | 6.00 to 7.14 |
| Rosedale Avenue Sidewalk Upgrades* | 35,000 to 50,000 | 85,000 to 105,000 | 12,000 to 14,000 | 2.92 to 3.57 | 7.08 to 7.50 |
| Sykes Building Expansion and Welcome Center (Phase 1) | 30,000 to 40,000 | 110,000 to 120,000 | 15,000 to 16,000 | 2.00 to 2.50 | 7.33 to 7.50 |

| | |
|---|---|
| Total (SF) | 150,000 to 205,000 |
| Volume of Runoff (CF)[3] | 12,500 to 17,000 |

[1] Impervious Loading Ratio: proportion of impervious area to stormwater facility area. Used for conceptual stormwater management analysis. Ratio should not exceed 5.0

[2] Overall Loading Ratio: proportion of capture area to stomwater facility area. Used for conceptual stormwater management analysis. Ratio should not exceed 8.0

[3] Volume of a minimum of one (1)-inch of runoff from all regulated impervious surfaces shalll be infiltrated. (§94-603.B of West Chester Borough Stormwater Management Ordinance and §71-17.A of West Goshen Township Stormwater Management Ordinance)

# Exhibit 2:
# *Pennsylvania Stormwater Best Practices Manual – Appendix A: Infiltration Basin Pollutant Removal Efficiency*

**6.4.2 INFILTRATION BASIN**

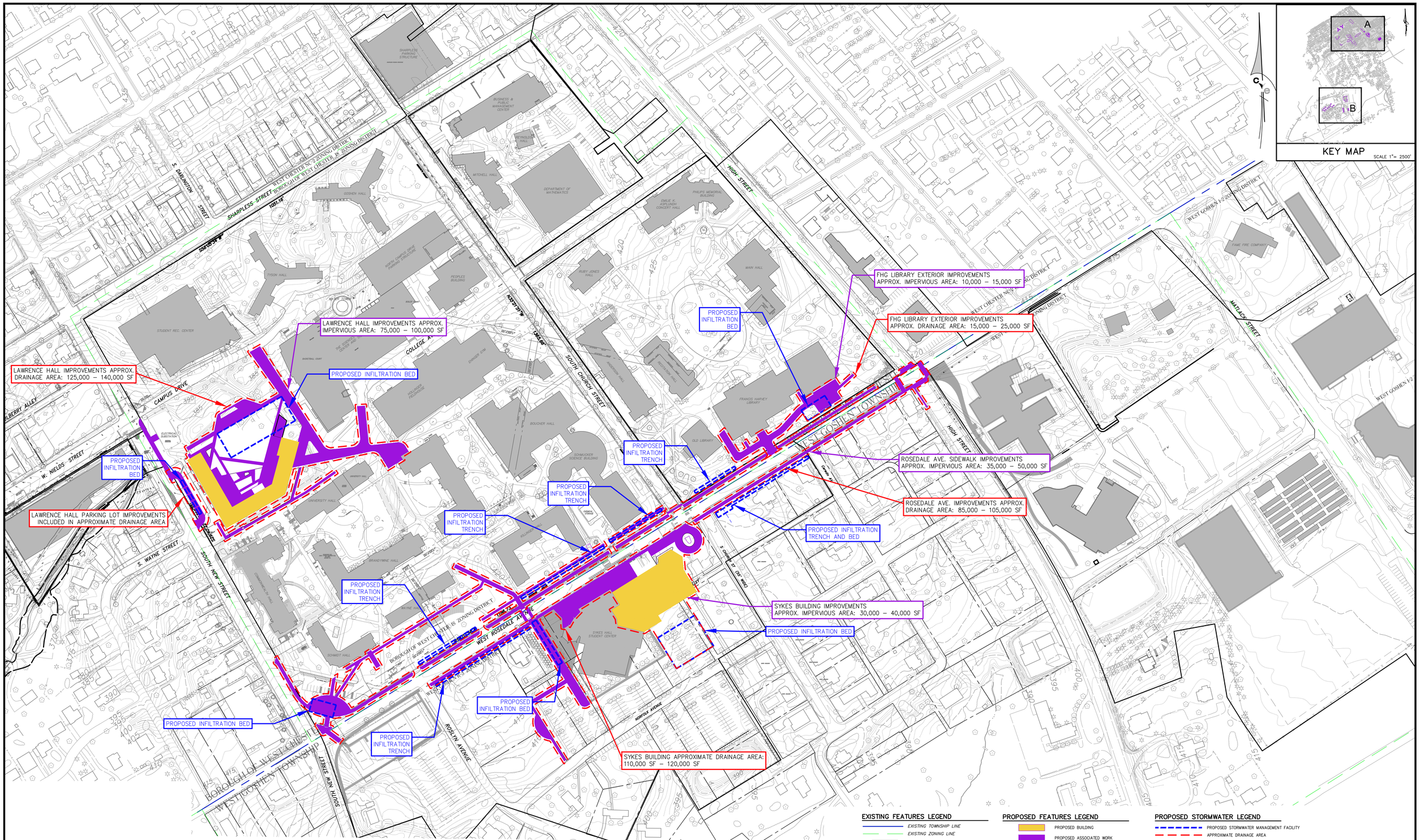
| Type | Pollutant Removal % Efficiency | | | | | | Primary Source | Secondary Source | Comments |
|---|---|---|---|---|---|---|---|---|---|
| | TSS | TN | $NO_3$ | $NO_x$ | TKN | TP | | | |
| Infiltration Basin | 95 | 65 | | | | | Cahill Assoc. Technical BMP Manual & Infiltration Feasibility Report: Infiltration of Stormwater in Areas Underlain by Carbonate Bedrock within the Little Lehigh Creek Watershed. Nov 2002. | | |
| Infiltration Basin | 75 | 45 - 55 | | | | 50 - 55 | Schueler, T. 1987. Controlling urban runoff – a practical manual for planning and designing urban best management practices. Metropolitan Washington Council of Governments, Washington, DC. | FHWA, 1999. *Stormwater Best Management Practices in an Ultra-Urban Setting: Selection and Monitoring*. Federal Highway Administration, U.S. Department of Transportation. | Capture of 12.7 mm (0.5 in) of runoff (first flush) |
| Infiltration Basin | 99 | 60 - 70 | | | | 65 - 75 | Schueler, T. 1987. Controlling urban runoff – a practical manual for planning and designing urban best management practices. Metropolitan Washington Council of Governments, Washington, DC. | FHWA, 1999. *Stormwater Best Management Practices in an Ultra-Urban Setting: Selection and Monitoring*. Federal Highway Administration, U.S. Department of Transportation. | Capture of 25.4 mm (1 in) of runoff |
| Infiltration Basin | 90 | 55 - 60 | | | | 60 - 70 | Schueler, T. 1987. Controlling urban runoff – a practical manual for planning and designing urban best management practices. Metropolitan Washington Council of Governments, Washington, DC. | FHWA, 1999. *Stormwater Best Management Practices in an Ultra-Urban Setting: Selection and Monitoring*. Federal Highway Administration, U.S. Department of Transportation. | Capture of 50.8 mm (2 in) of runoff |
| Infiltration Basin | 50-80 | 50-80 | | | | 50-80 | USEPA. Preliminary Data Summary of Urban Storm Water Best Management Practices. Aug 1999. | | |
| **RANGE** | **50 - 99** | **45 - 80** | | | | **50 - 80** | | | |

# Exhibit 3:
# *Pennsylvania Stormwater Best Practices Manual – Appendix A: Subsurface Infiltration Bed Pollutant Removal Efficiency*

**6.4.3 SUBSURFACE INFILTRATION BED**

| Type | Pollutant Removal % Efficiency | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | TSS | TN | $NO_3$ | $NO_x$ | TKN | TP | Primary Source | Secondary Source | Comments |
| Subsurface Infiltration Bed | 90 | 60 | 27 | | | | Cahill Assoc. Technical BMP Manual & Infiltration Feasibility Report: Infiltration of Stormwater in Areas Underlain by Carbonate Bedrock within the Little Lehigh Creek Watershed. Nov 2002. | | |
| Subsurface Infiltration Bed | 95 | 51 | | | | 70 | Chester County Conservation District. *Chester County Stormwater BMP Tour Guide: Infiltration Beds* . 2002. | | |
| **RANGE** | **90 - 95** | **51 - 60** | **27** | | | **70** | | | |

# Exhibit 4:
# *Conceptual Stormwater Management Plan*


KEY MAP
SCALE 1"= 2500'
A
B
PROPOSED INFILTRATION BED
LAWRENCE HALL IMPROVEMENTS APPROX. IMPERVIOUS AREA: 75,000 – 100,000 SF
LAWRENCE HALL IMPROVEMENTS APPROX. DRAINAGE AREA: 125,000 – 140,000 SF
PROPOSED INFILTRATION BED
LAWRENCE HALL PARKING LOT IMPROVEMENTS INCLUDED IN APPROXIMATE DRAINAGE AREA
PROPOSED INFILTRATION TRENCH
PROPOSED INFILTRATION TRENCH
PROPOSED INFILTRATION TRENCH
PROPOSED INFILTRATION BED
PROPOSED INFILTRATION TRENCH
PROPOSED INFILTRATION BED
FHG LIBRARY EXTERIOR IMPROVEMENTS APPROX. IMPERVIOUS AREA: 10,000 – 15,000 SF
FHG LIBRARY EXTERIOR IMPROVEMENTS APPROX. DRAINAGE AREA: 15,000 – 25,000 SF
ROSEDALE AVE. SIDEWALK IMPROVEMENTS APPROX. IMPERVIOUS AREA: 35,000 – 50,000 SF
ROSEDALE AVE. IMPROVEMENTS APPROX. DRAINAGE AREA: 85,000 – 105,000 SF
PROPOSED INFILTRATION TRENCH AND BED
SYKES BUILDING IMPROVEMENTS APPROX. IMPERVIOUS AREA: 30,000 – 40,000 SF
PROPOSED INFILTRATION BED
SYKES BUILDING APPROXIMATE DRAINAGE AREA: 110,000 SF – 120,000 SF
PROPOSED INFILTRATION BED
PROPOSED INFILTRATION TRENCH
PROPOSED INFILTRATION BED
S. DARLINGTON STREET
SHARPLESS STREET
WEST CHESTER NC ZONING DISTRICT
BOROUGH OF WEST CHESTER
1051.16'
S66°05'54"W
HIGH STREET
WEST GOSHEN ZONING DISTRICT
MATLACK STREET
WEST GOSHEN I-2
CAMPUS DRIVE
COLLEGE AVENUE
SOUTH CHURCH STREET
N33°23'57"W
1355.06'
ALBERRY ALLEY
W. NIELDS STREET
S. WAYNE STREET
SOUTH NEW STREET
WEST ROSEDALE AVENUE
NORFOLK AVENUE
ROSLYN AVENUE
S CHURCH ST (SR 3002)
BOROUGH OF WEST CHESTER
WEST GOSHEN TOWNSHIP
STUDENT REC. CENTER
TYSON HALL
GOSHEN HALL
MITCHELL HALL
BUSINESS & PUBLIC MANAGEMENT CENTER
DEPARTMENT OF MATHEMATICS
EMILE K. ASPLUNDH CONCERT HALL
PHILIPS MEMORIAL BUILDING
RUBY JONES HALL
MAIN HALL
ANDERSON HALL
RECREATION HALL
FRANCIS HARVEY GREEN LIBRARY
OLD LIBRARY
BOUCHER HALL
SCHNAUDER SCIENCE BUILDING
UNIVERSITY HALL
BRANDYWINE HALL
WAYNE HALL
SYKES HALL STUDENT CENTER
SCHMIDT HALL
COMMONWEALTH HALL
KUHARIC HALL
FAME FIRE COMPANY
SHARPLESS PARKING STRUCTURE
ROWEN CAMPUS RISE PARKING STRUCTURE
PEOPLES BUILDING
HOLLINGSWORTH
DANKER GYM
BASKETBALL COURT
DE SCHOOL OF OPTOMETRY
ELECTRICAL SUBSTATION
PARKING LOT
PARKING LOT #3
PARKING LOT #4
PARKING LOT #5
PARKING LOT #6
PARKING LOT #7
PARKING LOT #8
PARKING LOT #9
PARKING LOT #10
PARKING LOT #11
PARKING LOT #12
PARKING LOT #13
PARKING LOT #14
PARKING LOT #15
PARKING LOT




## EXISTING FEATURES LEGEND

- EXISTING TOWNSHIP LINE
- EXISTING ZONING LINE
- EXISTING BUILDING
- 202 EXISTING 2' CONTOURS
- 210 EXISTING 10' CONTOURS
- × 212.20 EXISTING SPOT ELEVATION
- EXISTING FENCE LINE
- EXISTING EDGE OF PAVING
- EXISTING CURB
- FLOOD PLAIN
- EXISTING LIGHT POLE
- STREAM LINE
- EXISTING STORM INLET
- EXISTING STORM MANHOLE
- EXISTING SIGN
- EXISTING UTILITY POLE
- EXISTING POST
- EXISTING DECIDUOUS TREE
- EXISTING CONIFEROUS TREE
- EXISTING TREE & SHRUB LINE
- EXISTING MANHOLE (SAN, STORM, GAS, WATER, WATER, ELECTRIC, TELEPHONE, ETC.)

## PROPOSED FEATURES LEGEND

- PROPOSED BUILDING
- PROPOSED ASSOCIATED WORK

## PROPOSED STORMWATER LEGEND

- PROPOSED STORMWATER MANAGEMENT FACILITY
- APPROXIMATE DRAINAGE AREA

## SOUTH CAMPUS YEARS 0-5 PROJECTS

- -STURZEBECKER BUILDING INTERIOR RENOVATIONS
- -SOUTH CAMPUS APARTMENT ADDITIONS
- -SOUTH CAMPUS COMMONS ADDITION OR NEW BUILDING IN TO ALTERNATE LOCATION

SOUTH CAMPUS 0-5 YEARS

| NO. | DATE | REVISION |
|---|---|---|
| | | |

**CONCEPTUAL STORMWATER MASTER PLAN**
FOR
**WEST CHESTER UNIVERSITY**
WEST GOSHEN TOWNSHIP, EAST BRADFORD TOWNSHIP, WEST CHESTER BOROUGH - CHESTER COUNTY - PENNSYLVANIA

ChesterValley ENGINEERS, INC.
112 Moores Road, Suite 200, Malvern, PA 19355
610-644-4623
www.chestervy.com

PROJECT NO. 22002
F.B.

| SCALE | DATE | DRAWN BY | CHECKED BY | DRAWING |
|---|---|---|---|---|
| 1" = 100' | 04/02/2025 | LT | NC | |

Appendix F

Scale in Feet
0 20 40 60 80 100 200 300 400
1" = 100'

IMPROVEMENTS IN EAST BRADFORD TOWNSHIP ARE SHOWN FOR INFORMATION ONLY

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**EXCAVATIONS, TRENCHING, AND SHORING**
ALL EXCAVATIONS, TRENCHING, AND SHORING OPERATIONS SHALL COMPLY WITH THE REQUIREMENTS OF THE FOLLOWING UNITED STATES DEPARTMENT OF LABOR OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION PUBLICATIONS OR THE LATEST REVISIONS THERETO:

(1) CONSTRUCTION INDUSTRY STANDARDS AND INTERPRETATIONS (OSHA 2207) SUBPART "P", PART 1926/1910 - "EXCAVATIONS, TRENCHING AND SHORING".

(2) "EXCAVATIONS AND TRENCHING OPERATIONS" (OSHA 2226) DATED 1985 (REVISED).

SEE SHEET ___ FOR FACILITY OWNER'S DESIGNATED OFFICE ADDRESS AND TELEPHONE NUMBER.

PENNSYLVANIA ONE CALL SYSTEM, INC.
CALL 3 WORKING DAYS BEFORE YOU DIG
1-800-242-1776
POCS SERIAL NUMBER: _____

UNIFORM PARCEL IDENTIFIER:

MacElree Harvey, Ltd.
Attorneys at Law
17 West Miner Street
West Chester, PA 19382
610-436-0100 | main
macelree.com

Brian L. Nagle
bnagle@macelree.com
d | 610-840-0224
f | 610-430-8245

April 1, 2025

***Via Hand Delivery***

West Chester Borough Council
Attn: Sean Metrick, Borough Manager
401 East Gay Street
West Chester, PA 19380

**Re: Conditional Use Application of West Chester University of the Pennsylvania State System of Higher Education; University Main Campus Plan**

Dear Sean:

I am submitting on behalf of my client, West Chester University of the Pennsylvania State System of Higher Education (the "University"), five (5) copies of the following:

- Application for Conditional Use;
- Narrative in Support of Application;
- West Chester University Master Plan Report by Ewing Cole and the following separately marked appendices thereto:
    - Appendix "A" – Enrollment Report and Projection Analysis by West Chester University Office of Institutional Research
    - Appendix "B" -- Student Housing Development Study by Ewing Cole
    - Appendix "C" – Student Housing Study by MGT
    - Appendix "D" – Transportation Impact Study by TPD
        - Five (5) copies of Executive Summary
        - One complete physical copy and electronic copy submitted with application
    - Appendix "E" – Parking Study by TPD
    - Appendix "F" – Conceptual Stormwater Management Report w/ Stormwater Management Plan by Chester Valley Engineers (to be submitted separately)
    - Appendix "G" – Master Plan for West Chester University Campus Improvements by Chester Valley Engineers (to be submitted separately)
- Electronic copy of the above Application and associated materials (submitted separately)
- Application fee of $800.00.

Please let me know if you require additional physical copies of any materials.

Additionally, the University hereby grants the Borough Council an extension of the timeframe within which the Borough is required to commence the hearing on the Application through August 31, 2025. Thus,

commencement of the hearing on the Application on or before August 31, 2025 shall be considered timely under the applicable timeframes of the Pennsylvania Municipalities Planning Code.

Very truly yours,



Brian L. Nagle

/cfg
Enclosures

cc: Nathan M. Cline, P.E., Borough Engineer (w/enclosures) *[via Electronic Mail Only]*
Kristin S. Camp, Esquire, Solicitor (w/enclosures) *[via Electronic Mail Only]*
Mike Barbieri, Zoning Officer (w/enclosures) *[via Electronic Mail Only]*
West Chester University of the Pennsylvania State System of Higher Education

THOMAS COMITTA ASSOCIATES, INC.
Town Planners & Landscape Architects

M E M O R A N D U M

TO: West Chester Borough Officials, Staff and Consultants
700 S. High Street (West Chester University Master Plan) Team

FROM: Thomas J. Comitta, AICP, CNU-A, RLA
Erin L. Gross, AICP, RLA

DATE: May 14, 2025

SUBJECT: **REVIEW COMMENTS: 700 S. HIGH STREET -
WEST CHESTER UNIVERSITY MASTER PLAN, DATED 4-2-2025**

Please note the enclosed Review Comments pertaining to the following documents that we received on April 14, 2025, and to a site visit on May 5, 2025, including:

- Narrative in support of Application, prepared by MacElree Harvey, Ltd., dated March 31, 2025;
- West Chester University of Pennsylvania's Application for Conditional Use for Approval of University Campus Plan: Narrative in Support Application, submitted by MacElree Harvey, Ltd., dated March 31, 2025;
- West Chester University: Campus Master Plan, prepared by Ewing Cole, dated revised January 2025;
- Enrollment Report and Projection Analysis (Appendix A), prepared by West Chester University's Office of Institutional Research (received 4-14-2025);
- West Chester University: Student Housing Development Study (Appendix B), prepared by Ewing Cole, dated revised Jdanaury 2025;
- Student Housing Study: Final Report (Appendix C), prepared by MGT, dated revised January 7, 2025;
- Transportation Impact Study – West Chester University Master Plan (Appendix D), prepared by TPD, dated March 27, 2025;
- West Chester University Parking Study – West Chester University Master Plan (Appendix E), prepared by TPD, dated March 27, 2025;
- Conceptual Stormwater Management Report – West Chester University Master Plan (Appendix F), prepared by CVE, dated revised 4-2-2025; and
- Master Plan for West Chester University (7 sheets)(Appendix G), prepared by CVE, dated 4-2-2025.

Please call if there are any questions.

THOMAS COMITTA ASSOCIATES, INC.
Town Planners & Landscape Architects

**REVIEW COMMENTS: 700 S. HIGH STREET -**
**WEST CHESTER UNIVERSITY MASTER PLAN, DATED 4-2-2025**

May 14, 2025

Please note the Review Comments below pertaining to the documents listed on the Cover Memorandum, and address the portions of the Master Plan located within West Chester Borough.

## 1. Overview

1.1. The portion of West Chester University that is located in the Borough is in the Planned University Main Campus Overlay District (PUC). The Applicant is seeking Conditional Use approval for the Master Plan per Section 112-314 of the Zoning Ordinance (ZO), subject to future land development approval for each project.

The Applicant indicates that the University Campus Plan consists of the Master Site Plan as well as the other components required by Section 112-314.C(3) of the Ordinance. Further the Applicant indicates that for all projects shown on the Master Site Plan, the ultimate land development application for each project will reflect the actual building footprint, layout, and related details.

## 2. Planned University Campus (PUC) District

2.1. Forthcoming submissions will need to demonstrate compliance with the dimensional requirements of Section 112-314.B.(ZO).

2.2. Section 112-314.D.(ZO) requires an Implementation Schedule to be provided as part of the Conditional Use Application, and include a schedule and time frame for: all recommended improvements included the transportation study, parking study and stormwater management strategy. Section 6. of the Master Plan Report includes an Implementation Strategy, and outlines a Timeline and Project Sequencing (0-5 years, 6-10 years, and 10+ years). TCA defers to the Borough and Borough Engineer relative to the detail needed and provided for the Implementation Schedule.

2.3. Section 112-314.E.(ZO) requires a University Enrollment Report to be submitted as part of the Conditional Use Application. The Applicant has submitted an Enrollment Report and Projection Analysis (Appendix A). TCA defers to the Borough on the content of this Report.

2.4. Section 112-314.F.(ZO) requires a University Housing Report and Analysis to be submitted as part of the Conditional Use Application. The Applicant has submitted a Student Housing Development Study (Appendix B) and a Student Housing Study (Appendix C). TCA defers to the Borough on the contents of these Reports.

2.5. Section 112-314.G.(ZO requires a University Campus Transportation Study to be submitted as part of the Conditional Use Application. The Applicant has submitted a Transportation Impact Study (Appendix D). TCA defers to the Borough and Borough Engineer on the content of this Report.

2.6. Section 112-314.H.(ZO) requires a University Campus Parking Study to be submitted as part of the Conditional Use Application. The Applicant has submitted a Campus Parking Study (Appendix E). TCA defers to the Borough and Borough Engineer on the content of this Report.

2.7. Section 112-314.I.(ZO) requires a Conceptual Stormwater Management Strategy to be submitted as part of the Conditional Use Application. The Applicant has submitted a Conceptual Stormwater Management Strategy (Appendix F). TCA defers to the Borough and Borough Engineer on the content of this Report.

2.8. Section 112-314.J.(ZO) requires a Master Site Plan to be submitted as part of the Conditional Use Application. The Applicant has submitted a Master Site Plan (Appendix G) and a Master Site Plan Report. Please note the comments below.

a. Gateways & Connections (Ewing Cole Master Plan, pages 78-79)

(1) Please coordinate the Gateways, Corridors/Paths and the Landscape Opportunities on the Gateways and Connections exhibits.

(2) Please clarify what is envisioned by a “Landscape Opportunity”. For example, might these include pedestrian gathering opportunities?

(3) The Connections exhibit should include the pink color in the Legend.

(4) Additional pedestrian gathering space opportunities could be considered for selected corners of the north campus, such as the southeast and southwest corners of Church Street and Sharpless Street.

b. Church Street & University Ave Improvements (Ewing Cole Master Plan, pages 102-103)

(1) TCA defers to the Borough Engineer relative to the implications of closing South Church Street to vehicular traffic flow, especially along High Street. However, we believe the concept of closing South Church Street needs to be further discussed with Borough Council (as the Borough would need to adopt an Ordinance in order to vacate a portion of South Church Street).

(2) Please clarify the improvements that are envisioned for the Church Street Pedestrianization. For example, more information should be provided relative to the removal of the vehicular thoroughfare.

(3) Please clarify the enhancements/amenities that are envisioned for the Gateway, transitional Corridor, Social Center, Academic Space, and Multi-use Lawns.

(4) Please clarify how this space will connect/transition to Rosedale Avenue. For example, what type of pedestrian accommodations are contemplated at this intersection?

c. Rosedale Avenue Improvements (Ewing Cole Master Plan, pages 122-123, but not depicted in CVE Master Plan drawings)

(1) Please clarify the enhancements/amenities that are envisioned for the Gateway, transitional Corridor, Social Center, Academic Space, and Multi-use Lawns.

(2) Please clarify why the Church Street Pedestrianization Area is depicted as "Academic Space".

d. Pedestrian Connections and Network.
More information should be provided relative to the overall pedestrian connections and network within the North and South Campuses, and between the 2 Campuses (and the relationship to the Superblock and Clash Points information provided on pages 76 and 77) (Also see comment 3.2. relative to pedestrian crossing).

e. Multi-modal Transportation Stations/Campus Connector/Paths (Depicted on the CVE Plans)
Please clarify what enhancements are envisioned for the Multi-modal Transportation Stations/Campus Connector/Paths.

2.9. Section 112-314.K.(ZO) requires that all buildings and facilities depicted on the University Campus Plan be designed to improve the sustainability of the campus and all proposed buildings must be designed to meet the U.S. Green Building Council's LEED Silver Certification criteria. The Applicant should indicate their intent of how they plan to achieve these design criteria, and provide more information in forthcoming submissions for individual buildings.

## 3. Pedestrian Orientation, Streetscape Enhancements, and Connectivity

3.1. Overall Wayfinding Signage Program.
In order to promote greater pedestrian orientation through the campus, we recommend that an Overall Wayfinding Signage program be created and included as part of the Master Plan.

3.2. Connectivity
The Master Plan should better demonstrate the connectivity that will be created throughout different areas of the Campus, and the "connective tissue" that will used. The Master Plan should better describe pedestrian amenities, streetscape elements, etc., that are proposed which would help to link together the pedestrian network, pedestrian gathering spaces, and different areas of campus, in order to create a sense of place and continuity throughout the campus.

For example, as part of the Master Plan at other campuses, low piers have been placed at key street/sidewalk intersections to create the "connective tissue". Such piers typically have the school logo and a wayfinding map.

3.3. Safe Pedestrian Crossing Program.
In order to promote safe pedestrian circulation at intersections of streets, alleys, and driveways, we recommend that a Crosswalk Program be created and included as part of the Master Plan (whereby at least continental crosswalks are line striped or relined striped at intersections).

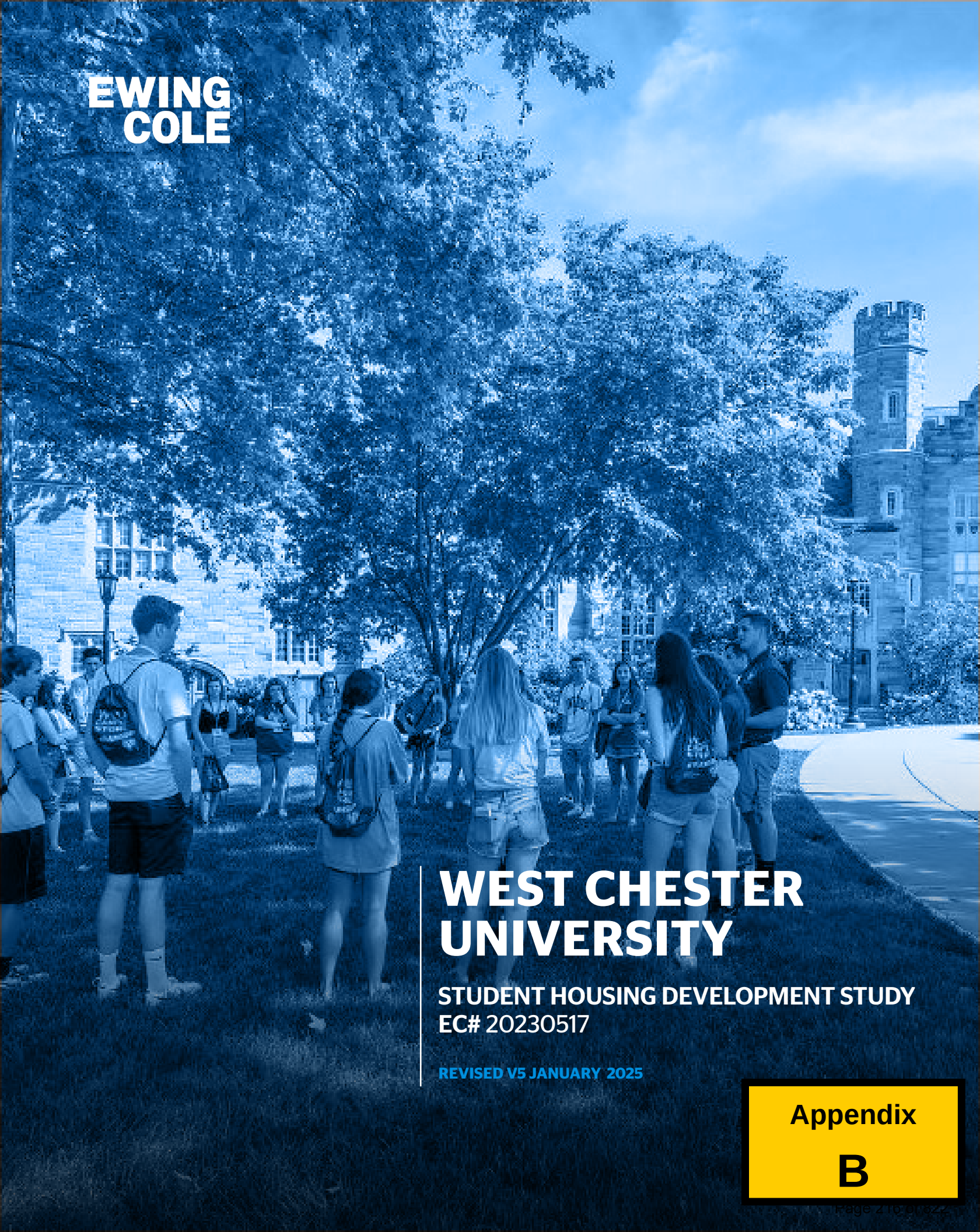
In addition, we recommend future coordination with PennDot relative to the feasibility of implementing Rapid Flashing Beacons at key crossings, especially across High Street.

**REVIEW COMMENTS: 700 S. HIGH STREET -
WEST CHESTER UNIVERSITY MASTER PLAN, DATED 4-2-2025**

May 14, 2025

3.4. Street Tree Program.
In the 1960's and 1970's, West Chester University had a Campus Landscape Architect (Greg Trembly, RLA). Mr. Trembly began a Street Tree Program with tree replacements and installations throughout the Campus. We recommend that a similar program be established in the future and coordination with the Borough Tree Commission.

Please call if there are any questions.



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# WEST CHESTER UNIVERSITY

## STUDENT HOUSING DEVELOPMENT STUDY

**EC#** 20230517

**REVISED V5 JANUARY 2025**

**Appendix**

**B**

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# CAMPUS HOUSING

**CAMPUS HOUSING OVERVIEW**

Residential life on university campuses, more specifically first-year undergraduate residential life, has continued to trend toward a community style of living for students. The first-year experience has been proven to be an incredibly important time to develop a communal foundation that relates to the mission of student life at West Chester University and successful outcomes. The Residence Life and Housing team on the WCU campus provides the background for students to engage, explore, and grow via a caring, vibrant, student-centric community. As such, student housing facilities are an essential element in support of the WCU strategic plan in addition to student attraction/retention and ultimately outcomes.

In 2020 WCU engaged MGT Consulting Group to perform a Student Housing Market & Feasibility Study. The 2020 study included:

- Off-campus market analysis
- Student Focus Groups & Survey
- Demand Analysis
- Financial Analysis

The market analysis highlighted that median off-campus rents are some of the most expensive in the extended WCU market area.

The results from student input generally noted on-campus students are more satisfied than off-campus students with their current housing situation citing specific concerns such as:

- Cost differential for on-campus housing
- Desire for more equitable price points
- Significant disparity in quality and amenities between campus options.
- Expensive and highly competitive market (particularly near campus)
- An atmosphere of housing insecurity.

The 2020 study offered an estimated demand of ~950 additional beds based on a midpoint calculated range of 625 to 1,284 beds. Multiple scenarios were developed and five (5) scenarios were evaluated and two (2) Scenarios were identified as the most desirable:

1. *"A Public Private Partnership with 500 existing beds currently housing WCU students and the construction of an additional 500 beds adjacent to the North Campus. WCU provides residence life component only."*

2. *"A Public Private Partnership with 500 existing beds currently housing WCU students, the construction of an additional 500 beds adjacent to the North Campus. WCU provides residence life component only. Additionally, the University will construct and operate 300 additional beds on the South Campus."*

Since the 2020 study the demand for quality on-campus housing continues. In 2024 the University once again had a wait list of students seeking on-campus housing.

This continued demand has been exacerbated by jurisdictional restrictions on the number of permits distributed to property owners allowing WCU student renters resulting in higher off-campus rent costs and more students seeking to remain in on-campus housing that is traditionally established for an incoming 1st year population and some 2nd year returning and transfer students.

It should be noted that due to students having to seek out more affordable housing and live father away from campus this may result in more students electing to drive to campus in lieu of using pedestrian, cycling, or shuttle service modalities.




Campus Program Location Map

## JURISDICTIONAL | ZONING CONSIDERATIONS

The majority of the WCU facilities are within the jurisdictional boundaries of the Borough of West Chester; however, the University also has facilities within West Goshen Township and East Bradford Township. Additionally, Westtown Township is an adjacent jurisdiction that has an interest in the development of University facilities.

The work of this Housing Study and subsequent Comprehensive Master Plan document are intended to satisfy jurisdictional requirements set forth by the authorities noted above. Each of these jurisdictions have provided a Planned University Main Campus Overlay District (PUC) or similar for development planning purposes. Relevant parameters specific to student housing per jurisdiction are as follows:

### Borough of West Chester

The current zoning district known as the PUC - Planned University Campus District was established in September 2021. The PUC area of the University is bounded by South High Street, University Avenue, Reynolds Alley, Sharpless Street, South New Street, and West Rosedale Avenue and is considered a stand-alone lot for the application of the area and bulk requirements for the PUC District.

For purpose of this housing study, it is noted that student housing can be constructed by right within the following dimensional parameters:

- Minimum perimeter setback 20 feet
- Minimum perimeter setback 30 feet from Sharpless
- Minimum building/structure separation of 20 feet
- Maximum impervious coverage of 80% in PUC area
- Minimum green space of 20% in PUC area
- Maximum building/structure height of 90 feet

It is also noted that all proposed facilities are to be designed to improve sustainability of the campus and are to be designed to meet the USGBC LEED Silver Certifications as a minimum.

### West Goshen Township

The current zoning district known as the Planned University Main Campus Overlay District (PUC) was established in May 2021. The PUC includes four (4) sub districts referred to as PUC Class 1, PUC Class 2, PUC Class 3, and PUC Class 4.

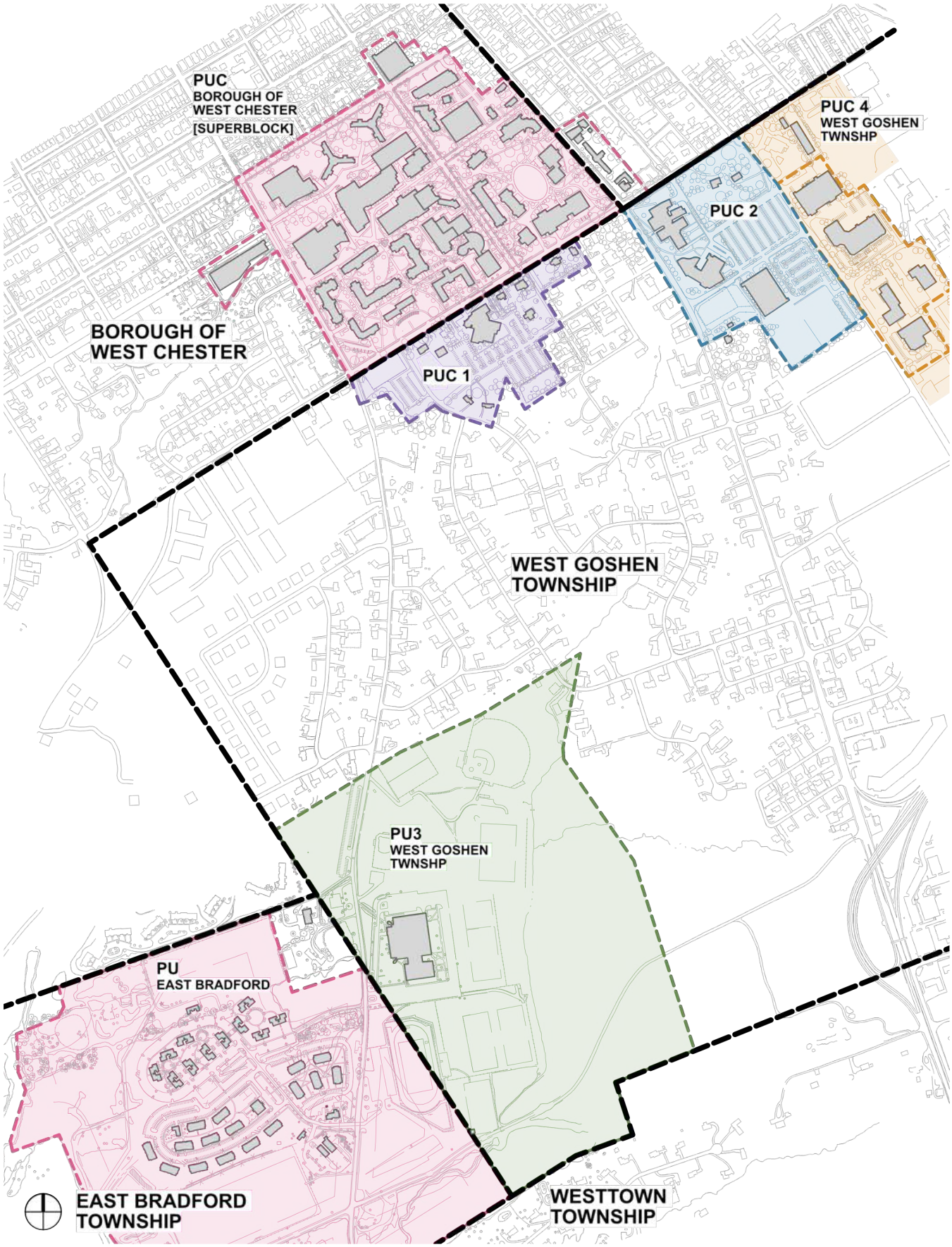
For purpose of this housing study, it is noted that student housing is a prohibited use within all four of the West Goshen sub districts. However, WCU requested and was granted conditonal approval for the provision of Temporary Housing Modules. Additional information can be found in a subsequent section of this report.

### East Bradford Township

The current zoning district known as the PU Planned University District was established in April 2003.

For purpose of this housing study, it is noted that student housing can be constructed by right (excluding housing for fraternities or sororities) within the following parameters:

- Minimum perimeter setback 200 feet from property lines
- Minimum perimeter setback 100 feet from right of way adjoining public street(s)
- Maximum impervious coverage of 40% in PUC area as a whole
- Minimum open space of 20% in PUC area
- Open space use limited to passive recreation
- Maximum building/structure height of 40 feet maximum and three (3) stories above grade plane.




Campus Zoning Jurisdiction Map

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**EXISTING ASSETS**

Currently WCU includes a mix of housing assets that are both self-managed and affiliated housing that is managed by University Student Housing (USH). These twelve (12) campus facilities are home to more than 5,300 students in total between both the "north" campus and the "south" campus. The University offers community-style (traditional dorm rooms) and suites on campus while offering apartment housing at the south campus location.

The WCU managed housing accounts for more than 2,400 student beds. The majority of these units are traditional housing with exception of the apartment offerings within College Arms and the South Campus Apartments.

| | |
|---|---|
| College Arms | 97 |
| Goshen | 558 |
| Killinger | 308 |
| Schmidt | 438 |
| Tyson | 558 |
| South Campus Apartments | 499 |
| | 2,458 Beds |

The USH managed housing is primarily suite-style units and is home to nearly 3,000 students.

| | |
|---|---|
| Allegheny | 636 |
| Brandywine | 622 |
| Commonwealth | 651 |
| University | 265 |
| East Village Apartments | 264 |
| The Village Apartments | 524 |
| | 2,962 Beds |

Generally, the USH managed buildings are newer, constructed between 2004 and 2009. The WCU managed buildings are much older with College Arms being circa 1920s and majority of the University owned facilities having been constructed between 1959 and 1971 with exception of the South Campus apartments constructed in 1993.

At time of this report, WCU has capacity for 5,420* student beds or ~31.5% total enrollment of 17,076 students.

- 14,344 undergraduates
- 2,732 graduate students

**The 5,420 Total beds includes swing space*



College Arms Apartments



Goshen Hall



Killinger Hall



Schmidt Hall



Tyson Hall



Commonwealth Hall



South Camous Apartments



East Village Apartments



Allegheny Hall



The Village Apartments



Brandywine Hall



University Hall

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**STUDENT HOUSING PLAN DRIVERS**

The WCU campus has strong collegiate attributes that include iconic spaces and places. Through a combination of renovations, additions and new construction there is opportunity for future student housing to:

- Create places to empower and support the University's mission for building community on campus.
- Improve Student Life assets and experiences
- Accommodate the increasing level of student expectations
- Build upon existing relationships between campus spaces
- Reinforce the University image and brand
- Bring parity to the quality of housing offered by the University (both WCU and USH operated)
- Enhance pathways and campus connections
- Increase the total number of student beds available on campus.
- Address and prioritize the deferred maintenance needs of aging housing stock.
- Define an actionable implementation strategy that provides the necessary phasing consideration and/or swing space for renovation projects acknowledging an academic calendar.
- Establish a road map / framework that aligns with University's fiscal capacity over time.






Student Experience

Bed Count Capacity

Implementation Strategies

Academic Calendar Alignment

Cost to Budget Reconciliation

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## TEMPORARY HOUSING CONSIDERATIONS

In response to a need to advance a robust housing renewal campaign the University initiated analysis of opportunities to provide temporary on-campus modular housing to allow existing housing stock to be taken off-line while minimizing impact to campus wide bed count offering.

The Team worked with the University to evaluate multiple site locations and configurations on North, East, and South Campus locations. The evaluations considered a variety of modular buildings that were readily available to WCU as well as bed count, proximity to other campus amenities and functions, access to necessary utilities, and jurisdictional constraints.

The adjacent diagrams are examples of nine different sites considered for temporary student housing modulars. The University elected to implement a plan to provide 128 beds in a temporary modular configuration at the site identified as Lot M-1 (former parking area).

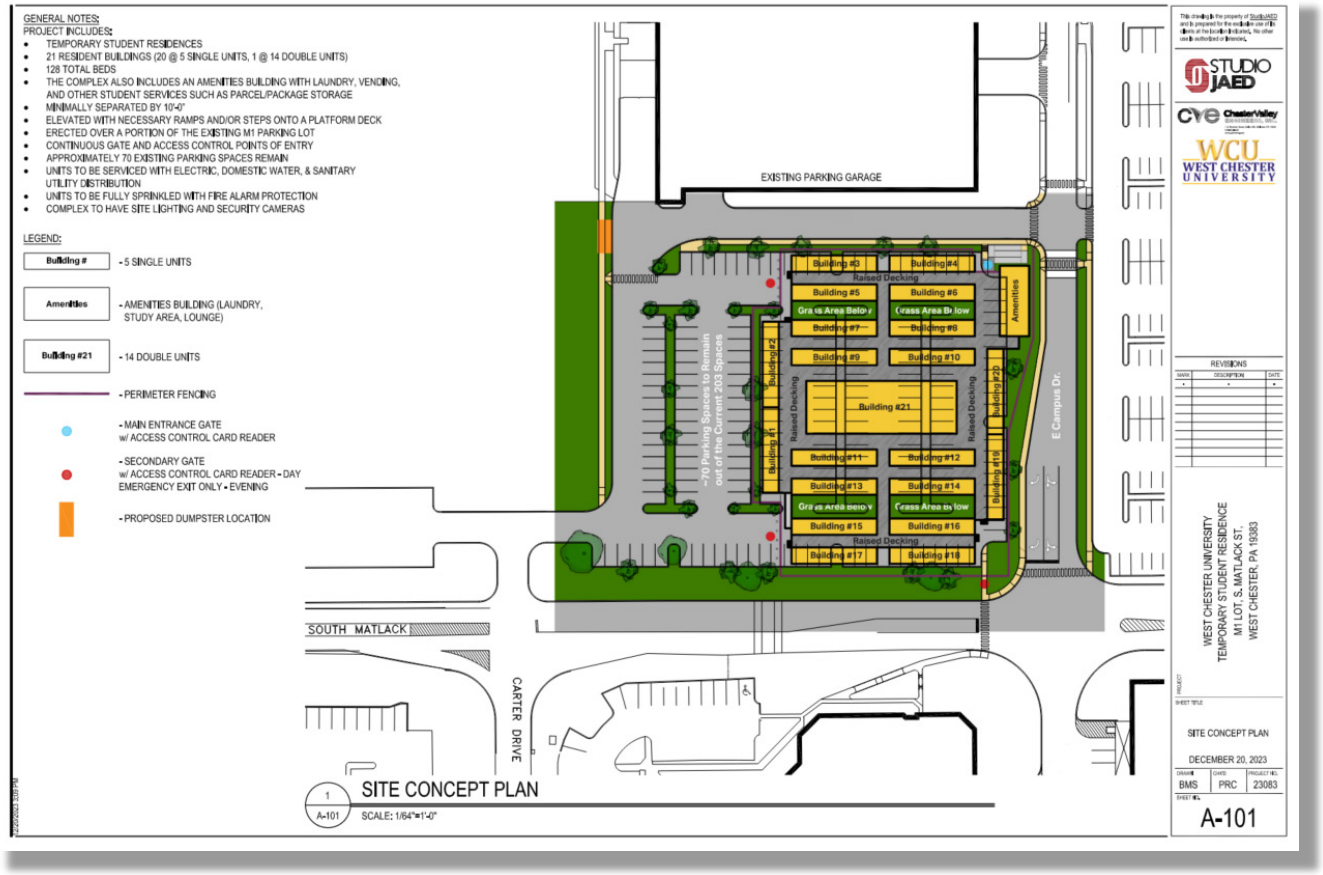
It should be noted that the provision of these modular housing units are not "additional" beds for the University's total bed count but rather are intended to allow for swing space to enable the University to take existing beds off-line for much needed deferred maintenance and renovation work that cannot be achieved over the course of a summer term. This does however maximize the University's ability to offer on-campus housing solutions in lieu of students having to seek accommodations off-campus in an artificially inflated / overpriced housing market in areas directly adjacent to the University.



North and East Campus Site Considerations



South Campus Site Considerations




**Proposed Temporary Housing Site Plan at M-1 Lot**

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## PROGRAMMING AND PLANNING CONSIDERATIONS

Much of the existing housing stock, both WCU owned and operated as well the USH operated facilities were constructed more than 20 years ago and in some cases are not equipped to address the needs and expectations of today's student population. The WCU student of today and coming generation of students are arriving with needs for resource access and amenity expectations beyond simply a bed.

### Expected Occupants

Ideally the University would have bed count capacity to house all incoming first year students and as many second years students that desire to live on campus. The 2020 study identified a demand for additional on-campus housing and acknowledged that high off-campus housing costs are exacerbating this demand. The stakeholder interviews conducted as part of this study would suggest that the demand opportunity remains.




Bryant University - Fisher Student Center "Living Room"

### Industry trends for On-Campus Student Housing

Student housing across the nation and more specifically in the Northeast has experienced several notable trends that reflect changes in student preferences and expectations, technological advancements, and acknowledgment of broader social factors. The quality of housing remains an influencing factor in students' decision-making processes for selecting a university.

- Increased Demand for Amenities
  Students are arriving to campus as consumers seeking housing that offers amenities such as fitness centers, study lounges, high-speed internet access, and communal spaces.

- Technology Integration
  Smart technology has become a standard expectation in student housing beyond just wi-fi access. Features like smart locks, smart thermostats have become popular considerations. Additionally, tech driven operational solutions for maintenance requests and communications are enhancing the residential experience on campus.

- Co-living Spaces
  The co-living trend emphasizes shared living spaces and places for community building. These spaces can offer a balance of private and communal living to foster a sense of community. Program spaces such as shared kitchens, living rooms, study rooms, meeting rooms, along with recreation areas (both indoor and outdoor) are often found to support this request.

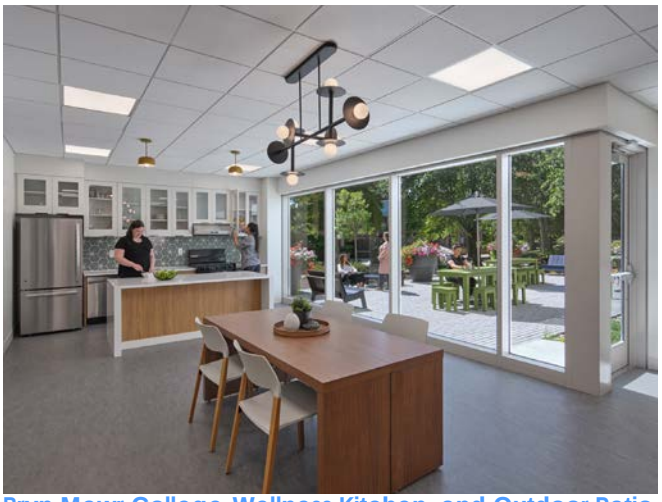
- Health and Wellness Focus
  Post 2020 pandemic, there has been a heightened focus on health and wellness both physical and mental. In response, student housing includes improved air quality systems, increased cleaning protocols, access to mental health resources

- Sustainability and Green Living
  There is growing awareness and emphasis on sustainability features in student housing. Students have become more environmentally conscious and prefer living in places that incorporate green building practices such as energy efficient systems and sustainable materials. Students also expect program integration for recycling and reduced water usage.

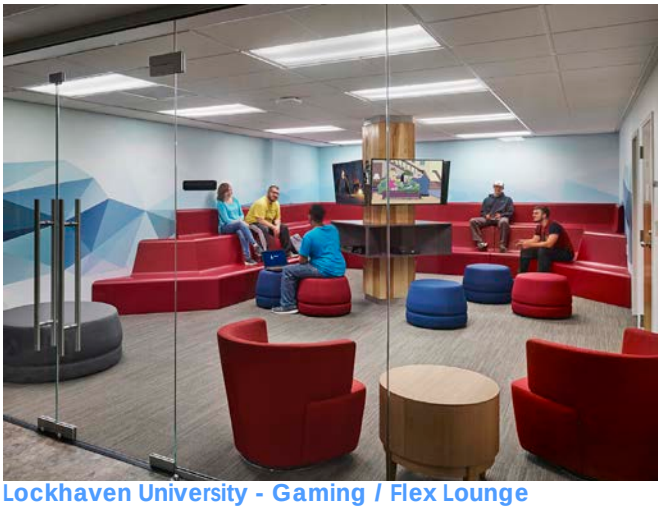
- Remote and hybrid learning adaptation
  While campuses have returned to in-person modalities, the continued inclusion of remote and hybrid learning models has an influence on the design of student housing.

- Cultural and International Accommodations
  Student housing is home away from home for most students. The number of international student population is expected to grow. Properties that cater to culturally sensitives by providing amenities and support services, are becoming more prevalent.

- Proximity to student transit
  Where you create a student housing development is just as important as its design. While many college students have cars, a larger parking is a commodity on college campuses and generally we are encouraging less reliance on cars when possible. To facilitate this, students must have access to reliable campus bus and shuttle systems. Additionally, the housing plan must this into account and create an inclusive plan for pedestrian and cycling modalities as well.



Bryn Mawr College-Wellness Kitchen and Outdoor Patio



Lockhaven University - Gaming / Flex Lounge



Gallaudet University-Entry Lobby and Commons Kitchen

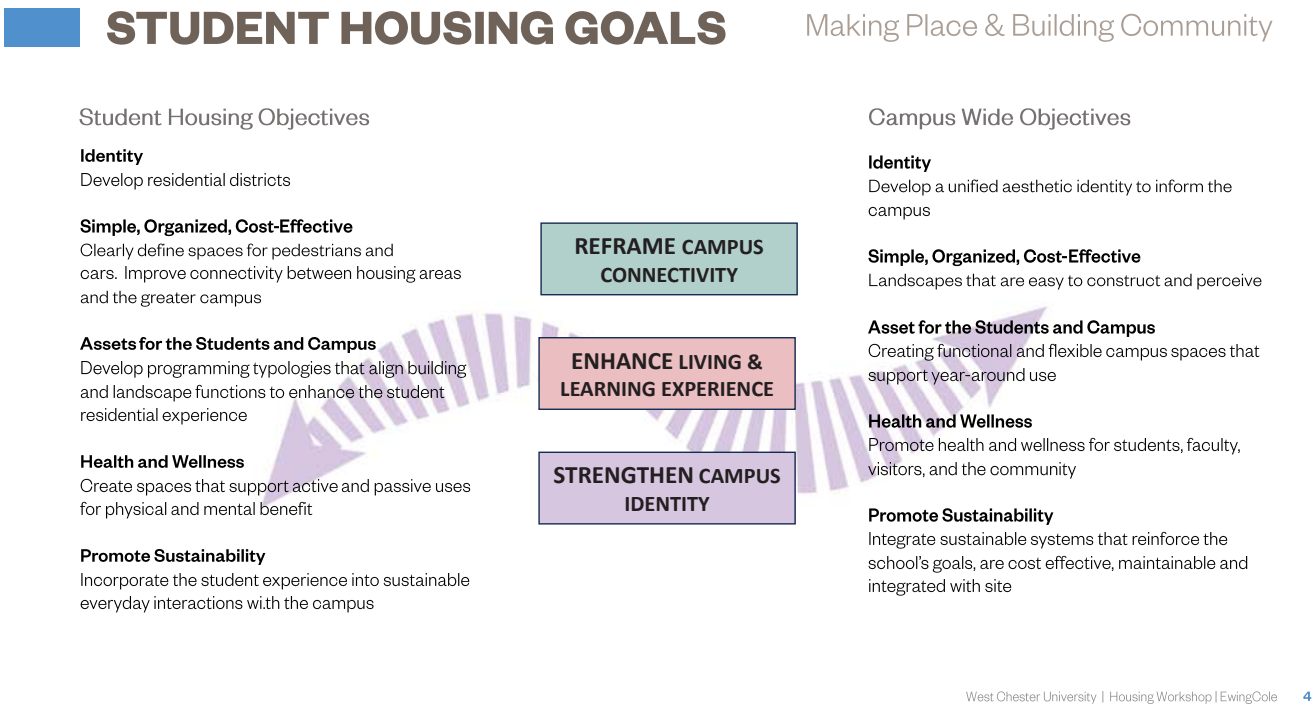
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**STUDENT AFFAIRS AND RAs INPUT**

The Design Team had opportunity to engage with a broad cross section of the University community as we studied opportunities for both the comprehensive campus plan as well a focus on student housing opportunities. This accomplished via focused sessions with WCU Student Affairs leadership, workshops with WCU Residence Life and Housing, as well specific student input via town halls and surveys. Through these sessions several topics emerged such as:

- Student housing – new and renovations – must promote campus community and represent student life mantra of providing "Caring Vibrant Student Centric Community"
- There is a desire to house as many 1st and 2nd year students on campus as possible.
- Traditional housing style is preferred for 1st Year student accommodations
- Live / Learn Community modality is desired for future programming opportunities
- Toilet and Shower accommodations to provide privacy and universal access
- Desire for consistency of amenity provisions across both USH and WCU housing stock.
- Accessibility and Parity of housing stock is desired for all housing offerings.
- Safe & Secure Environment is a must

As the discourse continued, alignments between the overarching comprehensive campus master plan CMP and goals for student housing become more and more apparent.




**Comparative alignment of Student Housing Objectives and Campus Wide Objectives**

**ON-CAMPUS STUDENT HOUSING ELEMENTS**

On-campus student housing requires a balanced approach to addresses individual's needs while effectively utilizing University resources by considering highest and best use of available real estate. Additionally, residence halls are active contributors to the overall campus landscape, place making, and community experience for students, faculty, staff, and visitors alike. For these reasons having a variety of options available is important for a vibrant campus experience.

### Planning | Configuration

When considering fundamental planning strategies for a residence hall there are many factors at play. Campus place making should always be at the fore of the discussion. Site parameters, campus context, accessibility, sustainable design strategies, functionality, maintenance considerations, and future flexibility for the University are a few. Consideration of individual's needs such as privacy, social interaction, study spaces, convenience, and safety and security are also paramount.

- Traditional Style

  Dormitory style housing is typically arranged in a double loaded corridor configuration which is often the most efficient use of an available site.

  In some cases, a racetrack footprint can be utilized in lieu of a double loaded corridor to better utilize a site's width and length.

  It is noted that a racetrack corridor plan configuration can offer more opportunity for serendipitous interaction and reduced the overall length of corridors. In both cases a collection of bedrooms along with basic core functions and common amenities comprise a neighborhood. The increased opportunity for social interaction makes this an ideal configuration for 1st year and some 2nd year students. The traditional double loaded corridor configuration is utilized at Tyson, Goshen, Kilinger, and Schmidt Halls.

- Suite Style

  Suite style housing is currently employed on the WCU campus and is the primary configuration utilized at the USH managed properties of University, Commonwealth, Brandywine, and Allegheny Halls. This approach provides a shared common living and bathroom area for each suite. This arrangement seeks to balance privacy and social interaction while providing more living space. The audience for this configuration is often the junior and senior class of students.

- Pod Style

  A more recent evolution in the student housing market emphasizes community, flexibility, and efficiency of space. This pod style approach aims to create a more collaborative and supportive environment while maintaining individual privacy. Typically, this arrangement accommodates up to 8 students per pod to allow for a small community feel with sufficient sense of privacy. Options for single and double occupancy bedrooms will depend on individual preferences and cost model.

- Apartment Style

  The WCU campus has both WCU and USH managed apartment style housing units located on the South Campus. These self-contained units offer living/sleeping space, with kitchen and bathrooms. The style offers more privacy and autonomy often desired by older students, graduate students, and some non-traditional student populations. Due to the area per student of these units the cost per semester is often higher.

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## Room Types

There are several room types available on the WCU campus each with their own features and benefits.

- Single Occupancy Room
  In recent years there has been an increase of requests for placement in a single occupancy room. Some requests are for convenience or personal comfort while others are specific to medical reasons such as psychological, psychiatric, mobility, visual or hearing impairment related conditions, These conditions may prohibit the student from living with a roommate and some individuals qualify under the Americans with Disabilities Act (ADA), and Section 504 of the Rehabilitation Act of 1973.

- Double Room
  Often utilized for traditional student housing where two students share a single room to encourage social interaction and is considered cost-effective. This is the most common room type offered for traditional on-campus student housing.

- Triple Occupancy
  While WCU currently employs triples (3 students per room) in several housing buildings, this is not a preferred scenario. It has been found that this arrangement is typically not a positive experience for students transitioning to life away from home. Issues cited have included lack of personal space, adjusting personal living habits to accommodate multiple people.

  It should be noted that rooms designed for triple occupancy are less prone to being problematic over rooms design for double occupancy but have three students living in them (forced triples).

## Resident Assistant (RA) Accommodations

The Resident Assistant (RA) is a paraprofessional, undergraduate student staff member of the Residence Life and Housing Program. The RA plays a vital role in facilitating an atmosphere of community upon a specific floor, wing, or apartment building. Additionally, RAs are considered an extension of Campus Security. For planning purposes, the RA rooms will be similar to the medical single occupancy with private shower and toilet accommodations.

## Unit Mix

Knowing that WCU is seeking to provide housing for any incoming 1st year students as well as 2nd year returning or transfer students who may want to live on campus the majority of the room offerings will be double occupancy to create neighborhood sizes between 30-40 students. In response to rising requests for single occupancy/ medical singles this study has established a ratio of two (2) medical singles with private toilet shower and one (1) RA room, also with private toilet and shower for every neighborhood.

## Toilets / Showers / Lavatories

There is a general approach for on-campus residence halls to replace traditional community bathrooms on each floor with a wet core of private bathrooms inclusive of lavatory, toilet and shower. This approach ensures universal accessibility along with flexibility for both gendered and non-gendered facilities. This study has established a ratio of 1:6 for restroom facility to students as a level of service target.

### Floor Level Amenities

To accommodate the balance of privacy and social interaction within residence halls it is expected that floor level amenities be provided in additional to building amenities. For WCU the recommended strategy is to provide more parity among the housing offerings by including similar offerings for each neighborhood of 30-40 students.

- Floor Lounge
  These spaces are to include comfortable seating areas with couches, chairs, and tables. The furniture is to be flexible for student configuration to encourage relaxation and socialization.

- Group Study
  To facilitate collaborative work and provide an environment conducive to studying, group projects, and peer to peer learning these rooms may include writing surfaces, interactive displays, and comfortable seating. These are often set up with a room reservation system due to popularity.

- Corridor Lounge
  These "third" spaces are recommended if space allows. These are versatile areas for students to gather, relax, and engage in informal activities. It is designed to provide a comfortable and functional environment that bridges the gap between private dorm rooms and formal study spaces.

- Laundry
  For both renovations and new residence hall buildings there is a desire to provide floor level laundry areas. By provided 2 to 3 washer dryer units per neighborhood WCU can meet student needs effectively and contribute to a more convenient living environment.

### Graduate Hall Director (GHD) Apartment

A Graduate Hall Director (GHD) apartment in a university residence hall is designed to provide comfortable and functional living quarters for the hall director, who typically oversees the building and supports the resident students. The apartment should balance the need for personal space with the demands of the director's role. The unit (per residence hall building) is to be a 2-bedroom unit wit private access.

### Building Amenity and Support Opportunities

The University's residence halls are expected to provide a range of amenities designed to enhance the living experience, support academic success, and foster a sense of community among students. At WCU there is a need to develop amenity offerings in a manner that provides equitable and inclusive access for both WCU owned and USH managed facilities. As such the recommendation is provision of approximately 20-30 square feet of amenity program area for each student resident per building.

While the actual offerings for amenity and support will vary per building and campus location the program spaces for consideration may include:

- Building Lounge Area
- Study Rooms
- Community Kitchen with Seating
- Wellness / Fitness Area(s)
- Activity / TV Lounge
- Recreation and Game Room
- Meditation / Quiet Room
- Vending
- Meeting Room(s)
- RA Office
- Visitor Restrooms
- Pet Friendly Space
- Package / Delivery Room
- Trash and Recycling Room
- Bike Storage

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# HOUSING OPPORTUNITIES

In concert with a Comprehensive Campus Master Plan (CMP) effort, specific opportunities to provide new student housing and renovate existing WCU owned student housing has been the focus of an abbreviate plan. The EwingCole Planning Team was tasked with developing a short term "Abbreviated Plan" with a goal of identifying opportunities to increase long term housing capacity (bed count) on campus and prioritizing necessary housing stock improvements for both North and South campus facilities.

The team engaged with multiple stakeholder groups, including student participation, as well the University's Senior Leadership Team (SLT) to define priorities, identify opportunities for evaluation, and develop recommendations.

Initial observations suggested that WCU currently has strong campus attributes - iconic places and spaces. Additionally, there were opportunities identified to build upon the existing relationships between campus spaces. The CMP will seek to strengthen these relationships by improving pathway systems, in turn improving student life assets and bolstering the University's image and brand.

For North Campus initial analysis identified the existing Lawrence Hall site as an underutilized location with strong potential for new housing development and associated student life amenities. Goshen, Tyson, Killinger, Schmidt and College Arms were analyzed to establish recommendations for their future.

Analysis at South Campus identified the open space known as Glen Echo as potential location for a new student housing development. The existing South Campus Apartments were reviewed to establish renewal / replacement recommendations.

This report will offer recommendations for provision of new student housing, to be incorporated in the Comprehensive Master Plan (CMP). The recommendations will offer an approach to adding more beds on campus over time as well as keeping, renovating, and maintaining, existing housing stock. These recommendations will be thought of in an actionable implementation plan considering phasing, swing space, and acknowledge need for alignment with the WCU academic calendar.

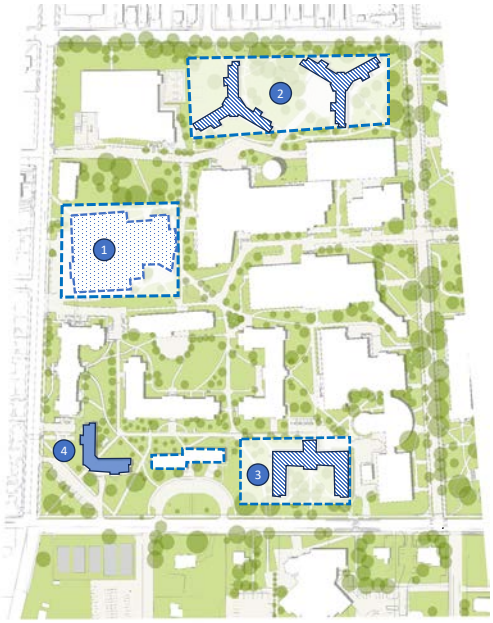
## HOUSING CONSIDERATIONS




Map of Campus Housing Sites for Consideration

# NORTH CAMPUS HOUSING

Existing




**OBSERVATIONS**

- Lawrence is an immediate site opportunity
- Wayne conversion to residence life requires significant relocation of multiple programs
- Killinger renovation will not represent highest and best use of site
- WCU owned properties must be brought to a higher standard

**OPPORTUNITIES FOR CONSIDERATION**

1. Lawrence - Raze and Build new
2. Tyson & Goshen – Full Reno w/ Additions or Raze and Build New
3. Killinger - Raze and Build New
4. Schmidt – Full Reno w/ New Entry Addition



**North Campus Initial Observations and Opportunities Diagram**

# SOUTH CAMPUS HOUSING

Existing




**OBSERVATIONS**

- Glen Echo is an immediate site opportunity
- Sense of Community to be reinforced
- WCU owned properties must be brought to a higher standard for parity
- Township Constraints are Significant
  - 200 Setbacks
  - 1:1 parking

**OPPORTUNITIES**

1. New Suite Style Housing
2. Amenity / Community Building
3. Extend Loop Road and Parking
4. New Gateway Entrance along New Street
5. Ability to Phase Renovations of Existing housing or raze to build new
6. Connectivity to Athletics Complex Across New Street

**WCU Owned (499)**

A. South Campus Apartments

**USH (788)**

B. The Village
C. East Village



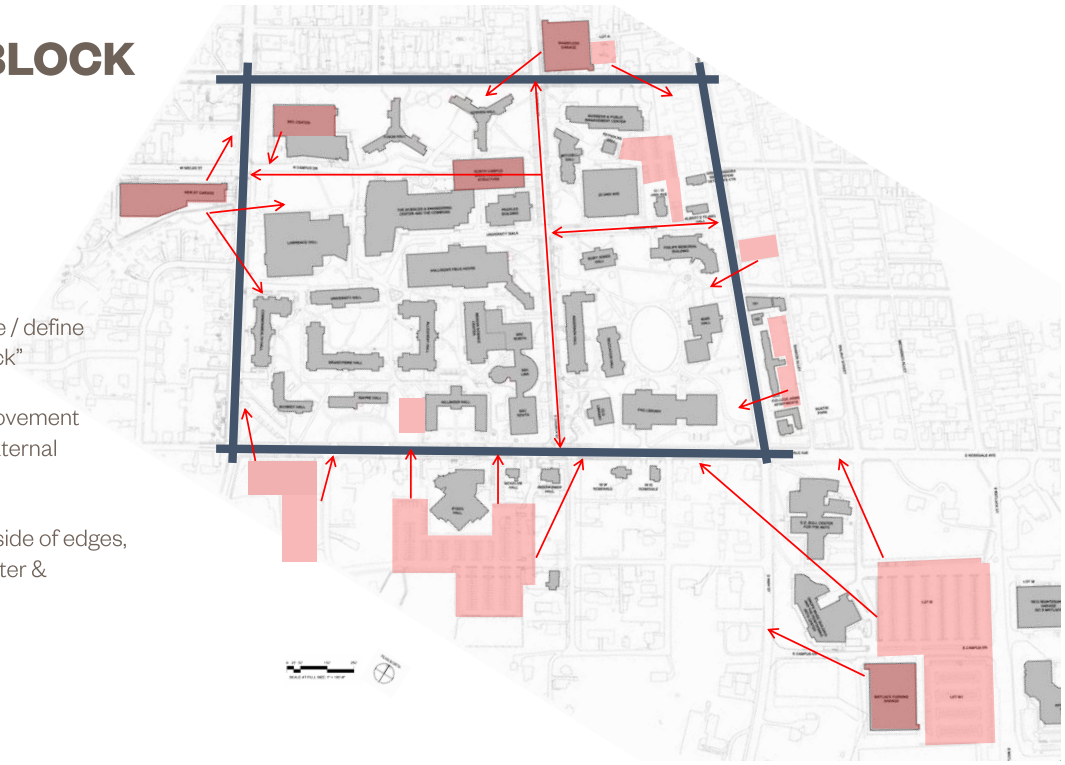
**South Campus Initial Observations and Opportunities Diagram**

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## SUPERBLOCK

NORTH CAMPUS

- Major streets create / define edges of "superblock"
- Multi-directional movement across internal & external streets
- Most parking is outside of edges, except for Rec Center & Commons garages

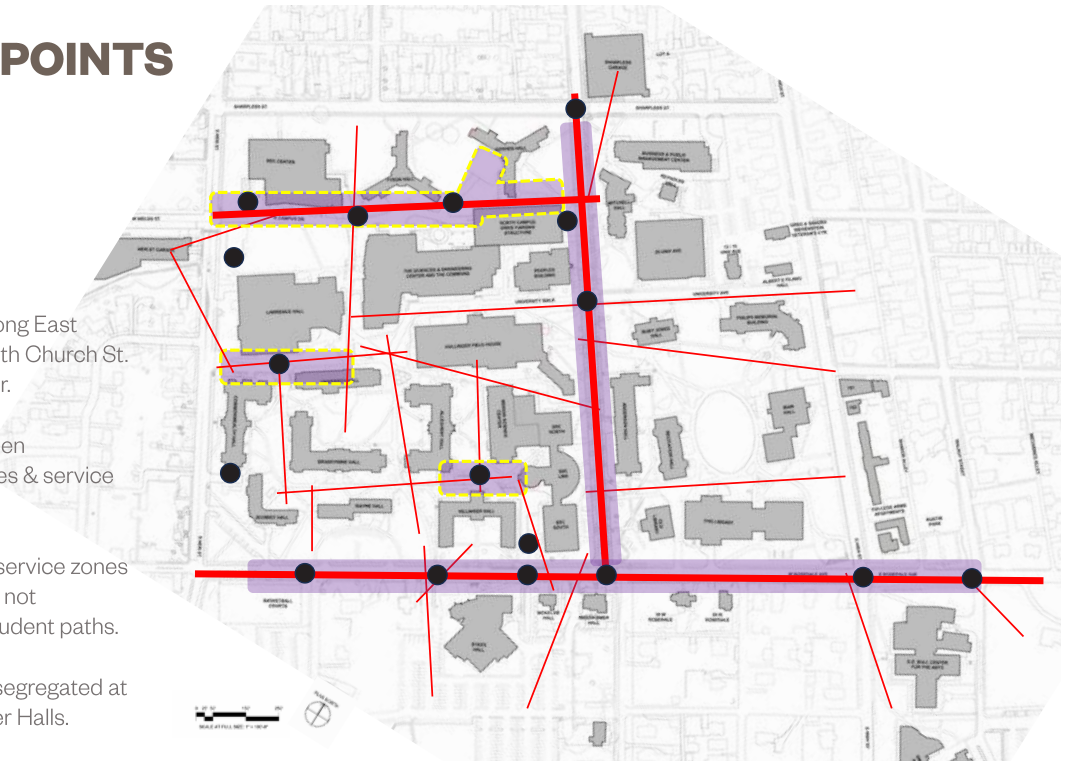


North Campus Superblock Parameters Diagram

## CLASH POINTS

NORTH CAMPUS

- Multi-modal use along East Rosedale Ave., South Church St. & North Campus Dr.
- Clash points between pedestrians, vehicles & service access.
- North Campus Dr. service zones and garage access not segregated from student paths.
- Service zones not segregated at Lawrence & Killinger Halls.

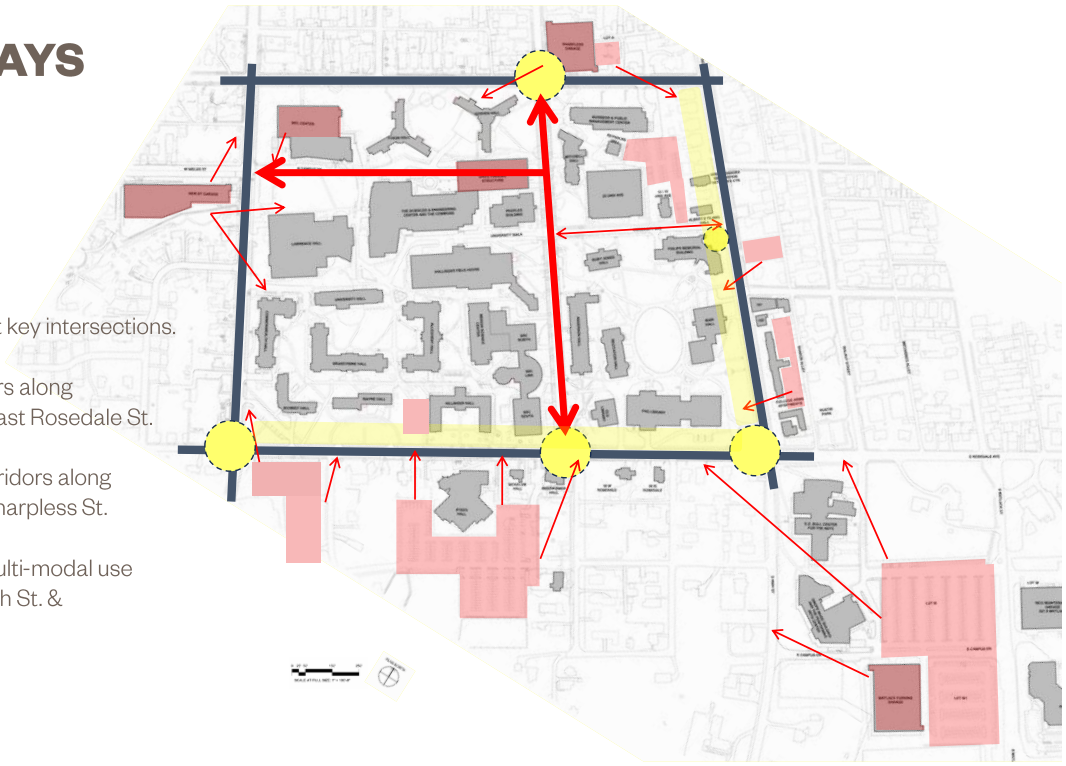


North Campus Multi-modal Diagram

# GATEWAYS

NORTH CAMPUS

- Gateways occur at key intersections.
- Key image corridors along South High St. & East Rosedale St.
- Neighborhood corridors along South New St. & Sharpless St.
- High frequency, multi-modal use along South Church St. & North Campus Dr.

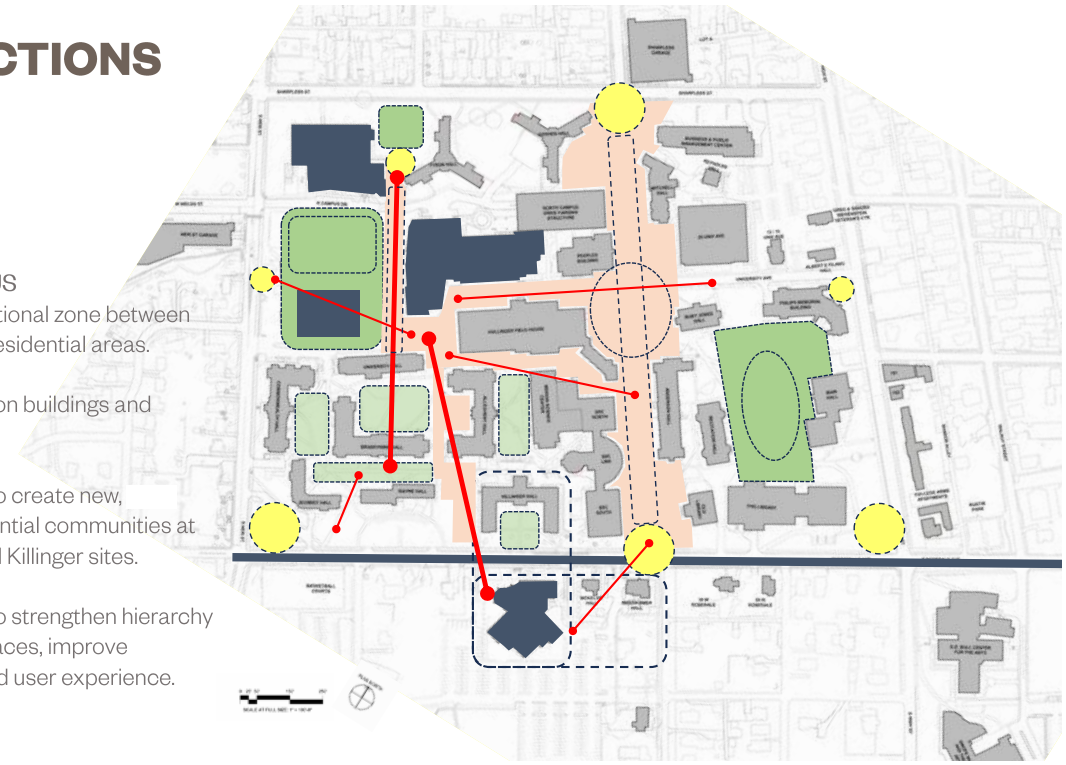


North Campus Gateway Opportunities Diagram

# CONNECTIONS

NORTH CAMPUS

- Central transitional zone between academic & residential areas.
- Link destination buildings and spaces.
- Opportunity to create new, residential communities at Lawrence and Killinger sites.
- Opportunity to strengthen hierarchy of exterior spaces, improve wayfinding and user experience.



North Campus Connection Opportunities Diagram

# Killinger Hall Site

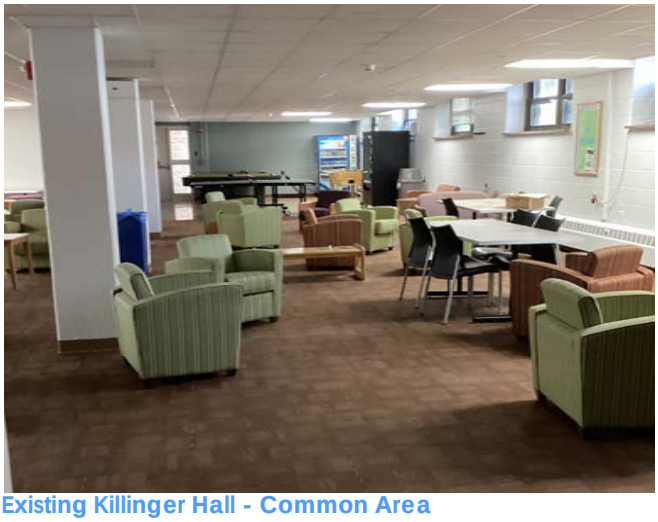
**EXISTING OVERVIEW**
The Killinger Hall site was evaluated by the Planning Team for both renovation, addition, and replacement considerations. The existing building was purpose built as a traditional residence hall in 1959, and has since become outmoded by today's standards for campus living. The deferred maintenance needs are significant as well.

**PREVIOUS STUDY**
The University invested in a feasibility study in 2017 to explore the idea of renovating and adding to this building however the project was not advanced. Recommendations of that study included the following improvements:

- Full bathroom renovations
- Update to interior finishes
- Improves Lighting (natural and artificial)
- HVAC upgrades
- Accessibility Improvements
- Improve Common Space and Shared Amenities
- Introduce new common programming and amenities (indoor and outdoor)
- Improve entrance and facade
- Improve Site Connections
- Activate interstitial Landscape Areas
- Landscape regrading



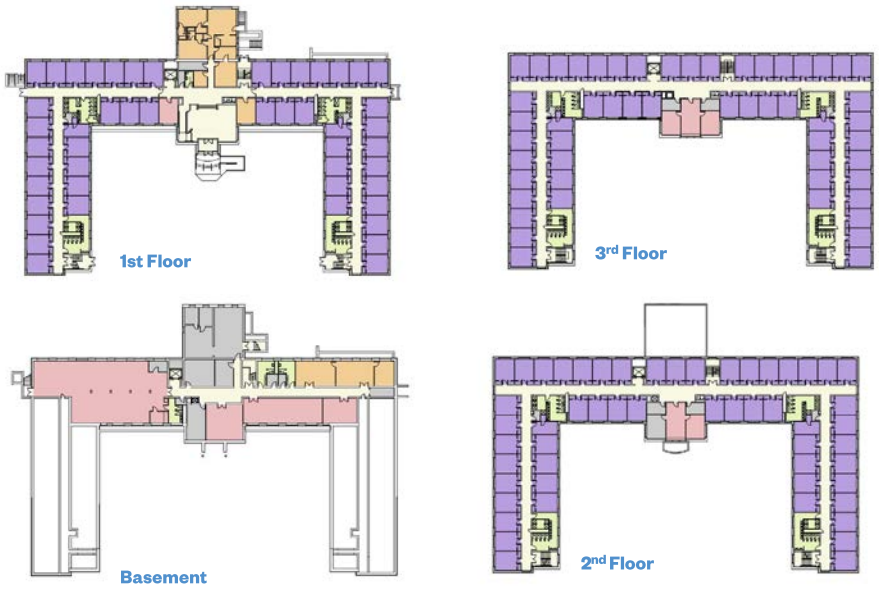
Existing Killinger Hall - Entry View


Existing Killinger Hall - Common Area


Existing Killinger Hall - Example Room

# KILLINGER HALL

Existing




| Housing Metrics | | |
|---|---|---|
| GSF | 69,382 | |
| NSF | 42,655 | |
| | | |
| Amenity | 5,975 | 19sf/student |
| Student Affairs | 2,645 | 9sf/student |
| Academic Support | 0 | |
| | | |
| Bed Count | 302 | Traditional |
| Toilet | 51 | 1:6 students |
| Sink | 69 | 1:4.5 students |
| Shower | 50 | 1:6 students |
| Urinal | 14 | 1:22 students |



**Existing Killinger Hall Plan Diagram**

**OPPORTUNITIES & RECOMMENDATION**

Renovating and adding to this building can be accomplished with significant investment. However, the result will not take advantage of highest and best use of this site. The current 3-story building does not utilize the allowable height of 90 feet. As such the planning team is recommending that the existing Killinger Hall be razed and replaced with a new multipurpose residence hall.

Over the course of the planning process the team further evaluated planning concepts that would reinforce the University's strategic goals and the potential campus place making opportunities. The recommended approach to developing this site is to define the ground plane by acknowledging the desire lines of campus circulation and reinforce those movements with defined program opportunities. Additionally define program synergies between this building and the Sykes Student Union which is directly across the highly trafficked Rosedale Avenue.

There may be opportunity to incorporate a pedestrian bridge across Rosedale as either a Killinger replacement or perhaps an expansion of the Sykes Student Union. Knowing that there is significant program pressures for student services across this campus there may be opportunity to utilize the space at the Killinger site. The Planning Team will explore these opportunities as a part of the Comprehensive Master Plan (CMP).

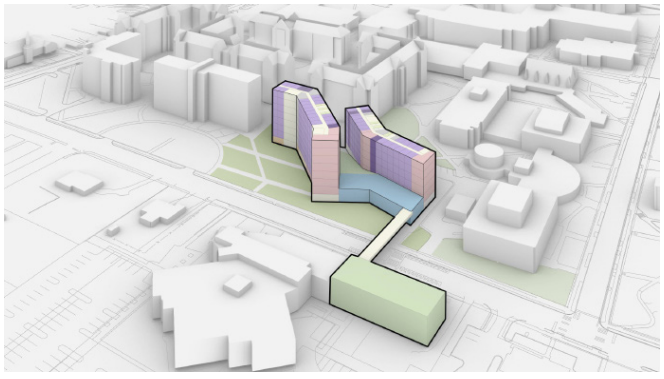
It is also recommended that building height opportunity (90 feet) be maximized for highest and best use. This can yield a building up to 8 stories in height for adding new student housing to campus. An overbuild was evaluated by structural engineers of the Planning Team and it was determined to not be a feasible solution for expansion. This reinforced the recommendation for full replacement at this site.



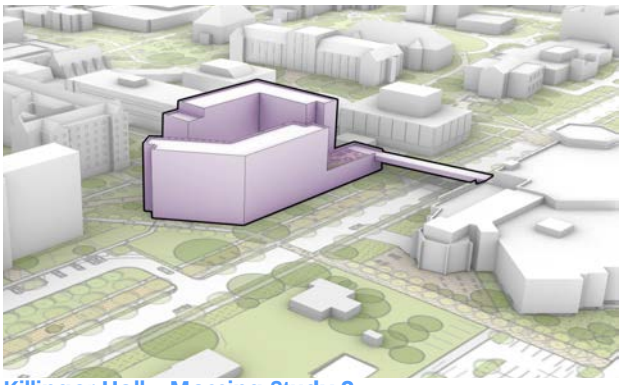
Killinger Hall - Figure Ground Study 2



Killinger Hall - Figure Ground Study 1



Killinger Hall - Massing Study 2



Killinger Hall - Massing Study 2



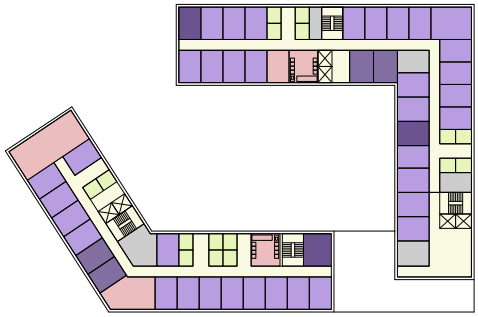

Killinger Hall - Campus Circulation Diagram

To maximize bed count, the recommendation for this site will be provision of primarily double occupancy rooms arranged in a 30-40 person neighborhood configuration. For purpose of this study a double loaded corridor was utilized however, racetrack and/or pod configurations could be considered. A ratio of 1:30-40 RA rooms is assumed long with 2:30-40 ratio of students to medical singles. The bathrooms are arranged together into staked wet cores and are single user gender neutral facilities.

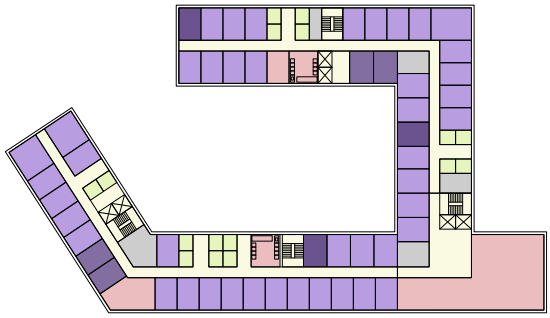
In addition to the student services programming noted earlier this facility should include at least one Graduate Hall Director apartment and 20-30sf of amenity space per student. The basic floor level amenities include lounges and laundry. The suggested building amenities should include

- Building Lounge Area
- Study Rooms
- Community Kitchen with Seating
- Activity / TV Lounge
- Recreation and Game Room
- RA Office
- Visitor Restrooms
- Package / Delivery Room
- Trash and Recycling Room
- Bike Storage

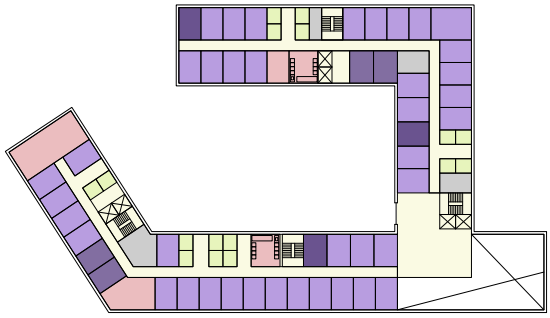
Other amenity program offerings can and should be considered as part of a feasibility study after completion of the CMP.



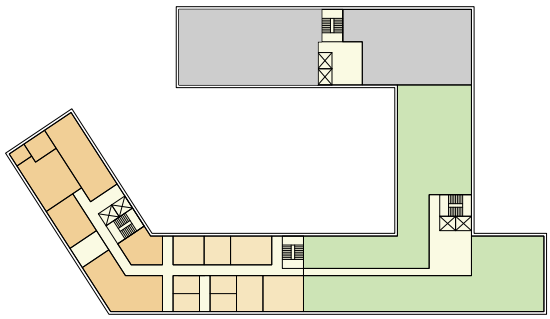
Killinger Hall - Plan Diagram Levels 5-7



Killinger Hall - Plan Diagram Levels 3-4



Killinger Hall - Plan Diagram Level 2



Killinger Hall - Plan Diagram Ground Level

# Schmidt Hall

**EXISTING OVERVIEW**

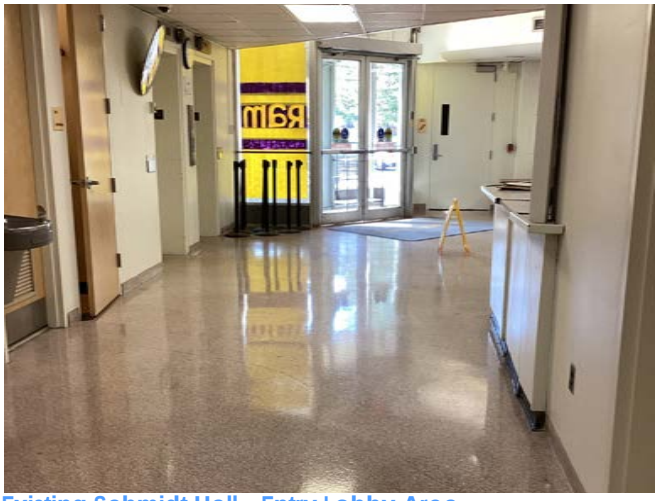
Schmidt Hall site is an 8-story residence hall that was constructed in 1971. The exterior masonry construction is generally in an acceptable state; however, the building will require deferred maintenance work and significant upgrades to be brought up to standard with today's expectations for campus living standards. This will include window refurbishment as well as complete upgrades to both HVAC and Electrical systems.

Additionally, the entry/lobby of this building has been noted as problematic. There is an entry from the street side parking area as well an entry facing internal to the campus. The interior lobby arrangement is cramped and is not optimal for providing a welcoming place nor is it effective for building operations and security.

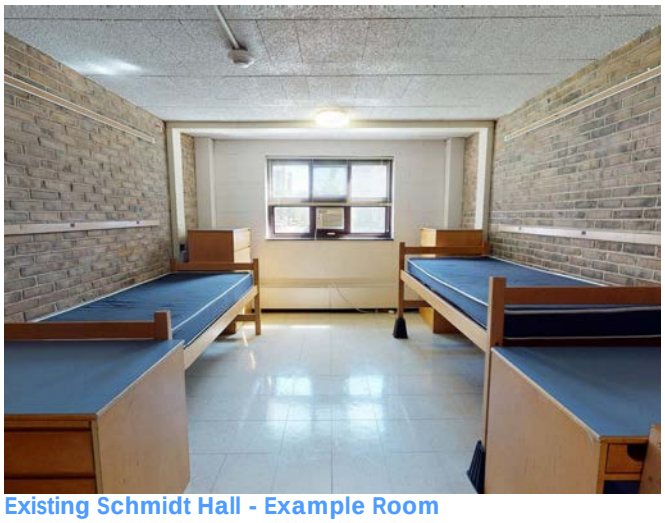
Ground level accessibility is another element of this building that requires attention. There are 14 student rooms that require students and visitors to navigate stairs for access.



Existing Schmidt Hall - Campus Side Entry View



Existing Schmidt Hall - Entry Lobby Area



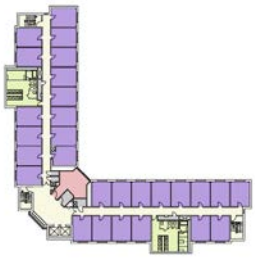
Existing Schmidt Hall - Example Room

# SCHIMDT HALL

EXISTING



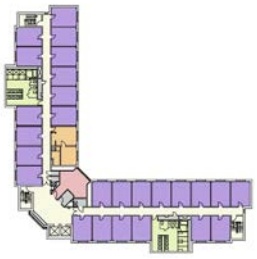
1st Floor



2nd , 4th – 8th Floors



Basement



3rd Floor

| Housing Metrics | | |
|---|---|---|
| GSF | 90,048 | |
| NSF | 55,581 | |
| | | |
| Amenity | 5,485 | 13sf/student |
| Student Affairs | 1,965 | 5sf/student |
| Academic Support | | NA |
| | | |
| Bed Count | 411 | Traditional |
| Toilet | 45 | 1:6 students |
| Sink | 90 | 1:4.5 students |
| Shower | 53 | 1:6 students |
| Urinal | 0 | 1:22 students |
| Tub | 15 | 1:27.4 students |



Existing Schmidt Hall Plan Diagram




Facade Upgrade Study by D2 Groups LLC - Option A




Facade Upgrade Study by D2 Groups LLC - Option B




Facade Upgrade Study by D2 Groups LLC - Option C

**PREVIOUS STUDY**

In 2018 the University invested in a study to consider an addition to this building. Recommendations of that study include a facade replacement along with full renovations, and upgrades. The proposed addition included expansion of the building corner and a one story over build to expand opportunities for student amenity as well as increase bed count potential.

**OPPORTUNITIES & RECOMMENDATION**

Renovating and adding to Schmidt Hall can be accomplished with an intentional investment. At minimum a complete renovation is warranted. Some aspects of that renovation should include:

- Full bathroom renovations
- Update to interior finishes
- Improves Lighting (natural and artificial)
- HVAC upgrades
- Accessibility Improvements
- Improve Common Space and Shared Amenities
- Improve entrances and configuration
- Improve Site Connections via Amenity and Landscape

The current building does not utilize the full allowable height of 90 feet. As such the planning team is recommending that a 1-story overbuild be considered in the overall context of construction cost and return on investment via bed count revenue. This was evaluated by the Team's structural engineer for feasibility.

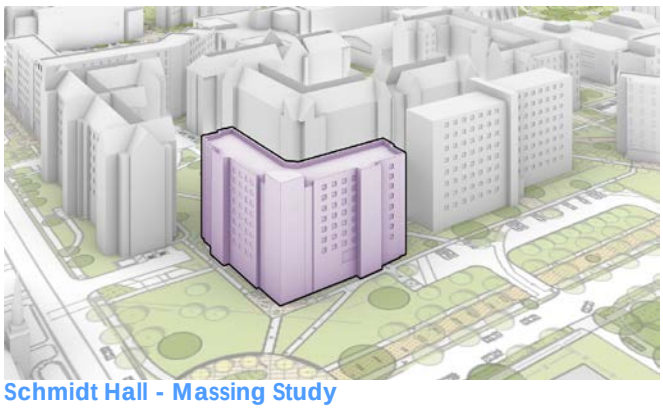
Due the existing building's location, prominently sited at the corner of South New Street and West Rosedale Avenue, a building addition is recommended to reinforce this corner as a campus gateway and to provide the necessary space to increase amenity offerings. Schmidt Hall currently has about 13 square feet of amenity space per student which is well below the targeted allowance. The basement level should also be expanded to create opportunities for daylight access to basement programs.

At the ground level a lobby expansion affords the opportunity to resolve the accessibility issue as well create a more welcoming and secure entry lobby commons.

If the choice is made to expand the building by 1-story there will likely be opportunity to create a unique rooftop amenity via garden as well as an occupied roof.



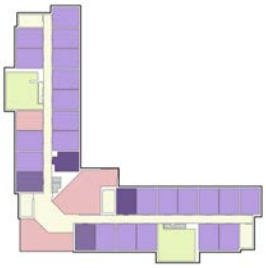
Schmidt Hall - Figure Ground Study



Schmidt Hall - Massing Study



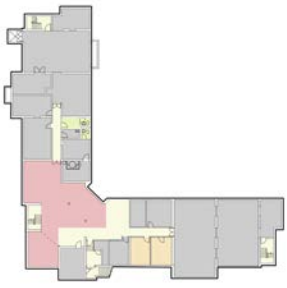
Killinger Hall - Plan Diagram Overbuild Level 9



Schmidt Hall - Plan Diagram Levels 2-8



Schmidt Hall - Plan Diagram Entry Level 1



Schmidt Hall - Plan Diagram Basement Level

# Tyson & Goshen Halls

**EXISTING OVERVIEW**

Both Tyson and Goshen Halls are 7-story residence hall buildings constructed in 1966. The buildings are essentially replicates with some variation at basement and ground level due to site conditions.

The exterior facade construction of Tyson Hall is in fair to poor condition and is in need of repair as well as a replacement of all curtain wall assemblies. The Goshen Hall facade has had some relatively recent facade improvements is categorized as good to fair condition.

Additionally, both buildings will require deferred maintenance work and significant upgrades to be brought up to standard with today's expectations for campus living standards. This will include window refurbishment as well as complete upgrades to both HVAC and Electrical systems.

It is also be noted that both Tyson and Goshen Halls currently have approximately 80 more beds per building than the facilities were originally designed for. Rooms sized for double occupancy were converted to be triples by use of loft bed furniture. This overcrowding has resulted in a heightened strain on the building infrastructure and systems. Elevators are in need of repair/ replacement. The electrical demand, already increased by technology use, is too much for electrical components beyond their useful life.

The toilet and shower to student ratios are generally fair even with the additional occupants; however, the ratio of available amenity space is significantly below the targets by today's standards.



Existing Tyson Hall - Campus Entry View



Existing Tyson Hall - View from Sharpless



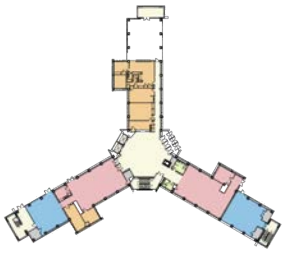
Existing Goshen Hall - Campus Entry View



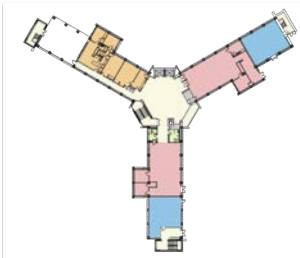
Existing Goshen Hall - Campus View

# TYSON & GOSHEN

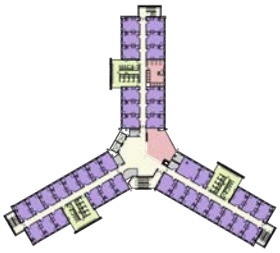
Existing



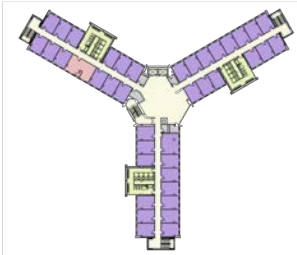
Tyson 1st Floor



Goshen 1st Floor



Tyson 2nd – 7th Floors



Goshen 2nd – 7th Floors

| Housing Metrics | | |
|---|---|---|
| GSF | 122,299 | |
| NSF | 104,173 | |
| | | |
| Amenity | 6,076 | 10.9sf/student |
| Student Affairs | 2,645 | 4.7sf/student |
| Academic Support | 1,842 | 3.3sf/student |
| | | |
| Bed Count | 556* | Designed for 460 |
| Toilet | 72 | 1:7.7 students |
| Sink | 144 | 1:3.8 students |
| Shower | 72 | 1:7.7 students |
| Urinal | 0 | NA |

*more than 80 students in triples



Existing Tyson & Goshen Halls Plan Diagram



Existing Tyson Hall - Example Recreation Lounge



Existing Tyson Hall - Example Room (Triple)



Existing Goshen Hall - Example Lobby Lounge



Existing Goshen Hall - Example Room

**OPPORTUNITIES & RECOMMENDATION**

For the Tyson and Goshen Hall sites the planning team evaluated both renovation and replacement strategies. In the context of the University's strategic goals, potential campus place making opportunities, sustainable design/ carbon footprint, and realities of anticipated capital capacity the recommendation is for the advancement of complete renovation with additions to both Tyson and Goshen Halls.

Included in this report is a replacement scenario that shows opportunity for more total beds; however, it is expected that the cost of a new larger complex will be significantly more than that of renovation and addition costs. Additionally, the reuse of the existing superstructure (concrete) alone yields a significantly lower carbon footprint and is a more sustainable solution.

Renovating and adding to both Tyson and Goshen Halls is important to the success of the WCU housing rejuvenation campaign in that renovation in lieu of new construction requires a lesser capital outlay allowing the University to offer renovated beds at a more attainable price point than new construction. It is noted that a complete renovation is warranted. Some aspects of that renovation should include:

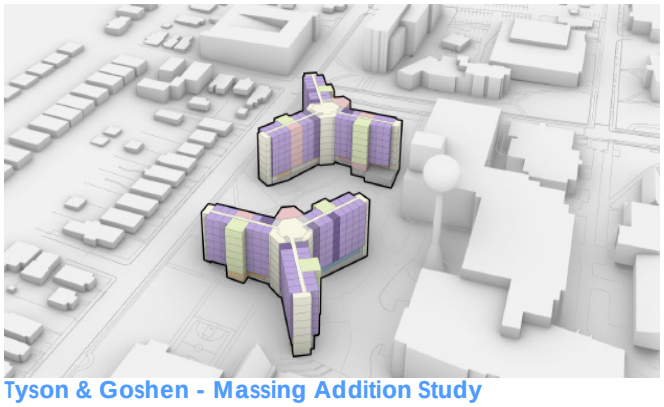
- Facade Improvements and Window Replacements
- Full bathroom renovations / conversions
- Update to interior finishes
- Improves Lighting (natural and artificial)
- HVAC upgrades
- Elevator upgrades
- Improve Common Space and Shared Amenities
- Improve entrances and configuration
- Improve Site Connections via Amenity and Landscape
- Improve interface between pedestrians and service areas



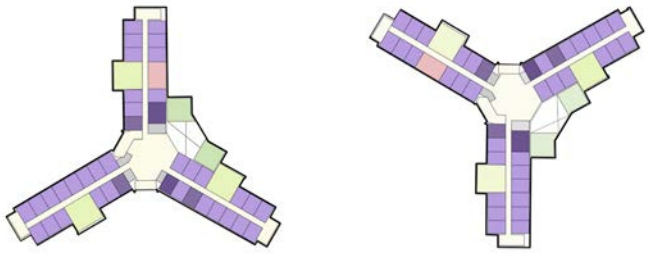
Tyson & Goshen - Figure Ground Addition Study



Tyson & Goshen - Figure Ground Addition Study



Tyson & Goshen - Massing Addition Study



Tyson & Goshen Hall - Typical Plan Addition Study

As previously noted, the current building is overpopulated by use of triple occupancies. While counter to the goal of increasing bed count on campus, it is recommended that the University consider converting triples back to doubles. By "de-densifying" the buildings the amenity space allocation ratio will be improved and generally the quality of residence experience.

The construction of an addition to both buildings will facilitate the creation of functional amenity space for students in centralized locations. Additionally, RA ratios, restroom ratios, and provision of medical singles distributed at all floors will offer an experience more closely aligned to current student expectations and offering some parity with USH housing.

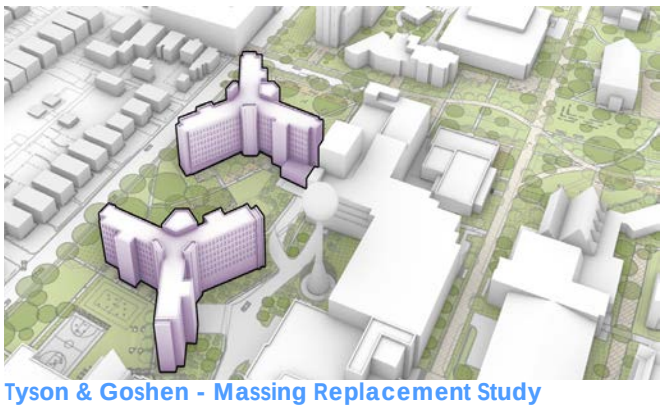
Both basement and ground level service areas require careful thought to mitigate the current conflict between pedestrians and service traffic. By reconfiguring and screening the service areas there is opportunity improve safety and overall campus experience.



Tyson & Goshen - Figure Ground Replacement Study



Tyson & Goshen - Figure Ground Replacement Study



Tyson & Goshen - Massing Replacement Study



Tyson & Goshen - Typical Plan Replacement Study

# College Arms

**EXISTING OVERVIEW**

This three-building complex consists of structures constructed in 1920, 1930, and 1970 respectively.

733 South High Street appears to have been constructed as a single family detached home in 1920. This 3-story building with basement was converted for its current use as student apartments.

721 South High Street was constructed in 1930 and is a 3-story apartment building with a partial basement level.

731 South High Street was constructed in 1970 and is a 2-story apartment building.

The buildings in this complex are in varying states of disrepair however the largest of them (721 South High Street) is in need of immediate consideration. Condition assessments have identified the need for exterior rehabilitation, there is a need for sloped floor repairs requiring structural enhancements, and ceiling repairs - that likely have moisture infiltration as a root cause - are a continuing maintenance issue. Additionally, none the buildings are fully accessible and will require significant upgrades to make them compliant by today's standards.

**OPPORTUNITIES & RECOMMENDATIONS**

As a part of the evaluations for both Campus Housing and the Comprehensive Campus Master Plan (CMP) the Planning Team has considered the opportunities to renovate this facility for continued use as student housing acknowledging the building systems failures noted above and the backlog of deferred maintenance is significant. Renovating this complex can be accomplished with significant investment, but the result will not take advantage of highest and best use of this site. The buildings, as configured, do not utilize the allowable height nor maximize buildable area in a part of campus with high space demand for both academic and student support services.

As such the planning team will further evaluate this site for potential future use as an education and general services (E&G) location.

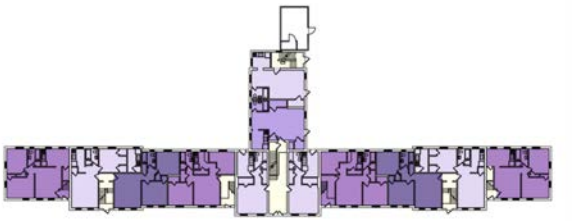
It is worth noting that this site sits outside of the West Chester Borough PUC. As such, the building can be renovated to remain student housing. However, if the University elects to raze these building the future construction will need to comply with the zoning parameters established inclusive of building use. I.e. not residential use.



721 South High Street

# COLLEGE ARMS



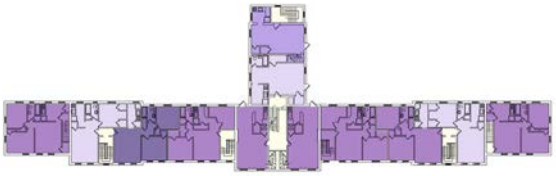


1st Floor
North Building



1st Floor
East and South Building

| Building Metrics | |
|---|---|
| GSF | 23,201 |
| NSF | 21,026 |
| | |
| Bed Count | **97** |
| Single Apt | 9 |
| Single, 2 Bed Apt | 13 |
| Double, 1 Bed | 20 |
| Double, 2 Bed | 42 |
| Triple, 1 Bed | 9 |
| Perm Offline | 4 |



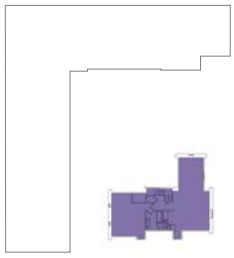
2nd Floor
North Building



2nd Floor
East and South Building



3rd Floor
North Building



Attic Plan
South Building



731 South High Street



733 South High Street

# Wayne Hall

**EXISTING OVERVIEW**

At the outset of the abbreviated housing study it was noted that Wayne Hall was originally constructed as a traditional residence hall with double occupancy rooms arranged along a double loaded corridor. Prior to the 2010 Campus Plan this building was consider for demolition to make way for a larger, suite style, residence. These plans were never realized, but rather the building was converted to an E&G facility and now home various offices departmental space for:

- Admissions
- Communication & Media
- Educational Foundations & Policy Studies
- History
- New Student Programs
- Office of Clinical Experiences & Candidate Services
- Psychology
- Women's and Gender Studies

**OPPORTUNITIES & RECOMMENDATION**

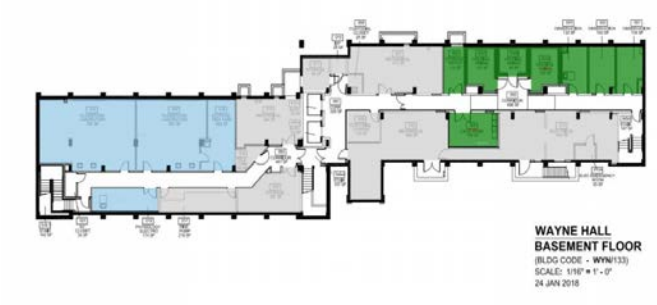
While the team considered the possibility of converting the building back to a residence hall it was deemed to be a significant disruption to academic and campus operations and this concept was abandoned. The planning team recommendation for Wayne Hall is to advance a deferred maintenance program as identified in the Facilities Assessment report(s).

The Planning Team may explore other potential opportunities as a part of the Comprehensive Master Plan (CMP).















WAYNE HALL
NINTH FLOOR
(BLDG CODE - WYN133)
SCALE: 1/16" = 1'-0"
13 FEB 2018


WAYNE HALL
EIGHTH FLOOR
(BLDG CODE - WYN133)
SCALE: 1/16" = 1'-0"
13 FEB 2018


WAYNE HALL
FIFTH FLOOR
(BLDG CODE - WYN133)
SCALE: 1/16" = 1'-0"
8 FEB 2018


WAYNE HALL
SEVENTH FLOOR
(BLDG CODE - WYN133)
SCALE: 1/16" = 1'-0"
8 FEB 2018


WAYNE HALL
FOURTH FLOOR
(BLDG CODE - WYN133)
SCALE: 1/16" = 1'-0"
7 FEB 2018


WAYNE HALL
SIXTH FLOOR
(BLDG CODE - WYN133)
SCALE: 1/16" = 1'-0"
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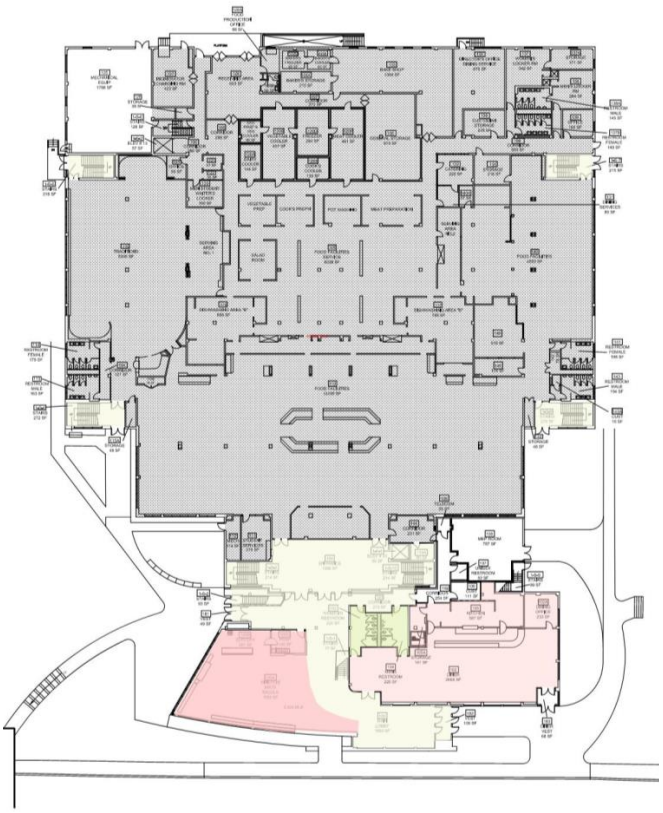
# Lawrence Center Site

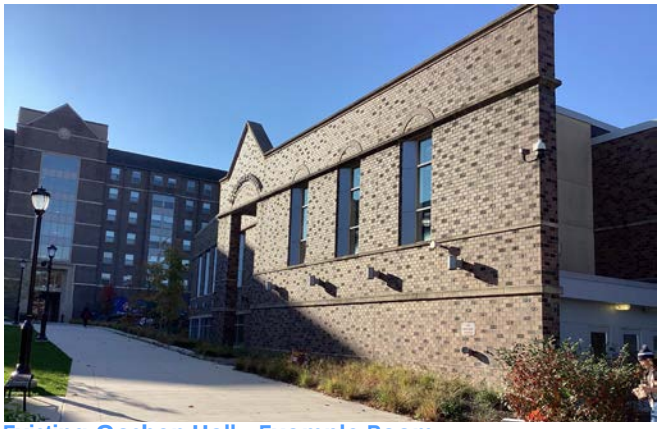
**EXISTING OVERVIEW**

This 2-story building was originally constructed on this site in 1965 with an addition in 2006. Per the 2015 Campus Plan update approximately 40,000 square feet of space was vacated after completion of the SECC buildings (former dining hall). The remainder of the building remains active and is home to several student service programs/ departments as well as an Einstein Bagel and Chickie's & Pete's dining amenity.

As a part of the evaluations for both Campus Housing and the Comprehensive Campus Master Plan (CMP) the Planning Team has considered the opportunities to renovate this facility for continued educational and general (E&G) use as suggested by the 2015 plan. Both the HVAC and electrical building systems are beyond their useful life. The University is currently investing in temporary HVAC elements to keep the facility tenable for current occupants. The elevator system is also failing and requires replacement. Additionally, the facility is not fully protected via active sprinkler systems. Beyond the systems failures, the backlog of deferred maintenance is significant.

| EXISTING PROGRAM | | |
|---|---|---|
| Level 1 | | |
| **Einstein Bagel** | | 2,425 sf |
| **Chickie's & Pete's** | | 3,700 sf |
| **Unused Dining / Servery** | | 46,000 sf |
| Level 2 | | |
| **Academic Success Program** | | 1,400 sf |
| **Career Development Center** | | 5,400 sf |
| **Learning Asst & Resource Center** | | 4,500 sf |
| **Office of Educational Accessibility** | | 1,400 sf |
| **Exploratory Studies Academic Advising** | | 1,500 sf |
| **Residence Life & Housing** | | 3,500 sf |
| **University College Dean's Suite** | | 1,400 sf |
| **Center or Women & Gender Equity** | | 1,300 sf |
| **Counseling Center** | | 4,050 sf |





Existing Goshen Hall - Example Room

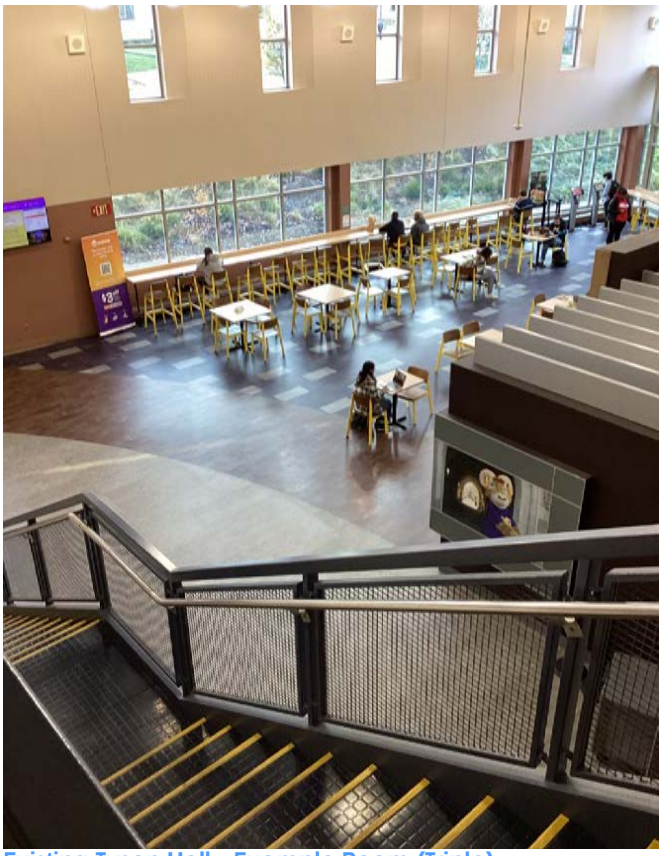


Existing Goshen Hall - Example Room



Existing Goshen Hall - Example Room





Existing Tyson Hall - Example Room (Triple)

**OPPORTUNITIES & RECOMMENDATION**

The 2015 Campus Plan update suggested there may be potential to re-purpose this facility for E&G programming; however, that plan did not consider campus housing needs at that time. Renovating this building for continued use as an E&G facility can be accomplished with significant investment to overcome system failures and deferred maintenance needs, but the result will not take advantage of highest and best use of this site. The current 2-story building does not utilize the allowable height of 90 feet. Nor does the existing building's location on campus serve as a central position for student support or academic support services meant for the general student population.

As such the planning team is recommending that the existing Lawrence Hall be razed and replaced with a new multipurpose residence hall with student support service programming for the entire WCU community with a focus on the campus residents.

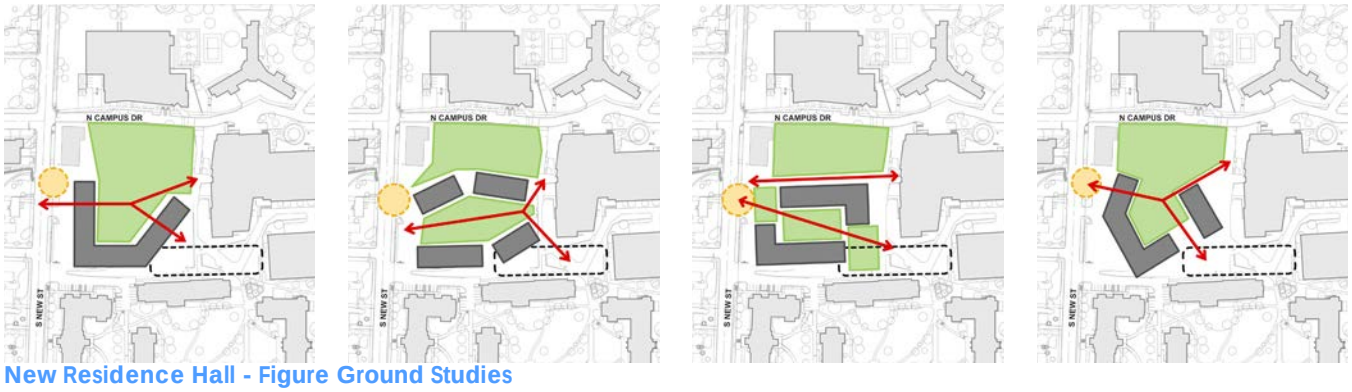
Over the course of the planning process the team further evaluated planning concepts that would reinforce the University's strategic goals and the potential campus place making opportunities.

The results indicated that redevelopment of this site could take on many forms and still achieve the primary objectives of providing new campus housing (increased bed count) and allow for spatial relief on a very densely populated area of campus real estate. Key aspects of this development include:

- Creating a balance of programmable and open outdoor spaces
- Respecting the campus edge along New Street.
- Co locating service access with existing facilities

The recommended approach to developing this site is to define the ground plane by acknowledging the desire lines of campus circulation and reinforce those movements with defined program opportunities. Additionally define program synergies between this building, the Rec Center, and SECC along with the other residence halls within the campus "super block."

Knowing that there is significant program pressures for student support services across this campus there is opportunity to utilize the space at the




New Residence Hall - Figure Ground Studies

Lawrence site. The Planning Team will further explore these opportunities as a part of the Comprehensive Master Plan (CMP).

To maximize bed count the recommendation for this site will be provision of primarily double occupancy rooms arranged in a 30-40 person neighborhood configuration. For purpose of this study a double loaded corridor was utilized however, racetrack and/or pod configurations could be considered. A ratio of 1:30-40 RA rooms is assumed long with 2:30-40 ratio of students to medical singles. The bathrooms are arranged together into stacked wet cores and are single user gender neutral facilities.

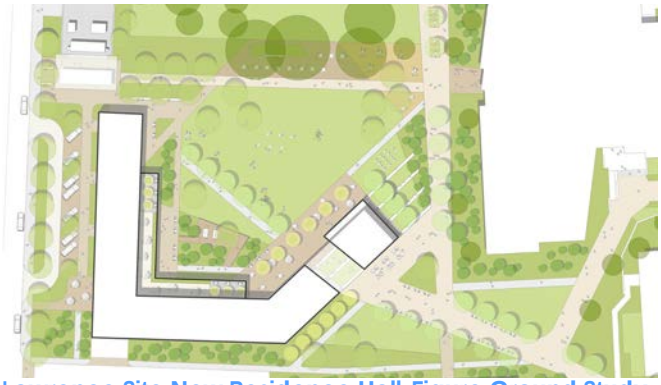
In addition to the student services programming noted earlier this facility should include at least one Graduate Hall Director apartment and 20-30sf of amenity space per student. The basic floor level amenities include lounges and laundry. The suggested building amenities should include

- Building Lounge Area
- Study Rooms
- Community Kitchen with Seating
- Activity / TV Lounge
- Recreation and Game Room
- RA Office
- Visitor Restrooms
- Package / Delivery Room
- Trash and Recycling Room
- Bike Storage

Other amenity program offerings can and should be considered as part of a feasibility study after completion of the CMP.



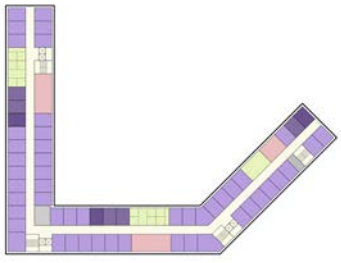
Lawrence Site New Residence Hall-Ground Plane Study



Lawrence Site New Residence Hall-Figure Ground Study



Lawrence Site New Residence Hall - Massing Study



Lawrence Site New Residence Hall-Typical Plan Study

**DECANT CONSIDERATIONS**

The construction of a new residence hall on the existing Lawrence Hall site requires a strategy to relocate current programs to other locations across campus. The Planning Team worked with campus leadership to identify potential locations for consideration. The moves noted here are being further considered as part of the CMP process. Many of these recommendations should be considered temporary until a more appropriate location can be created, and some of the recommendations could become permanent locations based on available space and proximity to complimentary programs.

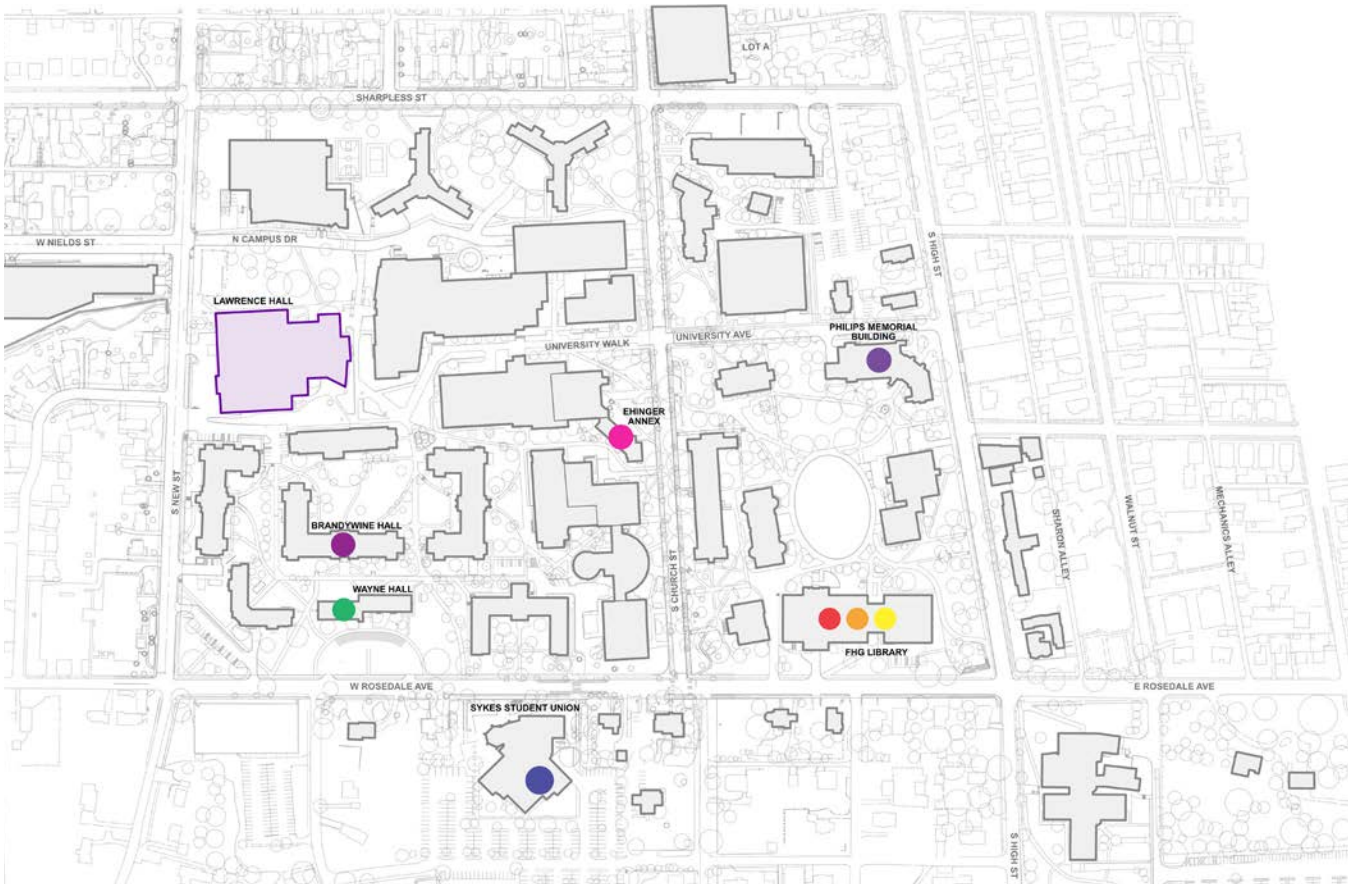
**Einstein Bagel:** Relocating this food & beverage amenity is two-fold. Re-brand the current EcoGrounds cafe as an Einstein Bagel and second, create an Einstein station within the Commons Dining Hall. Both moves could be considered permanent.

**Chickie's & Pete's:** The existing Commons Dining Hall has evening hours capacity and equipment capabilities to support this dining experience.

**Academic Success Program**: The second floor of the FHG Library appear to be a good location for this program. There are program synergies that may suggest FHG could be a permanent location for this program. As Library Services completes their Strategic Plan (currently ongoing) another location my be deemed more appropriate.

**Career Development Center:** The sixth floor of the FHG Library appears to have space capacity to accommodate Career Development program needs.

**Learning Assistance & Resource Center:** The first floor of the FHG Library is great location for this program. There are program synergies that may suggest FHG could be a permanent location for




Program Distribution Map

this program. As Library Services completes their Strategic Plan (currently ongoing) anther location my be deemed more appropriate.

**Office of Educational Accessibility:** Space at the Entry Level of Wayne Hall is being vacated to make room for this program. This location will offer a bit more visibility and easier access to this service.

**Exploratory Studies Academic Advising:** Underutilized office space within the Ehinger Annex can be a temporary home for this program.

**Residence Life & Housing**: IS&T will consolidate Digital Media Center (DMC) space within Allegheny. Entry Level space at Brandywine will become the new home for Res Life & Housing. While this could be a permanent location, it is more likely that a New Residence Hall at Lawrence site is a permanent location for these services.

**University College Dean's Suite:** Underutilized office space in Phillips has been earmarked for these functions. It is anticipated that this is a temporary circumstance. The Planning Team will consider other opportunities as part of the CMP process.

**Center for Women & Gender Equity:** A space within the lower level of the Sykes Student Union building has been identified as a potential location for this program. Along term location will require further investigation.

**Counseling Center:** Underutilized space at 201 Carter could be adapted to provide a new Counseling Center. This has been noted as potentially inconvenient and not a desirable option. The Planning Team will continue to evaluate as part of the CMP process.




**Program Distribution Diagram**

EWING COLE

# South Campus Apartments

**EXISTING OVERVIEW**

This complex is comprised of 11 multi-unit apartment buildings that were constructed in 1993. The complex was constructed via the Pennsylvania Department of General Services (DGS) delivery methodology. Seven of the buildings are 2 1/2 stories containing 10 units while the other 4 buildings are 2 stories containing 8 units. Combined this complex provides 499 student beds.

The exterior facade materials appear to generally be in fair condition; however, numerous areas of staining and biological growth is present. Improperly installed flashing and coping details were observed suggesting opportunity for water infiltration.

Majority of building systems are at end of useful life and are in need of repair or replacement. These would include roofing, windows, HVAC units, and electrical distribution equipment.

The interior finishes observed appeared to be in fair; however, it is noted that the units were poorly constructed and moisture has continued to be a maintenance issue for the University. The presence of rotten wood, and rusted metal framing indicates a failure to exhaust warm moist air from the bathrooms and/or water infiltration

Additionally, units observed are not constructed to current accessibility requirements.

**PREVIOUS STUDY**

In fall of 2023 the University invested in a feasibility study to determine opportunity for both renovation and/or replacement of the existing apartment complex facilities.

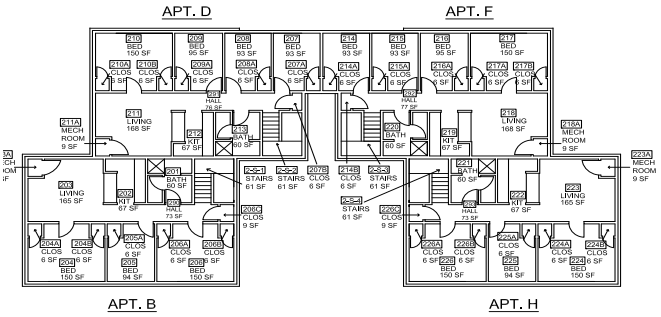
**Renovation:** The suggested scope was a complete renovation of all interior finishes. The reconfiguration would include a stackable laundry within the unit and add a second full bathroom. Additionally, the kitchen would be refurbished with new cabinets and counter-tops, and appliances. Building systems would include upgrades to HVAC, electrical and plumbing as well a new fire suppression system.

**New Construction:** The proposal was to provide 12 units per building with one covered exterior stair for vertical circulation. The new buildings are to be constructed on the existing foundations and would be three stories tall. The proposed bedroom configuration is two doubles and two singles per unit. Each unit will accommodate 6 occupants with 2.5 bathrooms, an increase of approx. 250 occupants. Each unit has a stackable laundry, a full kitchen with a fixed peninsula, and a living room. Additionally, the units can be modular and prefabricated using wet and dry modules.

**Renovation and Addition:** South Campus Apartments need complete renovation to achieve parity with USH-managed beds. As part of the renovation strategy, it is possible to increase the bed-count if another floor is added to each of the buildings. In addition, it is recommended to completely renovate the systems and finishes of each building. The result could be an increase of 20 beds per building increasing the South Campus capacity from 499 to be 719 beds via phased renovations.



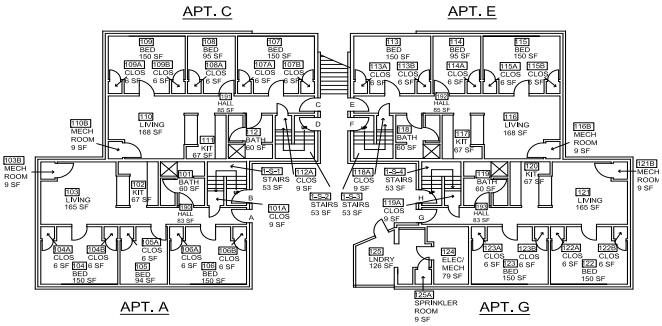
Existing South Campus Apartments - Exterior Example




**SC APT 831**
**SECOND FLOOR**
(BLDG CODE - **S831**/S69/169
SCALE: 1/16" = 1' - 0"
21 MAY 2007



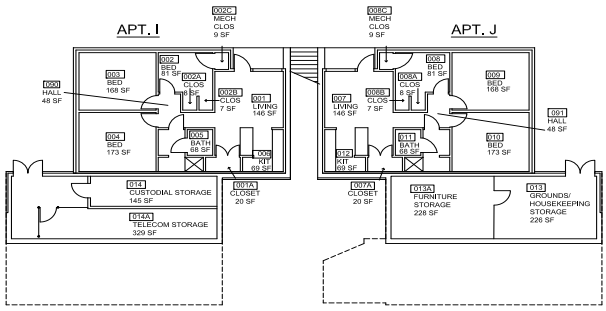
Existing South Campus Apartments - Kitchen Example




**SC APT 831**
**FIRST FLOOR**
(BLDG CODE - **S831**/S69
SCALE: 1/16" = 1' - 0"
21 MAY 2007



Existing South Campus Apartments - Bathroom Example



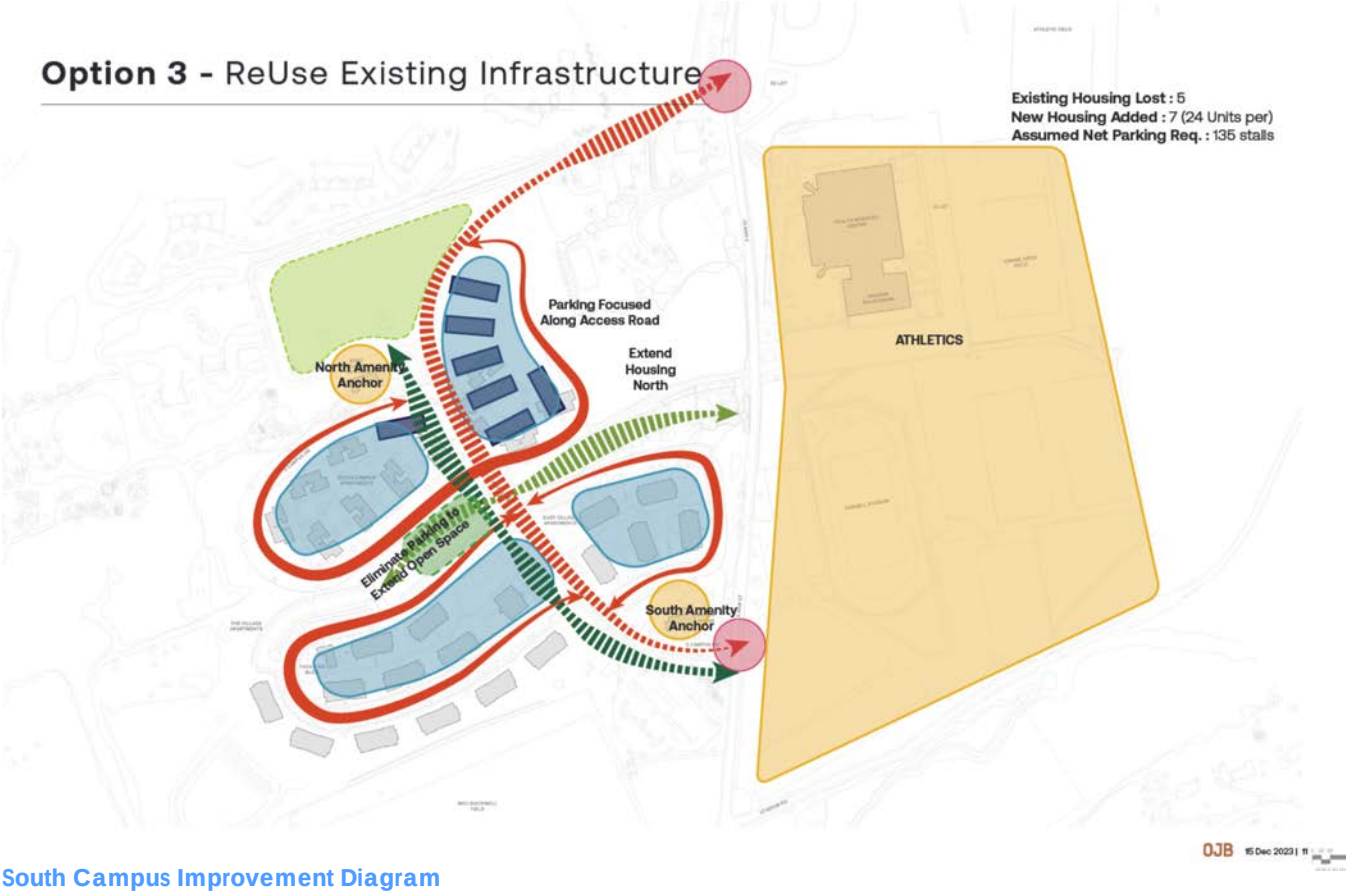

**SC APT 831**
**GROUND FLOOR**
(BLDG CODE - **S831**/S69/169)
SCALE: 1/16" = 1' - 0"
21 MAY 2007

**OPPORTUNITIES & RECOMMENDATION**

Due to the age and failing conditions of the existing South Campus Apartment facilities a full renovation program and /or replacement program should be implemented.

**Renovation:** The recommendation is to define scope to be achieved over the course of a full summer to allow for construction activities to have minimal impact on campus operations and bed count. To do this will likely require up to five phases.

**New Construction:** While there may be opportunity to provide new construction on top of existing foundations of the 1993 construction (per 2023 feasibility study) there is also available land for development that can accommodate new construction "by right" within the area of campus referred to as Glen Echo. The Planning Team studied a variety of arrangements on this site for both temporary and permanent development




South Campus Improvement Diagram



South Campus Site Plan - Proposed Glen Echo Development

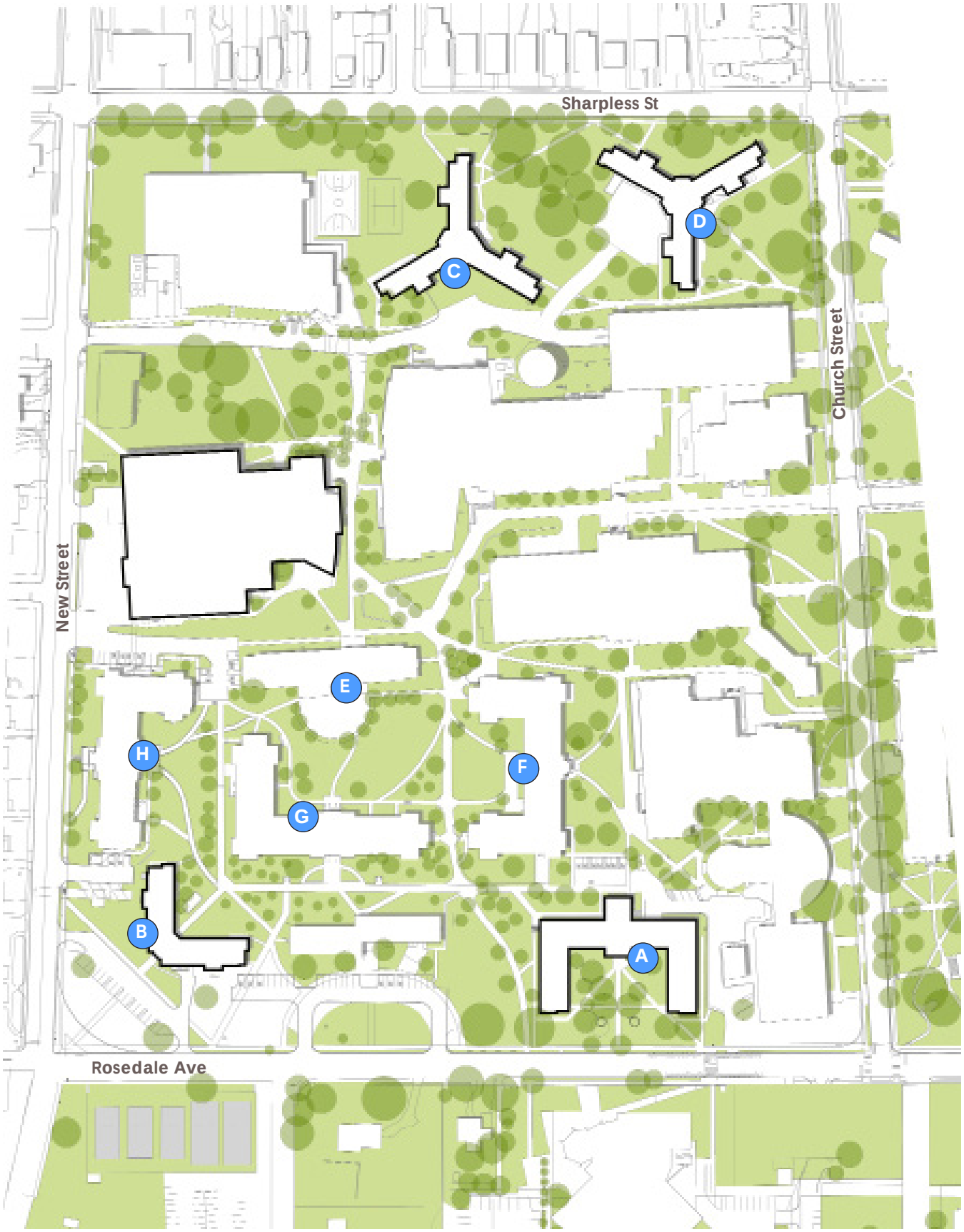
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# Implementation Considerations

**EXISTING OVERVIEW**

| NORTH CAMPUS | | BEDS |
|---|---|---|
| A | Killinger | 308 |
| B | Schimdt | 438 |
| C | Tyson | 558 |
| D | Goshen | 558 |
| E | University | 265 |
| F | Allegheny | 636 |
| G | Brandywine | 622 |
| H | Commonwealth | 651 |
| | College Arms* | 97 |
| | | **4,133** |
| | | |
| **SOUTH CAMPUS** | | **BEDS** |
| | South Campus Apts | 499 |
| | The Village Apts | 524 |
| | East Village Apts | 264 |
| | | **1,287** |
| | | |
| **TOTAL CAMPUS BEDS** | | **5,420** |

NOTES:
1. Existing bed count numbers per WCU Fall 2023




North Campus Site Plan - Existing "Super Block" Development

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# Implementation Considerations

**SCENARIO 1**

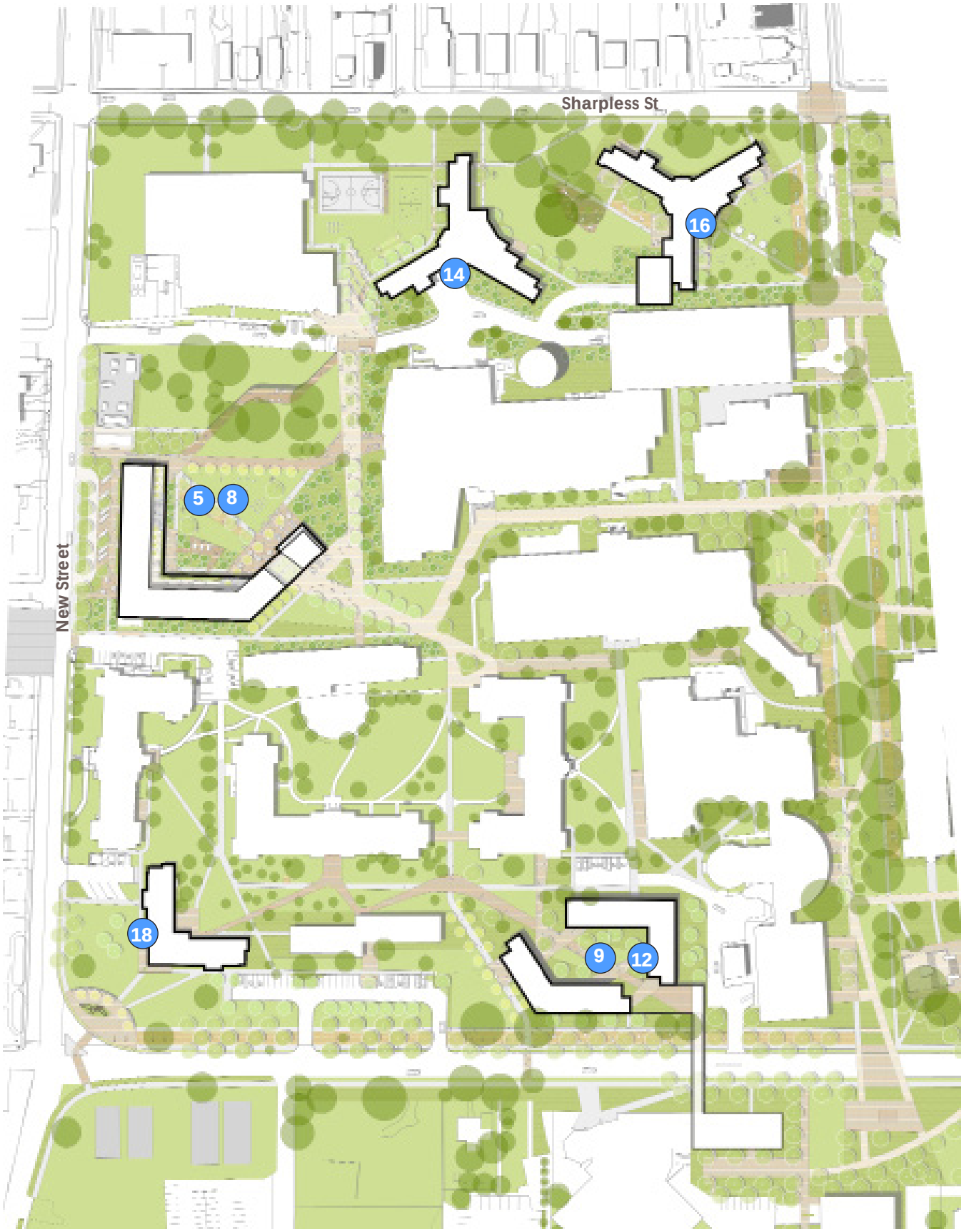
| IMPLEMENTATION SCENARIO 1 | | EXIST BEDS 2024 5,420 | TOTAL CAMPUS BED |
|---|---|---|---|
| 1 | Temp Housing - Lot M1 | 128 | 5,548 |
| 2 | Vacate College Arms | (97)*** | 5,451 |
| 3 | SC Apts Phase I | 499 (100) | 5,451 |
| 4 | SC Apts Phase 2 | 499 (100) | 5,451 |
| 5 | Demolish Lawrence | | 5,451 |
| 6 | SC Apts Phase 3 | 499 (100) | 5,451 |
| 7 | SC Apts Phase 4 | 499 (90) | 5,451 |
| 8 | New Residence Hall | 702* | 6,153 |
| 9 | Demolish Killinger | (308) | 5,845 |
| 10 | SC Apts Phase 5 | 499(120) | 5,845 |
| 11 | Remove M1 Temp | (128) | 5,717 |
| 12 | New Residence Hall | 560* | 6,277 |
| 13 | Tyson Off-line | (558) | 5,719 |
| 14 | Tyson Renovated | 432** | 6,151 |
| 15 | Goshen Off-line | (558) | 5,593 |
| 16 | Goshen Renovated | 432** | 6025 |
| 17 | Schmidt Off-line | (438) | 5,587 |
| 18 | Schmidt Renovated | 414 | 6001 |
| | | | |
| **TOTAL CAMPUS BEDS** | | 5,420 | **6,001** |
| | | | +581 |
| | New Suites/Apts South Campus | 256* | 6,257 |
| | | | +837 |

* Total New Beds contingent on final design configuration / solution
** Bed count reduction assumes de-densification by eliminating forced triples
***Renovation or redevlopment

NOTES:
1. Size of development at South Campus Glen Echo can potentially increase. Residence Hall construction at Glen Echo contingent upon parking agreements with East Bradford Township.

2. Soft Cost Multiplier to be verified after review with University

3. Projected Cost contingent upon escalation factor and estimated timeline for implementation.




North Campus Site Plan - Scenario 1 “Super Block” Development

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# Implementation Considerations

**SCENARIO 2**

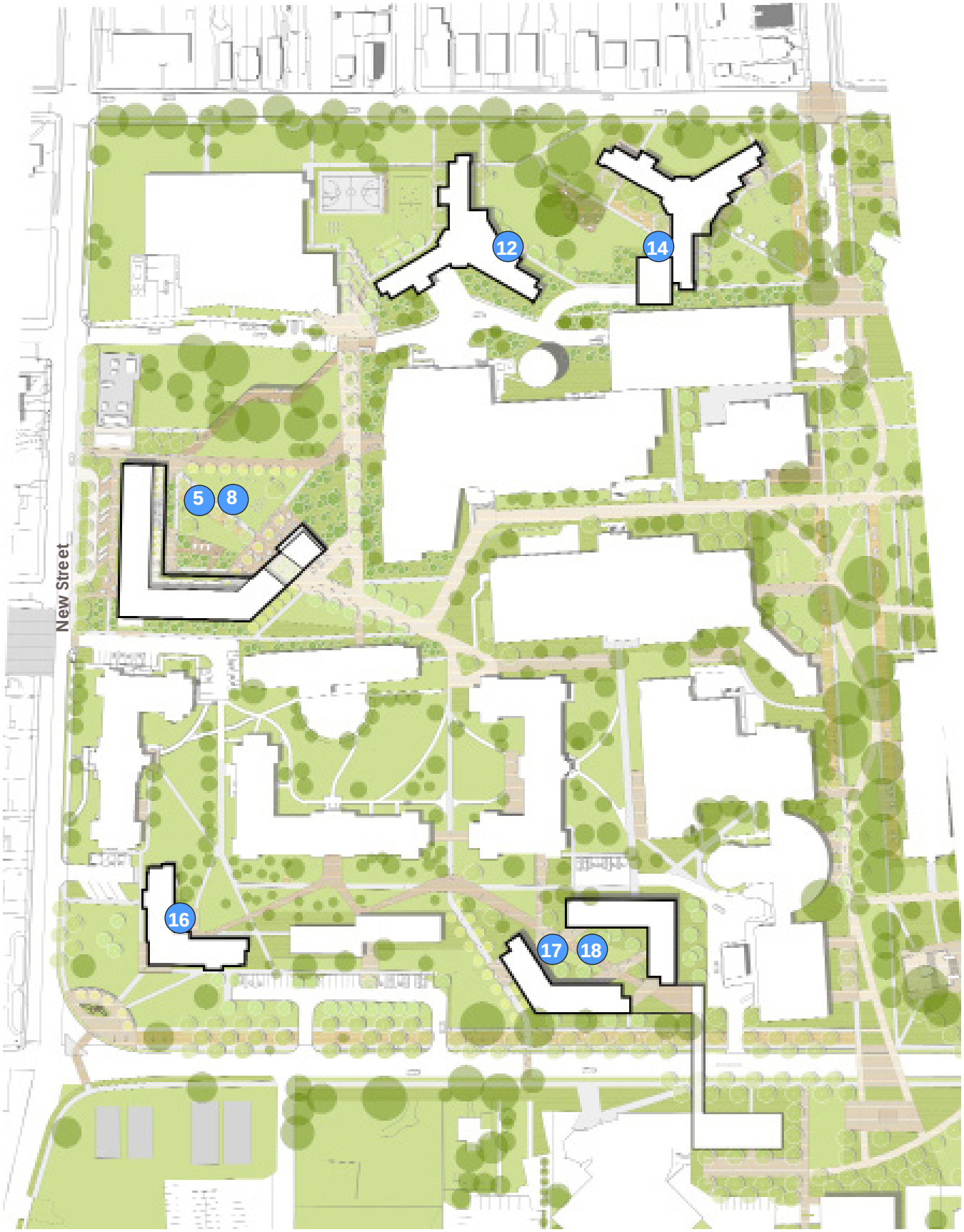
| IMPLEMENTATION SCENARIO 1 | | EXIST BEDS 2024 5,420 | TOTAL CAMPUS BED |
|---|---|---|---|
| 1 | Temp Housing - Lot M1 | 128 | 5,548 |
| 2 | Vacate College Arms | (97)*** | 5,451 |
| 3 | SC Apts Phase I | 499 (100) | 5,451 |
| 4 | SC Apts Phase 2 | 499 (100) | 5,451 |
| 5 | Demolish Lawrence | | 5,451 |
| 6 | SC Apts Phase 3 | 499 (100) | 5,451 |
| 7 | SC Apts Phase 4 | 499 (90) | 5,451 |
| 8 | New Residence Hall | 702* | 6,153 |
| 9 | SC Apts Phase 5 | 499(120) | 6,153 |
| 10 | Remove M1 Temp | (128) | 6,025 |
| 11 | Tyson Off-line | (558) | 5,467 |
| 12 | Tyson Renovated | 432** | 5,899 |
| 13 | Goshen Off-line | (558) | 5,341 |
| 14 | Goshen Renovated | 432** | 5,773 |
| 15 | Schmidt Off-line | (438) | 5,335 |
| 16 | Schmidt Renovated | 414 | 5,749 |
| 17 | Demolish Killinger | (308) | 5,441 |
| 18 | New Residence Hall | 560* | 6,001 |
| | | | |
| **TOTAL CAMPUS BEDS** | | 5,420 | **6,001** |
| | | | +581 |
| | New Suites/Apts South Campus | 256* | 6,257 |
| | | | +837 |

* Total New Beds contingent on final design configuration / solution
** Bed count reduction assumes de-densification by eliminating forced triples
***Renovation or redevlopment

NOTES:
1. Size of development at South Campus Glen Echo can potentially increase. Residence Hall construction at Glen Echo contingent upon parking agreements with East Bradford Township.

2. Soft Cost Multiplier to be verified after review with University

3. Projected Cost contingent upon escalation factor and estimated timeline for implementation.




North Campus Site Plan - Scenario 2 “Super Block” Development

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# Implementation Considerations

**SCENARIO 3**

| IMPLEMENTATION SCENARIO 3 | | EXIST BEDS 2024 5,420 | TOTAL CAMPUS BED |
|---|---|---|---|
| 1 | Temp Housing - Lot M1 | 128 | 5,548 |
| 2 | Vacate College Arms | (97)*** | 5,451 |
| 3 | SC Apts Phase I | 499 (100) | 5,451 |
| 4 | SC Apts Phase 2 | 499 (100) | 5,451 |
| 5 | Demolish Lawrence | | 5,451 |
| 6 | SC Apts Phase 3 | 499 (100) | 5,451 |
| 7 | SC Apts Phase 4 | 499 (90) | 5,451 |
| 8 | New Residence Hall | 702* | 6,153 |
| 9 | SC Apts Phase 5 | 499(120) | 6,153 |
| 10 | Demolish Tyson | (558) | 5,595 |
| 11 | Remove M1 Temp | (128) | 5,467 |
| 12 | Tyson Replacement | 504* | 5,971 |
| 13 | Demolish Goshen | (558) | 5,413 |
| 14 | Goshen Replacement | 522* | 5,935 |
| 15 | Schmidt Off-line | (438) | 5,497 |
| 16 | Schmidt Renovated | 414 | 5,911 |
| 17 | Demolish Killinger | (308) | 5,603 |
| 18 | New Residence Hall | 560* | 6,163 |
| | | | |
| **TOTAL CAMPUS BEDS** | | 5,420 | **6,163** |
| | | | +743 |
| | New Suites/Apts South Campus | 256* | 6,419 |
| | | | +999 |

* Total New Beds contingent on final design configuration / solution
** Bed count reduction assumes de-densification by eliminating forced triples
***Renovation or redevlopment

NOTES:
1. Size of development at South Campus Glen Echo can potentially increase. Residence Hall construction at Glen Echo contingent upon parking agreements with East Bradford Township.

2. Soft Cost Multiplier to be verified after review with University

3. Projected Cost contingent upon escalation factor and estimated timeline for implementation.




North Campus Site Plan - Scenario 3 “Super Block” Development

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# Implementation Considerations

**SCENARIO 4**

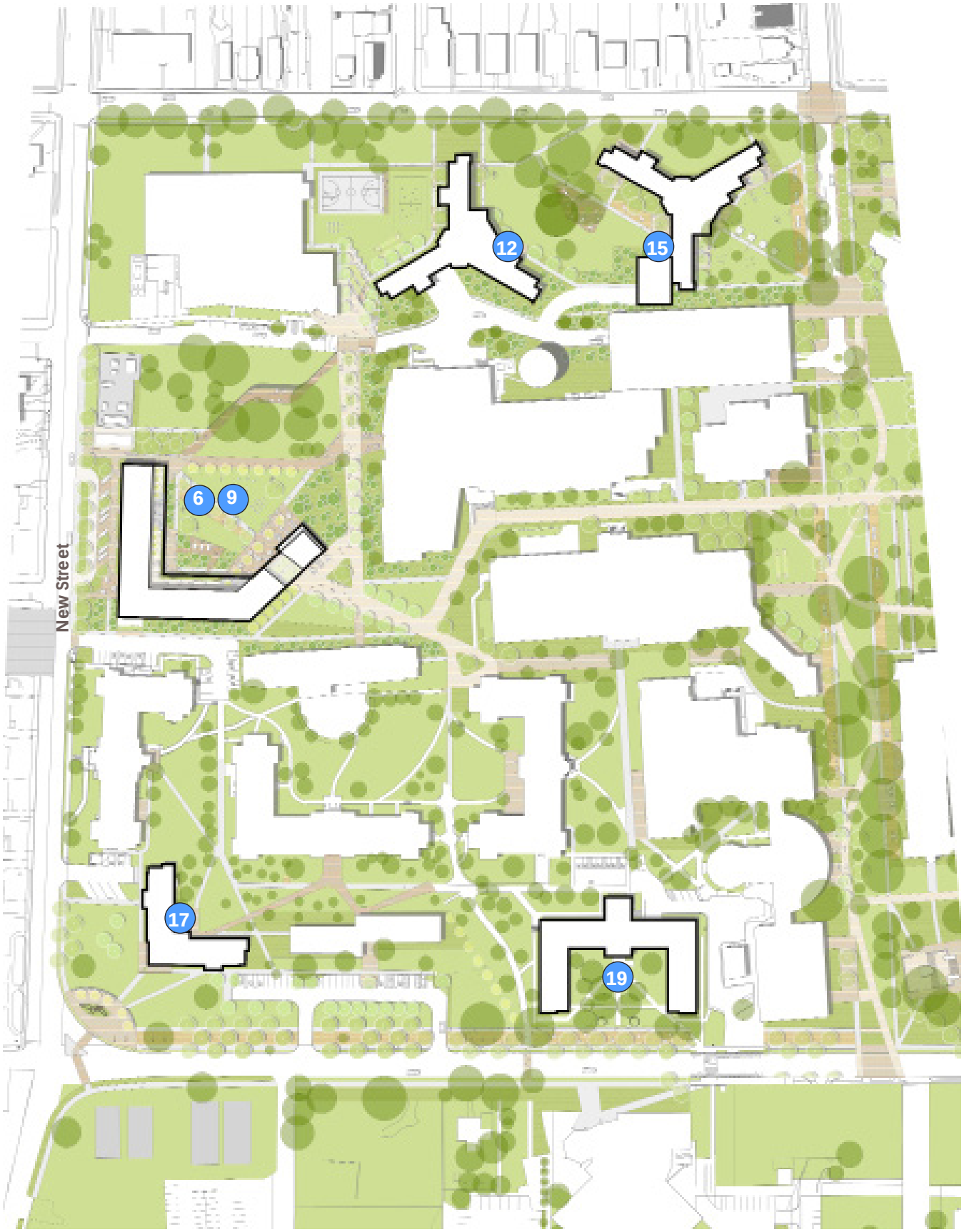
| IMPLEMENTATION SCENARIO 4 | | EXIST BEDS 2024 5,420 | TOTAL CAMPUS BED |
|---|---|---|---|
| 1 | Temp Housing - Lot M1 | 128 | 5,548 |
| 2 | College Arms Off-line | (97)*** | 5,451 |
| 3 | SC Apts Phase I | 499 (100) | 5,451 |
| 4 | College Arms Reno | 97 | 5,548 |
| 5 | SC Apts Phase 2 | 499 (100) | 5,548 |
| 6 | Demolish Lawrence | | 5,548 |
| 7 | SC Apts Phase 3 | 499 (100) | 5,548 |
| 8 | SC Apts Phase 4 | 499 (90) | 5,548 |
| 9 | New Residence Hall | 702* | 6,250 |
| 10 | SC Apts Phase 5 | 499(120) | 6,250 |
| 11 | Tyson Off-line | (558) | 5,692 |
| 12 | Tyson Renovated | 432** | 6,124 |
| 13 | Remove M1 Temp | (128) | 5,996 |
| 14 | Goshen Off-line | (558) | 5,438 |
| 15 | Goshen Renovated | 432** | 5,870 |
| 16 | Schmidt Off-line | (438) | 5,432 |
| 17 | Schmidt Renovated | 380 | 5,812 |
| 18 | Killinger Off-line | (308) | 5,504 |
| 19 | Killinger Renovated | 290 | 5,794 |
| | | | |
| **TOTAL CAMPUS BEDS** | | 5,420 | **5,794** |
| | | | +374 |
| | New Suites/Apts South Campus | 256* | 6,050 |
| | | | +630 |

* Total New Beds contingent on final design configuration / solution
** Bed count reduction assumes de-densification by eliminating forced triples
***Renovation or redevlopment

NOTES:
1. Size of development at South Campus Glen Echo can potentially increase. Residence Hall construction at Glen Echo contingent upon parking agreements with East Bradford Township.

2. Soft Cost Multiplier to be verified after review with University

3. Projected Cost contingent upon escalation factor and estimated timeline for implementation.




North Campus Site Plan - Scenario 4 “Super Block” Development



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**March 27, 2025**
*TPD# WCU.00004*

*Info@TPDinc.com*

# West Chester University Master Plan

Transportation Impact Study

*West Chester Borough, West Goshen Township, and East Bradford Township, Chester County, PA*

**For Submission To:**

West Chester Borough, West Goshen Township, and East Bradford Township




Moving ***Forward*** **Together**®

# WEST CHESTER UNIVERSITY
# MASTER PLAN
# TRANSPORTATION IMPACT STUDY

*FOR SUBMISSION TO:*

West Chester Borough, West Goshen Township, and East Bradford Township,
Chester County, PA

Prepared For:
**West Chester University**

**March 27, 2025**
***TPD # WCU.00004***

Prepared By:
**TPD**
1025 Andrew Drive, Suite 110
West Chester, Pennsylvania 19380

Phone: (610) 326-3100
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Appendix A: WCU Shuttle Routes
Appendix B: Study Area Photographs and Traffic Count Data
Appendix C: Planned Improvement Plans
Appendix D: Volume Development Worksheets
Appendix E: Capacity Analyses
Appendix F: Traffic Signal Diagrams

# EXECUTIVE SUMMARY

The purpose of this study is to examine the potential traffic impact associated with the West Chester University Master Plan on the roadway network in West Chester Borough, West Goshen Township, and East Bradford Township, Chester County, PA:

1. The study area intersections included in this TIS are as follows:
    - South New Street & Sharpless Street
    - Darlington Street & Sharpless Street
    - Church Street & Sharpless Street
    - Reynolds Alley &Sharpless Street
    - South High Street & Sharpless Street
    - South High Street & East Nields Street
    - South High Street & University Avenue
    - Reynolds Alley & University Avenue
    - Church Street & University Avenue
    - South High Street & Linden Street
    - South High Street & Rosedale Avenue
    - Matlack Street & Rosedale Avenue
    - Matlack Street & Carter Drive
    - Church Street (both legs) & Rosedale Avenue
    - Ped Crosswalk & Rosedale Avenue
    - South New Street & Rosedale Avenue
    - South New Street & Nields Street/Campus Drive
    - South New Street & Pomona Hill Drive
    - South New Street & Glen Echo Field Access
    - South New Street & 855 S. New Street Access
    - South New Street & S. Campus Drive
    - South New Street & Tigue Road/Stadium Drive
    - Matlack Street & E. Campus Drive
    - Matlack Street & southern M2 Lot Driveway
    - High Street & E. Campus Drive
2. The WCU campus is generally divided into the "north campus" which is situated within West Chester Borough and West Goshen Township, and the "south campus", which is situated in West Goshen Township and East Bradford Township.
3. The Master Plan includes the providing connectivity between the north and south campus and enhancements to the residential and learning experiences by adding and renovated beds and educational space.

4. The proposed Master Plan consists of adding an estimated ±819 new beds on campus. Enrollment is not anticipated to increase in line with the additional beds, but rather the additional beds are anticipated to accommodate existing students who currently commute to campus and/or currently live off-campus. Additionally, the following roadway segments within West Chester Borough are proposed to be closed to vehicular traffic and open for pedestrian traffic only to enhance pedestrian mobility, subject to the Borough's review and approval:
    - Church Street from North Campus Drive (Parking Garage Access) to University Avenue.
    - University Avenue from approximately 120' west of Reynolds Alley to Church Street.
    - The southern leg of Church Avenue at Rosedale Avenue.

    The Church Street and University Avenue closures would both include turnaround loops and the portion of roadway remaining open would be converted to two-way traffic.

5. This Master Plan traffic study considers the planned High Street corridor improvements, between W. Miner Street and E. Rosedale Avenue, and the South New Street/Rosedale Avenue intersection improvements.

6. Based on the WCU Enrollment Projected Report data, from 2023 to 2029 enrollment is anticipated to increase by 0.19% on average per year.

7. Under 2040 projected conditions with implementation of the planned improvements and with the WCU Master-Plan, the study area intersections are anticipated to operate at the same overall intersection level of service (ILOS) as under existing conditions, during the weekday A.M. and P.M. peak hours. All levels of service at the study area intersection are anticipated to comply with the applicable PennDOT and municipal requirements.

8. WCU currently implements a number of Transportation Demand Management (TDM) measures in order to reduce parking and traffic in the area and to create a pedestrian friendly environment, including the following:
    - Shuttle system to both on-campus and off-campus locations
    - Discounted transit fare program
    - Carpool preferential parking
    - On-site car-sharing vehicles
    - Commuter information center
    - Flexible or alternative work hours for workers
    - TDM education programs directed at the students and employees

9. Traffic Planning and Design Inc. (TPD) recommends the following in conjunction with the Master Plan from a traffic perspective:
    - Pursue a pedestrian path/walkway along New Street, between the North Campus and South Campus.
    - As an additional TDM measure, consider implementing real time display of parking garage utilization.
    - As specific Land Development applications are pursued for projects contemplated under the WCU Master Plan, monitor and evaluate traffic and pedestrian circulation in the immediate area the given application.
    - Continue to monitor and provide convenient shuttle service to facilitate parking in lots that may be more remote to a desired building/destination on campus.
    - In conjunction with specific Land Development applications, provide pedestrian paths/walkways to facilitate pedestrian connections to the specific application.

- In conjunction with specific applications which would close Church Street and University Avenue, further evaluate the traffic/pedestrian impact in the area.
- Coordinate any possible modifications with PennDOT as appropriate (i.e. University Avenue conversion).
- Provide high-volume bike storage area on campus, as needed in high bike use areas.
- Coordinate special events with the Borough, Townships and social media as appropriate.
- Investigate improving signage/wayfinding to key areas on WCU.

**10.** Levels of Service (LOS) for the study area intersections have been summarized in matrix form. **Tables I and II** detail the overall intersection LOS for each study area intersection.

**TABLE I**
**OVERALL INTERSECTION LEVEL OF SERVICE SUMMARY**

| Intersection | Peak Hour | Existing | 2040 Projected Conditions with Planned Improvements | Meets LOS Requirements? |
|---|---|---|---|---|
| South New Street & Sharpless Street | AM | A (9.2) | A (9.8) | Yes |
| | PM | A (10.0) | B (11.2) | |
| Darlington Street & Sharpless Street | AM | A (0.4) | A (0.4) | Yes |
| | PM | A (0.9) | A (1.0) | |
| Church Street & Sharpless Street | AM | A (3.0) | A (4.1) | Yes |
| | PM | A (3.4) | A (5.0) | |
| Reynolds Alley & Sharpless Street | AM | A (1.0) | A (0.8) | Yes |
| | PM | A (1.6) | A (1.4) | |
| South High Street & Sharpless Street | AM | A (2.3) | B (10.5) | Yes |
| | PM | A (4.5) | B (13.1) | |
| South High Street & East Nields Street | AM | A (1.6) | A (1.6) | Yes |
| | PM | A (1.4) | A (1.5) | |
| South High Street & University Avenue | AM | A (0.6) | A (4.2) | Yes |
| | PM | A (0.8) | A (4.5) | |
| Reynolds Alley & University Avenue | AM | A (0.5) | A (0.9) | Yes |
| | PM | A (0.4) | A (0.7) | |
| Church Street & University Avenue | AM | A (8.9) | A (0.0) | Yes |
| | PM | A (5.5) | A (0.0) | |
| South High Street & Linden Street | AM | A (4.6) | A (5.0) | Yes |
| | PM | A (8.1) | A (8.9) | |

*Projected = With Planned Improvements and WCU Master Plan*

**TABLE II**
**OVERALL INTERSECTION LEVEL OF SERVICE SUMMARY**

| Intersection | Peak Hour | Existing | 2040 Projected Conditions with Planned Improvements | Meets LOS Requirements? |
|---|---|---|---|---|
| South High Street & Rosedale Avenue | AM | B (14.4) | B (15.1) | Yes |
| | PM | B (16.0) | B (16.5) | |
| Matlack Street & Rosedale Avenue | AM | B (13.6) | C (16.7) | Yes |
| | PM | B (13.4) | C (16.4) | |
| Matlack Street & Carter Drive | AM | A (3.1) | A (3.9) | Yes |
| | PM | A (4.0) | A (4.7) | |
| Rosedale Avenue & Church Street | AM | B (11.7) | A (2.7) | Yes |
| | PM | B (12.7) | A (2.6) | |
| South New Street & Rosedale Avenue | AM | B (15.5) | C (26.8) | Yes |
| | PM | B (15.9) | C (26.7) | |
| South New Street & Nields Street/Campus Drive | AM | A (6.4) | A (7.8) | Yes |
| | PM | A (8.8) | B (10.4) | |
| South New Street & Pomona Hill Drive | AM | A (8.9) | A (9.4) | Yes |
| | PM | A (9.9) | B (10.7) | |
| South New Street & Glen Echo Field Access | AM | A (0.0) | A (0.0) | Yes |
| | PM | A (0.1) | A (0.1) | |
| South New Street & 855 S. New Street Access | AM | A (1.8) | A (1.8) | Yes |
| | PM | A (1.8) | A (1.9) | |
| South New Street & S. Campus Drive | AM | A (3.3) | A (3.4) | Yes |
| | PM | A (3.8) | A (4.0) | |
| South New Street & Tigue Road/Stadium Drive | AM | A (7.9) | A (8.1) | Yes |
| | PM | A (8.3) | A (8.7) | |
| Matlack Street & E. Campus Drive | AM | A (3.8) | A (4.1) | Yes |
| | PM | A (2.7) | A (2.9) | |
| Matlack Street & southern M2 Lot Driveway | AM | A (0.2) | A (0.2) | Yes |
| | PM | A (0.1) | A (0.1) | |
| High Street & E. Campus Drive | AM | A (1.6) | A (1.6) | Yes |
| | PM | A (2.0) | A (2.4) | |

*Projected = With Planned Improvements and WCU Master Plan*

# INTRODUCTION

Traffic Planning and Design, Inc. (TPD) has completed a Transportation Impact Study (TIS) for the West Chester University (WCU) Master Plan in West Chester Borough, West Goshen Township, and East Bradford Township, Chester County, Pennsylvania. The WCU campus is generally divided into the "north campus" which is situated within West Chester Borough and West Goshen Township, and the "south campus", which is situated in West Goshen Township and East Bradford Township.

The Master Plan includes the providing connectivity between the north and south campus and enhancements to the residential and learning experiences by adding and renovated beds and educational space. The proposed Master Plan consists of adding an estimated ±819 new beds on campus. Enrollment is not anticipated to increase in line with the additional beds, but rather the additional beds are anticipated to accommodate existing students who currently commute to campus and/or currently live off-campus. Additionally, the following roadway segments within West Chester Borough are proposed to be closed to vehicular traffic and open for pedestrian traffic only to enhance pedestrian mobility, subject to the Borough's review and approval:

- Church Street from North Campus Drive (Parking Garage Access) to University Avenue.
- University Avenue from approximately 120' west of Reynolds Alley to Church Street.
- The southern leg of Church Avenue at Rosedale Avenue.

The Church Street and University Avenue closures would both include turnaround loops and the portion of roadway remaining open would be converted to two-way traffic.

The Master Plan study area for both the University's north and south campus are shown in **Figures 1 and 2**. This report has been prepared in accordance with the following ordinances:

- West Chester Borough Section 112-314.G *Planned University Campus District, University Campus Transportation Study*.
- West Goshen Township Section 84-140, *Planned University Main Campus Overlay District*, *University Campus Transportation Study*.
- East Bradford Township Subdivision and Land Development Ordinance, Article IV. Plan Requirement, Section 95.13 Preliminary Plan

# MULTI-MODAL FACILITIES

## Bicycle and Pedestrian Facilities

Based on observations during field visits at the study area intersections, sidewalks and crosswalks currently accommodate pedestrian and bicycle traffic in the vicinity of the proposed development. A summary of the pedestrian facilities at the signalized study area intersections in summarized in **Table 1**.

TABLE 1
PEDESTRIAN ACCOMODATIONS WITHIN STUDY AREA

| Signalized Intersection | Crossing Signal | Pedestrian Push Buttons | Pedestrian Crosswalks |
|---|---|---|---|
| High Street & Linden Street | Yes | Yes | Northern & Western Leg only |
| High Street & Rosedale Avenue | Yes | Yes | All Legs |
| New Street & Rosedale Avenue | No | Yes | Northern & Eastern Leg only |
| New Street & Nields Street/Campus Drive | Yes | Yes | Southern & Eastern Leg Only |

### Mass Transit Facilities

WCU provides shittle transportation both on-campus and to off-campus locations. The on-campus shuttle has four routes and provides service between North and South Campus during the fall and spring semesters as well as limited service during the winter and summer sessions. The Gold Route runs daily from 7:15 A.M. - 2:15 A.M. on weekdays and from 10:00 A.M. - 2:15 A.M. The off-camp shuttle has four routes providing regular connections between shopping areas in the Borough, off-campus facilities and the Exton SEPTA Regional Rail/Amtrack Station. There is an app for live tracking of the shuttle locations. Data pertaining to the shuttle routes are included in **Appendix A**.

In addition to the WCU shuttles, SEPTA and Chester County's SCOOT provide the following public transportation in the vicinity of the University:

- SEPTA 104 - stops along High Street & at SOMPAC in M Lot and provides local service to Philadelphia.
- SEPTA 92 -stops at the West Chester Transportation Center on Market Street and goes to Exton, Malvern, and King of Prussia.
- SEPTA 135 - stops at the West Chester Transportation Center and goes to Coatesville.
- Chesco SCCOOT - bus stops on New Street, just north of Rosedale Avenue, connecting West Chester to WCU, Kennett Square, West Grove, and other destinations to Oxford.

## EXISTING TRAFFIC CONDITIONS

Intersection traffic counts were conducted on 15-minute intervals during the weekday morning (7:00 to 10:00 A.M.), weekday evening (3:00 to 6:00 P.M.) peak periods. Data pertaining to heavy vehicles, pedestrians and transit vehicles were observed during the turning movement counts. Peak hours and count dates for the study area intersections are identified in **Table 2**.

## TABLE 2
## TRAFFIC COUNT INFORMATION

| Intersection | Date of Traffic Counts | Time Period | Intersection Peak Hour[1] |
|---|---|---|---|
| South New Street & Sharpless Street | Wednesday, December 6, 2023 | Weekday A.M. | 8:00 to 9:00 A.M. |
| | | Weekday P.M. | 4:00 to 5:00 P.M. |
| Darlington Street & Sharpless Street | Wednesday, December 6, 2023 | Weekday A.M. | 8:00 to 9:00 A.M. |
| | | Weekday P.M. | 4:00 to 5:00 P.M. |
| Church Street & Sharpless Street | Wednesday, December 6, 2023 | Weekday A.M. | 7:15 to 8:15 A.M. |
| | | Weekday P.M. | 4:00 to 5:00 P.M. |
| Reynolds Alley & Sharpless Street | Wednesday, December 6, 2023 | Weekday A.M. | 7:30 to 8:30 A.M. |
| | | Weekday P.M. | 3:45 to 4:45 P.M. |
| South High Street & Sharpless Street | Wednesday, December 6, 2023 | Weekday A.M. | 7:30 to 8:30 A.M. |
| | | Weekday P.M. | 3:45 to 4:45 P.M. |
| South High Street & East Nields Street | Wednesday, December 6, 2023 | Weekday A.M. | 7:30 to 8:30 A.M. |
| | | Weekday P.M. | 3:45 to 4:45 P.M. |
| South High Street & University Avenue | Wednesday, December 6, 2023 | Weekday A.M. | 7:30 to 8:30 A.M. |
| | | Weekday P.M. | 3:45 to 4:45 P.M. |
| Reynolds Alley & University Avenue | Wednesday, December 6, 2023 | Weekday A.M. | 7:15 to 8:15 A.M. |
| | | Weekday P.M. | 3:45 to 4:45 P.M. |
| Church Street & University Avenue | Wednesday, December 6, 2023 | Weekday A.M. | 9:00 to 10:00 A.M. |
| | | Weekday P.M. | 4:00 to 5:00 P.M. |
| South High Street & Linden Street | Wednesday, December 6, 2023 | Weekday A.M. | 7:30 to 8:30 A.M. |
| | | Weekday P.M. | 3:45 to 4:45 P.M. |
| South High Street & Rosedale Avenue | Wednesday, December 6, 2023 | Weekday A.M. | 7:30 to 8:30 A.M. |
| | | Weekday P.M. | 4:00 to 5:00 P.M. |
| Matlack Street & Rosedale Avenue | Wednesday, December 6, 2023 | Weekday A.M. | 7:45 to 8:45 A.M. |
| | | Weekday P.M. | 4:15 to 5:15 P.M. |
| Matlack Street & Carter Drive | Wednesday, December 6, 2023 | Weekday A.M. | 8:45 to 8:45 A.M. |
| | | Weekday P.M. | 5:00 to 6:00 P.M. |
| Church Street & Rosedale Avenue | Wednesday, December 6, 2023 | Weekday A.M. | 7:45 to 8:45 A.M. |
| | | Weekday P.M. | 4:15 to 5:15 P.M. |
| Ped Crosswalk & Rosedale Avenue | Wednesday, December 6, 2023 | Weekday A.M. | 7:45 to 8:45 A.M. |
| | | Weekday P.M. | 4:15 to 5:15 P.M. |
| South New Street & Rosedale Avenue | Wednesday, December 6, 2023 | Weekday A.M. | 7:30 to 8:30 A.M. |
| | | Weekday P.M. | 3:45 to 4:45 P.M. |
| South New Street & Nields Street/Campus Drive | Wednesday, December 6, 2023 | Weekday A.M. | 9:00 to 10:00 A.M. |
| | | Weekday P.M. | 5:00 to 6:00 P.M. |
| South New Street & Pomona Hill Drive | Wednesday, December 6, 2023 | Weekday A.M. | 7:45 to 8:45 A.M. |
| | | Weekday P.M. | 4:00 to 5:00 P.M. |
| South New Street & Glen Echo Field Access | Wednesday, December 6, 2023 | Weekday A.M. | 7:45 to 8:45 A.M. |
| | | Weekday P.M. | 4:00 to 5:00 P.M. |

1. *Peak Hour consists of the four consecutive 15-minute intervals where the highest traffic volumes occur.*

**TABLE 2 (CONTINUED)**
**TRAFFIC COUNT INFORMATION**

| Intersection | Date of Traffic Counts | Time Period | Intersection Peak Hour[1] |
|---|---|---|---|
| South New Street & 855 S. New Street Access | Wednesday, December 6, 2023 | Weekday A.M. | 7:45 to 8:45 A.M. |
| | | Weekday P.M. | 4:00 to 5:00 P.M. |
| South New Street & S. Campus Drive | Wednesday, December 6, 2023 | Weekday A.M. | 7:45 to 8:45 A.M. |
| | | Weekday P.M. | 4:00 to 5:00 P.M. |
| South New Street & Tigue Road/Stadium Drive | Wednesday, December 6, 2023 | Weekday A.M. | 7:30 to 8:30 A.M. |
| | | Weekday P.M. | 4:00 to 5:00 P.M. |
| Matlack Street & E. Campus Drive | Thursday April 25, 2024 | Weekday A.M. | 8:30 to 9:30 A.M. |
| | | Weekday P.M. | 3:45 to 4:45 P.M. |
| Matlack Stret & Southern M2 Lot Driveway | Thursday April 25, 2024 | Weekday A.M. | 8:30 to 9:30 A.M. |
| | | Weekday P.M. | 3:45 to 4:45 P.M. |
| High Stret & E. Campus Drive | Thursday April 25, 2024 | Weekday A.M. | 8:30 to 9:30 A.M. |
| | | Weekday P.M. | 3:15 to 4:15 P.M. |

*1. Peak Hour consists of the four consecutive 15-minute intervals where the highest traffic volumes occur.*

Existing condition traffic volumes and pedestrian volumes for the weekday A.M. and weekday P.M. peak hours are illustrated in **Figures 3-10**, respectively. Photographs of the study area intersections and traffic count data sheets are provided in **Appendix B**.

## SCHEDULED ROADWAY IMPROVEMENTS

There are programmed roadway improvements within the study area. These improvements include the High Street Pedestrian Improvements along S. High Street, between W. Miner Street and E. Rosedale Avenue, and improvements at the Rosedale Avenue intersections with New Street and Church Street, as summarized below.

***High Street Pedestrian Improvements*** – planned to reduce the high frequency of crashes involving pedestrians along High Street between Rosedale Ave & Miller St. The project is currently under construction and planned to be completed in early 2026. The project includes the following:

- Installation of retroreflective backplates on signals
- Addition of pedestrian countdown timings at signalized intersections
- Installation of signals at University Avenue and Sharpless Street intersections with High Street
- Addition of a northbound High Street left turn lane at Sharpless Street
- Addition of a southbound High Street left turn lane at Nields Street
- Extension of the existing northbound High Street left turn lane at Rosedale Avenue from 150' to 255'
- Installation of additional lighting at the following intersections:
  - Linden Street
  - University Avenue
  - Sharpless Street
  - Price Street
  - Union Street
- Installation of curb bump-outs at the following intersections:
  - Linden Street
  - University Avenue
  - Nields Street
  - Sharpless Street

    - Lacey Street
- Installation of high visibility crosswalks at the following intersections:
    - Linden Street
    - University Avenue
    - Sharpless Street
    - Price Street

***South New Street and Rosedale Avenue Improvements*** – the project includes providing a separate left, thru and right turn lane on the eastbound Rosedale Avenue approach, a separate New Street left turn and channelized right turn lane on the southbound approach, enhanced pedestrian facilities and related traffic signal improvements.

***Church Street and Rosedale Avenue Improvements*** – the project included signalizing the intersection and ADA upgrades. This intersection operated as an all-way stop at the time the traffic counts were performed for this study, but the traffic signal is now operational.

Plans related to the above improvements are included in **Appendix C**.

# DESIGN YEAR VOLUME DEVELOPMENT

The West Chester Borough and West Goshen Township ordinances related to the University Campus Transportation Study note that the potential transportation impacts of future development must be assessed for three-year projections based on enrollment and census data. As noted below, the enrollment projections are anticipated to be nominal. In addition, based on the anticipated Master Plan schedule, there will be slightly less total beds on campus in 3 years than currently exist. Therefore, no discernible difference in WCU traffic is anticipated in 3 years. As such, this Master Plan was prepared for a 2040 design year, as over 60% of the estimated 819 new beds are planned to be added between 2035 and 2040.

## Background Growth

A background growth factor for the roadways in the study area was developed based on enrollment projections and growth factors for September 2023 to July 2024 obtained from the PennDOT Bureau of Planning and Research (BPR). The PennDOT BPR suggests using a background growth trend factor of 0.48% per year in Chester County for urban non-interstate roadways. In addition, based on the Enrollment Projected Report data, from 2023 to 2029 enrollment is anticipated to increase by 0.19% per year. In total, this results in a total annual growth of 0.67%.

Although the enrollment projections do not specifically relate to peak hour traffic growth, in order to provide a conservative evaluation (i.e. highest traffic volumes), a total background growth factor of 0.75% was applied annually to yield overall growth percentages of 13.5% (0.75% per year, compounded over 17 years) for the 2040 design year.

## Volume Redistribution

The 2040 future year volumes were redistributed within the study area to account for the three road closures and associated conversion to two-way traffic flow on Church Street, University Avenue and Church Avenue.

The additional traffic volumes due to background growth and redistribution were added to the existing traffic data to produce 2040 future condition traffic volumes. The redistributed traffic volumes are depicted in **Figures**

**11-14**. Future condition volumes for the weekday A.M. and weekday P.M. peak hours are illustrated in **Figures 15-18** for the 2040 future year conditions. Volume development worksheets are included in **Appendix D**.

## LEVELS OF SERVICE FOR AN INTERSECTION

For analysis of intersections, level of service is defined in terms of delay, which is a measure of driver discomfort and frustration, fuel consumption, and lost travel time. LOS criteria is stated in terms of control delay per vehicle for a one-hour analysis period. Control delay includes initial deceleration delay, queue move-up time, stopped delay, and final acceleration delay. The criteria are shown in **Table 3**. Delay, as it relates to level of service, is a complex measure and is dependent upon a number of variables. For signalized intersections, these variables include the quality of vehicle progression, the cycle length, the green time ratio, and the volume/capacity ratio for the lane group in question. For unsignalized intersections, delay is related to the availability of gaps in the flow of traffic on the major street and the driver's discretion in selecting an appropriate gap for a particular movement from the minor street (straight across, left or right turn).

**TABLE 3**
**LEVEL OF SERVICE CRITERIA**
**UNSIGNALIZED AND SIGNALIZED INTERSECTIONS[1]**

| Level of Service | Control Delay Per Vehicle (Seconds) | |
|---|---|---|
| | Signalized | Unsignalized |
| A | < 10 | < 10 |
| B | > 10 and < 20 | > 10 and < 15 |
| C | > 20 and < 35 | > 15 and < 25 |
| D | > 35 and < 55 | > 25 and < 35 |
| E | > 55 and < 80 | > 35 and < 50 |
| F | > 80 or v/c > 1.0 | > 50 or v/c > 1.0 |

*[1] Obtained from Exhibits 19-8 and 20-2 of the Transportation Research Board's Highway Capacity Manual 6th Edition.*

## CAPACITY ANALYSIS METHODOLOGY

Capacity analyses were conducted for the weekday A.M. and P.M. peak hours at the study area intersections. These analyses were conducted according to the methodologies contained in the *Highway Capacity Manual 6th Edition* (HCM) using *Synchro 11* software, a Trafficware product. The following conditions were analyzed, as applicable:

- Existing Conditions;
- 2040 Projected Conditions (Master Plan Design Year);

Please note, the High Street corridor improvements, the New Street/Rosedale Avenue intersection improvements, and the Church Street/Rosedale Avenue intersection improvements were included in the 2040 projected conditions analysis. In addition, based on methodologies contained in Chapter 10 of PennDOT's Publication 46, TPD adjusted the following HCM default values in the *Synchro 11* capacity analysis. These adjustments were made at the signalized intersections within the study area for all time periods based on the study area location being classified as Suburban:

- Base saturation flow rates for signalized intersections. The saturation flow rate was changed from the default value of 1900 to 1800 based on Exhibit 10-9.

- Start-up lost time and extension of effective green time for signalized intersections. The startup lost time was changed from the default value of 2.0 seconds to 2.5 seconds. Based on the total clearance time (yellow plus all-red time) being greater than 5 seconds, the extension of green time was changed from the default value of 2 seconds to 3.5 seconds. These adjusted values were based on Exhibit 10-10.

The capacity analysis worksheets are included in **Appendix E**. The PennDOT-approved signal plans are included in **Appendix F**.

PennDOT's Transportation Impact Study Guidelines outlined in PennDOT's *Policies and Procedures for Transportation Impact Studies*, found in PennDOT's Publication 282, Appendix A, dated February 2024 contain the following criteria regarding levels of service:

- If evaluation of the With Development Horizon Year Scenario to the Without Development Horizon Year Scenario indicates that the overall intersection level of service has dropped, the applicant will be required to mitigate the level of service if the increase in overall intersection delay is greater than 10-seconds. If the overall intersection delay increase is less than or equal to 10-seconds, mitigation of the intersection will not be required.
- For mitigation scenarios, applicants are expected to mitigate the overall intersection LOS to the original Without Development LOS; the 10-second delay variance is not applied to mitigation scenarios. Applicants may be required to address available storage and queue lengths at critical movements or approaches even if the overall LOS requirements are met.
- If signalization is the preferred alternative for mitigation, overall intersection LOS C in rural areas and LOS D in urban areas is acceptable.
- New signalized or unsignalized intersection established to serve as access to the development shall be designed to operate at minimum LOS C for rural areas, and minimum LOS D for urban areas.

The West Chester Borough Planned University Campus District §112-314G references utilizing accepted traffic engineering standards and criteria, and providing recommendations for improvements in order to accommodate the projected transportation impacts. As such, PennDOT's guidelines were followed as the accepted engineering standard related to levels of service.

The West Goshen Township Planned University Main Campus Overlay District §84-140 also references providing recommendations for improvements in order to order to accommodate the projected transportation impacts. PennDOT's guidelines were followed as the engineering standard related to levels of service.

The East Bradford Township SALDO §95-13.E.7-10 states the following regarding levels of service:

- Existing Conditions: Roadways and/or signalized intersections experiencing level of service D, E or F and v/c ratios greater than or equal to 1.0 shall be noted as deficient. Unsignalized intersections with level of service D, E or F shall be noted as deficient.
- Projected (Build) Conditions: Levels of service (LOS), volume/capacity (v/c) ratios and delays (seconds) shall be listed for all roadways, intersections and approaches. All roadways and intersections showing a level of service D, E or F and v/c ratios equal to or greater than 1.0 shall be considered deficient.
- Specific recommendations for the elimination of all deficiencies shall be listed and shall include internal circulation design, site access location and design, external roadway intersection design and improvements, traffic signal installation and operation, including signal timing, and transit design improvements.
- Signal timing shall be evaluated for any intersection with a level or service D, E or F but a volume/capacity (v/c) ratio less than 1.0. Warrants for signalization shall be examined for unsignalized intersections with level of service D, E or F.

# CAPACITY ANALYSIS SUMMARY

## Level of Service in the Study Area

Level of service (LOS) matrices for the study area intersections are shown in **Tables 4 and 5** for the weekday A.M. and weekday P.M. peak hours. Please note signal timings were optimized under 2040 design year conditions.

## 95th Percentile Queue Analysis

Queue analyses were conducted at the study area intersections using *Synchro 11* software. For this analysis, the 95th percentile queue is defined as the queue length that is exceeded in 5% of the signal cycles. As an example, for a signal with a 90-second cycle, this means that the 95th percentile queue length will be exceeded during 2 of the 40 signal cycles that occur during the peak hour. The queue analysis results are summarized in **Table 4 and 5** for the analyzed peak hours.

## TABLE 4A: CAPACITY ANALYSIS – WEEKDAY AM PEAK HOUR

| Movement | Available Storage* | Existing Conditions | | | 2040 Future Conditions with Planned Improvements | | |
|---|---|---|---|---|---|---|---|
| | | LOS | Delay (sec) | Queue (ft) | LOS | Delay (sec) | Queue (ft) |
| S New Street & Sharpless Street | | | | | | | |
| EBLTR | 100+ | A | 9.7 | <25 | B | 10.2 | <25 |
| WBLTR | 100+ | A | 8.8 | <25 | A | 9.2 | <25 |
| NBLTR | 100+ | A | 9.4 | 30 | B | 10.1 | 38 |
| SBLTR | 100+ | A | 9.0 | <25 | A | 9.6 | 28 |
| **ILOS** | **--** | **A** | **9.2** | **--** | **A** | **9.8** | **--** |
| Sharpless Street & Darlington Street | | | | | | | |
| EBL | 100+ | A | 8.2 | <25 | A | 8.3 | <25 |
| EBT | 100+ | A | 0.0 | <25 | A | 0.0 | <25 |
| WBTR | 100+ | A | 0.0 | <25 | A | 0.0 | <25 |
| SBLR | 100+ | A | 9.2 | <25 | A | 9.5 | <25 |
| **ILOS** | **--** | **A** | **0.4** | **--** | **A** | **0.4** | **--** |
| Church Street & Sharpless Street | | | | | | | |
| EBTR | 100+ | A | 0.0 | <25 | A | 0.0 | <25 |
| WBLT | 100+ | A | 8.9 | <25 | A | 9.1 | <25 |
| NB LTR | 100+ | -- | -- | -- | A | 9.8 | <25 |
| SBLTR | 100+ | A | 9.6 | <25 | B | 11.4 | <25 |
| **ILOS** | **--** | **A** | **3.0** | **--** | **A** | **4.1** | **--** |
| Reynolds Alley & Sharpless Street | | | | | | | |
| EBTR | 100+ | A | 0.0 | <25 | A | 0.0 | <25 |
| WBL | 100+ | A | 8.5 | <25 | A | 8.7 | <25 |
| WBT | 100+ | A | 0.0 | <25 | A | 0.0 | <25 |
| NBLR | 100+ | A | 9.5 | <25 | B | 10.1 | <25 |
| **ILOS** | **--** | **A** | **1.0** | **--** | **A** | **0.8** | **--** |
| S High Street & Sharpless Street | | | | | | | |
| EBLR | 130 | C | 19.9 | 38 | D | 39.8 | 193 |
| NBL | 100 | B | 10.8 | <25 | A | 4.7 | <25 |
| NBT | 100+ | A | 0.0 | <25 | A | 0.8 | <25 |
| SBTR | 100+ | A | 0.0 | <25 | A | 9.2 | 293 |
| **ILOS** | **--** | **A** | **2.3** | **--** | **B** | **10.5** | **--** |
| S High Street & E Nields Street | | | | | | | |
| NBTR | 100+ | A | 0.0 | <25 | A | 0.0 | <25 |
| SBL | 100 | B | 10.5 | <25 | B | 11.3 | 25 |
| **ILOS** | **--** | **A** | **1.6** | **--** | **A** | **1.6** | **--** |

*Projected = With Planned Improvements and WCU Master Plan*
*ILOS = Overall Intersection Level of Service*
**Reflects the applicable planned lane lengths for intersections planned to be improved.*

## TABLE 4B: CAPACITY ANALYSIS – WEEKDAY AM PEAK HOUR

| Movement | Available Storage* | Existing Conditions | | | 2040 Future Conditions with Planned Improvements | | |
|---|---|---|---|---|---|---|---|
| | | LOS | Delay (sec) | Queue (ft) | LOS | Delay (sec) | Queue (ft) |
| S High Street & University Avenue | | | | | | | |
| EB LR | 50+ | -- | -- | -- | D | 38.1 | <25 |
| NBLT | 100+ | B | 10.3 | <25 | A | 3.3 | 90 |
| SBTR | 100+ | A | 0.0 | <25 | A | 3.7 | 113 |
| **ILOS** | **--** | **A** | **0.6** | **--** | **A** | **4.2** | **--** |
| University Avenue & Reynolds Alley | | | | | | | |
| WBTR | 100+ | A | 0.0 | <25 | A | 0.0 | <25 |
| SBLR | 100+ | A | 9.0 | <25 | A | 8.7 | <25 |
| **ILOS** | **--** | **A** | **0.5** | **--** | **A** | **0.9** | **--** |
| Church Street & University Avenue | | | | | | | |
| WBL | 100+ | C | 24.4 | 30 | B | 0.0 | <25 |
| SBTR | 100+ | A | 0.0 | <25 | A | 0.0 | <25 |
| **ILOS** | **--** | **A** | **8.9** | **--** | **A** | **0.0** | **--** |
| S High Street & Linden Street | | | | | | | |
| WBLR | 300 | C | 27.7 | 33 | C | 27.8 | 38 |
| NBT | 600 | A | 3.4 | 68 | A | 3.6 | 75 |
| SBT | 175 | A | 3.5 | 73 | A | 4.2 | 108 |
| **ILOS** | **--** | **A** | **4.6** | **--** | **A** | **5.0** | **--** |
| S High Street & Rosedale Avenue | | | | | | | |
| EBL | 250 | B | 16.5 | <25 | B | 15.2 | <25 |
| EBTR | 500+ | B | 19.2 | 218 | B | 16.9 | 210 |
| WBL | 100 | C | 21.6 | <25 | C | 21.4 | 40 |
| WBTR | 500+ | B | 13.6 | 115 | B | 12.4 | 110 |
| NBL | 255 | B | 13.6 | <25 | B | 18.9 | 48 |
| NBTR | 500+ | B | 11.7 | 140 | B | 13.6 | 163 |
| SBL | 110 | B | 13.4 | <25 | B | 16.7 | 43 |
| SBTR | 600 | B | 11.5 | 150 | B | 14.4 | 200 |
| **ILOS** | **--** | **B** | **14.4** | **--** | **B** | **15.1** | **--** |
| Matlack Street & Rosedale Avenue | | | | | | | |
| EBTR | 100+ | B | 14.7 | 95 | C | 19.3 | 140 |
| WBLT | 100+ | B | 10.4 | <25 | B | 11.3 | <25 |
| NBL | 100+ | C | 15.2 | 63 | C | 18.3 | 85 |
| NBR | 100+ | A | 8.7 | <25 | A | 9.1 | <25 |
| SBLTR | 100+ | A | 9.9 | <25 | B | 10.7 | <25 |
| **ILOS** | **--** | **B** | **13.6** | **--** | **C** | **16.7** | **--** |
| Matlack Street & WCU M Lot Complex/Carter Drive | | | | | | | |
| EBLTR | 100+ | C | 20.4 | <25 | C | 24.5 | <25 |
| WBLTR | 100+ | C | 22.2 | 35 | D | 30.6 | 55 |
| NBL | 100+ | A | 9.0 | <25 | A | 9.1 | <25 |
| NBTR | 100+ | A | 0.0 | <25 | A | 0.0 | <25 |
| SBL | 100+ | B | 10.1 | <25 | B | 10.5 | <25 |
| SBTR | 100+ | A | 0.0 | <25 | A | 0.0 | <25 |
| **ILOS** | **--** | **A** | **3.1** | **--** | **A** | **3.9** | **--** |

*Projected = With Planned Improvements and WCU Master Plan*
*ILOS = Overall Intersection Level of Service*
**Reflects the applicable planned lane lengths for intersections planned to be improved.*

## TABLE 4C: CAPACITY ANALYSIS – WEEKDAY AM PEAK HOUR

| Movement | Available Storage* | Existing Conditions | | | 2040 Future Conditions with Planned Improvements | | |
|---|---|---|---|---|---|---|---|
| | | LOS | Delay (sec) | Queue (ft) | LOS | Delay (sec) | Queue (ft) |
| Rosedale Avenue & Church Street/Church Avenue | | | | | | | |
| EBTR | 100+ | B | 13.0 | 88 | A | 2.7 | 155 |
| WBLT | 100+ | B | 10.1 | 38 | A | 2.5 | 91 |
| SBLTR | 100+ | A | 9.7 | <25 | A | 0.0 | 0 |
| **ILOS** | **--** | **B** | **11.7** | **--** | **A** | **2.7** | **--** |
| S New Street & Rosedale Avenue (1) | | | | | | | |
| EBLTR | 500+ | B | 10.9 | 178 | C | 26.2 | 365 |
| WBL | 150 | A | 9.1 | 26 | B | 19.6 | 38 |
| WBTR | 500+ | A | 9.5 | 94 | B | 16.1 | 68 |
| NB L | 500+ | C | 26.8 | 140 | C | 23.2 | <25 |
| NB TR | 130 | | | | C | 34.2 | 205 |
| SB L | 105 | C | 20.7 | 95 | C | 28.5 | 93 |
| SB T | 500+ | | | | C | 27.3 | 63 |
| SB R | 105 | | | | C | 26.1 | <25 |
| **ILOS** | **--** | **B** | **15.5** | **--** | **C** | **26.8** | **--** |
| S New Street & W Nields Street/N Campus Drive | | | | | | | |
| EBLTR | 500+ | C | 25.4 | 40 | C | 25.3 | 45 |
| WBLTR | 500+ | C | 24.2 | <25 | C | 25.2 | 48 |
| NBL | 160 | A | 2.6 | <25 | A | 2.7 | <25 |
| NBTR | 500+ | A | 3.4 | 38 | A | 4.1 | 55 |
| SBLTR | 285 | A | 3.0 | 28 | A | 3.3 | 35 |
| **ILOS** | **--** | **A** | **6.4** | **--** | **A** | **7.8** | **--** |
| S New Street & Pomona Hill Drive | | | | | | | |
| EBLR | 100+ | A | 8.6 | <25 | A | 8.8 | <25 |
| NBLTR | 100+ | A | 8.7 | 35 | A | 9.6 | 43 |
| SBTR | 100+ | A | 9.1 | <25 | A | 9.1 | 28 |
| **ILOS** | **--** | **A** | **8.9** | **--** | **A** | **9.4** | **--** |
| S New Street & Glen Echo Field Access | | | | | | | |
| EBLR | 100+ | A | 8.9 | <25 | A | 9.1 | <25 |
| NBLTR | 100+ | A | 0.0 | <25 | A | 0.0 | <25 |
| SBTR | 100+ | A | 0.0 | <25 | A | 0.0 | <25 |
| **ILOS** | **--** | **A** | **0.0** | **--** | **A** | **0.0** | -- |
| S New Street & 855 S New Street Access | | | | | | | |
| WBL | 100+ | B | 13.6 | <25 | B | 14.6 | <25 |
| WBR | 100+ | B | 10.4 | <25 | B | 10.7 | <25 |
| NBTR | 100+ | A | 0.0 | <25 | A | 0.0 | <25 |
| SBLT | 100+ | A | 9.2 | <25 | A | 9.4 | <25 |
| **ILOS** | **--** | **A** | **1.8** | **--** | **A** | **1.8** | **--** |

*Projected = With Planned Improvements and WCU Master Plan*
*ILOS = Overall Intersection Level of Service*
**Reflects the applicable planned lane lengths for intersections planned to be improved.*
*[1]= Analyzed utilizing synchro percentile methodology under existing conditions*

## TABLE 4D: CAPACITY ANALYSIS – WEEKDAY AM PEAK HOUR

| Movement | Available Storage* | Existing Conditions | | | 2040 Future Conditions with Planned Improvements | | |
|---|---|---|---|---|---|---|---|
| | | LOS | Delay (sec) | Queue (ft) | LOS | Delay (sec) | Queue (ft) |
| S New Street & S Campus Drive/Parking Lot | | | | | | | |
| EBL | 100+ | B | 10.8 | <25 | B | 11.4 | <25 |
| EBTR | 100+ | B | 10.7 | <25 | B | 11.0 | <25 |
| WBL | 100+ | A | 0.0 | <25 | A | 0.0 | <25 |
| WBTR | 100+ | B | 10.8 | <25 | B | 11.0 | <25 |
| NBL | 100+ | A | 8.7 | <25 | A | 8.8 | <25 |
| NBTR | 100+ | A | 0.0 | <25 | A | 0.0 | <25 |
| SBL | 100+ | A | 8.8 | <25 | A | 8.9 | <25 |
| SBTR | 100+ | A | 0.0 | <25 | A | 0.0 | <25 |
| **ILOS** | **--** | **A** | **3.3** | **--** | **A** | **3.4** | **--** |
| S New Street & Tigue Road/Stadium Drive | | | | | | | |
| EBLTR | 100+ | A | 7.7 | <25 | A | 7.8 | <25 |
| WBLTR | 100+ | A | 7.5 | <25 | A | 7.6 | <25 |
| NBLTR | 100+ | A | 8.2 | <25 | A | 8.4 | <25 |
| SBLTR | 100+ | A | 7.6 | <25 | A | 7.8 | <25 |
| **ILOS** | **--** | **A** | **7.9** | **--** | **A** | **8.1** | **--** |
| Matlack Street & Campus Drive/Parking Lot | | | | | | | |
| EBLT | 100+ | C | 24.9 | <25 | D | 31.6 | <25 |
| EBR | 100+ | B | 10.3 | <25 | B | 10.6 | <25 |
| WBLTR | 100+ | C | 15.2 | <25 | C | 17.1 | <25 |
| NBL | 100+ | A | 9.5 | <25 | A | 9.8 | <25 |
| NBTR | 100+ | A | 0.0 | <25 | A | 0.0 | <25 |
| SBL | 100+ | A | 8.8 | <25 | A | 8.9 | <25 |
| SBT | 100+ | A | 0.0 | <25 | A | 0.0 | <25 |
| SBR | 100+ | A | 0.0 | <25 | A | 0.0 | <25 |
| **ILOS** | **--** | **A** | **3.8** | **--** | **A** | **4.1** | **--** |
| Matlack Street & M1 Lot Southern Driveway | | | | | | | |
| EBLR | 100+ | A | 9.5 | <25 | A | 9.8 | <25 |
| NBL | 100+ | A | 9.0 | <25 | A | 9.1 | <25 |
| NBT | 100+ | A | 0.0 | <25 | A | 0.0 | <25 |
| SBTR | 100+ | A | 0.0 | <25 | A | 0.0 | <25 |
| **ILOS** | **--** | **A** | **0.2** | **--** | **A** | **0.2** | **--** |
| S High Street & Campus Drive | | | | | | | |
| WBL | 100+ | C | 16.6 | <25 | C | 19.3 | <25 |
| WBR | 100+ | B | 12.1 | <25 | B | 0.3 | <25 |
| NBT | 100+ | A | 0.0 | <25 | A | 0.0 | <25 |
| NBR | 100+ | A | 0.0 | <25 | A | 0.0 | <25 |
| SBL | 100+ | B | 10.8 | <25 | B | 11.5 | <25 |
| SBT | 100+ | A | 0.0 | <25 | A | 0.0 | <25 |
| **ILOS** | **--** | **A** | **1.6** | **--** | **A** | **1.6** | **--** |

*Projected = With Planned Improvements and WCU Master Plan*
*ILOS = Overall Intersection Level of Service*
**Reflects the applicable planned lane lengths for intersections planned to be improved.*

## TABLE 5A: CAPACITY ANALYSIS – WEEKDAY PM PEAK HOUR

| Movement | Available Storage* | Existing Conditions | | | 2040 Future Conditions with Planned Improvements | | |
|---|---|---|---|---|---|---|---|
| | | LOS | Delay (sec) | Queue (ft) | LOS | Delay (sec) | Queue (ft) |
| S New Street & Sharpless Street | | | | | | | |
| EBLTR | 100+ | A | 8.6 | <25 | A | 9 | <25 |
| WBLTR | 100+ | A | 9.4 | <25 | B | 10.1 | <25 |
| NBLTR | 100+ | B | 10.8 | 58 | B | 3 | 75 |
| SBLTR | 100+ | A | 9.1 | <25 | A | 1.2 | 30 |
| **ILOS** | **--** | **A** | **10.0** | **--** | **B** | **11.2** | **--** |
| Sharpless Street & Darlington Street | | | | | | | |
| EBL | 100+ | A | 8.5 | <25 | A | 8.6 | <25 |
| EBT | 100+ | A | 0.0 | <25 | A | 0 | <25 |
| WBTR | 100+ | A | 0.0 | <25 | A | 0 | <25 |
| SBLR | 100+ | B | 10.2 | <25 | B | 0.1 | <25 |
| **ILOS** | **--** | **A** | **0.9** | **--** | **A** | **1.0** | **--** |
| Church Street & Sharpless Street | | | | | | | |
| EBTR | 100+ | A | 0.0 | <25 | A | 0 | <25 |
| WBLT | 100+ | A | 9.0 | <25 | A | 9.4 | <25 |
| NBLTR | 100+ | -- | -- | -- | B | 11.8 | <25 |
| SBLTR | 100+ | B | 10.9 | <25 | B | 14.7 | 28 |
| **ILOS** | **--** | **A** | **3.4** | **--** | **A** | **5.0** | **--** |
| Reynolds Alley & Sharpless Street | | | | | | | |
| EBTR | 100+ | A | 0.0 | <25 | A | 0 | <25 |
| WBL | 100+ | A | 8.8 | <25 | A | 9.1 | <25 |
| WBT | 100+ | A | 0.0 | <25 | A | 0 | <25 |
| NBLR | 100+ | B | 10.0 | <25 | B | 10.9 | <25 |
| **ILOS** | **--** | **A** | **1.6** | **--** | **A** | **1.4** | **--** |
| S High Street & Sharpless Street | | | | | | | |
| EBLR | 130 | D | 29.9 | 100 | D | 45.3 | 278 |
| NBL | 100 | B | 11.3 | <25 | A | 5.5 | 28 |
| NBT | 100+ | A | 0.0 | <25 | A | 1.4 | <25 |
| SBTR | 100+ | A | 0.0 | <25 | B | 10.8 | 300 |
| **ILOS** | **--** | **A** | **4.5** | **--** | **B** | **13.1** | **--** |
| S High Street & E Nields Street | | | | | | | |
| NBTR | 100+ | A | 0.0 | <25 | A | 0 | <25 |
| SBL | 100 | B | 12.5 | <25 | B | 14.1 | 33 |
| SBT | 100+ | A | 0.0 | <25 | A | 0 | <25 |
| **ILOS** | **--** | **A** | **1.4** | **--** | **A** | **1.5** | **--** |

*Projected = With Planned Improvements and WCU Master Plan*
*ILOS = Overall Intersection Level of Service*
**Reflects the applicable planned lane lengths for intersections planned to be improved.*

## TABLE 5B: CAPACITY ANALYSIS – WEEKDAY PM PEAK HOUR

| Movement | Available Storage* | Existing Conditions | | | 2040 Future Conditions with Planned Improvements | | |
|---|---|---|---|---|---|---|---|
| | | LOS | Delay (sec) | Queue (ft) | LOS | Delay (sec) | Queue (ft) |
| S High Street & University Avenue | | | | | | | |
| EB LR | 50+ | -- | -- | -- | D | 38.3 | 28 |
| NBLT | 100+ | B | 11.8 | <25 | A | 4 | 138 |
| SBTR | 100+ | A | 0.0 | <25 | A | 3.7 | 120 |
| **ILOS** | **--** | **A** | **0.8** | **--** | **A** | **4.5** | **--** |
| University Avenue & Reynolds Alley | | | | | | | |
| WBTR | 100+ | A | 0.0 | <25 | A | 0 | <25 |
| SBLR | 100+ | A | 9.4 | <25 | A | 9.4 | <25 |
| **ILOS** | **--** | **A** | **0.4** | **--** | **A** | **0.7** | **--** |
| Church Street & University Avenue | | | | | | | |
| WBL | 100+ | B | 14.5 | <25 | A | 0 | <25 |
| SBTR | 100+ | A | 0.0 | <25 | A | 0 | <25 |
| **ILOS** | **--** | **A** | **5.5** | **--** | **A** | **0** | **--** |
| S High Street & Linden Street | | | | | | | |
| WBLR | 300 | C | 28.5 | 85 | C | 29.3 | 98 |
| NBT | 600 | A | 6.4 | 173 | A | 6.8 | 190 |
| SBT | 175 | A | 5.6 | 130 | A | 7 | 198 |
| **ILOS** | **--** | **A** | **8.1** | **--** | **A** | **8.9** | **--** |
| S High Street & Rosedale Avenue | | | | | | | |
| EBL | 250 | C | 23.8 | 35 | C | 24.0 | 40 |
| EBTR | 500+ | B | 19.9 | 190 | B | 15.5 | 130 |
| WBL | 100 | C | 22.8 | 28 | C | 20.2 | 45 |
| WBTR | 500+ | C | 20.4 | 210 | B | 20.0 | 215 |
| NBL | 255 | B | 13.3 | 30 | B | 19.2 | 68 |
| NBTR | 500+ | B | 13.0 | 200 | B | 14.5 | 220 |
| SBL | 110 | B | 15.5 | <25 | C | 21.0 | 75 |
| SBTR | 600 | B | 10.7 | 148 | B | 13.0 | 208 |
| **ILOS** | **--** | **B** | **16.0** | **--** | **B** | **16.5** | **--** |
| Matlack Street & Rosedale Avenue | | | | | | | |
| EBTR | 100+ | B | 13.3 | 63 | C | 16.7 | 93 |
| WBLT | 100+ | B | 12.6 | 45 | B | 15 | 60 |
| NBL | 100+ | C | 16.7 | 75 | C | 21.4 | 108 |
| NBR | 100+ | A | 9.4 | <25 | B | 10.2 | <25 |
| SBLTR | 100+ | B | 10.6 | <25 | B | 11.8 | <25 |
| **ILOS** | **--** | **B** | **13.4** | **--** | **C** | **16.4** | **--** |
| Matlack Street & WCU M Lot Complex/Carter Drive | | | | | | | |
| EBLTR | 100+ | B | 13.6 | <25 | C | 15.5 | <25 |
| WBLTR | 100+ | C | 16.5 | 33 | C | 20.6 | 50 |
| NBL | 100+ | A | 8.8 | <25 | A | 9.0 | <25 |
| NBTR | 100+ | A | 0.0 | <25 | A | 0 | <25 |
| SBL | 100+ | A | 9.2 | <25 | A | 9.4 | <25 |
| SBTR | 100+ | A | 0.0 | <25 | A | 0 | <25 |
| **ILOS** | **--** | **A** | **4.0** | **--** | **A** | **4.7** | **--** |

*Projected = With Planned Improvements and WCU Master Plan*
*ILOS = Overall Intersection Level of Service*
**Reflects the applicable planned lane lengths for intersections planned to be improved.*

## TABLE 5C: CAPACITY ANALYSIS – WEEKDAY PM PEAK HOUR

| Movement | Available Storage* | Existing Conditions | | | 2040 Future Conditions with Planned Improvements | | |
|---|---|---|---|---|---|---|---|
| | | LOS | Delay (sec) | Queue (ft) | LOS | Delay (sec) | Queue (ft) |
| Rosedale Avenue & Church Street/Church Avenue | | | | | | | |
| EBTR | 100+ | B | 12.1 | 60 | A | 2.4 | 106 |
| WBLT | 200+ | B | 13.8 | 88 | A | 2.8 | 156 |
| SBLTR | 100+ | B | 10.9 | 28 | A | 0 | 0 |
| **ILOS** | **--** | **B** | **12.7** | **--** | **A** | **2.6** | **--** |
| S New Street & Rosedale Avenue (1) | | | | | | | |
| EBLTR | 500+ | A | 9.9 | 95 | C | 20.6 | 145 |
| WBL | 150 | B | 10.2 | 46 | B | 20.0 | 53 |
| WBTR | 500+ | B | 13.8 | 203 | C | 22.1 | 193 |
| NB L | 500+ | C | 22.1 | 126 | C | 21.1 | <25 |
| NB TR | 130 | | | | C | 33.5 | 248 |
| SB L | 105 | C | 20.3 | 124 | C | 30.5 | 118 |
| SB T | 500+ | | | | C | 30.3 | 118 |
| SB R | 105 | | | | C | 28.0 | 40 |
| **ILOS** | **--** | **B** | **15.9** | **--** | **C** | **26.7** | **--** |
| S New Street & W Nields Street/N Campus Drive | | | | | | | |
| EBLTR | 500+ | B | 15.6 | <25 | B | 14.2 | <25 |
| WBLTR | 500+ | B | 16.2 | 45 | B | 16.0 | 78 |
| NBL | 160 | A | 5.3 | <25 | A | 6.1 | <25 |
| NBTR | 500+ | A | 7.3 | 85 | A | 9.7 | 133 |
| SBLTR | 285 | A | 6.1 | 45 | A | 7.2 | 60 |
| **ILOS** | **--** | **A** | **8.8** | **--** | **B** | **10.4** | **--** |
| S New Street & Pomona Hill Drive | | | | | | | |
| EBLR | 100+ | A | 8.8 | <25 | A | 9 | <25 |
| NBLTR | 100+ | A | 9.3 | 35 | A | 9.9 | 43 |
| SBTR | 100+ | B | 10.3 | 53 | B | 11.4 | 68 |
| **ILOS** | **--** | **A** | **9.9** | **--** | **B** | **10.7** | **--** |
| S New Street & Glen Echo Field Access | | | | | | | |
| EBLR | 100+ | B | 12.0 | <25 | B | 12.9 | <25 |
| NBLTR | 100+ | A | 0.0 | <25 | A | 0 | <25 |
| SBTR | 100+ | A | 0.0 | <25 | A | 0 | <25 |
| **ILOS** | **--** | **A** | **0.1** | -- | **A** | **0.1** | **--** |
| S New Street & 855 S New Street Access | | | | | | | |
| WBL | 100+ | B | 13.7 | <25 | B | 14.8 | <25 |
| WBR | 100+ | A | 9.7 | <25 | A | 9.9 | <25 |
| NBTR | 100+ | A | 0.0 | <25 | A | 0 | <25 |
| SBLT | 100+ | A | 9.2 | <25 | A | 9.3 | <25 |
| **ILOS** | **--** | **A** | **1.8** | **--** | **A** | **1.9** | **--** |

*Projected = With Planned Improvements and WCU Master Plan*
*ILOS = Overall Intersection Level of Service*
**Reflects the applicable planned lane lengths for intersections planned to be improved.*
*[1] = Analyzed utilizing synchro percentile methodology under existing conditions*

**TABLE 5D: CAPACITY ANALYSIS – WEEKDAY PM PEAK HOUR**

| Movement | Available Storage* | Existing Conditions | | | 2040 Future Conditions with Planned Improvements | | |
|---|---|---|---|---|---|---|---|
| | | LOS | Delay (sec) | Queue (ft) | LOS | Delay (sec) | Queue (ft) |
| S New Street & S Campus Drive/Parking Lot | | | | | | | |
| EBL | 100+ | B | 12.1 | <25 | B | 13.1 | <25 |
| EBTR | 100+ | B | 10.5 | <25 | B | 10.8 | <25 |
| WBL | 100+ | B | 10.7 | <25 | B | 11.3 | <25 |
| WBTR | 100+ | B | 11.6 | <25 | B | 12 | <25 |
| NBL | 100+ | A | 9.1 | <25 | A | 9.3 | <25 |
| NBTR | 100+ | A | 0.0 | <25 | A | 0 | <25 |
| SBL | 100+ | A | 8.2 | <25 | A | 8.2 | <25 |
| SBTR | 100+ | A | 0.0 | <25 | A | 0 | <25 |
| **ILOS** | **--** | **A** | **3.8** | **--** | **A** | **4.0** | **--** |
| S New Street & Tigue Road/Stadium Drive | | | | | | | |
| EBLTR | 100+ | A | 7.7 | <25 | A | 7.9 | <25 |
| WBLTR | 100+ | A | 7.7 | <25 | A | 7.8 | <25 |
| NBLTR | 100+ | A | 8.2 | <25 | A | 8.5 | <25 |
| SBLTR | 100+ | A | 8.5 | <25 | A | 8.9 | 38 |
| **ILOS** | **--** | **A** | **8.3** | **--** | **A** | **8.7** | **--** |
| Matlack Street & Campus Drive/Parking Lot | | | | | | | |
| EBLT | 100+ | C | 19.3 | <25 | C | 23.1 | <25 |
| EBR | 100+ | B | 10.0 | <25 | B | 10.3 | <25 |
| WBLTR | 100+ | B | 14.5 | <25 | C | 15.7 | <25 |
| NBL | 100+ | A | 9.0 | <25 | A | 9.2 | <25 |
| NBTR | 100+ | A | 0.0 | <25 | A | 0 | <25 |
| SBL | 100+ | A | 9.1 | <25 | A | 9.3 | <25 |
| SBT | 100+ | A | 0.0 | <25 | A | 0 | <25 |
| SBR | 100+ | A | 0.0 | <25 | A | 0 | <25 |
| **ILOS** | **--** | **A** | **2.7** | **--** | **A** | **2.9** | **--** |
| Matlack Street & M1 Lot Southern Driveway | | | | | | | |
| EBLR | 100+ | B | 10.0 | <25 | B | 10.3 | <25 |
| NBL | 100+ | B | 10.1 | <25 | B | 10.3 | <25 |
| NBT | 100+ | A | 0.0 | <25 | A | 0 | <25 |
| SBTR | 100+ | A | 0.0 | <25 | A | 0 | <25 |
| **ILOS** | **--** | **A** | **0.1** | **--** | **A** | **0.1** | **--** |
| S High Street & Campus Drive | | | | | | | |
| WBL | 100+ | C | 20.8 | 25 | D | 26.8 | 38 |
| WBR | 100+ | B | 13.6 | <25 | C | 15.1 | <25 |
| NBT | 100+ | A | 0.0 | <25 | A | 0 | <25 |
| NBR | 100+ | A | 0.0 | <25 | A | 0 | <25 |
| SBL | 100+ | B | 10.3 | <25 | B | 10.8 | <25 |
| SBT | 100+ | A | 0.0 | <25 | A | 0 | <25 |
| **ILOS** | **--** | **A** | **2.0** | **--** | **A** | **2.4** | **--** |

*Projected = With Planned Improvements and WCU Master Plan*
*ILOS = Overall Intersection Level of Service*
**Reflects the applicable planned lane lengths for intersections planned to be improved.*

As shown in **Tables 4 and 5**, under 2040 projected conditions with implementation of the planned improvements and with the WCU Master-Plan, the study area intersections are anticipated to operate at the same overall intersection level of service (ILOS) as under existing conditions, during the weekday A.M. and

P.M. peak hours. All levels of service at the study area intersection are anticipated to comply with the applicable PennDOT and municipal requirements.

As shown in **Tables 4 and 5,** adequate queue storage will be provided for the turn lanes in the 2040 design year conditions. Queue analysis worksheets are included with the capacity analysis worksheets provided in **Appendix F.**

## TRANSPORTATION DEMAND MANAGEMENT (TDM) PLAN

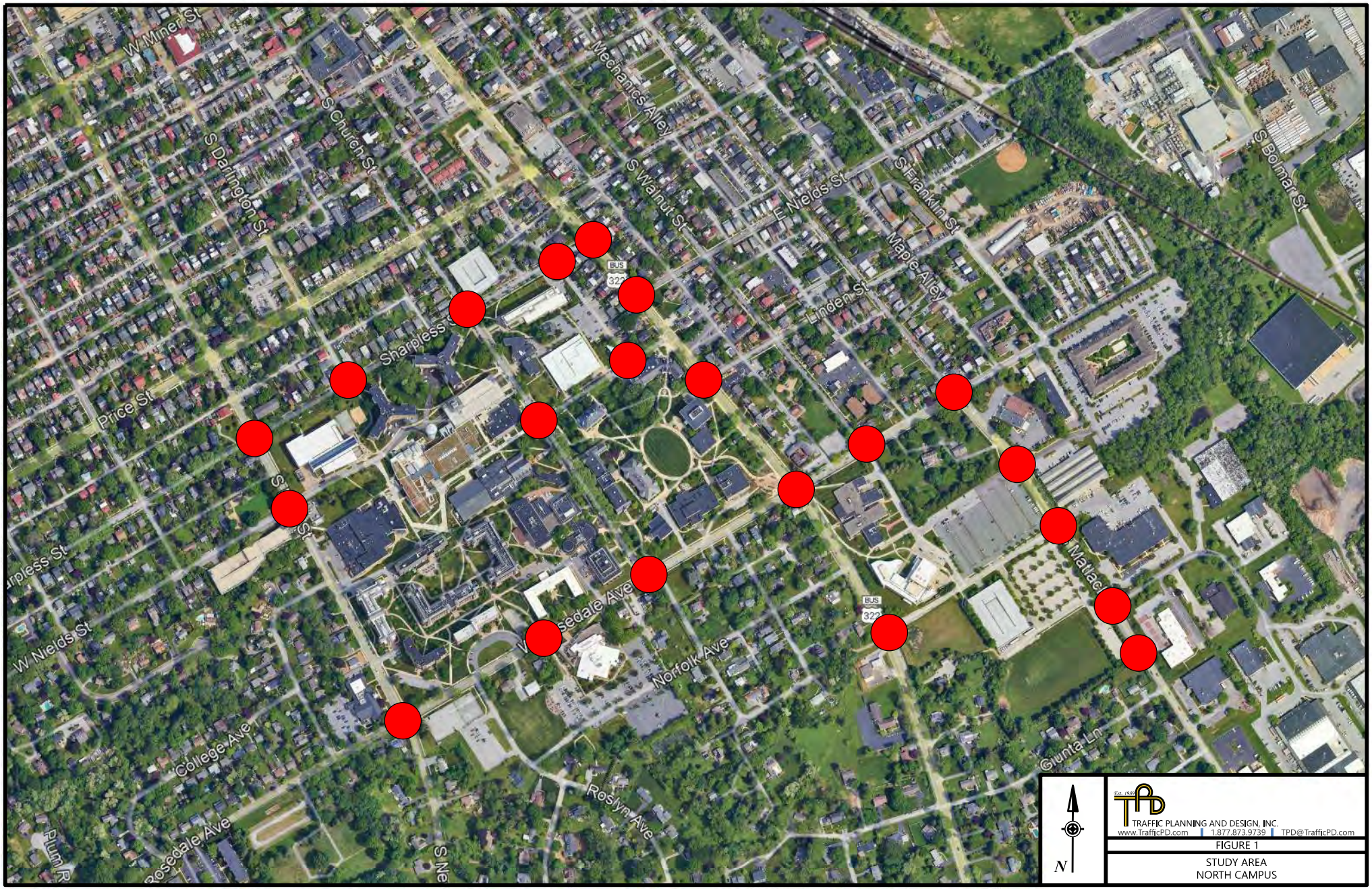
WCU currently implements a number of TDM measures in order to reduce parking and traffic in the area, and to create a pedestrian friendly environment. Consistent with the West Chester Borough and West Goshen Township ordinances, these current measures include:

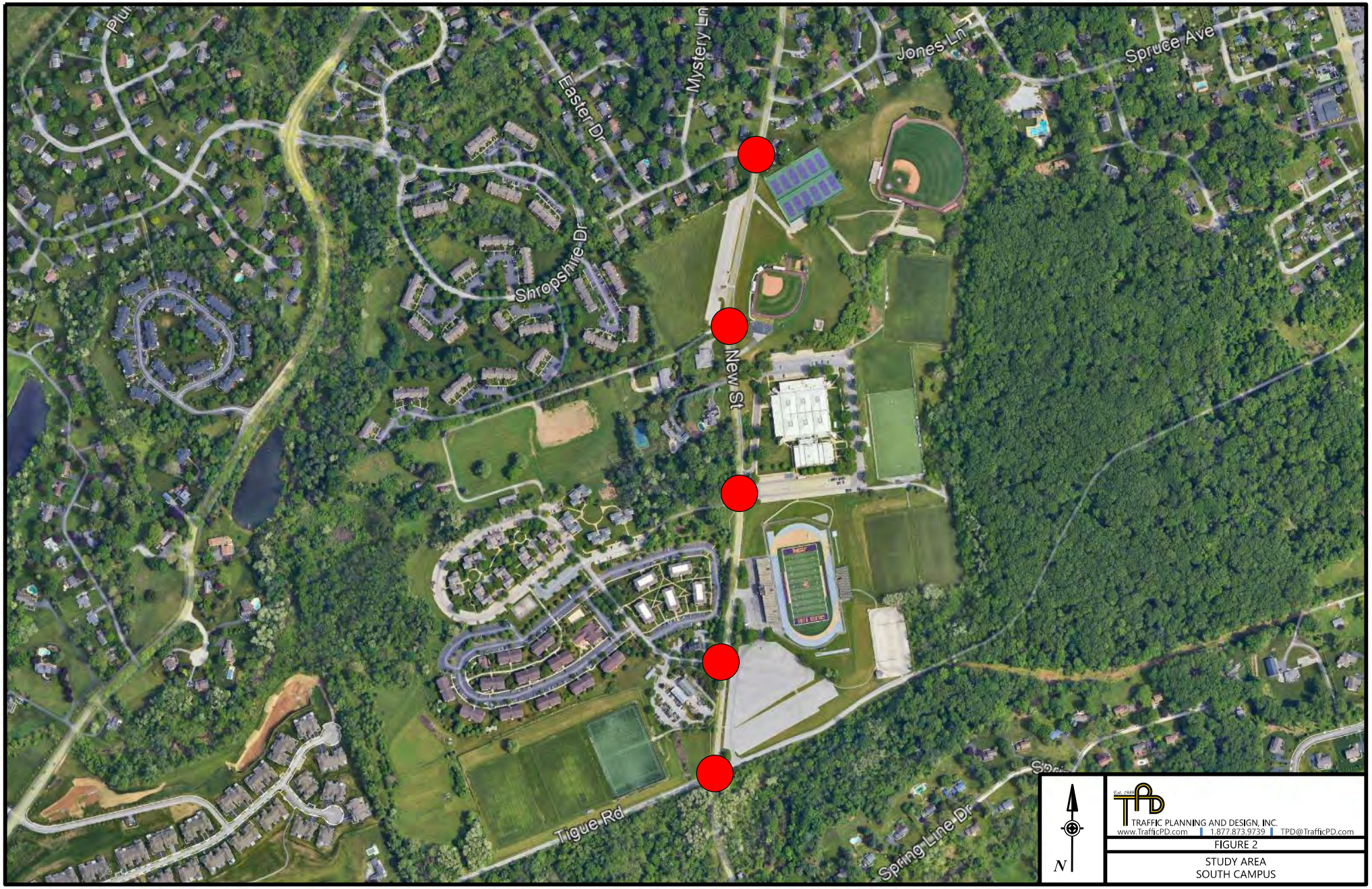
- Shuttle system to both on-campus and off-campus locations
- Discounted transit fare program
- Carpool preferential parking
- On-site car-sharing vehicles
- Commuter information center
- Flexible or alternative work hours for workers
- TDM education programs directed at the students and employees

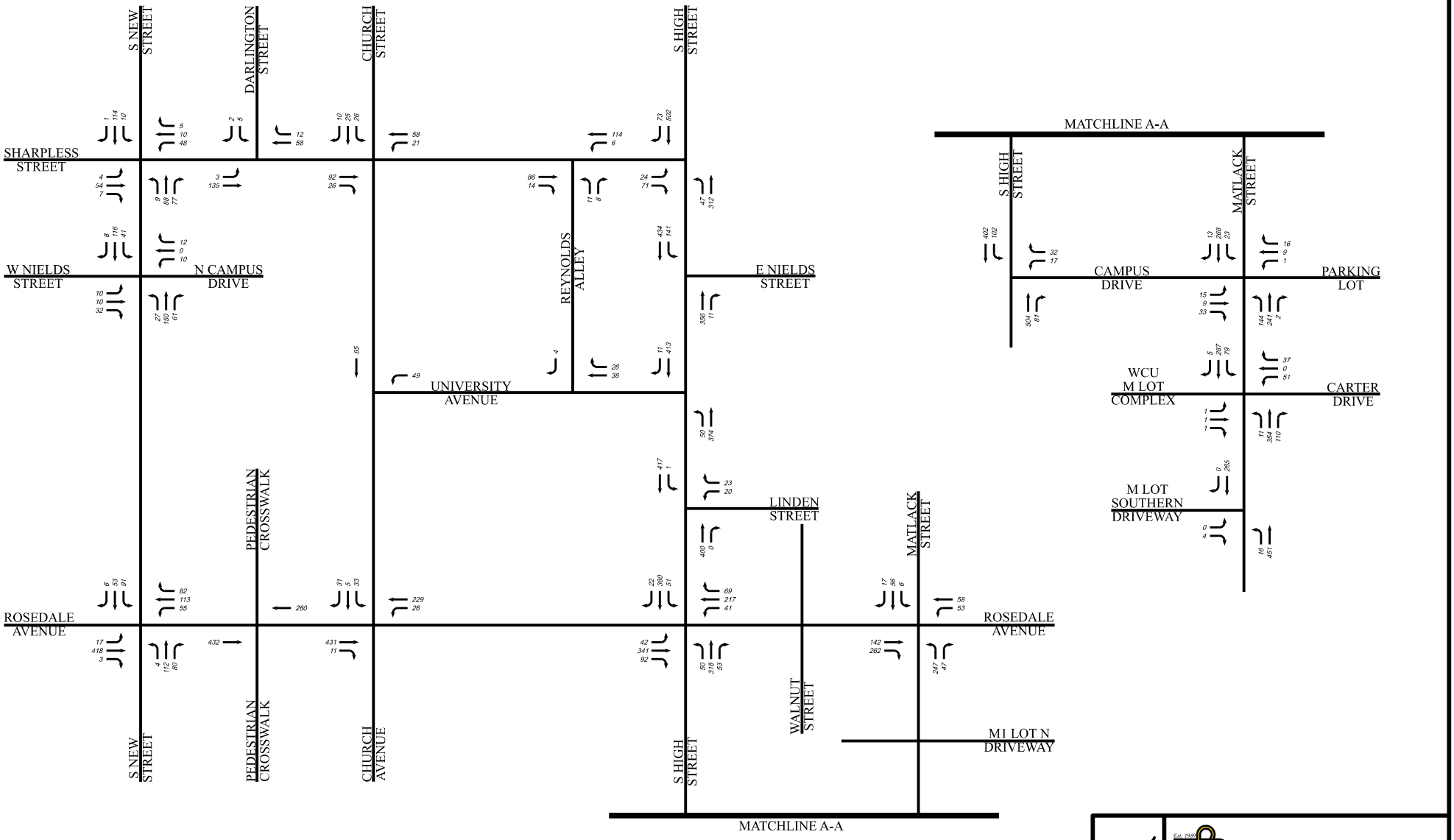
In addition to the above measures, the current Master Plan is proposing additional housing on-campus which will serve students who may otherwise commuter or live in off-campus house. Therefore, the additional housing is anticipated to reduce vehicular traffic during the peak periods. In addition, in conjunction with the Master Plan, WCU envisions a pedestrian path/walkway along New Street, between the North Campus and South Campus. Furthermore, TPD recommends that WCU consider implementing real time display of parking garage utilization.

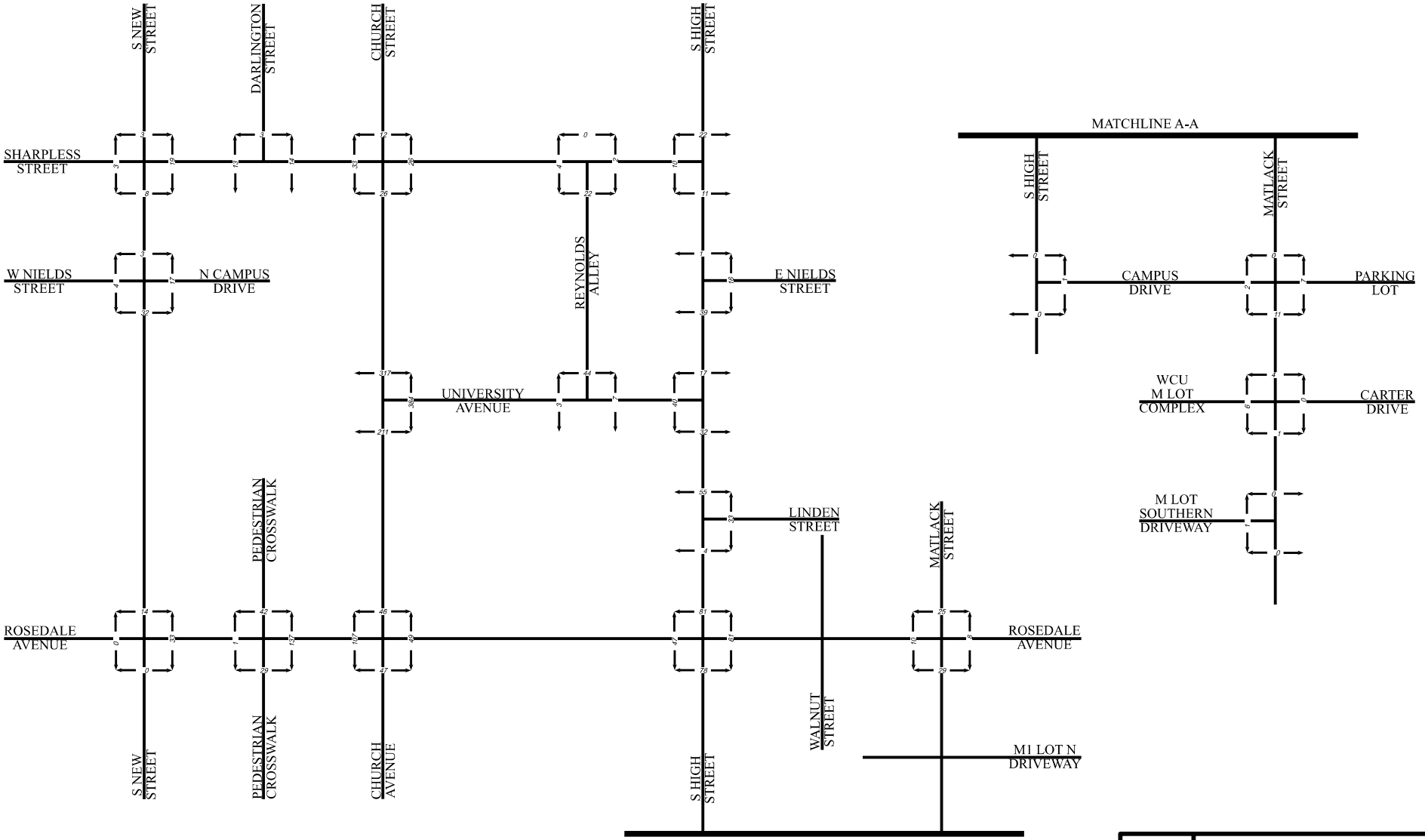
## RECOMMENDATIONS & CONCLUSIONS

Please refer to the Executive Summary for the Recommendations and Conclusion.


W Miner St
S Darlington St
S Church St
Mechanics Alley
S Walnut St
E Nields St
S Franklin St
S Bomar St
Maple Alley
Linden St
Sharpless St
Price St
S
W Nields St
Rosedale Ave
Norfolk Ave
College Ave
Roslyn Ave
Giunta Ln
BUS
N
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FIGURE 1
STUDY AREA
NORTH CAMPUS


Mystery Ln
Jones Ln
Spruce Ave
Easter Dr
Shropshire Dr
New St
Tigue Rd
Spring Line Dr
N
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FIGURE 2
STUDY AREA
SOUTH CAMPUS

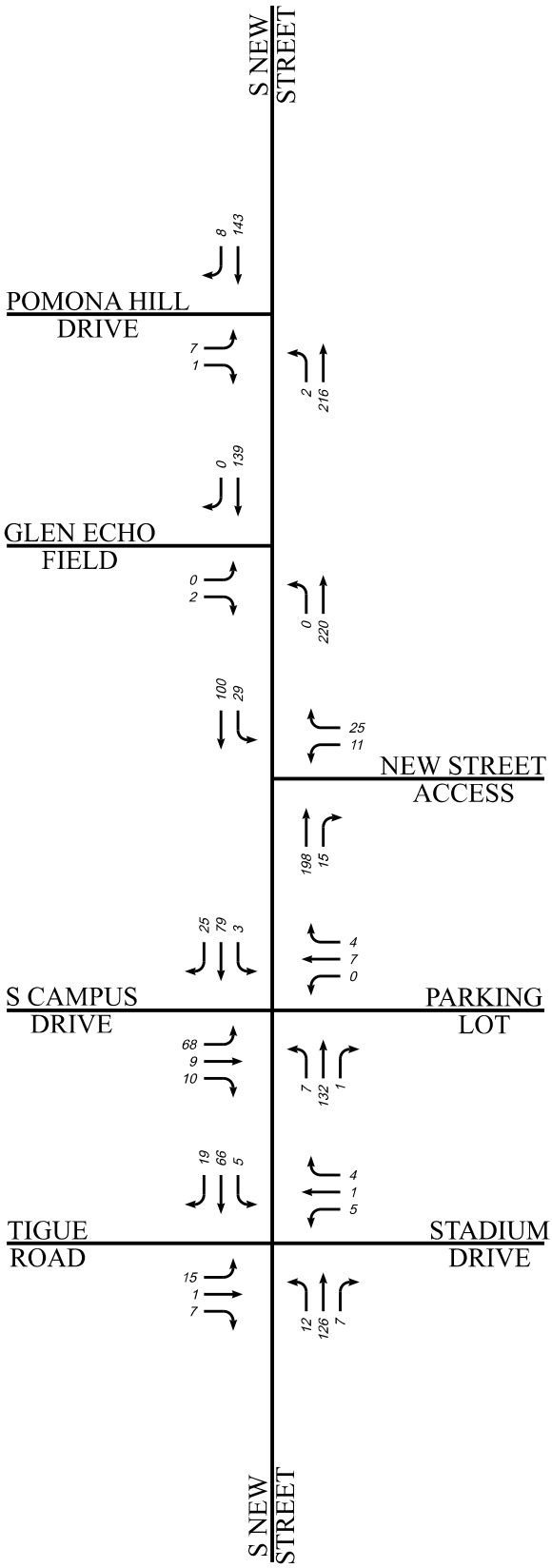

S NEW STREET
DARLINGTON STREET
CHURCH STREET
S HIGH STREET
SHARPLESS STREET
W NIELDS STREET
N CAMPUS DRIVE
REYNOLDS ALLEY
E NIELDS STREET
UNIVERSITY AVENUE
PEDESTRIAN CROSSWALK
LINDEN STREET
MATLACK STREET
ROSEDALE AVENUE
WALNUT STREET
M1 LOT N DRIVEWAY
CHURCH AVENUE
MATCHLINE A-A
CAMPUS DRIVE
PARKING LOT
WCU M LOT COMPLEX
CARTER DRIVE
M LOT SOUTHERN DRIVEWAY
N
KEY:
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FIGURE 3
EXISTING VEHICULAR TRAFFIC VOLUMES
NORTH CAMPUS
WEEKDAY AM PEAK HOUR




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FIGURE 4
EXISTING PEDESTRIAN TRAFFIC VOLUMES
NORTH CAMPUS
WEEKDAY AM PEAK HOUR




**KEY:**

**SCHEMATIC DRAWING:NOT TO SCALE**

N

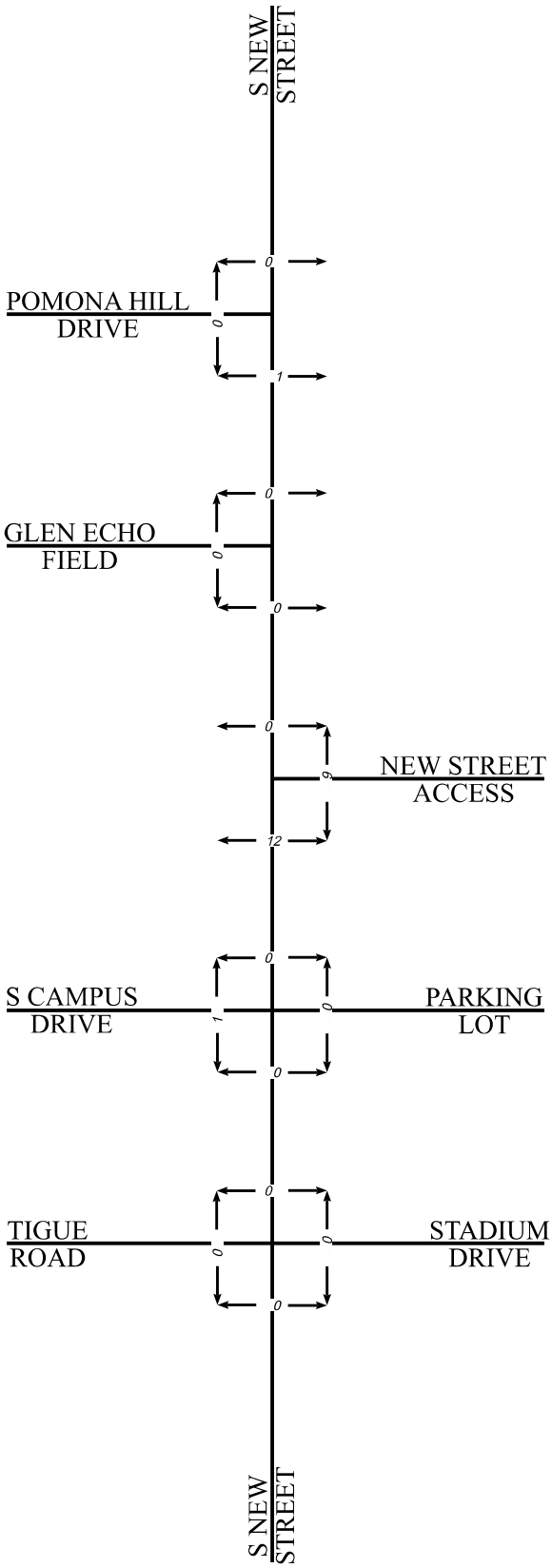
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FIGURE 5

EXISTING VEHICULAR TRAFFIC VOLUMES
SOUTH CAMPUS
WEEKDAY AM PEAK HOUR



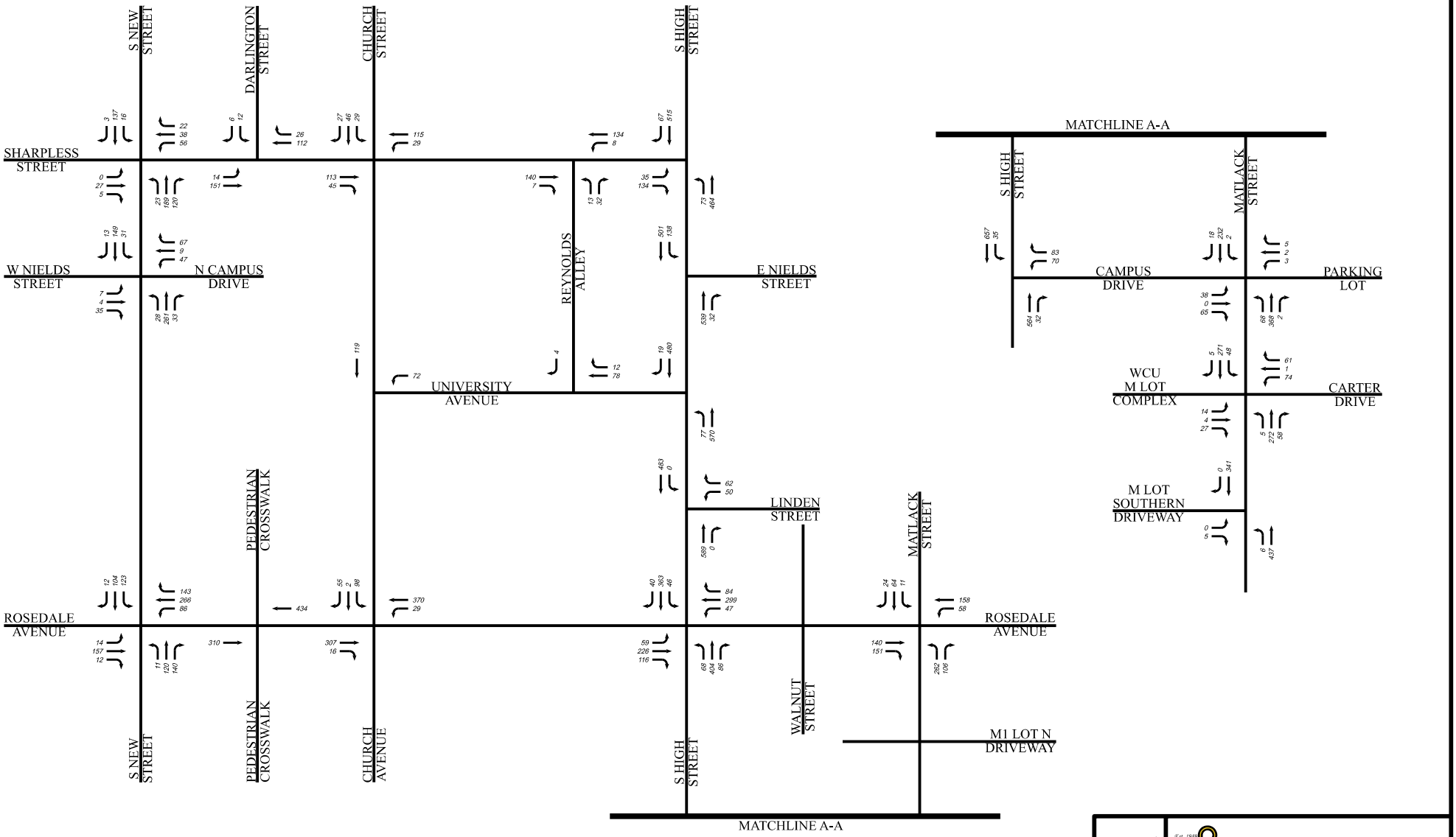

**KEY:**
**SCHEMATIC DRAWING:NOT TO SCALE**

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FIGURE 6

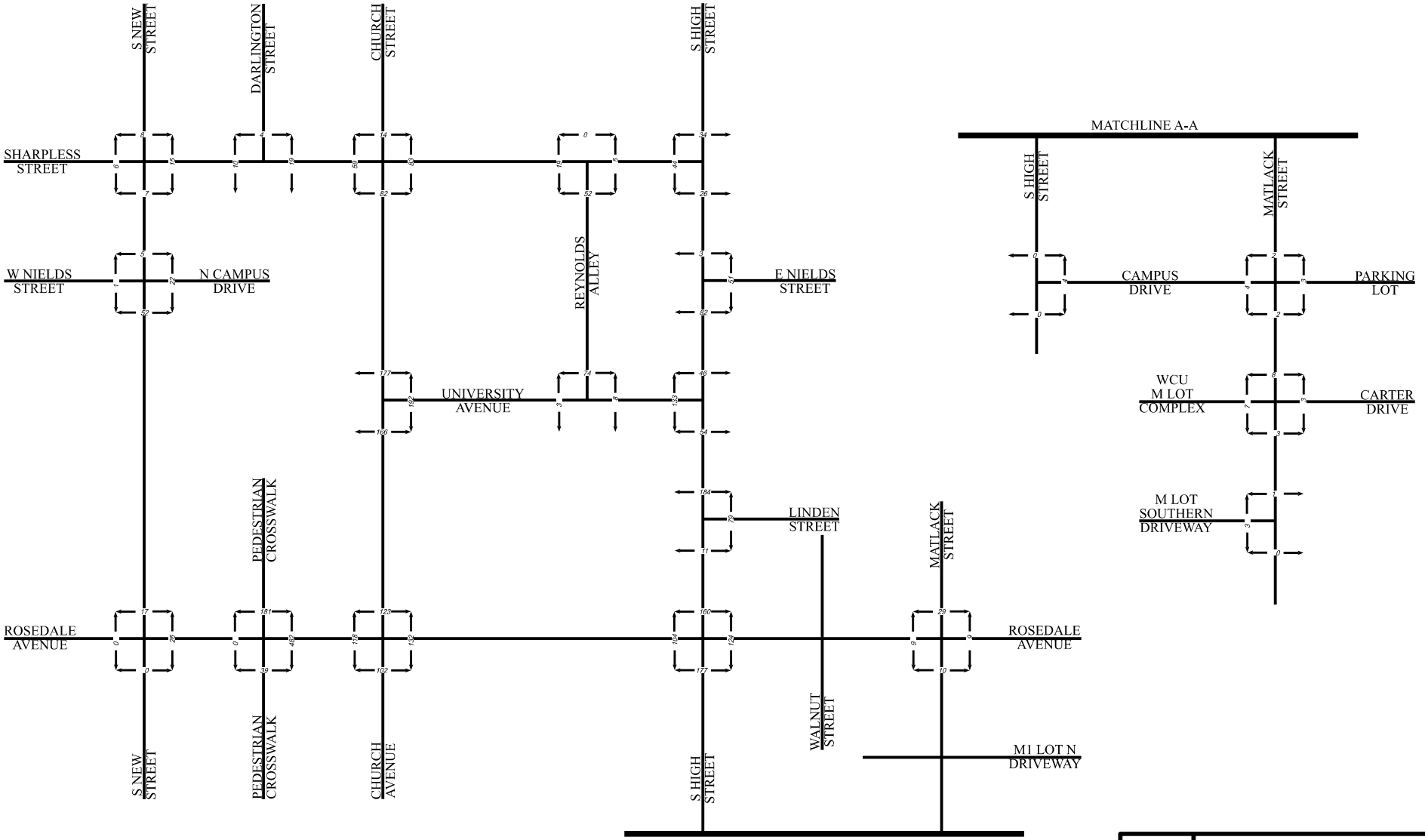
EXISTING PEDESTRIAN TRAFFIC VOLUMES
SOUTH CAMPUS
WEEKDAY AM PEAK HOUR




**KEY:**
**SCHEMATIC DRAWING:NOT TO SCALE**

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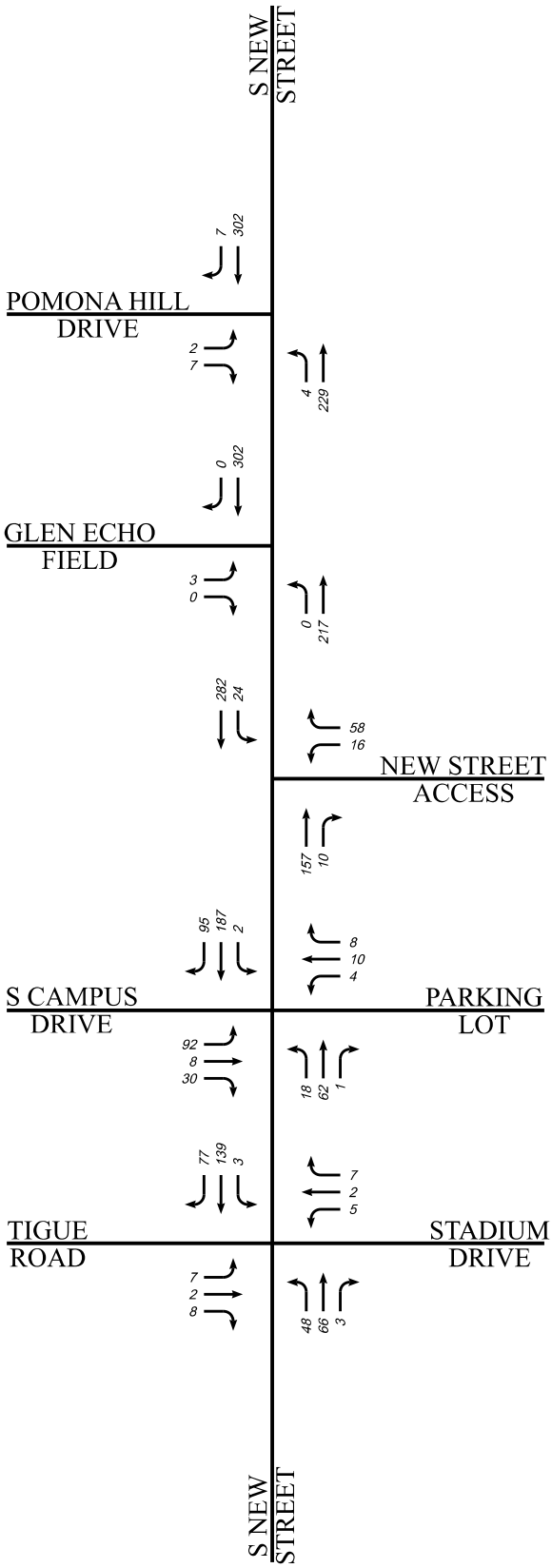
FIGURE 7
EXISTING VEHICULAR TRAFFIC VOLUMES
NORTH CAMPUS
WEEKDAY PM PEAK HOUR




**KEY:**
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FIGURE 8
EXISTING PEDESTRIAN TRAFFIC VOLUMES
NORTH CAMPUS
WEEKDAY PM PEAK HOUR




**KEY:**

**SCHEMATIC DRAWING:NOT TO SCALE**

N

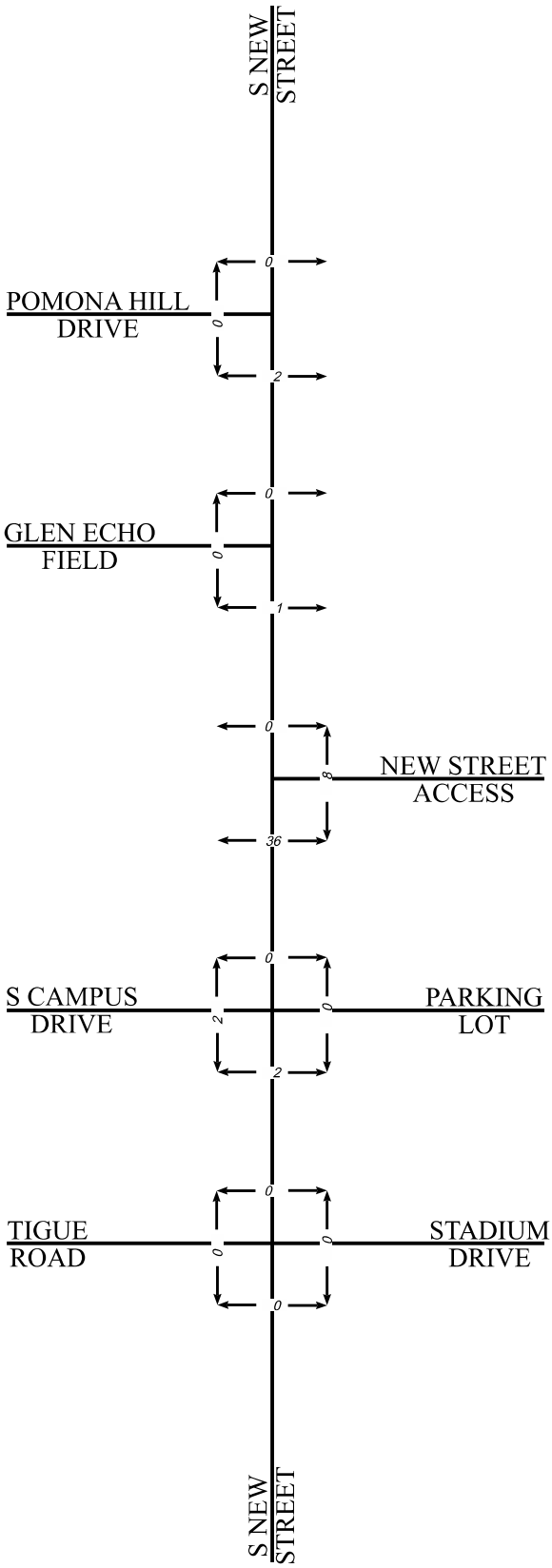
Est. 1989

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FIGURE 9

EXISTING VEHICULAR TRAFFIC VOLUMES
SOUTH CAMPUS
WEEKDAY PM PEAK HOUR



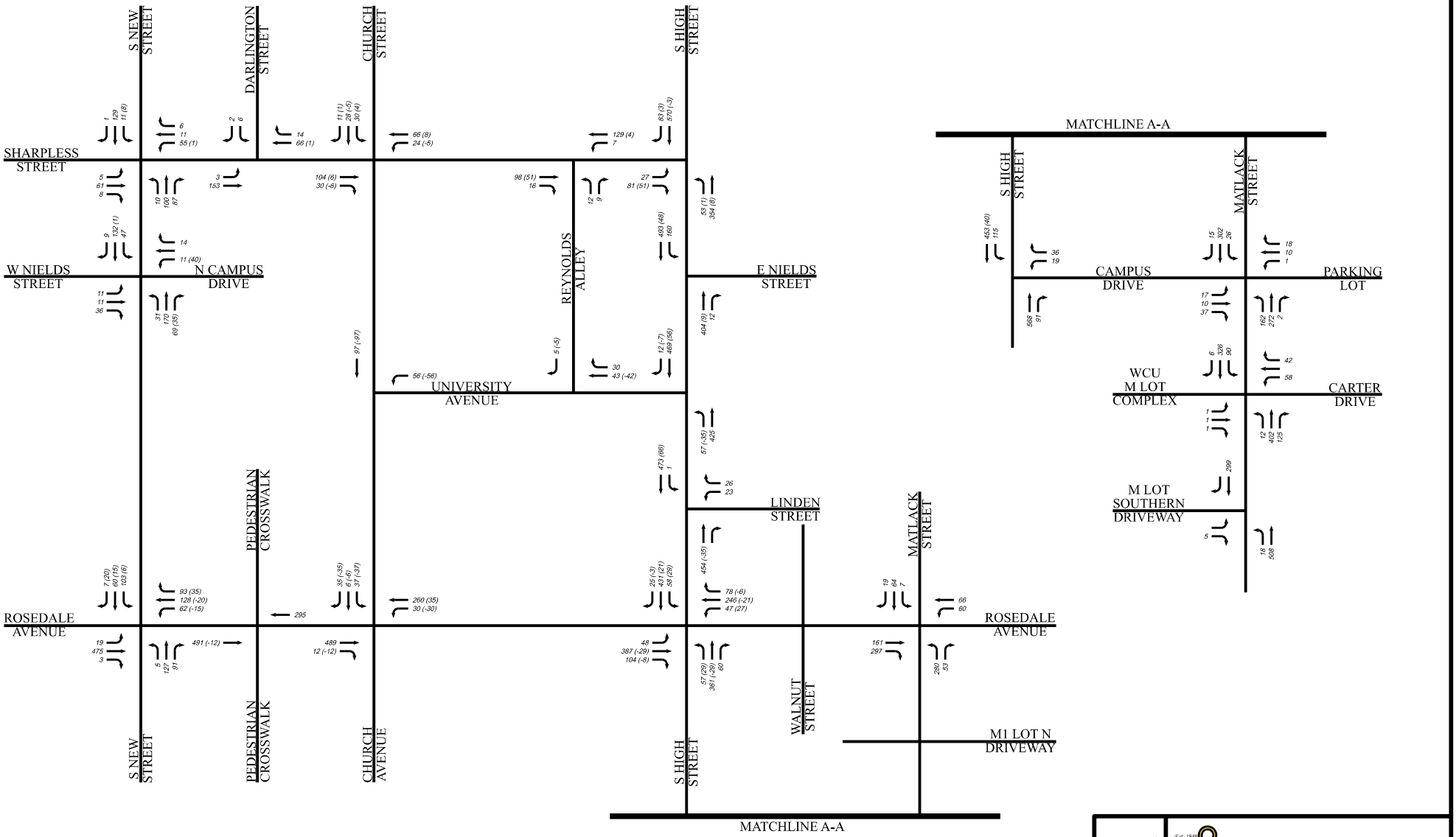

**KEY:**
**SCHEMATIC DRAWING:NOT TO SCALE**

N

Est. 1989 TPD
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FIGURE 10

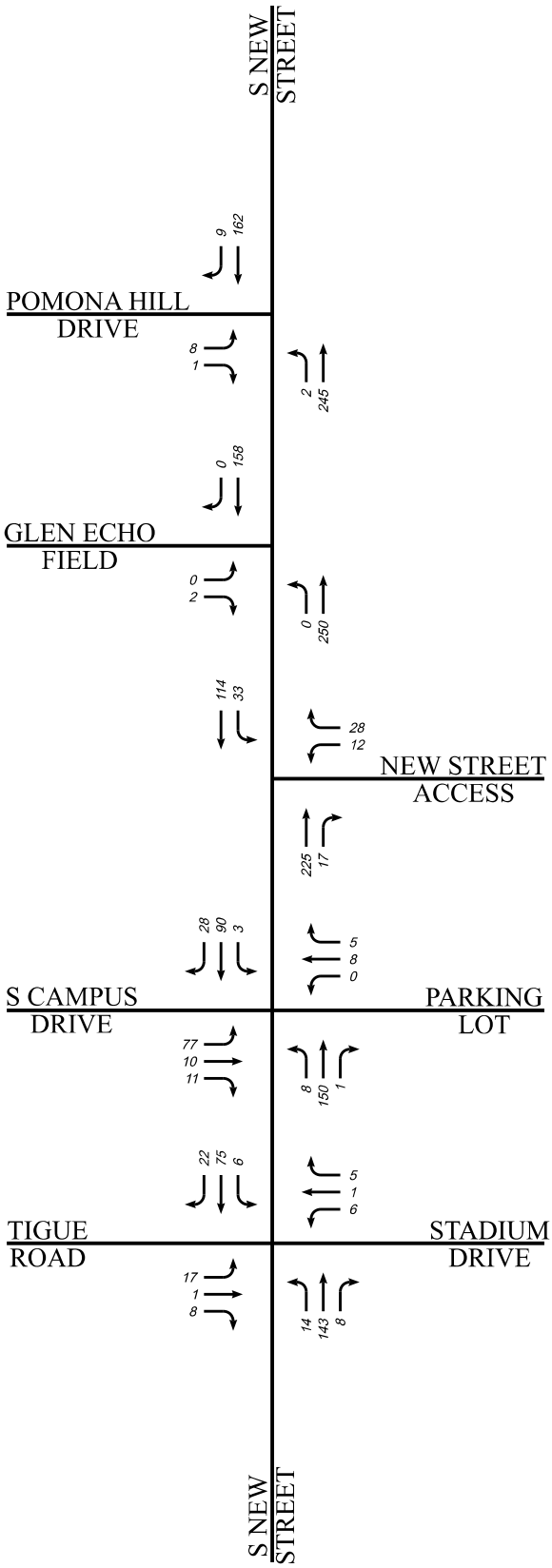
EXISTING PEDESTRIAN TRAFFIC VOLUMES
SOUTH CAMPUS
WEEKDAY PM PEAK HOUR




**KEY:**
**SCHEMATIC DRAWING:NOT TO SCALE**
**(ROAD CLOSURE REDISTRIBUTIONS)**

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FIGURE 11
2040 BASE VEHICULAR TRAFFIC VOLUMES
NORTH CAMPUS
WEEKDAY AM PEAK HOUR




**KEY:**

**SCHEMATIC DRAWING:NOT TO SCALE**

N

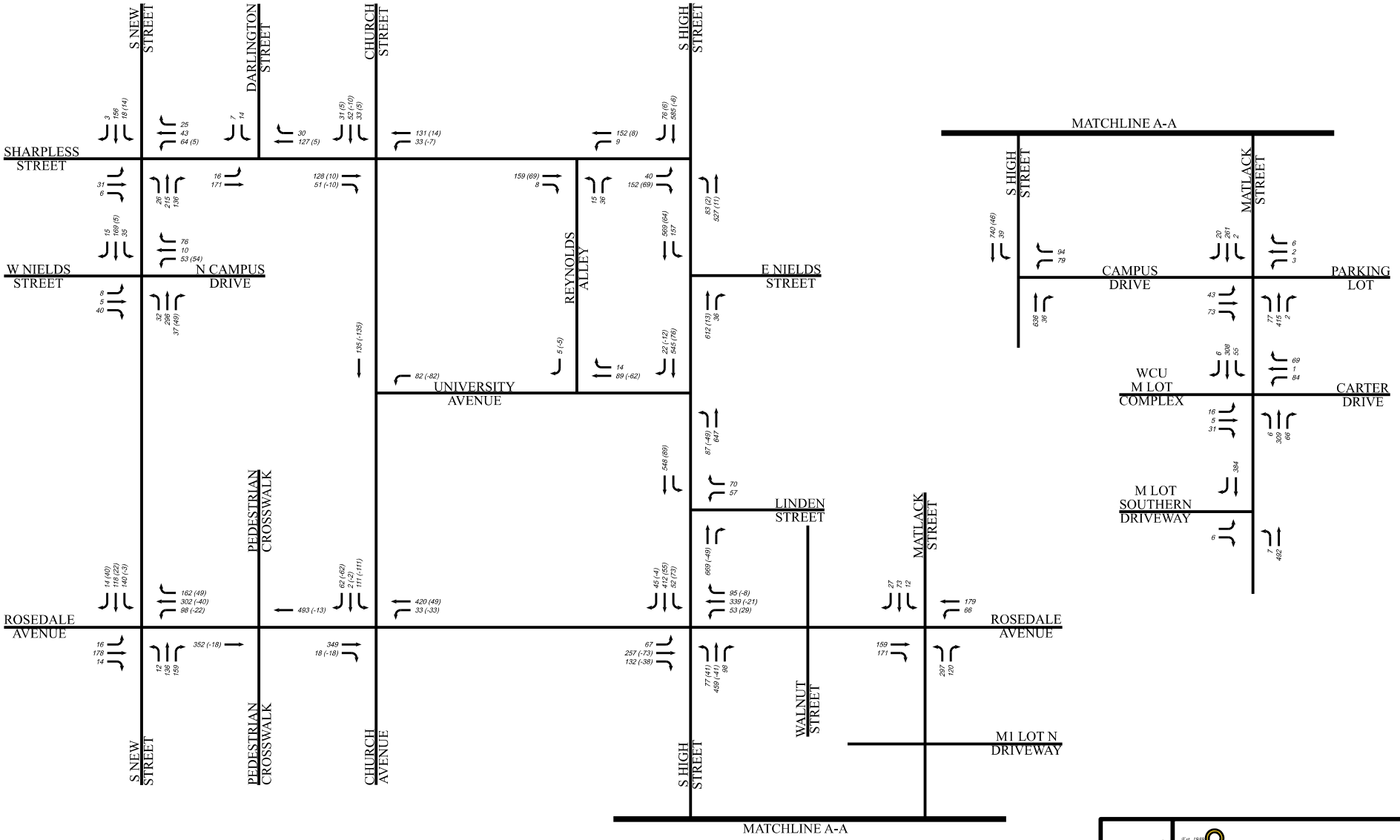
Est. 1989

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FIGURE 12

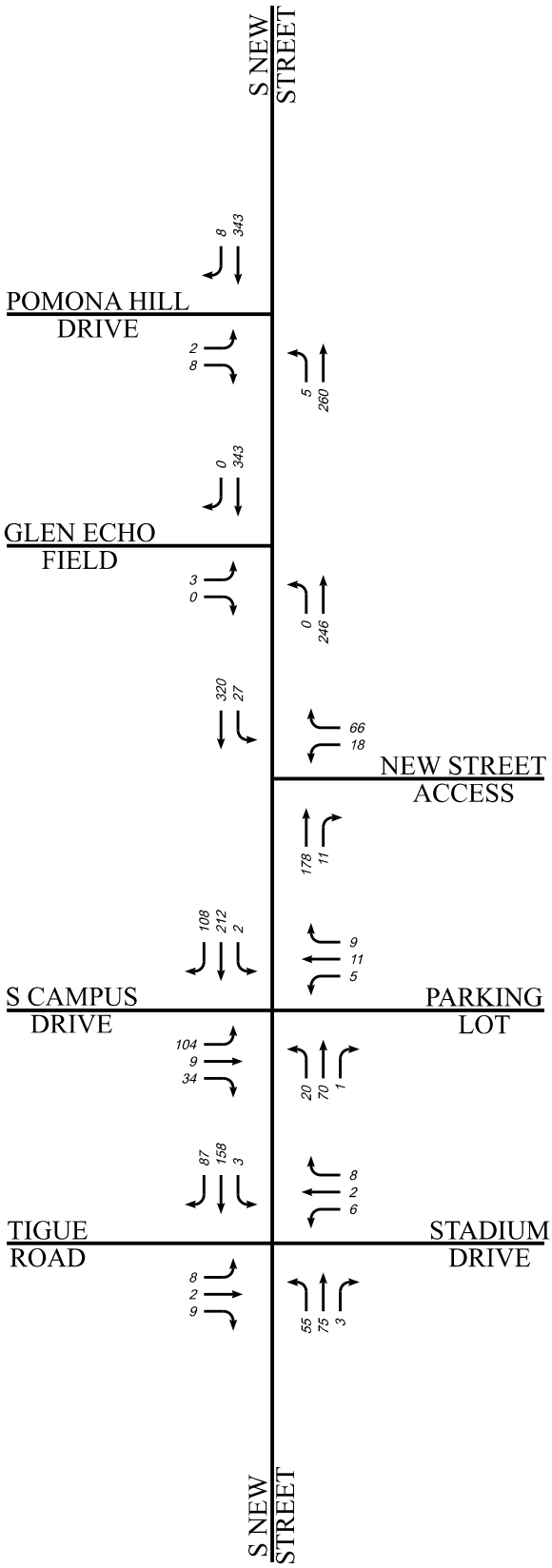
2040 BASE VEHICULAR TRAFFIC VOLUMES
SOUTH CAMPUS
WEEKDAY AM PEAK HOUR




**KEY:**
**SCHEMATIC DRAWING:NOT TO SCALE**
**(ROAD CLOSURE REDISTRIBUTIONS)**

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FIGURE 13
2040 BASE VEHICULAR TRAFFIC VOLUMES
NORTH CAMPUS
WEEKDAY PM PEAK HOUR




**KEY:**

**SCHEMATIC DRAWING:NOT TO SCALE**

N

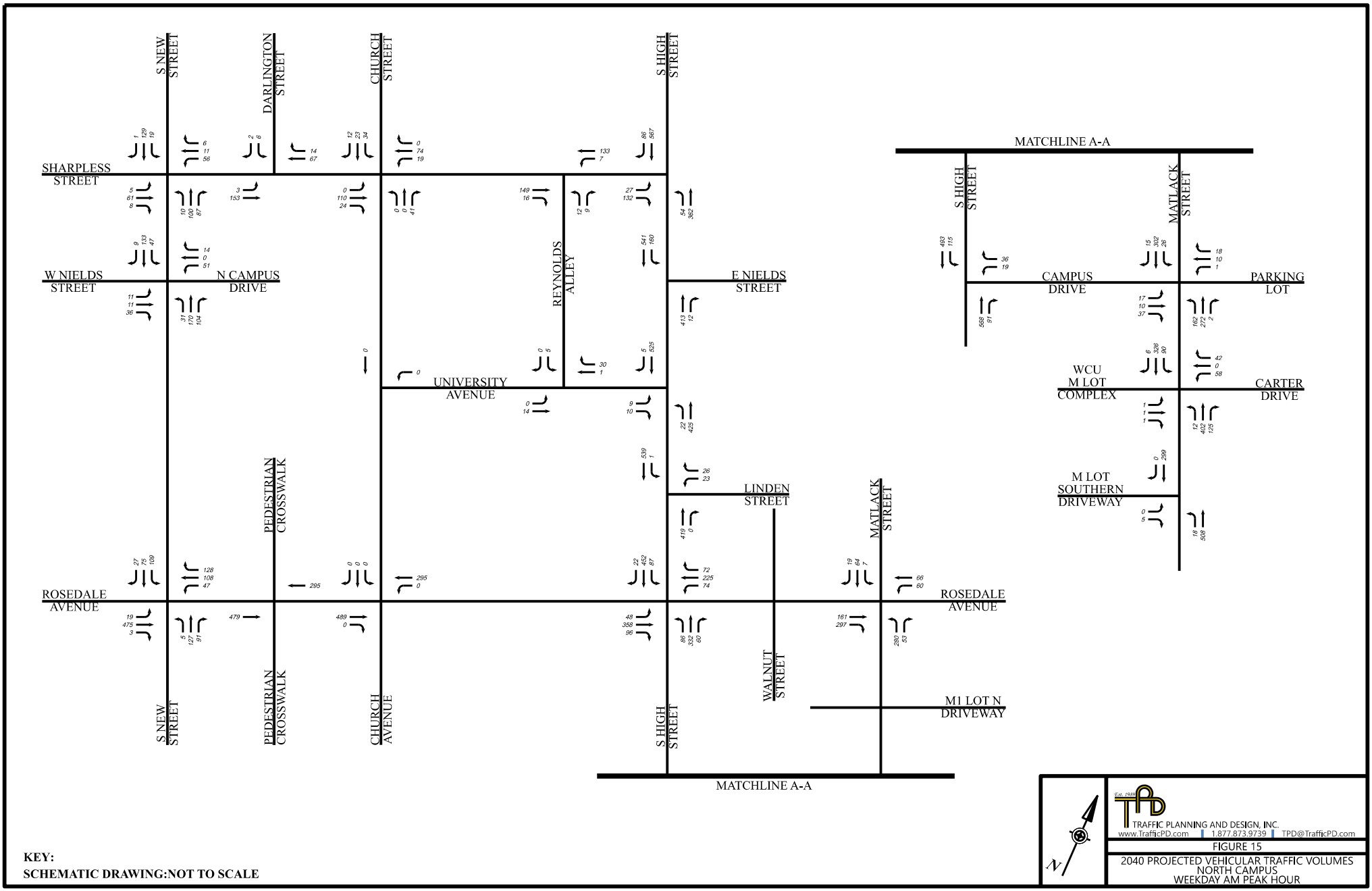
Est. 1989

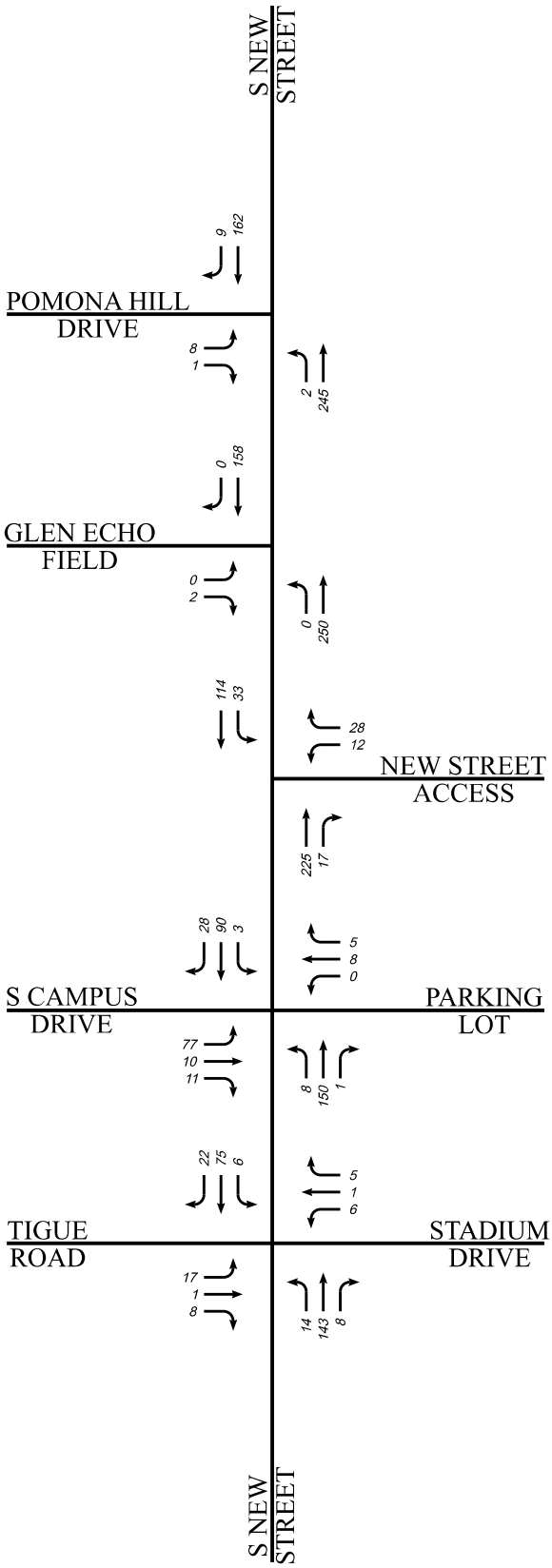
TRAFFIC PLANNING AND DESIGN, INC.

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FIGURE 14

2040 BASE VEHICULAR TRAFFIC VOLUMES
SOUTH CAMPUS
WEEKDAY PM PEAK HOUR


S NEW STREET
DARLINGTON STREET
CHURCH STREET
S HIGH STREET
SHARPLESS STREET
W NIELDS STREET
N CAMPUS DRIVE
REYNOLDS ALLEY
E NIELDS STREET
UNIVERSITY AVENUE
LINDEN STREET
MATLACK STREET
ROSEDALE AVENUE
PEDESTRIAN CROSSWALK
PEDESTRIAN CROSSWALK
CHURCH AVENUE
S HIGH STREET
WALNUT STREET
M1 LOT N DRIVEWAY
MATCHLINE A-A
MATCHLINE A-A
S HIGH STREET
MATLACK STREET
CAMPUS DRIVE
PARKING LOT
WCU M LOT COMPLEX
CARTER DRIVE
M LOT SOUTHERN DRIVEWAY
KEY:
SCHEMATIC DRAWING:NOT TO SCALE
N
TRAFFIC PLANNING AND DESIGN, INC.
www.TrafficPD.com | 1.877.873.9739 | TPD@TrafficPD.com
FIGURE 15
2040 PROJECTED VEHICULAR TRAFFIC VOLUMES
NORTH CAMPUS
WEEKDAY AM PEAK HOUR




**KEY:**

**SCHEMATIC DRAWING:NOT TO SCALE**

N

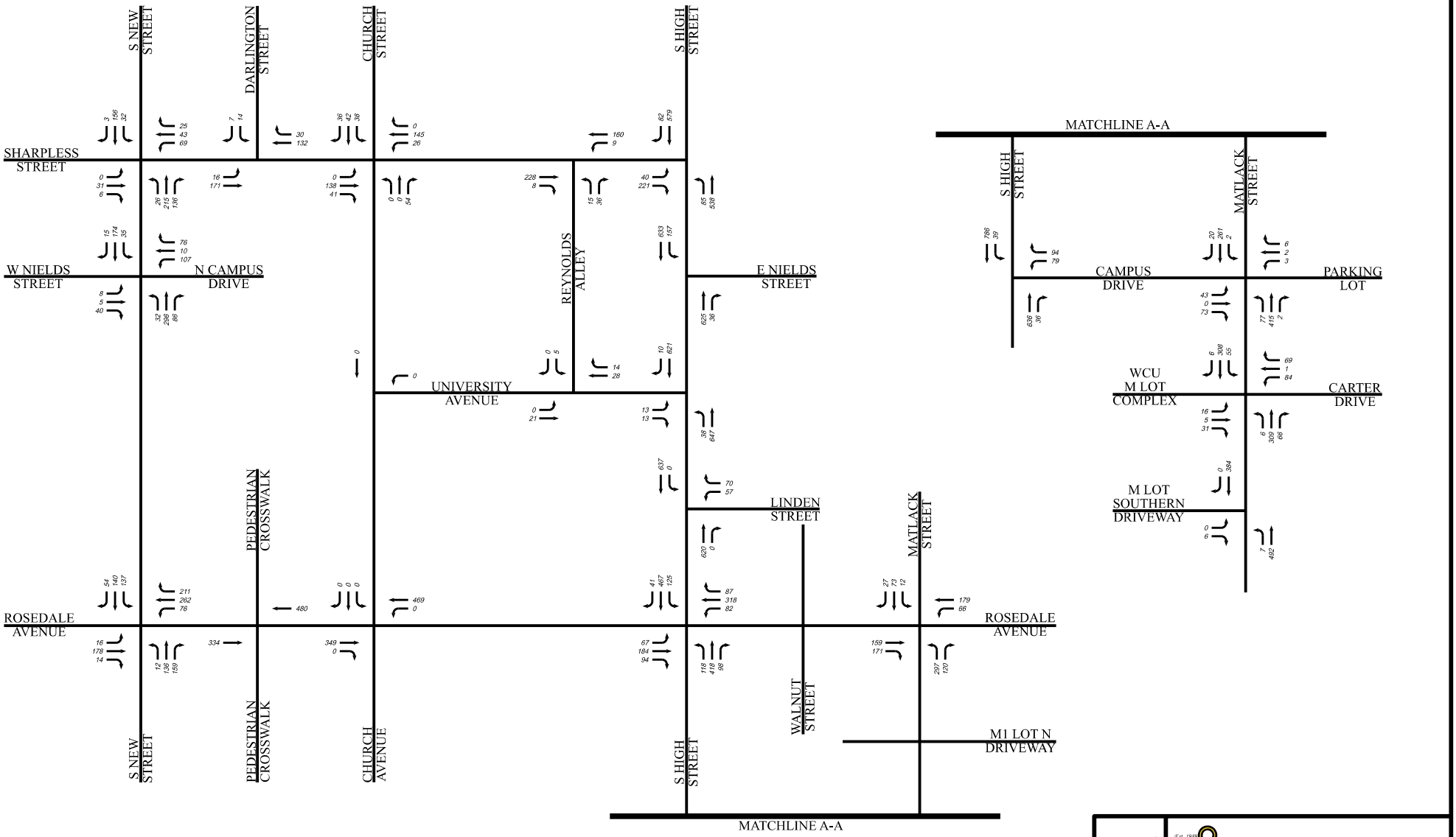
Est. 1989

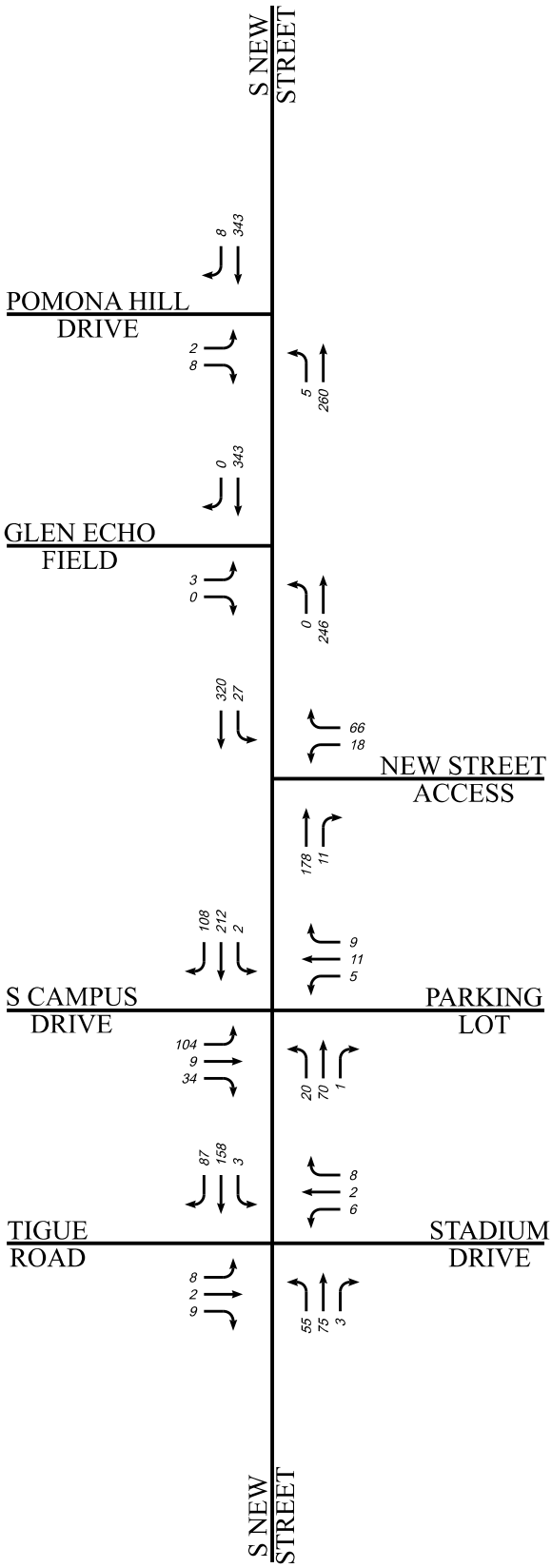
TRAFFIC PLANNING AND DESIGN, INC.

www.TrafficPD.com | 1.877.873.9739 | TPD@TrafficPD.com

FIGURE 16

2040 PROJECTED VEHICULAR TRAFFIC VOLUMES
SOUTH CAMPUS
WEEKDAY AM PEAK HOUR


S NEW STREET
DARLINGTON STREET
CHURCH STREET
S HIGH STREET
SHARPLESS STREET
W NIELDS STREET
N CAMPUS DRIVE
REYNOLDS ALLEY
E NIELDS STREET
UNIVERSITY AVENUE
PEDESTRIAN CROSSWALK
LINDEN STREET
MATLACK STREET
ROSEDALE AVENUE
WALNUT STREET
M1 LOT N DRIVEWAY
CHURCH AVENUE
MATCHLINE A-A
CAMPUS DRIVE
PARKING LOT
WCU M LOT COMPLEX
CARTER DRIVE
M LOT SOUTHERN DRIVEWAY
KEY:
SCHEMATIC DRAWING:NOT TO SCALE
TRAFFIC PLANNING AND DESIGN, INC.
www.TrafficPD.com | 1.877.873.9739 | TPD@TrafficPD.com
FIGURE 17
2040 PROJECTED VEHICULAR TRAFFIC VOLUMES
NORTH CAMPUS
WEEKDAY PM PEAK HOUR




**KEY:**

**SCHEMATIC DRAWING:NOT TO SCALE**

N

Est. 1989

TRAFFIC PLANNING AND DESIGN, INC.

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FIGURE 18

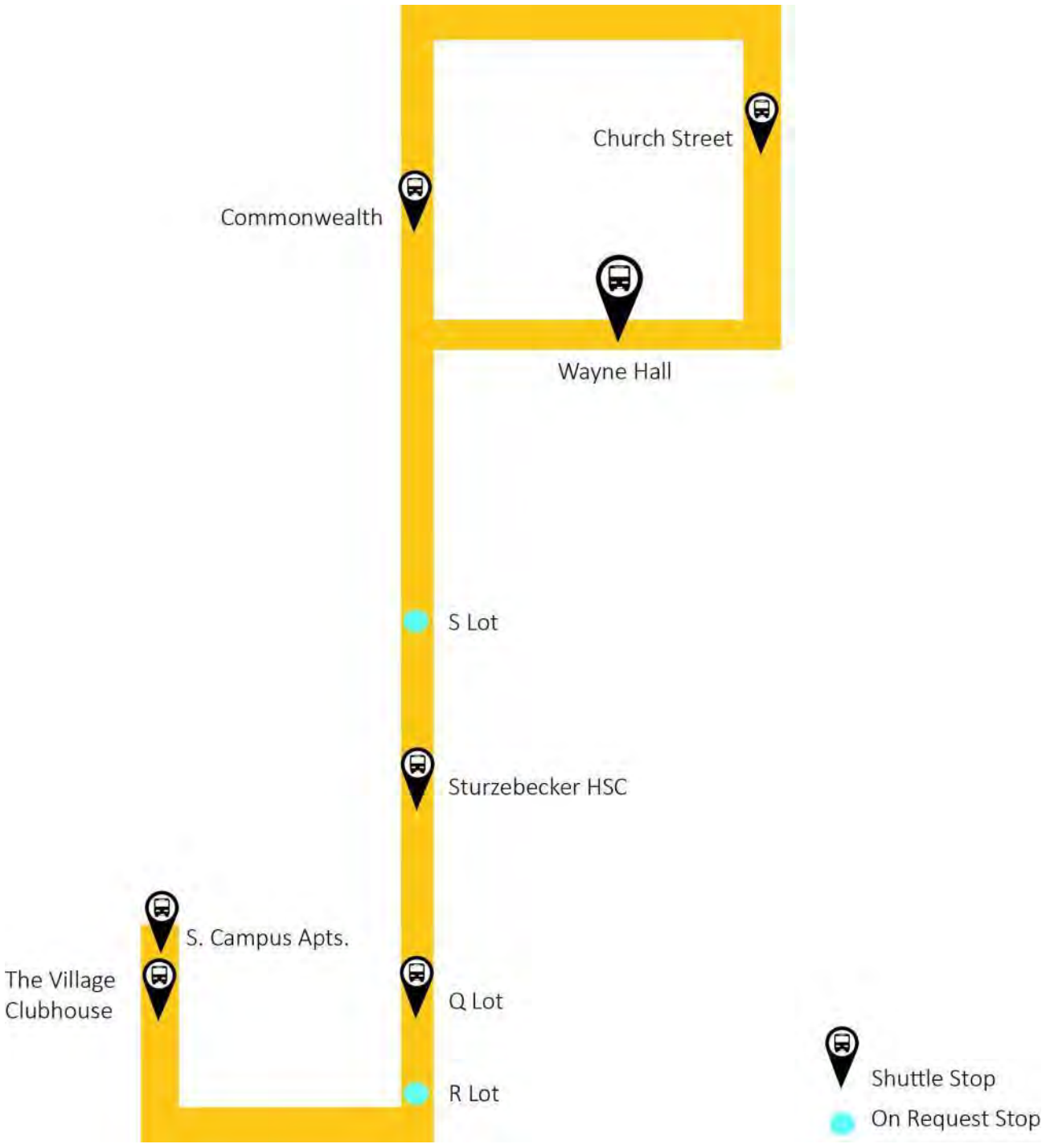
2040 PROJECTED VEHICULAR TRAFFIC VOLUMES
SOUTH CAMPUS
WEEKDAY PM PEAK HOUR

# APPENDIX A:
# *WCU Shuttle Routes*

# WCU Shuttles

## Gold Route

*Monday-Friday: 7:15 AM - 2:15 AM*
*Saturday-Sunday: 10:00 AM - 2:15 AM*



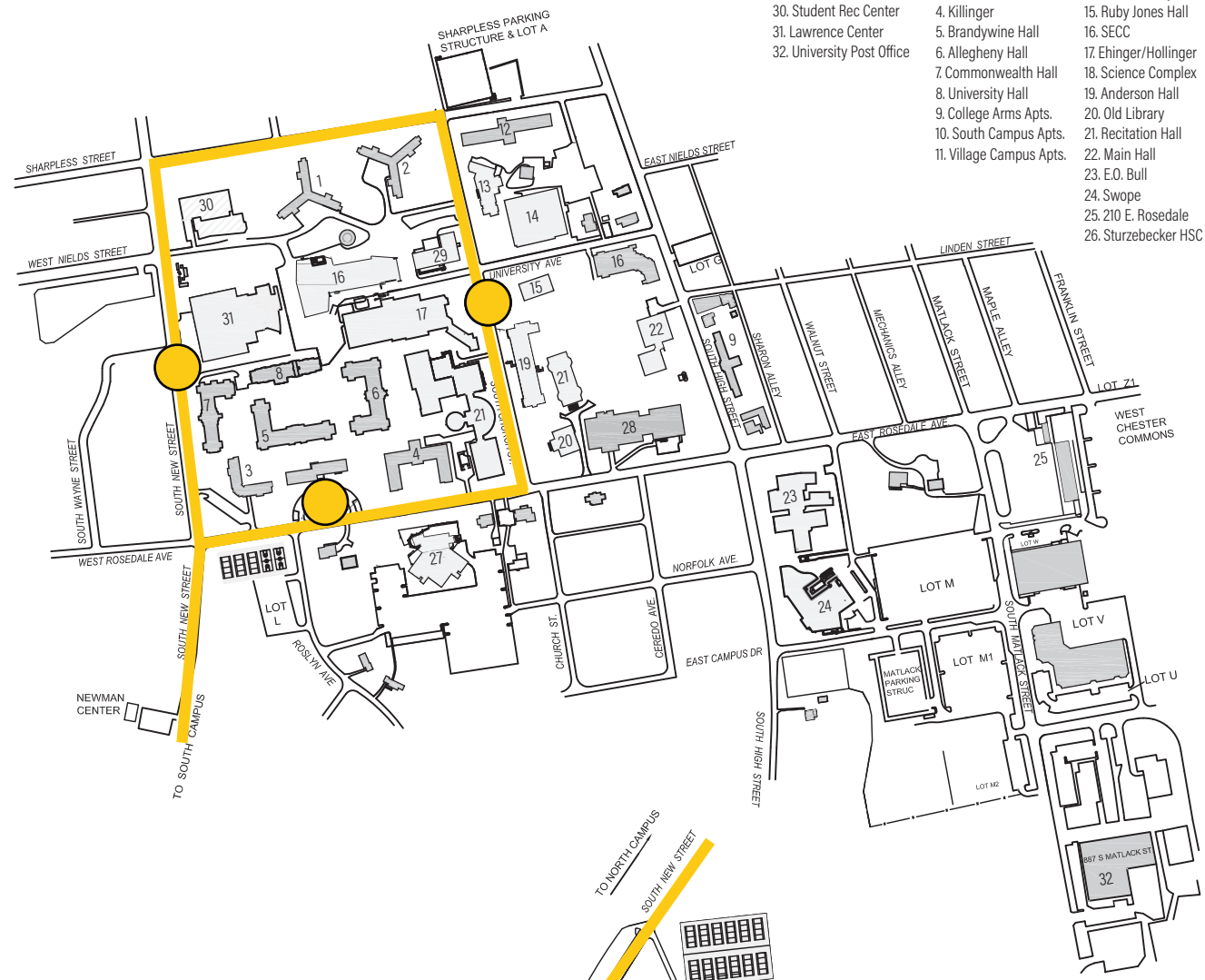
# GOLD ROUTE

**STUDENT SERVICES**
27. Sykes Student Union
28. FHG Library
29. Peoples
30. Student Rec Center
31. Lawrence Center
32. University Post Office

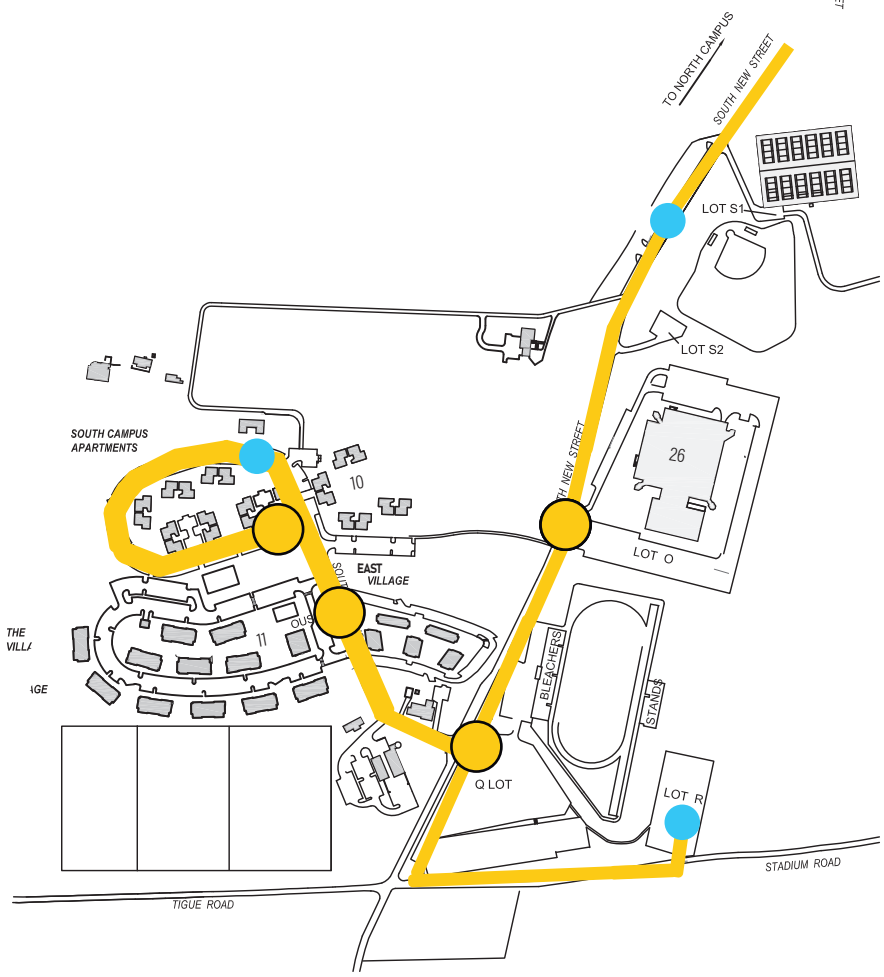
**STUDENT HOUSING**
1. Tyson
2. Goshen
3. Schmidt
4. Killinger
5. Brandywine Hall
6. Allegheny Hall
7. Commonwealth Hall
8. University Hall
9. College Arms Apts.
10. South Campus Apts.
11. Village Campus Apts.

**ACADEMIC BUILDINGS**
12. BPMC
13. Mitchell
14. 25 University Ave.
15. Ruby Jones Hall
16. SECC
17. Ehinger/Hollinger
18. Science Complex
19. Anderson Hall
20. Old Library
21. Recitation Hall
22. Main Hall
23. E.O. Bull
24. Swope
25. 210 E. Rosedale
26. Sturzebecker HSC

NORTH CAMPUS




SOUTH CAMPUS




## STOPS

Church St.
Wayne Hall
Sturzebecker (HSC)
Q-Lot
Village Clubhouse
South Campus Apts.
Commonwealth

***On-Request Stops:***
S-Lot, R-Lot,
Southside (drop off only)

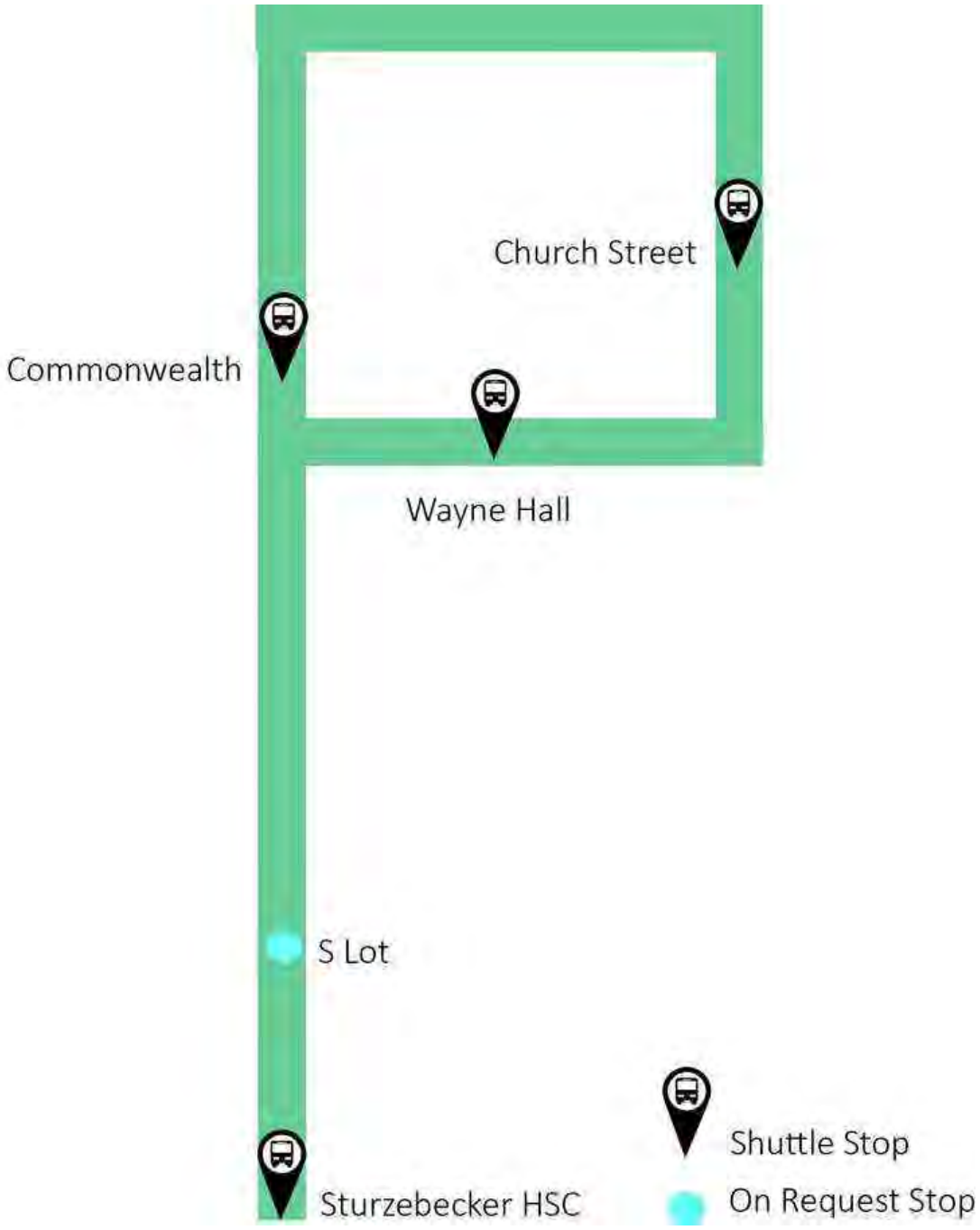
Shuttle Stops  On-Request Shuttle Stops

WCU WEST CHESTER UNIVERSITY

# WCU Shuttles

## Green Route

*Monday-Thursday: 8:30 AM - 6:00 PM*
*Friday: 8:30 AM - 4:00 PM*



# GREEN ROUTE

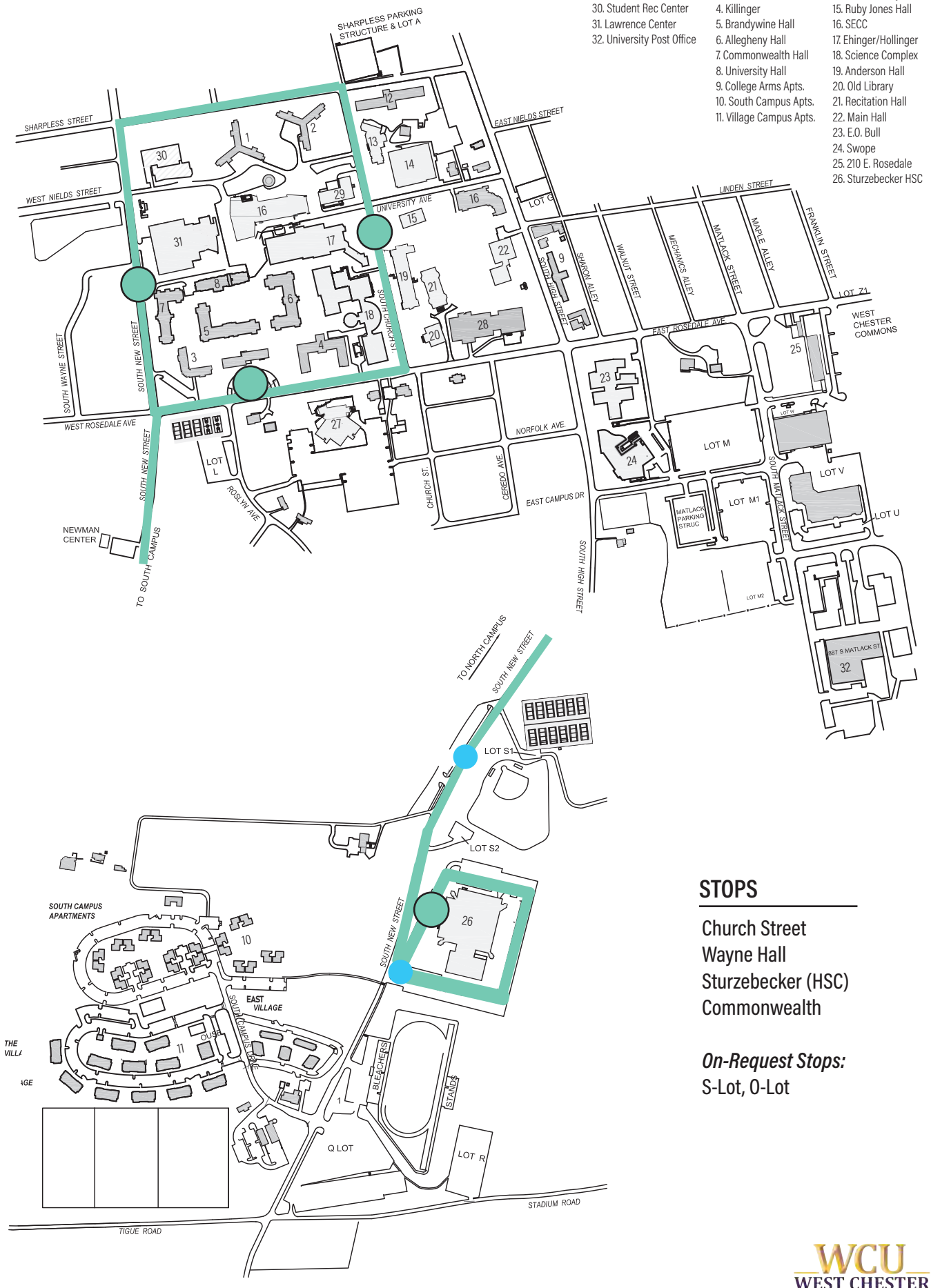
NORTH CAMPUS

SOUTH CAMPUS

**STUDENT SERVICES**
27. Sykes Student Union
28. FHG Library
29. Peoples
30. Student Rec Center
31. Lawrence Center
32. University Post Office

**STUDENT HOUSING**
1. Tyson
2. Goshen
3. Schmidt
4. Killinger
5. Brandywine Hall
6. Allegheny Hall
7. Commonwealth Hall
8. University Hall
9. College Arms Apts.
10. South Campus Apts.
11. Village Campus Apts.

**ACADEMIC BUILDINGS**
12. BPMC
13. Mitchell
14. 25 University Ave.
15. Ruby Jones Hall
16. SECC
17. Ehinger/Hollinger
18. Science Complex
19. Anderson Hall
20. Old Library
21. Recitation Hall
22. Main Hall
23. E.O. Bull
24. Swope
25. 210 E. Rosedale
26. Sturzebecker HSC




## STOPS

Church Street
Wayne Hall
Sturzebecker (HSC)
Commonwealth

***On-Request Stops:***
S-Lot, O-Lot

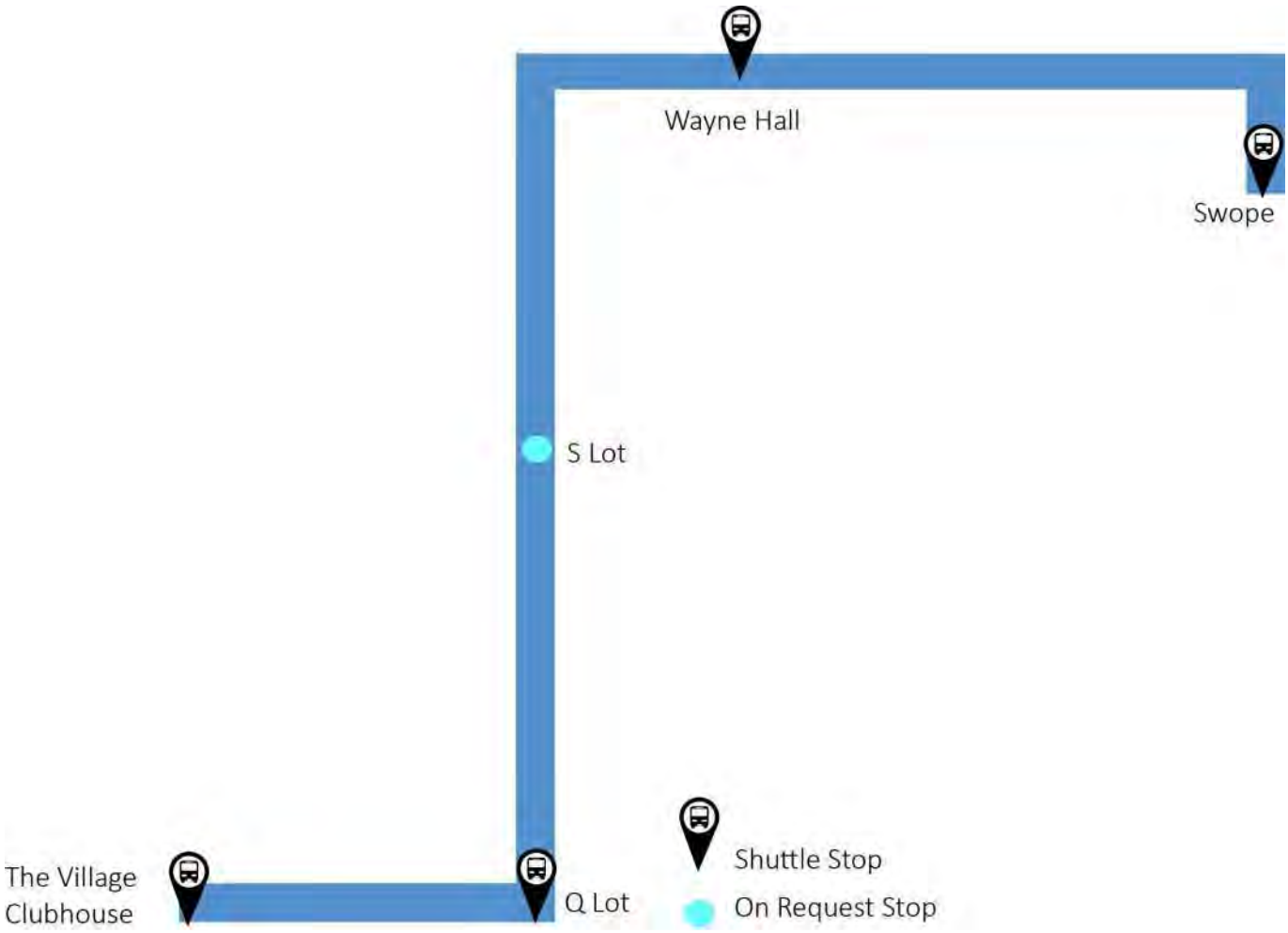
Shuttle Stops  On-Request Shuttle Stops

WCU WEST CHESTER UNIVERSITY

# WCU Shuttles

## Blue Route

*Monday-Thursday: 7:15 AM - 8:00 PM*
*Friday: 7:15 AM - 4:00 PM*



# BLUE ROUTE

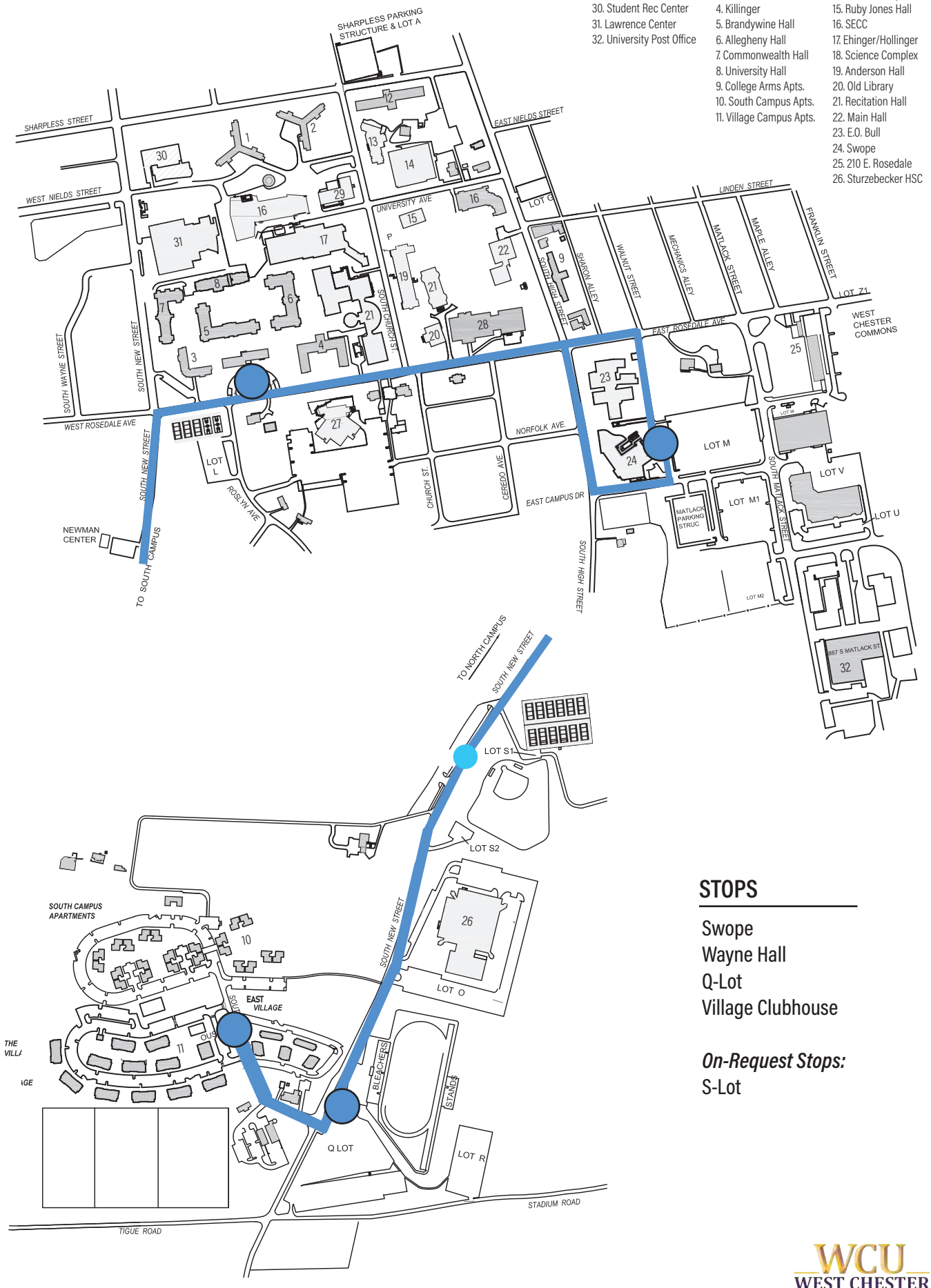
NORTH CAMPUS

SOUTH CAMPUS

**STUDENT SERVICES**
27. Sykes Student Union
28. FHG Library
29. Peoples
30. Student Rec Center
31. Lawrence Center
32. University Post Office

**STUDENT HOUSING**
1. Tyson
2. Goshen
3. Schmidt
4. Killinger
5. Brandywine Hall
6. Allegheny Hall
7. Commonwealth Hall
8. University Hall
9. College Arms Apts.
10. South Campus Apts.
11. Village Campus Apts.

**ACADEMIC BUILDINGS**
12. BPMC
13. Mitchell
14. 25 University Ave.
15. Ruby Jones Hall
16. SECC
17. Ehinger/Hollinger
18. Science Complex
19. Anderson Hall
20. Old Library
21. Recitation Hall
22. Main Hall
23. E.O. Bull
24. Swope
25. 210 E. Rosedale
26. Sturzebecker HSC




## STOPS

Swope
Wayne Hall
Q-Lot
Village Clubhouse

***On-Request Stops:***
S-Lot

Shuttle Stops  On-Request Shuttle Stops

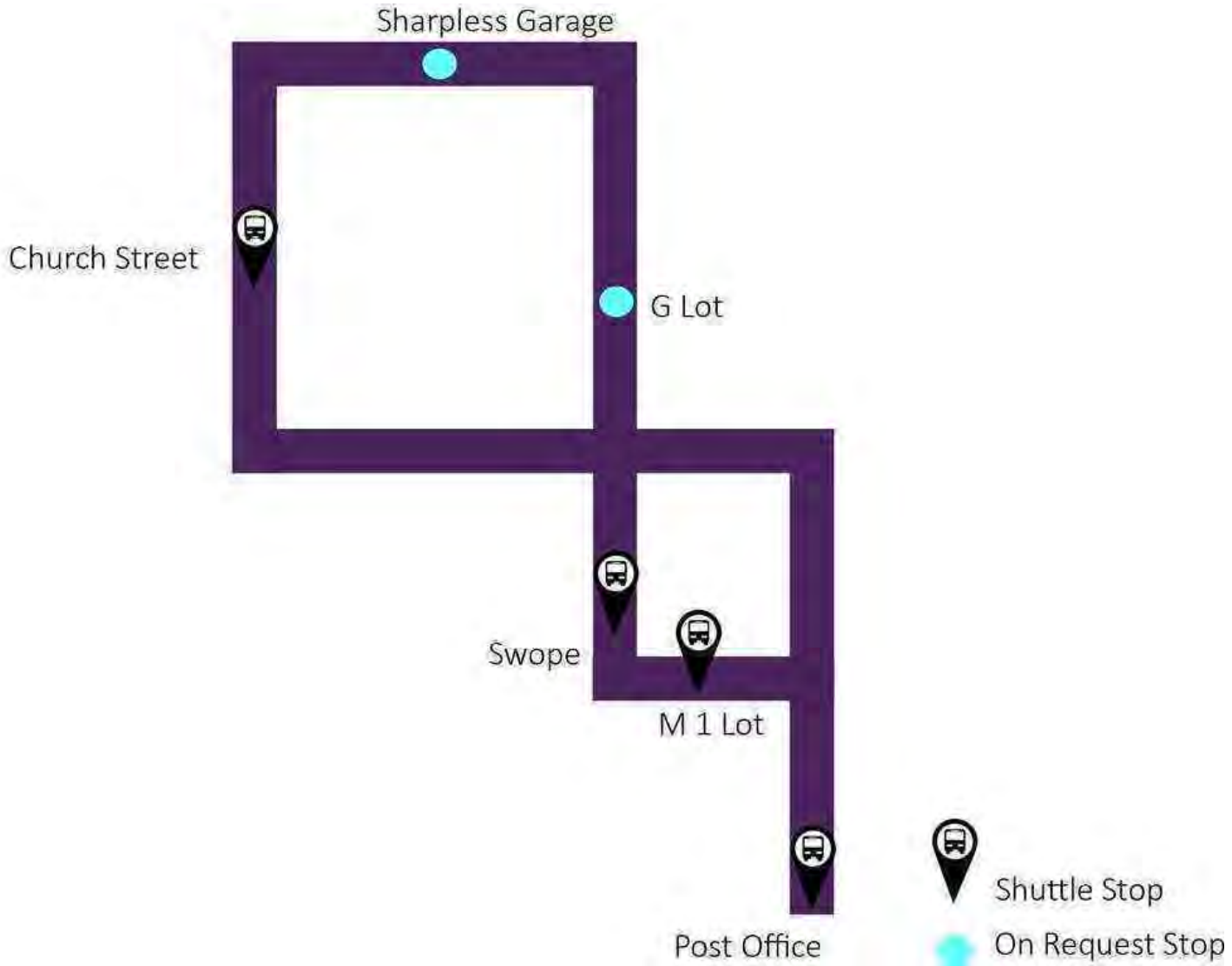
WCU WEST CHESTER UNIVERSITY

# WCU Shuttles

## Purple Route

*Monday-Friday: 7:15 AM - 4:00 PM*

*This shuttle may change its route to operate as an Accessible Shuttle, which could lead to service disruptions.*

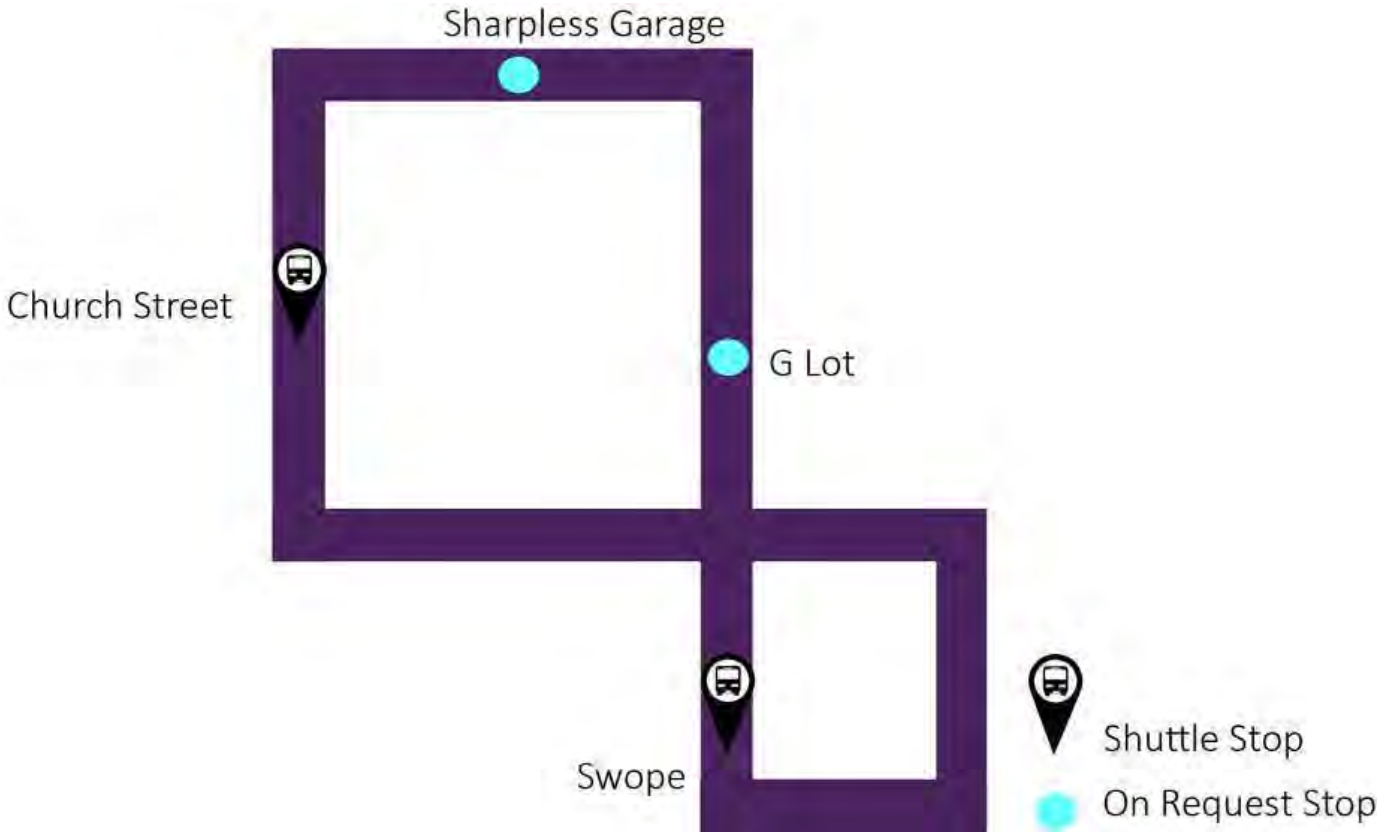


# WCU Shuttles

## Purple Route

*Monday-Friday: 4:00 PM - 9:00 PM*

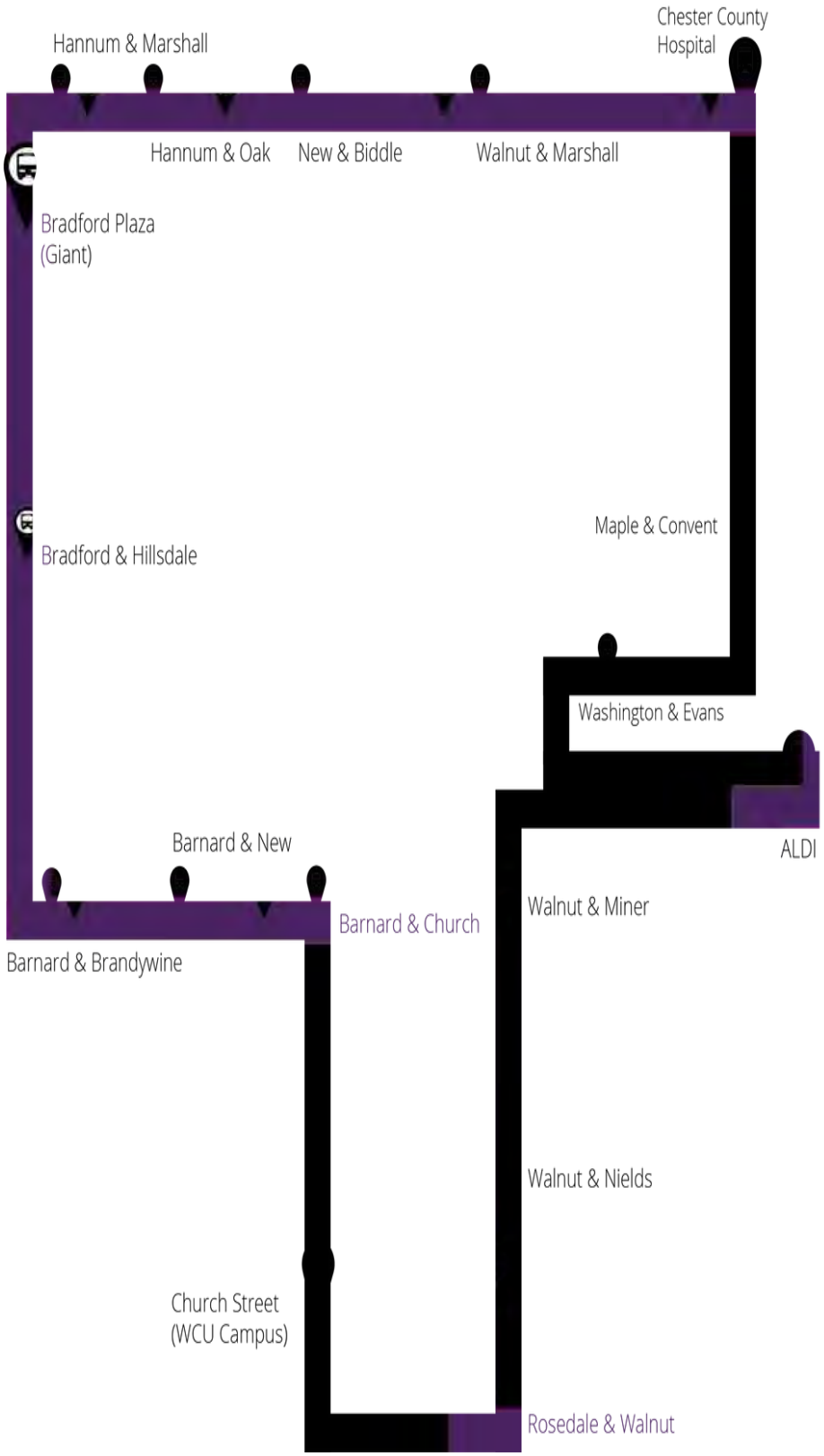
*This shuttle may change its route to operate as an Accessible Shuttle, which could lead to service disruptions.*



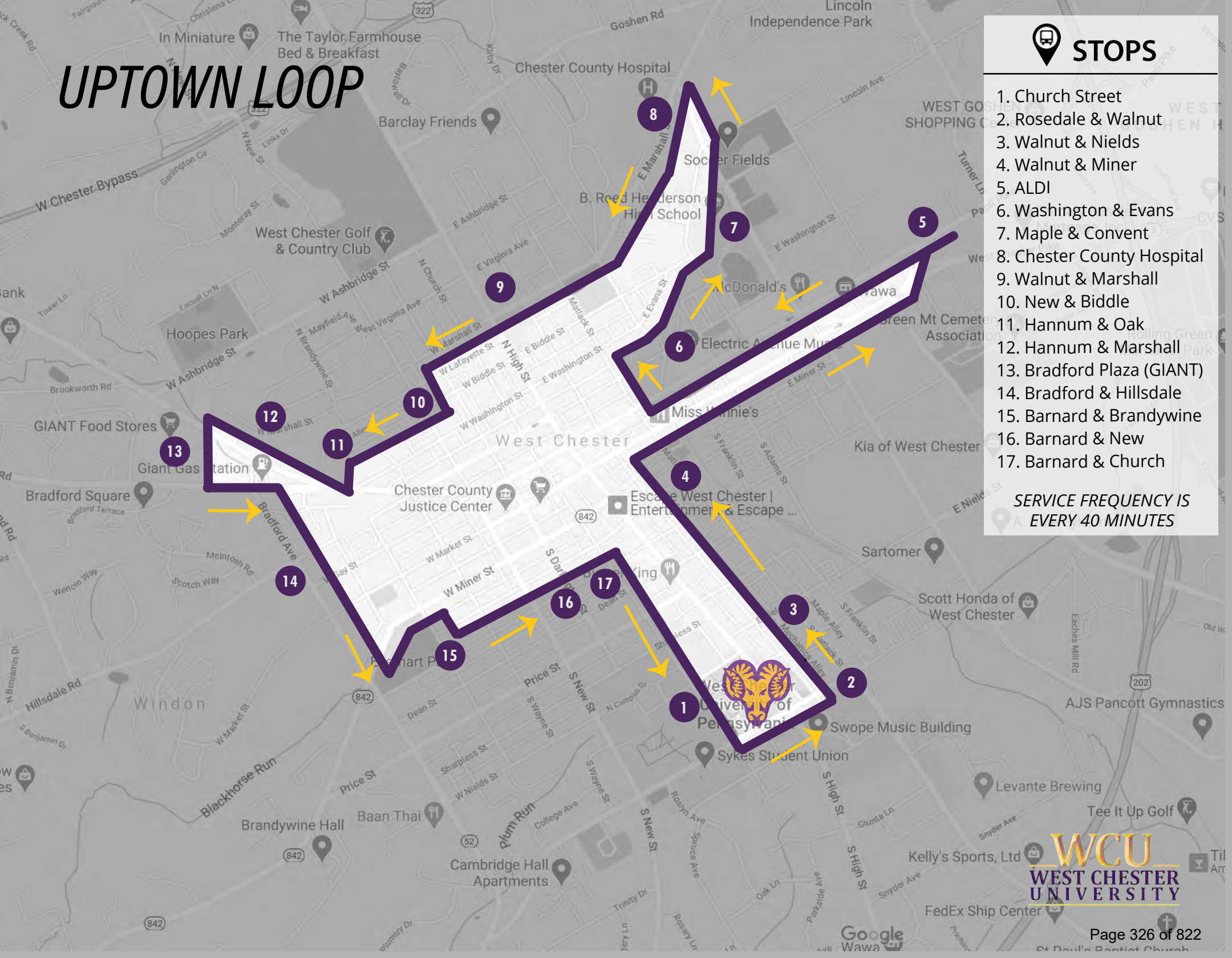
# WCU Shuttles

## Uptown Loop

*Monday-Friday: 6:45 AM - 10:45 PM*
*Saturday: 12:00 PM - 10:00 PM*



# UPTOWN LOOP




## STOPS

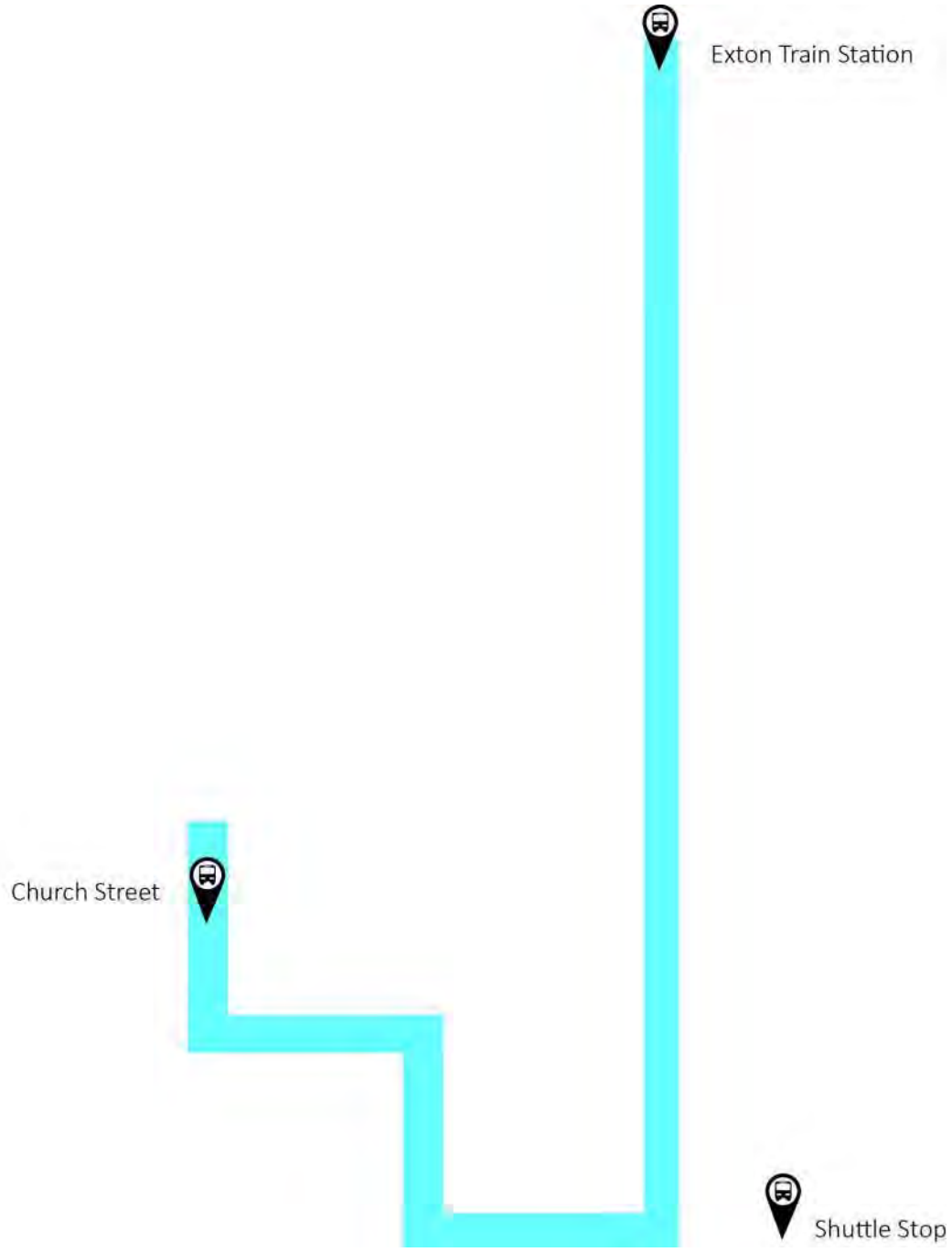
1. Church Street
2. Rosedale & Walnut
3. Walnut & Nields
4. Walnut & Miner
5. ALDI
6. Washington & Evans
7. Maple & Convent
8. Chester County Hospital
9. Walnut & Marshall
10. New & Biddle
11. Hannum & Oak
12. Hannum & Marshall
13. Bradford Plaza (GIANT)
14. Bradford & Hillsdale
15. Barnard & Brandywine
16. Barnard & New
17. Barnard & Church

*SERVICE FREQUENCY IS EVERY 40 MINUTES*

WCU WEST CHESTER UNIVERSITY

# WCU Shuttles
## Exton Train Shuttle

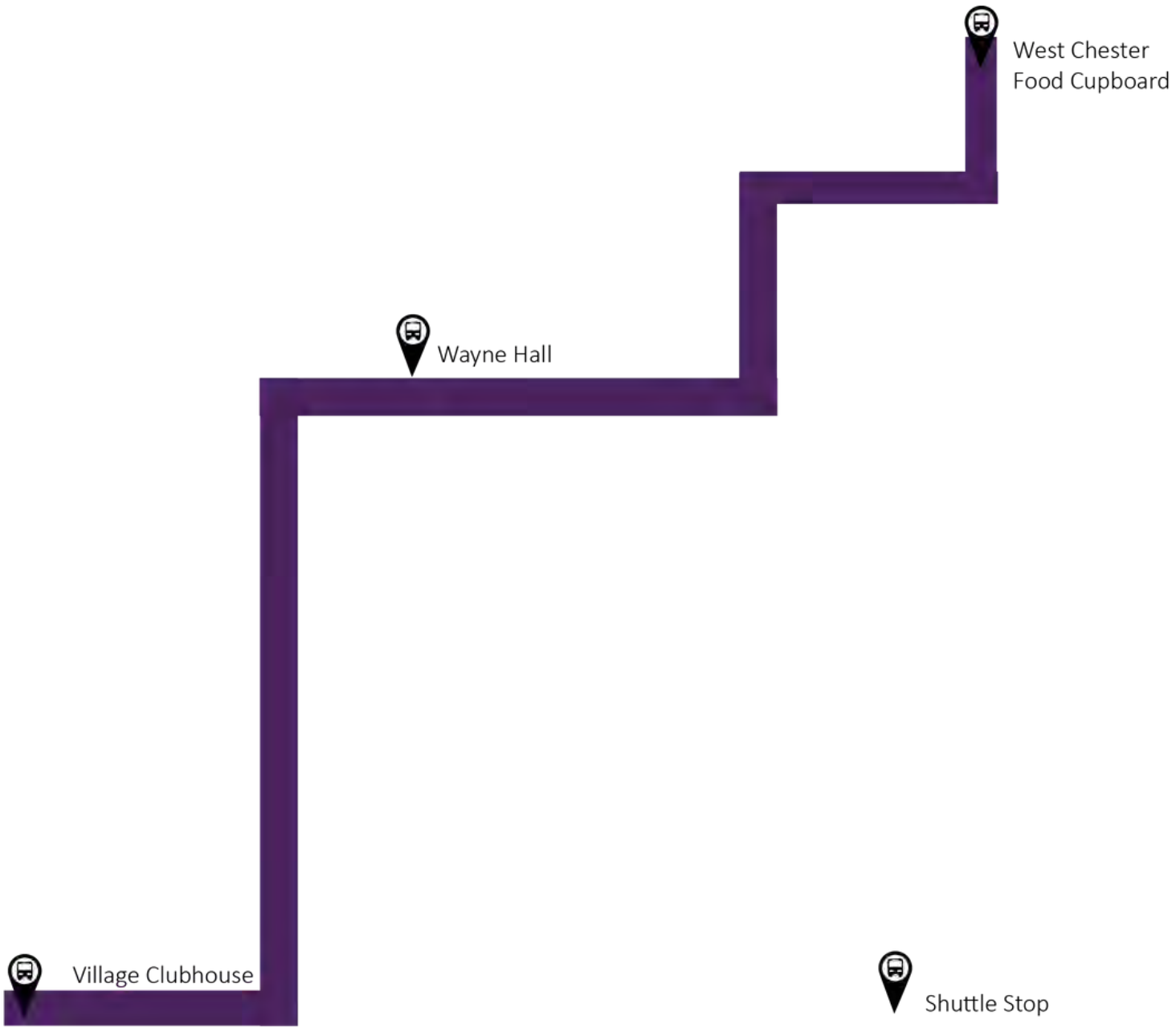
*Monday-Friday: 7:15 AM-10:10 AM & 3:00 PM - 5:15 PM*



# WCU Shuttles

## West Chester Food Cupboard

*Saturday: 10:00 AM - 11:45 AM*



# WCU Shuttles

## Graduate Business Center (GBC)

*M,T,W,TR | First three weeks of each semester ONLY*

| | | |
|---|---|---|
| **M** | **DEPART WCU** (Wayne Hall)<br>***7:35 AM***<br>***8:35 AM*** | **DEPART GBC**<br>***11:10 AM***<br>***12:10 PM*** |
| **T** | **DEPART WCU** (Wayne Hall)<br>***7:35 AM*** | **DEPART GBC**<br>***11:10 AM*** |
| **W** | **DEPART WCU** (Wayne Hall)<br>***7:35 AM***<br>***8:35 AM*** | **DEPART GBC**<br>***11:10 AM***<br>***12:10 PM*** |
| **TR** | **DEPART WCU** (Wayne Hall)<br>***7:35 AM*** | **DEPART GBC**<br>***11:10 AM*** |

The GBC Shuttle will depart from the **WAYNE HALL** shuttle stop and will run for the first three (3) weeks of each fall and spring semester **ONLY.**

# APPENDIX B:
# *Study Area Photographs & Manual Traffic Count Printouts*

# Study Area Photographs




**Direction / Road:** NB S New Street
**Approach / Departure:** Approach
**Distance:** 50 feet



**Direction / Road:** NB S New Street
**Approach / Departure:** Approach
**Distance:** 200 Feet

*Job #:* WCU.00004 *Date Taken:* 12/14/2023 *Intersection Of:* (1) South New Street x Sharpless Street




**Direction / Road:** SB S New Street
**Approach / Departure:** Approach
**Distance:** 50 feet



**Direction / Road:** SB S New Street
**Approach / Departure:** Approach
**Distance:** 200 Feet




**Direction / Road:** EB Sharpless Street
**Approach / Departure:** Approach
**Distance:** 50 feet



**Direction / Road:** EB Sharpless Street
**Approach / Departure:** Approach
**Distance:** 200 Feet




**Direction / Road:** WB Sharpless Street
**Approach / Departure:** Approach
**Distance:** 50 feet



**Direction / Road:** WB Sharpless Street
**Approach / Departure:** Approach
**Distance:** 200 Feet




**Direction / Road:** SB Darlington Street
**Approach / Departure:** Approach
**Distance:** 50 feet



**Direction / Road:** SB Darlington Street
**Approach / Departure:** Approach
**Distance:** 200 Feet

*Job #:* WCU.00004 *Date Taken:* 12/14/2023 *Intersection Of:* (2) Darlington Street x Sharpless Street



**Direction / Road:** EB Sharpless Street
**Approach / Departure:** Approach
**Distance:** 50 feet



**Direction / Road:** EB Sharpless Street
**Approach / Departure:** Approach
**Distance:** 200 Feet



**Direction / Road:** WB Sharpless Street
**Approach / Departure:** Approach
**Distance:** 50 feet



**Direction / Road:** WB Sharpless Street
**Approach / Departure:** Approach
**Distance:** 200 Feet



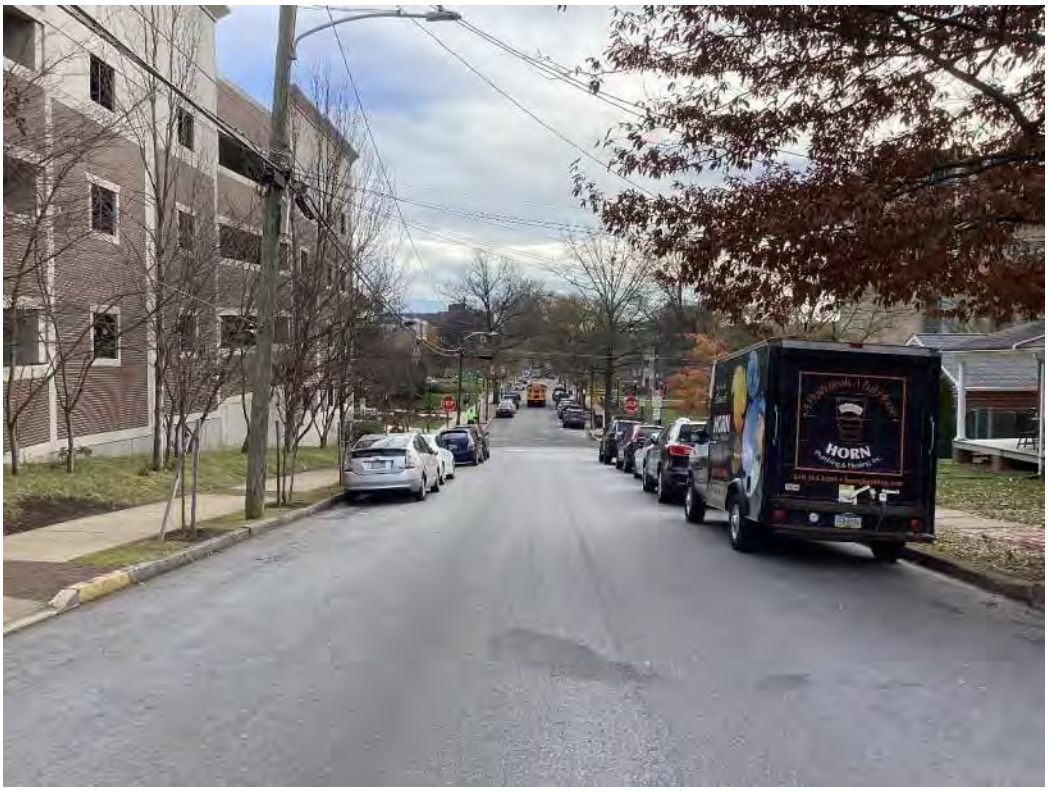
**Direction / Road:** NB S Church Street
**Approach / Departure:** Approach
**Distance:** 50 feet



**Direction / Road:** NB S Church Street
**Approach / Departure:** Approach
**Distance:** 200 Feet




**Direction / Road:** SB S Church Street
**Approach / Departure:** Approach
**Distance:** 50 feet




**Direction / Road:** SB S Church Street
**Approach / Departure:** Approach
**Distance:** 200 Feet




**Direction / Road:** EB Sharpless Street
**Approach / Departure:** Approach
**Distance:** 50 feet



**Direction / Road:** EB Sharpless Street
**Approach / Departure:** Approach
**Distance:** 200 Feet




**Direction / Road:** WB Sharpless Street
**Approach / Departure:** Approach
**Distance:** 50 feet



**Direction / Road:** WB Sharpless Street
**Approach / Departure:** Approach
**Distance:** 200 Feet

*Job #:* *WCU.00004* *Date Taken:* *12/14/2023* *Intersection Of:* *(4) Reynolds Alley x Sharpless Street*



**Direction / Road:** NB Reynolds Alley
**Approach / Departure:** Approach
**Distance:** 50 feet



**Direction / Road:** NB Reynolds Alley
**Approach / Departure:** Approach
**Distance:** 200 Feet

*Job #:* WCU.00004 *Date Taken:* 12/14/2023 *Intersection Of:* (4) Reynolds Alley x Sharpless Street



**Direction / Road:** EB Sharpless Street
**Approach / Departure:** Approach
**Distance:** 50 feet



**Direction / Road:** EB Sharpless Street
**Approach / Departure:** Approach
**Distance:** 200 Feet

*Job #:* WCU.00004 *Date Taken:* 12/14/2023 *Intersection Of:* (4) Reynolds Alley x Sharpless Street



**Direction / Road:** WB Sharpless Street
**Approach / Departure:** Approach
**Distance:** 50 feet



**Direction / Road:** WB Sharpless Street
**Approach / Departure:** Approach
**Distance:** 200 Feet

*Job #:* WCU.00004 *Date Taken:* 12/14/2023 *Intersection Of:* (5) South High Street x Sharpless Street




**Direction / Road:** NB South High Street
**Approach / Departure:** Approach
**Distance:** 50 feet



**Direction / Road:** NB South High Street
**Approach / Departure:** Approach
**Distance:** 200 Feet




**Direction / Road:** SB South High Street
**Approach / Departure:** Approach
**Distance:** 50 feet



**Direction / Road:** SB South High Street
**Approach / Departure:** Approach
**Distance:** 200 Feet




**Direction / Road:** EB Sharpless Street
**Approach / Departure:** Approach
**Distance:** 50 feet



**Direction / Road:** EB Sharpless Street
**Approach / Departure:** Approach
**Distance:** 200 Feet



**Direction / Road:** NB South High Street
**Approach / Departure:** Approach
**Distance:** 50 feet



**Direction / Road:** NB South High Street
**Approach / Departure:** Approach
**Distance:** 200 Feet



**Direction / Road:** SB South High Street
**Approach / Departure:** Approach
**Distance:** 50 feet



**Direction / Road:** SB South High Street
**Approach / Departure:** Approach
**Distance:** 200 Feet



**Direction / Road:** NB South High Street
**Approach / Departure:** Approach
**Distance:** 50 feet



**Direction / Road:** NB South High Street
**Approach / Departure:** Approach
**Distance:** 200 Feet




**Direction / Road:** SB South High Street
**Approach / Departure:** Approach
**Distance:** 50 feet



**Direction / Road:** SB South High Street
**Approach / Departure:** Approach
**Distance:** 200 Feet



**Direction / Road:** SB Reynolds Alley
**Approach / Departure:** Approach
**Distance:** 50 feet



**Direction / Road:** SB Reynolds Alley
**Approach / Departure:** Approach
**Distance:** 200 Feet



**Direction / Road:** WB University Ave
**Approach / Departure:** Approach
**Distance:** 50 feet




**Direction / Road:** WB University Ave
**Approach / Departure:** Approach
**Distance:** 200 Feet

*Job #:* WCU.00004 *Date Taken:* 12/14/2023 *Intersection Of:* (9) Church Street x University Ave




**Direction / Road:** SB S Church Street
**Approach / Departure:** Approach
**Distance:** 50 feet



**Direction / Road:** SB S Church Street
**Approach / Departure:** Approach
**Distance:** 200 Feet




**Direction / Road:** WB University Ave
**Approach / Departure:** Approach
**Distance:** 50 feet



**Direction / Road:** WB University Ave
**Approach / Departure:** Approach
**Distance:** 200 Feet




**Direction / Road:** NB South High Street
**Approach / Departure:** Approach
**Distance:** 50 feet



**Direction / Road:** NB South High Street
**Approach / Departure:** Approach
**Distance:** 200 Feet

*Job #:* WCU.00004 *Date Taken:* 12/14/2023 *Intersection Of:* (10) South High Street x Linden Street



**Direction / Road:** SB South High Street
**Approach / Departure:** Approach
**Distance:** 50 feet



**Direction / Road:** SB South High Street
**Approach / Departure:** Approach
**Distance:** 200 Feet



**Direction / Road:** WB Linden Street
**Approach / Departure:** Approach
**Distance:** 50 feet



**Direction / Road:** WB Linden Street
**Approach / Departure:** Approach
**Distance:** 200 Feet

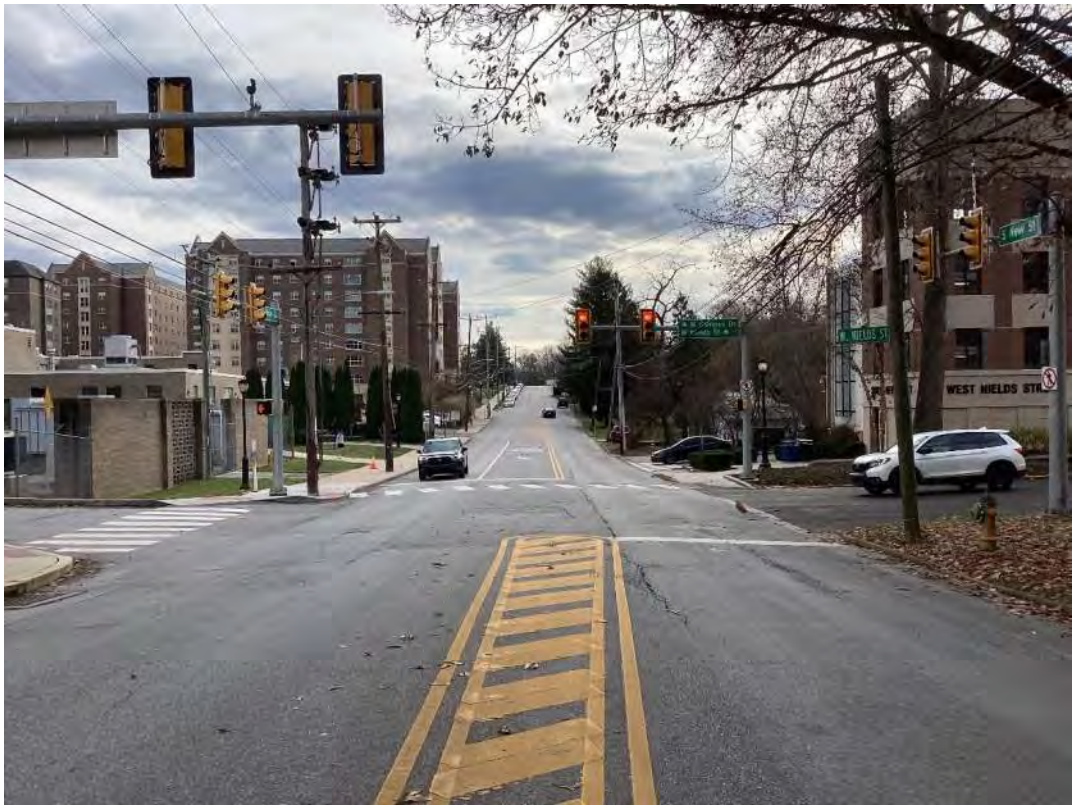


**Direction / Road:** NB South New Street
**Approach / Departure:** Approach
**Distance:** 50 feet




**Direction / Road:** NB South New Street
**Approach / Departure:** Approach
**Distance:** 200 Feet

*Job #:* WCU.00004 *Date Taken:* 12/14/2023 *Intersection Of:* (17) South New Street x Nields Street/Campus Drive




**Direction / Road:** SB South New Street
**Approach / Departure:** Approach
**Distance:** 50 feet



**Direction / Road:** SB South New Street
**Approach / Departure:** Approach
**Distance:** 200 Feet



**Direction / Road:** EB W Nields Street
**Approach / Departure:** Approach
**Distance:** 50 feet



**Direction / Road:** EB W Nields Street
**Approach / Departure:** Approach
**Distance:** 200 Feet



**Direction / Road:** WB N Campus Drive
**Approach / Departure:** Approach
**Distance:** 50 feet



**Direction / Road:** WB N Campus Drive
**Approach / Departure:** Approach
**Distance:** 200 Feet



**Direction / Road:** **Nb. *South High Street***
**Approach / Departure:** Approach
**Distance:** 50 feet




**Direction / Road:** **Nb. *South High Street***
**Approach / Departure:** Approach
**Distance:** 200 Feet



**Direction / Road:** **Sb. *South High Street***
**Approach / Departure:** Approach
**Distance:** 50 feet



**Direction / Road:** **Sb. *South High Street***
**Approach / Departure:** Approach
**Distance:** 200 Feet



**Direction / Road:** **Eb. *Rosedale Avenue***
**Approach / Departure:** Approach
**Distance:** 50 feet



**Direction / Road:** **Eb. *Rosedale Avenue***
**Approach / Departure:** Approach
**Distance:** 200 Feet




**Direction / Road:** **Wb. *Rosedale Avenue***
**Approach / Departure:** Approach
**Distance:** 50 feet




**Direction / Road:** **Wb. *Rosedale Avenue***
**Approach / Departure:** Approach
**Distance:** 200 Feet




**Direction / Road:** **Nb. *Matlack Street***
**Approach / Departure:** Approach
**Distance:** 50 feet



**Direction / Road:** **Nb. *Matlack Street***
**Approach / Departure:** Approach
**Distance:** 200 Feet




**Direction / Road:** **Sb. *Matlack Street***
**Approach / Departure:** Approach
**Distance:** 50 feet



**Direction / Road:** **Sb. *Matlack Street***
**Approach / Departure:** Approach
**Distance:** 200 Feet




**Direction / Road:** **Eb. *Rosedale Avenue***
**Approach / Departure:** Approach
**Distance:** 50 feet



**Direction / Road:** **Eb. *Rosedale Avenue***
**Approach / Departure:** Approach
**Distance:** 200 Feet




**Direction / Road:** **Wb. *Rosedale Avenue***
**Approach / Departure:** Approach
**Distance:** 50 feet



**Direction / Road:** **Wb. *Rosedale Avenue***
**Approach / Departure:** Approach
**Distance:** 200 Feet




**Direction / Road:** **Wb. M1 Lot N DW**
**Approach / Departure:** Approach
**Distance:** 50 feet



**Direction / Road:** **Wb. M1 Lot N DW**
**Approach / Departure:** Approach
**Distance:** 200 Feet



**Direction / Road:** **Nb. Matlack St**
**Approach / Departure:** Approach
**Distance:** 50 feet



**Direction / Road:** **Nb. Matlack St**
**Approach / Departure:** Approach
**Distance:** 200 Feet

*Job #:* *WCU.00004* *Date Taken:* *4/25/2024* *Intersection Of:* *Matlack St & M1 Lot Northern DW*



**Direction / Road:** **Sb. Matlack St**
**Approach / Departure:** Approach
**Distance:** 50 feet



**Direction / Road:** **Sb. Matlack St**
**Approach / Departure:** Approach
**Distance:** 200 Feet




**Direction / Road:** **Nb. *Matlack Street***
**Approach / Departure:** Approach
**Distance:** 50 feet




**Direction / Road:** **Nb. *Matlack Street***
**Approach / Departure:** Approach
**Distance:** 200 Feet




**Direction / Road:** **Sb. *Matlack Street***
**Approach / Departure:** Approach
**Distance:** 50 feet



**Direction / Road:** **Sb. *Matlack Street***
**Approach / Departure:** Approach
**Distance:** 200 Feet



| | |
|---|---|
| **Direction / Road:** | **Eb.** ***WCU M Lot Complex*** |
| **Approach / Departure:** | Approach |
| **Distance:** | 50 feet |




**Direction / Road:** **Wb. *Carter Drive***
**Approach / Departure:** Approach
**Distance:** 50 feet



**Direction / Road:** **Wb. *Carter Drive***
**Approach / Departure:** Approach
**Distance:** 200 Feet



**Direction / Road:** **Nb. *Church Street***
**Approach / Departure:** Approach
**Distance:** 50 feet



**Direction / Road:** **Nb. *Church Street***
**Approach / Departure:** Approach
**Distance:** 200 Feet




**Direction / Road:** **Sb. *Church Street***
**Approach / Departure:** Approach
**Distance:** 50 feet



**Direction / Road:** **Sb. *Church Street***
**Approach / Departure:** Approach
**Distance:** 200 Feet




**Direction / Road:** **Eb. *Rosedale Avenue***
**Approach / Departure:** Approach
**Distance:** 50 feet



**Direction / Road:** **Eb. *Rosedale Avenue***
**Approach / Departure:** Approach
**Distance:** 200 Feet




**Direction / Road:** **Wb. *Rosedale Avenue***
**Approach / Departure:** Approach
**Distance:** 50 feet



**Direction / Road:** **Wb. *Rosedale Avenue***
**Approach / Departure:** Approach
**Distance:** 200 Feet




**Direction / Road:** **Eb. *Rosedale Avenue***
**Approach / Departure:** Approach
**Distance:** 50 feet



**Direction / Road:** **Eb. *Rosedale Avenue***
**Approach / Departure:** Approach
**Distance:** 200 Feet



**Direction / Road:** **Wb. *Rosedale Avenue***
**Approach / Departure:** Approach
**Distance:** 50 feet




**Direction / Road:** **Wb. *Rosedale Avenue***
**Approach / Departure:** Approach
**Distance:** 200 Feet




**Direction / Road:** **Nb. *South New Street***
**Approach / Departure:** Approach
**Distance:** 50 feet



**Direction / Road:** **Nb. *South New Street***
**Approach / Departure:** Approach
**Distance:** 200 Feet



**Direction / Road:** **Sb. *South New Street***
**Approach / Departure:** Approach
**Distance:** 50 feet



**Direction / Road:** **Sb. *South New Street***
**Approach / Departure:** Approach
**Distance:** 200 Feet



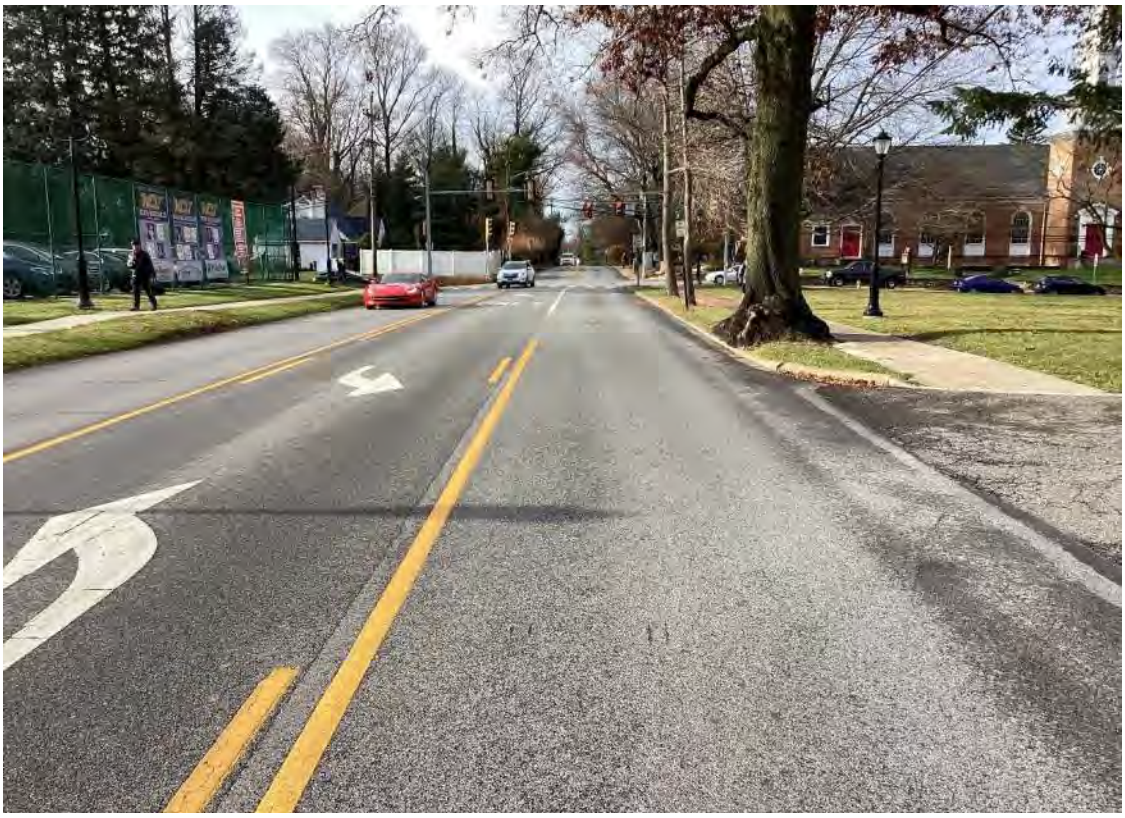
| | |
|---|---|
| **Direction / Road:** | **Eb. *Rosedale Avenue*** |
| **Approach / Departure:** | Approach |
| **Distance:** | 50 feet |



| | |
|---|---|
| **Direction / Road:** | **Eb. *Rosedale Avenue*** |
| **Approach / Departure:** | Approach |
| **Distance:** | 200 Feet |




**Direction / Road:** **Wb. *Rosedale Avenue***
**Approach / Departure:** Approach
**Distance:** 50 feet



**Direction / Road:** **Wb. *Rosedale Avenue***
**Approach / Departure:** Approach
**Distance:** 200 Feet




**Direction / Road:** **Nb. *South New Street***
**Approach / Departure:** Approach
**Distance:** 50 feet



**Direction / Road:** **Nb. *South New Street***
**Approach / Departure:** Approach
**Distance:** 200 Feet




**Direction / Road:** **Sb. *South New Street***
**Approach / Departure:** Approach
**Distance:** 50 feet



**Direction / Road:** **Sb. *South New Street***
**Approach / Departure:** Approach
**Distance:** 200 Feet




**Direction / Road:** **Eb. *Pomona Hill Drive***
**Approach / Departure:** Approach
**Distance:** 50 feet



**Direction / Road:** **Eb. *Pomona Hill Drive***
**Approach / Departure:** Approach
**Distance:** 200 Feet



**Direction / Road:** **Nb. *South New Street***
**Approach / Departure:** Approach
**Distance:** 50 feet



**Direction / Road:** **Nb. *South New Street***
**Approach / Departure:** Approach
**Distance:** 200 Feet



**Direction / Road:** **Sb. *South New Street***
**Approach / Departure:** Approach
**Distance:** 50 feet



**Direction / Road:** **Sb. *South New Street***
**Approach / Departure:** Approach
**Distance:** 200 Feet



| | |
|---|---|
| **Direction / Road:** | **Eb. *Glen Echo Field Access*** |
| **Approach / Departure:** | Approach |
| **Distance:** | 50 feet |



| | |
|---|---|
| **Direction / Road:** | **Eb. *Glen Echo Field Access*** |
| **Approach / Departure:** | Approach |
| **Distance:** | 200 Feet |




**Direction / Road:** **Nb. *South New Street***
**Approach / Departure:** Approach
**Distance:** 50 feet



**Direction / Road:** **Nb. *South New Street***
**Approach / Departure:** Approach
**Distance:** 200 Feet

*Job #:* *WCU.00004* *Date Taken:* *12-05-2023* *Intersection Of:* *South New Street & 855 S New Street Access*



**Direction / Road:** **Sb. *South New Street***
**Approach / Departure:** Approach
**Distance:** 50 feet



**Direction / Road:** **Sb. *South New Street***
**Approach / Departure:** Approach
**Distance:** 200 Feet




**Direction / Road:** **Wb.** ***855 S New Street Access***
**Approach / Departure:** Approach
**Distance:** 50 feet



**Direction / Road:** **Wb.** ***855 S New Street Access***
**Approach / Departure:** Approach
**Distance:** 200 Feet



**Direction / Road:** **Nb. *South New Street***
**Approach / Departure:** Approach
**Distance:** 50 feet



**Direction / Road:** **Nb. *South New Street***
**Approach / Departure:** Approach
**Distance:** 200 Feet



**Direction / Road:** **Sb. *South New Street***
**Approach / Departure:** Approach
**Distance:** 50 feet



**Direction / Road:** **Sb. *South New Street***
**Approach / Departure:** Approach
**Distance:** 200 Feet



**Direction / Road:** **Eb. *S Campus Drive***
**Approach / Departure:** Approach
**Distance:** 50 feet



**Direction / Road:** **Eb. *S Campus Drive***
**Approach / Departure:** Approach
**Distance:** 200 Feet

*Job #:* *WCU.00004* *Date Taken:* *12-08-2023* *Intersection Of:* *South New Street & S Campus Drive*




| | |
|---|---|
| **Direction / Road:** | **Wb.** ***Parking Lot*** |
| **Approach / Departure:** | Approach |
| **Distance:** | 50 feet |




**Direction / Road:** **Nb. *South New Street***
**Approach / Departure:** Approach
**Distance:** 50 feet



**Direction / Road:** **Nb. *South New Street***
**Approach / Departure:** Approach
**Distance:** 200 Feet




| | |
|---|---|
| **Direction / Road:** | **Sb. *South New Street*** |
| **Approach / Departure:** | Approach |
| **Distance:** | 50 feet |



| | |
|---|---|
| **Direction / Road:** | **Sb. *South New Street*** |
| **Approach / Departure:** | Approach |
| **Distance:** | 200 Feet |




**Direction / Road:** **Eb. *Tigue Road***
**Approach / Departure:** Approach
**Distance:** 50 feet



**Direction / Road:** **Eb. *Tigue Road***
**Approach / Departure:** Approach
**Distance:** 200 Feet




**Direction / Road:** **Wb. *Stadium Drive***
**Approach / Departure:** Approach
**Distance:** 50 feet



**Direction / Road:** **Wb. *Stadium Drive***
**Approach / Departure:** Approach
**Distance:** 200 Feet

*Job #:* WCU.00004 *Date Taken:* 4/25/2024 *Intersection Of:* Matlack St & Campus Dr



**Direction / Road:** **Nb. Matlack St**
**Approach / Departure:** Approach
**Distance:** 50 feet



**Direction / Road:** **Nb. Matlack St**
**Approach / Departure:** Approach
**Distance:** 200 Feet

*Job #:* WCU.00004 *Date Taken:* 4/25/2024 *Intersection Of:* Matlack St & Campus Dr



**Direction / Road:** **Sb. Matlack St**
**Approach / Departure:** Approach
**Distance:** 50 feet



**Direction / Road:** **Sb. Matlack St**
**Approach / Departure:** Approach
**Distance:** 200 Feet

*Job #:* WCU.00004 *Date Taken:* 4/25/2024 *Intersection Of:* Matlack St & Campus Dr




**Direction / Road:** **Eb. Campus Dr**
**Approach / Departure:** Approach
**Distance:** 50 feet



**Direction / Road:** **Eb. Campus Dr**
**Approach / Departure:** Approach
**Distance:** 200 Feet



| | |
|---|---|
| **Direction / Road:** | **Wb. Parking Lot DW** |
| **Approach / Departure:** | Approach |
| **Distance:** | 50 feet |



| | |
|---|---|
| **Direction / Road:** | **Wb. Parking Lot DW** |
| **Approach / Departure:** | Approach |
| **Distance:** | 200 Feet |

*Job #:* *WCU.00004* *Date Taken:* *4/25/2024* *Intersection Of:* *Matlack St & M1 Lot Southern DW*



**Direction / Road:** **Eb. M1 Lot S DW**
**Approach / Departure:** Approach
**Distance:** 50 feet



**Direction / Road:** **Eb. M1 Lot S DW**
**Approach / Departure:** Approach
**Distance:** 200 Feet



**Direction / Road:** **Nb. Matlack St**
**Approach / Departure:** Approach
**Distance:** 50 feet




**Direction / Road:** **Nb. Matlack St**
**Approach / Departure:** Approach
**Distance:** 200 Feet



**Direction / Road:** **Sb. Matlack St**
**Approach / Departure:** Approach
**Distance:** 50 feet



**Direction / Road:** **Sb. Matlack St**
**Approach / Departure:** Approach
**Distance:** 200 Feet

*Job #:* *WCU.00004* *Date Taken:* *4/25/2024* *Intersection Of:* *High St & Campus Dr*



**Direction / Road:** **Wb. Campus Dr**
**Approach / Departure:** Approach
**Distance:** 50 feet



**Direction / Road:** **Wb. Campus Dr**
**Approach / Departure:** Approach
**Distance:** 200 Feet

*Job #:* WCU.00004 *Date Taken:* 4/25/2024 *Intersection Of:* High St & Campus Dr



**Direction / Road:** **Nb. High St**
**Approach / Departure:** Approach
**Distance:** 50 feet




**Direction / Road:** **Nb. High St**
**Approach / Departure:** Approach
**Distance:** 200 Feet

*Job #:* WCU.00004 *Date Taken:* 4/25/2024 *Intersection Of:* High St & Campus Dr




**Direction / Road:** **Sb. High St**
**Approach / Departure:** Approach
**Distance:** 50 feet



**Direction / Road:** **Sb. High St**
**Approach / Departure:** Approach
**Distance:** 200 Feet

# Manual Traffic Count Printouts

Traffic Planning and Design, Inc
2500 East High Street
Suite 650
Pottstown, Pennsylvania, United States 19464
610.326.3100 kyoung@trafficpd.com

Counter: MIO:
Set up by: KY:

Count Name: (1) AM/PM South New Street x Sharpless Street
Site Code:
Start Date: 12/06/2023

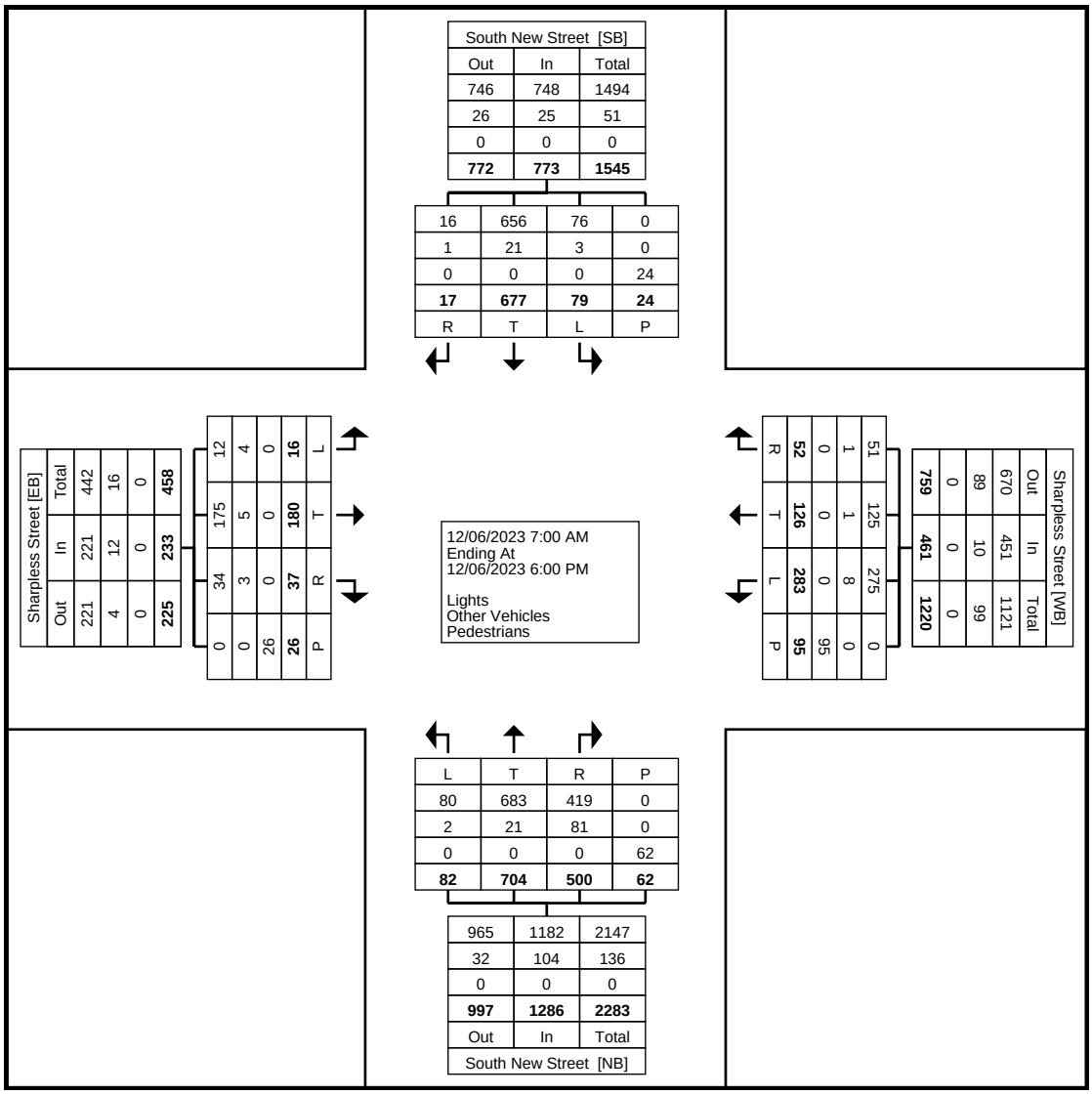

# Turning Movement Data

| Start Time | Sharpless Street Eastbound | | | | | Sharpless Street Westbound | | | | | South New Street Northbound | | | | | South New Street Southbound | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Left | Thru | Right | Peds | App. Total | Left | Thru | Right | Peds | App. Total | Left | Thru | Right | Peds | App. Total | Left | Thru | Right | Peds | App. Total | Int. Total |
| 7:00 AM | 1 | 4 | 1 | 0 | 6 | 1 | 1 | 1 | 0 | 3 | 0 | 13 | 4 | 2 | 17 | 5 | 19 | 2 | 1 | 26 | 52 |
| 7:15 AM | 1 | 10 | 2 | 2 | 13 | 6 | 2 | 1 | 2 | 9 | 1 | 9 | 13 | 3 | 23 | 2 | 12 | 0 | 0 | 14 | 59 |
| 7:30 AM | 1 | 15 | 2 | 1 | 18 | 15 | 0 | 0 | 9 | 15 | 2 | 19 | 14 | 2 | 35 | 1 | 23 | 1 | 1 | 25 | 93 |
| 7:45 AM | 1 | 12 | 2 | 0 | 15 | 17 | 1 | 0 | 6 | 18 | 1 | 29 | 18 | 0 | 48 | 7 | 34 | 0 | 0 | 41 | 122 |
| Hourly Total | 4 | 41 | 7 | 3 | 52 | 39 | 4 | 2 | 17 | 45 | 4 | 70 | 49 | 7 | 123 | 15 | 88 | 3 | 2 | 106 | 326 |
| 8:00 AM | 1 | 8 | 2 | 1 | 11 | 17 | 2 | 1 | 6 | 20 | 1 | 20 | 17 | 2 | 38 | 4 | 25 | 0 | 0 | 29 | 98 |
| 8:15 AM | 1 | 7 | 0 | 2 | 8 | 9 | 2 | 2 | 1 | 13 | 2 | 19 | 14 | 1 | 35 | 0 | 21 | 0 | 2 | 21 | 77 |
| 8:30 AM | 1 | 19 | 2 | 0 | 22 | 13 | 1 | 1 | 3 | 15 | 1 | 20 | 20 | 1 | 41 | 2 | 28 | 0 | 1 | 30 | 108 |
| 8:45 AM | 1 | 20 | 3 | 0 | 24 | 9 | 5 | 1 | 9 | 15 | 5 | 29 | 26 | 4 | 60 | 4 | 40 | 1 | 0 | 45 | 144 |
| Hourly Total | 4 | 54 | 7 | 3 | 65 | 48 | 10 | 5 | 19 | 63 | 9 | 88 | 77 | 8 | 174 | 10 | 114 | 1 | 3 | 125 | 427 |
| 9:00 AM | 1 | 6 | 5 | 0 | 12 | 8 | 1 | 1 | 3 | 10 | 2 | 31 | 11 | 3 | 44 | 6 | 22 | 1 | 1 | 29 | 95 |
| 9:15 AM | 0 | 2 | 1 | 3 | 3 | 10 | 2 | 0 | 1 | 12 | 2 | 17 | 19 | 1 | 38 | 2 | 20 | 2 | 3 | 24 | 77 |
| 9:30 AM | 0 | 10 | 3 | 0 | 13 | 15 | 2 | 1 | 6 | 18 | 2 | 16 | 24 | 5 | 42 | 1 | 28 | 1 | 0 | 30 | 103 |
| 9:45 AM | 1 | 9 | 1 | 0 | 11 | 12 | 6 | 1 | 4 | 19 | 2 | 27 | 23 | 4 | 52 | 9 | 28 | 0 | 1 | 37 | 119 |
| Hourly Total | 2 | 27 | 10 | 3 | 39 | 45 | 11 | 3 | 14 | 59 | 8 | 91 | 77 | 13 | 176 | 18 | 98 | 4 | 5 | 120 | 394 |
| *** BREAK *** | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 3:00 PM | 1 | 3 | 0 | 1 | 4 | 10 | 8 | 1 | 5 | 19 | 4 | 45 | 25 | 4 | 74 | 1 | 27 | 0 | 1 | 28 | 125 |
| 3:15 PM | 1 | 5 | 0 | 3 | 6 | 11 | 6 | 2 | 6 | 19 | 5 | 38 | 24 | 4 | 67 | 3 | 22 | 0 | 1 | 25 | 117 |
| 3:30 PM | 0 | 3 | 1 | 1 | 4 | 10 | 7 | 4 | 6 | 21 | 4 | 36 | 22 | 4 | 62 | 2 | 24 | 1 | 0 | 27 | 114 |
| 3:45 PM | 0 | 2 | 1 | 0 | 3 | 13 | 7 | 2 | 2 | 22 | 9 | 36 | 20 | 5 | 65 | 4 | 36 | 2 | 0 | 42 | 132 |
| Hourly Total | 2 | 13 | 2 | 5 | 17 | 44 | 28 | 9 | 19 | 81 | 22 | 155 | 91 | 17 | 268 | 10 | 109 | 3 | 2 | 122 | 488 |
| 4:00 PM | 0 | 5 | 0 | 0 | 5 | 12 | 12 | 5 | 6 | 29 | 2 | 36 | 42 | 1 | 80 | 9 | 27 | 1 | 6 | 37 | 151 |
| 4:15 PM | 0 | 12 | 1 | 2 | 13 | 13 | 6 | 8 | 3 | 27 | 5 | 42 | 21 | 2 | 68 | 5 | 44 | 1 | 0 | 50 | 158 |
| 4:30 PM | 0 | 6 | 2 | 2 | 8 | 13 | 9 | 6 | 4 | 28 | 6 | 63 | 27 | 3 | 96 | 1 | 39 | 0 | 0 | 40 | 172 |
| 4:45 PM | 0 | 4 | 2 | 2 | 6 | 18 | 11 | 3 | 2 | 32 | 10 | 48 | 30 | 1 | 88 | 1 | 27 | 1 | 2 | 29 | 155 |
| Hourly Total | 0 | 27 | 5 | 6 | 32 | 56 | 38 | 22 | 15 | 116 | 23 | 189 | 120 | 7 | 332 | 16 | 137 | 3 | 8 | 156 | 636 |
| 5:00 PM | 1 | 6 | 2 | 1 | 9 | 15 | 8 | 4 | 1 | 27 | 6 | 29 | 19 | 2 | 54 | 4 | 33 | 1 | 2 | 38 | 128 |
| 5:15 PM | 1 | 6 | 3 | 3 | 10 | 13 | 12 | 1 | 4 | 26 | 3 | 28 | 25 | 6 | 56 | 2 | 26 | 1 | 0 | 29 | 121 |
| 5:30 PM | 0 | 3 | 0 | 0 | 3 | 6 | 7 | 4 | 3 | 17 | 1 | 25 | 24 | 0 | 50 | 1 | 40 | 1 | 0 | 42 | 112 |
| 5:45 PM | 2 | 3 | 1 | 2 | 6 | 17 | 8 | 2 | 3 | 27 | 6 | 29 | 18 | 2 | 53 | 3 | 32 | 0 | 2 | 35 | 121 |
| Hourly Total | 4 | 18 | 6 | 6 | 28 | 51 | 35 | 11 | 11 | 97 | 16 | 111 | 86 | 10 | 213 | 10 | 131 | 3 | 4 | 144 | 482 |
| Grand Total | 16 | 180 | 37 | 26 | 233 | 283 | 126 | 52 | 95 | 461 | 82 | 704 | 500 | 62 | 1286 | 79 | 677 | 17 | 24 | 773 | 2753 |
| Approach % | 6.9 | 77.3 | 15.9 | - | - | 61.4 | 27.3 | 11.3 | - | - | 6.4 | 54.7 | 38.9 | - | - | 10.2 | 87.6 | 2.2 | - | - | - |
| Total % | 0.6 | 6.5 | 1.3 | - | 8.5 | 10.3 | 4.6 | 1.9 | - | 16.7 | 3.0 | 25.6 | 18.2 | - | 46.7 | 2.9 | 24.6 | 0.6 | - | 28.1 | - |
| Lights | 12 | 175 | 34 | - | 221 | 275 | 125 | 51 | - | 451 | 80 | 683 | 419 | - | 1182 | 76 | 656 | 16 | - | 748 | 2602 |
| % Lights | 75.0 | 97.2 | 91.9 | - | 94.8 | 97.2 | 99.2 | 98.1 | - | 97.8 | 97.6 | 97.0 | 83.8 | - | 91.9 | 96.2 | 96.9 | 94.1 | - | 96.8 | 94.5 |
| Other Vehicles | 4 | 5 | 3 | - | 12 | 8 | 1 | 1 | - | 10 | 2 | 21 | 81 | - | 104 | 3 | 21 | 1 | - | 25 | 151 |
| % Other Vehicles | 25.0 | 2.8 | 8.1 | - | 5.2 | 2.8 | 0.8 | 1.9 | - | 2.2 | 2.4 | 3.0 | 16.2 | - | 8.1 | 3.8 | 3.1 | 5.9 | - | 3.2 | 5.5 |
| Pedestrians | - | - | - | 26 | - | - | - | - | 95 | - | - | - | - | 62 | - | - | - | - | 24 | - | - |
| % Pedestrians | - | - | - | 100.0 | - | - | - | - | 100.0 | - | - | - | - | 100.0 | - | - | - | - | 100.0 | - | - |

Traffic Planning and Design, Inc
2500 East High Street
Suite 650
Pottstown, Pennsylvania, United States 19464
610.326.3100 kyoung@trafficpd.com

Counter: MIO:
Set up by: KY:

Count Name: (1) AM/PM South New Street x Sharpless Street
Site Code:
Start Date: 12/06/2023


Turning Movement Data Plot

Traffic Planning and Design, Inc
2500 East High Street
Suite 650
Pottstown, Pennsylvania, United States 19464
610.326.3100 kyoung@trafficpd.com

Counter: MIO:
Set up by: KY:

Count Name: (1) AM/PM South New Street x Sharpless Street
Site Code:
Start Date: 12/06/2023

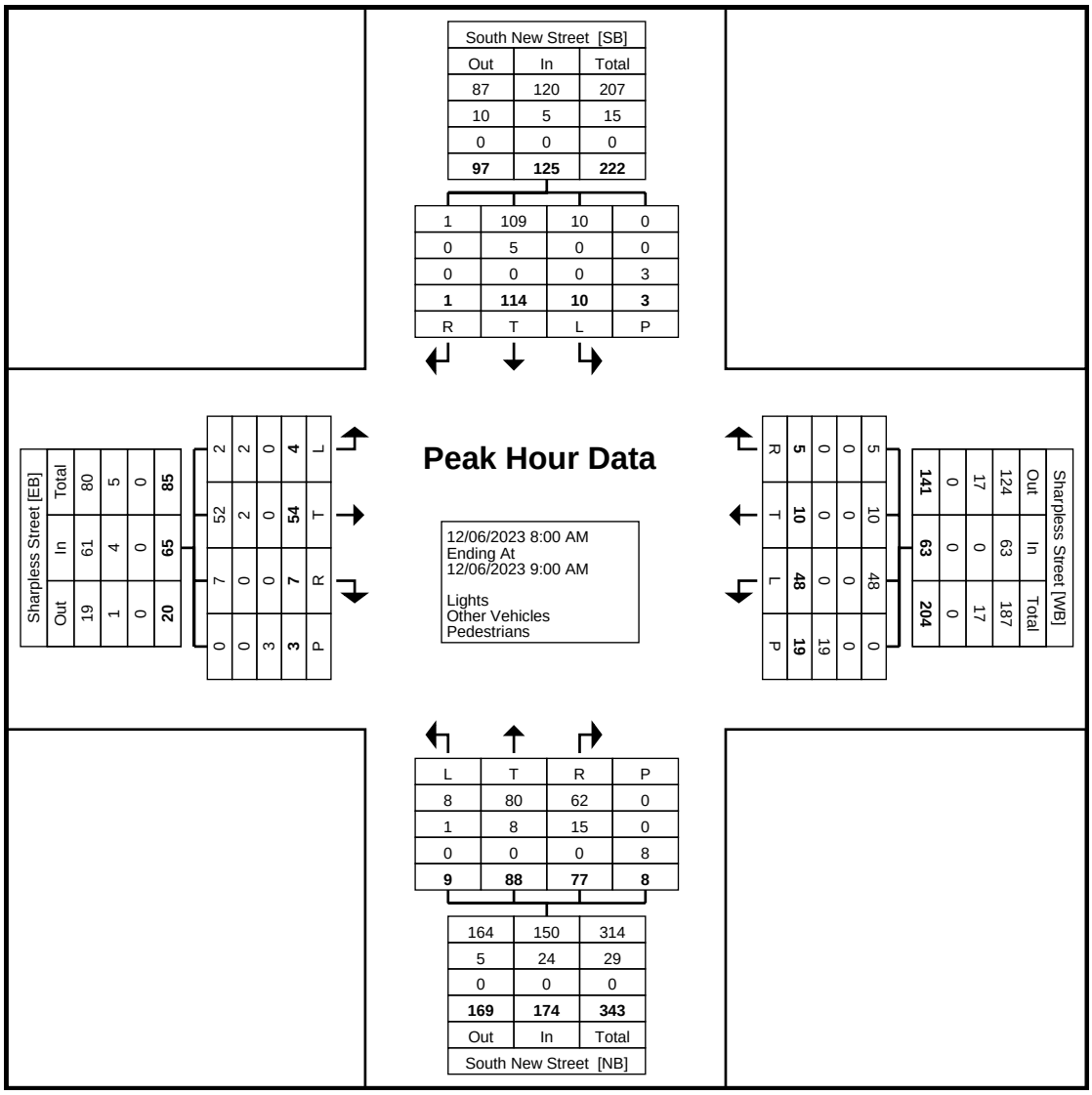

# Turning Movement Peak Hour Data (8:00 AM)

| Start Time | Sharpless Street Eastbound | | | | | Sharpless Street Westbound | | | | | South New Street Northbound | | | | | South New Street Southbound | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Left | Thru | Right | Peds | App. Total | Left | Thru | Right | Peds | App. Total | Left | Thru | Right | Peds | App. Total | Left | Thru | Right | Peds | App. Total | Int. Total |
| 8:00 AM | 1 | 8 | 2 | 1 | 11 | 17 | 2 | 1 | 6 | 20 | 1 | 20 | 17 | 2 | 38 | 4 | 25 | 0 | 0 | 29 | 98 |
| 8:15 AM | 1 | 7 | 0 | 2 | 8 | 9 | 2 | 2 | 1 | 13 | 2 | 19 | 14 | 1 | 35 | 0 | 21 | 0 | 2 | 21 | 77 |
| 8:30 AM | 1 | 19 | 2 | 0 | 22 | 13 | 1 | 1 | 3 | 15 | 1 | 20 | 20 | 1 | 41 | 2 | 28 | 0 | 1 | 30 | 108 |
| 8:45 AM | 1 | 20 | 3 | 0 | 24 | 9 | 5 | 1 | 9 | 15 | 5 | 29 | 26 | 4 | 60 | 4 | 40 | 1 | 0 | 45 | 144 |
| Total | 4 | 54 | 7 | 3 | 65 | 48 | 10 | 5 | 19 | 63 | 9 | 88 | 77 | 8 | 174 | 10 | 114 | 1 | 3 | 125 | 427 |
| Approach % | 6.2 | 83.1 | 10.8 | - | - | 76.2 | 15.9 | 7.9 | - | - | 5.2 | 50.6 | 44.3 | - | - | 8.0 | 91.2 | 0.8 | - | - | - |
| Total % | 0.9 | 12.6 | 1.6 | - | 15.2 | 11.2 | 2.3 | 1.2 | - | 14.8 | 2.1 | 20.6 | 18.0 | - | 40.7 | 2.3 | 26.7 | 0.2 | - | 29.3 | - |
| PHF | 1.000 | 0.675 | 0.583 | - | 0.677 | 0.706 | 0.500 | 0.625 | - | 0.788 | 0.450 | 0.759 | 0.740 | - | 0.725 | 0.625 | 0.713 | 0.250 | - | 0.694 | 0.741 |
| Lights | 2 | 52 | 7 | - | 61 | 48 | 10 | 5 | - | 63 | 8 | 80 | 62 | - | 150 | 10 | 109 | 1 | - | 120 | 394 |
| % Lights | 50.0 | 96.3 | 100.0 | - | 93.8 | 100.0 | 100.0 | 100.0 | - | 100.0 | 88.9 | 90.9 | 80.5 | - | 86.2 | 100.0 | 95.6 | 100.0 | - | 96.0 | 92.3 |
| Other Vehicles | 2 | 2 | 0 | - | 4 | 0 | 0 | 0 | - | 0 | 1 | 8 | 15 | - | 24 | 0 | 5 | 0 | - | 5 | 33 |
| % Other Vehicles | 50.0 | 3.7 | 0.0 | - | 6.2 | 0.0 | 0.0 | 0.0 | - | 0.0 | 11.1 | 9.1 | 19.5 | - | 13.8 | 0.0 | 4.4 | 0.0 | - | 4.0 | 7.7 |
| Pedestrians | - | - | - | 3 | - | - | - | - | 19 | - | - | - | - | 8 | - | - | - | - | 3 | - | - |
| % Pedestrians | - | - | - | 100.0 | - | - | - | - | 100.0 | - | - | - | - | 100.0 | - | - | - | - | 100.0 | - | - |

Traffic Planning and Design, Inc
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Counter: MIO:
Set up by: KY:

Count Name: (1) AM/PM South New Street x Sharpless Street
Site Code:
Start Date: 12/06/2023


Turning Movement Peak Hour Data Plot (8:00 AM)

Counter: MIO:
Set up by: KY:

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610.326.3100 kyoung@trafficpd.com

Count Name: (1) AM/PM South New Street x Sharpless Street
Site Code:
Start Date: 12/06/2023

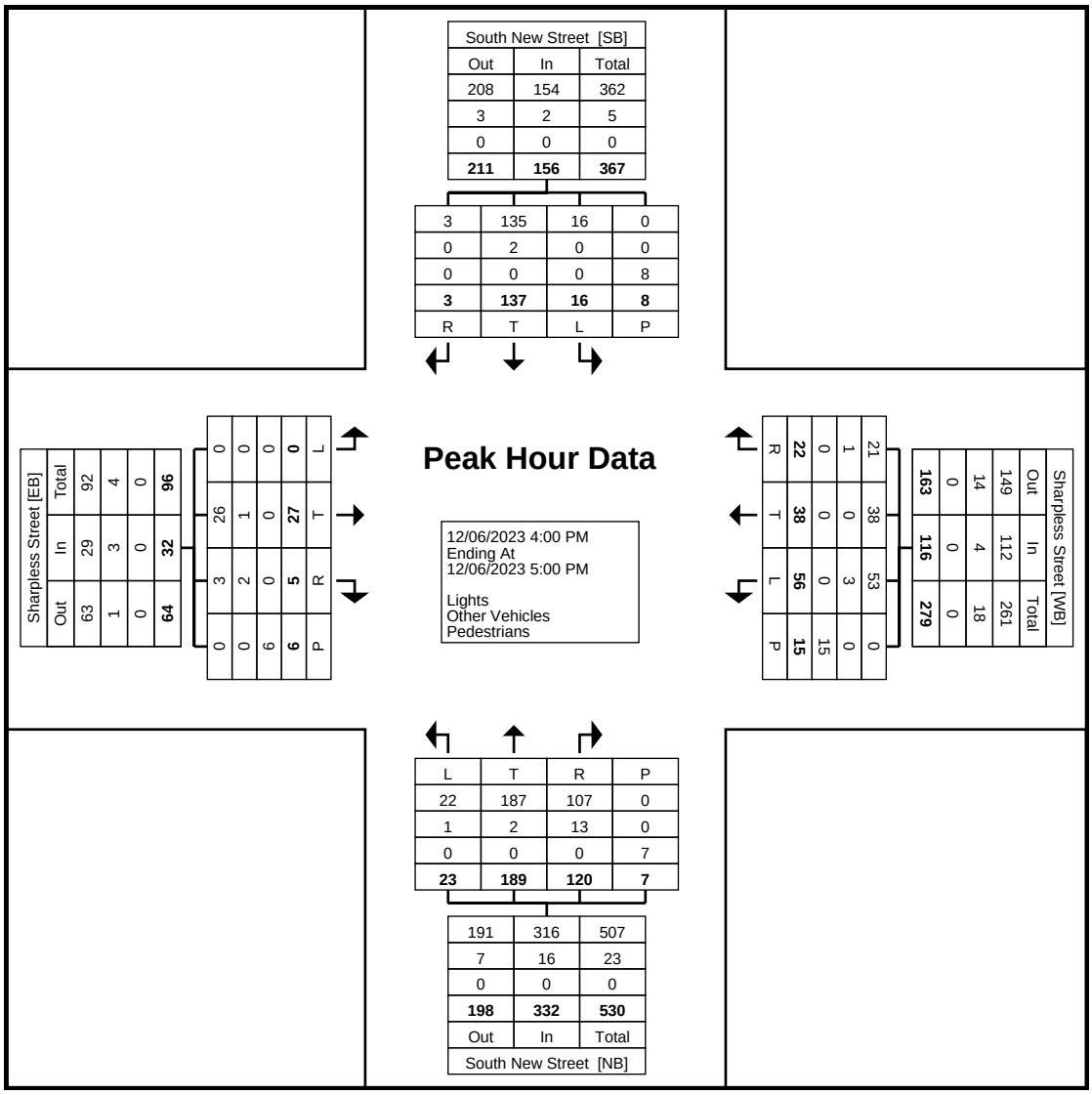

# Turning Movement Peak Hour Data (4:00 PM)

| Start Time | Sharpless Street Eastbound | | | | | Sharpless Street Westbound | | | | | South New Street Northbound | | | | | South New Street Southbound | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Left | Thru | Right | Peds | App. Total | Left | Thru | Right | Peds | App. Total | Left | Thru | Right | Peds | App. Total | Left | Thru | Right | Peds | App. Total | Int. Total |
| 4:00 PM | 0 | 5 | 0 | 0 | 5 | 12 | 12 | 5 | 6 | 29 | 2 | 36 | 42 | 1 | 80 | 9 | 27 | 1 | 6 | 37 | 151 |
| 4:15 PM | 0 | 12 | 1 | 2 | 13 | 13 | 6 | 8 | 3 | 27 | 5 | 42 | 21 | 2 | 68 | 5 | 44 | 1 | 0 | 50 | 158 |
| 4:30 PM | 0 | 6 | 2 | 2 | 8 | 13 | 9 | 6 | 4 | 28 | 6 | 63 | 27 | 3 | 96 | 1 | 39 | 0 | 0 | 40 | 172 |
| 4:45 PM | 0 | 4 | 2 | 2 | 6 | 18 | 11 | 3 | 2 | 32 | 10 | 48 | 30 | 1 | 88 | 1 | 27 | 1 | 2 | 29 | 155 |
| Total | 0 | 27 | 5 | 6 | 32 | 56 | 38 | 22 | 15 | 116 | 23 | 189 | 120 | 7 | 332 | 16 | 137 | 3 | 8 | 156 | 636 |
| Approach % | 0.0 | 84.4 | 15.6 | - | - | 48.3 | 32.8 | 19.0 | - | - | 6.9 | 56.9 | 36.1 | - | - | 10.3 | 87.8 | 1.9 | - | - | - |
| Total % | 0.0 | 4.2 | 0.8 | - | 5.0 | 8.8 | 6.0 | 3.5 | - | 18.2 | 3.6 | 29.7 | 18.9 | - | 52.2 | 2.5 | 21.5 | 0.5 | - | 24.5 | - |
| PHF | 0.000 | 0.563 | 0.625 | - | 0.615 | 0.778 | 0.792 | 0.688 | - | 0.906 | 0.575 | 0.750 | 0.714 | - | 0.865 | 0.444 | 0.778 | 0.750 | - | 0.780 | 0.924 |
| Lights | 0 | 26 | 3 | - | 29 | 53 | 38 | 21 | - | 112 | 22 | 187 | 107 | - | 316 | 16 | 135 | 3 | - | 154 | 611 |
| % Lights | - | 96.3 | 60.0 | - | 90.6 | 94.6 | 100.0 | 95.5 | - | 96.6 | 95.7 | 98.9 | 89.2 | - | 95.2 | 100.0 | 98.5 | 100.0 | - | 98.7 | 96.1 |
| Other Vehicles | 0 | 1 | 2 | - | 3 | 3 | 0 | 1 | - | 4 | 1 | 2 | 13 | - | 16 | 0 | 2 | 0 | - | 2 | 25 |
| % Other Vehicles | - | 3.7 | 40.0 | - | 9.4 | 5.4 | 0.0 | 4.5 | - | 3.4 | 4.3 | 1.1 | 10.8 | - | 4.8 | 0.0 | 1.5 | 0.0 | - | 1.3 | 3.9 |
| Pedestrians | - | - | - | 6 | - | - | - | - | 15 | - | - | - | - | 7 | - | - | - | - | 8 | - | - |
| % Pedestrians | - | - | - | 100.0 | - | - | - | - | 100.0 | - | - | - | - | 100.0 | - | - | - | - | 100.0 | - | - |

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Counter: MIO:
Set up by: KY:

Count Name: (1) AM/PM South New Street x Sharpless Street
Site Code:
Start Date: 12/06/2023


Turning Movement Peak Hour Data Plot (4:00 PM)

Traffic Planning and Design, Inc
2500 East High Street
Suite 650
Pottstown, Pennsylvania, United States 19464
610.326.3100 kyoung@trafficpd.com

Counter: MIO:
Set up by: KY:

Count Name: (2) AM/PM
Darlington Street x Sharpless Street
Site Code:
Start Date: 12/06/2023

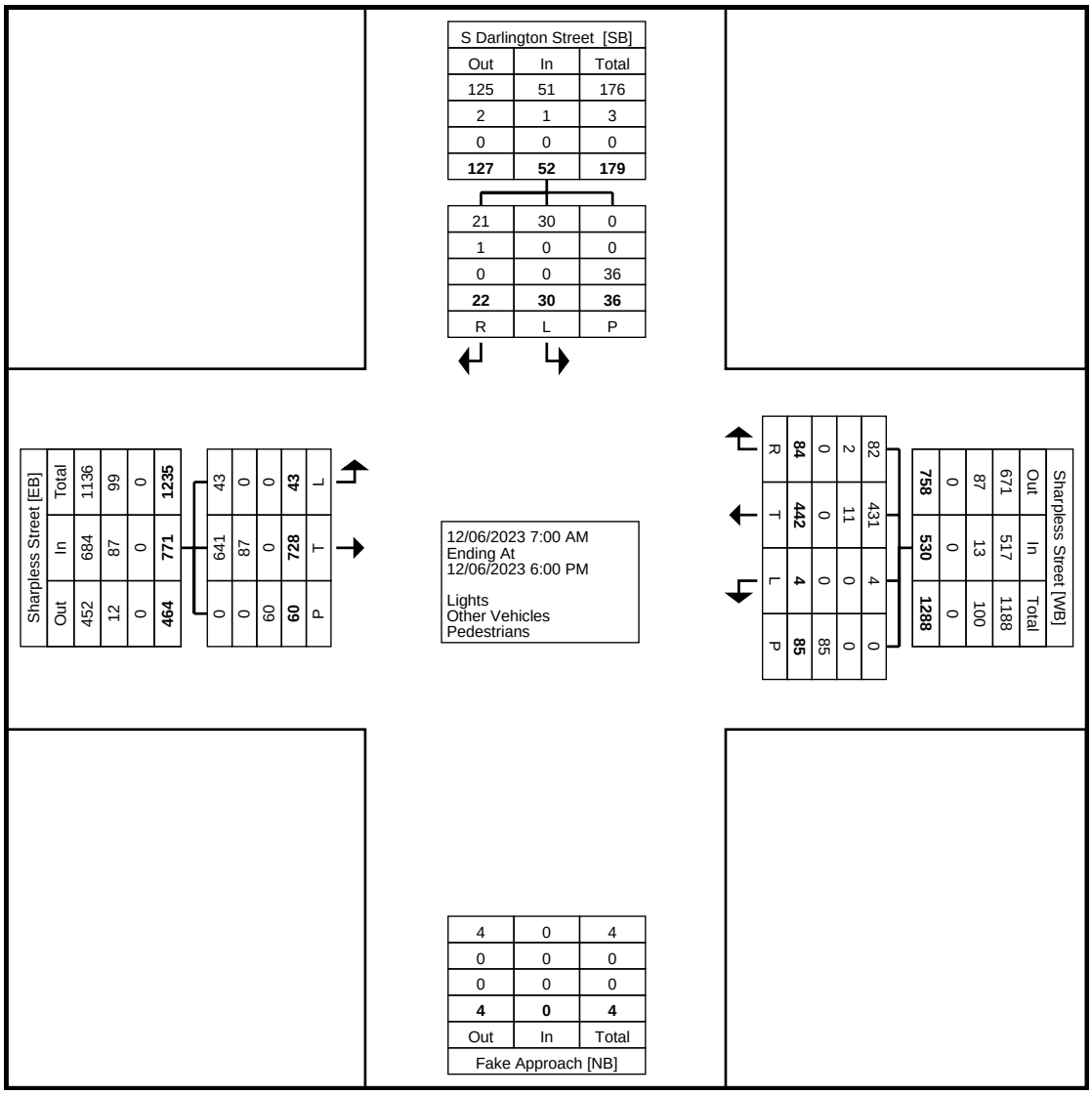

# Turning Movement Data

| Start Time | Sharpless Street Eastbound | | | | Sharpless Street Westbound | | | | | S Darlington Street Southbound | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Left | Thru | Peds | App. Total | Left | Thru | Right | Peds | App. Total | Left | Right | Peds | App. Total | Int. Total |
| 7:00 AM | 2 | 12 | 0 | 14 | 0 | 4 | 0 | 1 | 4 | 0 | 0 | 0 | 0 | 18 |
| 7:15 AM | 0 | 25 | 1 | 25 | 0 | 9 | 0 | 1 | 9 | 1 | 1 | 0 | 2 | 36 |
| 7:30 AM | 0 | 32 | 1 | 32 | 0 | 14 | 0 | 2 | 14 | 1 | 1 | 1 | 2 | 48 |
| 7:45 AM | 1 | 39 | 10 | 40 | 1 | 21 | 2 | 6 | 24 | 0 | 0 | 3 | 0 | 64 |
| Hourly Total | 3 | 108 | 12 | 111 | 1 | 48 | 2 | 10 | 51 | 2 | 2 | 4 | 4 | 166 |
| 8:00 AM | 0 | 28 | 1 | 28 | 0 | 18 | 4 | 0 | 22 | 0 | 1 | 0 | 1 | 51 |
| 8:15 AM | 0 | 21 | 2 | 21 | 0 | 12 | 0 | 2 | 12 | 0 | 0 | 2 | 0 | 33 |
| 8:30 AM | 1 | 39 | 1 | 40 | 0 | 16 | 3 | 1 | 19 | 4 | 0 | 0 | 4 | 63 |
| 8:45 AM | 2 | 47 | 9 | 49 | 0 | 12 | 5 | 11 | 17 | 1 | 1 | 1 | 2 | 68 |
| Hourly Total | 3 | 135 | 13 | 138 | 0 | 58 | 12 | 14 | 70 | 5 | 2 | 3 | 7 | 215 |
| 9:00 AM | 1 | 22 | 0 | 23 | 0 | 10 | 2 | 2 | 12 | 2 | 0 | 3 | 2 | 37 |
| 9:15 AM | 0 | 23 | 1 | 23 | 0 | 10 | 1 | 6 | 11 | 0 | 0 | 2 | 0 | 34 |
| 9:30 AM | 0 | 34 | 2 | 34 | 0 | 19 | 2 | 2 | 21 | 1 | 1 | 2 | 2 | 57 |
| 9:45 AM | 0 | 36 | 4 | 36 | 0 | 19 | 1 | 7 | 20 | 2 | 1 | 4 | 3 | 59 |
| Hourly Total | 1 | 115 | 7 | 116 | 0 | 58 | 6 | 17 | 64 | 5 | 2 | 11 | 7 | 187 |
| *** BREAK *** | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 3:00 PM | 5 | 26 | 4 | 31 | 0 | 14 | 5 | 6 | 19 | 1 | 1 | 1 | 2 | 52 |
| 3:15 PM | 2 | 29 | 1 | 31 | 1 | 17 | 2 | 3 | 20 | 0 | 1 | 2 | 1 | 52 |
| 3:30 PM | 2 | 25 | 1 | 27 | 0 | 18 | 4 | 0 | 22 | 2 | 4 | 1 | 6 | 55 |
| 3:45 PM | 2 | 29 | 2 | 31 | 0 | 22 | 6 | 1 | 28 | 0 | 0 | 0 | 0 | 59 |
| Hourly Total | 11 | 109 | 8 | 120 | 1 | 71 | 17 | 10 | 89 | 3 | 6 | 4 | 9 | 218 |
| 4:00 PM | 5 | 53 | 2 | 58 | 0 | 33 | 9 | 4 | 42 | 4 | 3 | 1 | 7 | 107 |
| 4:15 PM | 0 | 38 | 3 | 38 | 1 | 21 | 5 | 8 | 27 | 3 | 0 | 1 | 3 | 68 |
| 4:30 PM | 5 | 29 | 4 | 34 | 0 | 28 | 6 | 5 | 34 | 2 | 2 | 0 | 4 | 72 |
| 4:45 PM | 4 | 31 | 1 | 35 | 1 | 30 | 6 | 2 | 37 | 3 | 1 | 2 | 4 | 76 |
| Hourly Total | 14 | 151 | 10 | 165 | 2 | 112 | 26 | 19 | 140 | 12 | 6 | 4 | 18 | 323 |
| 5:00 PM | 1 | 31 | 1 | 32 | 0 | 26 | 3 | 1 | 29 | 0 | 0 | 2 | 0 | 61 |
| 5:15 PM | 3 | 31 | 3 | 34 | 0 | 26 | 3 | 6 | 29 | 1 | 1 | 4 | 2 | 65 |
| 5:30 PM | 4 | 27 | 1 | 31 | 0 | 14 | 10 | 4 | 24 | 0 | 1 | 3 | 1 | 56 |
| 5:45 PM | 3 | 21 | 5 | 24 | 0 | 29 | 5 | 4 | 34 | 2 | 2 | 1 | 4 | 62 |
| Hourly Total | 11 | 110 | 10 | 121 | 0 | 95 | 21 | 15 | 116 | 3 | 4 | 10 | 7 | 244 |
| Grand Total | 43 | 728 | 60 | 771 | 4 | 442 | 84 | 85 | 530 | 30 | 22 | 36 | 52 | 1353 |
| Approach % | 5.6 | 94.4 | - | - | 0.8 | 83.4 | 15.8 | - | - | 57.7 | 42.3 | - | - | - |
| Total % | 3.2 | 53.8 | - | 57.0 | 0.3 | 32.7 | 6.2 | - | 39.2 | 2.2 | 1.6 | - | 3.8 | - |
| Lights | 43 | 641 | - | 684 | 4 | 431 | 82 | - | 517 | 30 | 21 | - | 51 | 1252 |
| % Lights | 100.0 | 88.0 | - | 88.7 | 100.0 | 97.5 | 97.6 | - | 97.5 | 100.0 | 95.5 | - | 98.1 | 92.5 |
| Other Vehicles | 0 | 87 | - | 87 | 0 | 11 | 2 | - | 13 | 0 | 1 | - | 1 | 101 |
| % Other Vehicles | 0.0 | 12.0 | - | 11.3 | 0.0 | 2.5 | 2.4 | - | 2.5 | 0.0 | 4.5 | - | 1.9 | 7.5 |
| Pedestrians | - | - | 60 | - | - | - | - | 85 | - | - | - | 36 | - | - |
| % Pedestrians | - | - | 100.0 | - | - | - | - | 100.0 | - | - | - | 100.0 | - | - |

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Set up by: KY:

Count Name: (2) AM/PM
Darlington Street x Sharpless Street
Site Code:
Start Date: 12/06/2023


Turning Movement Data Plot

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Counter: MIO:
Set up by: KY:

Count Name: (2) AM/PM
Darlington Street x Sharpless Street
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Start Date: 12/06/2023

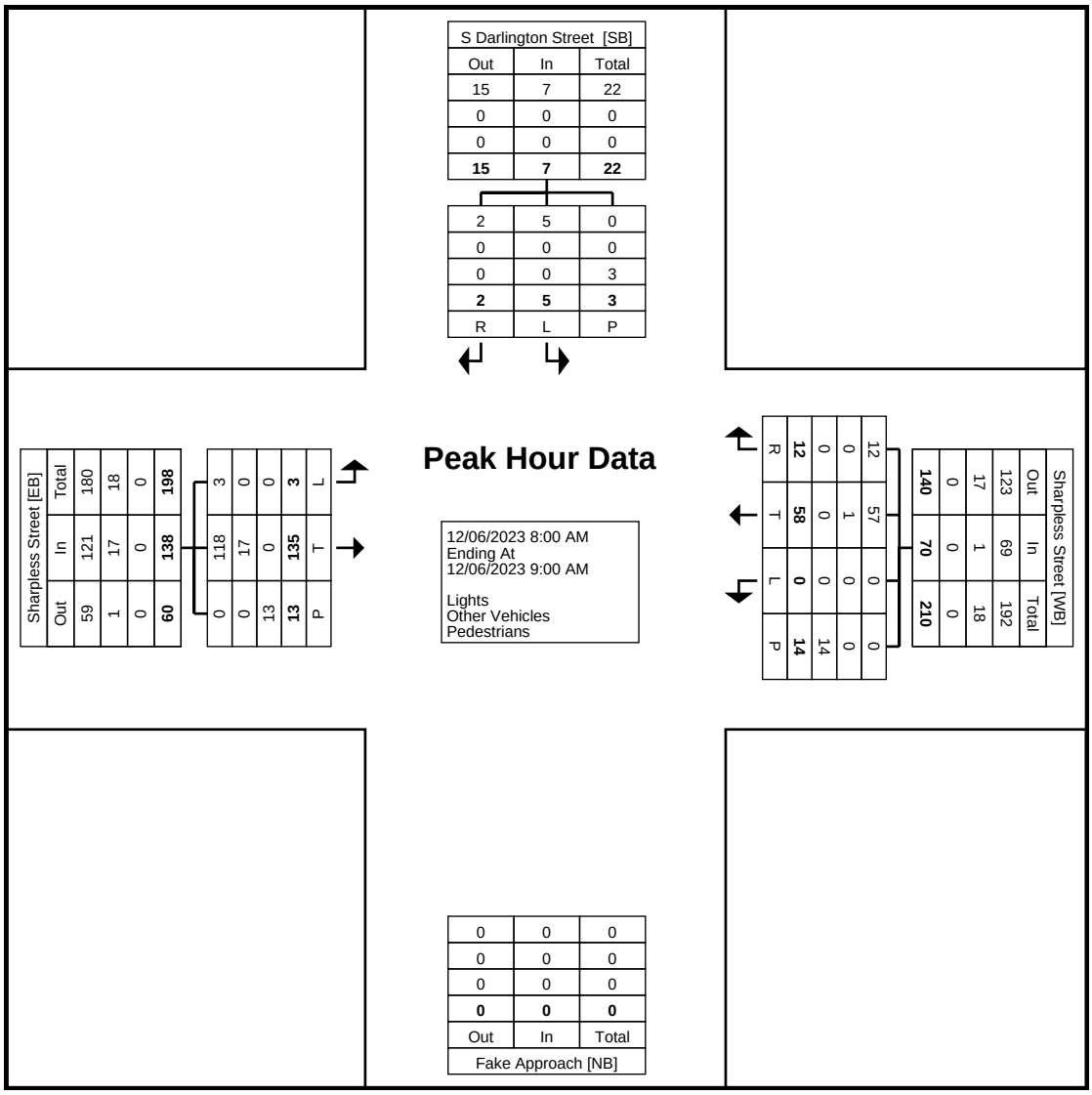

# Turning Movement Peak Hour Data (8:00 AM)

| Start Time | Sharpless Street Eastbound | | | | Sharpless Street Westbound | | | | | S Darlington Street Southbound | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Left | Thru | Peds | App. Total | Left | Thru | Right | Peds | App. Total | Left | Right | Peds | App. Total | Int. Total |
| 8:00 AM | 0 | 28 | 1 | 28 | 0 | 18 | 4 | 0 | 22 | 0 | 1 | 0 | 1 | 51 |
| 8:15 AM | 0 | 21 | 2 | 21 | 0 | 12 | 0 | 2 | 12 | 0 | 0 | 2 | 0 | 33 |
| 8:30 AM | 1 | 39 | 1 | 40 | 0 | 16 | 3 | 1 | 19 | 4 | 0 | 0 | 4 | 63 |
| 8:45 AM | 2 | 47 | 9 | 49 | 0 | 12 | 5 | 11 | 17 | 1 | 1 | 1 | 2 | 68 |
| Total | 3 | 135 | 13 | 138 | 0 | 58 | 12 | 14 | 70 | 5 | 2 | 3 | 7 | 215 |
| Approach % | 2.2 | 97.8 | - | - | 0.0 | 82.9 | 17.1 | - | - | 71.4 | 28.6 | - | - | - |
| Total % | 1.4 | 62.8 | - | 64.2 | 0.0 | 27.0 | 5.6 | - | 32.6 | 2.3 | 0.9 | - | 3.3 | - |
| PHF | 0.375 | 0.718 | - | 0.704 | 0.000 | 0.806 | 0.600 | - | 0.795 | 0.313 | 0.500 | - | 0.438 | 0.790 |
| Lights | 3 | 118 | - | 121 | 0 | 57 | 12 | - | 69 | 5 | 2 | - | 7 | 197 |
| % Lights | 100.0 | 87.4 | - | 87.7 | - | 98.3 | 100.0 | - | 98.6 | 100.0 | 100.0 | - | 100.0 | 91.6 |
| Other Vehicles | 0 | 17 | - | 17 | 0 | 1 | 0 | - | 1 | 0 | 0 | - | 0 | 18 |
| % Other Vehicles | 0.0 | 12.6 | - | 12.3 | - | 1.7 | 0.0 | - | 1.4 | 0.0 | 0.0 | - | 0.0 | 8.4 |
| Pedestrians | - | - | 13 | - | - | - | - | 14 | - | - | - | 3 | - | - |
| % Pedestrians | - | - | 100.0 | - | - | - | - | 100.0 | - | - | - | 100.0 | - | - |

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Counter: MIO:
Set up by: KY:

Count Name: (2) AM/PM
Darlington Street x Sharpless Street
Site Code:
Start Date: 12/06/2023


Turning Movement Peak Hour Data Plot (8:00 AM)

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Counter: MIO:
Set up by: KY:

Count Name: (2) AM/PM
Darlington Street x Sharpless Street
Site Code:
Start Date: 12/06/2023

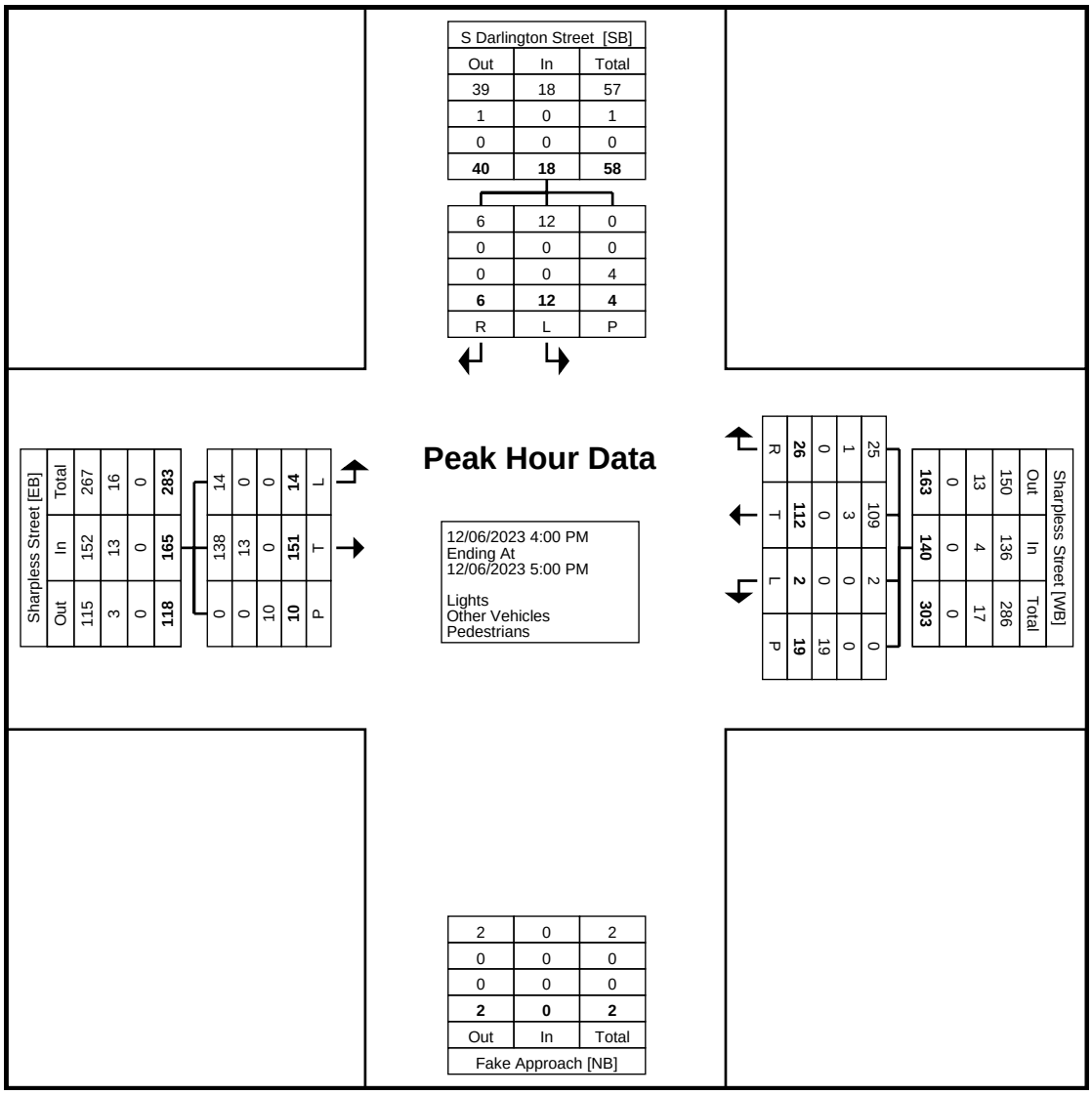

# Turning Movement Peak Hour Data (4:00 PM)

| Start Time | Sharpless Street Eastbound | | | | Sharpless Street Westbound | | | | | S Darlington Street Southbound | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Left | Thru | Peds | App. Total | Left | Thru | Right | Peds | App. Total | Left | Right | Peds | App. Total | Int. Total |
| 4:00 PM | 5 | 53 | 2 | 58 | 0 | 33 | 9 | 4 | 42 | 4 | 3 | 1 | 7 | 107 |
| 4:15 PM | 0 | 38 | 3 | 38 | 1 | 21 | 5 | 8 | 27 | 3 | 0 | 1 | 3 | 68 |
| 4:30 PM | 5 | 29 | 4 | 34 | 0 | 28 | 6 | 5 | 34 | 2 | 2 | 0 | 4 | 72 |
| 4:45 PM | 4 | 31 | 1 | 35 | 1 | 30 | 6 | 2 | 37 | 3 | 1 | 2 | 4 | 76 |
| Total | 14 | 151 | 10 | 165 | 2 | 112 | 26 | 19 | 140 | 12 | 6 | 4 | 18 | 323 |
| Approach % | 8.5 | 91.5 | - | - | 1.4 | 80.0 | 18.6 | - | - | 66.7 | 33.3 | - | - | - |
| Total % | 4.3 | 46.7 | - | 51.1 | 0.6 | 34.7 | 8.0 | - | 43.3 | 3.7 | 1.9 | - | 5.6 | - |
| PHF | 0.700 | 0.712 | - | 0.711 | 0.500 | 0.848 | 0.722 | - | 0.833 | 0.750 | 0.500 | - | 0.643 | 0.755 |
| Lights | 14 | 138 | - | 152 | 2 | 109 | 25 | - | 136 | 12 | 6 | - | 18 | 306 |
| % Lights | 100.0 | 91.4 | - | 92.1 | 100.0 | 97.3 | 96.2 | - | 97.1 | 100.0 | 100.0 | - | 100.0 | 94.7 |
| Other Vehicles | 0 | 13 | - | 13 | 0 | 3 | 1 | - | 4 | 0 | 0 | - | 0 | 17 |
| % Other Vehicles | 0.0 | 8.6 | - | 7.9 | 0.0 | 2.7 | 3.8 | - | 2.9 | 0.0 | 0.0 | - | 0.0 | 5.3 |
| Pedestrians | - | - | 10 | - | - | - | - | 19 | - | - | - | 4 | - | - |
| % Pedestrians | - | - | 100.0 | - | - | - | - | 100.0 | - | - | - | 100.0 | - | - |

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Counter: MIO:
Set up by: KY:

Count Name: (2) AM/PM
Darlington Street x Sharpless Street
Site Code:
Start Date: 12/06/2023


Turning Movement Peak Hour Data Plot (4:00 PM)

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Pottstown, Pennsylvania, United States 19464
610.326.3100 kyoung@trafficpd.com

Counter: MIO:
Set up by: KY:

Count Name: (3) AM/PM Church Street x Sharpless Street
Site Code:
Start Date: 12/06/2023
Page No: 1

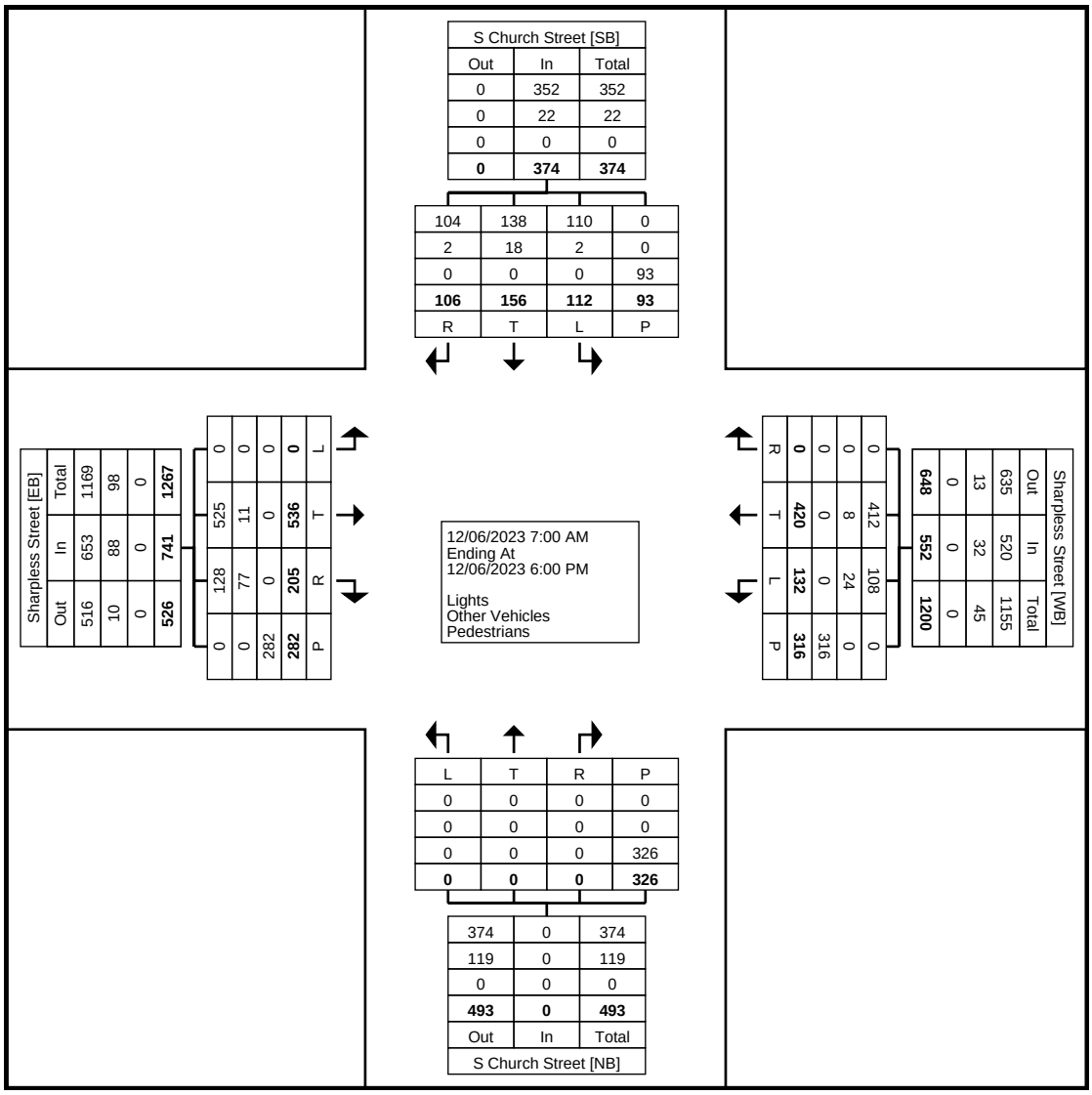
# Turning Movement Data

| Start Time | Sharpless Street Eastbound | | | | | Sharpless Street Westbound | | | | | S Church Street Northbound | | | | | S Church Street Southbound | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Left | Thru | Right | Peds | App. Total | Left | Thru | Right | Peds | App. Total | Left | Thru | Right | Peds | App. Total | Left | Thru | Right | Peds | App. Total | Int. Total |
| 7:00 AM | 0 | 13 | 1 | 7 | 14 | 2 | 2 | 0 | 1 | 4 | 0 | 0 | 0 | 5 | 0 | 3 | 1 | 2 | 3 | 6 | 24 |
| 7:15 AM | 0 | 20 | 5 | 4 | 25 | 3 | 9 | 0 | 4 | 12 | 0 | 0 | 0 | 2 | 0 | 4 | 5 | 1 | 2 | 10 | 47 |
| 7:30 AM | 0 | 21 | 7 | 6 | 28 | 9 | 13 | 0 | 2 | 22 | 0 | 0 | 0 | 7 | 0 | 9 | 6 | 1 | 1 | 16 | 66 |
| 7:45 AM | 0 | 30 | 7 | 18 | 37 | 6 | 20 | 0 | 17 | 26 | 0 | 0 | 0 | 14 | 0 | 10 | 9 | 2 | 6 | 21 | 84 |
| Hourly Total | 0 | 84 | 20 | 35 | 104 | 20 | 44 | 0 | 24 | 64 | 0 | 0 | 0 | 28 | 0 | 26 | 21 | 6 | 12 | 53 | 221 |
| 8:00 AM | 0 | 21 | 7 | 5 | 28 | 3 | 16 | 0 | 3 | 19 | 0 | 0 | 0 | 3 | 0 | 3 | 5 | 6 | 3 | 14 | 61 |
| 8:15 AM | 0 | 16 | 6 | 8 | 22 | 6 | 8 | 0 | 4 | 14 | 0 | 0 | 0 | 3 | 0 | 2 | 3 | 3 | 4 | 8 | 44 |
| 8:30 AM | 0 | 31 | 6 | 5 | 37 | 3 | 14 | 0 | 16 | 17 | 0 | 0 | 0 | 6 | 0 | 4 | 6 | 4 | 0 | 14 | 68 |
| 8:45 AM | 0 | 30 | 15 | 22 | 45 | 4 | 15 | 0 | 34 | 19 | 0 | 0 | 0 | 33 | 0 | 4 | 4 | 1 | 5 | 9 | 73 |
| Hourly Total | 0 | 98 | 34 | 40 | 132 | 16 | 53 | 0 | 57 | 69 | 0 | 0 | 0 | 45 | 0 | 13 | 18 | 14 | 12 | 45 | 246 |
| 9:00 AM | 0 | 13 | 10 | 8 | 23 | 4 | 13 | 0 | 6 | 17 | 0 | 0 | 0 | 9 | 0 | 3 | 7 | 0 | 3 | 10 | 50 |
| 9:15 AM | 0 | 12 | 8 | 3 | 20 | 4 | 8 | 0 | 5 | 12 | 0 | 0 | 0 | 3 | 0 | 2 | 4 | 3 | 2 | 9 | 41 |
| 9:30 AM | 0 | 24 | 9 | 16 | 33 | 6 | 14 | 0 | 8 | 20 | 0 | 0 | 0 | 3 | 0 | 2 | 6 | 7 | 6 | 15 | 68 |
| 9:45 AM | 0 | 30 | 13 | 24 | 43 | 13 | 15 | 0 | 27 | 28 | 0 | 0 | 0 | 52 | 0 | 3 | 5 | 4 | 1 | 12 | 83 |
| Hourly Total | 0 | 79 | 40 | 51 | 119 | 27 | 50 | 0 | 46 | 77 | 0 | 0 | 0 | 67 | 0 | 10 | 22 | 14 | 12 | 46 | 242 |
| *** BREAK *** | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 3:00 PM | 0 | 24 | 7 | 14 | 31 | 3 | 16 | 0 | 9 | 19 | 0 | 0 | 0 | 14 | 0 | 6 | 6 | 5 | 5 | 17 | 67 |
| 3:15 PM | 0 | 26 | 5 | 9 | 31 | 7 | 10 | 0 | 23 | 17 | 0 | 0 | 0 | 26 | 0 | 3 | 8 | 9 | 0 | 20 | 68 |
| 3:30 PM | 0 | 19 | 9 | 14 | 28 | 2 | 18 | 0 | 7 | 20 | 0 | 0 | 0 | 7 | 0 | 3 | 3 | 3 | 12 | 9 | 57 |
| 3:45 PM | 0 | 19 | 7 | 9 | 26 | 5 | 22 | 0 | 14 | 27 | 0 | 0 | 0 | 8 | 0 | 7 | 10 | 5 | 2 | 22 | 75 |
| Hourly Total | 0 | 88 | 28 | 46 | 116 | 17 | 66 | 0 | 53 | 83 | 0 | 0 | 0 | 55 | 0 | 19 | 27 | 22 | 19 | 68 | 267 |
| 4:00 PM | 0 | 36 | 13 | 14 | 49 | 8 | 41 | 0 | 30 | 49 | 0 | 0 | 0 | 23 | 0 | 9 | 9 | 6 | 5 | 24 | 122 |
| 4:15 PM | 0 | 33 | 12 | 20 | 45 | 8 | 25 | 0 | 27 | 33 | 0 | 0 | 0 | 38 | 0 | 10 | 15 | 5 | 4 | 30 | 108 |
| 4:30 PM | 0 | 22 | 8 | 12 | 30 | 7 | 27 | 0 | 13 | 34 | 0 | 0 | 0 | 9 | 0 | 6 | 12 | 4 | 5 | 22 | 86 |
| 4:45 PM | 0 | 22 | 12 | 13 | 34 | 6 | 22 | 0 | 13 | 28 | 0 | 0 | 0 | 12 | 0 | 4 | 10 | 12 | 0 | 26 | 88 |
| Hourly Total | 0 | 113 | 45 | 59 | 158 | 29 | 115 | 0 | 83 | 144 | 0 | 0 | 0 | 82 | 0 | 29 | 46 | 27 | 14 | 102 | 404 |
| 5:00 PM | 0 | 19 | 8 | 10 | 27 | 5 | 24 | 0 | 14 | 29 | 0 | 0 | 0 | 9 | 0 | 5 | 7 | 6 | 7 | 18 | 74 |
| 5:15 PM | 0 | 21 | 11 | 15 | 32 | 3 | 26 | 0 | 15 | 29 | 0 | 0 | 0 | 16 | 0 | 4 | 6 | 3 | 9 | 13 | 74 |
| 5:30 PM | 0 | 16 | 12 | 14 | 28 | 7 | 16 | 0 | 15 | 23 | 0 | 0 | 0 | 13 | 0 | 3 | 3 | 7 | 4 | 13 | 64 |
| 5:45 PM | 0 | 18 | 7 | 12 | 25 | 8 | 26 | 0 | 9 | 34 | 0 | 0 | 0 | 11 | 0 | 3 | 6 | 7 | 4 | 16 | 75 |
| Hourly Total | 0 | 74 | 38 | 51 | 112 | 23 | 92 | 0 | 53 | 115 | 0 | 0 | 0 | 49 | 0 | 15 | 22 | 23 | 24 | 60 | 287 |
| Grand Total | 0 | 536 | 205 | 282 | 741 | 132 | 420 | 0 | 316 | 552 | 0 | 0 | 0 | 326 | 0 | 112 | 156 | 106 | 93 | 374 | 1667 |
| Approach % | 0.0 | 72.3 | 27.7 | - | - | 23.9 | 76.1 | 0.0 | - | - | 0.0 | 0.0 | 0.0 | - | - | 29.9 | 41.7 | 28.3 | - | - | - |
| Total % | 0.0 | 32.2 | 12.3 | - | 44.5 | 7.9 | 25.2 | 0.0 | - | 33.1 | 0.0 | 0.0 | 0.0 | - | 0.0 | 6.7 | 9.4 | 6.4 | - | 22.4 | - |
| Lights | 0 | 525 | 128 | - | 653 | 108 | 412 | 0 | - | 520 | 0 | 0 | 0 | - | 0 | 110 | 138 | 104 | - | 352 | 1525 |
| % Lights | - | 97.9 | 62.4 | - | 88.1 | 81.8 | 98.1 | - | - | 94.2 | - | - | - | - | - | 98.2 | 88.5 | 98.1 | - | 94.1 | 91.5 |
| Other Vehicles | 0 | 11 | 77 | - | 88 | 24 | 8 | 0 | - | 32 | 0 | 0 | 0 | - | 0 | 2 | 18 | 2 | - | 22 | 142 |
| % Other Vehicles | - | 2.1 | 37.6 | - | 11.9 | 18.2 | 1.9 | - | - | 5.8 | - | - | - | - | - | 1.8 | 11.5 | 1.9 | - | 5.9 | 8.5 |
| Pedestrians | - | - | - | 282 | - | - | - | - | 316 | - | - | - | - | 326 | - | - | - | - | 93 | - | - |
| % Pedestrians | - | - | - | 100.0 | - | - | - | - | 100.0 | - | - | - | - | 100.0 | - | - | - | - | 100.0 | - | - |

Traffic Planning and Design, Inc
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Counter: MIO:
Set up by: KY:

Count Name: (3) AM/PM Church Street x Sharpless Street
Site Code:
Start Date: 12/06/2023


Turning Movement Data Plot

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Counter: MIO:
Set up by: KY:

Count Name: (3) AM/PM Church Street x Sharpless Street
Site Code:
Start Date: 12/06/2023

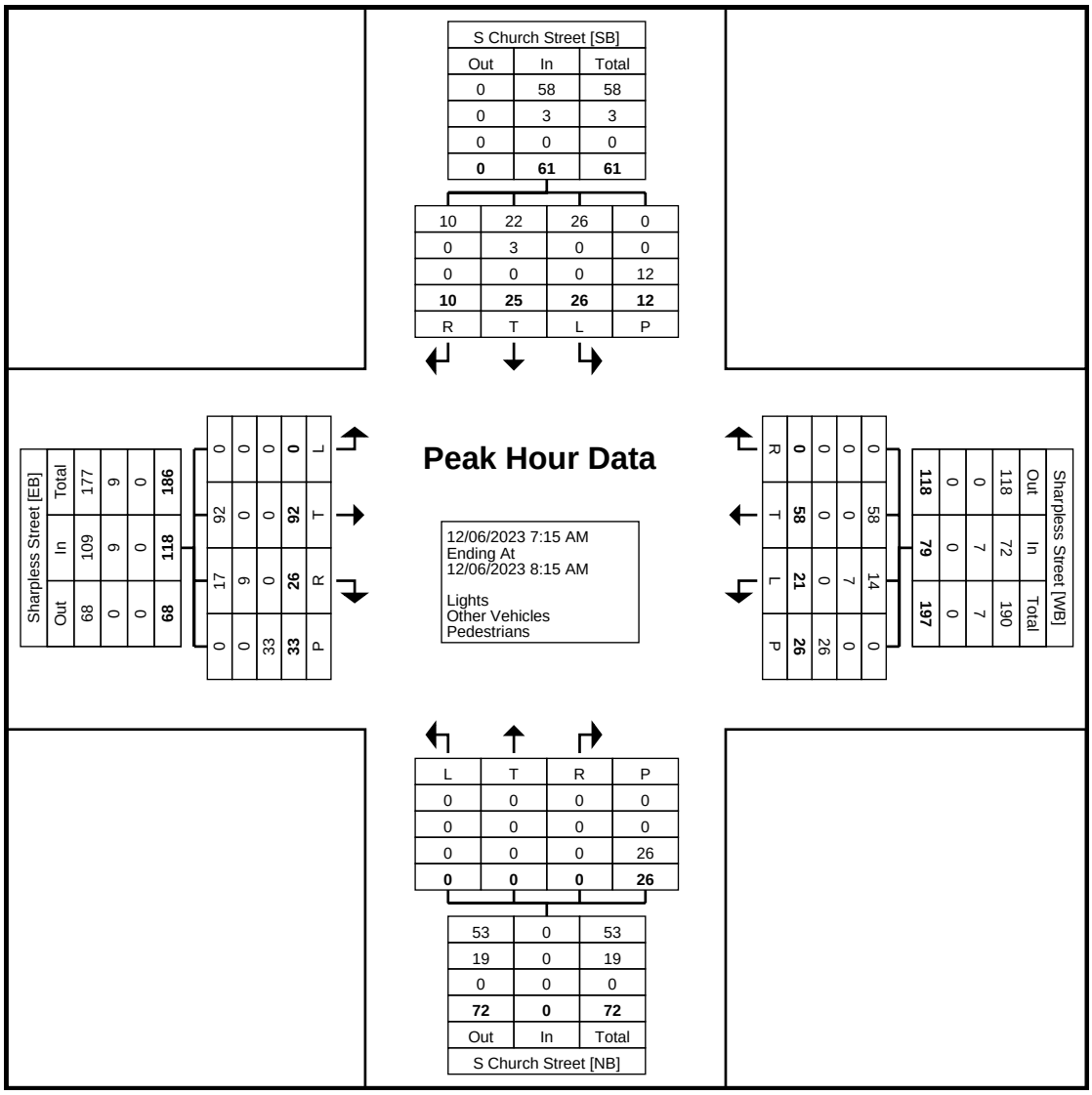

# Turning Movement Peak Hour Data (7:15 AM)

| Start Time | Sharpless Street Eastbound | | | | | Sharpless Street Westbound | | | | | S Church Street Northbound | | | | | S Church Street Southbound | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Left | Thru | Right | Peds | App. Total | Left | Thru | Right | Peds | App. Total | Left | Thru | Right | Peds | App. Total | Left | Thru | Right | Peds | App. Total | Int. Total |
| 7:15 AM | 0 | 20 | 5 | 4 | 25 | 3 | 9 | 0 | 4 | 12 | 0 | 0 | 0 | 2 | 0 | 4 | 5 | 1 | 2 | 10 | 47 |
| 7:30 AM | 0 | 21 | 7 | 6 | 28 | 9 | 13 | 0 | 2 | 22 | 0 | 0 | 0 | 7 | 0 | 9 | 6 | 1 | 1 | 16 | 66 |
| 7:45 AM | 0 | 30 | 7 | 18 | 37 | 6 | 20 | 0 | 17 | 26 | 0 | 0 | 0 | 14 | 0 | 10 | 9 | 2 | 6 | 21 | 84 |
| 8:00 AM | 0 | 21 | 7 | 5 | 28 | 3 | 16 | 0 | 3 | 19 | 0 | 0 | 0 | 3 | 0 | 3 | 5 | 6 | 3 | 14 | 61 |
| Total | 0 | 92 | 26 | 33 | 118 | 21 | 58 | 0 | 26 | 79 | 0 | 0 | 0 | 26 | 0 | 26 | 25 | 10 | 12 | 61 | 258 |
| Approach % | 0.0 | 78.0 | 22.0 | - | - | 26.6 | 73.4 | 0.0 | - | - | 0.0 | 0.0 | 0.0 | - | - | 42.6 | 41.0 | 16.4 | - | - | - |
| Total % | 0.0 | 35.7 | 10.1 | - | 45.7 | 8.1 | 22.5 | 0.0 | - | 30.6 | 0.0 | 0.0 | 0.0 | - | 0.0 | 10.1 | 9.7 | 3.9 | - | 23.6 | - |
| PHF | 0.000 | 0.767 | 0.929 | - | 0.797 | 0.583 | 0.725 | 0.000 | - | 0.760 | 0.000 | 0.000 | 0.000 | - | 0.000 | 0.650 | 0.694 | 0.417 | - | 0.726 | 0.768 |
| Lights | 0 | 92 | 17 | - | 109 | 14 | 58 | 0 | - | 72 | 0 | 0 | 0 | - | 0 | 26 | 22 | 10 | - | 58 | 239 |
| % Lights | - | 100.0 | 65.4 | - | 92.4 | 66.7 | 100.0 | - | - | 91.1 | - | - | - | - | - | 100.0 | 88.0 | 100.0 | - | 95.1 | 92.6 |
| Other Vehicles | 0 | 0 | 9 | - | 9 | 7 | 0 | 0 | - | 7 | 0 | 0 | 0 | - | 0 | 0 | 3 | 0 | - | 3 | 19 |
| % Other Vehicles | - | 0.0 | 34.6 | - | 7.6 | 33.3 | 0.0 | - | - | 8.9 | - | - | - | - | - | 0.0 | 12.0 | 0.0 | - | 4.9 | 7.4 |
| Pedestrians | - | - | - | 33 | - | - | - | - | 26 | - | - | - | - | 26 | - | - | - | - | 12 | - | - |
| % Pedestrians | - | - | - | 100.0 | - | - | - | - | 100.0 | - | - | - | - | 100.0 | - | - | - | - | 100.0 | - | - |

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Site Code:
Start Date: 12/06/2023
Page No: 4




Turning Movement Peak Hour Data Plot (7:15 AM)

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Counter: MIO:
Set up by: KY:

Count Name: (3) AM/PM Church Street x Sharpless Street
Site Code:
Start Date: 12/06/2023

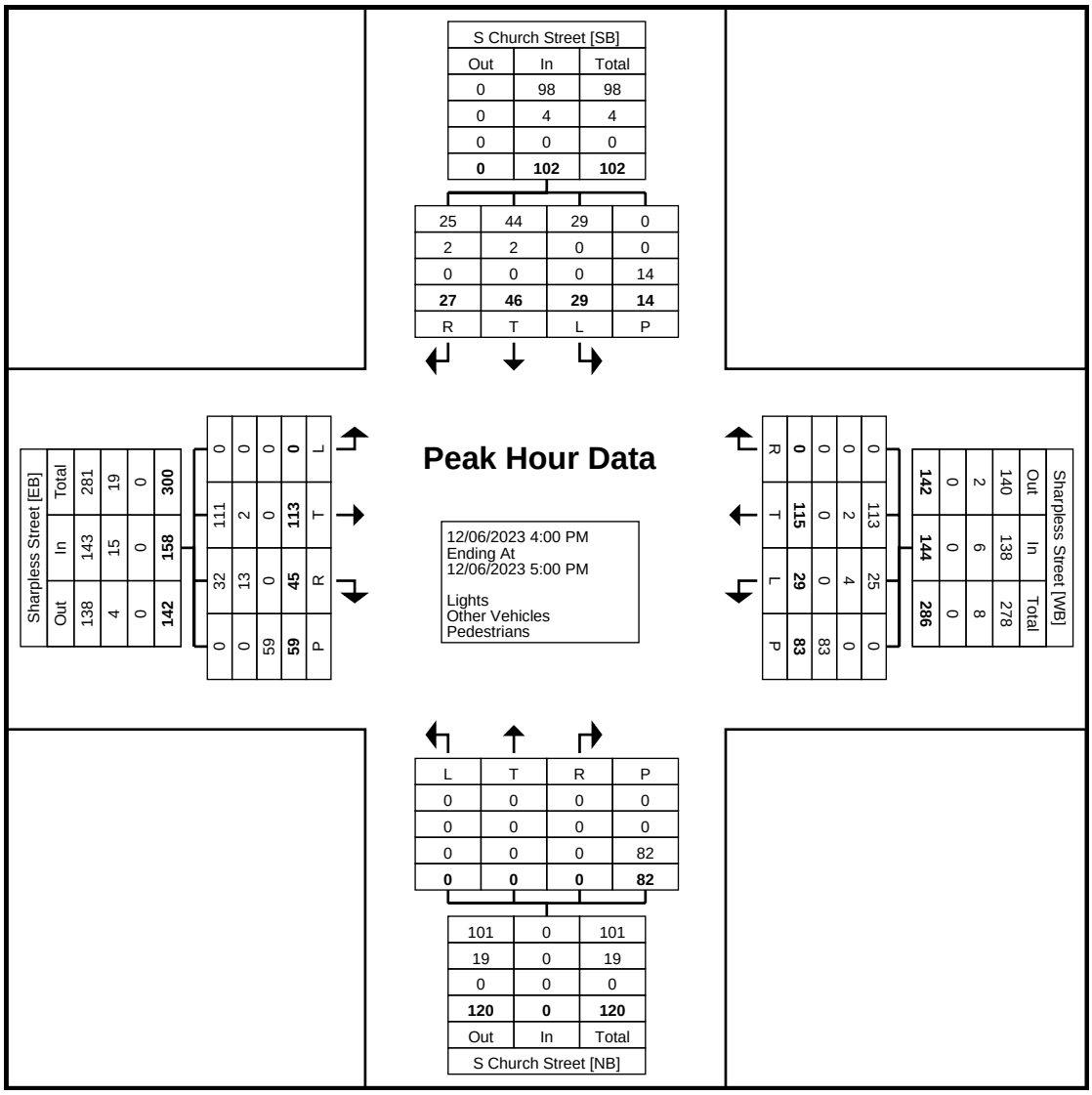

# Turning Movement Peak Hour Data (4:00 PM)

| Start Time | Sharpless Street Eastbound | | | | | Sharpless Street Westbound | | | | | S Church Street Northbound | | | | | S Church Street Southbound | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Left | Thru | Right | Peds | App. Total | Left | Thru | Right | Peds | App. Total | Left | Thru | Right | Peds | App. Total | Left | Thru | Right | Peds | App. Total | Int. Total |
| 4:00 PM | 0 | 36 | 13 | 14 | 49 | 8 | 41 | 0 | 30 | 49 | 0 | 0 | 0 | 23 | 0 | 9 | 9 | 6 | 5 | 24 | 122 |
| 4:15 PM | 0 | 33 | 12 | 20 | 45 | 8 | 25 | 0 | 27 | 33 | 0 | 0 | 0 | 38 | 0 | 10 | 15 | 5 | 4 | 30 | 108 |
| 4:30 PM | 0 | 22 | 8 | 12 | 30 | 7 | 27 | 0 | 13 | 34 | 0 | 0 | 0 | 9 | 0 | 6 | 12 | 4 | 5 | 22 | 86 |
| 4:45 PM | 0 | 22 | 12 | 13 | 34 | 6 | 22 | 0 | 13 | 28 | 0 | 0 | 0 | 12 | 0 | 4 | 10 | 12 | 0 | 26 | 88 |
| Total | 0 | 113 | 45 | 59 | 158 | 29 | 115 | 0 | 83 | 144 | 0 | 0 | 0 | 82 | 0 | 29 | 46 | 27 | 14 | 102 | 404 |
| Approach % | 0.0 | 71.5 | 28.5 | - | - | 20.1 | 79.9 | 0.0 | - | - | 0.0 | 0.0 | 0.0 | - | - | 28.4 | 45.1 | 26.5 | - | - | - |
| Total % | 0.0 | 28.0 | 11.1 | - | 39.1 | 7.2 | 28.5 | 0.0 | - | 35.6 | 0.0 | 0.0 | 0.0 | - | 0.0 | 7.2 | 11.4 | 6.7 | - | 25.2 | - |
| PHF | 0.000 | 0.785 | 0.865 | - | 0.806 | 0.906 | 0.701 | 0.000 | - | 0.735 | 0.000 | 0.000 | 0.000 | - | 0.000 | 0.725 | 0.767 | 0.563 | - | 0.850 | 0.828 |
| Lights | 0 | 111 | 32 | - | 143 | 25 | 113 | 0 | - | 138 | 0 | 0 | 0 | - | 0 | 29 | 44 | 25 | - | 98 | 379 |
| % Lights | - | 98.2 | 71.1 | - | 90.5 | 86.2 | 98.3 | - | - | 95.8 | - | - | - | - | - | 100.0 | 95.7 | 92.6 | - | 96.1 | 93.8 |
| Other Vehicles | 0 | 2 | 13 | - | 15 | 4 | 2 | 0 | - | 6 | 0 | 0 | 0 | - | 0 | 0 | 2 | 2 | - | 4 | 25 |
| % Other Vehicles | - | 1.8 | 28.9 | - | 9.5 | 13.8 | 1.7 | - | - | 4.2 | - | - | - | - | - | 0.0 | 4.3 | 7.4 | - | 3.9 | 6.2 |
| Pedestrians | - | - | - | 59 | - | - | - | - | 83 | - | - | - | - | 82 | - | - | - | - | 14 | - | - |
| % Pedestrians | - | - | - | 100.0 | - | - | - | - | 100.0 | - | - | - | - | 100.0 | - | - | - | - | 100.0 | - | - |

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Set up by: KY:

Count Name: (3) AM/PM Church Street x Sharpless Street
Site Code:
Start Date: 12/06/2023
Page No: 6




Turning Movement Peak Hour Data Plot (4:00 PM)

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Counter: MIO:
Set up by: KY:

Count Name: (4) AM/PM
Reynolds Alley x Sharpless Street
Site Code:
Start Date: 12/06/2023

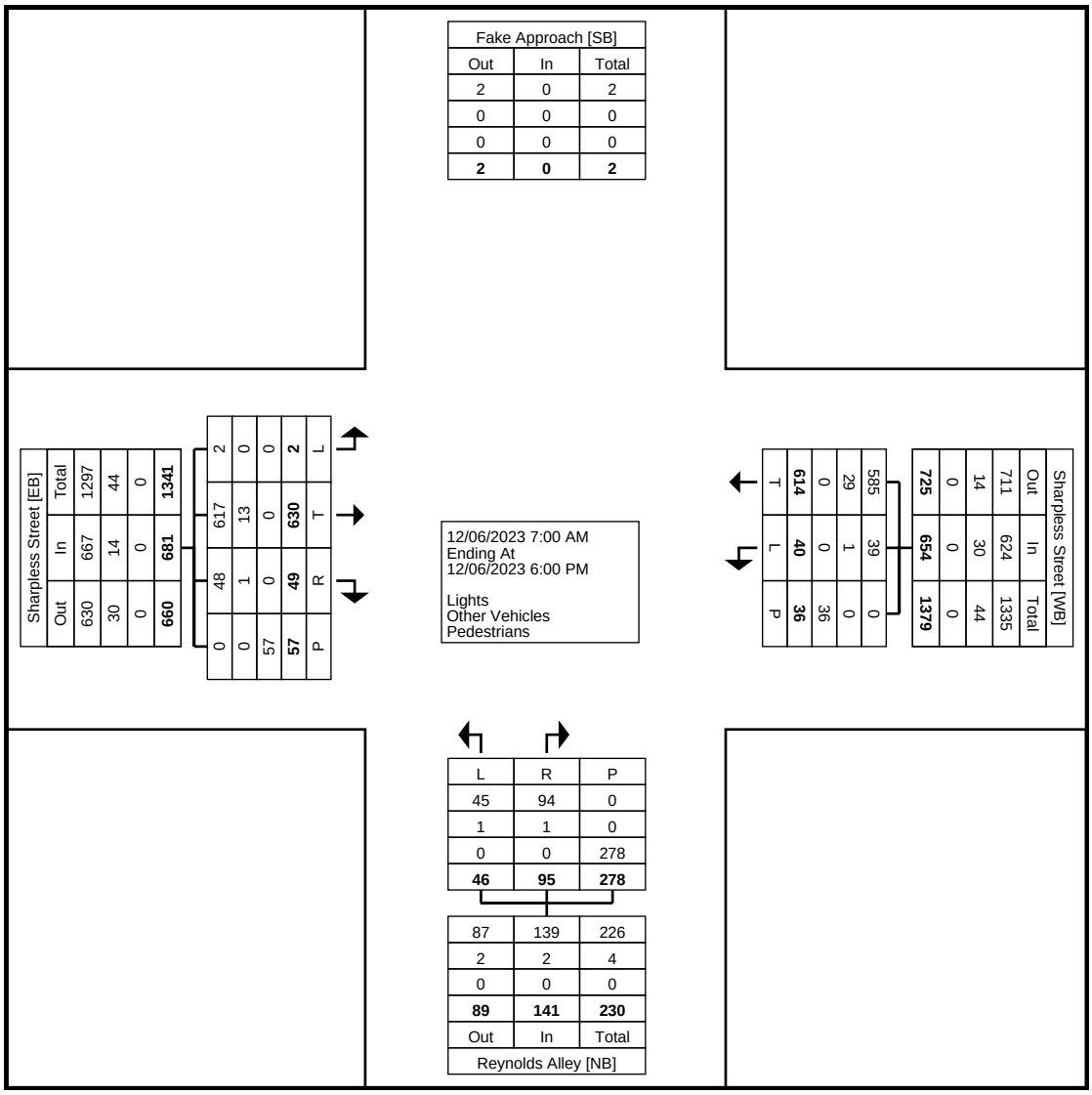

# Turning Movement Data

| Start Time | Sharpless Street Eastbound | | | | | Sharpless Street Westbound | | | | Reynolds Alley Northbound | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Left | Thru | Right | Peds | App. Total | Left | Thru | Peds | App. Total | Left | Right | Peds | App. Total | Int. Total |
| 7:00 AM | 0 | 13 | 2 | 1 | 15 | 2 | 6 | 0 | 8 | 1 | 1 | 2 | 2 | 25 |
| 7:15 AM | 0 | 17 | 7 | 1 | 24 | 3 | 11 | 0 | 14 | 0 | 1 | 3 | 1 | 39 |
| 7:30 AM | 0 | 18 | 6 | 0 | 24 | 3 | 32 | 0 | 35 | 6 | 2 | 6 | 8 | 67 |
| 7:45 AM | 0 | 30 | 5 | 3 | 35 | 2 | 36 | 1 | 38 | 1 | 2 | 12 | 3 | 76 |
| Hourly Total | 0 | 78 | 20 | 5 | 98 | 10 | 85 | 1 | 95 | 8 | 6 | 23 | 14 | 207 |
| 8:00 AM | 0 | 22 | 3 | 1 | 25 | 0 | 26 | 0 | 26 | 2 | 2 | 2 | 4 | 55 |
| 8:15 AM | 0 | 16 | 0 | 0 | 16 | 1 | 20 | 1 | 21 | 2 | 2 | 2 | 4 | 41 |
| 8:30 AM | 0 | 28 | 0 | 0 | 28 | 1 | 34 | 0 | 35 | 1 | 1 | 4 | 2 | 65 |
| 8:45 AM | 0 | 41 | 1 | 4 | 42 | 1 | 28 | 7 | 29 | 1 | 4 | 38 | 5 | 76 |
| Hourly Total | 0 | 107 | 4 | 5 | 111 | 3 | 108 | 8 | 111 | 6 | 9 | 46 | 15 | 237 |
| 9:00 AM | 0 | 15 | 1 | 1 | 16 | 2 | 21 | 0 | 23 | 2 | 2 | 9 | 4 | 43 |
| 9:15 AM | 0 | 12 | 1 | 3 | 13 | 0 | 18 | 0 | 18 | 1 | 5 | 4 | 6 | 37 |
| 9:30 AM | 0 | 19 | 1 | 3 | 20 | 0 | 33 | 0 | 33 | 0 | 3 | 6 | 3 | 56 |
| 9:45 AM | 1 | 31 | 2 | 4 | 34 | 0 | 35 | 6 | 35 | 2 | 1 | 49 | 3 | 72 |
| Hourly Total | 1 | 77 | 5 | 11 | 83 | 2 | 107 | 6 | 109 | 5 | 11 | 68 | 16 | 208 |
| *** BREAK *** | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 3:00 PM | 0 | 36 | 4 | 2 | 40 | 0 | 14 | 4 | 14 | 3 | 6 | 4 | 9 | 63 |
| 3:15 PM | 0 | 35 | 1 | 3 | 36 | 2 | 16 | 2 | 18 | 0 | 6 | 13 | 6 | 60 |
| 3:30 PM | 0 | 22 | 2 | 1 | 24 | 4 | 15 | 2 | 19 | 4 | 6 | 11 | 10 | 53 |
| 3:45 PM | 0 | 29 | 2 | 3 | 31 | 1 | 33 | 0 | 34 | 1 | 4 | 7 | 5 | 70 |
| Hourly Total | 0 | 122 | 9 | 9 | 131 | 7 | 78 | 8 | 85 | 8 | 22 | 35 | 30 | 246 |
| 4:00 PM | 0 | 33 | 2 | 8 | 35 | 1 | 46 | 4 | 47 | 1 | 3 | 17 | 4 | 86 |
| 4:15 PM | 1 | 38 | 3 | 5 | 42 | 2 | 35 | 1 | 37 | 3 | 7 | 25 | 10 | 89 |
| 4:30 PM | 0 | 40 | 0 | 3 | 40 | 4 | 20 | 0 | 24 | 8 | 18 | 3 | 26 | 90 |
| 4:45 PM | 0 | 27 | 3 | 2 | 30 | 2 | 26 | 1 | 28 | 0 | 4 | 17 | 4 | 62 |
| Hourly Total | 1 | 138 | 8 | 18 | 147 | 9 | 127 | 6 | 136 | 12 | 32 | 62 | 44 | 327 |
| 5:00 PM | 0 | 25 | 1 | 2 | 26 | 0 | 28 | 2 | 28 | 3 | 5 | 11 | 8 | 62 |
| 5:15 PM | 0 | 35 | 0 | 2 | 35 | 2 | 27 | 4 | 29 | 1 | 3 | 15 | 4 | 68 |
| 5:30 PM | 0 | 23 | 1 | 2 | 24 | 2 | 22 | 0 | 24 | 1 | 4 | 11 | 5 | 53 |
| 5:45 PM | 0 | 25 | 1 | 3 | 26 | 5 | 32 | 1 | 37 | 2 | 3 | 7 | 5 | 68 |
| Hourly Total | 0 | 108 | 3 | 9 | 111 | 9 | 109 | 7 | 118 | 7 | 15 | 44 | 22 | 251 |
| Grand Total | 2 | 630 | 49 | 57 | 681 | 40 | 614 | 36 | 654 | 46 | 95 | 278 | 141 | 1476 |
| Approach % | 0.3 | 92.5 | 7.2 | - | - | 6.1 | 93.9 | - | - | 32.6 | 67.4 | - | - | - |
| Total % | 0.1 | 42.7 | 3.3 | - | 46.1 | 2.7 | 41.6 | - | 44.3 | 3.1 | 6.4 | - | 9.6 | - |
| Lights | 2 | 617 | 48 | - | 667 | 39 | 585 | - | 624 | 45 | 94 | - | 139 | 1430 |
| % Lights | 100.0 | 97.9 | 98.0 | - | 97.9 | 97.5 | 95.3 | - | 95.4 | 97.8 | 98.9 | - | 98.6 | 96.9 |
| Other Vehicles | 0 | 13 | 1 | - | 14 | 1 | 29 | - | 30 | 1 | 1 | - | 2 | 46 |
| % Other Vehicles | 0.0 | 2.1 | 2.0 | - | 2.1 | 2.5 | 4.7 | - | 4.6 | 2.2 | 1.1 | - | 1.4 | 3.1 |
| Pedestrians | - | - | - | 57 | - | - | - | 36 | - | - | - | 278 | - | - |
| % Pedestrians | - | - | - | 100.0 | - | - | - | 100.0 | - | - | - | 100.0 | - | - |

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Counter: MIO:
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Reynolds Alley x Sharpless Street
Site Code:
Start Date: 12/06/2023


Turning Movement Data Plot

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Counter: MIO:
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Count Name: (4) AM/PM
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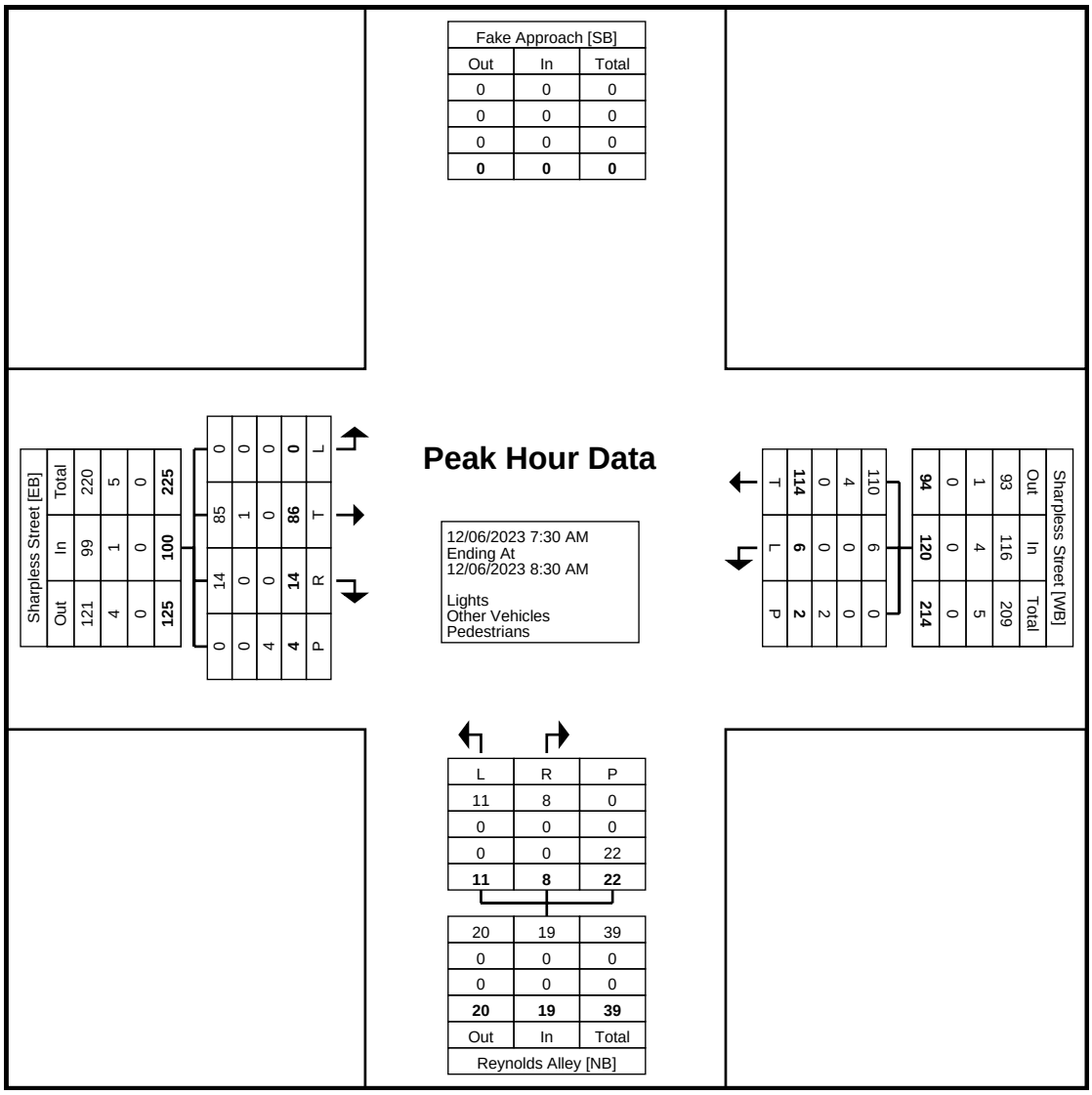

# Turning Movement Peak Hour Data (7:30 AM)

| Start Time | Sharpless Street Eastbound | | | | | Sharpless Street Westbound | | | | Reynolds Alley Northbound | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Left | Thru | Right | Peds | App. Total | Left | Thru | Peds | App. Total | Left | Right | Peds | App. Total | Int. Total |
| 7:30 AM | 0 | 18 | 6 | 0 | 24 | 3 | 32 | 0 | 35 | 6 | 2 | 6 | 8 | 67 |
| 7:45 AM | 0 | 30 | 5 | 3 | 35 | 2 | 36 | 1 | 38 | 1 | 2 | 12 | 3 | 76 |
| 8:00 AM | 0 | 22 | 3 | 1 | 25 | 0 | 26 | 0 | 26 | 2 | 2 | 2 | 4 | 55 |
| 8:15 AM | 0 | 16 | 0 | 0 | 16 | 1 | 20 | 1 | 21 | 2 | 2 | 2 | 4 | 41 |
| Total | 0 | 86 | 14 | 4 | 100 | 6 | 114 | 2 | 120 | 11 | 8 | 22 | 19 | 239 |
| Approach % | 0.0 | 86.0 | 14.0 | - | - | 5.0 | 95.0 | - | - | 57.9 | 42.1 | - | - | - |
| Total % | 0.0 | 36.0 | 5.9 | - | 41.8 | 2.5 | 47.7 | - | 50.2 | 4.6 | 3.3 | - | 7.9 | - |
| PHF | 0.000 | 0.717 | 0.583 | - | 0.714 | 0.500 | 0.792 | - | 0.789 | 0.458 | 1.000 | - | 0.594 | 0.786 |
| Lights | 0 | 85 | 14 | - | 99 | 6 | 110 | - | 116 | 11 | 8 | - | 19 | 234 |
| % Lights | - | 98.8 | 100.0 | - | 99.0 | 100.0 | 96.5 | - | 96.7 | 100.0 | 100.0 | - | 100.0 | 97.9 |
| Other Vehicles | 0 | 1 | 0 | - | 1 | 0 | 4 | - | 4 | 0 | 0 | - | 0 | 5 |
| % Other Vehicles | - | 1.2 | 0.0 | - | 1.0 | 0.0 | 3.5 | - | 3.3 | 0.0 | 0.0 | - | 0.0 | 2.1 |
| Pedestrians | - | - | - | 4 | - | - | - | 2 | - | - | - | 22 | - | - |
| % Pedestrians | - | - | - | 100.0 | - | - | - | 100.0 | - | - | - | 100.0 | - | - |

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Reynolds Alley x Sharpless Street
Site Code:
Start Date: 12/06/2023
Page No: 4




Turning Movement Peak Hour Data Plot (7:30 AM)

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Counter: MIO:
Set up by: KY:

Count Name: (4) AM/PM
Reynolds Alley x Sharpless Street
Site Code:
Start Date: 12/06/2023

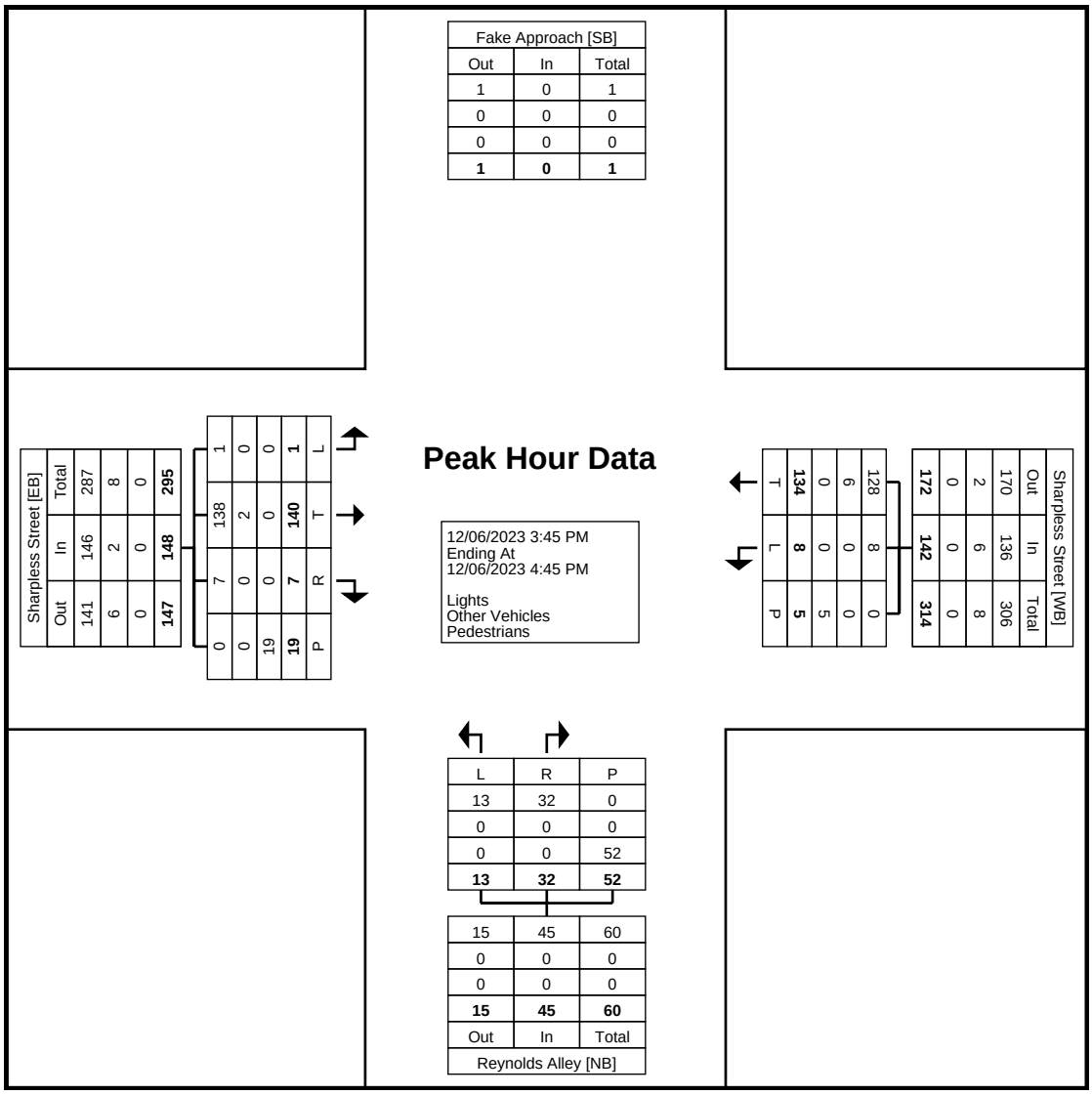

# Turning Movement Peak Hour Data (3:45 PM)

| Start Time | Sharpless Street Eastbound | | | | | Sharpless Street Westbound | | | | Reynolds Alley Northbound | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Left | Thru | Right | Peds | App. Total | Left | Thru | Peds | App. Total | Left | Right | Peds | App. Total | Int. Total |
| 3:45 PM | 0 | 29 | 2 | 3 | 31 | 1 | 33 | 0 | 34 | 1 | 4 | 7 | 5 | 70 |
| 4:00 PM | 0 | 33 | 2 | 8 | 35 | 1 | 46 | 4 | 47 | 1 | 3 | 17 | 4 | 86 |
| 4:15 PM | 1 | 38 | 3 | 5 | 42 | 2 | 35 | 1 | 37 | 3 | 7 | 25 | 10 | 89 |
| 4:30 PM | 0 | 40 | 0 | 3 | 40 | 4 | 20 | 0 | 24 | 8 | 18 | 3 | 26 | 90 |
| Total | 1 | 140 | 7 | 19 | 148 | 8 | 134 | 5 | 142 | 13 | 32 | 52 | 45 | 335 |
| Approach % | 0.7 | 94.6 | 4.7 | - | - | 5.6 | 94.4 | - | - | 28.9 | 71.1 | - | - | - |
| Total % | 0.3 | 41.8 | 2.1 | - | 44.2 | 2.4 | 40.0 | - | 42.4 | 3.9 | 9.6 | - | 13.4 | - |
| PHF | 0.250 | 0.875 | 0.583 | - | 0.881 | 0.500 | 0.728 | - | 0.755 | 0.406 | 0.444 | - | 0.433 | 0.931 |
| Lights | 1 | 138 | 7 | - | 146 | 8 | 128 | - | 136 | 13 | 32 | - | 45 | 327 |
| % Lights | 100.0 | 98.6 | 100.0 | - | 98.6 | 100.0 | 95.5 | - | 95.8 | 100.0 | 100.0 | - | 100.0 | 97.6 |
| Other Vehicles | 0 | 2 | 0 | - | 2 | 0 | 6 | - | 6 | 0 | 0 | - | 0 | 8 |
| % Other Vehicles | 0.0 | 1.4 | 0.0 | - | 1.4 | 0.0 | 4.5 | - | 4.2 | 0.0 | 0.0 | - | 0.0 | 2.4 |
| Pedestrians | - | - | - | 19 | - | - | - | 5 | - | - | - | 52 | - | - |
| % Pedestrians | - | - | - | 100.0 | - | - | - | 100.0 | - | - | - | 100.0 | - | - |

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Count Name: (4) AM/PM
Reynolds Alley x Sharpless Street
Site Code:
Start Date: 12/06/2023
Page No: 6




Turning Movement Peak Hour Data Plot (3:45 PM)

Counter: MIO:
Set up by: KY:

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610.326.3100 kyoung@trafficpd.com

Count Name: (5) AM/PM South High Street x Sharpless Street
Site Code:
Start Date: 12/06/2023

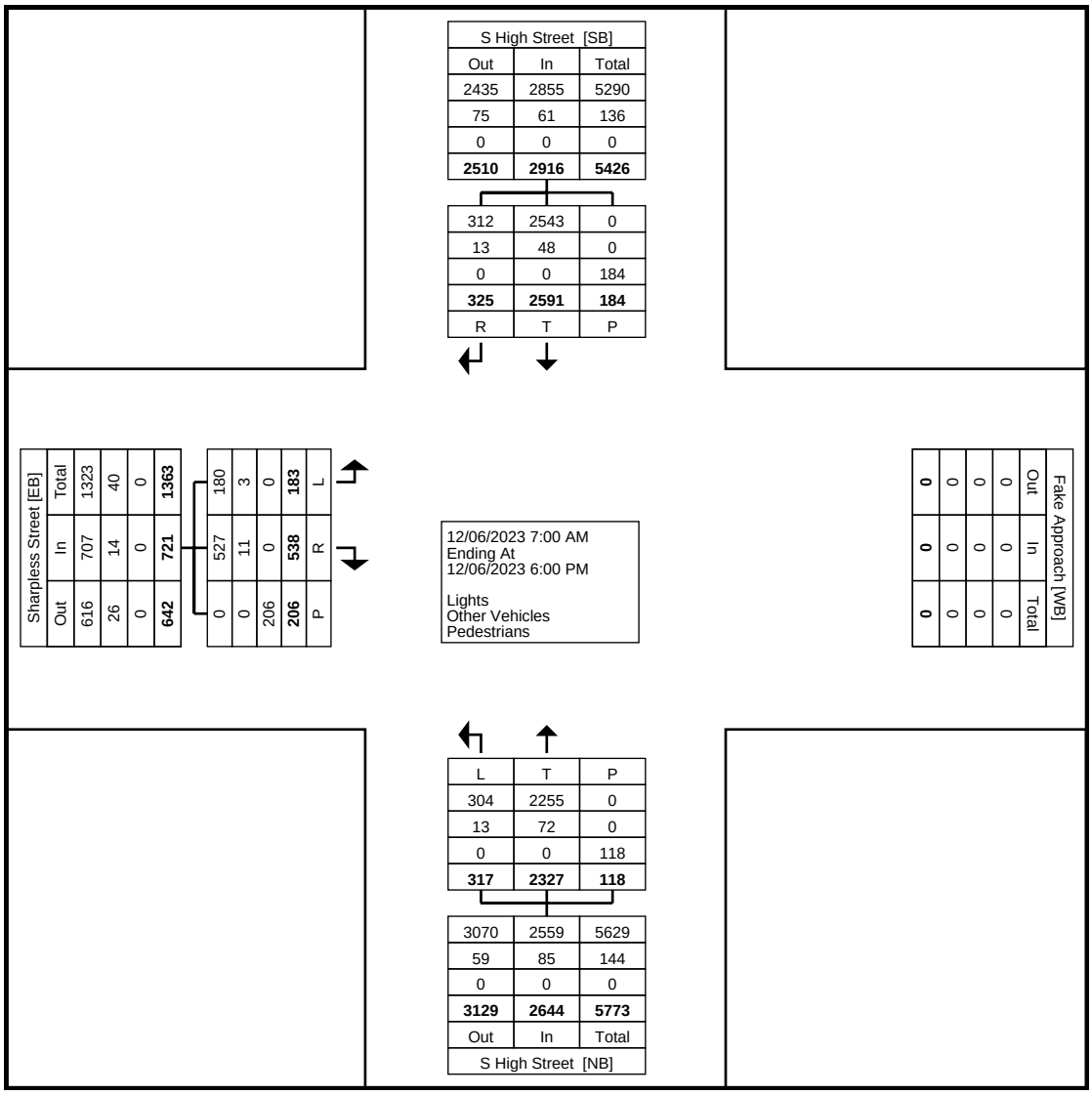

# Turning Movement Data

| Start Time | Sharpless Street Eastbound | | | | S High Street Northbound | | | | S High Street Southbound | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Left | Right | Peds | App. Total | Left | Thru | Peds | App. Total | Thru | Right | Peds | App. Total | Int. Total |
| 7:00 AM | 3 | 11 | 1 | 14 | 2 | 61 | 3 | 63 | 72 | 3 | 1 | 75 | 152 |
| 7:15 AM | 7 | 11 | 1 | 18 | 6 | 50 | 1 | 56 | 108 | 8 | 2 | 116 | 190 |
| 7:30 AM | 3 | 15 | 5 | 18 | 12 | 86 | 3 | 98 | 142 | 22 | 4 | 164 | 280 |
| 7:45 AM | 10 | 25 | 3 | 35 | 14 | 77 | 5 | 91 | 157 | 26 | 15 | 183 | 309 |
| Hourly Total | 23 | 62 | 10 | 85 | 34 | 274 | 12 | 308 | 479 | 59 | 22 | 538 | 931 |
| 8:00 AM | 6 | 17 | 1 | 23 | 11 | 79 | 1 | 90 | 117 | 16 | 2 | 133 | 246 |
| 8:15 AM | 5 | 14 | 1 | 19 | 10 | 70 | 2 | 80 | 86 | 9 | 1 | 95 | 194 |
| 8:30 AM | 6 | 23 | 6 | 29 | 17 | 90 | 6 | 107 | 99 | 17 | 3 | 116 | 252 |
| 8:45 AM | 12 | 30 | 22 | 42 | 13 | 77 | 10 | 90 | 107 | 15 | 29 | 122 | 254 |
| Hourly Total | 29 | 84 | 30 | 113 | 51 | 316 | 19 | 367 | 409 | 57 | 35 | 466 | 946 |
| 9:00 AM | 3 | 13 | 3 | 16 | 7 | 98 | 5 | 105 | 91 | 16 | 10 | 107 | 228 |
| 9:15 AM | 5 | 12 | 5 | 17 | 11 | 72 | 2 | 83 | 74 | 8 | 5 | 82 | 182 |
| 9:30 AM | 5 | 17 | 4 | 22 | 19 | 77 | 2 | 96 | 75 | 14 | 10 | 89 | 207 |
| 9:45 AM | 11 | 21 | 25 | 32 | 17 | 91 | 17 | 108 | 83 | 13 | 21 | 96 | 236 |
| Hourly Total | 24 | 63 | 37 | 87 | 54 | 338 | 26 | 392 | 323 | 51 | 46 | 374 | 853 |
| *** BREAK *** | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 3:00 PM | 11 | 28 | 21 | 39 | 8 | 112 | 2 | 120 | 123 | 6 | 1 | 129 | 288 |
| 3:15 PM | 11 | 32 | 9 | 43 | 6 | 97 | 6 | 103 | 96 | 10 | 4 | 106 | 252 |
| 3:30 PM | 14 | 14 | 7 | 28 | 15 | 114 | 5 | 129 | 94 | 8 | 6 | 102 | 259 |
| 3:45 PM | 8 | 26 | 9 | 34 | 11 | 126 | 6 | 137 | 114 | 25 | 4 | 139 | 310 |
| Hourly Total | 44 | 100 | 46 | 144 | 40 | 449 | 19 | 489 | 427 | 49 | 15 | 476 | 1109 |
| 4:00 PM | 7 | 28 | 15 | 35 | 21 | 103 | 8 | 124 | 132 | 23 | 13 | 155 | 314 |
| 4:15 PM | 7 | 37 | 14 | 44 | 25 | 109 | 12 | 134 | 133 | 12 | 12 | 145 | 323 |
| 4:30 PM | 13 | 43 | 6 | 56 | 16 | 126 | 0 | 142 | 136 | 7 | 5 | 143 | 341 |
| 4:45 PM | 8 | 24 | 4 | 32 | 15 | 112 | 3 | 127 | 107 | 13 | 10 | 120 | 279 |
| Hourly Total | 35 | 132 | 39 | 167 | 77 | 450 | 23 | 527 | 508 | 55 | 40 | 563 | 1257 |
| 5:00 PM | 4 | 27 | 12 | 31 | 16 | 120 | 2 | 136 | 110 | 14 | 4 | 124 | 291 |
| 5:15 PM | 8 | 29 | 11 | 37 | 16 | 133 | 8 | 149 | 117 | 10 | 8 | 127 | 313 |
| 5:30 PM | 7 | 20 | 15 | 27 | 8 | 121 | 5 | 129 | 111 | 15 | 9 | 126 | 282 |
| 5:45 PM | 9 | 21 | 6 | 30 | 21 | 126 | 4 | 147 | 107 | 15 | 5 | 122 | 299 |
| Hourly Total | 28 | 97 | 44 | 125 | 61 | 500 | 19 | 561 | 445 | 54 | 26 | 499 | 1185 |
| Grand Total | 183 | 538 | 206 | 721 | 317 | 2327 | 118 | 2644 | 2591 | 325 | 184 | 2916 | 6281 |
| Approach % | 25.4 | 74.6 | - | - | 12.0 | 88.0 | - | - | 88.9 | 11.1 | - | - | - |
| Total % | 2.9 | 8.6 | - | 11.5 | 5.0 | 37.0 | - | 42.1 | 41.3 | 5.2 | - | 46.4 | - |
| Lights | 180 | 527 | - | 707 | 304 | 2255 | - | 2559 | 2543 | 312 | - | 2855 | 6121 |
| % Lights | 98.4 | 98.0 | - | 98.1 | 95.9 | 96.9 | - | 96.8 | 98.1 | 96.0 | - | 97.9 | 97.5 |
| Other Vehicles | 3 | 11 | - | 14 | 13 | 72 | - | 85 | 48 | 13 | - | 61 | 160 |
| % Other Vehicles | 1.6 | 2.0 | - | 1.9 | 4.1 | 3.1 | - | 3.2 | 1.9 | 4.0 | - | 2.1 | 2.5 |
| Pedestrians | - | - | 206 | - | - | - | 118 | - | - | - | 184 | - | - |
| % Pedestrians | - | - | 100.0 | - | - | - | 100.0 | - | - | - | 100.0 | - | - |

Traffic Planning and Design, Inc
2500 East High Street
Suite 650
Pottstown, Pennsylvania, United States 19464
610.326.3100 kyoung@trafficpd.com

Counter: MIO:
Set up by: KY:

Count Name: (5) AM/PM South High Street x Sharpless Street
Site Code:
Start Date: 12/06/2023


Turning Movement Data Plot

Traffic Planning and Design, Inc
2500 East High Street
Suite 650
Pottstown, Pennsylvania, United States 19464
610.326.3100 kyoung@trafficpd.com

Counter: MIO:
Set up by: KY:

Count Name: (5) AM/PM South High Street x Sharpless Street
Site Code:
Start Date: 12/06/2023

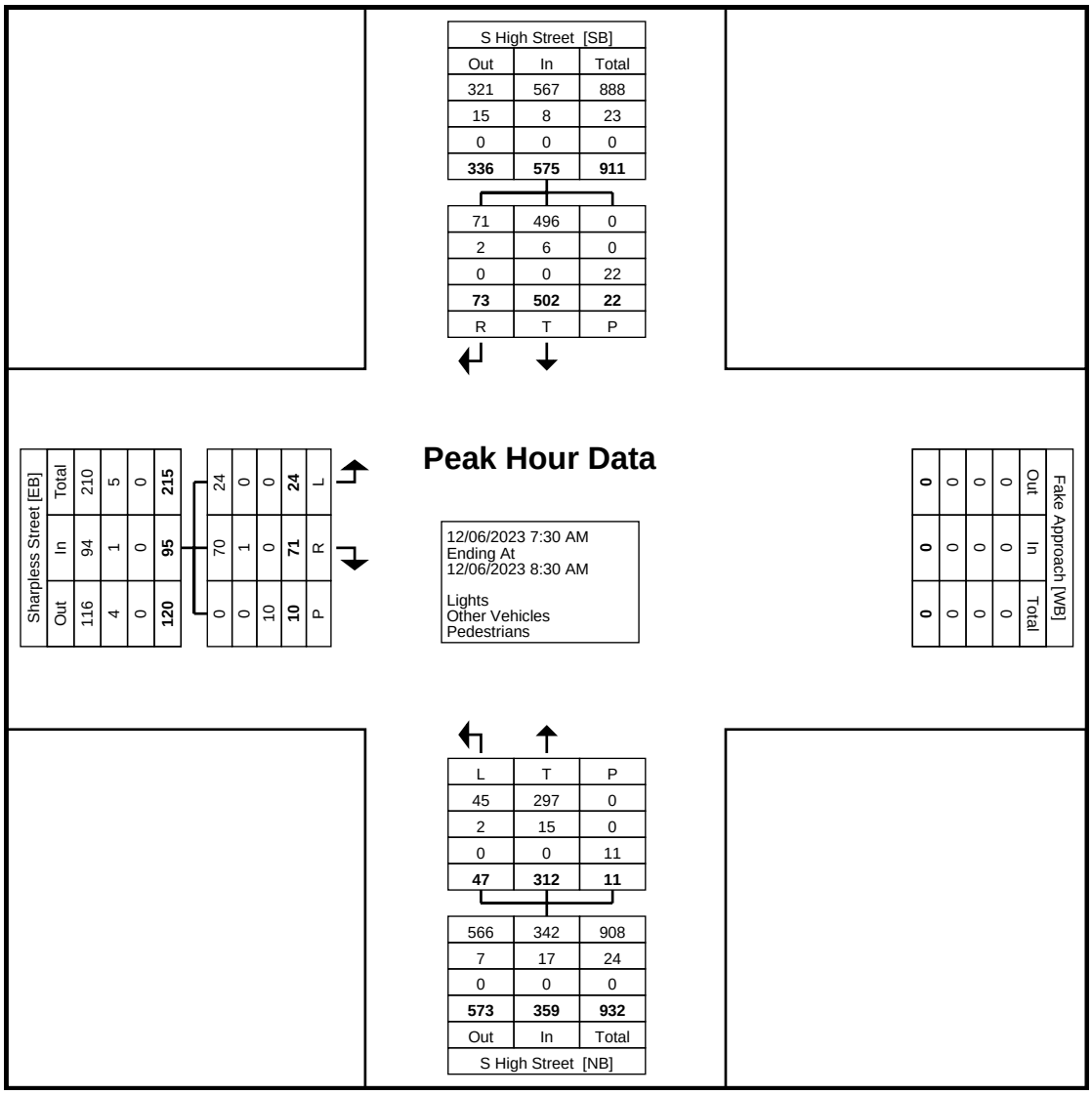

# Turning Movement Peak Hour Data (7:30 AM)

| Start Time | Sharpless Street Eastbound | | | | S High Street Northbound | | | | S High Street Southbound | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Left | Right | Peds | App. Total | Left | Thru | Peds | App. Total | Thru | Right | Peds | App. Total | Int. Total |
| 7:30 AM | 3 | 15 | 5 | 18 | 12 | 86 | 3 | 98 | 142 | 22 | 4 | 164 | 280 |
| 7:45 AM | 10 | 25 | 3 | 35 | 14 | 77 | 5 | 91 | 157 | 26 | 15 | 183 | 309 |
| 8:00 AM | 6 | 17 | 1 | 23 | 11 | 79 | 1 | 90 | 117 | 16 | 2 | 133 | 246 |
| 8:15 AM | 5 | 14 | 1 | 19 | 10 | 70 | 2 | 80 | 86 | 9 | 1 | 95 | 194 |
| Total | 24 | 71 | 10 | 95 | 47 | 312 | 11 | 359 | 502 | 73 | 22 | 575 | 1029 |
| Approach % | 25.3 | 74.7 | - | - | 13.1 | 86.9 | - | - | 87.3 | 12.7 | - | - | - |
| Total % | 2.3 | 6.9 | - | 9.2 | 4.6 | 30.3 | - | 34.9 | 48.8 | 7.1 | - | 55.9 | - |
| PHF | 0.600 | 0.710 | - | 0.679 | 0.839 | 0.907 | - | 0.916 | 0.799 | 0.702 | - | 0.786 | 0.833 |
| Lights | 24 | 70 | - | 94 | 45 | 297 | - | 342 | 496 | 71 | - | 567 | 1003 |
| % Lights | 100.0 | 98.6 | - | 98.9 | 95.7 | 95.2 | - | 95.3 | 98.8 | 97.3 | - | 98.6 | 97.5 |
| Other Vehicles | 0 | 1 | - | 1 | 2 | 15 | - | 17 | 6 | 2 | - | 8 | 26 |
| % Other Vehicles | 0.0 | 1.4 | - | 1.1 | 4.3 | 4.8 | - | 4.7 | 1.2 | 2.7 | - | 1.4 | 2.5 |
| Pedestrians | - | - | 10 | - | - | - | 11 | - | - | - | 22 | - | - |
| % Pedestrians | - | - | 100.0 | - | - | - | 100.0 | - | - | - | 100.0 | - | - |

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2500 East High Street
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Counter: MIO:
Set up by: KY:

Count Name: (5) AM/PM South High Street x Sharpless Street
Site Code:
Start Date: 12/06/2023


Turning Movement Peak Hour Data Plot (7:30 AM)

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2500 East High Street
Suite 650
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Counter: MIO:
Set up by: KY:

Count Name: (5) AM/PM South High Street x Sharpless Street
Site Code:
Start Date: 12/06/2023

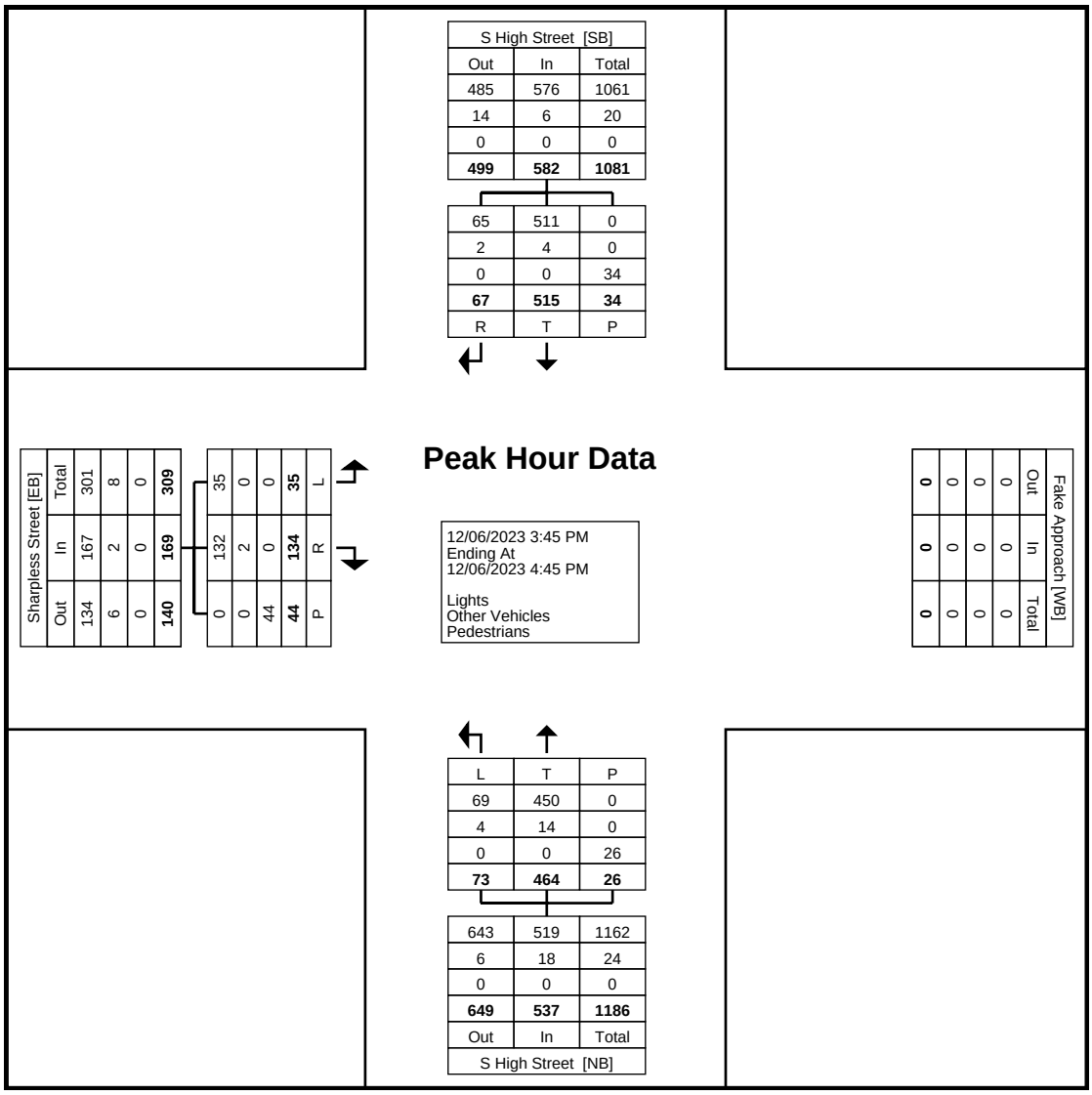

# Turning Movement Peak Hour Data (3:45 PM)

| Start Time | Sharpless Street Eastbound | | | | S High Street Northbound | | | | S High Street Southbound | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Left | Right | Peds | App. Total | Left | Thru | Peds | App. Total | Thru | Right | Peds | App. Total | Int. Total |
| 3:45 PM | 8 | 26 | 9 | 34 | 11 | 126 | 6 | 137 | 114 | 25 | 4 | 139 | 310 |
| 4:00 PM | 7 | 28 | 15 | 35 | 21 | 103 | 8 | 124 | 132 | 23 | 13 | 155 | 314 |
| 4:15 PM | 7 | 37 | 14 | 44 | 25 | 109 | 12 | 134 | 133 | 12 | 12 | 145 | 323 |
| 4:30 PM | 13 | 43 | 6 | 56 | 16 | 126 | 0 | 142 | 136 | 7 | 5 | 143 | 341 |
| Total | 35 | 134 | 44 | 169 | 73 | 464 | 26 | 537 | 515 | 67 | 34 | 582 | 1288 |
| Approach % | 20.7 | 79.3 | - | - | 13.6 | 86.4 | - | - | 88.5 | 11.5 | - | - | - |
| Total % | 2.7 | 10.4 | - | 13.1 | 5.7 | 36.0 | - | 41.7 | 40.0 | 5.2 | - | 45.2 | - |
| PHF | 0.673 | 0.779 | - | 0.754 | 0.730 | 0.921 | - | 0.945 | 0.947 | 0.670 | - | 0.939 | 0.944 |
| Lights | 35 | 132 | - | 167 | 69 | 450 | - | 519 | 511 | 65 | - | 576 | 1262 |
| % Lights | 100.0 | 98.5 | - | 98.8 | 94.5 | 97.0 | - | 96.6 | 99.2 | 97.0 | - | 99.0 | 98.0 |
| Other Vehicles | 0 | 2 | - | 2 | 4 | 14 | - | 18 | 4 | 2 | - | 6 | 26 |
| % Other Vehicles | 0.0 | 1.5 | - | 1.2 | 5.5 | 3.0 | - | 3.4 | 0.8 | 3.0 | - | 1.0 | 2.0 |
| Pedestrians | - | - | 44 | - | - | - | 26 | - | - | - | 34 | - | - |
| % Pedestrians | - | - | 100.0 | - | - | - | 100.0 | - | - | - | 100.0 | - | - |

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Counter: MIO:
Set up by: KY:

Count Name: (5) AM/PM South High Street x Sharpless Street
Site Code:
Start Date: 12/06/2023


Turning Movement Peak Hour Data Plot (3:45 PM)

Counter: MIO:
Set up by: KY:

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2500 East High Street
Suite 650
Pottstown, Pennsylvania, United States 19464
610.326.3100 kyoung@trafficpd.com

Count Name: (6) AM/PM South High Street x East Nields Street
Site Code:
Start Date: 12/06/2023

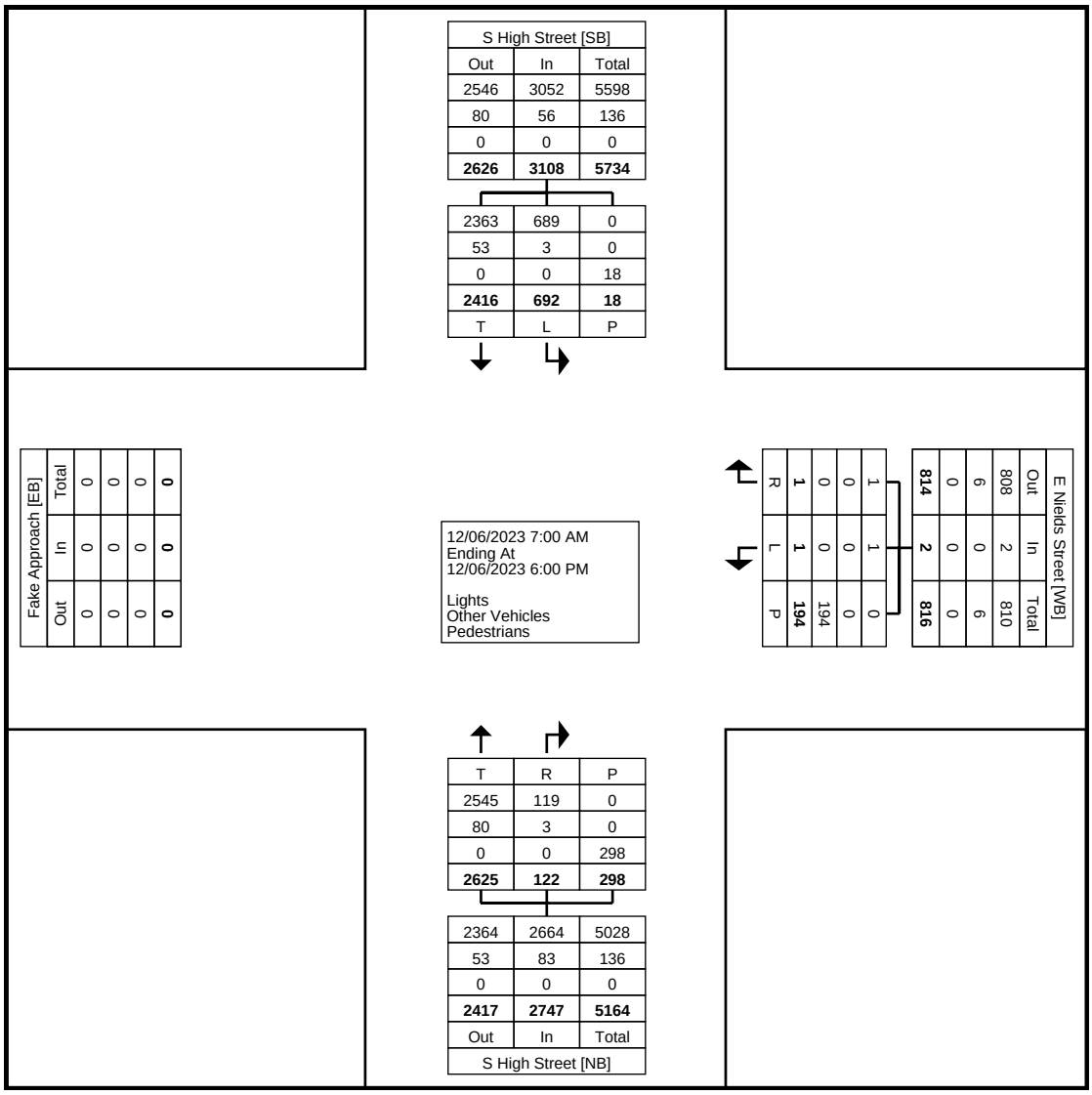

# Turning Movement Data

| Start Time | E Nields Street Westbound | | | | S High Street Northbound | | | | S High Street Southbound | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Left | Right | Peds | App. Total | Thru | Right | Peds | App. Total | Left | Thru | Peds | App. Total | Int. Total |
| 7:00 AM | 0 | 0 | 1 | 0 | 63 | 1 | 0 | 64 | 13 | 70 | 2 | 83 | 147 |
| 7:15 AM | 0 | 0 | 1 | 0 | 58 | 0 | 0 | 58 | 19 | 95 | 0 | 114 | 172 |
| 7:30 AM | 0 | 0 | 4 | 0 | 96 | 2 | 7 | 98 | 29 | 119 | 0 | 148 | 246 |
| 7:45 AM | 0 | 0 | 7 | 0 | 90 | 4 | 25 | 94 | 53 | 134 | 0 | 187 | 281 |
| Hourly Total | 0 | 0 | 13 | 0 | 307 | 7 | 32 | 314 | 114 | 418 | 2 | 532 | 846 |
| 8:00 AM | 0 | 0 | 0 | 0 | 88 | 2 | 3 | 90 | 34 | 107 | 0 | 141 | 231 |
| 8:15 AM | 0 | 0 | 5 | 0 | 82 | 3 | 4 | 85 | 25 | 74 | 1 | 99 | 184 |
| 8:30 AM | 0 | 0 | 3 | 0 | 106 | 6 | 5 | 112 | 33 | 87 | 0 | 120 | 232 |
| 8:45 AM | 0 | 0 | 10 | 0 | 94 | 4 | 22 | 98 | 36 | 90 | 0 | 126 | 224 |
| Hourly Total | 0 | 0 | 18 | 0 | 370 | 15 | 34 | 385 | 128 | 358 | 1 | 486 | 871 |
| 9:00 AM | 0 | 1 | 6 | 1 | 102 | 5 | 7 | 107 | 20 | 89 | 0 | 109 | 217 |
| 9:15 AM | 0 | 0 | 5 | 0 | 83 | 3 | 8 | 86 | 22 | 67 | 1 | 89 | 175 |
| 9:30 AM | 0 | 0 | 6 | 0 | 98 | 3 | 6 | 101 | 12 | 76 | 0 | 88 | 189 |
| 9:45 AM | 0 | 0 | 26 | 0 | 103 | 4 | 57 | 107 | 19 | 86 | 3 | 105 | 212 |
| Hourly Total | 0 | 1 | 43 | 1 | 386 | 15 | 78 | 401 | 73 | 318 | 4 | 391 | 793 |
| *** BREAK *** | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 3:00 PM | 0 | 0 | 10 | 0 | 120 | 12 | 11 | 132 | 36 | 112 | 0 | 148 | 280 |
| 3:15 PM | 0 | 0 | 9 | 0 | 102 | 8 | 3 | 110 | 30 | 104 | 0 | 134 | 244 |
| 3:30 PM | 0 | 0 | 6 | 0 | 128 | 7 | 8 | 135 | 17 | 90 | 0 | 107 | 242 |
| 3:45 PM | 0 | 0 | 14 | 0 | 137 | 5 | 9 | 142 | 25 | 110 | 0 | 135 | 277 |
| Hourly Total | 0 | 0 | 39 | 0 | 487 | 32 | 31 | 519 | 108 | 416 | 0 | 524 | 1043 |
| 4:00 PM | 0 | 0 | 13 | 0 | 124 | 6 | 23 | 130 | 44 | 119 | 1 | 163 | 293 |
| 4:15 PM | 0 | 0 | 18 | 0 | 136 | 18 | 42 | 154 | 36 | 136 | 2 | 172 | 326 |
| 4:30 PM | 0 | 0 | 6 | 0 | 142 | 3 | 8 | 145 | 33 | 136 | 0 | 169 | 314 |
| 4:45 PM | 0 | 0 | 13 | 0 | 123 | 5 | 4 | 128 | 35 | 107 | 2 | 142 | 270 |
| Hourly Total | 0 | 0 | 50 | 0 | 525 | 32 | 77 | 557 | 148 | 498 | 5 | 646 | 1203 |
| 5:00 PM | 0 | 0 | 6 | 0 | 138 | 3 | 10 | 141 | 37 | 98 | 1 | 135 | 276 |
| 5:15 PM | 0 | 0 | 7 | 0 | 143 | 8 | 14 | 151 | 27 | 115 | 0 | 142 | 293 |
| 5:30 PM | 0 | 0 | 13 | 0 | 131 | 6 | 12 | 137 | 32 | 101 | 4 | 133 | 270 |
| 5:45 PM | 1 | 0 | 5 | 1 | 138 | 4 | 10 | 142 | 25 | 94 | 1 | 119 | 262 |
| Hourly Total | 1 | 0 | 31 | 1 | 550 | 21 | 46 | 571 | 121 | 408 | 6 | 529 | 1101 |
| Grand Total | 1 | 1 | 194 | 2 | 2625 | 122 | 298 | 2747 | 692 | 2416 | 18 | 3108 | 5857 |
| Approach % | 50.0 | 50.0 | - | - | 95.6 | 4.4 | - | - | 22.3 | 77.7 | - | - | - |
| Total % | 0.0 | 0.0 | - | 0.0 | 44.8 | 2.1 | - | 46.9 | 11.8 | 41.2 | - | 53.1 | - |
| Lights | 1 | 1 | - | 2 | 2545 | 119 | - | 2664 | 689 | 2363 | - | 3052 | 5718 |
| % Lights | 100.0 | 100.0 | - | 100.0 | 97.0 | 97.5 | - | 97.0 | 99.6 | 97.8 | - | 98.2 | 97.6 |
| Other Vehicles | 0 | 0 | - | 0 | 80 | 3 | - | 83 | 3 | 53 | - | 56 | 139 |
| % Other Vehicles | 0.0 | 0.0 | - | 0.0 | 3.0 | 2.5 | - | 3.0 | 0.4 | 2.2 | - | 1.8 | 2.4 |
| Pedestrians | - | - | 194 | - | - | - | 298 | - | - | - | 18 | - | - |
| % Pedestrians | - | - | 100.0 | - | - | - | 100.0 | - | - | - | 100.0 | - | - |

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Counter: MIO:
Set up by: KY:

Count Name: (6) AM/PM South High Street x East Nields Street
Site Code:
Start Date: 12/06/2023
Page No: 2




Turning Movement Data Plot

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Suite 650
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Counter: MIO:
Set up by: KY:

Count Name: (6) AM/PM South High Street x East Nields Street
Site Code:
Start Date: 12/06/2023

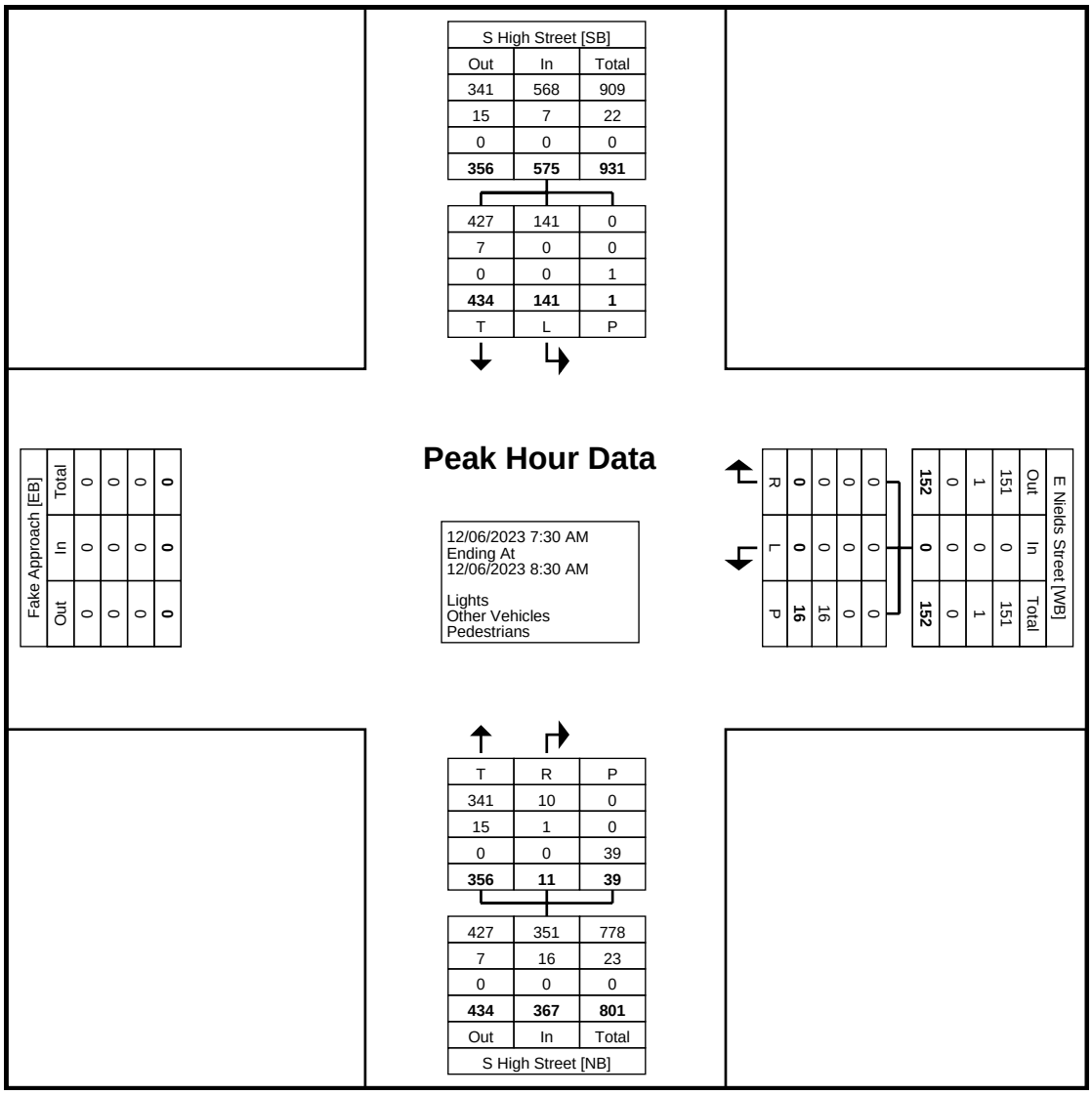

# Turning Movement Peak Hour Data (7:30 AM)

| Start Time | E Nields Street Westbound | | | | S High Street Northbound | | | | S High Street Southbound | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Left | Right | Peds | App. Total | Thru | Right | Peds | App. Total | Left | Thru | Peds | App. Total | Int. Total |
| 7:30 AM | 0 | 0 | 4 | 0 | 96 | 2 | 7 | 98 | 29 | 119 | 0 | 148 | 246 |
| 7:45 AM | 0 | 0 | 7 | 0 | 90 | 4 | 25 | 94 | 53 | 134 | 0 | 187 | 281 |
| 8:00 AM | 0 | 0 | 0 | 0 | 88 | 2 | 3 | 90 | 34 | 107 | 0 | 141 | 231 |
| 8:15 AM | 0 | 0 | 5 | 0 | 82 | 3 | 4 | 85 | 25 | 74 | 1 | 99 | 184 |
| Total | 0 | 0 | 16 | 0 | 356 | 11 | 39 | 367 | 141 | 434 | 1 | 575 | 942 |
| Approach % | 0.0 | 0.0 | - | - | 97.0 | 3.0 | - | - | 24.5 | 75.5 | - | - | - |
| Total % | 0.0 | 0.0 | - | 0.0 | 37.8 | 1.2 | - | 39.0 | 15.0 | 46.1 | - | 61.0 | - |
| PHF | 0.000 | 0.000 | - | 0.000 | 0.927 | 0.688 | - | 0.936 | 0.665 | 0.810 | - | 0.769 | 0.838 |
| Lights | 0 | 0 | - | 0 | 341 | 10 | - | 351 | 141 | 427 | - | 568 | 919 |
| % Lights | - | - | - | - | 95.8 | 90.9 | - | 95.6 | 100.0 | 98.4 | - | 98.8 | 97.6 |
| Other Vehicles | 0 | 0 | - | 0 | 15 | 1 | - | 16 | 0 | 7 | - | 7 | 23 |
| % Other Vehicles | - | - | - | - | 4.2 | 9.1 | - | 4.4 | 0.0 | 1.6 | - | 1.2 | 2.4 |
| Pedestrians | - | - | 16 | - | - | - | 39 | - | - | - | 1 | - | - |
| % Pedestrians | - | - | 100.0 | - | - | - | 100.0 | - | - | - | 100.0 | - | - |

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Counter: MIO:
Set up by: KY:

Count Name: (6) AM/PM South High Street x East Nields Street
Site Code:
Start Date: 12/06/2023
Page No: 4




Turning Movement Peak Hour Data Plot (7:30 AM)

Traffic Planning and Design, Inc
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Suite 650
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610.326.3100 kyoung@trafficpd.com

Counter: MIO:
Set up by: KY:

Count Name: (6) AM/PM South High Street x East Nields Street
Site Code:
Start Date: 12/06/2023

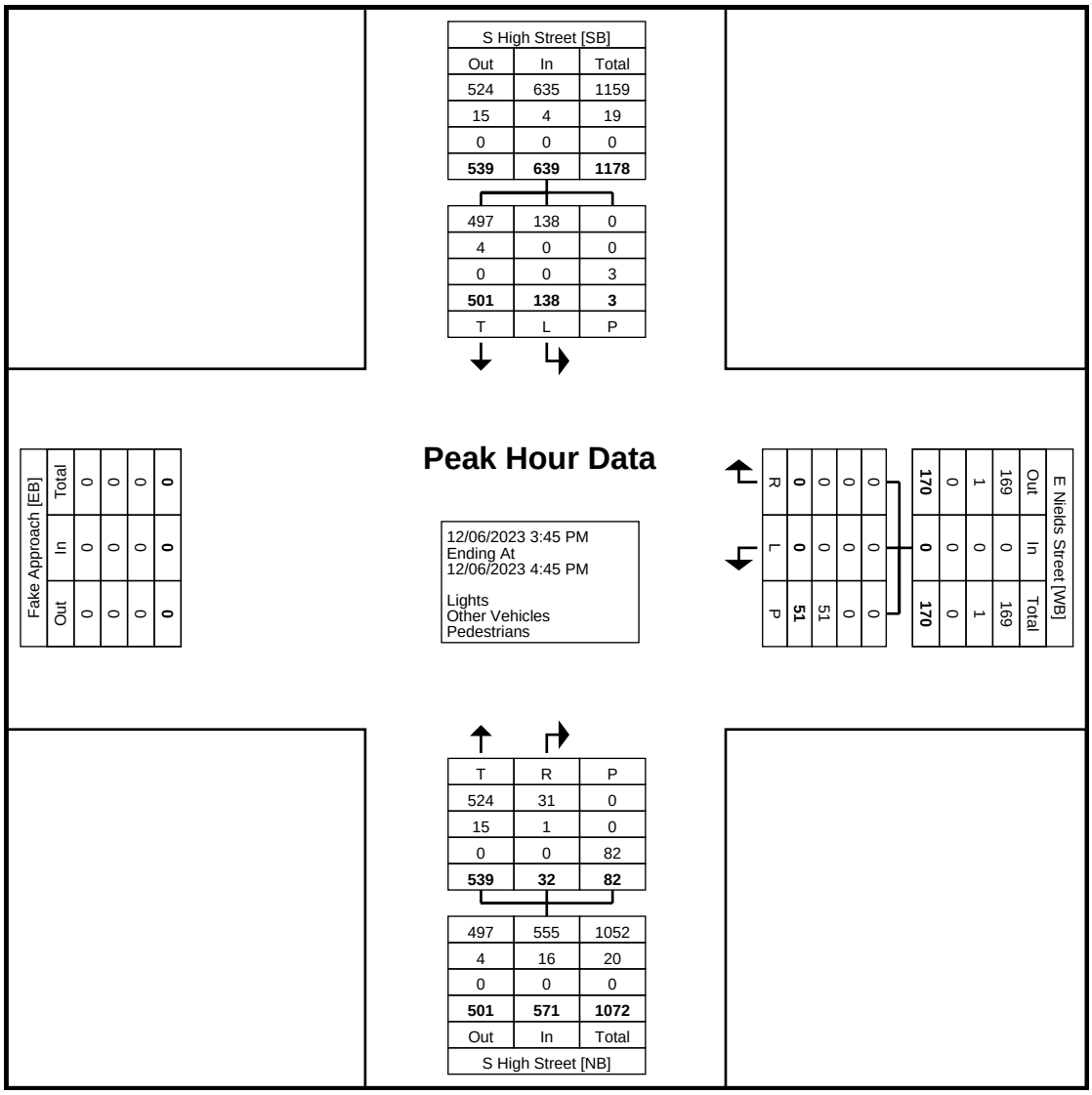

# Turning Movement Peak Hour Data (3:45 PM)

| Start Time | E Nields Street Westbound | | | | S High Street Northbound | | | | S High Street Southbound | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Left | Right | Peds | App. Total | Thru | Right | Peds | App. Total | Left | Thru | Peds | App. Total | Int. Total |
| 3:45 PM | 0 | 0 | 14 | 0 | 137 | 5 | 9 | 142 | 25 | 110 | 0 | 135 | 277 |
| 4:00 PM | 0 | 0 | 13 | 0 | 124 | 6 | 23 | 130 | 44 | 119 | 1 | 163 | 293 |
| 4:15 PM | 0 | 0 | 18 | 0 | 136 | 18 | 42 | 154 | 36 | 136 | 2 | 172 | 326 |
| 4:30 PM | 0 | 0 | 6 | 0 | 142 | 3 | 8 | 145 | 33 | 136 | 0 | 169 | 314 |
| Total | 0 | 0 | 51 | 0 | 539 | 32 | 82 | 571 | 138 | 501 | 3 | 639 | 1210 |
| Approach % | 0.0 | 0.0 | - | - | 94.4 | 5.6 | - | - | 21.6 | 78.4 | - | - | - |
| Total % | 0.0 | 0.0 | - | 0.0 | 44.5 | 2.6 | - | 47.2 | 11.4 | 41.4 | - | 52.8 | - |
| PHF | 0.000 | 0.000 | - | 0.000 | 0.949 | 0.444 | - | 0.927 | 0.784 | 0.921 | - | 0.929 | 0.928 |
| Lights | 0 | 0 | - | 0 | 524 | 31 | - | 555 | 138 | 497 | - | 635 | 1190 |
| % Lights | - | - | - | - | 97.2 | 96.9 | - | 97.2 | 100.0 | 99.2 | - | 99.4 | 98.3 |
| Other Vehicles | 0 | 0 | - | 0 | 15 | 1 | - | 16 | 0 | 4 | - | 4 | 20 |
| % Other Vehicles | - | - | - | - | 2.8 | 3.1 | - | 2.8 | 0.0 | 0.8 | - | 0.6 | 1.7 |
| Pedestrians | - | - | 51 | - | - | - | 82 | - | - | - | 3 | - | - |
| % Pedestrians | - | - | 100.0 | - | - | - | 100.0 | - | - | - | 100.0 | - | - |

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Counter: MIO:
Set up by: KY:

Count Name: (6) AM/PM South High Street x East Nields Street
Site Code:
Start Date: 12/06/2023
Page No: 6




Turning Movement Peak Hour Data Plot (3:45 PM)

Counter: MIO:
Set up by: KY:

Traffic Planning and Design, Inc
2500 East High Street
Suite 650
Pottstown, Pennsylvania, United States 19464
610.326.3100 kyoung@trafficpd.com

Count Name: (7) AM/PM South High Street x University Ave
Site Code:
Start Date: 12/06/2023

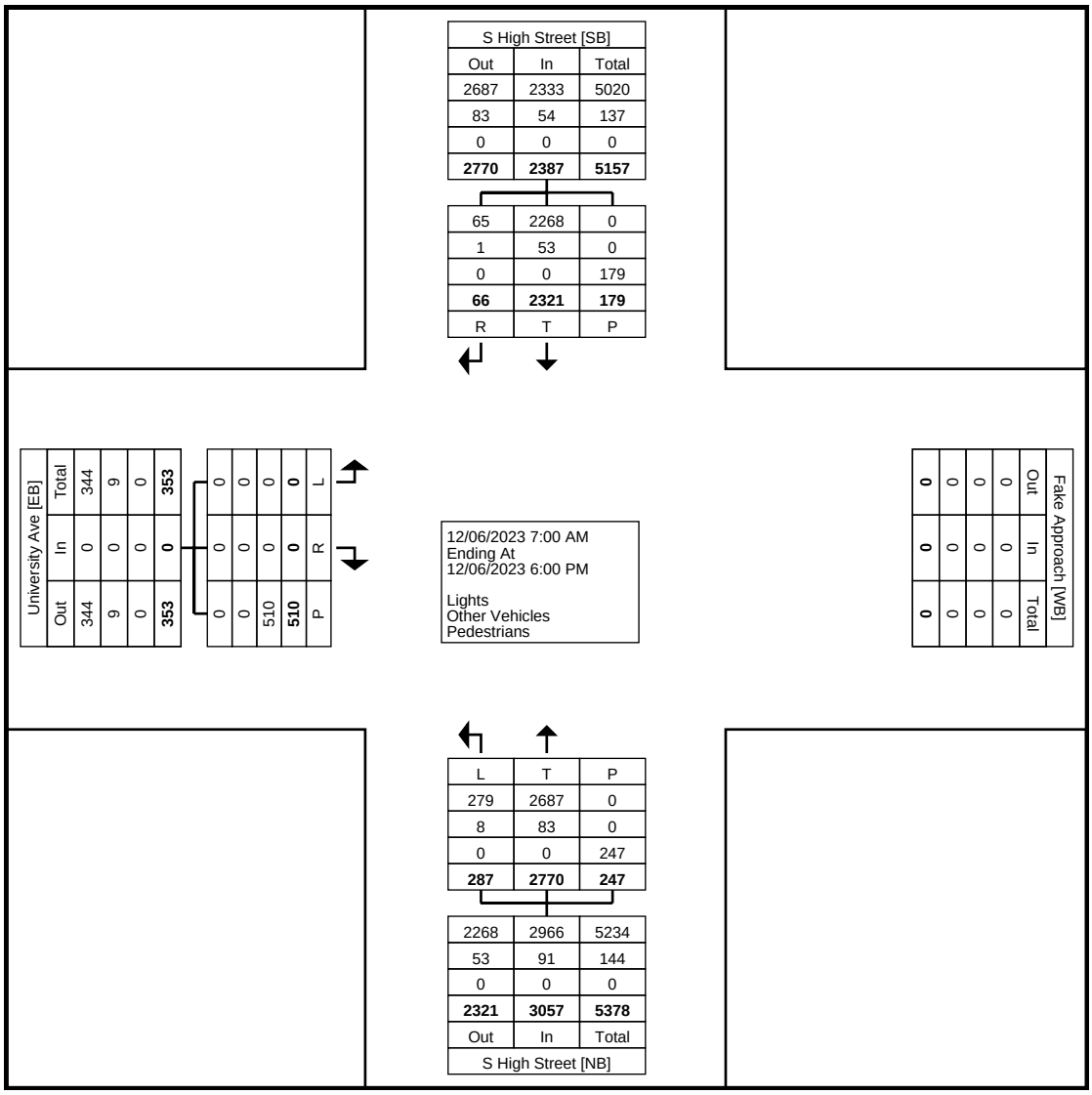

# Turning Movement Data

| Start Time | University Ave Eastbound | | | | S High Street Northbound | | | | S High Street Southbound | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Left | Right | Peds | App. Total | Left | Thru | Peds | App. Total | Thru | Right | Peds | App. Total | Int. Total |
| 7:00 AM | 0 | 0 | 1 | 0 | 4 | 63 | 2 | 67 | 68 | 0 | 0 | 68 | 135 |
| 7:15 AM | 0 | 0 | 8 | 0 | 12 | 62 | 2 | 74 | 95 | 2 | 0 | 97 | 171 |
| 7:30 AM | 0 | 0 | 14 | 0 | 12 | 99 | 10 | 111 | 115 | 2 | 3 | 117 | 228 |
| 7:45 AM | 0 | 0 | 15 | 0 | 13 | 93 | 12 | 106 | 128 | 3 | 8 | 131 | 237 |
| Hourly Total | 0 | 0 | 38 | 0 | 41 | 317 | 26 | 358 | 406 | 7 | 11 | 413 | 771 |
| 8:00 AM | 0 | 0 | 7 | 0 | 12 | 96 | 7 | 108 | 97 | 5 | 0 | 102 | 210 |
| 8:15 AM | 0 | 0 | 4 | 0 | 13 | 86 | 3 | 99 | 73 | 1 | 6 | 74 | 173 |
| 8:30 AM | 0 | 0 | 19 | 0 | 10 | 114 | 3 | 124 | 85 | 2 | 1 | 87 | 211 |
| 8:45 AM | 0 | 0 | 60 | 0 | 22 | 98 | 13 | 120 | 89 | 3 | 17 | 92 | 212 |
| Hourly Total | 0 | 0 | 90 | 0 | 57 | 394 | 26 | 451 | 344 | 11 | 24 | 355 | 806 |
| 9:00 AM | 0 | 0 | 16 | 0 | 13 | 110 | 6 | 123 | 81 | 4 | 8 | 85 | 208 |
| 9:15 AM | 0 | 0 | 22 | 0 | 9 | 81 | 8 | 90 | 65 | 1 | 6 | 66 | 156 |
| 9:30 AM | 0 | 0 | 20 | 0 | 16 | 99 | 9 | 115 | 75 | 3 | 2 | 78 | 193 |
| 9:45 AM | 0 | 0 | 70 | 0 | 22 | 116 | 20 | 138 | 80 | 4 | 21 | 84 | 222 |
| Hourly Total | 0 | 0 | 128 | 0 | 60 | 406 | 43 | 466 | 301 | 12 | 37 | 313 | 779 |
| *** BREAK *** | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 3:00 PM | 0 | 0 | 36 | 0 | 6 | 129 | 16 | 135 | 115 | 2 | 11 | 117 | 252 |
| 3:15 PM | 0 | 0 | 15 | 0 | 4 | 116 | 9 | 120 | 94 | 2 | 13 | 96 | 216 |
| 3:30 PM | 0 | 0 | 13 | 0 | 8 | 131 | 2 | 139 | 88 | 2 | 9 | 90 | 229 |
| 3:45 PM | 0 | 0 | 21 | 0 | 9 | 146 | 11 | 155 | 102 | 3 | 3 | 105 | 260 |
| Hourly Total | 0 | 0 | 85 | 0 | 27 | 522 | 38 | 549 | 399 | 9 | 36 | 408 | 957 |
| 4:00 PM | 0 | 0 | 40 | 0 | 26 | 132 | 13 | 158 | 107 | 8 | 16 | 115 | 273 |
| 4:15 PM | 0 | 0 | 57 | 0 | 28 | 148 | 12 | 176 | 130 | 6 | 21 | 136 | 312 |
| 4:30 PM | 0 | 0 | 15 | 0 | 14 | 144 | 18 | 158 | 141 | 2 | 6 | 143 | 301 |
| 4:45 PM | 0 | 0 | 8 | 0 | 7 | 128 | 14 | 135 | 98 | 0 | 5 | 98 | 233 |
| Hourly Total | 0 | 0 | 120 | 0 | 75 | 552 | 57 | 627 | 476 | 16 | 48 | 492 | 1119 |
| 5:00 PM | 0 | 0 | 10 | 0 | 8 | 143 | 16 | 151 | 99 | 1 | 6 | 100 | 251 |
| 5:15 PM | 0 | 0 | 21 | 0 | 3 | 153 | 16 | 156 | 114 | 3 | 3 | 117 | 273 |
| 5:30 PM | 0 | 0 | 14 | 0 | 10 | 133 | 21 | 143 | 92 | 5 | 8 | 97 | 240 |
| 5:45 PM | 0 | 0 | 4 | 0 | 6 | 150 | 4 | 156 | 90 | 2 | 6 | 92 | 248 |
| Hourly Total | 0 | 0 | 49 | 0 | 27 | 579 | 57 | 606 | 395 | 11 | 23 | 406 | 1012 |
| Grand Total | 0 | 0 | 510 | 0 | 287 | 2770 | 247 | 3057 | 2321 | 66 | 179 | 2387 | 5444 |
| Approach % | 0.0 | 0.0 | - | - | 9.4 | 90.6 | - | - | 97.2 | 2.8 | - | - | - |
| Total % | 0.0 | 0.0 | - | 0.0 | 5.3 | 50.9 | - | 56.2 | 42.6 | 1.2 | - | 43.8 | - |
| Lights | 0 | 0 | - | 0 | 279 | 2687 | - | 2966 | 2268 | 65 | - | 2333 | 5299 |
| % Lights | - | - | - | - | 97.2 | 97.0 | - | 97.0 | 97.7 | 98.5 | - | 97.7 | 97.3 |
| Other Vehicles | 0 | 0 | - | 0 | 8 | 83 | - | 91 | 53 | 1 | - | 54 | 145 |
| % Other Vehicles | - | - | - | - | 2.8 | 3.0 | - | 3.0 | 2.3 | 1.5 | - | 2.3 | 2.7 |
| Pedestrians | - | - | 510 | - | - | - | 247 | - | - | - | 179 | - | - |
| % Pedestrians | - | - | 100.0 | - | - | - | 100.0 | - | - | - | 100.0 | - | - |

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Counter: MIO:
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Site Code:
Start Date: 12/06/2023
Page No: 2




Turning Movement Data Plot

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Counter: MIO:
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Count Name: (7) AM/PM South High Street x University Ave
Site Code:
Start Date: 12/06/2023

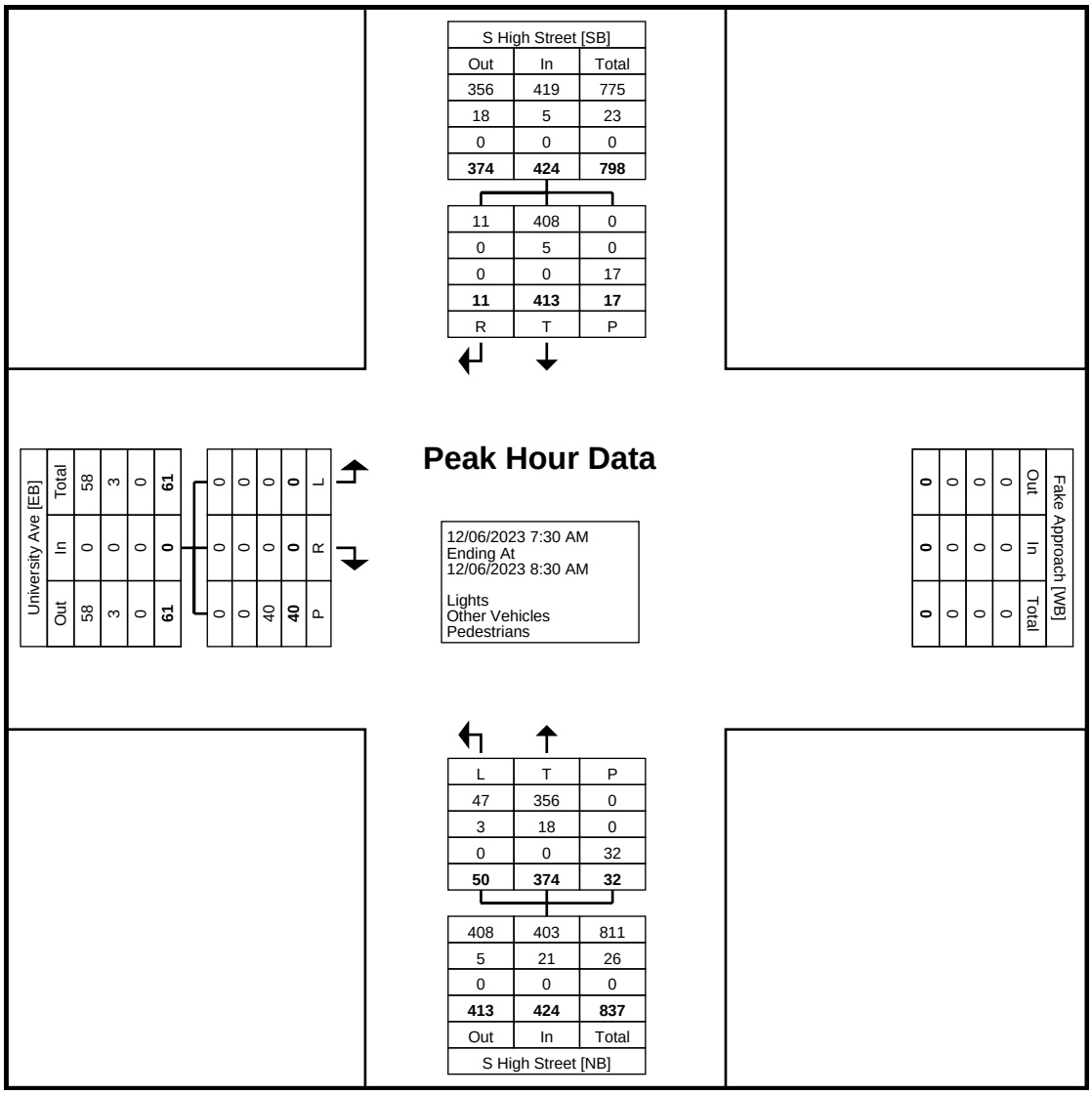

# Turning Movement Peak Hour Data (7:30 AM)

| Start Time | University Ave Eastbound | | | | S High Street Northbound | | | | S High Street Southbound | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Left | Right | Peds | App. Total | Left | Thru | Peds | App. Total | Thru | Right | Peds | App. Total | Int. Total |
| 7:30 AM | 0 | 0 | 14 | 0 | 12 | 99 | 10 | 111 | 115 | 2 | 3 | 117 | 228 |
| 7:45 AM | 0 | 0 | 15 | 0 | 13 | 93 | 12 | 106 | 128 | 3 | 8 | 131 | 237 |
| 8:00 AM | 0 | 0 | 7 | 0 | 12 | 96 | 7 | 108 | 97 | 5 | 0 | 102 | 210 |
| 8:15 AM | 0 | 0 | 4 | 0 | 13 | 86 | 3 | 99 | 73 | 1 | 6 | 74 | 173 |
| Total | 0 | 0 | 40 | 0 | 50 | 374 | 32 | 424 | 413 | 11 | 17 | 424 | 848 |
| Approach % | 0.0 | 0.0 | - | - | 11.8 | 88.2 | - | - | 97.4 | 2.6 | - | - | - |
| Total % | 0.0 | 0.0 | - | 0.0 | 5.9 | 44.1 | - | 50.0 | 48.7 | 1.3 | - | 50.0 | - |
| PHF | 0.000 | 0.000 | - | 0.000 | 0.962 | 0.944 | - | 0.955 | 0.807 | 0.550 | - | 0.809 | 0.895 |
| Lights | 0 | 0 | - | 0 | 47 | 356 | - | 403 | 408 | 11 | - | 419 | 822 |
| % Lights | - | - | - | - | 94.0 | 95.2 | - | 95.0 | 98.8 | 100.0 | - | 98.8 | 96.9 |
| Other Vehicles | 0 | 0 | - | 0 | 3 | 18 | - | 21 | 5 | 0 | - | 5 | 26 |
| % Other Vehicles | - | - | - | - | 6.0 | 4.8 | - | 5.0 | 1.2 | 0.0 | - | 1.2 | 3.1 |
| Pedestrians | - | - | 40 | - | - | - | 32 | - | - | - | 17 | - | - |
| % Pedestrians | - | - | 100.0 | - | - | - | 100.0 | - | - | - | 100.0 | - | - |

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Site Code:
Start Date: 12/06/2023
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Turning Movement Peak Hour Data Plot (7:30 AM)

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Counter: MIO:
Set up by: KY:

Count Name: (7) AM/PM South High Street x University Ave
Site Code:
Start Date: 12/06/2023

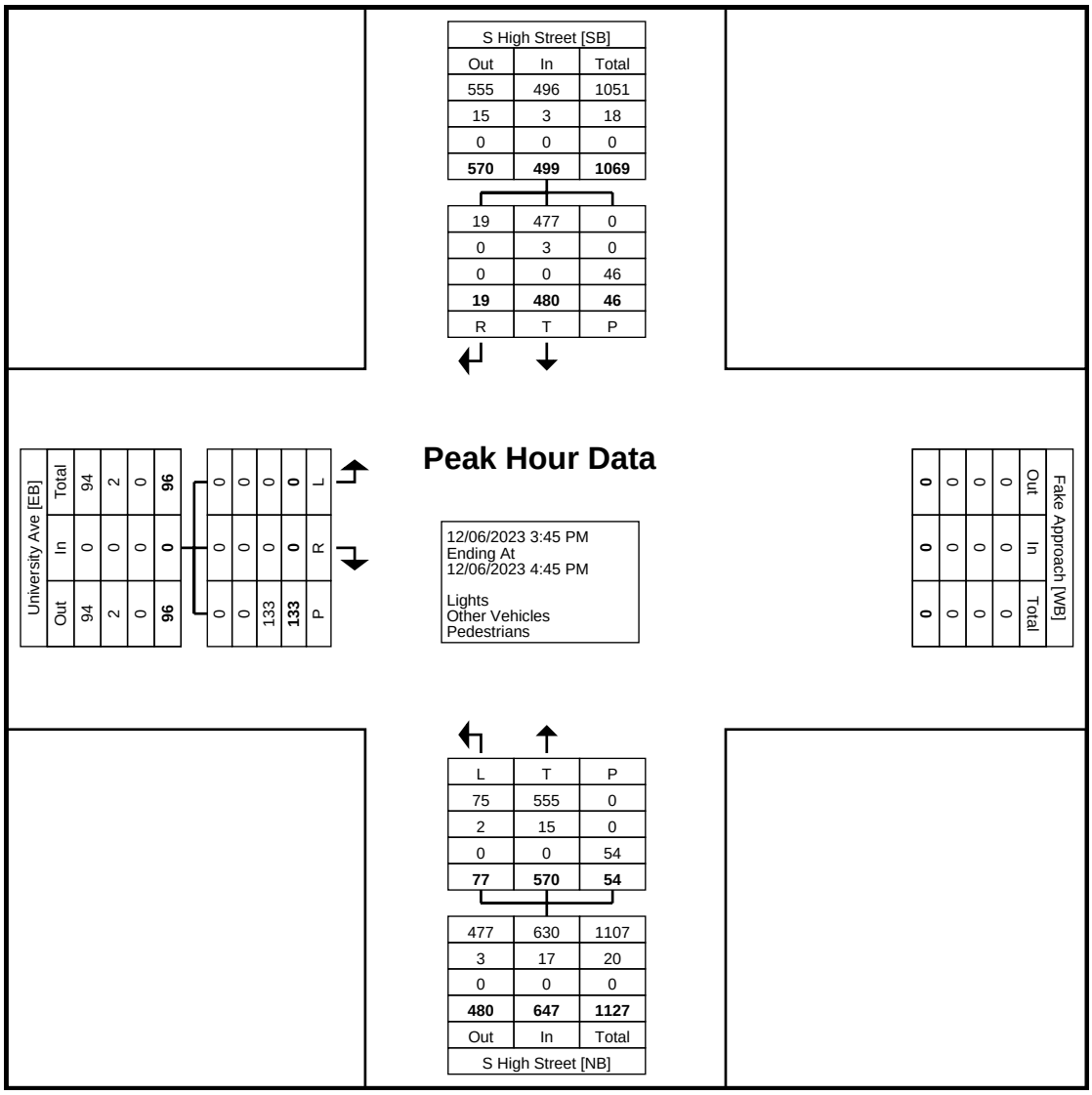

# Turning Movement Peak Hour Data (3:45 PM)

| Start Time | University Ave Eastbound | | | | S High Street Northbound | | | | S High Street Southbound | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Left | Right | Peds | App. Total | Left | Thru | Peds | App. Total | Thru | Right | Peds | App. Total | Int. Total |
| 3:45 PM | 0 | 0 | 21 | 0 | 9 | 146 | 11 | 155 | 102 | 3 | 3 | 105 | 260 |
| 4:00 PM | 0 | 0 | 40 | 0 | 26 | 132 | 13 | 158 | 107 | 8 | 16 | 115 | 273 |
| 4:15 PM | 0 | 0 | 57 | 0 | 28 | 148 | 12 | 176 | 130 | 6 | 21 | 136 | 312 |
| 4:30 PM | 0 | 0 | 15 | 0 | 14 | 144 | 18 | 158 | 141 | 2 | 6 | 143 | 301 |
| Total | 0 | 0 | 133 | 0 | 77 | 570 | 54 | 647 | 480 | 19 | 46 | 499 | 1146 |
| Approach % | 0.0 | 0.0 | - | - | 11.9 | 88.1 | - | - | 96.2 | 3.8 | - | - | - |
| Total % | 0.0 | 0.0 | - | 0.0 | 6.7 | 49.7 | - | 56.5 | 41.9 | 1.7 | - | 43.5 | - |
| PHF | 0.000 | 0.000 | - | 0.000 | 0.688 | 0.963 | - | 0.919 | 0.851 | 0.594 | - | 0.872 | 0.918 |
| Lights | 0 | 0 | - | 0 | 75 | 555 | - | 630 | 477 | 19 | - | 496 | 1126 |
| % Lights | - | - | - | - | 97.4 | 97.4 | - | 97.4 | 99.4 | 100.0 | - | 99.4 | 98.3 |
| Other Vehicles | 0 | 0 | - | 0 | 2 | 15 | - | 17 | 3 | 0 | - | 3 | 20 |
| % Other Vehicles | - | - | - | - | 2.6 | 2.6 | - | 2.6 | 0.6 | 0.0 | - | 0.6 | 1.7 |
| Pedestrians | - | - | 133 | - | - | - | 54 | - | - | - | 46 | - | - |
| % Pedestrians | - | - | 100.0 | - | - | - | 100.0 | - | - | - | 100.0 | - | - |

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Site Code:
Start Date: 12/06/2023
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Turning Movement Peak Hour Data Plot (3:45 PM)

Counter: MIO:
Set up by: KY:

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Count Name: (8) AM/PM
Reynolds Alley x University Ave
Site Code:
Start Date: 12/06/2023
Page No: 1

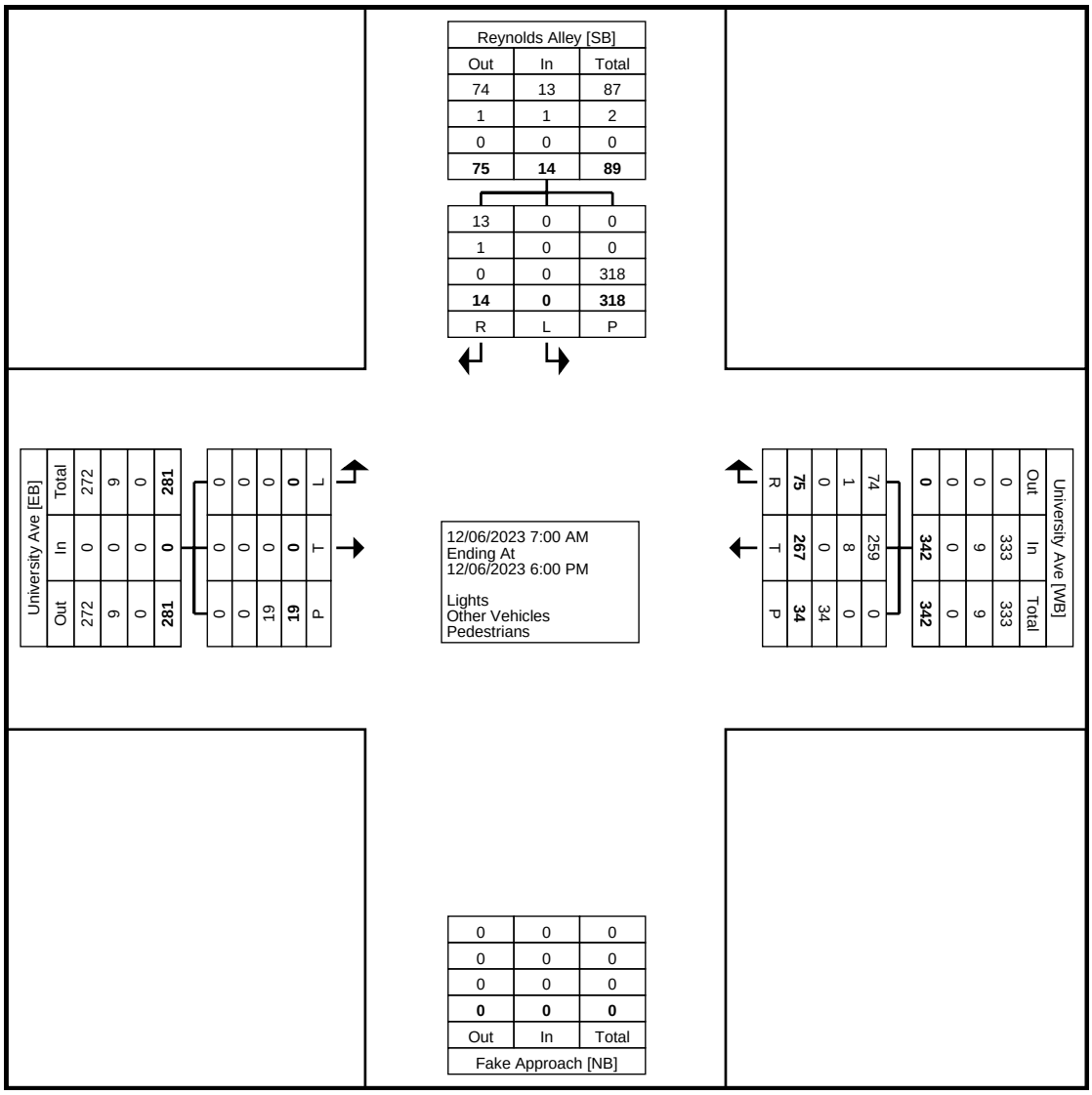
# Turning Movement Data

| Start Time | University Ave Eastbound | | | | University Ave Westbound | | | | Reynolds Alley Southbound | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Left | Thru | Peds | App. Total | Thru | Right | Peds | App. Total | Left | Right | Peds | App. Total | Int. Total |
| 7:00 AM | 0 | 0 | 0 | 0 | 1 | 4 | 0 | 5 | 0 | 0 | 0 | 0 | 5 |
| 7:15 AM | 0 | 0 | 0 | 0 | 3 | 11 | 2 | 14 | 0 | 0 | 1 | 0 | 14 |
| 7:30 AM | 0 | 0 | 0 | 0 | 10 | 7 | 2 | 17 | 0 | 1 | 13 | 1 | 18 |
| 7:45 AM | 0 | 0 | 0 | 0 | 15 | 3 | 3 | 18 | 0 | 1 | 21 | 1 | 19 |
| Hourly Total | 0 | 0 | 0 | 0 | 29 | 25 | 7 | 54 | 0 | 2 | 35 | 2 | 56 |
| 8:00 AM | 0 | 0 | 3 | 0 | 10 | 5 | 0 | 15 | 0 | 2 | 9 | 2 | 17 |
| 8:15 AM | 0 | 0 | 0 | 0 | 9 | 4 | 0 | 13 | 0 | 0 | 7 | 0 | 13 |
| 8:30 AM | 0 | 0 | 1 | 0 | 6 | 6 | 0 | 12 | 0 | 0 | 5 | 0 | 12 |
| 8:45 AM | 0 | 0 | 1 | 0 | 13 | 5 | 0 | 18 | 0 | 0 | 38 | 0 | 18 |
| Hourly Total | 0 | 0 | 5 | 0 | 38 | 20 | 0 | 58 | 0 | 2 | 59 | 2 | 60 |
| 9:00 AM | 0 | 0 | 1 | 0 | 13 | 2 | 0 | 15 | 0 | 0 | 8 | 0 | 15 |
| 9:15 AM | 0 | 0 | 0 | 0 | 8 | 2 | 1 | 10 | 0 | 0 | 11 | 0 | 10 |
| 9:30 AM | 0 | 0 | 1 | 0 | 14 | 0 | 1 | 14 | 0 | 0 | 7 | 0 | 14 |
| 9:45 AM | 0 | 0 | 7 | 0 | 25 | 3 | 5 | 28 | 0 | 1 | 42 | 1 | 29 |
| Hourly Total | 0 | 0 | 9 | 0 | 60 | 7 | 7 | 67 | 0 | 1 | 68 | 1 | 68 |
| *** BREAK *** | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 3:00 PM | 0 | 0 | 2 | 0 | 6 | 3 | 4 | 9 | 0 | 1 | 13 | 1 | 10 |
| 3:15 PM | 0 | 0 | 0 | 0 | 6 | 2 | 3 | 8 | 0 | 1 | 8 | 1 | 9 |
| 3:30 PM | 0 | 0 | 0 | 0 | 8 | 3 | 1 | 11 | 0 | 0 | 11 | 0 | 11 |
| 3:45 PM | 0 | 0 | 0 | 0 | 8 | 2 | 1 | 10 | 0 | 0 | 5 | 0 | 10 |
| Hourly Total | 0 | 0 | 2 | 0 | 28 | 10 | 9 | 38 | 0 | 2 | 37 | 2 | 40 |
| 4:00 PM | 0 | 0 | 2 | 0 | 23 | 6 | 3 | 29 | 0 | 1 | 27 | 1 | 30 |
| 4:15 PM | 0 | 0 | 1 | 0 | 29 | 4 | 3 | 33 | 0 | 1 | 28 | 1 | 34 |
| 4:30 PM | 0 | 0 | 0 | 0 | 18 | 0 | 1 | 18 | 0 | 2 | 14 | 2 | 20 |
| 4:45 PM | 0 | 0 | 0 | 0 | 6 | 1 | 1 | 7 | 0 | 0 | 8 | 0 | 7 |
| Hourly Total | 0 | 0 | 3 | 0 | 76 | 11 | 8 | 87 | 0 | 4 | 77 | 4 | 91 |
| 5:00 PM | 0 | 0 | 0 | 0 | 9 | 0 | 2 | 9 | 0 | 0 | 10 | 0 | 9 |
| 5:15 PM | 0 | 0 | 0 | 0 | 5 | 0 | 1 | 5 | 0 | 1 | 12 | 1 | 6 |
| 5:30 PM | 0 | 0 | 0 | 0 | 14 | 2 | 0 | 16 | 0 | 0 | 12 | 0 | 16 |
| 5:45 PM | 0 | 0 | 0 | 0 | 8 | 0 | 0 | 8 | 0 | 2 | 8 | 2 | 10 |
| Hourly Total | 0 | 0 | 0 | 0 | 36 | 2 | 3 | 38 | 0 | 3 | 42 | 3 | 41 |
| Grand Total | 0 | 0 | 19 | 0 | 267 | 75 | 34 | 342 | 0 | 14 | 318 | 14 | 356 |
| Approach % | 0.0 | 0.0 | - | - | 78.1 | 21.9 | - | - | 0.0 | 100.0 | - | - | - |
| Total % | 0.0 | 0.0 | - | 0.0 | 75.0 | 21.1 | - | 96.1 | 0.0 | 3.9 | - | 3.9 | - |
| Lights | 0 | 0 | - | 0 | 259 | 74 | - | 333 | 0 | 13 | - | 13 | 346 |
| % Lights | - | - | - | - | 97.0 | 98.7 | - | 97.4 | - | 92.9 | - | 92.9 | 97.2 |
| Other Vehicles | 0 | 0 | - | 0 | 8 | 1 | - | 9 | 0 | 1 | - | 1 | 10 |
| % Other Vehicles | - | - | - | - | 3.0 | 1.3 | - | 2.6 | - | 7.1 | - | 7.1 | 2.8 |
| Pedestrians | - | - | 19 | - | - | - | 34 | - | - | - | 318 | - | - |
| % Pedestrians | - | - | 100.0 | - | - | - | 100.0 | - | - | - | 100.0 | - | - |

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Reynolds Alley x University Ave
Site Code:
Start Date: 12/06/2023
Page No: 2




Turning Movement Data Plot

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Counter: MIO:
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Count Name: (8) AM/PM
Reynolds Alley x University Ave
Site Code:
Start Date: 12/06/2023

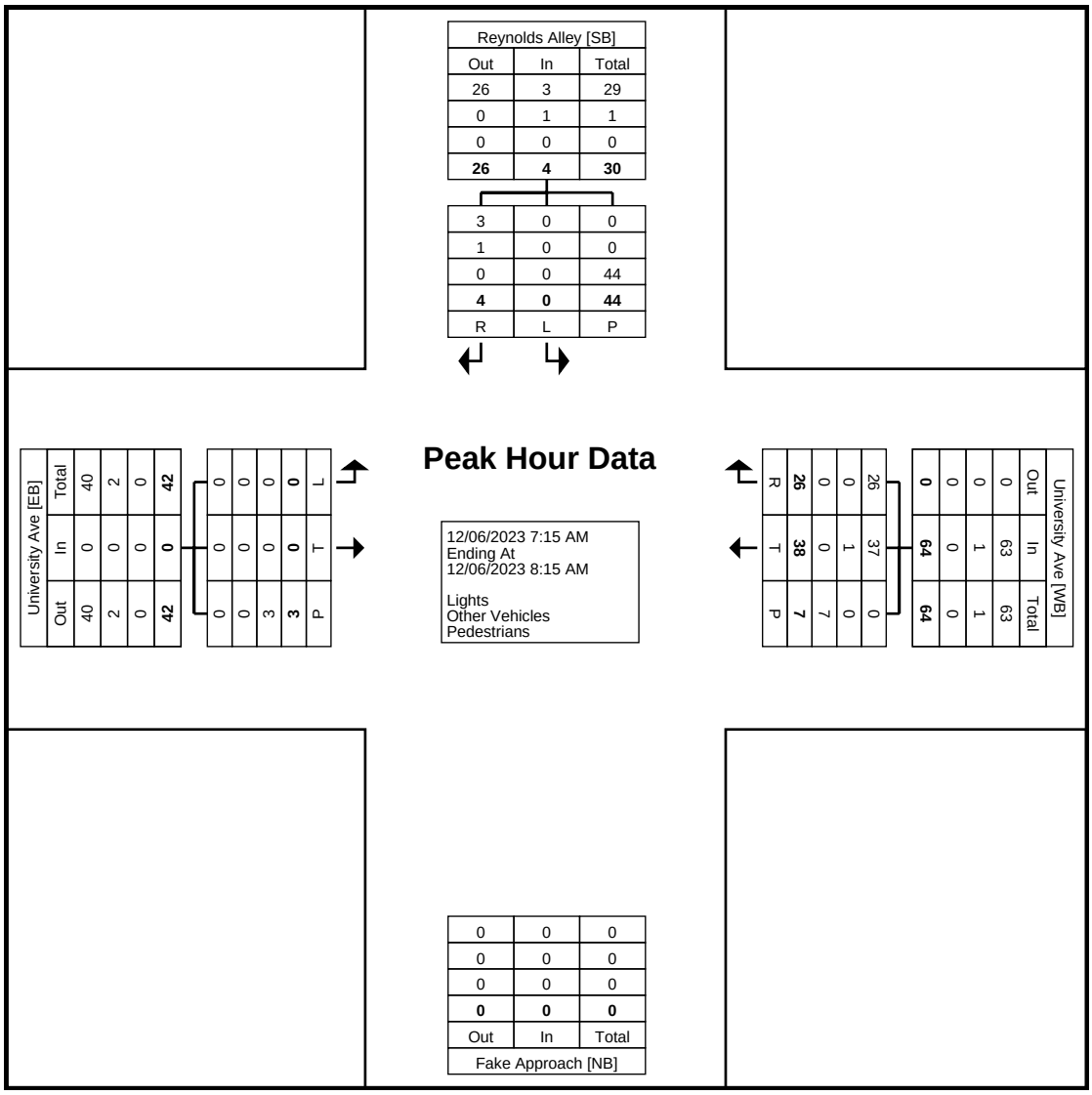

# Turning Movement Peak Hour Data (7:15 AM)

| Start Time | University Ave Eastbound | | | | University Ave Westbound | | | | Reynolds Alley Southbound | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Left | Thru | Peds | App. Total | Thru | Right | Peds | App. Total | Left | Right | Peds | App. Total | Int. Total |
| 7:15 AM | 0 | 0 | 0 | 0 | 3 | 11 | 2 | 14 | 0 | 0 | 1 | 0 | 14 |
| 7:30 AM | 0 | 0 | 0 | 0 | 10 | 7 | 2 | 17 | 0 | 1 | 13 | 1 | 18 |
| 7:45 AM | 0 | 0 | 0 | 0 | 15 | 3 | 3 | 18 | 0 | 1 | 21 | 1 | 19 |
| 8:00 AM | 0 | 0 | 3 | 0 | 10 | 5 | 0 | 15 | 0 | 2 | 9 | 2 | 17 |
| Total | 0 | 0 | 3 | 0 | 38 | 26 | 7 | 64 | 0 | 4 | 44 | 4 | 68 |
| Approach % | 0.0 | 0.0 | - | - | 59.4 | 40.6 | - | - | 0.0 | 100.0 | - | - | - |
| Total % | 0.0 | 0.0 | - | 0.0 | 55.9 | 38.2 | - | 94.1 | 0.0 | 5.9 | - | 5.9 | - |
| PHF | 0.000 | 0.000 | - | 0.000 | 0.633 | 0.591 | - | 0.889 | 0.000 | 0.500 | - | 0.500 | 0.895 |
| Lights | 0 | 0 | - | 0 | 37 | 26 | - | 63 | 0 | 3 | - | 3 | 66 |
| % Lights | - | - | - | - | 97.4 | 100.0 | - | 98.4 | - | 75.0 | - | 75.0 | 97.1 |
| Other Vehicles | 0 | 0 | - | 0 | 1 | 0 | - | 1 | 0 | 1 | - | 1 | 2 |
| % Other Vehicles | - | - | - | - | 2.6 | 0.0 | - | 1.6 | - | 25.0 | - | 25.0 | 2.9 |
| Pedestrians | - | - | 3 | - | - | - | 7 | - | - | - | 44 | - | - |
| % Pedestrians | - | - | 100.0 | - | - | - | 100.0 | - | - | - | 100.0 | - | - |

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Reynolds Alley x University Ave
Site Code:
Start Date: 12/06/2023
Page No: 4




Turning Movement Peak Hour Data Plot (7:15 AM)

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Counter: MIO:
Set up by: KY:

Count Name: (8) AM/PM
Reynolds Alley x University Ave
Site Code:
Start Date: 12/06/2023

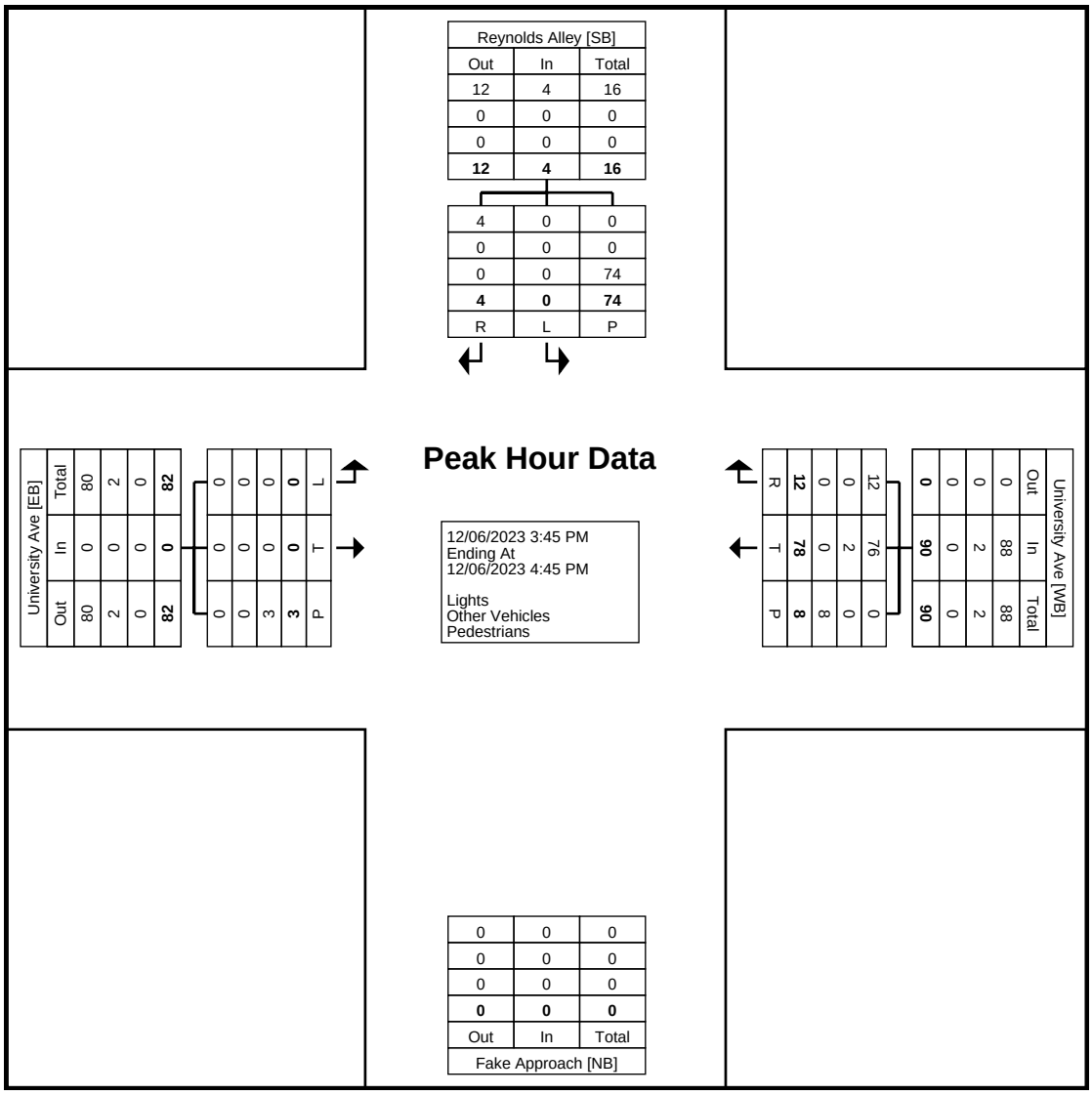

# Turning Movement Peak Hour Data (3:45 PM)

| Start Time | University Ave Eastbound | | | | University Ave Westbound | | | | Reynolds Alley Southbound | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Left | Thru | Peds | App. Total | Thru | Right | Peds | App. Total | Left | Right | Peds | App. Total | Int. Total |
| 3:45 PM | 0 | 0 | 0 | 0 | 8 | 2 | 1 | 10 | 0 | 0 | 5 | 0 | 10 |
| 4:00 PM | 0 | 0 | 2 | 0 | 23 | 6 | 3 | 29 | 0 | 1 | 27 | 1 | 30 |
| 4:15 PM | 0 | 0 | 1 | 0 | 29 | 4 | 3 | 33 | 0 | 1 | 28 | 1 | 34 |
| 4:30 PM | 0 | 0 | 0 | 0 | 18 | 0 | 1 | 18 | 0 | 2 | 14 | 2 | 20 |
| Total | 0 | 0 | 3 | 0 | 78 | 12 | 8 | 90 | 0 | 4 | 74 | 4 | 94 |
| Approach % | 0.0 | 0.0 | - | - | 86.7 | 13.3 | - | - | 0.0 | 100.0 | - | - | - |
| Total % | 0.0 | 0.0 | - | 0.0 | 83.0 | 12.8 | - | 95.7 | 0.0 | 4.3 | - | 4.3 | - |
| PHF | 0.000 | 0.000 | - | 0.000 | 0.672 | 0.500 | - | 0.682 | 0.000 | 0.500 | - | 0.500 | 0.691 |
| Lights | 0 | 0 | - | 0 | 76 | 12 | - | 88 | 0 | 4 | - | 4 | 92 |
| % Lights | - | - | - | - | 97.4 | 100.0 | - | 97.8 | - | 100.0 | - | 100.0 | 97.9 |
| Other Vehicles | 0 | 0 | - | 0 | 2 | 0 | - | 2 | 0 | 0 | - | 0 | 2 |
| % Other Vehicles | - | - | - | - | 2.6 | 0.0 | - | 2.2 | - | 0.0 | - | 0.0 | 2.1 |
| Pedestrians | - | - | 3 | - | - | - | 8 | - | - | - | 74 | - | - |
| % Pedestrians | - | - | 100.0 | - | - | - | 100.0 | - | - | - | 100.0 | - | - |

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Reynolds Alley x University Ave
Site Code:
Start Date: 12/06/2023
Page No: 6




Turning Movement Peak Hour Data Plot (3:45 PM)

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Counter: MIO:
Set up by: KY:

Count Name: (9) AM/PM Church Street x University Ave
Site Code:
Start Date: 12/06/2023

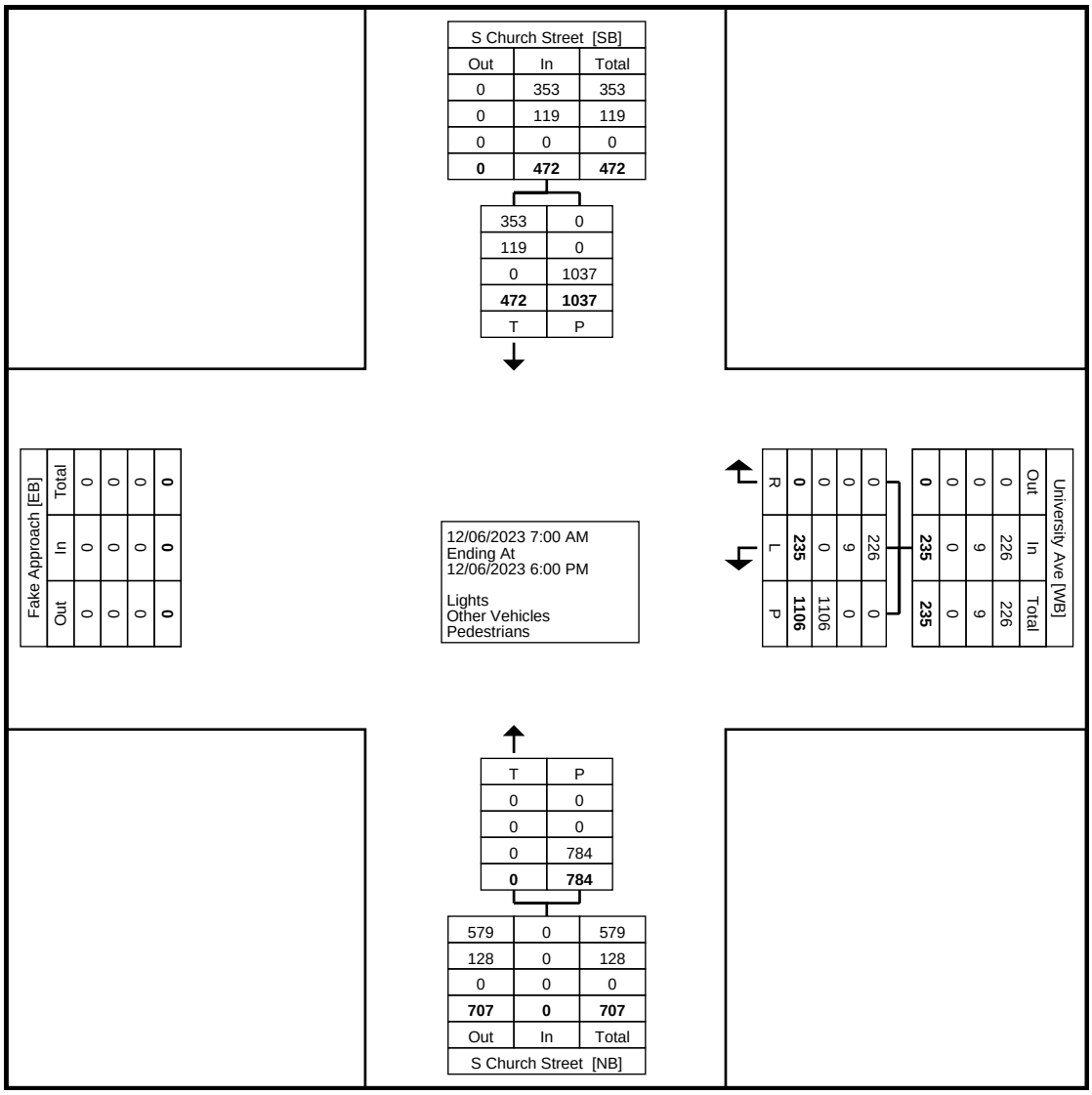

# Turning Movement Data

| Start Time | University Ave Westbound | | | | S Church Street Northbound | | | S Church Street Southbound | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | Left | Right | Peds | App. Total | Thru | Peds | App. Total | Thru | Peds | App. Total | Int. Total |
| 7:00 AM | 1 | 0 | 3 | 1 | 0 | 1 | 0 | 5 | 2 | 5 | 6 |
| 7:15 AM | 2 | 0 | 6 | 2 | 0 | 0 | 0 | 14 | 4 | 14 | 16 |
| 7:30 AM | 8 | 0 | 13 | 8 | 0 | 9 | 0 | 19 | 12 | 19 | 27 |
| 7:45 AM | 6 | 0 | 48 | 6 | 0 | 32 | 0 | 18 | 70 | 18 | 24 |
| Hourly Total | 17 | 0 | 70 | 17 | 0 | 42 | 0 | 56 | 88 | 56 | 73 |
| 8:00 AM | 5 | 0 | 24 | 5 | 0 | 14 | 0 | 10 | 26 | 10 | 15 |
| 8:15 AM | 9 | 0 | 16 | 9 | 0 | 8 | 0 | 10 | 23 | 10 | 19 |
| 8:30 AM | 6 | 0 | 23 | 6 | 0 | 24 | 0 | 14 | 34 | 14 | 20 |
| 8:45 AM | 10 | 0 | 146 | 10 | 0 | 90 | 0 | 22 | 164 | 22 | 32 |
| Hourly Total | 30 | 0 | 209 | 30 | 0 | 136 | 0 | 56 | 247 | 56 | 86 |
| 9:00 AM | 10 | 0 | 33 | 10 | 0 | 24 | 0 | 19 | 36 | 19 | 29 |
| 9:15 AM | 7 | 0 | 25 | 7 | 0 | 25 | 0 | 15 | 39 | 15 | 22 |
| 9:30 AM | 10 | 0 | 48 | 10 | 0 | 37 | 0 | 19 | 47 | 19 | 29 |
| 9:45 AM | 22 | 0 | 278 | 22 | 0 | 125 | 0 | 32 | 195 | 32 | 54 |
| Hourly Total | 49 | 0 | 384 | 49 | 0 | 211 | 0 | 85 | 317 | 85 | 134 |
| *** BREAK *** | - | - | - | - | - | - | - | - | - | - | - |
| 3:00 PM | 3 | 0 | 42 | 3 | 0 | 38 | 0 | 17 | 27 | 17 | 20 |
| 3:15 PM | 8 | 0 | 34 | 8 | 0 | 25 | 0 | 20 | 16 | 20 | 28 |
| 3:30 PM | 6 | 0 | 17 | 6 | 0 | 10 | 0 | 11 | 16 | 11 | 17 |
| 3:45 PM | 8 | 0 | 38 | 8 | 0 | 28 | 0 | 22 | 26 | 22 | 30 |
| Hourly Total | 25 | 0 | 131 | 25 | 0 | 101 | 0 | 70 | 85 | 70 | 95 |
| 4:00 PM | 20 | 0 | 66 | 20 | 0 | 65 | 0 | 26 | 59 | 26 | 46 |
| 4:15 PM | 27 | 0 | 76 | 27 | 0 | 62 | 0 | 34 | 68 | 34 | 61 |
| 4:30 PM | 19 | 0 | 26 | 19 | 0 | 24 | 0 | 29 | 32 | 29 | 48 |
| 4:45 PM | 6 | 0 | 24 | 6 | 0 | 15 | 0 | 30 | 18 | 30 | 36 |
| Hourly Total | 72 | 0 | 192 | 72 | 0 | 166 | 0 | 119 | 177 | 119 | 191 |
| 5:00 PM | 13 | 0 | 28 | 13 | 0 | 27 | 0 | 18 | 21 | 18 | 31 |
| 5:15 PM | 4 | 0 | 36 | 4 | 0 | 25 | 0 | 24 | 27 | 24 | 28 |
| 5:30 PM | 12 | 0 | 36 | 12 | 0 | 45 | 0 | 20 | 41 | 20 | 32 |
| 5:45 PM | 13 | 0 | 20 | 13 | 0 | 31 | 0 | 24 | 34 | 24 | 37 |
| Hourly Total | 42 | 0 | 120 | 42 | 0 | 128 | 0 | 86 | 123 | 86 | 128 |
| Grand Total | 235 | 0 | 1106 | 235 | 0 | 784 | 0 | 472 | 1037 | 472 | 707 |
| Approach % | 100.0 | 0.0 | - | - | 0.0 | - | - | 100.0 | - | - | - |
| Total % | 33.2 | 0.0 | - | 33.2 | 0.0 | - | 0.0 | 66.8 | - | 66.8 | - |
| Lights | 226 | 0 | - | 226 | 0 | - | 0 | 353 | - | 353 | 579 |
| % Lights | 96.2 | - | - | 96.2 | - | - | - | 74.8 | - | 74.8 | 81.9 |
| Other Vehicles | 9 | 0 | - | 9 | 0 | - | 0 | 119 | - | 119 | 128 |
| % Other Vehicles | 3.8 | - | - | 3.8 | - | - | - | 25.2 | - | 25.2 | 18.1 |
| Pedestrians | - | - | 1106 | - | - | 784 | - | - | 1037 | - | - |
| % Pedestrians | - | - | 100.0 | - | - | 100.0 | - | - | 100.0 | - | - |

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Counter: MIO:
Set up by: KY:

Count Name: (9) AM/PM Church Street x University Ave
Site Code:
Start Date: 12/06/2023


Turning Movement Data Plot

Traffic Planning and Design, Inc
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Suite 650
Pottstown, Pennsylvania, United States 19464
610.326.3100 kyoung@trafficpd.com

Counter: MIO:
Set up by: KY:

Count Name: (9) AM/PM Church Street x University Ave
Site Code:
Start Date: 12/06/2023
Page No: 3

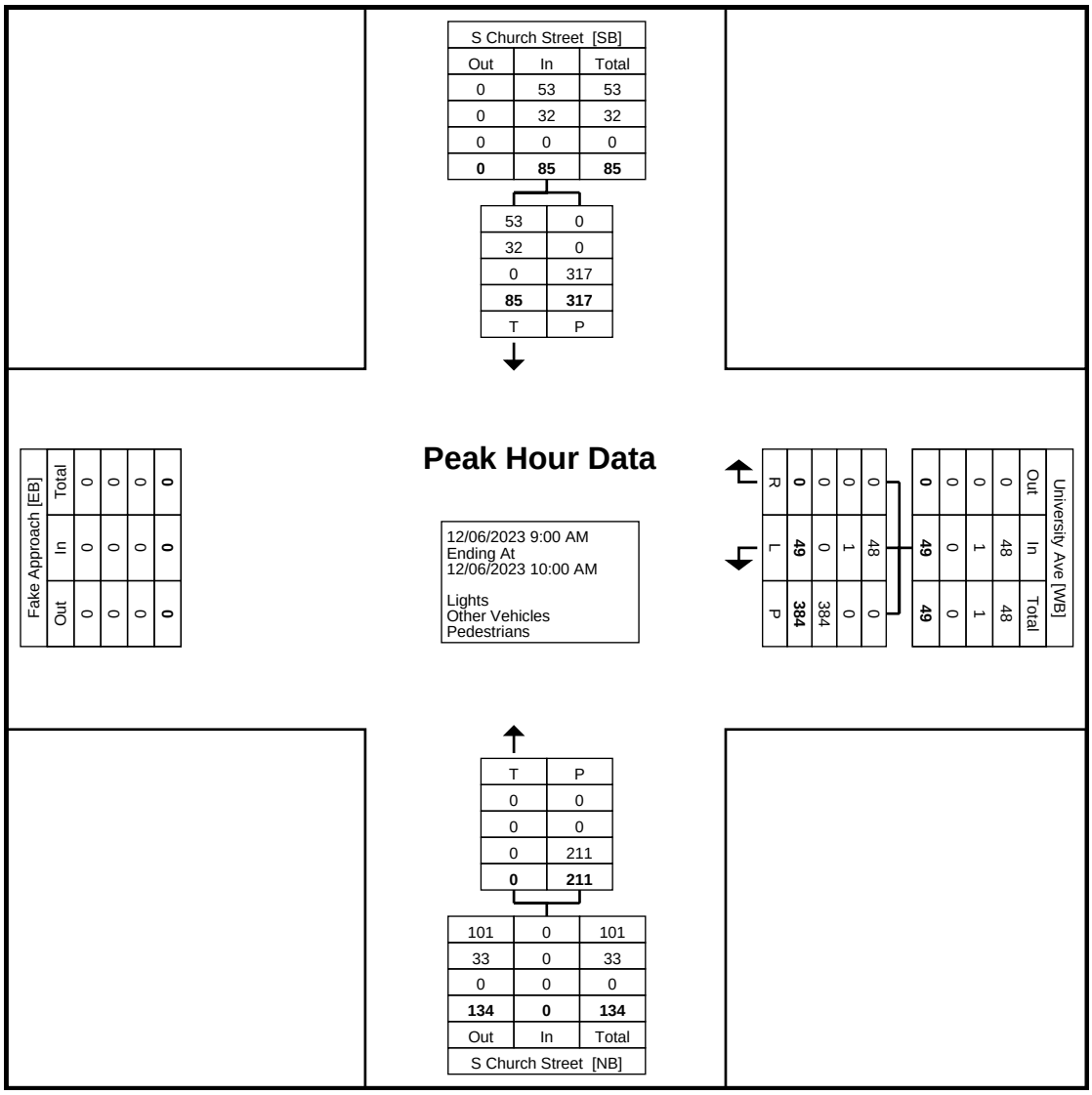
# Turning Movement Peak Hour Data (9:00 AM)

| Start Time | University Ave Westbound | | | | S Church Street Northbound | | | S Church Street Southbound | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | Left | Right | Peds | App. Total | Thru | Peds | App. Total | Thru | Peds | App. Total | Int. Total |
| 9:00 AM | 10 | 0 | 33 | 10 | 0 | 24 | 0 | 19 | 36 | 19 | 29 |
| 9:15 AM | 7 | 0 | 25 | 7 | 0 | 25 | 0 | 15 | 39 | 15 | 22 |
| 9:30 AM | 10 | 0 | 48 | 10 | 0 | 37 | 0 | 19 | 47 | 19 | 29 |
| 9:45 AM | 22 | 0 | 278 | 22 | 0 | 125 | 0 | 32 | 195 | 32 | 54 |
| Total | 49 | 0 | 384 | 49 | 0 | 211 | 0 | 85 | 317 | 85 | 134 |
| Approach % | 100.0 | 0.0 | - | - | 0.0 | - | - | 100.0 | - | - | - |
| Total % | 36.6 | 0.0 | - | 36.6 | 0.0 | - | 0.0 | 63.4 | - | 63.4 | - |
| PHF | 0.557 | 0.000 | - | 0.557 | 0.000 | - | 0.000 | 0.664 | - | 0.664 | 0.620 |
| Lights | 48 | 0 | - | 48 | 0 | - | 0 | 53 | - | 53 | 101 |
| % Lights | 98.0 | - | - | 98.0 | - | - | - | 62.4 | - | 62.4 | 75.4 |
| Other Vehicles | 1 | 0 | - | 1 | 0 | - | 0 | 32 | - | 32 | 33 |
| % Other Vehicles | 2.0 | - | - | 2.0 | - | - | - | 37.6 | - | 37.6 | 24.6 |
| Pedestrians | - | - | 384 | - | - | 211 | - | - | 317 | - | - |
| % Pedestrians | - | - | 100.0 | - | - | 100.0 | - | - | 100.0 | - | - |

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Counter: MIO:
Set up by: KY:

Count Name: (9) AM/PM Church Street x University Ave
Site Code:
Start Date: 12/06/2023


Turning Movement Peak Hour Data Plot (9:00 AM)

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Counter: MIO:
Set up by: KY:

Count Name: (9) AM/PM Church Street x University Ave
Site Code:
Start Date: 12/06/2023

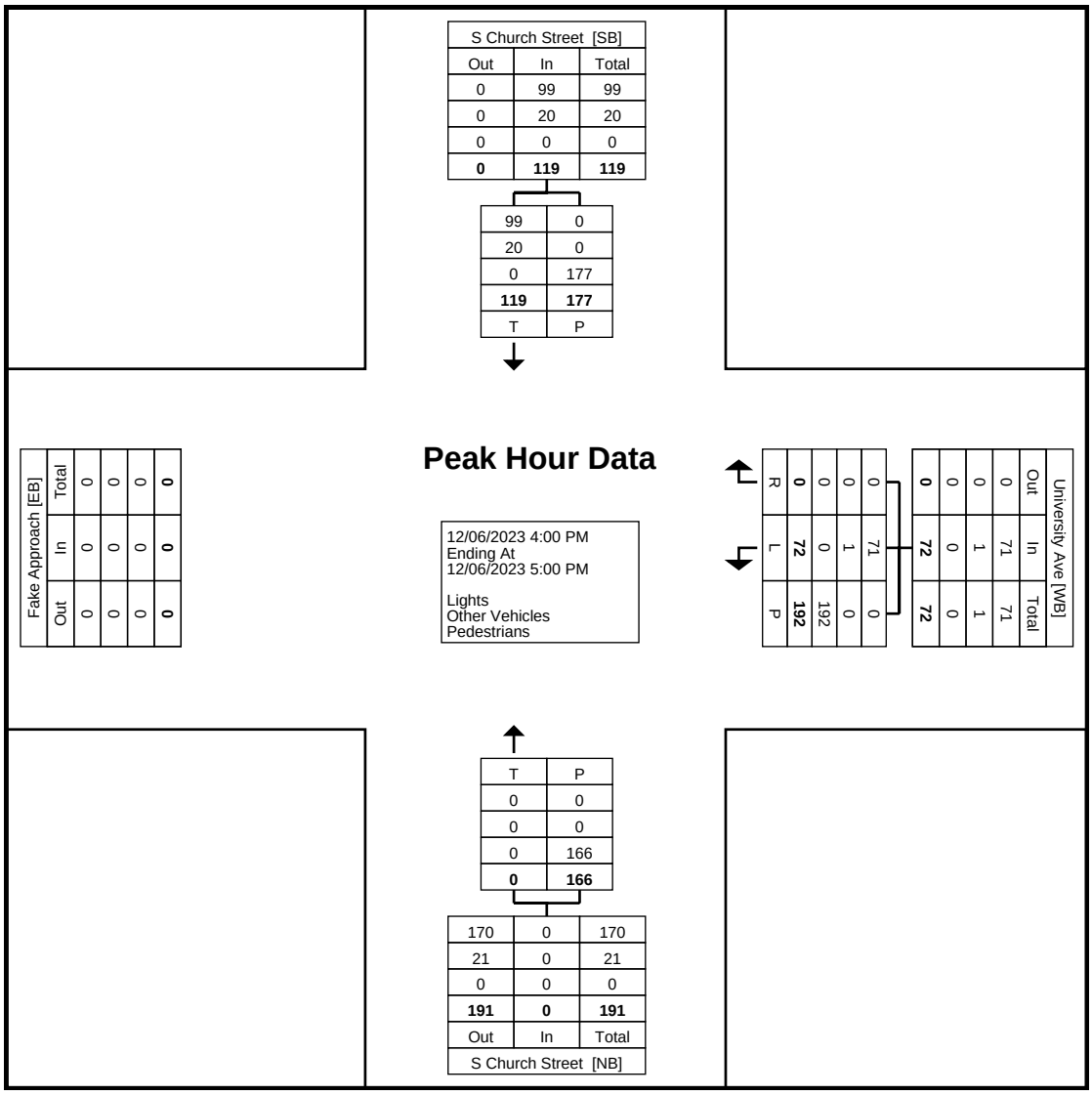

# Turning Movement Peak Hour Data (4:00 PM)

| Start Time | University Ave Westbound | | | | S Church Street Northbound | | | S Church Street Southbound | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | Left | Right | Peds | App. Total | Thru | Peds | App. Total | Thru | Peds | App. Total | Int. Total |
| 4:00 PM | 20 | 0 | 66 | 20 | 0 | 65 | 0 | 26 | 59 | 26 | 46 |
| 4:15 PM | 27 | 0 | 76 | 27 | 0 | 62 | 0 | 34 | 68 | 34 | 61 |
| 4:30 PM | 19 | 0 | 26 | 19 | 0 | 24 | 0 | 29 | 32 | 29 | 48 |
| 4:45 PM | 6 | 0 | 24 | 6 | 0 | 15 | 0 | 30 | 18 | 30 | 36 |
| Total | 72 | 0 | 192 | 72 | 0 | 166 | 0 | 119 | 177 | 119 | 191 |
| Approach % | 100.0 | 0.0 | - | - | 0.0 | - | - | 100.0 | - | - | - |
| Total % | 37.7 | 0.0 | - | 37.7 | 0.0 | - | 0.0 | 62.3 | - | 62.3 | - |
| PHF | 0.667 | 0.000 | - | 0.667 | 0.000 | - | 0.000 | 0.875 | - | 0.875 | 0.783 |
| Lights | 71 | 0 | - | 71 | 0 | - | 0 | 99 | - | 99 | 170 |
| % Lights | 98.6 | - | - | 98.6 | - | - | - | 83.2 | - | 83.2 | 89.0 |
| Other Vehicles | 1 | 0 | - | 1 | 0 | - | 0 | 20 | - | 20 | 21 |
| % Other Vehicles | 1.4 | - | - | 1.4 | - | - | - | 16.8 | - | 16.8 | 11.0 |
| Pedestrians | - | - | 192 | - | - | 166 | - | - | 177 | - | - |
| % Pedestrians | - | - | 100.0 | - | - | 100.0 | - | - | 100.0 | - | - |

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Start Date: 12/06/2023
Page No: 6




Turning Movement Peak Hour Data Plot (4:00 PM)

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Counter: MIO:
Set up by: KY:

Count Name: (10) AM/PM South High Street x Linden Street
Site Code:
Start Date: 12/06/2023

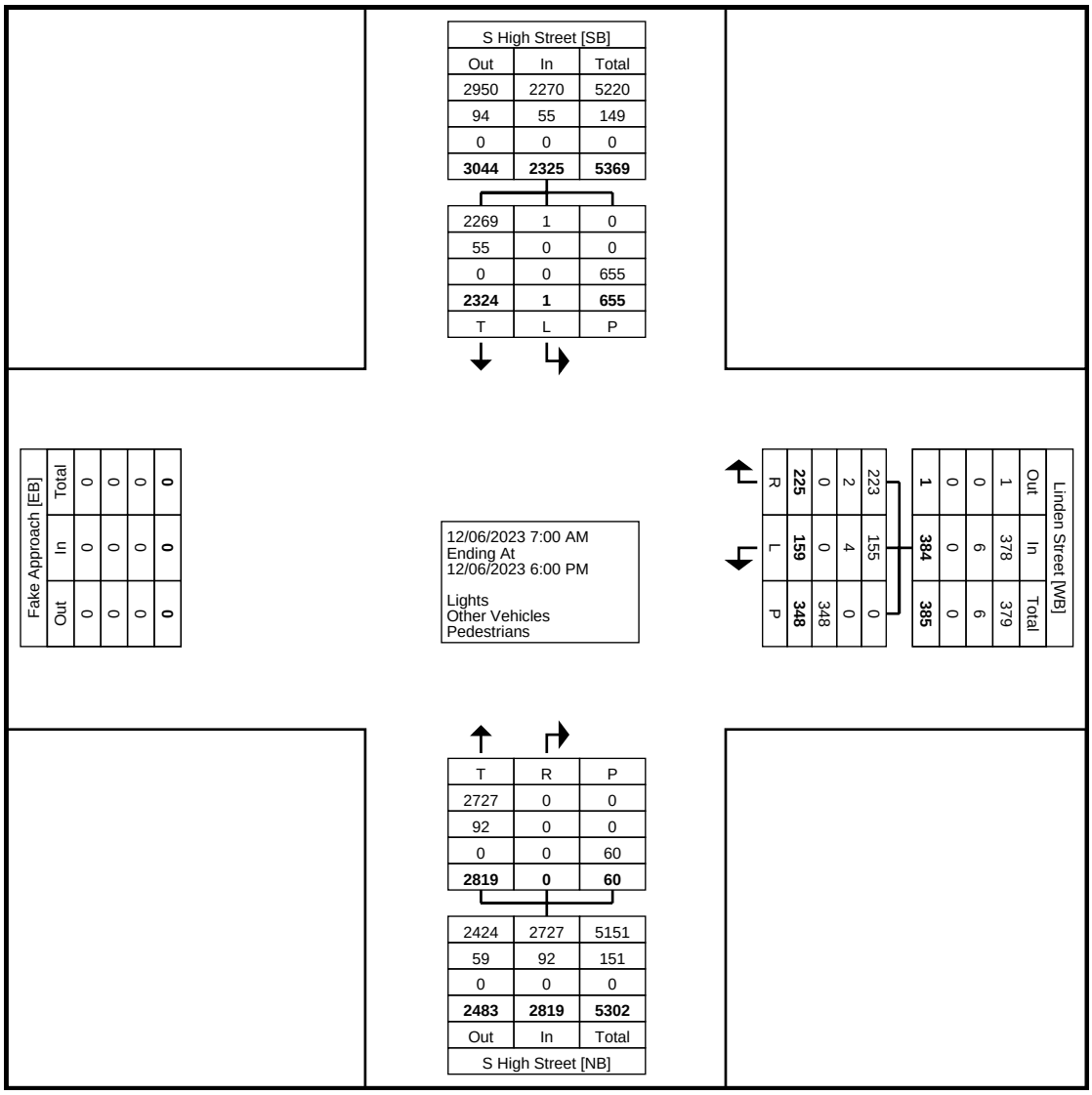

# Turning Movement Data

| Start Time | Linden Street Westbound | | | | | S High Street Northbound | | | | | S High Street Southbound | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Left | Right | Right on Red | Peds | App. Total | Thru | Right | Right on Red | Peds | App. Total | Left | Thru | Peds | App. Total | Int. Total |
| 7:00 AM | 2 | 3 | 0 | 0 | 5 | 64 | 0 | 0 | 0 | 64 | 0 | 68 | 0 | 68 | 137 |
| 7:15 AM | 3 | 0 | 4 | 2 | 7 | 70 | 0 | 0 | 0 | 70 | 0 | 83 | 5 | 83 | 160 |
| 7:30 AM | 3 | 6 | 0 | 5 | 9 | 105 | 0 | 0 | 0 | 105 | 0 | 112 | 10 | 112 | 226 |
| 7:45 AM | 7 | 3 | 2 | 8 | 12 | 110 | 0 | 0 | 3 | 110 | 1 | 136 | 27 | 137 | 259 |
| Hourly Total | 15 | 12 | 6 | 15 | 33 | 349 | 0 | 0 | 3 | 349 | 1 | 399 | 42 | 400 | 782 |
| 8:00 AM | 5 | 4 | 0 | 11 | 9 | 96 | 0 | 0 | 1 | 96 | 0 | 98 | 10 | 98 | 203 |
| 8:15 AM | 5 | 6 | 2 | 9 | 13 | 89 | 0 | 0 | 0 | 89 | 0 | 71 | 8 | 71 | 173 |
| 8:30 AM | 5 | 5 | 0 | 13 | 10 | 115 | 0 | 0 | 2 | 115 | 0 | 82 | 10 | 82 | 207 |
| 8:45 AM | 6 | 7 | 1 | 25 | 14 | 112 | 0 | 0 | 2 | 112 | 0 | 85 | 55 | 85 | 211 |
| Hourly Total | 21 | 22 | 3 | 58 | 46 | 412 | 0 | 0 | 5 | 412 | 0 | 336 | 83 | 336 | 794 |
| 9:00 AM | 6 | 3 | 0 | 12 | 9 | 117 | 0 | 0 | 3 | 117 | 0 | 85 | 19 | 85 | 211 |
| 9:15 AM | 2 | 3 | 0 | 7 | 5 | 92 | 0 | 0 | 2 | 92 | 0 | 66 | 13 | 66 | 163 |
| 9:30 AM | 0 | 1 | 0 | 18 | 1 | 113 | 0 | 0 | 1 | 113 | 0 | 67 | 22 | 67 | 181 |
| 9:45 AM | 6 | 9 | 3 | 42 | 18 | 120 | 0 | 0 | 4 | 120 | 0 | 85 | 93 | 85 | 223 |
| Hourly Total | 14 | 16 | 3 | 79 | 33 | 442 | 0 | 0 | 10 | 442 | 0 | 303 | 147 | 303 | 778 |
| *** BREAK *** | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 3:00 PM | 3 | 12 | 2 | 23 | 17 | 122 | 0 | 0 | 9 | 122 | 0 | 106 | 37 | 106 | 245 |
| 3:15 PM | 6 | 5 | 2 | 19 | 13 | 111 | 0 | 0 | 8 | 111 | 0 | 105 | 28 | 105 | 229 |
| 3:30 PM | 12 | 9 | 1 | 17 | 22 | 126 | 0 | 0 | 4 | 126 | 0 | 88 | 20 | 88 | 236 |
| 3:45 PM | 16 | 8 | 3 | 16 | 27 | 144 | 0 | 0 | 5 | 144 | 0 | 105 | 28 | 105 | 276 |
| Hourly Total | 37 | 34 | 8 | 75 | 79 | 503 | 0 | 0 | 26 | 503 | 0 | 404 | 113 | 404 | 986 |
| 4:00 PM | 10 | 15 | 2 | 20 | 27 | 142 | 0 | 0 | 4 | 142 | 0 | 107 | 45 | 107 | 276 |
| 4:15 PM | 12 | 24 | 2 | 24 | 38 | 152 | 0 | 0 | 2 | 152 | 0 | 128 | 76 | 128 | 318 |
| 4:30 PM | 12 | 8 | 0 | 19 | 20 | 151 | 0 | 0 | 0 | 151 | 0 | 143 | 35 | 143 | 314 |
| 4:45 PM | 5 | 15 | 1 | 14 | 21 | 124 | 0 | 0 | 5 | 124 | 0 | 107 | 24 | 107 | 252 |
| Hourly Total | 39 | 62 | 5 | 77 | 106 | 569 | 0 | 0 | 11 | 569 | 0 | 485 | 180 | 485 | 1160 |
| 5:00 PM | 7 | 12 | 1 | 11 | 20 | 138 | 0 | 0 | 2 | 138 | 0 | 96 | 16 | 96 | 254 |
| 5:15 PM | 11 | 13 | 2 | 19 | 26 | 138 | 0 | 0 | 0 | 138 | 0 | 109 | 31 | 109 | 273 |
| 5:30 PM | 8 | 9 | 3 | 11 | 20 | 135 | 0 | 0 | 0 | 135 | 0 | 102 | 21 | 102 | 257 |
| 5:45 PM | 7 | 10 | 4 | 3 | 21 | 133 | 0 | 0 | 3 | 133 | 0 | 90 | 22 | 90 | 244 |
| Hourly Total | 33 | 44 | 10 | 44 | 87 | 544 | 0 | 0 | 5 | 544 | 0 | 397 | 90 | 397 | 1028 |
| Grand Total | 159 | 190 | 35 | 348 | 384 | 2819 | 0 | 0 | 60 | 2819 | 1 | 2324 | 655 | 2325 | 5528 |
| Approach % | 41.4 | 49.5 | 9.1 | - | - | 100.0 | 0.0 | 0.0 | - | - | 0.0 | 100.0 | - | - | - |
| Total % | 2.9 | 3.4 | 0.6 | - | 6.9 | 51.0 | 0.0 | 0.0 | - | 51.0 | 0.0 | 42.0 | - | 42.1 | - |
| Lights | 155 | 188 | 35 | - | 378 | 2727 | 0 | 0 | - | 2727 | 1 | 2269 | - | 2270 | 5375 |
| % Lights | 97.5 | 98.9 | 100.0 | - | 98.4 | 96.7 | - | - | - | 96.7 | 100.0 | 97.6 | - | 97.6 | 97.2 |
| Other Vehicles | 4 | 2 | 0 | - | 6 | 92 | 0 | 0 | - | 92 | 0 | 55 | - | 55 | 153 |
| % Other Vehicles | 2.5 | 1.1 | 0.0 | - | 1.6 | 3.3 | - | - | - | 3.3 | 0.0 | 2.4 | - | 2.4 | 2.8 |
| Pedestrians | - | - | - | 348 | - | - | - | - | 60 | - | - | - | 655 | - | - |
| % Pedestrians | - | - | - | 100.0 | - | - | - | - | 100.0 | - | - | - | 100.0 | - | - |

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Site Code:
Start Date: 12/06/2023


Turning Movement Data Plot

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Counter: MIO:
Set up by: KY:

Count Name: (10) AM/PM South High Street x Linden Street
Site Code:
Start Date: 12/06/2023

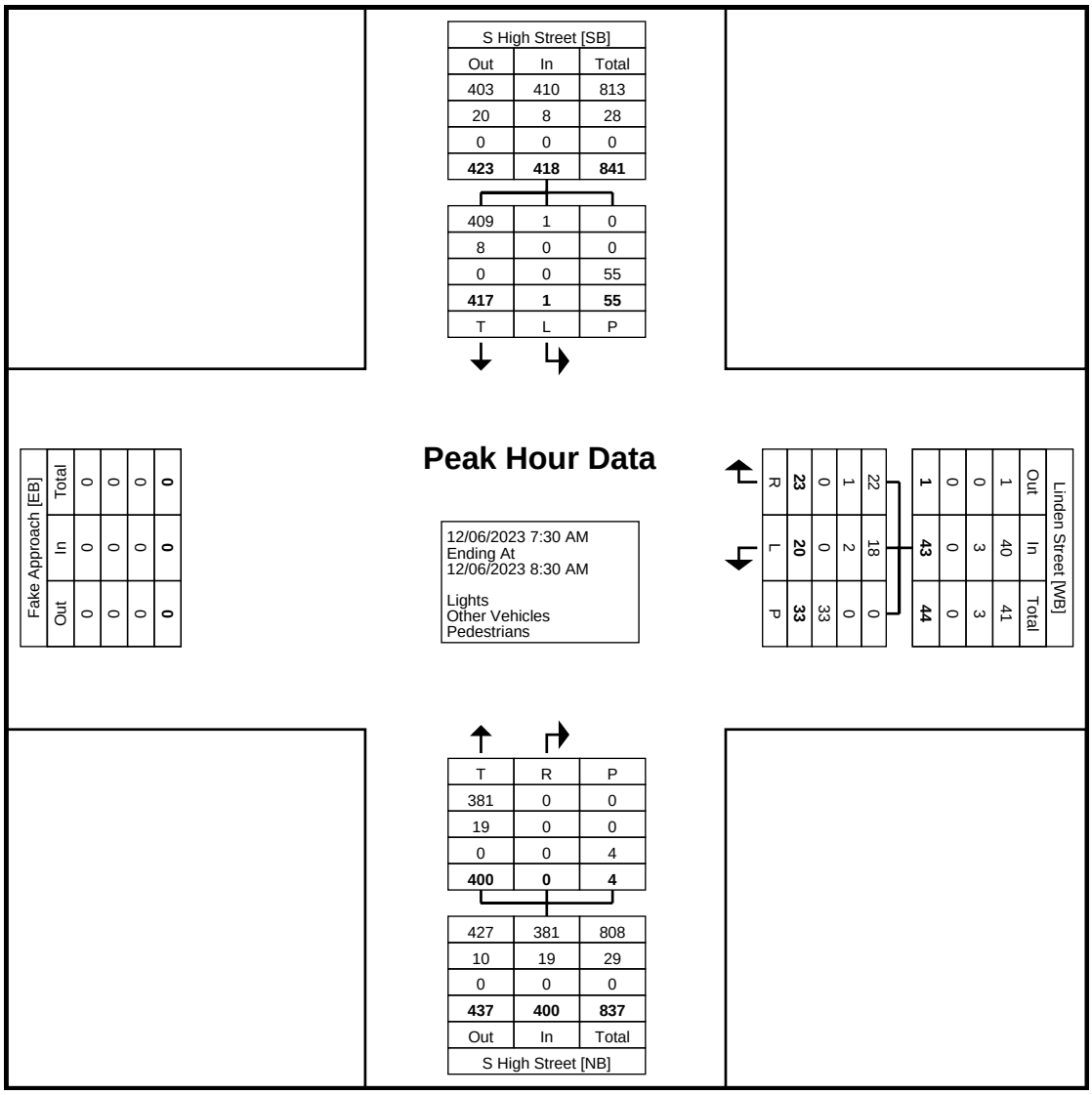

# Turning Movement Peak Hour Data (7:30 AM)

| Start Time | Linden Street Westbound | | | | | S High Street Northbound | | | | | S High Street Southbound | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Left | Right | Right on Red | Peds | App. Total | Thru | Right | Right on Red | Peds | App. Total | Left | Thru | Peds | App. Total | Int. Total |
| 7:30 AM | 3 | 6 | 0 | 5 | 9 | 105 | 0 | 0 | 0 | 105 | 0 | 112 | 10 | 112 | 226 |
| 7:45 AM | 7 | 3 | 2 | 8 | 12 | 110 | 0 | 0 | 3 | 110 | 1 | 136 | 27 | 137 | 259 |
| 8:00 AM | 5 | 4 | 0 | 11 | 9 | 96 | 0 | 0 | 1 | 96 | 0 | 98 | 10 | 98 | 203 |
| 8:15 AM | 5 | 6 | 2 | 9 | 13 | 89 | 0 | 0 | 0 | 89 | 0 | 71 | 8 | 71 | 173 |
| Total | 20 | 19 | 4 | 33 | 43 | 400 | 0 | 0 | 4 | 400 | 1 | 417 | 55 | 418 | 861 |
| Approach % | 46.5 | 44.2 | 9.3 | - | - | 100.0 | 0.0 | 0.0 | - | - | 0.2 | 99.8 | - | - | - |
| Total % | 2.3 | 2.2 | 0.5 | - | 5.0 | 46.5 | 0.0 | 0.0 | - | 46.5 | 0.1 | 48.4 | - | 48.5 | - |
| PHF | 0.714 | 0.792 | 0.500 | - | 0.827 | 0.909 | 0.000 | 0.000 | - | 0.909 | 0.250 | 0.767 | - | 0.763 | 0.831 |
| Lights | 18 | 18 | 4 | - | 40 | 381 | 0 | 0 | - | 381 | 1 | 409 | - | 410 | 831 |
| % Lights | 90.0 | 94.7 | 100.0 | - | 93.0 | 95.3 | - | - | - | 95.3 | 100.0 | 98.1 | - | 98.1 | 96.5 |
| Other Vehicles | 2 | 1 | 0 | - | 3 | 19 | 0 | 0 | - | 19 | 0 | 8 | - | 8 | 30 |
| % Other Vehicles | 10.0 | 5.3 | 0.0 | - | 7.0 | 4.8 | - | - | - | 4.8 | 0.0 | 1.9 | - | 1.9 | 3.5 |
| Pedestrians | - | - | - | 33 | - | - | - | - | 4 | - | - | - | 55 | - | - |
| % Pedestrians | - | - | - | 100.0 | - | - | - | - | 100.0 | - | - | - | 100.0 | - | - |

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Counter: MIO:
Set up by: KY:

Count Name: (10) AM/PM South High Street x Linden Street
Site Code:
Start Date: 12/06/2023
Page No: 4




Turning Movement Peak Hour Data Plot (7:30 AM)

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610.326.3100 kyoung@trafficpd.com

Counter: MIO:
Set up by: KY:

Count Name: (10) AM/PM South High Street x Linden Street
Site Code:
Start Date: 12/06/2023

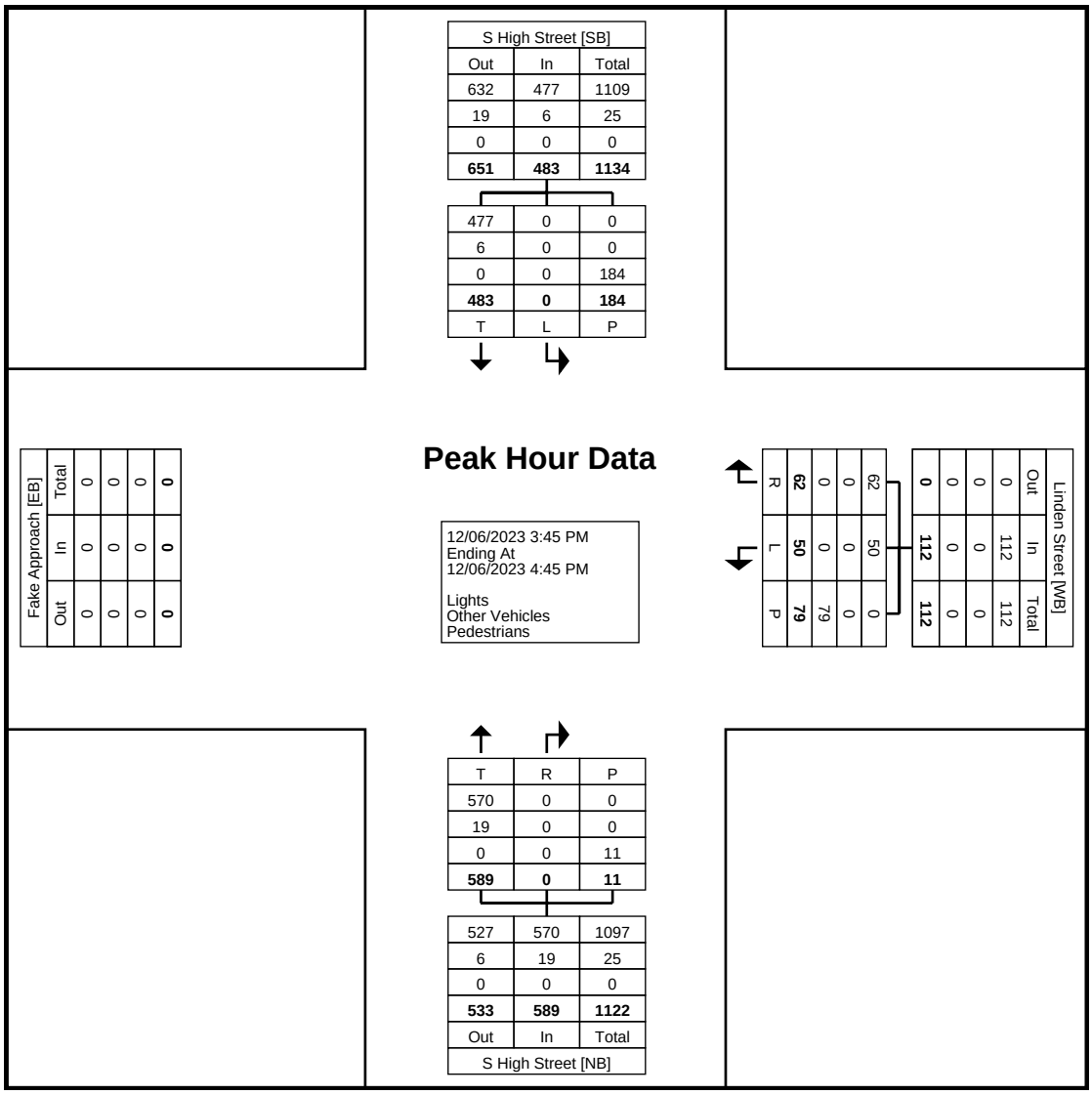

# Turning Movement Peak Hour Data (3:45 PM)

| Start Time | Linden Street Westbound | | | | | S High Street Northbound | | | | | S High Street Southbound | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Left | Right | Right on Red | Peds | App. Total | Thru | Right | Right on Red | Peds | App. Total | Left | Thru | Peds | App. Total | Int. Total |
| 3:45 PM | 16 | 8 | 3 | 16 | 27 | 144 | 0 | 0 | 5 | 144 | 0 | 105 | 28 | 105 | 276 |
| 4:00 PM | 10 | 15 | 2 | 20 | 27 | 142 | 0 | 0 | 4 | 142 | 0 | 107 | 45 | 107 | 276 |
| 4:15 PM | 12 | 24 | 2 | 24 | 38 | 152 | 0 | 0 | 2 | 152 | 0 | 128 | 76 | 128 | 318 |
| 4:30 PM | 12 | 8 | 0 | 19 | 20 | 151 | 0 | 0 | 0 | 151 | 0 | 143 | 35 | 143 | 314 |
| Total | 50 | 55 | 7 | 79 | 112 | 589 | 0 | 0 | 11 | 589 | 0 | 483 | 184 | 483 | 1184 |
| Approach % | 44.6 | 49.1 | 6.3 | - | - | 100.0 | 0.0 | 0.0 | - | - | 0.0 | 100.0 | - | - | - |
| Total % | 4.2 | 4.6 | 0.6 | - | 9.5 | 49.7 | 0.0 | 0.0 | - | 49.7 | 0.0 | 40.8 | - | 40.8 | - |
| PHF | 0.781 | 0.573 | 0.583 | - | 0.737 | 0.969 | 0.000 | 0.000 | - | 0.969 | 0.000 | 0.844 | - | 0.844 | 0.931 |
| Lights | 50 | 55 | 7 | - | 112 | 570 | 0 | 0 | - | 570 | 0 | 477 | - | 477 | 1159 |
| % Lights | 100.0 | 100.0 | 100.0 | - | 100.0 | 96.8 | - | - | - | 96.8 | - | 98.8 | - | 98.8 | 97.9 |
| Other Vehicles | 0 | 0 | 0 | - | 0 | 19 | 0 | 0 | - | 19 | 0 | 6 | - | 6 | 25 |
| % Other Vehicles | 0.0 | 0.0 | 0.0 | - | 0.0 | 3.2 | - | - | - | 3.2 | - | 1.2 | - | 1.2 | 2.1 |
| Pedestrians | - | - | - | 79 | - | - | - | - | 11 | - | - | - | 184 | - | - |
| % Pedestrians | - | - | - | 100.0 | - | - | - | - | 100.0 | - | - | - | 100.0 | - | - |

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Counter: MIO:
Set up by: KY:

Count Name: (10) AM/PM South High Street x Linden Street
Site Code:
Start Date: 12/06/2023
Page No: 6




Turning Movement Peak Hour Data Plot (3:45 PM)

Counter: MIO:
Set up By JH::

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2500 East High Street
Suite 650
Pottstown, Pennsylvania, United States 19464
610.326.3100

Count Name: 11 South High Street & Rosedale Avenue
Site Code:
Start Date: 12/05/2023


# Turning Movement Data

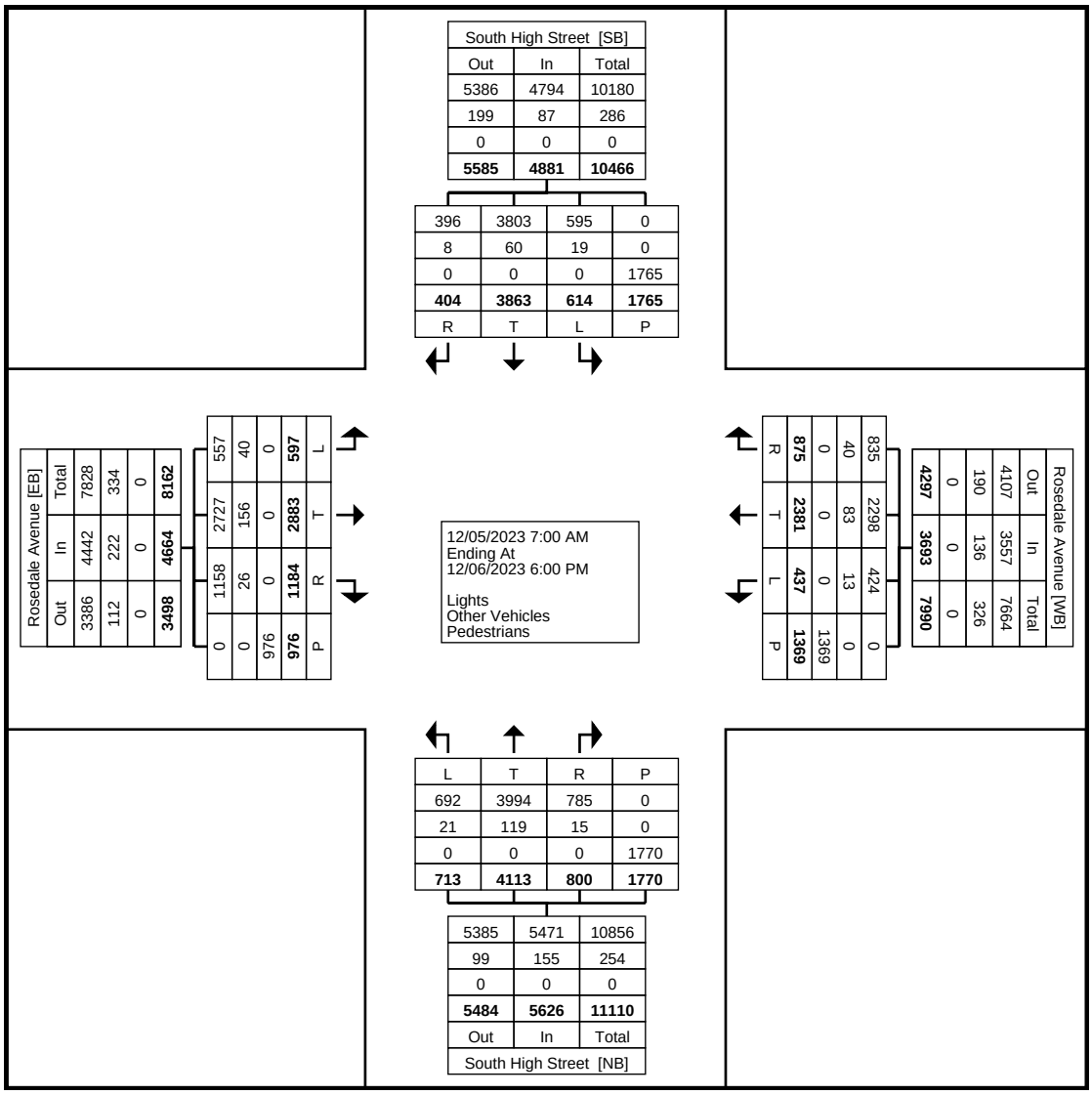
| Start Time | Rosedale Avenue Eastbound | | | | | | Rosedale Avenue Westbound | | | | | | South High Street Northbound | | | | | | South High Street Southbound | | | | | | Int. Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Left | Thru | Right | Right on Red | Peds | App. Total | Left | Thru | Right | Right on Red | Peds | App. Total | Left | Thru | Right | Right on Red | Peds | App. Total | Left | Thru | Right | Right on Red | Peds | App. Total | |
| 7:00 AM | 10 | 73 | 27 | 0 | 3 | 110 | 6 | 20 | 5 | 1 | 1 | 32 | 4 | 54 | 15 | 1 | 2 | 74 | 10 | 67 | 4 | 0 | 4 | 81 | 297 |
| 7:15 AM | 8 | 83 | 20 | 0 | 2 | 111 | 6 | 31 | 6 | 3 | 2 | 46 | 11 | 56 | 14 | 0 | 2 | 81 | 15 | 72 | 3 | 1 | 5 | 91 | 329 |
| 7:30 AM | 12 | 80 | 30 | 0 | 9 | 122 | 9 | 59 | 21 | 3 | 10 | 92 | 13 | 73 | 7 | 1 | 13 | 94 | 11 | 117 | 3 | 0 | 13 | 131 | 439 |
| 7:45 AM | 14 | 81 | 22 | 0 | 17 | 117 | 16 | 66 | 16 | 5 | 30 | 103 | 9 | 84 | 15 | 0 | 37 | 108 | 12 | 85 | 9 | 0 | 47 | 106 | 434 |
| Hourly Total | 44 | 317 | 99 | 0 | 31 | 460 | 37 | 176 | 48 | 12 | 43 | 273 | 37 | 267 | 51 | 2 | 54 | 357 | 48 | 341 | 19 | 1 | 69 | 409 | 1499 |
| 8:00 AM | 4 | 95 | 18 | 1 | 12 | 118 | 5 | 43 | 11 | 0 | 6 | 59 | 15 | 72 | 16 | 0 | 16 | 103 | 15 | 97 | 3 | 1 | 7 | 116 | 396 |
| 8:15 AM | 12 | 85 | 21 | 0 | 9 | 118 | 11 | 49 | 13 | 0 | 15 | 73 | 13 | 89 | 14 | 0 | 12 | 116 | 13 | 81 | 6 | 0 | 14 | 100 | 407 |
| 8:30 AM | 10 | 79 | 20 | 0 | 6 | 109 | 7 | 30 | 16 | 0 | 13 | 53 | 12 | 78 | 10 | 0 | 12 | 100 | 6 | 68 | 5 | 0 | 12 | 79 | 341 |
| 8:45 AM | 8 | 75 | 19 | 0 | 23 | 102 | 5 | 41 | 13 | 0 | 26 | 59 | 15 | 71 | 12 | 0 | 31 | 98 | 8 | 71 | 7 | 0 | 21 | 86 | 345 |
| Hourly Total | 34 | 334 | 78 | 1 | 50 | 447 | 28 | 163 | 53 | 0 | 60 | 244 | 55 | 310 | 52 | 0 | 71 | 417 | 42 | 317 | 21 | 1 | 54 | 381 | 1489 |
| 9:00 AM | 12 | 75 | 15 | 0 | 19 | 102 | 7 | 47 | 19 | 0 | 39 | 73 | 17 | 83 | 16 | 0 | 32 | 116 | 11 | 70 | 10 | 1 | 52 | 92 | 383 |
| 9:15 AM | 15 | 68 | 20 | 0 | 98 | 103 | 1 | 44 | 29 | 0 | 138 | 74 | 12 | 73 | 15 | 1 | 128 | 101 | 11 | 67 | 8 | 0 | 138 | 86 | 364 |
| 9:30 AM | 18 | 55 | 18 | 0 | 27 | 91 | 11 | 27 | 28 | 0 | 58 | 66 | 18 | 73 | 17 | 0 | 55 | 108 | 7 | 55 | 7 | 0 | 64 | 69 | 334 |
| 9:45 AM | 17 | 45 | 16 | 1 | 8 | 79 | 6 | 28 | 12 | 1 | 26 | 47 | 18 | 71 | 12 | 0 | 22 | 101 | 17 | 50 | 4 | 0 | 34 | 71 | 298 |
| Hourly Total | 62 | 243 | 69 | 1 | 152 | 375 | 25 | 146 | 88 | 1 | 261 | 260 | 65 | 300 | 60 | 1 | 237 | 426 | 46 | 242 | 29 | 1 | 288 | 318 | 1379 |
| *** BREAK *** | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 3:00 PM | 16 | 51 | 21 | 1 | 36 | 89 | 9 | 27 | 15 | 1 | 57 | 52 | 12 | 85 | 15 | 6 | 79 | 118 | 16 | 106 | 5 | 2 | 62 | 129 | 388 |
| 3:15 PM | 17 | 44 | 32 | 0 | 45 | 93 | 13 | 57 | 17 | 1 | 60 | 88 | 12 | 97 | 20 | 1 | 72 | 130 | 16 | 91 | 13 | 1 | 66 | 121 | 432 |
| 3:30 PM | 10 | 48 | 36 | 2 | 19 | 96 | 12 | 69 | 21 | 1 | 26 | 103 | 18 | 104 | 19 | 1 | 34 | 142 | 17 | 88 | 6 | 3 | 32 | 114 | 455 |
| 3:45 PM | 12 | 53 | 32 | 3 | 36 | 100 | 9 | 55 | 20 | 0 | 24 | 84 | 19 | 108 | 16 | 5 | 47 | 148 | 16 | 94 | 12 | 1 | 18 | 123 | 455 |
| Hourly Total | 55 | 196 | 121 | 6 | 136 | 378 | 43 | 208 | 73 | 3 | 167 | 327 | 61 | 394 | 70 | 13 | 232 | 538 | 65 | 379 | 36 | 7 | 178 | 487 | 1730 |
| 4:00 PM | 13 | 49 | 24 | 0 | 30 | 86 | 11 | 78 | 27 | 1 | 26 | 117 | 17 | 97 | 24 | 0 | 48 | 138 | 3 | 97 | 12 | 1 | 36 | 113 | 454 |
| 4:15 PM | 20 | 57 | 29 | 1 | 28 | 107 | 12 | 65 | 18 | 0 | 32 | 95 | 9 | 102 | 22 | 3 | 44 | 136 | 10 | 84 | 11 | 2 | 48 | 107 | 445 |
| 4:30 PM | 11 | 57 | 35 | 1 | 26 | 104 | 12 | 85 | 18 | 0 | 32 | 115 | 25 | 92 | 18 | 3 | 51 | 138 | 18 | 80 | 4 | 1 | 43 | 103 | 460 |
| 4:45 PM | 15 | 63 | 26 | 0 | 20 | 104 | 12 | 71 | 18 | 2 | 34 | 103 | 17 | 113 | 14 | 2 | 34 | 146 | 15 | 102 | 9 | 0 | 33 | 126 | 479 |
| Hourly Total | 59 | 226 | 114 | 2 | 104 | 401 | 47 | 299 | 81 | 3 | 124 | 430 | 68 | 404 | 78 | 8 | 177 | 558 | 46 | 363 | 36 | 4 | 160 | 449 | 1838 |
| 5:00 PM | 12 | 50 | 19 | 1 | 10 | 82 | 13 | 66 | 20 | 1 | 11 | 100 | 13 | 96 | 14 | 3 | 30 | 126 | 7 | 75 | 10 | 0 | 17 | 92 | 400 |
| 5:15 PM | 9 | 44 | 31 | 0 | 24 | 84 | 20 | 52 | 26 | 0 | 26 | 98 | 20 | 121 | 12 | 0 | 23 | 153 | 12 | 92 | 10 | 0 | 23 | 114 | 449 |
| 5:30 PM | 11 | 39 | 20 | 2 | 34 | 72 | 13 | 62 | 17 | 0 | 31 | 92 | 15 | 106 | 15 | 1 | 48 | 137 | 18 | 74 | 9 | 0 | 39 | 101 | 402 |
| 5:45 PM | 16 | 50 | 29 | 0 | 17 | 95 | 7 | 51 | 20 | 0 | 19 | 78 | 23 | 104 | 11 | 3 | 30 | 141 | 13 | 69 | 8 | 0 | 28 | 90 | 404 |
| Hourly Total | 48 | 183 | 99 | 3 | 85 | 333 | 53 | 231 | 83 | 1 | 87 | 368 | 71 | 427 | 52 | 7 | 131 | 557 | 50 | 310 | 37 | 0 | 107 | 397 | 1655 |
| *** BREAK *** | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 7:00 AM | 10 | 55 | 13 | 0 | 1 | 78 | 6 | 23 | 5 | 1 | 0 | 35 | 10 | 47 | 14 | 0 | 1 | 71 | 14 | 51 | 2 | 0 | 2 | 67 | 251 |
| 7:15 AM | 6 | 77 | 15 | 0 | 0 | 98 | 6 | 33 | 12 | 0 | 5 | 51 | 12 | 47 | 14 | 1 | 1 | 74 | 10 | 71 | 3 | 0 | 6 | 84 | 307 |
| 7:30 AM | 9 | 71 | 23 | 0 | 7 | 103 | 3 | 44 | 26 | 0 | 12 | 73 | 7 | 75 | 12 | 0 | 18 | 94 | 9 | 92 | 3 | 0 | 14 | 104 | 374 |
| 7:45 AM | 13 | 79 | 21 | 0 | 23 | 113 | 11 | 54 | 19 | 0 | 8 | 84 | 7 | 71 | 11 | 0 | 39 | 89 | 20 | 103 | 6 | 0 | 31 | 129 | 415 |
| Hourly Total | 38 | 282 | 72 | 0 | 31 | 392 | 26 | 154 | 62 | 1 | 25 | 243 | 36 | 240 | 51 | 1 | 59 | 328 | 53 | 317 | 14 | 0 | 53 | 384 | 1347 |
| 8:00 AM | 5 | 76 | 32 | 0 | 6 | 113 | 7 | 56 | 18 | 0 | 9 | 81 | 13 | 63 | 13 | 1 | 9 | 90 | 9 | 87 | 6 | 0 | 9 | 102 | 386 |
| 8:15 AM | 6 | 77 | 26 | 0 | 5 | 109 | 5 | 38 | 11 | 2 | 9 | 56 | 12 | 61 | 20 | 0 | 10 | 93 | 10 | 66 | 8 | 0 | 7 | 84 | 342 |
| 8:30 AM | 7 | 86 | 17 | 0 | 11 | 110 | 7 | 42 | 16 | 1 | 22 | 66 | 18 | 78 | 9 | 1 | 26 | 106 | 12 | 66 | 5 | 0 | 40 | 83 | 365 |
| 8:45 AM | 12 | 66 | 21 | 0 | 28 | 99 | 8 | 36 | 19 | 6 | 37 | 69 | 15 | 65 | 15 | 1 | 72 | 96 | 12 | 63 | 4 | 2 | 85 | 81 | 345 |
| Hourly Total | 30 | 305 | 96 | 0 | 50 | 431 | 27 | 172 | 64 | 9 | 77 | 272 | 58 | 267 | 57 | 3 | 117 | 385 | 43 | 282 | 23 | 2 | 141 | 350 | 1438 |
| 9:00 AM | 12 | 70 | 22 | 0 | 23 | 104 | 3 | 36 | 16 | 0 | 37 | 55 | 12 | 92 | 10 | 0 | 32 | 114 | 17 | 68 | 7 | 0 | 28 | 92 | 365 |
| 9:15 AM | 12 | 43 | 13 | 0 | 10 | 68 | 9 | 24 | 7 | 0 | 23 | 40 | 17 | 67 | 9 | 0 | 21 | 93 | 13 | 51 | 5 | 0 | 36 | 69 | 270 |
| 9:30 AM | 13 | 46 | 19 | 0 | 20 | 78 | 5 | 32 | 29 | 1 | 34 | 67 | 17 | 73 | 15 | 0 | 36 | 105 | 10 | 49 | 6 | 0 | 35 | 65 | 315 |
| 9:45 AM | 13 | 43 | 22 | 0 | 51 | 78 | 2 | 37 | 22 | 0 | 78 | 61 | 12 | 81 | 12 | 0 | 88 | 105 | 13 | 65 | 6 | 0 | 127 | 84 | 328 |
| Hourly Total | 50 | 202 | 76 | 0 | 104 | 328 | 19 | 129 | 74 | 1 | 172 | 223 | 58 | 313 | 46 | 0 | 177 | 417 | 53 | 233 | 24 | 0 | 226 | 310 | 1278 |
| *** BREAK *** | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 3:00 PM | 10 | 50 | 38 | 2 | 33 | 100 | 4 | 52 | 11 | 1 | 32 | 68 | 13 | 100 | 26 | 0 | 73 | 139 | 14 | 89 | 9 | 0 | 40 | 112 | 419 |
| 3:15 PM | 15 | 44 | 26 | 0 | 5 | 85 | 10 | 58 | 14 | 1 | 14 | 83 | 9 | 78 | 19 | 0 | 32 | 106 | 17 | 87 | 8 | 0 | 26 | 112 | 386 |
| 3:30 PM | 11 | 30 | 16 | 2 | 19 | 59 | 6 | 59 | 29 | 1 | 9 | 95 | 16 | 90 | 18 | 1 | 32 | 125 | 12 | 74 | 17 | 0 | 22 | 103 | 382 |
| 3:45 PM | 15 | 34 | 23 | 0 | 9 | 72 | 15 | 65 | 17 | 0 | 6 | 97 | 12 | 115 | 19 | 0 | 28 | 146 | 11 | 88 | 15 | 0 | 22 | 114 | 429 |
| Hourly Total | 51 | 158 | 103 | 4 | 66 | 316 | 35 | 234 | 71 | 3 | 61 | 343 | 50 | 383 | 82 | 1 | 165 | 516 | 54 | 338 | 49 | 0 | 110 | 441 | 1616 |
| 4:00 PM | 15 | 53 | 19 | 0 | 34 | 87 | 17 | 50 | 17 | 0 | 98 | 84 | 16 | 107 | 25 | 1 | 95 | 149 | 17 | 101 | 6 | 0 | 111 | 124 | 444 |
| 4:15 PM | 18 | 65 | 27 | 0 | 33 | 110 | 12 | 62 | 20 | 0 | 49 | 94 | 21 | 113 | 12 | 1 | 78 | 147 | 14 | 107 | 11 | 0 | 95 | 132 | 483 |
| 4:30 PM | 25 | 48 | 44 | 0 | 29 | 117 | 12 | 55 | 16 | 0 | 27 | 83 | 29 | 107 | 18 | 0 | 38 | 154 | 19 | 114 | 15 | 1 | 28 | 149 | 503 |
| 4:45 PM | 18 | 61 | 23 | 0 | 17 | 102 | 14 | 79 | 11 | 0 | 28 | 104 | 15 | 88 | 25 | 0 | 27 | 128 | 14 | 88 | 10 | 0 | 32 | 112 | 446 |
| Hourly Total | 76 | 227 | 113 | 0 | 113 | 416 | 55 | 246 | 64 | 0 | 202 | 365 | 81 | 415 | 80 | 2 | 238 | 578 | 64 | 410 | 42 | 1 | 266 | 517 | 1876 |
| 5:00 PM | 5 | 56 | 26 | 1 | 18 | 88 | 9 | 64 | 23 | 0 | 25 | 96 | 18 | 107 | 22 | 0 | 29 | 147 | 12 | 83 | 9 | 0 | 34 | 104 | 435 |

| | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 5:15 PM | 12 | 45 | 22 | 2 | 10 | 81 | 13 | 53 | 19 | 0 | 20 | 85 | 13 | 102 | 16 | 2 | 26 | 133 | 13 | 90 | 16 | 0 | 25 | 119 | 418 |
| 5:30 PM | 19 | 52 | 34 | 0 | 13 | 105 | 11 | 48 | 13 | 0 | 25 | 72 | 17 | 99 | 19 | 1 | 29 | 136 | 10 | 85 | 17 | 1 | 32 | 113 | 426 |
| 5:45 PM | 14 | 57 | 42 | 0 | 13 | 113 | 9 | 58 | 24 | 1 | 20 | 92 | 25 | 85 | 20 | 3 | 28 | 133 | 15 | 73 | 13 | 1 | 22 | 102 | 440 |
| Hourly Total | 50 | 210 | 124 | 3 | 54 | 387 | 42 | 223 | 79 | 1 | 90 | 345 | 73 | 393 | 77 | 6 | 112 | 549 | 50 | 331 | 55 | 2 | 113 | 438 | 1719 |
| Grand Total | 597 | 2883 | 1164 | 20 | 976 | 4664 | 437 | 2381 | 840 | 35 | 1369 | 3693 | 713 | 4113 | 756 | 44 | 1770 | 5626 | 614 | 3863 | 385 | 19 | 1765 | 4881 | 18864 |
| Approach % | 12.8 | 61.8 | 25.0 | 0.4 | - | - | 11.8 | 64.5 | 22.7 | 0.9 | - | - | 12.7 | 73.1 | 13.4 | 0.8 | - | - | 12.6 | 79.1 | 7.9 | 0.4 | - | - | - |
| Total % | 3.2 | 15.3 | 6.2 | 0.1 | - | 24.7 | 2.3 | 12.6 | 4.5 | 0.2 | - | 19.6 | 3.8 | 21.8 | 4.0 | 0.2 | - | 29.8 | 3.3 | 20.5 | 2.0 | 0.1 | - | 25.9 | - |
| Lights | 557 | 2727 | 1138 | 20 | - | 4442 | 424 | 2298 | 801 | 34 | - | 3557 | 692 | 3994 | 742 | 43 | - | 5471 | 595 | 3803 | 378 | 18 | - | 4794 | 18264 |
| % Lights | 93.3 | 94.6 | 97.8 | 100.0 | - | 95.2 | 97.0 | 96.5 | 95.4 | 97.1 | - | 96.3 | 97.1 | 97.1 | 98.1 | 97.7 | - | 97.2 | 96.9 | 98.4 | 98.2 | 94.7 | - | 98.2 | 96.8 |
| Other Vehicles | 40 | 156 | 26 | 0 | - | 222 | 13 | 83 | 39 | 1 | - | 136 | 21 | 119 | 14 | 1 | - | 155 | 19 | 60 | 7 | 1 | - | 87 | 600 |
| % Other Vehicles | 6.7 | 5.4 | 2.2 | 0.0 | - | 4.8 | 3.0 | 3.5 | 4.6 | 2.9 | - | 3.7 | 2.9 | 2.9 | 1.9 | 2.3 | - | 2.8 | 3.1 | 1.6 | 1.8 | 5.3 | - | 1.8 | 3.2 |
| Pedestrians | - | - | - | - | 976 | - | - | - | - | - | 1369 | - | - | - | - | - | 1770 | - | - | - | - | - | 1765 | - | - |
| % Pedestrians | - | - | - | - | 100.0 | - | - | - | - | - | 100.0 | - | - | - | - | - | 100.0 | - | - | - | - | - | 100.0 | - | - |

Traffic Planning and Design, Inc
2500 East High Street
Suite 650
Pottstown, Pennsylvania, United States 19464
610.326.3100

Counter: MIO:
Set up By JH::

Count Name: 11 South High Street & Rosedale Avenue
Site Code:
Start Date: 12/05/2023


Turning Movement Data Plot

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Suite 650
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Count Name: 11 South High Street & Rosedale Avenue
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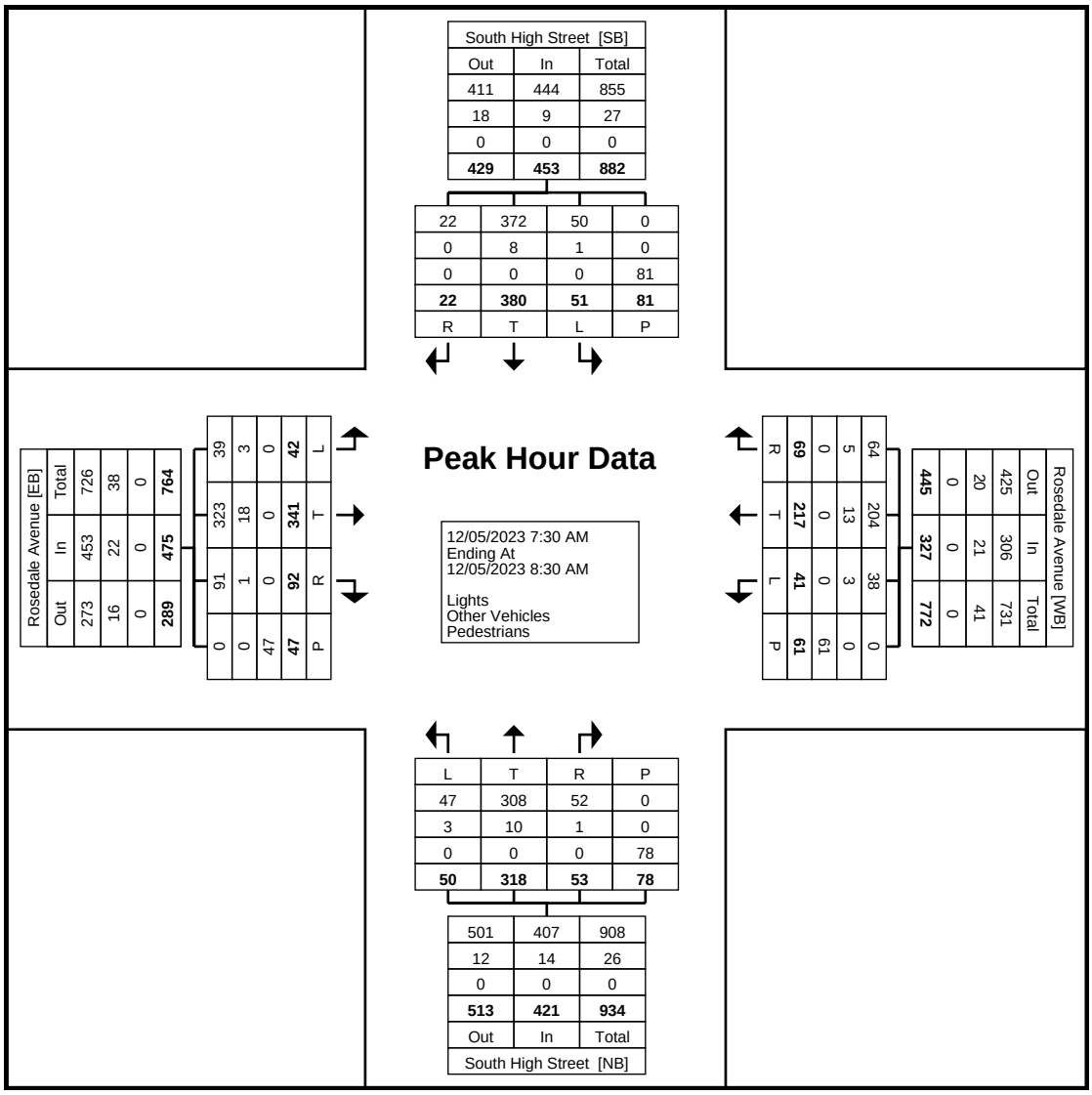

# Turning Movement Peak Hour Data (7:30 AM)

| Start Time | Rosedale Avenue Eastbound | | | | | | Rosedale Avenue Westbound | | | | | | South High Street Northbound | | | | | | South High Street Southbound | | | | | | Int. Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Left | Thru | Right | Right on Red | Peds | App. Total | Left | Thru | Right | Right on Red | Peds | App. Total | Left | Thru | Right | Right on Red | Peds | App. Total | Left | Thru | Right | Right on Red | Peds | App. Total | |
| 7:30 AM | 12 | 80 | 30 | 0 | 9 | 122 | 9 | 59 | 21 | 3 | 10 | 92 | 13 | 73 | 7 | 1 | 13 | 94 | 11 | 117 | 3 | 0 | 13 | 131 | 439 |
| 7:45 AM | 14 | 81 | 22 | 0 | 17 | 117 | 16 | 66 | 16 | 5 | 30 | 103 | 9 | 84 | 15 | 0 | 37 | 108 | 12 | 85 | 9 | 0 | 47 | 106 | 434 |
| 8:00 AM | 4 | 95 | 18 | 1 | 12 | 118 | 5 | 43 | 11 | 0 | 6 | 59 | 15 | 72 | 16 | 0 | 16 | 103 | 15 | 97 | 3 | 1 | 7 | 116 | 396 |
| 8:15 AM | 12 | 85 | 21 | 0 | 9 | 118 | 11 | 49 | 13 | 0 | 15 | 73 | 13 | 89 | 14 | 0 | 12 | 116 | 13 | 81 | 6 | 0 | 14 | 100 | 407 |
| Total | 42 | 341 | 91 | 1 | 47 | 475 | 41 | 217 | 61 | 8 | 61 | 327 | 50 | 318 | 52 | 1 | 78 | 421 | 51 | 380 | 21 | 1 | 81 | 453 | 1676 |
| Approach % | 8.8 | 71.8 | 19.2 | 0.2 | - | - | 12.5 | 66.4 | 18.7 | 2.4 | - | - | 11.9 | 75.5 | 12.4 | 0.2 | - | - | 11.3 | 83.9 | 4.6 | 0.2 | - | - | - |
| Total % | 2.5 | 20.3 | 5.4 | 0.1 | - | 28.3 | 2.4 | 12.9 | 3.6 | 0.5 | - | 19.5 | 3.0 | 19.0 | 3.1 | 0.1 | - | 25.1 | 3.0 | 22.7 | 1.3 | 0.1 | - | 27.0 | - |
| PHF | 0.750 | 0.897 | 0.758 | 0.250 | - | 0.973 | 0.641 | 0.822 | 0.726 | 0.400 | - | 0.794 | 0.833 | 0.893 | 0.813 | 0.250 | - | 0.907 | 0.850 | 0.812 | 0.583 | 0.250 | - | 0.865 | 0.954 |
| Lights | 39 | 323 | 90 | 1 | - | 453 | 38 | 204 | 56 | 8 | - | 306 | 47 | 308 | 51 | 1 | - | 407 | 50 | 372 | 21 | 1 | - | 444 | 1610 |
| % Lights | 92.9 | 94.7 | 98.9 | 100.0 | - | 95.4 | 92.7 | 94.0 | 91.8 | 100.0 | - | 93.6 | 94.0 | 96.9 | 98.1 | 100.0 | - | 96.7 | 98.0 | 97.9 | 100.0 | 100.0 | - | 98.0 | 96.1 |
| Other Vehicles | 3 | 18 | 1 | 0 | - | 22 | 3 | 13 | 5 | 0 | - | 21 | 3 | 10 | 1 | 0 | - | 14 | 1 | 8 | 0 | 0 | - | 9 | 66 |
| % Other Vehicles | 7.1 | 5.3 | 1.1 | 0.0 | - | 4.6 | 7.3 | 6.0 | 8.2 | 0.0 | - | 6.4 | 6.0 | 3.1 | 1.9 | 0.0 | - | 3.3 | 2.0 | 2.1 | 0.0 | 0.0 | - | 2.0 | 3.9 |
| Pedestrians | - | - | - | - | 47 | - | - | - | - | - | 61 | - | - | - | - | - | 78 | - | - | - | - | - | 81 | - | - |
| % Pedestrians | - | - | - | - | 100.0 | - | - | - | - | - | 100.0 | - | - | - | - | - | 100.0 | - | - | - | - | - | 100.0 | - | - |

Traffic Planning and Design, Inc
2500 East High Street
Suite 650
Pottstown, Pennsylvania, United States 19464
610.326.3100

Counter: MIO:
Set up By JH::

Count Name: 11 South High Street & Rosedale Avenue
Site Code:
Start Date: 12/05/2023


Turning Movement Peak Hour Data Plot (7:30 AM)

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Suite 650
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610.326.3100

Counter: MIO:
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Count Name: 11 South High Street & Rosedale Avenue
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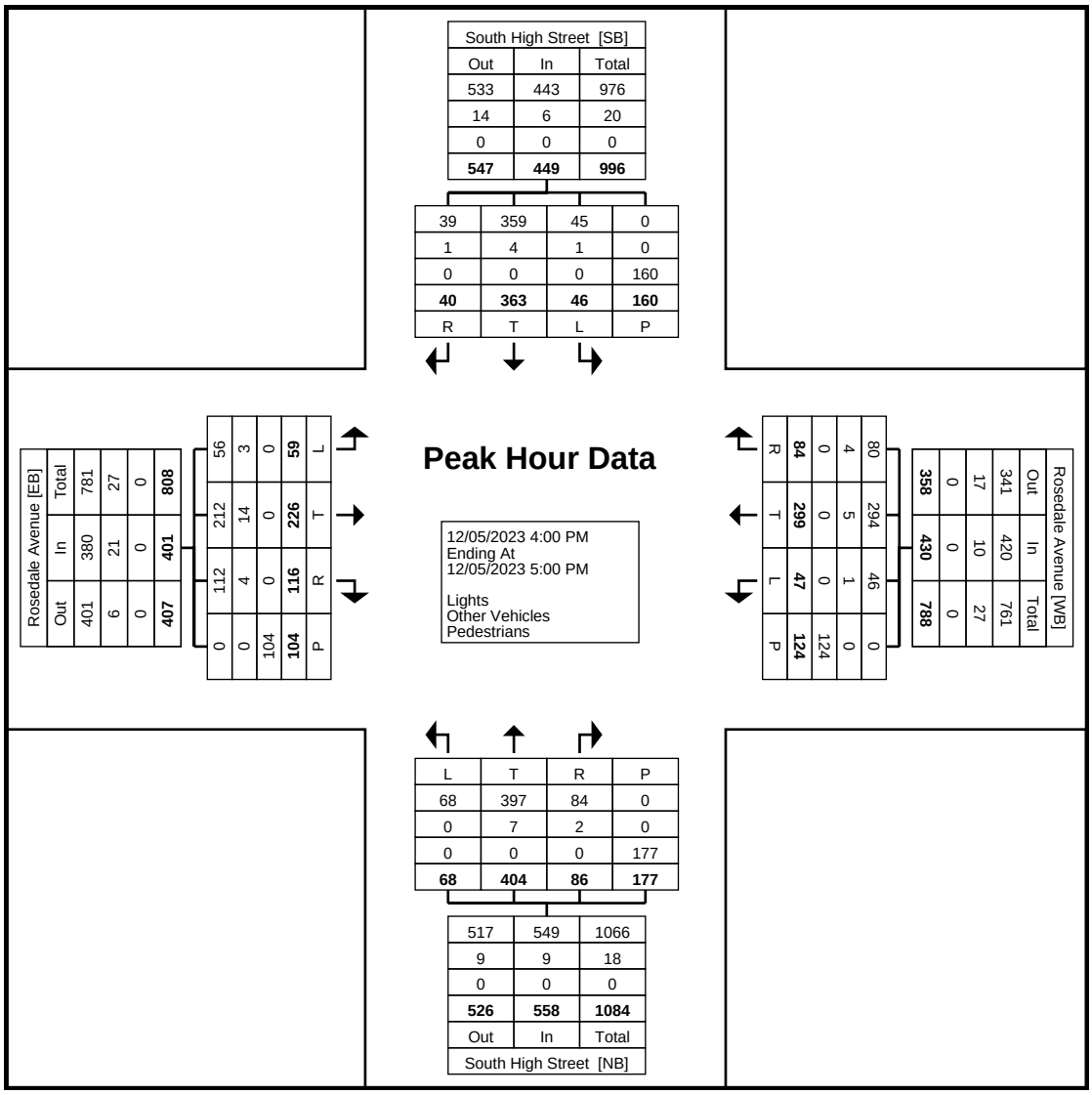

# Turning Movement Peak Hour Data (4:00 PM)

| Start Time | Rosedale Avenue Eastbound | | | | | | Rosedale Avenue Westbound | | | | | | South High Street Northbound | | | | | | South High Street Southbound | | | | | | Int. Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Left | Thru | Right | Right on Red | Peds | App. Total | Left | Thru | Right | Right on Red | Peds | App. Total | Left | Thru | Right | Right on Red | Peds | App. Total | Left | Thru | Right | Right on Red | Peds | App. Total | |
| 4:00 PM | 13 | 49 | 24 | 0 | 30 | 86 | 11 | 78 | 27 | 1 | 26 | 117 | 17 | 97 | 24 | 0 | 48 | 138 | 3 | 97 | 12 | 1 | 36 | 113 | 454 |
| 4:15 PM | 20 | 57 | 29 | 1 | 28 | 107 | 12 | 65 | 18 | 0 | 32 | 95 | 9 | 102 | 22 | 3 | 44 | 136 | 10 | 84 | 11 | 2 | 48 | 107 | 445 |
| 4:30 PM | 11 | 57 | 35 | 1 | 26 | 104 | 12 | 85 | 18 | 0 | 32 | 115 | 25 | 92 | 18 | 3 | 51 | 138 | 18 | 80 | 4 | 1 | 43 | 103 | 460 |
| 4:45 PM | 15 | 63 | 26 | 0 | 20 | 104 | 12 | 71 | 18 | 2 | 34 | 103 | 17 | 113 | 14 | 2 | 34 | 146 | 15 | 102 | 9 | 0 | 33 | 126 | 479 |
| Total | 59 | 226 | 114 | 2 | 104 | 401 | 47 | 299 | 81 | 3 | 124 | 430 | 68 | 404 | 78 | 8 | 177 | 558 | 46 | 363 | 36 | 4 | 160 | 449 | 1838 |
| Approach % | 14.7 | 56.4 | 28.4 | 0.5 | - | - | 10.9 | 69.5 | 18.8 | 0.7 | - | - | 12.2 | 72.4 | 14.0 | 1.4 | - | - | 10.2 | 80.8 | 8.0 | 0.9 | - | - | - |
| Total % | 3.2 | 12.3 | 6.2 | 0.1 | - | 21.8 | 2.6 | 16.3 | 4.4 | 0.2 | - | 23.4 | 3.7 | 22.0 | 4.2 | 0.4 | - | 30.4 | 2.5 | 19.7 | 2.0 | 0.2 | - | 24.4 | - |
| PHF | 0.738 | 0.897 | 0.814 | 0.500 | - | 0.937 | 0.979 | 0.879 | 0.750 | 0.375 | - | 0.919 | 0.680 | 0.894 | 0.813 | 0.667 | - | 0.955 | 0.639 | 0.890 | 0.750 | 0.500 | - | 0.891 | 0.959 |
| Lights | 56 | 212 | 110 | 2 | - | 380 | 46 | 294 | 77 | 3 | - | 420 | 68 | 397 | 76 | 8 | - | 549 | 45 | 359 | 35 | 4 | - | 443 | 1792 |
| % Lights | 94.9 | 93.8 | 96.5 | 100.0 | - | 94.8 | 97.9 | 98.3 | 95.1 | 100.0 | - | 97.7 | 100.0 | 98.3 | 97.4 | 100.0 | - | 98.4 | 97.8 | 98.9 | 97.2 | 100.0 | - | 98.7 | 97.5 |
| Other Vehicles | 3 | 14 | 4 | 0 | - | 21 | 1 | 5 | 4 | 0 | - | 10 | 0 | 7 | 2 | 0 | - | 9 | 1 | 4 | 1 | 0 | - | 6 | 46 |
| % Other Vehicles | 5.1 | 6.2 | 3.5 | 0.0 | - | 5.2 | 2.1 | 1.7 | 4.9 | 0.0 | - | 2.3 | 0.0 | 1.7 | 2.6 | 0.0 | - | 1.6 | 2.2 | 1.1 | 2.8 | 0.0 | - | 1.3 | 2.5 |
| Pedestrians | - | - | - | - | 104 | - | - | - | - | - | 124 | - | - | - | - | - | 177 | - | - | - | - | - | 160 | - | - |
| % Pedestrians | - | - | - | - | 100.0 | - | - | - | - | - | 100.0 | - | - | - | - | - | 100.0 | - | - | - | - | - | 100.0 | - | - |

Traffic Planning and Design, Inc
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Counter: MIO:
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Count Name: 11 South High Street & Rosedale Avenue
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Start Date: 12/05/2023


Turning Movement Peak Hour Data Plot (4:00 PM)

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Counter: MIO:
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Count Name: 11 South High Street & Rosedale Avenue
Site Code:
Start Date: 12/05/2023

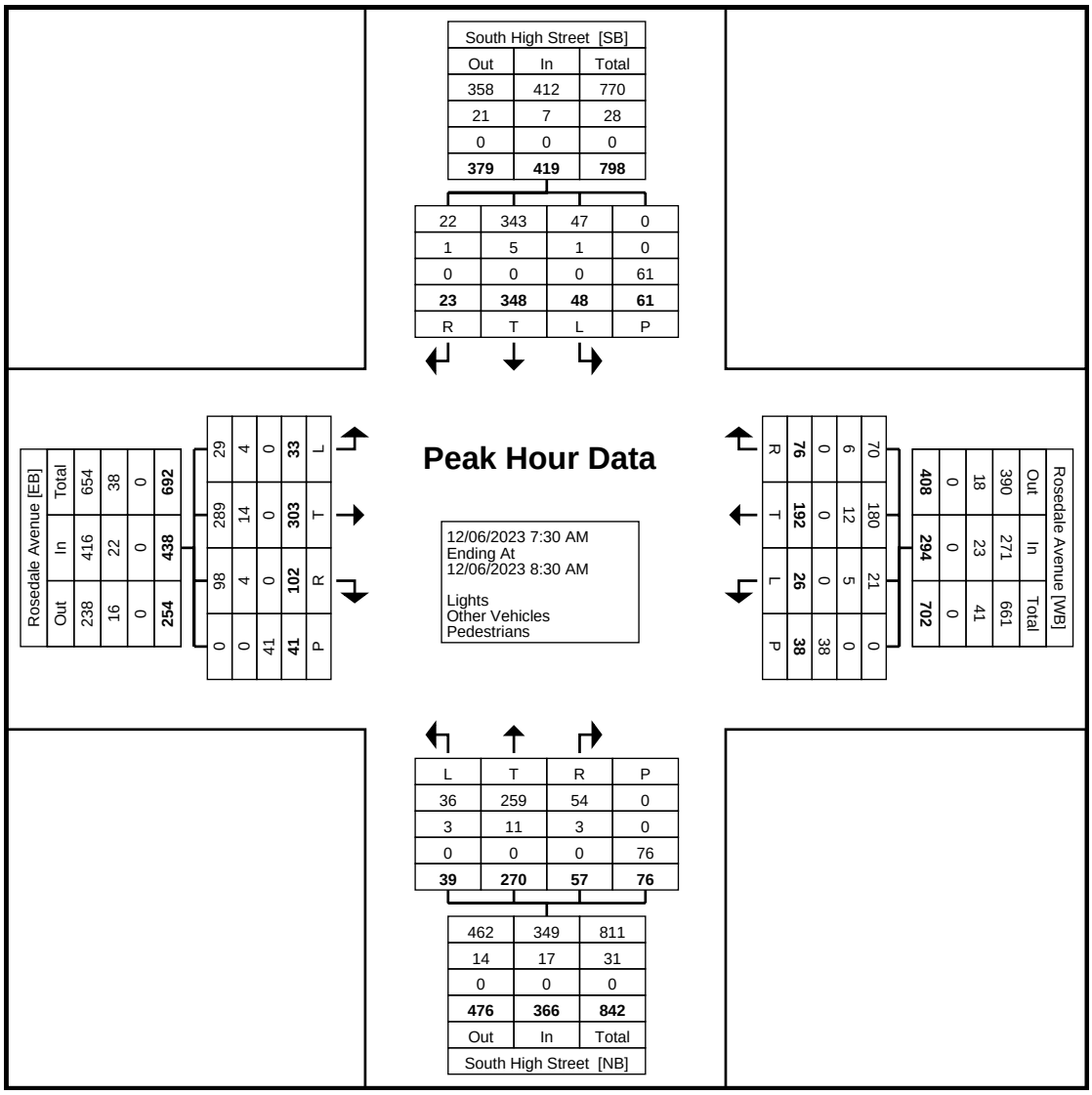

# Turning Movement Peak Hour Data (7:30 AM)

| Start Time | Rosedale Avenue Eastbound | | | | | | Rosedale Avenue Westbound | | | | | | South High Street Northbound | | | | | | South High Street Southbound | | | | | | Int. Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Left | Thru | Right | Right on Red | Peds | App. Total | Left | Thru | Right | Right on Red | Peds | App. Total | Left | Thru | Right | Right on Red | Peds | App. Total | Left | Thru | Right | Right on Red | Peds | App. Total | |
| 7:30 AM | 9 | 71 | 23 | 0 | 7 | 103 | 3 | 44 | 26 | 0 | 12 | 73 | 7 | 75 | 12 | 0 | 18 | 94 | 9 | 92 | 3 | 0 | 14 | 104 | 374 |
| 7:45 AM | 13 | 79 | 21 | 0 | 23 | 113 | 11 | 54 | 19 | 0 | 8 | 84 | 7 | 71 | 11 | 0 | 39 | 89 | 20 | 103 | 6 | 0 | 31 | 129 | 415 |
| 8:00 AM | 5 | 76 | 32 | 0 | 6 | 113 | 7 | 56 | 18 | 0 | 9 | 81 | 13 | 63 | 13 | 1 | 9 | 90 | 9 | 87 | 6 | 0 | 9 | 102 | 386 |
| 8:15 AM | 6 | 77 | 26 | 0 | 5 | 109 | 5 | 38 | 11 | 2 | 9 | 56 | 12 | 61 | 20 | 0 | 10 | 93 | 10 | 66 | 8 | 0 | 7 | 84 | 342 |
| Total | 33 | 303 | 102 | 0 | 41 | 438 | 26 | 192 | 74 | 2 | 38 | 294 | 39 | 270 | 56 | 1 | 76 | 366 | 48 | 348 | 23 | 0 | 61 | 419 | 1517 |
| Approach % | 7.5 | 69.2 | 23.3 | 0.0 | - | - | 8.8 | 65.3 | 25.2 | 0.7 | - | - | 10.7 | 73.8 | 15.3 | 0.3 | - | - | 11.5 | 83.1 | 5.5 | 0.0 | - | - | - |
| Total % | 2.2 | 20.0 | 6.7 | 0.0 | - | 28.9 | 1.7 | 12.7 | 4.9 | 0.1 | - | 19.4 | 2.6 | 17.8 | 3.7 | 0.1 | - | 24.1 | 3.2 | 22.9 | 1.5 | 0.0 | - | 27.6 | - |
| PHF | 0.635 | 0.959 | 0.797 | 0.000 | - | 0.969 | 0.591 | 0.857 | 0.712 | 0.250 | - | 0.875 | 0.750 | 0.900 | 0.700 | 0.250 | - | 0.973 | 0.600 | 0.845 | 0.719 | 0.000 | - | 0.812 | 0.914 |
| Lights | 29 | 289 | 98 | 0 | - | 416 | 21 | 180 | 68 | 2 | - | 271 | 36 | 259 | 53 | 1 | - | 349 | 47 | 343 | 22 | 0 | - | 412 | 1448 |
| % Lights | 87.9 | 95.4 | 96.1 | - | - | 95.0 | 80.8 | 93.8 | 91.9 | 100.0 | - | 92.2 | 92.3 | 95.9 | 94.6 | 100.0 | - | 95.4 | 97.9 | 98.6 | 95.7 | - | - | 98.3 | 95.5 |
| Other Vehicles | 4 | 14 | 4 | 0 | - | 22 | 5 | 12 | 6 | 0 | - | 23 | 3 | 11 | 3 | 0 | - | 17 | 1 | 5 | 1 | 0 | - | 7 | 69 |
| % Other Vehicles | 12.1 | 4.6 | 3.9 | - | - | 5.0 | 19.2 | 6.3 | 8.1 | 0.0 | - | 7.8 | 7.7 | 4.1 | 5.4 | 0.0 | - | 4.6 | 2.1 | 1.4 | 4.3 | - | - | 1.7 | 4.5 |
| Pedestrians | - | - | - | - | 41 | - | - | - | - | - | 38 | - | - | - | - | - | 76 | - | - | - | - | - | 61 | - | - |
| % Pedestrians | - | - | - | - | 100.0 | - | - | - | - | - | 100.0 | - | - | - | - | - | 100.0 | - | - | - | - | - | 100.0 | - | - |

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Site Code:
Start Date: 12/05/2023

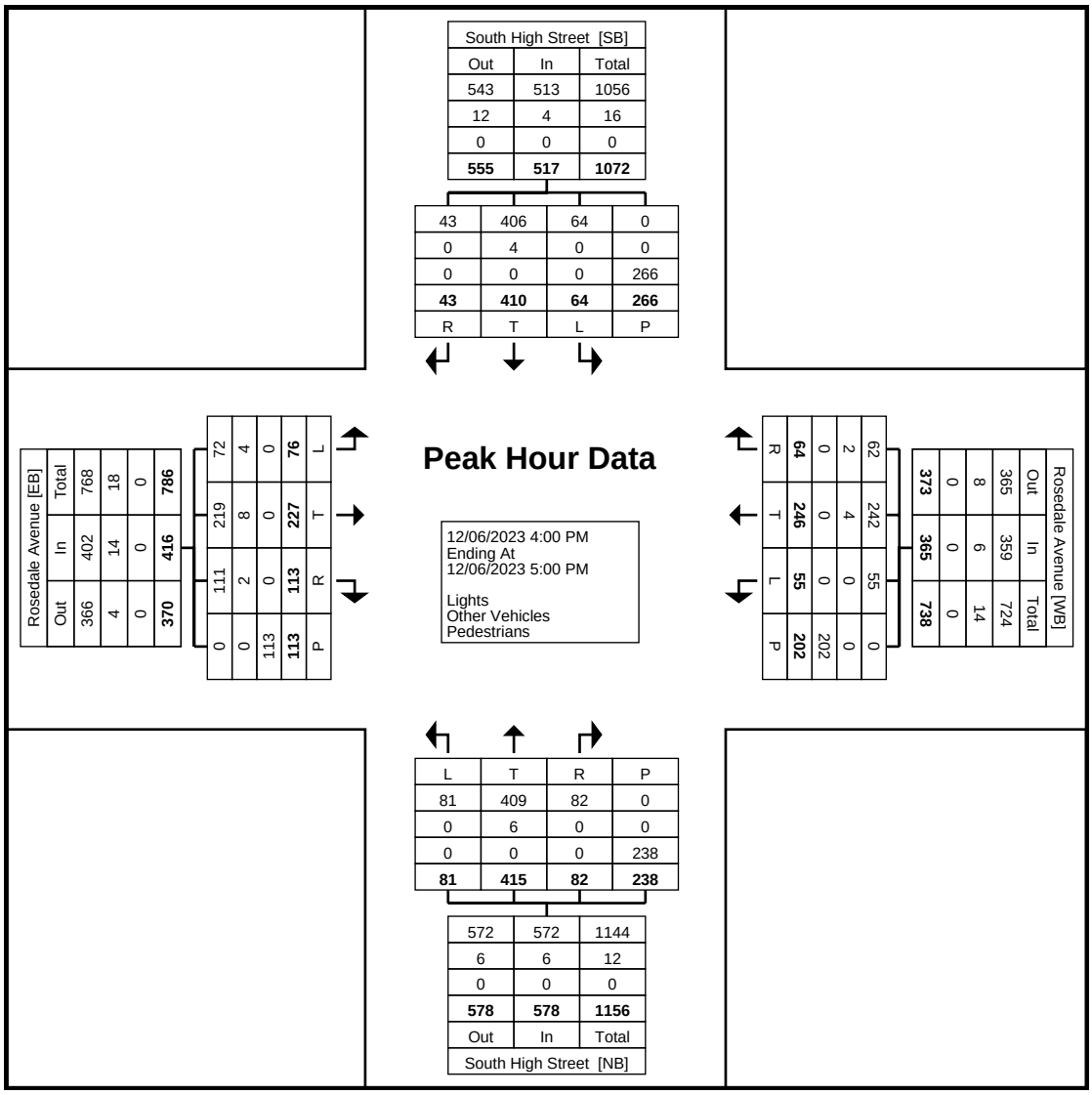

# Turning Movement Peak Hour Data (4:00 PM)

| Start Time | Rosedale Avenue Eastbound | | | | | | Rosedale Avenue Westbound | | | | | | South High Street Northbound | | | | | | South High Street Southbound | | | | | | Int. Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Left | Thru | Right | Right on Red | Peds | App. Total | Left | Thru | Right | Right on Red | Peds | App. Total | Left | Thru | Right | Right on Red | Peds | App. Total | Left | Thru | Right | Right on Red | Peds | App. Total | |
| 4:00 PM | 15 | 53 | 19 | 0 | 34 | 87 | 17 | 50 | 17 | 0 | 98 | 84 | 16 | 107 | 25 | 1 | 95 | 149 | 17 | 101 | 6 | 0 | 111 | 124 | 444 |
| 4:15 PM | 18 | 65 | 27 | 0 | 33 | 110 | 12 | 62 | 20 | 0 | 49 | 94 | 21 | 113 | 12 | 1 | 78 | 147 | 14 | 107 | 11 | 0 | 95 | 132 | 483 |
| 4:30 PM | 25 | 48 | 44 | 0 | 29 | 117 | 12 | 55 | 16 | 0 | 27 | 83 | 29 | 107 | 18 | 0 | 38 | 154 | 19 | 114 | 15 | 1 | 28 | 149 | 503 |
| 4:45 PM | 18 | 61 | 23 | 0 | 17 | 102 | 14 | 79 | 11 | 0 | 28 | 104 | 15 | 88 | 25 | 0 | 27 | 128 | 14 | 88 | 10 | 0 | 32 | 112 | 446 |
| Total | 76 | 227 | 113 | 0 | 113 | 416 | 55 | 246 | 64 | 0 | 202 | 365 | 81 | 415 | 80 | 2 | 238 | 578 | 64 | 410 | 42 | 1 | 266 | 517 | 1876 |
| Approach % | 18.3 | 54.6 | 27.2 | 0.0 | - | - | 15.1 | 67.4 | 17.5 | 0.0 | - | - | 14.0 | 71.8 | 13.8 | 0.3 | - | - | 12.4 | 79.3 | 8.1 | 0.2 | - | - | - |
| Total % | 4.1 | 12.1 | 6.0 | 0.0 | - | 22.2 | 2.9 | 13.1 | 3.4 | 0.0 | - | 19.5 | 4.3 | 22.1 | 4.3 | 0.1 | - | 30.8 | 3.4 | 21.9 | 2.2 | 0.1 | - | 27.6 | - |
| PHF | 0.760 | 0.873 | 0.642 | 0.000 | - | 0.889 | 0.809 | 0.778 | 0.800 | 0.000 | - | 0.877 | 0.698 | 0.918 | 0.800 | 0.500 | - | 0.938 | 0.842 | 0.899 | 0.700 | 0.250 | - | 0.867 | 0.932 |
| Lights | 72 | 219 | 111 | 0 | - | 402 | 55 | 242 | 62 | 0 | - | 359 | 81 | 409 | 80 | 2 | - | 572 | 64 | 406 | 42 | 1 | - | 513 | 1846 |
| % Lights | 94.7 | 96.5 | 98.2 | - | - | 96.6 | 100.0 | 98.4 | 96.9 | - | - | 98.4 | 100.0 | 98.6 | 100.0 | 100.0 | - | 99.0 | 100.0 | 99.0 | 100.0 | 100.0 | - | 99.2 | 98.4 |
| Other Vehicles | 4 | 8 | 2 | 0 | - | 14 | 0 | 4 | 2 | 0 | - | 6 | 0 | 6 | 0 | 0 | - | 6 | 0 | 4 | 0 | 0 | - | 4 | 30 |
| % Other Vehicles | 5.3 | 3.5 | 1.8 | - | - | 3.4 | 0.0 | 1.6 | 3.1 | - | - | 1.6 | 0.0 | 1.4 | 0.0 | 0.0 | - | 1.0 | 0.0 | 1.0 | 0.0 | 0.0 | - | 0.8 | 1.6 |
| Pedestrians | - | - | - | - | 113 | - | - | - | - | - | 202 | - | - | - | - | - | 238 | - | - | - | - | - | 266 | - | - |
| % Pedestrians | - | - | - | - | 100.0 | - | - | - | - | - | 100.0 | - | - | - | - | - | 100.0 | - | - | - | - | - | 100.0 | - | - |

Traffic Planning and Design, Inc
2500 East High Street
Suite 650
Pottstown, Pennsylvania, United States 19464
610.326.3100

Counter: MIO:
Set up By JH::

Count Name: 11 South High Street & Rosedale Avenue
Site Code:
Start Date: 12/05/2023


Turning Movement Peak Hour Data Plot (4:00 PM)

Counter: MIO:
Set up By JH::

Traffic Planning and Design, Inc
2500 East High Street
Suite 650
Pottstown, Pennsylvania, United States 19464
610.326.3100

Count Name: 12 Matlack Street & Rosedale Avenue
Site Code:
Start Date: 12/06/2023
Page No: 1

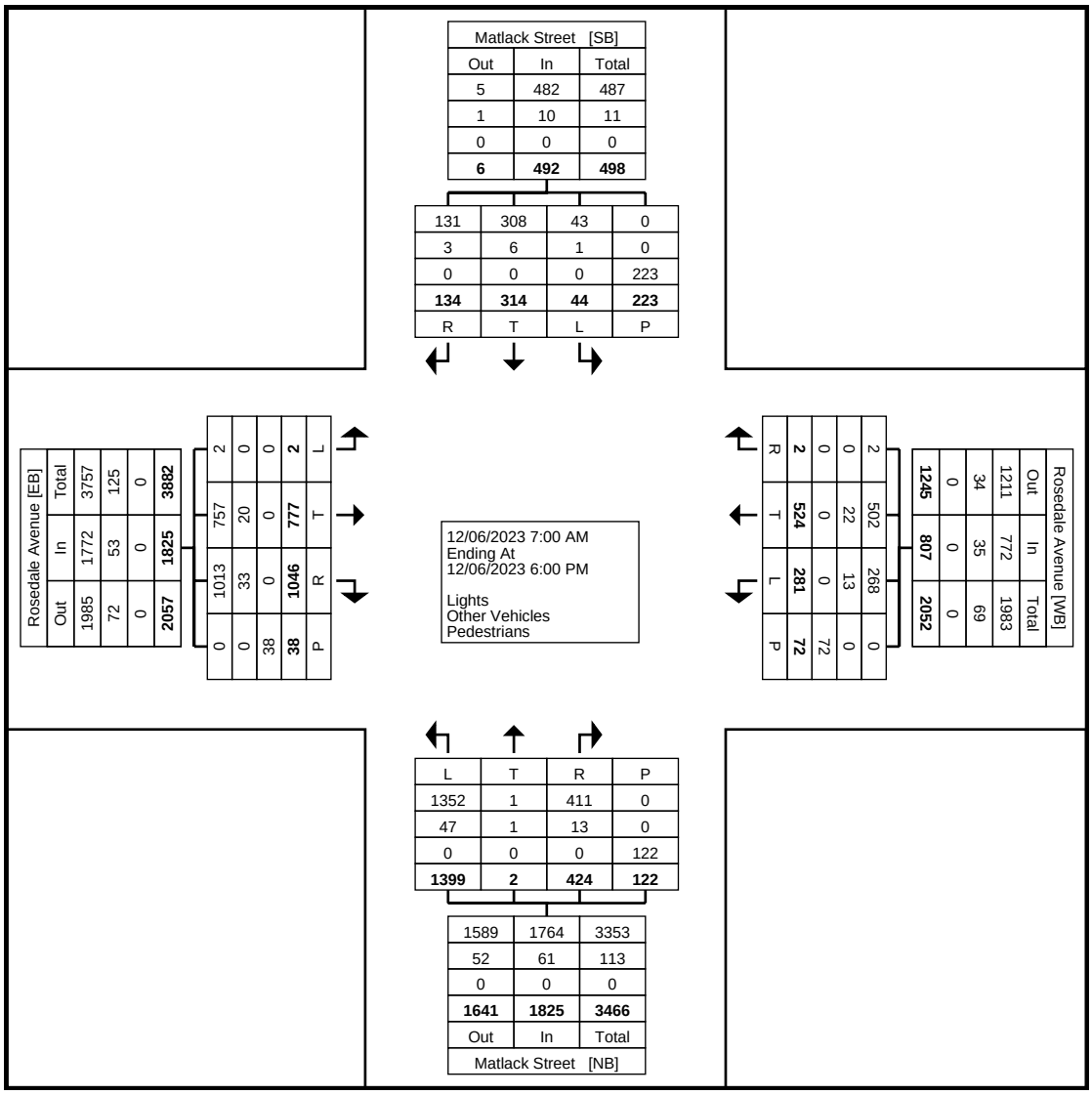
# Turning Movement Data

| Start Time | Rosedale Avenue Eastbound | | | | | Rosedale Avenue Westbound | | | | | Matlack Street Northbound | | | | | Matlack Street Southbound | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Left | Thru | Right | Peds | App. Total | Left | Thru | Right | Peds | App. Total | Left | Thru | Right | Peds | App. Total | Left | Thru | Right | Peds | App. Total | Int. Total |
| 7:00 AM | 0 | 38 | 57 | 0 | 95 | 0 | 8 | 0 | 0 | 8 | 24 | 0 | 13 | 0 | 37 | 1 | 8 | 4 | 1 | 13 | 153 |
| 7:15 AM | 0 | 43 | 56 | 0 | 99 | 7 | 13 | 0 | 0 | 20 | 40 | 0 | 6 | 0 | 46 | 2 | 9 | 4 | 0 | 15 | 180 |
| 7:30 AM | 0 | 34 | 55 | 2 | 89 | 8 | 14 | 0 | 3 | 22 | 66 | 0 | 10 | 7 | 76 | 1 | 12 | 1 | 10 | 14 | 201 |
| 7:45 AM | 0 | 35 | 61 | 3 | 96 | 15 | 20 | 0 | 4 | 35 | 66 | 0 | 11 | 22 | 77 | 0 | 13 | 5 | 11 | 18 | 226 |
| Hourly Total | 0 | 150 | 229 | 5 | 379 | 30 | 55 | 0 | 7 | 85 | 196 | 0 | 40 | 29 | 236 | 4 | 42 | 14 | 22 | 60 | 760 |
| 8:00 AM | 0 | 34 | 64 | 2 | 98 | 12 | 17 | 0 | 1 | 29 | 70 | 0 | 12 | 3 | 82 | 2 | 16 | 5 | 3 | 23 | 232 |
| 8:15 AM | 0 | 46 | 60 | 1 | 106 | 14 | 12 | 0 | 2 | 26 | 48 | 0 | 8 | 3 | 56 | 1 | 13 | 2 | 2 | 16 | 204 |
| 8:30 AM | 0 | 27 | 77 | 4 | 104 | 12 | 9 | 0 | 1 | 21 | 63 | 0 | 16 | 1 | 79 | 3 | 14 | 5 | 9 | 22 | 226 |
| 8:45 AM | 0 | 40 | 56 | 2 | 96 | 9 | 7 | 0 | 2 | 16 | 65 | 0 | 18 | 27 | 83 | 2 | 10 | 2 | 19 | 14 | 209 |
| Hourly Total | 0 | 147 | 257 | 9 | 404 | 47 | 45 | 0 | 6 | 92 | 246 | 0 | 54 | 34 | 300 | 8 | 53 | 14 | 33 | 75 | 871 |
| 9:00 AM | 0 | 27 | 59 | 4 | 86 | 9 | 16 | 0 | 6 | 25 | 51 | 0 | 18 | 2 | 69 | 1 | 13 | 2 | 8 | 16 | 196 |
| 9:15 AM | 1 | 19 | 41 | 2 | 61 | 12 | 14 | 0 | 5 | 26 | 28 | 0 | 13 | 5 | 41 | 0 | 13 | 1 | 10 | 14 | 142 |
| 9:30 AM | 0 | 25 | 26 | 1 | 51 | 8 | 9 | 0 | 0 | 17 | 65 | 0 | 13 | 2 | 78 | 0 | 8 | 3 | 13 | 11 | 157 |
| 9:45 AM | 0 | 26 | 25 | 1 | 51 | 5 | 12 | 0 | 7 | 17 | 54 | 0 | 11 | 7 | 65 | 0 | 15 | 4 | 36 | 19 | 152 |
| Hourly Total | 1 | 97 | 151 | 8 | 249 | 34 | 51 | 0 | 18 | 85 | 198 | 0 | 55 | 16 | 253 | 1 | 49 | 10 | 67 | 60 | 647 |
| *** BREAK *** | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 3:00 PM | 0 | 36 | 36 | 2 | 72 | 16 | 20 | 0 | 3 | 36 | 63 | 1 | 28 | 10 | 92 | 3 | 17 | 8 | 6 | 28 | 228 |
| 3:15 PM | 0 | 29 | 31 | 1 | 60 | 14 | 23 | 0 | 3 | 37 | 57 | 0 | 21 | 3 | 78 | 2 | 15 | 10 | 9 | 27 | 202 |
| 3:30 PM | 0 | 23 | 31 | 0 | 54 | 23 | 33 | 0 | 2 | 56 | 73 | 0 | 16 | 5 | 89 | 2 | 11 | 6 | 4 | 19 | 218 |
| 3:45 PM | 0 | 26 | 26 | 1 | 52 | 13 | 24 | 0 | 4 | 37 | 57 | 0 | 21 | 4 | 78 | 2 | 15 | 10 | 6 | 27 | 194 |
| Hourly Total | 0 | 114 | 124 | 4 | 238 | 66 | 100 | 0 | 12 | 166 | 250 | 1 | 86 | 22 | 337 | 9 | 58 | 34 | 25 | 101 | 842 |
| 4:00 PM | 0 | 34 | 41 | 3 | 75 | 10 | 32 | 0 | 9 | 42 | 71 | 1 | 30 | 9 | 102 | 4 | 11 | 8 | 26 | 23 | 242 |
| 4:15 PM | 0 | 36 | 34 | 0 | 70 | 19 | 38 | 0 | 8 | 57 | 63 | 0 | 26 | 3 | 89 | 4 | 12 | 7 | 15 | 23 | 239 |
| 4:30 PM | 0 | 30 | 38 | 1 | 68 | 11 | 31 | 0 | 1 | 42 | 61 | 0 | 34 | 4 | 95 | 3 | 19 | 6 | 5 | 28 | 233 |
| 4:45 PM | 0 | 39 | 41 | 5 | 80 | 15 | 43 | 0 | 0 | 58 | 72 | 0 | 19 | 3 | 91 | 1 | 21 | 9 | 3 | 31 | 260 |
| Hourly Total | 0 | 139 | 154 | 9 | 293 | 55 | 144 | 0 | 18 | 199 | 267 | 1 | 109 | 19 | 377 | 12 | 63 | 30 | 49 | 105 | 974 |
| 5:00 PM | 1 | 35 | 38 | 3 | 74 | 13 | 46 | 0 | 0 | 59 | 66 | 0 | 27 | 0 | 93 | 3 | 12 | 2 | 6 | 17 | 243 |
| 5:15 PM | 0 | 30 | 28 | 0 | 58 | 11 | 29 | 1 | 4 | 41 | 60 | 0 | 21 | 1 | 81 | 2 | 13 | 8 | 8 | 23 | 203 |
| 5:30 PM | 0 | 36 | 23 | 0 | 59 | 12 | 23 | 0 | 5 | 35 | 47 | 0 | 10 | 0 | 57 | 1 | 14 | 12 | 9 | 27 | 178 |
| 5:45 PM | 0 | 29 | 42 | 0 | 71 | 13 | 31 | 1 | 2 | 45 | 69 | 0 | 22 | 1 | 91 | 4 | 10 | 10 | 4 | 24 | 231 |
| Hourly Total | 1 | 130 | 131 | 3 | 262 | 49 | 129 | 2 | 11 | 180 | 242 | 0 | 80 | 2 | 322 | 10 | 49 | 32 | 27 | 91 | 855 |
| Grand Total | 2 | 777 | 1046 | 38 | 1825 | 281 | 524 | 2 | 72 | 807 | 1399 | 2 | 424 | 122 | 1825 | 44 | 314 | 134 | 223 | 492 | 4949 |
| Approach % | 0.1 | 42.6 | 57.3 | - | - | 34.8 | 64.9 | 0.2 | - | - | 76.7 | 0.1 | 23.2 | - | - | 8.9 | 63.8 | 27.2 | - | - | - |
| Total % | 0.0 | 15.7 | 21.1 | - | 36.9 | 5.7 | 10.6 | 0.0 | - | 16.3 | 28.3 | 0.0 | 8.6 | - | 36.9 | 0.9 | 6.3 | 2.7 | - | 9.9 | - |
| Lights | 2 | 757 | 1013 | - | 1772 | 268 | 502 | 2 | - | 772 | 1352 | 1 | 411 | - | 1764 | 43 | 308 | 131 | - | 482 | 4790 |
| % Lights | 100.0 | 97.4 | 96.8 | - | 97.1 | 95.4 | 95.8 | 100.0 | - | 95.7 | 96.6 | 50.0 | 96.9 | - | 96.7 | 97.7 | 98.1 | 97.8 | - | 98.0 | 96.8 |
| Other Vehicles | 0 | 20 | 33 | - | 53 | 13 | 22 | 0 | - | 35 | 47 | 1 | 13 | - | 61 | 1 | 6 | 3 | - | 10 | 159 |
| % Other Vehicles | 0.0 | 2.6 | 3.2 | - | 2.9 | 4.6 | 4.2 | 0.0 | - | 4.3 | 3.4 | 50.0 | 3.1 | - | 3.3 | 2.3 | 1.9 | 2.2 | - | 2.0 | 3.2 |
| Pedestrians | - | - | - | 38 | - | - | - | - | 72 | - | - | - | - | 122 | - | - | - | - | 223 | - | - |
| % Pedestrians | - | - | - | 100.0 | - | - | - | - | 100.0 | - | - | - | - | 100.0 | - | - | - | - | 100.0 | - | - |

Traffic Planning and Design, Inc
2500 East High Street
Suite 650
Pottstown, Pennsylvania, United States 19464
610.326.3100

Counter: MIO:
Set up By JH::

Count Name: 12 Matlack Street & Rosedale Avenue
Site Code:
Start Date: 12/06/2023


Turning Movement Data Plot

Traffic Planning and Design, Inc
2500 East High Street
Suite 650
Pottstown, Pennsylvania, United States 19464
610.326.3100

Counter: MIO:
Set up By JH::

Count Name: 12 Matlack Street & Rosedale Avenue
Site Code:
Start Date: 12/06/2023

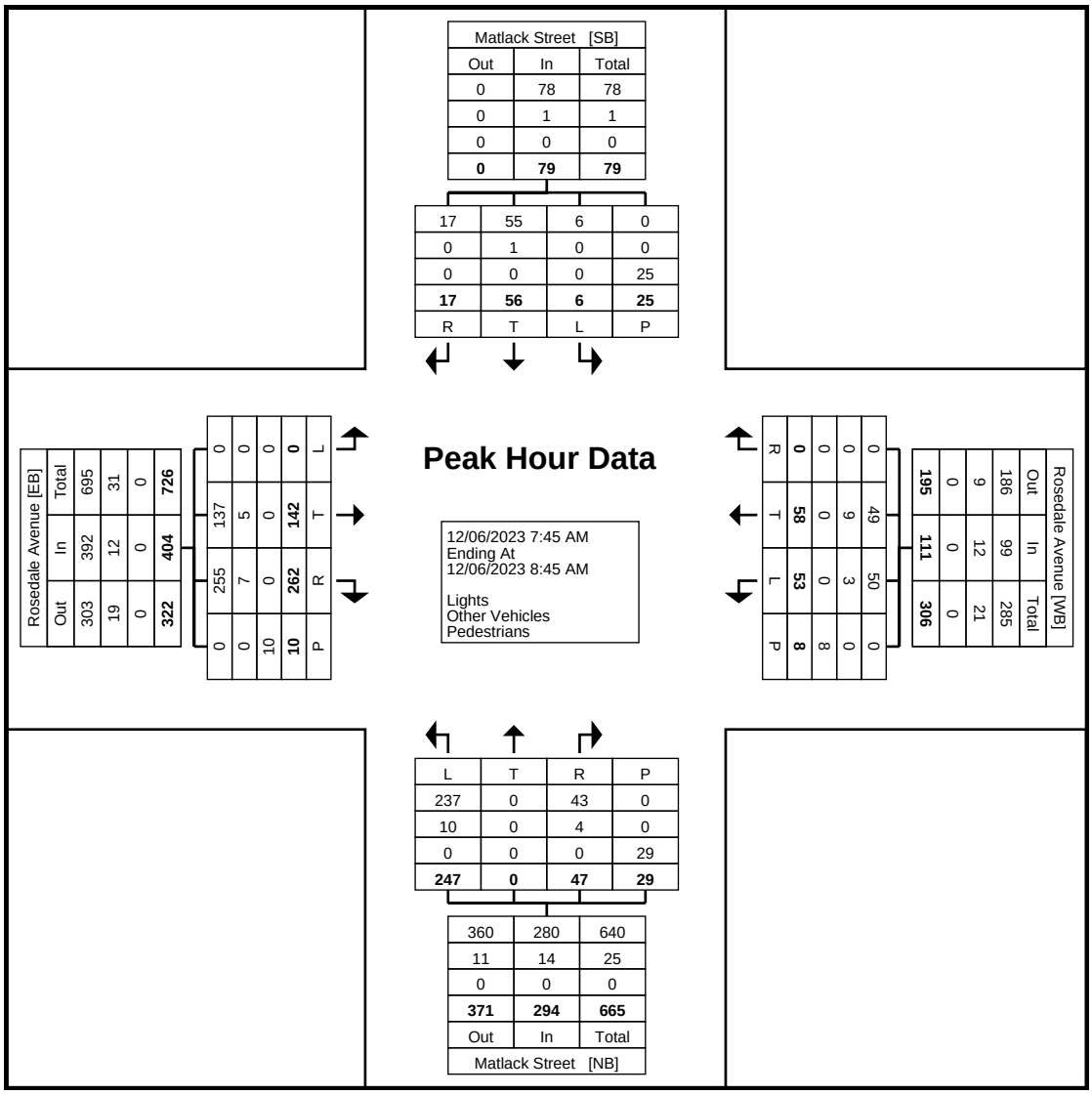

# Turning Movement Peak Hour Data (7:45 AM)

| Start Time | Rosedale Avenue Eastbound | | | | | Rosedale Avenue Westbound | | | | | Matlack Street Northbound | | | | | Matlack Street Southbound | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Left | Thru | Right | Peds | App. Total | Left | Thru | Right | Peds | App. Total | Left | Thru | Right | Peds | App. Total | Left | Thru | Right | Peds | App. Total | Int. Total |
| 7:45 AM | 0 | 35 | 61 | 3 | 96 | 15 | 20 | 0 | 4 | 35 | 66 | 0 | 11 | 22 | 77 | 0 | 13 | 5 | 11 | 18 | 226 |
| 8:00 AM | 0 | 34 | 64 | 2 | 98 | 12 | 17 | 0 | 1 | 29 | 70 | 0 | 12 | 3 | 82 | 2 | 16 | 5 | 3 | 23 | 232 |
| 8:15 AM | 0 | 46 | 60 | 1 | 106 | 14 | 12 | 0 | 2 | 26 | 48 | 0 | 8 | 3 | 56 | 1 | 13 | 2 | 2 | 16 | 204 |
| 8:30 AM | 0 | 27 | 77 | 4 | 104 | 12 | 9 | 0 | 1 | 21 | 63 | 0 | 16 | 1 | 79 | 3 | 14 | 5 | 9 | 22 | 226 |
| Total | 0 | 142 | 262 | 10 | 404 | 53 | 58 | 0 | 8 | 111 | 247 | 0 | 47 | 29 | 294 | 6 | 56 | 17 | 25 | 79 | 888 |
| Approach % | 0.0 | 35.1 | 64.9 | - | - | 47.7 | 52.3 | 0.0 | - | - | 84.0 | 0.0 | 16.0 | - | - | 7.6 | 70.9 | 21.5 | - | - | - |
| Total % | 0.0 | 16.0 | 29.5 | - | 45.5 | 6.0 | 6.5 | 0.0 | - | 12.5 | 27.8 | 0.0 | 5.3 | - | 33.1 | 0.7 | 6.3 | 1.9 | - | 8.9 | - |
| PHF | 0.000 | 0.772 | 0.851 | - | 0.953 | 0.883 | 0.725 | 0.000 | - | 0.793 | 0.882 | 0.000 | 0.734 | - | 0.896 | 0.500 | 0.875 | 0.850 | - | 0.859 | 0.957 |
| Lights | 0 | 137 | 255 | - | 392 | 50 | 49 | 0 | - | 99 | 237 | 0 | 43 | - | 280 | 6 | 55 | 17 | - | 78 | 849 |
| % Lights | - | 96.5 | 97.3 | - | 97.0 | 94.3 | 84.5 | - | - | 89.2 | 96.0 | - | 91.5 | - | 95.2 | 100.0 | 98.2 | 100.0 | - | 98.7 | 95.6 |
| Other Vehicles | 0 | 5 | 7 | - | 12 | 3 | 9 | 0 | - | 12 | 10 | 0 | 4 | - | 14 | 0 | 1 | 0 | - | 1 | 39 |
| % Other Vehicles | - | 3.5 | 2.7 | - | 3.0 | 5.7 | 15.5 | - | - | 10.8 | 4.0 | - | 8.5 | - | 4.8 | 0.0 | 1.8 | 0.0 | - | 1.3 | 4.4 |
| Pedestrians | - | - | - | 10 | - | - | - | - | 8 | - | - | - | - | 29 | - | - | - | - | 25 | - | - |
| % Pedestrians | - | - | - | 100.0 | - | - | - | - | 100.0 | - | - | - | - | 100.0 | - | - | - | - | 100.0 | - | - |

Traffic Planning and Design, Inc
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610.326.3100

Counter: MIO:
Set up By JH::

Count Name: 12 Matlack Street & Rosedale Avenue
Site Code:
Start Date: 12/06/2023


Turning Movement Peak Hour Data Plot (7:45 AM)

Traffic Planning and Design, Inc
2500 East High Street
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Pottstown, Pennsylvania, United States 19464
610.326.3100

Counter: MIO:
Set up By JH::

Count Name: 12 Matlack Street & Rosedale Avenue
Site Code:
Start Date: 12/06/2023

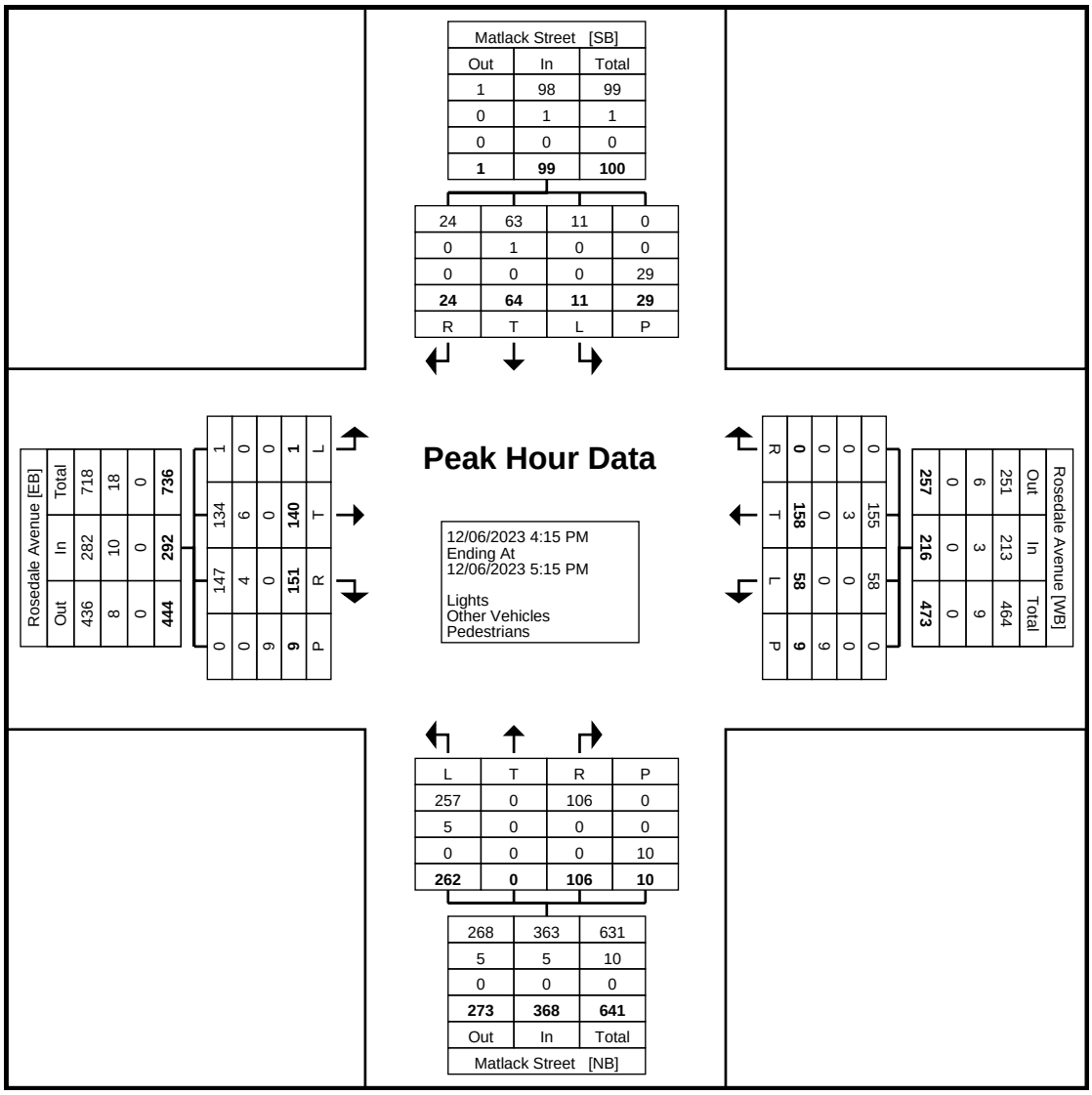

# Turning Movement Peak Hour Data (4:15 PM)

| Start Time | Rosedale Avenue Eastbound | | | | | Rosedale Avenue Westbound | | | | | Matlack Street Northbound | | | | | Matlack Street Southbound | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Left | Thru | Right | Peds | App. Total | Left | Thru | Right | Peds | App. Total | Left | Thru | Right | Peds | App. Total | Left | Thru | Right | Peds | App. Total | Int. Total |
| 4:15 PM | 0 | 36 | 34 | 0 | 70 | 19 | 38 | 0 | 8 | 57 | 63 | 0 | 26 | 3 | 89 | 4 | 12 | 7 | 15 | 23 | 239 |
| 4:30 PM | 0 | 30 | 38 | 1 | 68 | 11 | 31 | 0 | 1 | 42 | 61 | 0 | 34 | 4 | 95 | 3 | 19 | 6 | 5 | 28 | 233 |
| 4:45 PM | 0 | 39 | 41 | 5 | 80 | 15 | 43 | 0 | 0 | 58 | 72 | 0 | 19 | 3 | 91 | 1 | 21 | 9 | 3 | 31 | 260 |
| 5:00 PM | 1 | 35 | 38 | 3 | 74 | 13 | 46 | 0 | 0 | 59 | 66 | 0 | 27 | 0 | 93 | 3 | 12 | 2 | 6 | 17 | 243 |
| Total | 1 | 140 | 151 | 9 | 292 | 58 | 158 | 0 | 9 | 216 | 262 | 0 | 106 | 10 | 368 | 11 | 64 | 24 | 29 | 99 | 975 |
| Approach % | 0.3 | 47.9 | 51.7 | - | - | 26.9 | 73.1 | 0.0 | - | - | 71.2 | 0.0 | 28.8 | - | - | 11.1 | 64.6 | 24.2 | - | - | - |
| Total % | 0.1 | 14.4 | 15.5 | - | 29.9 | 5.9 | 16.2 | 0.0 | - | 22.2 | 26.9 | 0.0 | 10.9 | - | 37.7 | 1.1 | 6.6 | 2.5 | - | 10.2 | - |
| PHF | 0.250 | 0.897 | 0.921 | - | 0.913 | 0.763 | 0.859 | 0.000 | - | 0.915 | 0.910 | 0.000 | 0.779 | - | 0.968 | 0.688 | 0.762 | 0.667 | - | 0.798 | 0.938 |
| Lights | 1 | 134 | 147 | - | 282 | 58 | 155 | 0 | - | 213 | 257 | 0 | 106 | - | 363 | 11 | 63 | 24 | - | 98 | 956 |
| % Lights | 100.0 | 95.7 | 97.4 | - | 96.6 | 100.0 | 98.1 | - | - | 98.6 | 98.1 | - | 100.0 | - | 98.6 | 100.0 | 98.4 | 100.0 | - | 99.0 | 98.1 |
| Other Vehicles | 0 | 6 | 4 | - | 10 | 0 | 3 | 0 | - | 3 | 5 | 0 | 0 | - | 5 | 0 | 1 | 0 | - | 1 | 19 |
| % Other Vehicles | 0.0 | 4.3 | 2.6 | - | 3.4 | 0.0 | 1.9 | - | - | 1.4 | 1.9 | - | 0.0 | - | 1.4 | 0.0 | 1.6 | 0.0 | - | 1.0 | 1.9 |
| Pedestrians | - | - | - | 9 | - | - | - | - | 9 | - | - | - | - | 10 | - | - | - | - | 29 | - | - |
| % Pedestrians | - | - | - | 100.0 | - | - | - | - | 100.0 | - | - | - | - | 100.0 | - | - | - | - | 100.0 | - | - |

Traffic Planning and Design, Inc
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Counter: MIO:
Set up By JH::

Count Name: 12 Matlack Street & Rosedale Avenue
Site Code:
Start Date: 12/06/2023


Turning Movement Peak Hour Data Plot (4:15 PM)

Traffic Planning and Design, Inc
2500 East High Street
Suite 650
Pottstown, Pennsylvania, United States 19464
610.326.3100

Counter: MIO:
Set up By JH::

Count Name: 13 Matlack Street & Carter Drive
Site Code:
Start Date: 12/06/2023

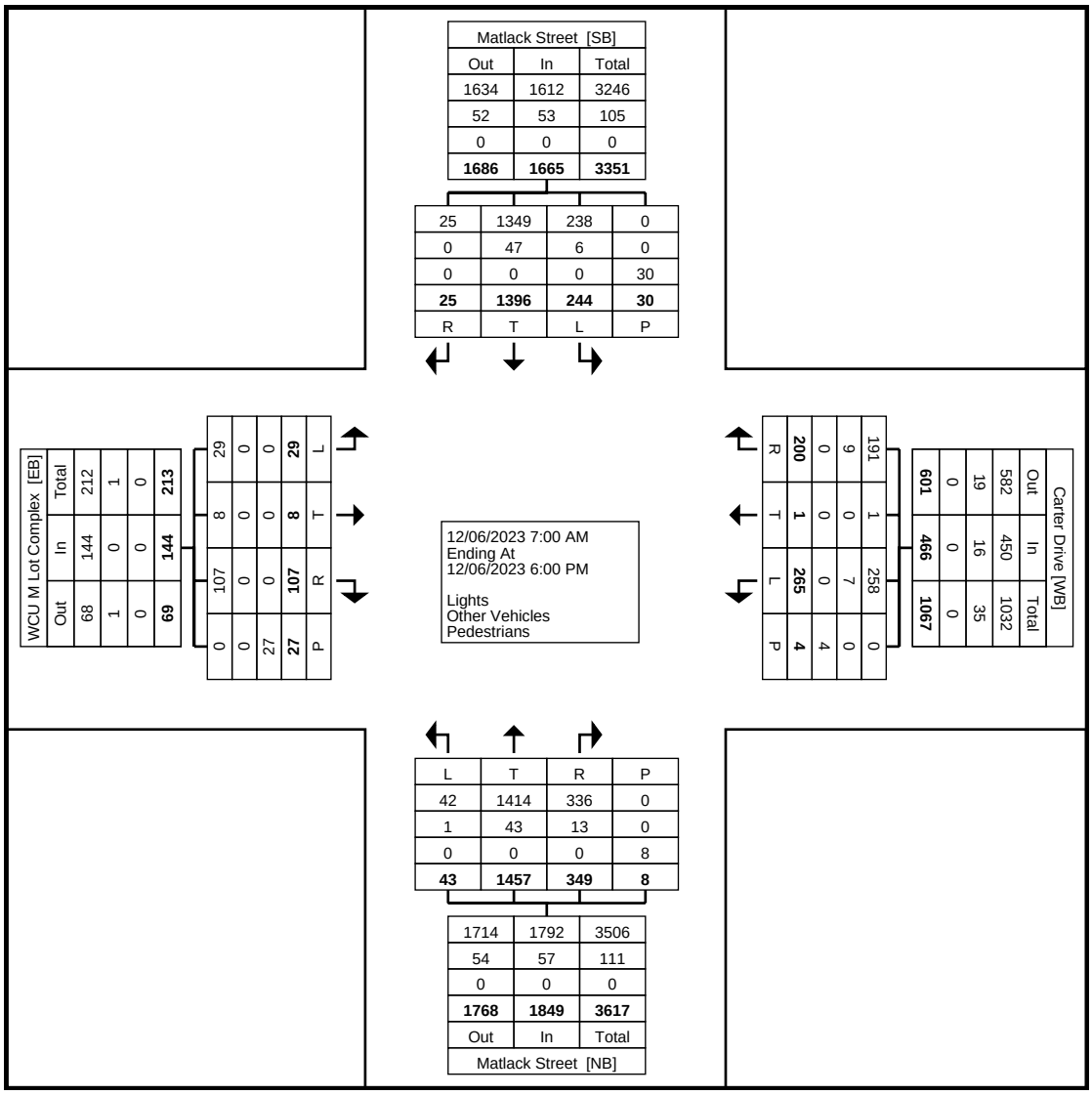

# Turning Movement Data

| Start Time | WCU M Lot Complex Eastbound | | | | | Carter Drive Westbound | | | | | Matlack Street Northbound | | | | | Matlack Street Southbound | | | | | Int. Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Left | Thru | Right | Peds | App. Total | Left | Thru | Right | Peds | App. Total | Left | Thru | Right | Peds | App. Total | Left | Thru | Right | Peds | App. Total | |
| 7:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 2 | 0 | 6 | 7 | 0 | 13 | 4 | 14 | 0 | 0 | 18 | 33 |
| 7:15 AM | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 4 | 0 | 5 | 0 | 12 | 2 | 0 | 14 | 3 | 20 | 0 | 0 | 23 | 42 |
| 7:30 AM | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 2 | 2 | 20 | 9 | 0 | 31 | 5 | 31 | 0 | 0 | 36 | 69 |
| 7:45 AM | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 6 | 0 | 8 | 0 | 18 | 14 | 0 | 32 | 6 | 46 | 0 | 0 | 52 | 92 |
| Hourly Total | 0 | 0 | 0 | 0 | 0 | 4 | 0 | 13 | 0 | 17 | 2 | 56 | 32 | 0 | 90 | 18 | 111 | 0 | 0 | 129 | 236 |
| 8:00 AM | 0 | 0 | 0 | 0 | 0 | 5 | 0 | 2 | 0 | 7 | 0 | 38 | 8 | 0 | 46 | 4 | 61 | 0 | 0 | 65 | 118 |
| 8:15 AM | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 6 | 0 | 7 | 0 | 52 | 13 | 0 | 65 | 15 | 59 | 1 | 0 | 75 | 147 |
| 8:30 AM | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 9 | 0 | 12 | 1 | 77 | 18 | 0 | 96 | 8 | 68 | 0 | 0 | 76 | 184 |
| 8:45 AM | 1 | 1 | 0 | 3 | 2 | 18 | 0 | 7 | 0 | 25 | 2 | 94 | 36 | 1 | 132 | 25 | 66 | 3 | 0 | 94 | 253 |
| Hourly Total | 1 | 1 | 0 | 3 | 2 | 27 | 0 | 24 | 0 | 51 | 3 | 261 | 75 | 1 | 339 | 52 | 254 | 4 | 0 | 310 | 702 |
| 9:00 AM | 0 | 0 | 0 | 1 | 0 | 16 | 0 | 14 | 0 | 30 | 3 | 88 | 44 | 0 | 135 | 25 | 71 | 1 | 2 | 97 | 262 |
| 9:15 AM | 0 | 0 | 0 | 2 | 0 | 11 | 0 | 8 | 0 | 19 | 0 | 64 | 20 | 0 | 84 | 19 | 65 | 1 | 1 | 85 | 188 |
| 9:30 AM | 0 | 0 | 1 | 0 | 1 | 6 | 0 | 8 | 0 | 14 | 6 | 108 | 10 | 0 | 124 | 10 | 85 | 0 | 1 | 95 | 234 |
| 9:45 AM | 0 | 0 | 0 | 2 | 0 | 5 | 0 | 11 | 0 | 16 | 7 | 109 | 15 | 1 | 131 | 7 | 66 | 3 | 2 | 76 | 223 |
| Hourly Total | 0 | 0 | 1 | 5 | 1 | 38 | 0 | 41 | 0 | 79 | 16 | 369 | 89 | 1 | 474 | 61 | 287 | 5 | 6 | 353 | 907 |
| *** BREAK *** | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 3:00 PM | 4 | 0 | 18 | 3 | 22 | 10 | 0 | 2 | 0 | 12 | 3 | 47 | 12 | 0 | 62 | 7 | 60 | 0 | 5 | 67 | 163 |
| 3:15 PM | 2 | 0 | 13 | 0 | 15 | 8 | 0 | 8 | 0 | 16 | 2 | 65 | 13 | 0 | 80 | 6 | 64 | 1 | 1 | 71 | 182 |
| 3:30 PM | 1 | 0 | 7 | 0 | 8 | 10 | 0 | 6 | 0 | 16 | 3 | 68 | 29 | 0 | 100 | 12 | 57 | 1 | 0 | 70 | 194 |
| 3:45 PM | 0 | 1 | 10 | 1 | 11 | 32 | 0 | 10 | 0 | 42 | 3 | 62 | 14 | 0 | 79 | 6 | 62 | 1 | 1 | 69 | 201 |
| Hourly Total | 7 | 1 | 48 | 4 | 56 | 60 | 0 | 26 | 0 | 86 | 11 | 242 | 68 | 0 | 321 | 31 | 243 | 3 | 7 | 277 | 740 |
| 4:00 PM | 4 | 0 | 14 | 1 | 18 | 20 | 0 | 14 | 1 | 34 | 4 | 53 | 7 | 0 | 64 | 8 | 70 | 1 | 3 | 79 | 195 |
| 4:15 PM | 2 | 1 | 8 | 4 | 11 | 9 | 0 | 9 | 0 | 18 | 0 | 66 | 5 | 2 | 71 | 9 | 49 | 2 | 2 | 60 | 160 |
| 4:30 PM | 1 | 0 | 5 | 1 | 6 | 16 | 0 | 6 | 0 | 22 | 0 | 69 | 8 | 1 | 77 | 10 | 62 | 1 | 0 | 73 | 178 |
| 4:45 PM | 0 | 1 | 4 | 2 | 5 | 17 | 0 | 6 | 0 | 23 | 2 | 69 | 7 | 0 | 78 | 7 | 49 | 4 | 4 | 60 | 166 |
| Hourly Total | 7 | 2 | 31 | 8 | 40 | 62 | 0 | 35 | 1 | 97 | 6 | 257 | 27 | 3 | 290 | 34 | 230 | 8 | 9 | 272 | 699 |
| 5:00 PM | 5 | 1 | 7 | 1 | 13 | 20 | 0 | 16 | 2 | 36 | 4 | 73 | 8 | 0 | 85 | 15 | 69 | 1 | 2 | 85 | 219 |
| 5:15 PM | 3 | 1 | 13 | 3 | 17 | 14 | 0 | 11 | 0 | 25 | 1 | 68 | 17 | 2 | 86 | 9 | 75 | 0 | 2 | 84 | 212 |
| 5:30 PM | 3 | 2 | 4 | 1 | 9 | 22 | 0 | 21 | 0 | 43 | 0 | 67 | 19 | 0 | 86 | 14 | 65 | 2 | 0 | 81 | 219 |
| 5:45 PM | 3 | 0 | 3 | 2 | 6 | 18 | 1 | 13 | 1 | 32 | 0 | 64 | 14 | 1 | 78 | 10 | 62 | 2 | 4 | 74 | 190 |
| Hourly Total | 14 | 4 | 27 | 7 | 45 | 74 | 1 | 61 | 3 | 136 | 5 | 272 | 58 | 3 | 335 | 48 | 271 | 5 | 8 | 324 | 840 |
| Grand Total | 29 | 8 | 107 | 27 | 144 | 265 | 1 | 200 | 4 | 466 | 43 | 1457 | 349 | 8 | 1849 | 244 | 1396 | 25 | 30 | 1665 | 4124 |
| Approach % | 20.1 | 5.6 | 74.3 | - | - | 56.9 | 0.2 | 42.9 | - | - | 2.3 | 78.8 | 18.9 | - | - | 14.7 | 83.8 | 1.5 | - | - | - |
| Total % | 0.7 | 0.2 | 2.6 | - | 3.5 | 6.4 | 0.0 | 4.8 | - | 11.3 | 1.0 | 35.3 | 8.5 | - | 44.8 | 5.9 | 33.9 | 0.6 | - | 40.4 | - |
| Lights | 29 | 8 | 107 | - | 144 | 258 | 1 | 191 | - | 450 | 42 | 1414 | 336 | - | 1792 | 238 | 1349 | 25 | - | 1612 | 3998 |
| % Lights | 100.0 | 100.0 | 100.0 | - | 100.0 | 97.4 | 100.0 | 95.5 | - | 96.6 | 97.7 | 97.0 | 96.3 | - | 96.9 | 97.5 | 96.6 | 100.0 | - | 96.8 | 96.9 |
| Other Vehicles | 0 | 0 | 0 | - | 0 | 7 | 0 | 9 | - | 16 | 1 | 43 | 13 | - | 57 | 6 | 47 | 0 | - | 53 | 126 |
| % Other Vehicles | 0.0 | 0.0 | 0.0 | - | 0.0 | 2.6 | 0.0 | 4.5 | - | 3.4 | 2.3 | 3.0 | 3.7 | - | 3.1 | 2.5 | 3.4 | 0.0 | - | 3.2 | 3.1 |
| Pedestrians | - | - | - | 27 | - | - | - | - | 4 | - | - | - | - | 8 | - | - | - | - | 30 | - | - |
| % Pedestrians | - | - | - | 100.0 | - | - | - | - | 100.0 | - | - | - | - | 100.0 | - | - | - | - | 100.0 | - | - |

Traffic Planning and Design, Inc
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610.326.3100

Counter: MIO:
Set up By JH::

Count Name: 13 Matlack Street & Carter Drive
Site Code:
Start Date: 12/06/2023


Turning Movement Data Plot

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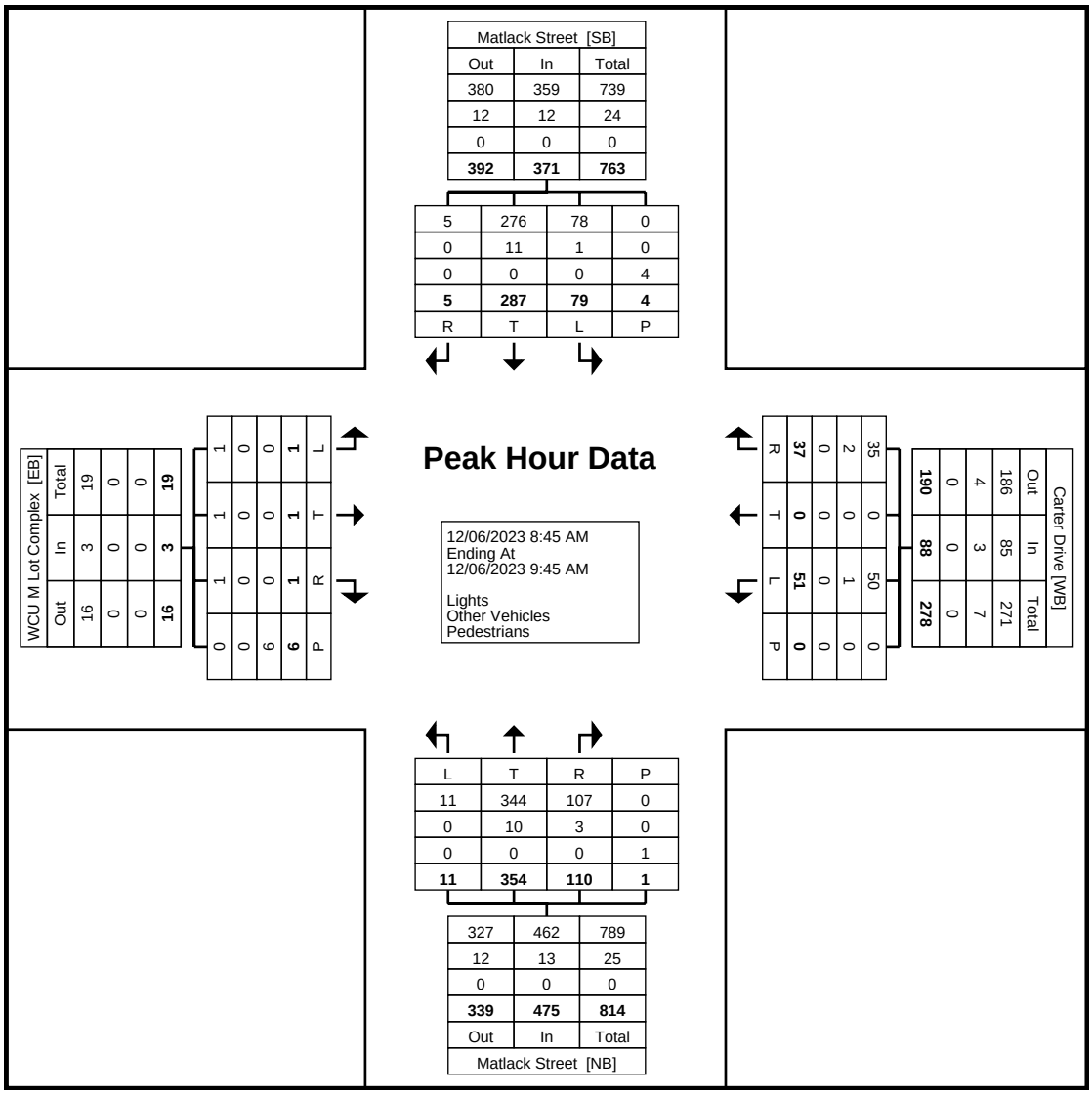

# Turning Movement Peak Hour Data (8:45 AM)

| Start Time | WCU M Lot Complex Eastbound | | | | | Carter Drive Westbound | | | | | Matlack Street Northbound | | | | | Matlack Street Southbound | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Left | Thru | Right | Peds | App. Total | Left | Thru | Right | Peds | App. Total | Left | Thru | Right | Peds | App. Total | Left | Thru | Right | Peds | App. Total | Int. Total |
| 8:45 AM | 1 | 1 | 0 | 3 | 2 | 18 | 0 | 7 | 0 | 25 | 2 | 94 | 36 | 1 | 132 | 25 | 66 | 3 | 0 | 94 | 253 |
| 9:00 AM | 0 | 0 | 0 | 1 | 0 | 16 | 0 | 14 | 0 | 30 | 3 | 88 | 44 | 0 | 135 | 25 | 71 | 1 | 2 | 97 | 262 |
| 9:15 AM | 0 | 0 | 0 | 2 | 0 | 11 | 0 | 8 | 0 | 19 | 0 | 64 | 20 | 0 | 84 | 19 | 65 | 1 | 1 | 85 | 188 |
| 9:30 AM | 0 | 0 | 1 | 0 | 1 | 6 | 0 | 8 | 0 | 14 | 6 | 108 | 10 | 0 | 124 | 10 | 85 | 0 | 1 | 95 | 234 |
| Total | 1 | 1 | 1 | 6 | 3 | 51 | 0 | 37 | 0 | 88 | 11 | 354 | 110 | 1 | 475 | 79 | 287 | 5 | 4 | 371 | 937 |
| Approach % | 33.3 | 33.3 | 33.3 | - | - | 58.0 | 0.0 | 42.0 | - | - | 2.3 | 74.5 | 23.2 | - | - | 21.3 | 77.4 | 1.3 | - | - | - |
| Total % | 0.1 | 0.1 | 0.1 | - | 0.3 | 5.4 | 0.0 | 3.9 | - | 9.4 | 1.2 | 37.8 | 11.7 | - | 50.7 | 8.4 | 30.6 | 0.5 | - | 39.6 | - |
| PHF | 0.250 | 0.250 | 0.250 | - | 0.375 | 0.708 | 0.000 | 0.661 | - | 0.733 | 0.458 | 0.819 | 0.625 | - | 0.880 | 0.790 | 0.844 | 0.417 | - | 0.956 | 0.894 |
| Lights | 1 | 1 | 1 | - | 3 | 50 | 0 | 35 | - | 85 | 11 | 344 | 107 | - | 462 | 78 | 276 | 5 | - | 359 | 909 |
| % Lights | 100.0 | 100.0 | 100.0 | - | 100.0 | 98.0 | - | 94.6 | - | 96.6 | 100.0 | 97.2 | 97.3 | - | 97.3 | 98.7 | 96.2 | 100.0 | - | 96.8 | 97.0 |
| Other Vehicles | 0 | 0 | 0 | - | 0 | 1 | 0 | 2 | - | 3 | 0 | 10 | 3 | - | 13 | 1 | 11 | 0 | - | 12 | 28 |
| % Other Vehicles | 0.0 | 0.0 | 0.0 | - | 0.0 | 2.0 | - | 5.4 | - | 3.4 | 0.0 | 2.8 | 2.7 | - | 2.7 | 1.3 | 3.8 | 0.0 | - | 3.2 | 3.0 |
| Pedestrians | - | - | - | 6 | - | - | - | - | 0 | - | - | - | - | 1 | - | - | - | - | 4 | - | - |
| % Pedestrians | - | - | - | 100.0 | - | - | - | - | - | - | - | - | - | 100.0 | - | - | - | - | 100.0 | - | - |

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Turning Movement Peak Hour Data Plot (8:45 AM)

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Count Name: 13 Matlack Street & Carter Drive
Site Code:
Start Date: 12/06/2023
Page No: 5

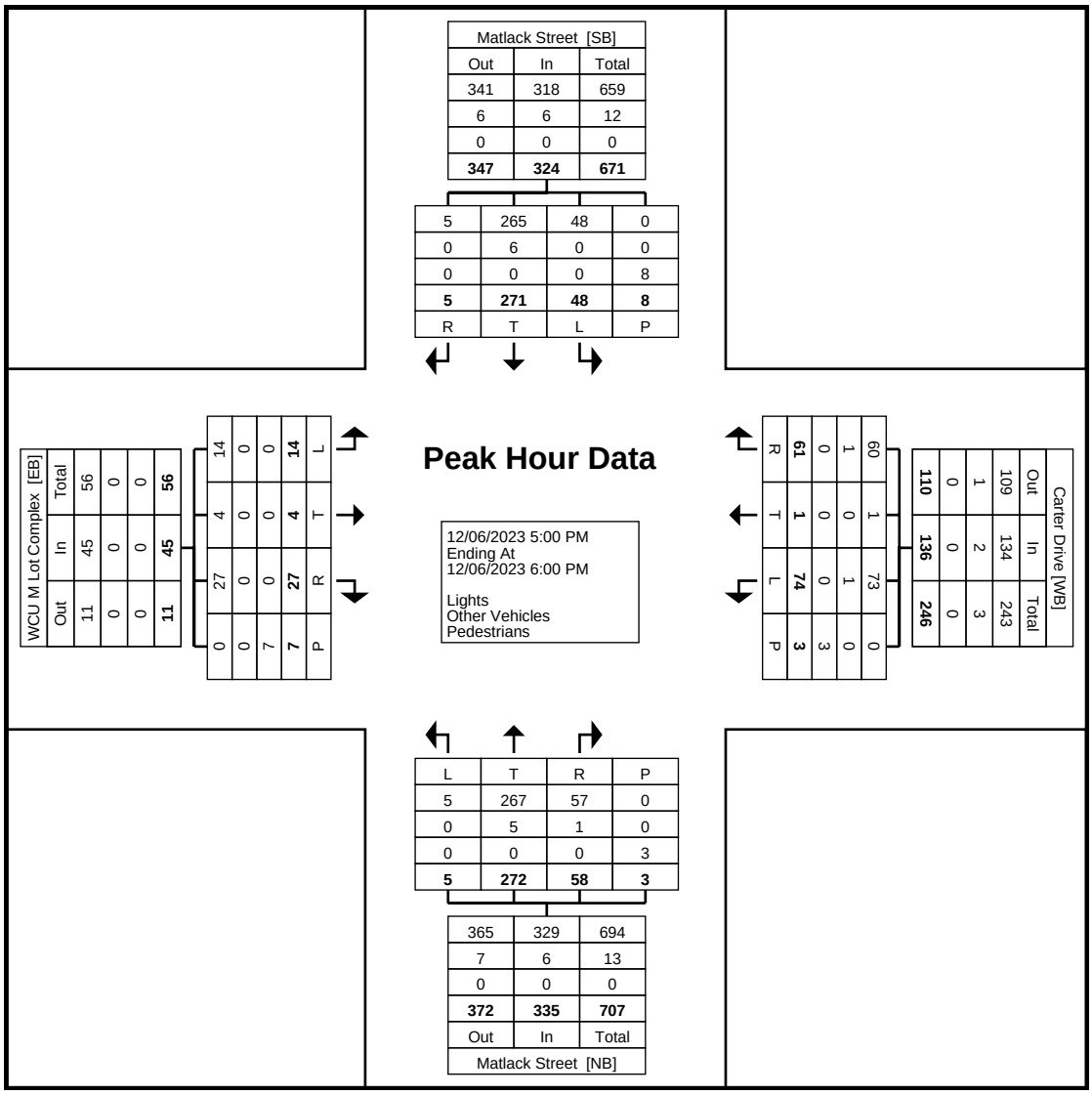
# Turning Movement Peak Hour Data (5:00 PM)

| Start Time | WCU M Lot Complex Eastbound | | | | | Carter Drive Westbound | | | | | Matlack Street Northbound | | | | | Matlack Street Southbound | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Left | Thru | Right | Peds | App. Total | Left | Thru | Right | Peds | App. Total | Left | Thru | Right | Peds | App. Total | Left | Thru | Right | Peds | App. Total | Int. Total |
| 5:00 PM | 5 | 1 | 7 | 1 | 13 | 20 | 0 | 16 | 2 | 36 | 4 | 73 | 8 | 0 | 85 | 15 | 69 | 1 | 2 | 85 | 219 |
| 5:15 PM | 3 | 1 | 13 | 3 | 17 | 14 | 0 | 11 | 0 | 25 | 1 | 68 | 17 | 2 | 86 | 9 | 75 | 0 | 2 | 84 | 212 |
| 5:30 PM | 3 | 2 | 4 | 1 | 9 | 22 | 0 | 21 | 0 | 43 | 0 | 67 | 19 | 0 | 86 | 14 | 65 | 2 | 0 | 81 | 219 |
| 5:45 PM | 3 | 0 | 3 | 2 | 6 | 18 | 1 | 13 | 1 | 32 | 0 | 64 | 14 | 1 | 78 | 10 | 62 | 2 | 4 | 74 | 190 |
| Total | 14 | 4 | 27 | 7 | 45 | 74 | 1 | 61 | 3 | 136 | 5 | 272 | 58 | 3 | 335 | 48 | 271 | 5 | 8 | 324 | 840 |
| Approach % | 31.1 | 8.9 | 60.0 | - | - | 54.4 | 0.7 | 44.9 | - | - | 1.5 | 81.2 | 17.3 | - | - | 14.8 | 83.6 | 1.5 | - | - | - |
| Total % | 1.7 | 0.5 | 3.2 | - | 5.4 | 8.8 | 0.1 | 7.3 | - | 16.2 | 0.6 | 32.4 | 6.9 | - | 39.9 | 5.7 | 32.3 | 0.6 | - | 38.6 | - |
| PHF | 0.700 | 0.500 | 0.519 | - | 0.662 | 0.841 | 0.250 | 0.726 | - | 0.791 | 0.313 | 0.932 | 0.763 | - | 0.974 | 0.800 | 0.903 | 0.625 | - | 0.953 | 0.959 |
| Lights | 14 | 4 | 27 | - | 45 | 73 | 1 | 60 | - | 134 | 5 | 267 | 57 | - | 329 | 48 | 265 | 5 | - | 318 | 826 |
| % Lights | 100.0 | 100.0 | 100.0 | - | 100.0 | 98.6 | 100.0 | 98.4 | - | 98.5 | 100.0 | 98.2 | 98.3 | - | 98.2 | 100.0 | 97.8 | 100.0 | - | 98.1 | 98.3 |
| Other Vehicles | 0 | 0 | 0 | - | 0 | 1 | 0 | 1 | - | 2 | 0 | 5 | 1 | - | 6 | 0 | 6 | 0 | - | 6 | 14 |
| % Other Vehicles | 0.0 | 0.0 | 0.0 | - | 0.0 | 1.4 | 0.0 | 1.6 | - | 1.5 | 0.0 | 1.8 | 1.7 | - | 1.8 | 0.0 | 2.2 | 0.0 | - | 1.9 | 1.7 |
| Pedestrians | - | - | - | 7 | - | - | - | - | 3 | - | - | - | - | 3 | - | - | - | - | 8 | - | - |
| % Pedestrians | - | - | - | 100.0 | - | - | - | - | 100.0 | - | - | - | - | 100.0 | - | - | - | - | 100.0 | - | - |

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Site Code:
Start Date: 12/06/2023


Turning Movement Peak Hour Data Plot (5:00 PM)

Counter: MIO:
Set up By JH::

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2500 East High Street
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Pottstown, Pennsylvania, United States 19464
610.326.3100

Count Name: 14 Church Street & Rosedale Avenue
Site Code:
Start Date: 12/06/2023
Page No: 1

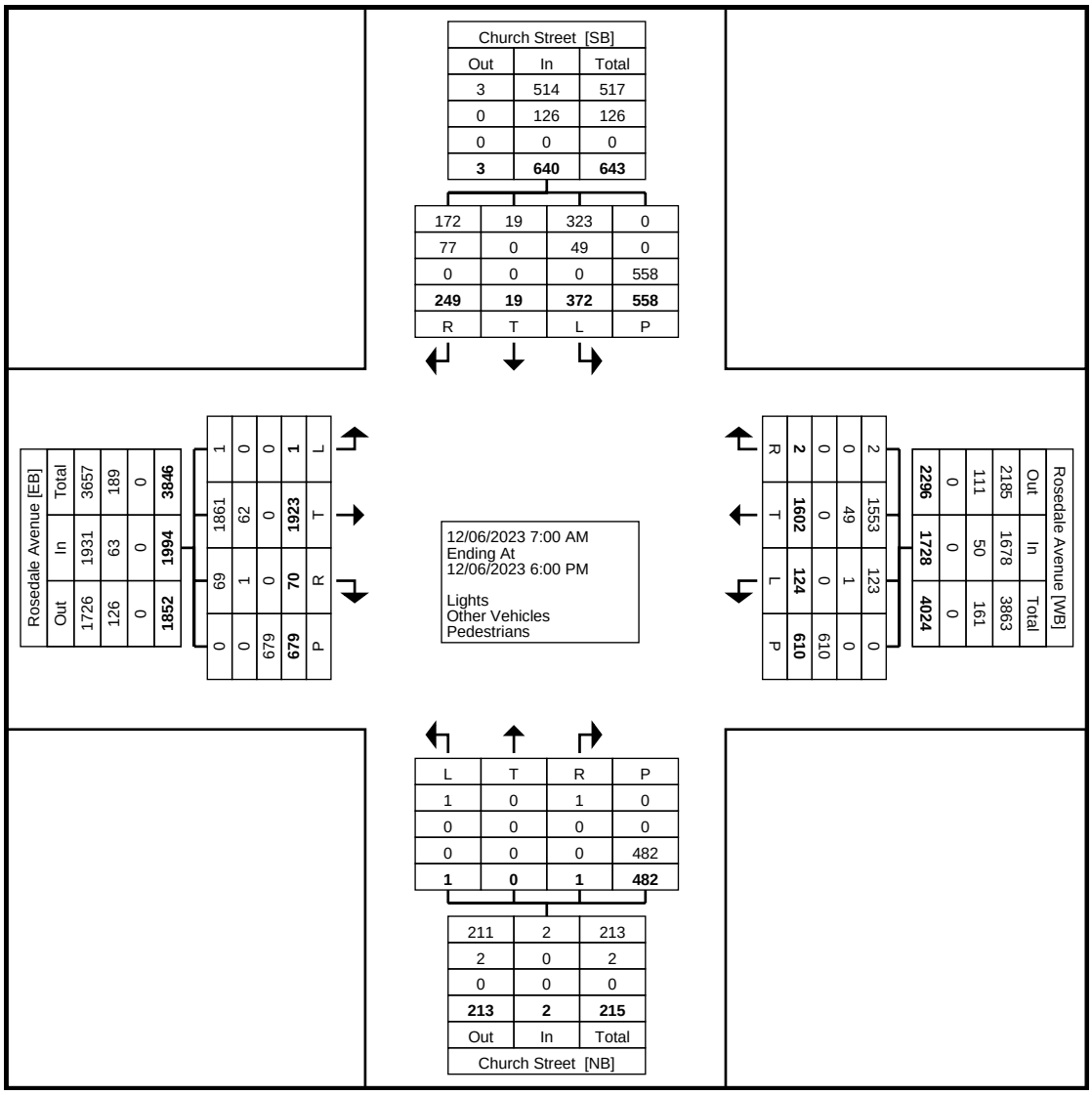
# Turning Movement Data

| Start Time | Rosedale Avenue Eastbound | | | | | Rosedale Avenue Westbound | | | | | | Church Street Northbound | | | | | Church Street Southbound | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Left | Thru | Right | Peds | App. Total | Left | Thru | Right | Right on Red | Peds | App. Total | Left | Thru | Right | Peds | App. Total | Left | Thru | Right | Right on Red | Peds | App. Total | Int. Total |
| 7:00 AM | 1 | 89 | 0 | 2 | 90 | 1 | 33 | 0 | 0 | 0 | 34 | 0 | 0 | 0 | 0 | 0 | 4 | 0 | 0 | 2 | 4 | 6 | 130 |
| 7:15 AM | 0 | 93 | 4 | 11 | 97 | 2 | 43 | 1 | 0 | 9 | 46 | 0 | 0 | 0 | 2 | 0 | 7 | 1 | 5 | 1 | 12 | 14 | 157 |
| 7:30 AM | 0 | 106 | 2 | 20 | 108 | 7 | 50 | 1 | 0 | 7 | 58 | 0 | 0 | 0 | 10 | 0 | 9 | 2 | 3 | 3 | 6 | 17 | 183 |
| 7:45 AM | 0 | 103 | 2 | 54 | 105 | 10 | 52 | 0 | 0 | 21 | 62 | 0 | 0 | 0 | 27 | 0 | 8 | 1 | 3 | 5 | 14 | 17 | 184 |
| Hourly Total | 1 | 391 | 8 | 87 | 400 | 20 | 178 | 2 | 0 | 37 | 200 | 0 | 0 | 0 | 39 | 0 | 28 | 4 | 11 | 11 | 36 | 54 | 654 |
| 8:00 AM | 0 | 106 | 3 | 26 | 109 | 4 | 62 | 0 | 0 | 10 | 66 | 0 | 0 | 0 | 7 | 0 | 6 | 3 | 5 | 5 | 9 | 19 | 194 |
| 8:15 AM | 0 | 110 | 2 | 12 | 112 | 7 | 57 | 0 | 0 | 4 | 64 | 0 | 0 | 0 | 5 | 0 | 10 | 0 | 3 | 2 | 6 | 15 | 191 |
| 8:30 AM | 0 | 112 | 4 | 15 | 116 | 5 | 58 | 0 | 0 | 14 | 63 | 0 | 0 | 0 | 8 | 0 | 9 | 1 | 4 | 4 | 17 | 18 | 197 |
| 8:45 AM | 0 | 105 | 3 | 37 | 108 | 3 | 45 | 0 | 0 | 24 | 48 | 0 | 0 | 0 | 39 | 0 | 19 | 1 | 2 | 3 | 30 | 25 | 181 |
| Hourly Total | 0 | 433 | 12 | 90 | 445 | 19 | 222 | 0 | 0 | 52 | 241 | 0 | 0 | 0 | 59 | 0 | 44 | 5 | 14 | 14 | 62 | 77 | 763 |
| 9:00 AM | 0 | 80 | 3 | 16 | 83 | 3 | 49 | 0 | 0 | 10 | 52 | 0 | 0 | 0 | 11 | 0 | 18 | 1 | 4 | 8 | 20 | 31 | 166 |
| 9:15 AM | 0 | 61 | 5 | 11 | 66 | 4 | 43 | 0 | 0 | 14 | 47 | 0 | 0 | 0 | 9 | 0 | 7 | 0 | 4 | 5 | 16 | 16 | 129 |
| 9:30 AM | 0 | 55 | 3 | 19 | 58 | 3 | 51 | 0 | 0 | 17 | 54 | 0 | 0 | 1 | 15 | 1 | 23 | 0 | 3 | 2 | 14 | 28 | 141 |
| 9:45 AM | 0 | 55 | 1 | 37 | 56 | 2 | 51 | 0 | 0 | 45 | 53 | 0 | 0 | 0 | 30 | 0 | 24 | 0 | 8 | 9 | 61 | 41 | 150 |
| Hourly Total | 0 | 251 | 12 | 83 | 263 | 12 | 194 | 0 | 0 | 86 | 206 | 0 | 0 | 1 | 65 | 1 | 72 | 1 | 19 | 24 | 111 | 116 | 586 |
| *** BREAK *** | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 3:00 PM | 0 | 82 | 6 | 37 | 88 | 1 | 84 | 0 | 0 | 61 | 85 | 0 | 0 | 0 | 33 | 0 | 11 | 1 | 2 | 9 | 41 | 23 | 196 |
| 3:15 PM | 0 | 56 | 1 | 33 | 57 | 4 | 71 | 0 | 0 | 27 | 75 | 0 | 0 | 0 | 28 | 0 | 15 | 1 | 4 | 8 | 26 | 28 | 160 |
| 3:30 PM | 0 | 59 | 1 | 32 | 60 | 8 | 88 | 0 | 0 | 24 | 96 | 0 | 0 | 0 | 24 | 0 | 6 | 1 | 2 | 6 | 29 | 15 | 171 |
| 3:45 PM | 0 | 53 | 2 | 57 | 55 | 10 | 77 | 0 | 0 | 34 | 87 | 0 | 0 | 0 | 24 | 0 | 14 | 1 | 6 | 8 | 34 | 29 | 171 |
| Hourly Total | 0 | 250 | 10 | 159 | 260 | 23 | 320 | 0 | 0 | 146 | 343 | 0 | 0 | 0 | 109 | 0 | 46 | 4 | 14 | 31 | 130 | 95 | 698 |
| 4:00 PM | 0 | 65 | 5 | 58 | 70 | 5 | 69 | 0 | 0 | 56 | 74 | 0 | 0 | 0 | 58 | 0 | 26 | 2 | 4 | 13 | 56 | 45 | 189 |
| 4:15 PM | 0 | 87 | 4 | 39 | 91 | 9 | 84 | 0 | 0 | 69 | 93 | 0 | 0 | 0 | 52 | 0 | 30 | 0 | 2 | 14 | 52 | 46 | 230 |
| 4:30 PM | 0 | 72 | 3 | 31 | 75 | 8 | 94 | 0 | 0 | 28 | 102 | 0 | 0 | 0 | 21 | 0 | 32 | 0 | 2 | 11 | 18 | 45 | 222 |
| 4:45 PM | 0 | 80 | 5 | 17 | 85 | 9 | 104 | 0 | 0 | 21 | 113 | 1 | 0 | 0 | 13 | 1 | 16 | 1 | 4 | 12 | 28 | 33 | 232 |
| Hourly Total | 0 | 304 | 17 | 145 | 321 | 31 | 351 | 0 | 0 | 174 | 382 | 1 | 0 | 0 | 144 | 1 | 104 | 3 | 12 | 50 | 154 | 169 | 873 |
| 5:00 PM | 0 | 68 | 4 | 31 | 72 | 3 | 88 | 0 | 0 | 14 | 91 | 0 | 0 | 0 | 16 | 0 | 20 | 1 | 6 | 4 | 25 | 31 | 194 |
| 5:15 PM | 0 | 65 | 1 | 33 | 66 | 5 | 83 | 0 | 0 | 27 | 88 | 0 | 0 | 0 | 18 | 0 | 13 | 1 | 5 | 9 | 12 | 28 | 182 |
| 5:30 PM | 0 | 80 | 2 | 28 | 82 | 6 | 73 | 0 | 0 | 51 | 79 | 0 | 0 | 0 | 15 | 0 | 23 | 0 | 6 | 6 | 17 | 35 | 196 |
| 5:45 PM | 0 | 81 | 4 | 23 | 85 | 5 | 93 | 0 | 0 | 23 | 98 | 0 | 0 | 0 | 17 | 0 | 22 | 0 | 5 | 8 | 11 | 35 | 218 |
| Hourly Total | 0 | 294 | 11 | 115 | 305 | 19 | 337 | 0 | 0 | 115 | 356 | 0 | 0 | 0 | 66 | 0 | 78 | 2 | 22 | 27 | 65 | 129 | 790 |
| Grand Total | 1 | 1923 | 70 | 679 | 1994 | 124 | 1602 | 2 | 0 | 610 | 1728 | 1 | 0 | 1 | 482 | 2 | 372 | 19 | 92 | 157 | 558 | 640 | 4364 |
| Approach % | 0.1 | 96.4 | 3.5 | - | - | 7.2 | 92.7 | 0.1 | 0.0 | - | - | 50.0 | 0.0 | 50.0 | - | - | 58.1 | 3.0 | 14.4 | 24.5 | - | - | - |
| Total % | 0.0 | 44.1 | 1.6 | - | 45.7 | 2.8 | 36.7 | 0.0 | 0.0 | - | 39.6 | 0.0 | 0.0 | 0.0 | - | 0.0 | 8.5 | 0.4 | 2.1 | 3.6 | - | 14.7 | - |
| Lights | 1 | 1861 | 69 | - | 1931 | 123 | 1553 | 2 | 0 | - | 1678 | 1 | 0 | 1 | - | 2 | 323 | 19 | 58 | 114 | - | 514 | 4125 |
| % Lights | 100.0 | 96.8 | 98.6 | - | 96.8 | 99.2 | 96.9 | 100.0 | - | - | 97.1 | 100.0 | - | 100.0 | - | 100.0 | 86.8 | 100.0 | 63.0 | 72.6 | - | 80.3 | 94.5 |
| Other Vehicles | 0 | 62 | 1 | - | 63 | 1 | 49 | 0 | 0 | - | 50 | 0 | 0 | 0 | - | 0 | 49 | 0 | 34 | 43 | - | 126 | 239 |
| % Other Vehicles | 0.0 | 3.2 | 1.4 | - | 3.2 | 0.8 | 3.1 | 0.0 | - | - | 2.9 | 0.0 | - | 0.0 | - | 0.0 | 13.2 | 0.0 | 37.0 | 27.4 | - | 19.7 | 5.5 |
| Pedestrians | - | - | - | 679 | - | - | - | - | - | 610 | - | - | - | - | 482 | - | - | - | - | - | 558 | - | - |
| % Pedestrians | - | - | - | 100.0 | - | - | - | - | - | 100.0 | - | - | - | - | 100.0 | - | - | - | - | - | 100.0 | - | - |

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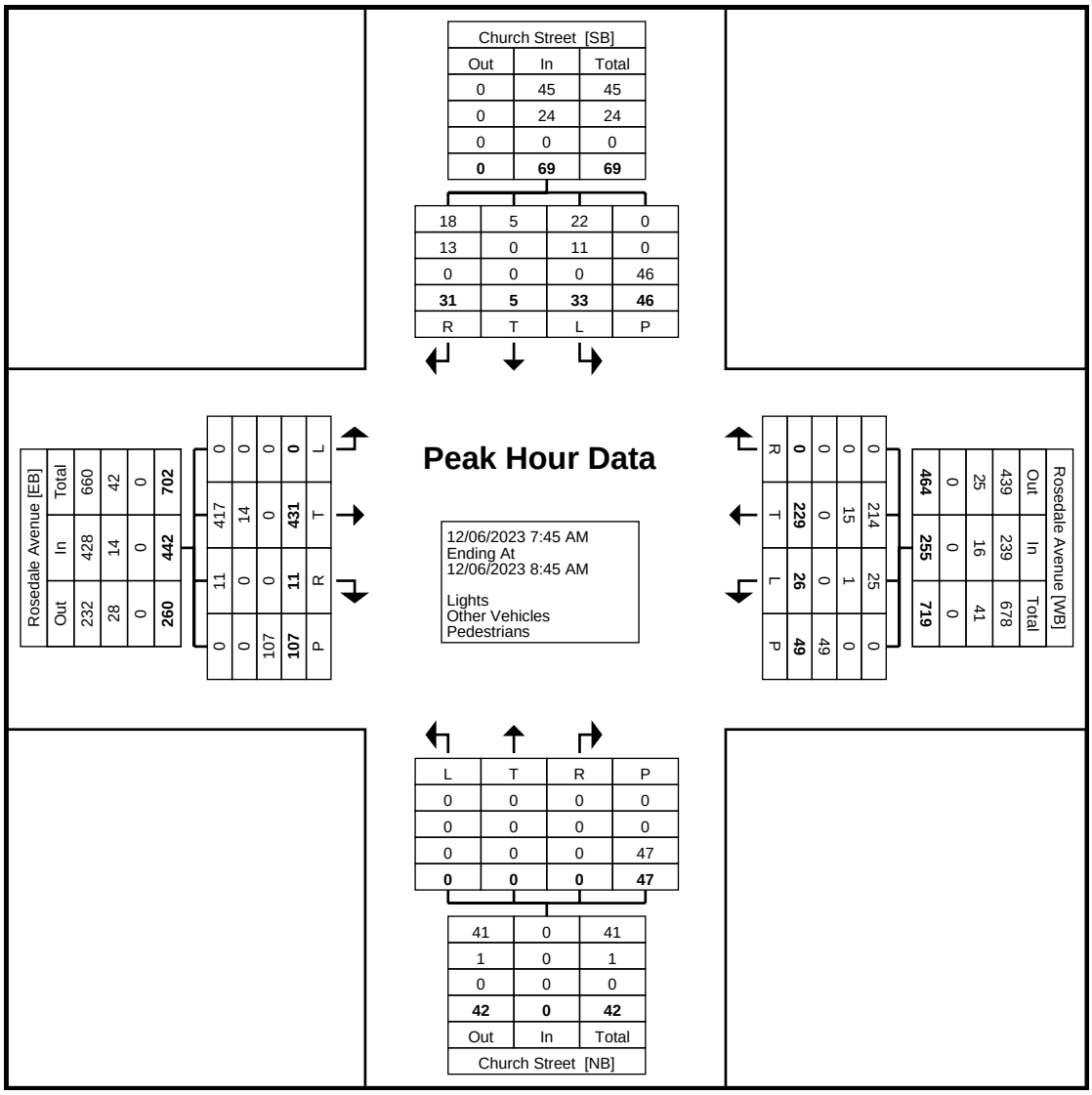

# Turning Movement Peak Hour Data (7:45 AM)

| Start Time | Rosedale Avenue Eastbound | | | | | Rosedale Avenue Westbound | | | | | | Church Street Northbound | | | | | Church Street Southbound | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Left | Thru | Right | Peds | App. Total | Left | Thru | Right | Right on Red | Peds | App. Total | Left | Thru | Right | Peds | App. Total | Left | Thru | Right | Right on Red | Peds | App. Total | Int. Total |
| 7:45 AM | 0 | 103 | 2 | 54 | 105 | 10 | 52 | 0 | 0 | 21 | 62 | 0 | 0 | 0 | 27 | 0 | 8 | 1 | 3 | 5 | 14 | 17 | 184 |
| 8:00 AM | 0 | 106 | 3 | 26 | 109 | 4 | 62 | 0 | 0 | 10 | 66 | 0 | 0 | 0 | 7 | 0 | 6 | 3 | 5 | 5 | 9 | 19 | 194 |
| 8:15 AM | 0 | 110 | 2 | 12 | 112 | 7 | 57 | 0 | 0 | 4 | 64 | 0 | 0 | 0 | 5 | 0 | 10 | 0 | 3 | 2 | 6 | 15 | 191 |
| 8:30 AM | 0 | 112 | 4 | 15 | 116 | 5 | 58 | 0 | 0 | 14 | 63 | 0 | 0 | 0 | 8 | 0 | 9 | 1 | 4 | 4 | 17 | 18 | 197 |
| Total | 0 | 431 | 11 | 107 | 442 | 26 | 229 | 0 | 0 | 49 | 255 | 0 | 0 | 0 | 47 | 0 | 33 | 5 | 15 | 16 | 46 | 69 | 766 |
| Approach % | 0.0 | 97.5 | 2.5 | - | - | 10.2 | 89.8 | 0.0 | 0.0 | - | - | 0.0 | 0.0 | 0.0 | - | - | 47.8 | 7.2 | 21.7 | 23.2 | - | - | - |
| Total % | 0.0 | 56.3 | 1.4 | - | 57.7 | 3.4 | 29.9 | 0.0 | 0.0 | - | 33.3 | 0.0 | 0.0 | 0.0 | - | 0.0 | 4.3 | 0.7 | 2.0 | 2.1 | - | 9.0 | - |
| PHF | 0.000 | 0.962 | 0.688 | - | 0.953 | 0.650 | 0.923 | 0.000 | 0.000 | - | 0.966 | 0.000 | 0.000 | 0.000 | - | 0.000 | 0.825 | 0.417 | 0.750 | 0.800 | - | 0.908 | 0.972 |
| Lights | 0 | 417 | 11 | - | 428 | 25 | 214 | 0 | 0 | - | 239 | 0 | 0 | 0 | - | 0 | 22 | 5 | 5 | 13 | - | 45 | 712 |
| % Lights | - | 96.8 | 100.0 | - | 96.8 | 96.2 | 93.4 | - | - | - | 93.7 | - | - | - | - | - | 66.7 | 100.0 | 33.3 | 81.3 | - | 65.2 | 93.0 |
| Other Vehicles | 0 | 14 | 0 | - | 14 | 1 | 15 | 0 | 0 | - | 16 | 0 | 0 | 0 | - | 0 | 11 | 0 | 10 | 3 | - | 24 | 54 |
| % Other Vehicles | - | 3.2 | 0.0 | - | 3.2 | 3.8 | 6.6 | - | - | - | 6.3 | - | - | - | - | - | 33.3 | 0.0 | 66.7 | 18.8 | - | 34.8 | 7.0 |
| Pedestrians | - | - | - | 107 | - | - | - | - | - | 49 | - | - | - | - | 47 | - | - | - | - | - | 46 | - | - |
| % Pedestrians | - | - | - | 100.0 | - | - | - | - | - | 100.0 | - | - | - | - | 100.0 | - | - | - | - | - | 100.0 | - | - |

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Site Code:
Start Date: 12/06/2023

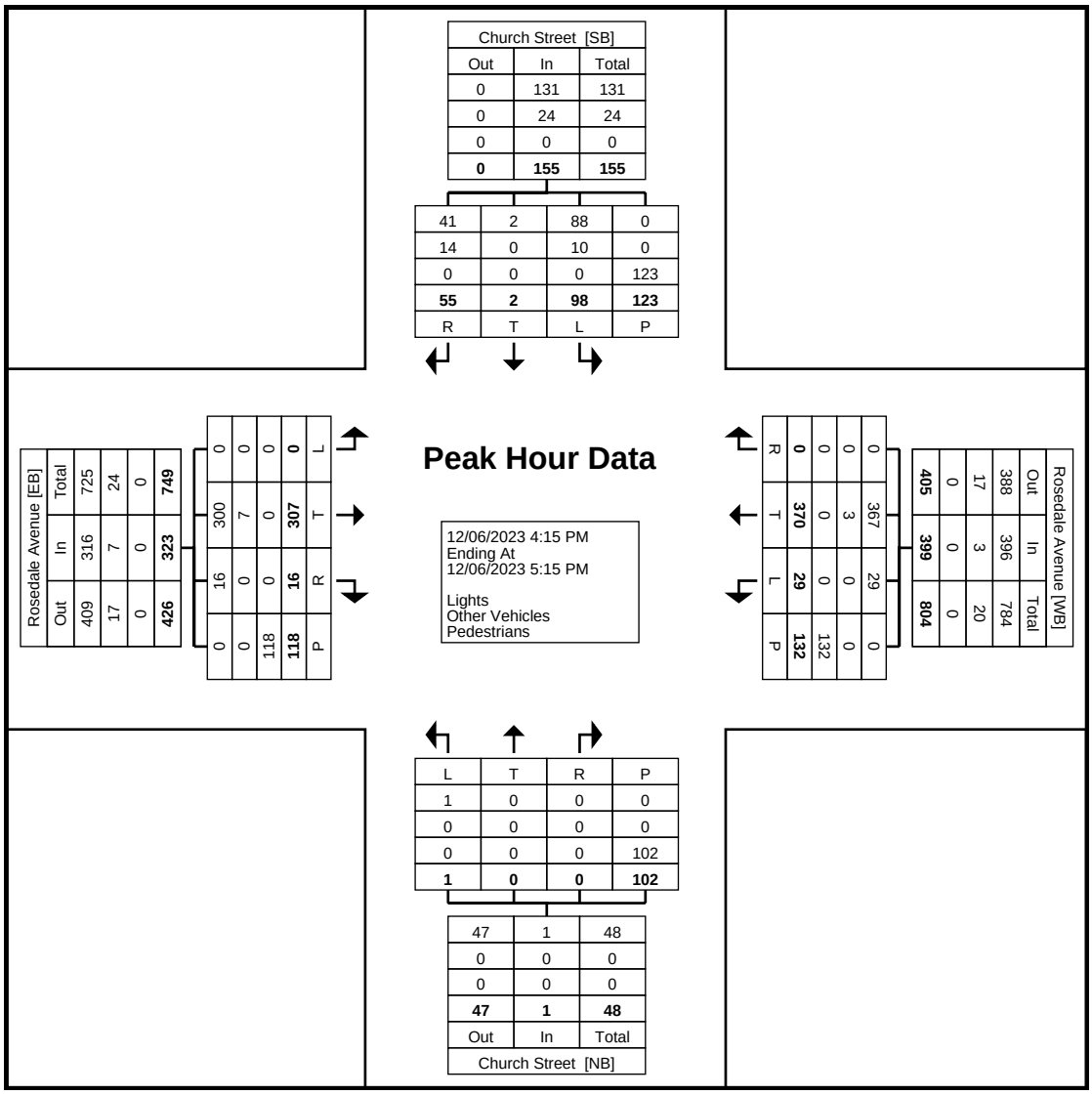

# Turning Movement Peak Hour Data (4:15 PM)

| Start Time | Rosedale Avenue Eastbound | | | | | Rosedale Avenue Westbound | | | | | | Church Street Northbound | | | | | Church Street Southbound | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Left | Thru | Right | Peds | App. Total | Left | Thru | Right | Right on Red | Peds | App. Total | Left | Thru | Right | Peds | App. Total | Left | Thru | Right | Right on Red | Peds | App. Total | Int. Total |
| 4:15 PM | 0 | 87 | 4 | 39 | 91 | 9 | 84 | 0 | 0 | 69 | 93 | 0 | 0 | 0 | 52 | 0 | 30 | 0 | 2 | 14 | 52 | 46 | 230 |
| 4:30 PM | 0 | 72 | 3 | 31 | 75 | 8 | 94 | 0 | 0 | 28 | 102 | 0 | 0 | 0 | 21 | 0 | 32 | 0 | 2 | 11 | 18 | 45 | 222 |
| 4:45 PM | 0 | 80 | 5 | 17 | 85 | 9 | 104 | 0 | 0 | 21 | 113 | 1 | 0 | 0 | 13 | 1 | 16 | 1 | 4 | 12 | 28 | 33 | 232 |
| 5:00 PM | 0 | 68 | 4 | 31 | 72 | 3 | 88 | 0 | 0 | 14 | 91 | 0 | 0 | 0 | 16 | 0 | 20 | 1 | 6 | 4 | 25 | 31 | 194 |
| Total | 0 | 307 | 16 | 118 | 323 | 29 | 370 | 0 | 0 | 132 | 399 | 1 | 0 | 0 | 102 | 1 | 98 | 2 | 14 | 41 | 123 | 155 | 878 |
| Approach % | 0.0 | 95.0 | 5.0 | - | - | 7.3 | 92.7 | 0.0 | 0.0 | - | - | 100.0 | 0.0 | 0.0 | - | - | 63.2 | 1.3 | 9.0 | 26.5 | - | - | - |
| Total % | 0.0 | 35.0 | 1.8 | - | 36.8 | 3.3 | 42.1 | 0.0 | 0.0 | - | 45.4 | 0.1 | 0.0 | 0.0 | - | 0.1 | 11.2 | 0.2 | 1.6 | 4.7 | - | 17.7 | - |
| PHF | 0.000 | 0.882 | 0.800 | - | 0.887 | 0.806 | 0.889 | 0.000 | 0.000 | - | 0.883 | 0.250 | 0.000 | 0.000 | - | 0.250 | 0.766 | 0.500 | 0.583 | 0.732 | - | 0.842 | 0.946 |
| Lights | 0 | 300 | 16 | - | 316 | 29 | 367 | 0 | 0 | - | 396 | 1 | 0 | 0 | - | 1 | 88 | 2 | 9 | 32 | - | 131 | 844 |
| % Lights | - | 97.7 | 100.0 | - | 97.8 | 100.0 | 99.2 | - | - | - | 99.2 | 100.0 | - | - | - | 100.0 | 89.8 | 100.0 | 64.3 | 78.0 | - | 84.5 | 96.1 |
| Other Vehicles | 0 | 7 | 0 | - | 7 | 0 | 3 | 0 | 0 | - | 3 | 0 | 0 | 0 | - | 0 | 10 | 0 | 5 | 9 | - | 24 | 34 |
| % Other Vehicles | - | 2.3 | 0.0 | - | 2.2 | 0.0 | 0.8 | - | - | - | 0.8 | 0.0 | - | - | - | 0.0 | 10.2 | 0.0 | 35.7 | 22.0 | - | 15.5 | 3.9 |
| Pedestrians | - | - | - | 118 | - | - | - | - | - | 132 | - | - | - | - | 102 | - | - | - | - | - | 123 | - | - |
| % Pedestrians | - | - | - | 100.0 | - | - | - | - | - | 100.0 | - | - | - | - | 100.0 | - | - | - | - | - | 100.0 | - | - |

Traffic Planning and Design, Inc
2500 East High Street
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610.326.3100

Counter: MIO:
Set up By JH::

Count Name: 14 Church Street & Rosedale Avenue
Site Code:
Start Date: 12/06/2023


Turning Movement Peak Hour Data Plot (4:15 PM)

Counter: MIO:
Set up By JH::

Traffic Planning and Design, Inc
2500 East High Street
Suite 650
Pottstown, Pennsylvania, United States 19464
610.326.3100

Count Name: 15 Ped Crosswalk & Rosedale Avenue
Site Code:
Start Date: 12/06/2023

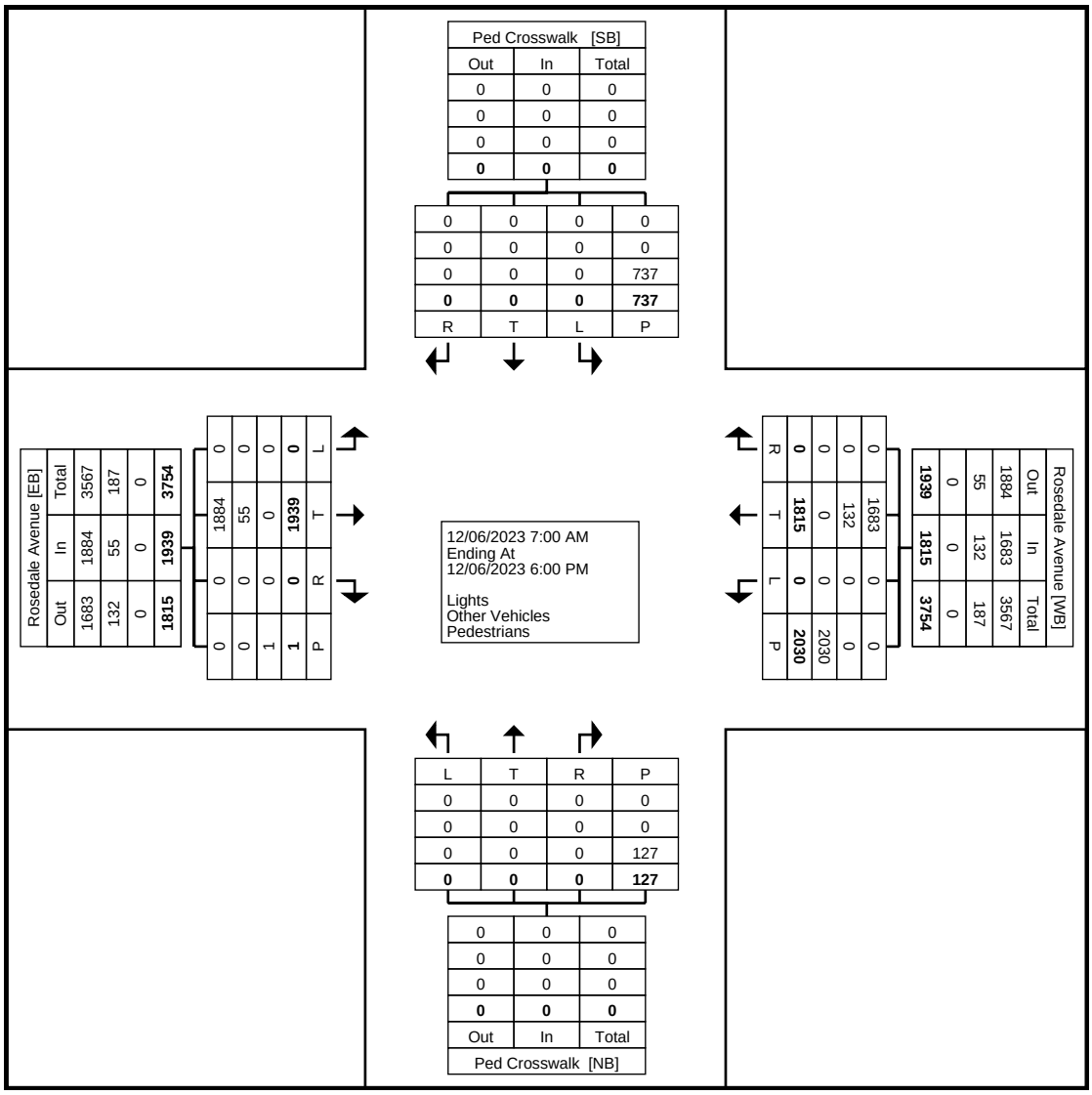

# Turning Movement Data

| Start Time | Rosedale Avenue Eastbound | | | | | Rosedale Avenue Westbound | | | | | Ped Crosswalk Northbound | | | | | Ped Crosswalk Southbound | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Left | Thru | Right | Peds | App. Total | Left | Thru | Right | Peds | App. Total | Left | Thru | Right | Peds | App. Total | Left | Thru | Right | Peds | App. Total | Int. Total |
| 7:00 AM | 0 | 88 | 0 | 0 | 88 | 0 | 31 | 0 | 7 | 31 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 9 | 0 | 119 |
| 7:15 AM | 0 | 102 | 0 | 0 | 102 | 0 | 38 | 0 | 7 | 38 | 0 | 0 | 0 | 5 | 0 | 0 | 0 | 0 | 6 | 0 | 140 |
| 7:30 AM | 0 | 108 | 0 | 0 | 108 | 0 | 51 | 0 | 25 | 51 | 0 | 0 | 0 | 5 | 0 | 0 | 0 | 0 | 6 | 0 | 159 |
| 7:45 AM | 0 | 111 | 0 | 0 | 111 | 0 | 60 | 0 | 64 | 60 | 0 | 0 | 0 | 12 | 0 | 0 | 0 | 0 | 15 | 0 | 171 |
| Hourly Total | 0 | 409 | 0 | 0 | 409 | 0 | 180 | 0 | 103 | 180 | 0 | 0 | 0 | 22 | 0 | 0 | 0 | 0 | 36 | 0 | 589 |
| 8:00 AM | 0 | 100 | 0 | 0 | 100 | 0 | 75 | 0 | 28 | 75 | 0 | 0 | 0 | 12 | 0 | 0 | 0 | 0 | 8 | 0 | 175 |
| 8:15 AM | 0 | 108 | 0 | 0 | 108 | 0 | 60 | 0 | 16 | 60 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 7 | 0 | 168 |
| 8:30 AM | 0 | 113 | 0 | 1 | 113 | 0 | 65 | 0 | 29 | 65 | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 12 | 0 | 178 |
| 8:45 AM | 0 | 108 | 0 | 0 | 108 | 0 | 60 | 0 | 64 | 60 | 0 | 0 | 0 | 4 | 0 | 0 | 0 | 0 | 21 | 0 | 168 |
| Hourly Total | 0 | 429 | 0 | 1 | 429 | 0 | 260 | 0 | 137 | 260 | 0 | 0 | 0 | 21 | 0 | 0 | 0 | 0 | 48 | 0 | 689 |
| 9:00 AM | 0 | 81 | 0 | 0 | 81 | 0 | 58 | 0 | 24 | 58 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 11 | 0 | 139 |
| 9:15 AM | 0 | 67 | 0 | 0 | 67 | 0 | 48 | 0 | 40 | 48 | 0 | 0 | 0 | 5 | 0 | 0 | 0 | 0 | 23 | 0 | 115 |
| 9:30 AM | 0 | 51 | 0 | 0 | 51 | 0 | 52 | 0 | 39 | 52 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 17 | 0 | 103 |
| 9:45 AM | 0 | 55 | 0 | 0 | 55 | 0 | 66 | 0 | 76 | 66 | 0 | 0 | 0 | 5 | 0 | 0 | 0 | 0 | 30 | 0 | 121 |
| Hourly Total | 0 | 254 | 0 | 0 | 254 | 0 | 224 | 0 | 179 | 224 | 0 | 0 | 0 | 13 | 0 | 0 | 0 | 0 | 81 | 0 | 478 |
| *** BREAK *** | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 3:00 PM | 0 | 74 | 0 | 0 | 74 | 0 | 93 | 0 | 161 | 93 | 0 | 0 | 0 | 5 | 0 | 0 | 0 | 0 | 40 | 0 | 167 |
| 3:15 PM | 0 | 57 | 0 | 0 | 57 | 0 | 77 | 0 | 135 | 77 | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 32 | 0 | 134 |
| 3:30 PM | 0 | 61 | 0 | 0 | 61 | 0 | 89 | 0 | 151 | 89 | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 71 | 0 | 150 |
| 3:45 PM | 0 | 50 | 0 | 0 | 50 | 0 | 88 | 0 | 126 | 88 | 0 | 0 | 0 | 9 | 0 | 0 | 0 | 0 | 49 | 0 | 138 |
| Hourly Total | 0 | 242 | 0 | 0 | 242 | 0 | 347 | 0 | 573 | 347 | 0 | 0 | 0 | 20 | 0 | 0 | 0 | 0 | 192 | 0 | 589 |
| 4:00 PM | 0 | 71 | 0 | 0 | 71 | 0 | 80 | 0 | 145 | 80 | 0 | 0 | 0 | 6 | 0 | 0 | 0 | 0 | 55 | 0 | 151 |
| 4:15 PM | 0 | 85 | 0 | 0 | 85 | 0 | 105 | 0 | 121 | 105 | 0 | 0 | 0 | 9 | 0 | 0 | 0 | 0 | 58 | 0 | 190 |
| 4:30 PM | 0 | 79 | 0 | 0 | 79 | 0 | 114 | 0 | 112 | 114 | 0 | 0 | 0 | 22 | 0 | 0 | 0 | 0 | 38 | 0 | 193 |
| 4:45 PM | 0 | 72 | 0 | 0 | 72 | 0 | 120 | 0 | 111 | 120 | 0 | 0 | 0 | 7 | 0 | 0 | 0 | 0 | 33 | 0 | 192 |
| Hourly Total | 0 | 307 | 0 | 0 | 307 | 0 | 419 | 0 | 489 | 419 | 0 | 0 | 0 | 44 | 0 | 0 | 0 | 0 | 184 | 0 | 726 |
| 5:00 PM | 0 | 74 | 0 | 0 | 74 | 0 | 95 | 0 | 138 | 95 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 52 | 0 | 169 |
| 5:15 PM | 0 | 63 | 0 | 0 | 63 | 0 | 98 | 0 | 125 | 98 | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 42 | 0 | 161 |
| 5:30 PM | 0 | 82 | 0 | 0 | 82 | 0 | 86 | 0 | 154 | 86 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 66 | 0 | 168 |
| 5:45 PM | 0 | 79 | 0 | 0 | 79 | 0 | 106 | 0 | 132 | 106 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 36 | 0 | 185 |
| Hourly Total | 0 | 298 | 0 | 0 | 298 | 0 | 385 | 0 | 549 | 385 | 0 | 0 | 0 | 7 | 0 | 0 | 0 | 0 | 196 | 0 | 683 |
| Grand Total | 0 | 1939 | 0 | 1 | 1939 | 0 | 1815 | 0 | 2030 | 1815 | 0 | 0 | 0 | 127 | 0 | 0 | 0 | 0 | 737 | 0 | 3754 |
| Approach % | 0.0 | 100.0 | 0.0 | - | - | 0.0 | 100.0 | 0.0 | - | - | 0.0 | 0.0 | 0.0 | - | - | 0.0 | 0.0 | 0.0 | - | - | - |
| Total % | 0.0 | 51.7 | 0.0 | - | 51.7 | 0.0 | 48.3 | 0.0 | - | 48.3 | 0.0 | 0.0 | 0.0 | - | 0.0 | 0.0 | 0.0 | 0.0 | - | 0.0 | - |
| Lights | 0 | 1884 | 0 | - | 1884 | 0 | 1683 | 0 | - | 1683 | 0 | 0 | 0 | - | 0 | 0 | 0 | 0 | - | 0 | 3567 |
| % Lights | - | 97.2 | - | - | 97.2 | - | 92.7 | - | - | 92.7 | - | - | - | - | - | - | - | - | - | - | 95.0 |
| Other Vehicles | 0 | 55 | 0 | - | 55 | 0 | 132 | 0 | - | 132 | 0 | 0 | 0 | - | 0 | 0 | 0 | 0 | - | 0 | 187 |
| % Other Vehicles | - | 2.8 | - | - | 2.8 | - | 7.3 | - | - | 7.3 | - | - | - | - | - | - | - | - | - | - | 5.0 |
| Pedestrians | - | - | - | 1 | - | - | - | - | 2030 | - | - | - | - | 127 | - | - | - | - | 737 | - | - |
| % Pedestrians | - | - | - | 100.0 | - | - | - | - | 100.0 | - | - | - | - | 100.0 | - | - | - | - | 100.0 | - | - |

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610.326.3100

Counter: MIO:
Set up By JH::

Count Name: 15 Ped Crosswalk & Rosedale Avenue
Site Code:
Start Date: 12/06/2023


Turning Movement Data Plot

Counter: MIO:
Set up By JH::

Traffic Planning and Design, Inc
2500 East High Street
Suite 650
Pottstown, Pennsylvania, United States 19464
610.326.3100



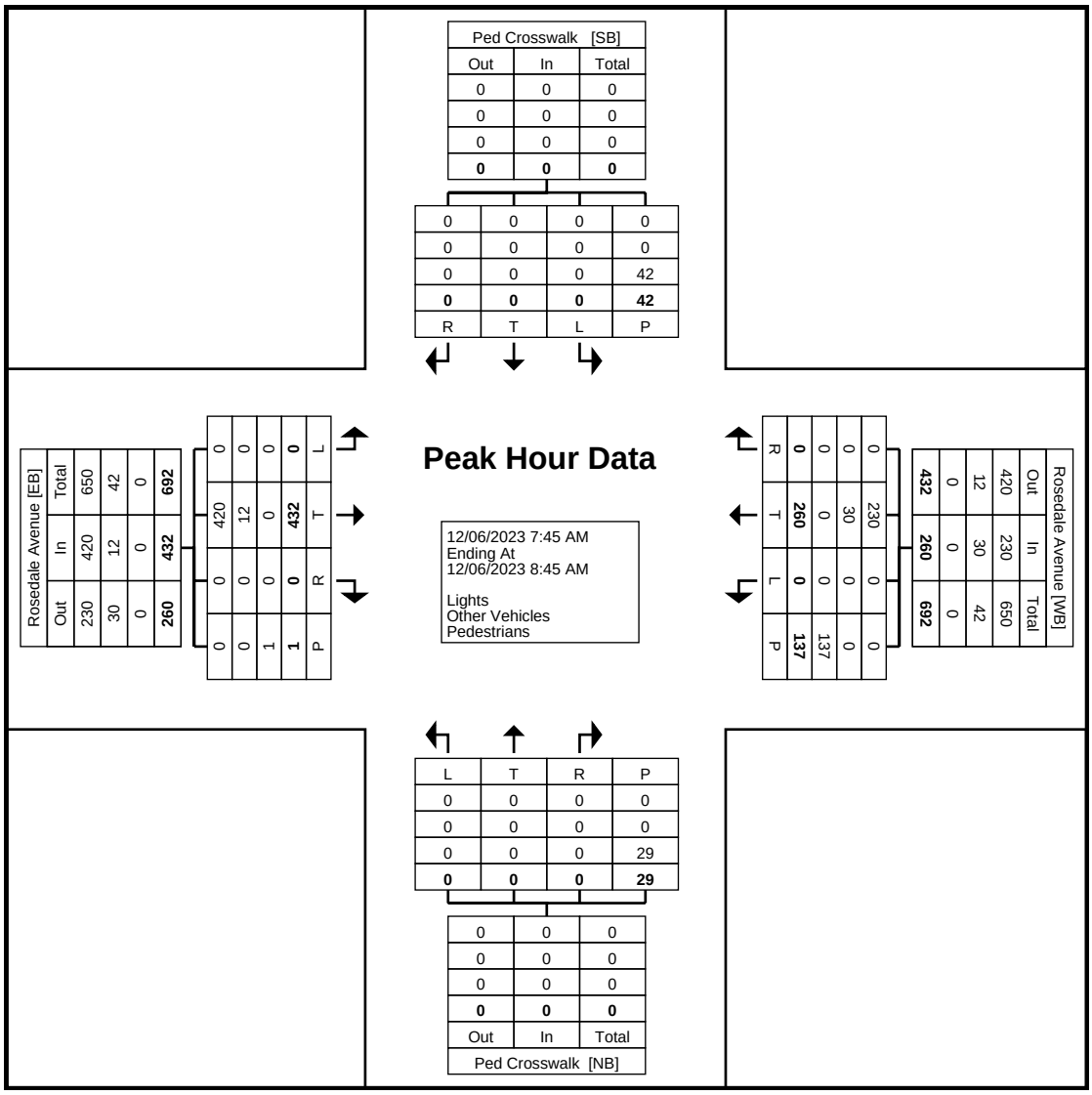
# Turning Movement Peak Hour Data (7:45 AM)

| Start Time | Rosedale Avenue Eastbound | | | | | Rosedale Avenue Westbound | | | | | Ped Crosswalk Northbound | | | | | Ped Crosswalk Southbound | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Left | Thru | Right | Peds | App. Total | Left | Thru | Right | Peds | App. Total | Left | Thru | Right | Peds | App. Total | Left | Thru | Right | Peds | App. Total | Int. Total |
| 7:45 AM | 0 | 111 | 0 | 0 | 111 | 0 | 60 | 0 | 64 | 60 | 0 | 0 | 0 | 12 | 0 | 0 | 0 | 0 | 15 | 0 | 171 |
| 8:00 AM | 0 | 100 | 0 | 0 | 100 | 0 | 75 | 0 | 28 | 75 | 0 | 0 | 0 | 12 | 0 | 0 | 0 | 0 | 8 | 0 | 175 |
| 8:15 AM | 0 | 108 | 0 | 0 | 108 | 0 | 60 | 0 | 16 | 60 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 7 | 0 | 168 |
| 8:30 AM | 0 | 113 | 0 | 1 | 113 | 0 | 65 | 0 | 29 | 65 | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 12 | 0 | 178 |
| Total | 0 | 432 | 0 | 1 | 432 | 0 | 260 | 0 | 137 | 260 | 0 | 0 | 0 | 29 | 0 | 0 | 0 | 0 | 42 | 0 | 692 |
| Approach % | 0.0 | 100.0 | 0.0 | - | - | 0.0 | 100.0 | 0.0 | - | - | 0.0 | 0.0 | 0.0 | - | - | 0.0 | 0.0 | 0.0 | - | - | - |
| Total % | 0.0 | 62.4 | 0.0 | - | 62.4 | 0.0 | 37.6 | 0.0 | - | 37.6 | 0.0 | 0.0 | 0.0 | - | 0.0 | 0.0 | 0.0 | 0.0 | - | 0.0 | - |
| PHF | 0.000 | 0.956 | 0.000 | - | 0.956 | 0.000 | 0.867 | 0.000 | - | 0.867 | 0.000 | 0.000 | 0.000 | - | 0.000 | 0.000 | 0.000 | 0.000 | - | 0.000 | 0.972 |
| Lights | 0 | 420 | 0 | - | 420 | 0 | 230 | 0 | - | 230 | 0 | 0 | 0 | - | 0 | 0 | 0 | 0 | - | 0 | 650 |
| % Lights | - | 97.2 | - | - | 97.2 | - | 88.5 | - | - | 88.5 | - | - | - | - | - | - | - | - | - | - | 93.9 |
| Other Vehicles | 0 | 12 | 0 | - | 12 | 0 | 30 | 0 | - | 30 | 0 | 0 | 0 | - | 0 | 0 | 0 | 0 | - | 0 | 42 |
| % Other Vehicles | - | 2.8 | - | - | 2.8 | - | 11.5 | - | - | 11.5 | - | - | - | - | - | - | - | - | - | - | 6.1 |
| Pedestrians | - | - | - | 1 | - | - | - | - | 137 | - | - | - | - | 29 | - | - | - | - | 42 | - | - |
| % Pedestrians | - | - | - | 100.0 | - | - | - | - | 100.0 | - | - | - | - | 100.0 | - | - | - | - | 100.0 | - | - |

Traffic Planning and Design, Inc
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610.326.3100

Counter: MIO:
Set up By JH::

Count Name: 15 Ped Crosswalk & Rosedale Avenue
Site Code:
Start Date: 12/06/2023


Turning Movement Peak Hour Data Plot (7:45 AM)

Traffic Planning and Design, Inc
2500 East High Street
Suite 650
Pottstown, Pennsylvania, United States 19464
610.326.3100

Counter: MIO:
Set up By JH::

Count Name: 15 Ped Crosswalk & Rosedale Avenue
Site Code:
Start Date: 12/06/2023

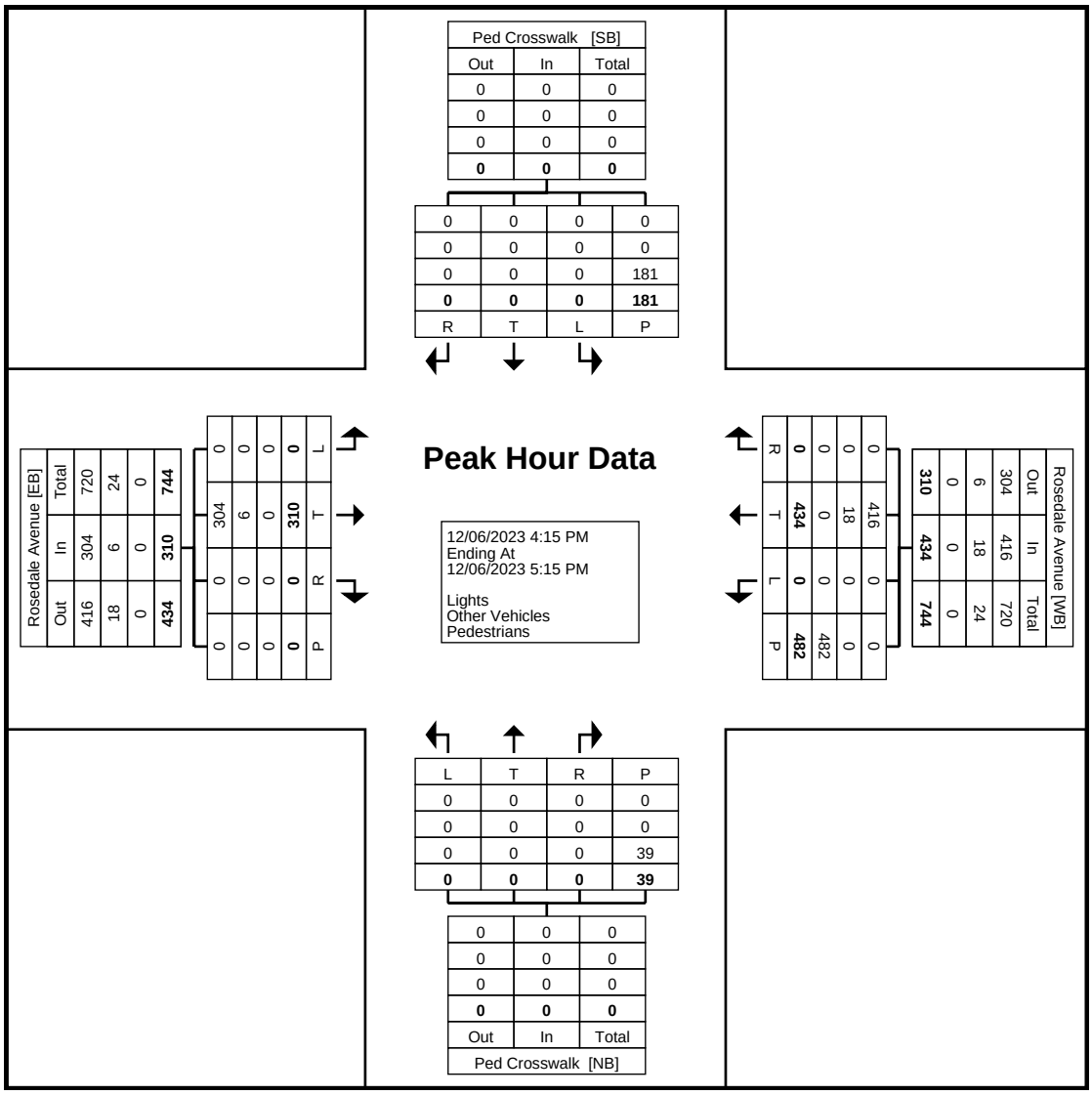

# Turning Movement Peak Hour Data (4:15 PM)

| Start Time | Rosedale Avenue Eastbound | | | | | Rosedale Avenue Westbound | | | | | Ped Crosswalk Northbound | | | | | Ped Crosswalk Southbound | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Left | Thru | Right | Peds | App. Total | Left | Thru | Right | Peds | App. Total | Left | Thru | Right | Peds | App. Total | Left | Thru | Right | Peds | App. Total | Int. Total |
| 4:15 PM | 0 | 85 | 0 | 0 | 85 | 0 | 105 | 0 | 121 | 105 | 0 | 0 | 0 | 9 | 0 | 0 | 0 | 0 | 58 | 0 | 190 |
| 4:30 PM | 0 | 79 | 0 | 0 | 79 | 0 | 114 | 0 | 112 | 114 | 0 | 0 | 0 | 22 | 0 | 0 | 0 | 0 | 38 | 0 | 193 |
| 4:45 PM | 0 | 72 | 0 | 0 | 72 | 0 | 120 | 0 | 111 | 120 | 0 | 0 | 0 | 7 | 0 | 0 | 0 | 0 | 33 | 0 | 192 |
| 5:00 PM | 0 | 74 | 0 | 0 | 74 | 0 | 95 | 0 | 138 | 95 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 52 | 0 | 169 |
| Total | 0 | 310 | 0 | 0 | 310 | 0 | 434 | 0 | 482 | 434 | 0 | 0 | 0 | 39 | 0 | 0 | 0 | 0 | 181 | 0 | 744 |
| Approach % | 0.0 | 100.0 | 0.0 | - | - | 0.0 | 100.0 | 0.0 | - | - | 0.0 | 0.0 | 0.0 | - | - | 0.0 | 0.0 | 0.0 | - | - | - |
| Total % | 0.0 | 41.7 | 0.0 | - | 41.7 | 0.0 | 58.3 | 0.0 | - | 58.3 | 0.0 | 0.0 | 0.0 | - | 0.0 | 0.0 | 0.0 | 0.0 | - | 0.0 | - |
| PHF | 0.000 | 0.912 | 0.000 | - | 0.912 | 0.000 | 0.904 | 0.000 | - | 0.904 | 0.000 | 0.000 | 0.000 | - | 0.000 | 0.000 | 0.000 | 0.000 | - | 0.000 | 0.964 |
| Lights | 0 | 304 | 0 | - | 304 | 0 | 416 | 0 | - | 416 | 0 | 0 | 0 | - | 0 | 0 | 0 | 0 | - | 0 | 720 |
| % Lights | - | 98.1 | - | - | 98.1 | - | 95.9 | - | - | 95.9 | - | - | - | - | - | - | - | - | - | - | 96.8 |
| Other Vehicles | 0 | 6 | 0 | - | 6 | 0 | 18 | 0 | - | 18 | 0 | 0 | 0 | - | 0 | 0 | 0 | 0 | - | 0 | 24 |
| % Other Vehicles | - | 1.9 | - | - | 1.9 | - | 4.1 | - | - | 4.1 | - | - | - | - | - | - | - | - | - | - | 3.2 |
| Pedestrians | - | - | - | 0 | - | - | - | - | 482 | - | - | - | - | 39 | - | - | - | - | 181 | - | - |
| % Pedestrians | - | - | - | - | - | - | - | - | 100.0 | - | - | - | - | 100.0 | - | - | - | - | 100.0 | - | - |

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610.326.3100

Counter: MIO:
Set up By JH::

Count Name: 15 Ped Crosswalk & Rosedale Avenue
Site Code:
Start Date: 12/06/2023


Turning Movement Peak Hour Data Plot (4:15 PM)

Traffic Planning and Design, Inc
2500 East High Street
Suite 650
Pottstown, Pennsylvania, United States 19464
610.326.3100

Counter: MIO:
Set up By JH::

Count Name: 16 South New Street & Rosedale Avenue
Site Code:
Start Date: 12/05/2023


# Turning Movement Data

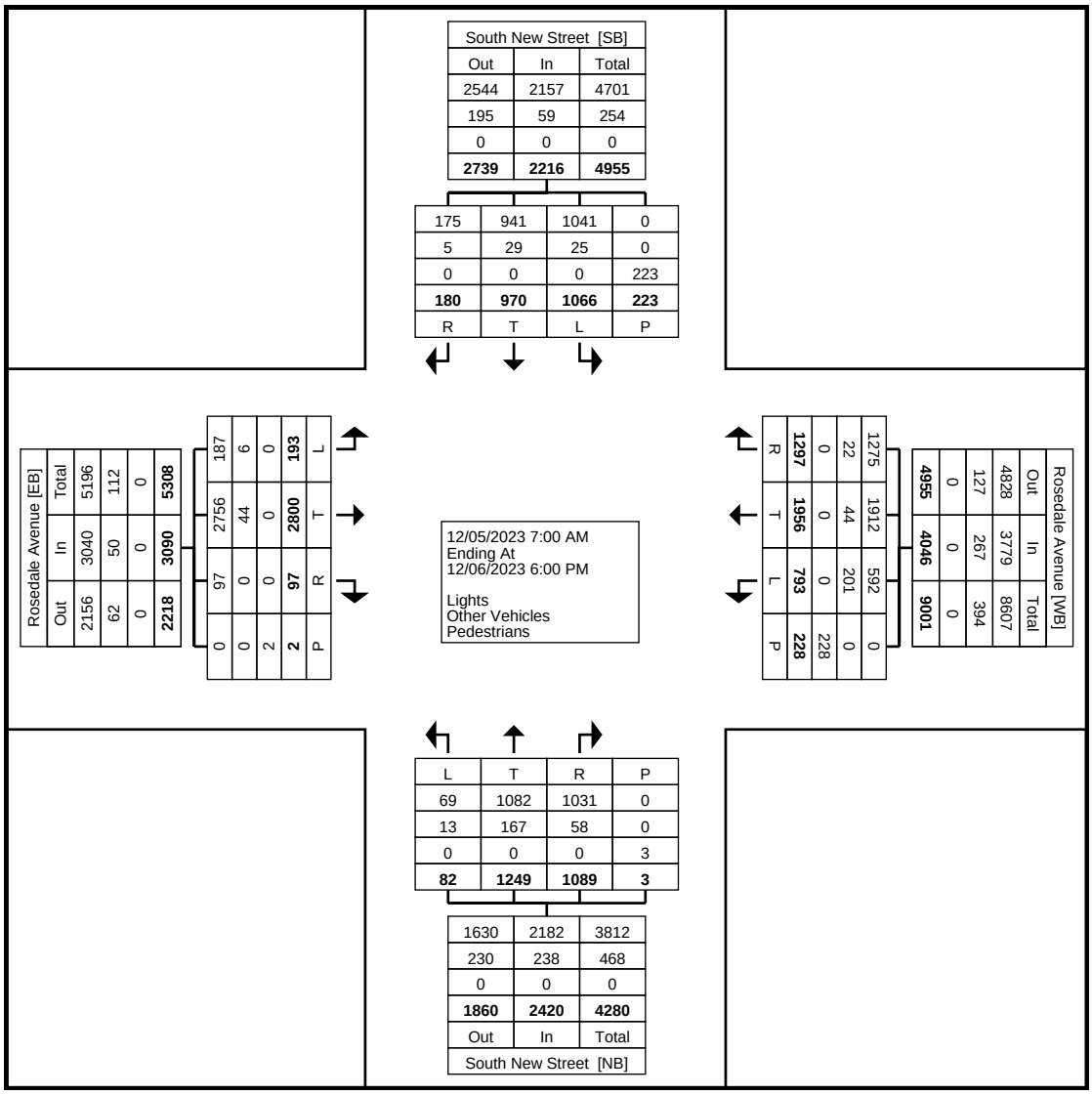
| Start Time | Rosedale Avenue Eastbound | | | | | | Rosedale Avenue Westbound | | | | | | South New Street Northbound | | | | | | South New Street Southbound | | | | | | Int. Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Left | Thru | Right | Right on Red | Peds | App. Total | Left | Thru | Right | Right on Red | Peds | App. Total | Left | Thru | Right | Right on Red | Peds | App. Total | Left | Thru | Right | Right on Red | Peds | App. Total | |
| 7:00 AM | 2 | 83 | 2 | 0 | 0 | 87 | 7 | 16 | 11 | 0 | 4 | 34 | 1 | 6 | 15 | 0 | 0 | 22 | 15 | 13 | 0 | 1 | 0 | 29 | 172 |
| 7:15 AM | 3 | 86 | 1 | 0 | 0 | 90 | 4 | 19 | 13 | 0 | 1 | 36 | 2 | 14 | 25 | 0 | 0 | 41 | 13 | 12 | 1 | 1 | 0 | 27 | 194 |
| 7:30 AM | 5 | 102 | 0 | 0 | 0 | 107 | 18 | 19 | 21 | 0 | 6 | 58 | 1 | 22 | 16 | 0 | 0 | 39 | 18 | 13 | 0 | 0 | 3 | 31 | 235 |
| 7:45 AM | 5 | 124 | 1 | 0 | 0 | 130 | 9 | 32 | 23 | 0 | 16 | 64 | 1 | 30 | 23 | 0 | 0 | 54 | 30 | 14 | 2 | 1 | 6 | 47 | 295 |
| Hourly Total | 15 | 395 | 4 | 0 | 0 | 414 | 38 | 86 | 68 | 0 | 27 | 192 | 5 | 72 | 79 | 0 | 0 | 156 | 76 | 52 | 3 | 3 | 9 | 134 | 896 |
| 8:00 AM | 5 | 103 | 0 | 0 | 0 | 108 | 20 | 33 | 14 | 0 | 8 | 67 | 2 | 35 | 16 | 1 | 0 | 54 | 21 | 16 | 0 | 2 | 3 | 39 | 268 |
| 8:15 AM | 2 | 89 | 2 | 0 | 0 | 93 | 8 | 29 | 24 | 0 | 3 | 61 | 0 | 25 | 24 | 0 | 0 | 49 | 22 | 10 | 0 | 1 | 2 | 33 | 236 |
| 8:30 AM | 1 | 84 | 1 | 0 | 0 | 86 | 8 | 25 | 19 | 0 | 1 | 52 | 4 | 23 | 20 | 0 | 0 | 47 | 13 | 20 | 3 | 3 | 1 | 39 | 224 |
| 8:45 AM | 1 | 73 | 0 | 0 | 0 | 74 | 14 | 30 | 18 | 0 | 4 | 62 | 3 | 32 | 16 | 2 | 0 | 53 | 26 | 15 | 1 | 2 | 3 | 44 | 233 |
| Hourly Total | 9 | 349 | 3 | 0 | 0 | 361 | 50 | 117 | 75 | 0 | 16 | 242 | 9 | 115 | 76 | 3 | 0 | 203 | 82 | 61 | 4 | 8 | 9 | 155 | 961 |
| 9:00 AM | 6 | 59 | 0 | 1 | 0 | 66 | 21 | 28 | 30 | 8 | 10 | 87 | 1 | 29 | 12 | 0 | 0 | 42 | 23 | 17 | 5 | 3 | 9 | 48 | 243 |
| 9:15 AM | 14 | 67 | 6 | 0 | 0 | 87 | 24 | 24 | 35 | 5 | 5 | 88 | 1 | 39 | 17 | 0 | 0 | 57 | 19 | 40 | 1 | 0 | 18 | 60 | 292 |
| 9:30 AM | 3 | 44 | 0 | 0 | 0 | 47 | 19 | 16 | 39 | 4 | 0 | 78 | 0 | 16 | 17 | 0 | 0 | 33 | 10 | 10 | 0 | 1 | 6 | 21 | 179 |
| 9:45 AM | 2 | 37 | 1 | 0 | 1 | 40 | 12 | 24 | 42 | 0 | 0 | 78 | 1 | 16 | 14 | 0 | 1 | 31 | 19 | 13 | 0 | 0 | 3 | 32 | 181 |
| Hourly Total | 25 | 207 | 7 | 1 | 1 | 240 | 76 | 92 | 146 | 17 | 15 | 331 | 3 | 100 | 60 | 0 | 1 | 163 | 71 | 80 | 6 | 4 | 36 | 161 | 895 |
| *** BREAK *** | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 3:00 PM | 1 | 39 | 3 | 0 | 0 | 43 | 15 | 32 | 27 | 0 | 2 | 74 | 2 | 25 | 26 | 0 | 0 | 53 | 15 | 24 | 4 | 0 | 9 | 43 | 213 |
| 3:15 PM | 7 | 26 | 4 | 0 | 0 | 37 | 21 | 46 | 24 | 0 | 3 | 91 | 4 | 28 | 24 | 0 | 0 | 56 | 26 | 24 | 6 | 3 | 12 | 59 | 243 |
| 3:30 PM | 3 | 38 | 6 | 0 | 0 | 47 | 21 | 61 | 28 | 1 | 6 | 111 | 1 | 23 | 30 | 0 | 0 | 54 | 32 | 23 | 7 | 3 | 3 | 65 | 277 |
| 3:45 PM | 3 | 37 | 3 | 0 | 0 | 43 | 23 | 66 | 19 | 0 | 3 | 108 | 3 | 36 | 36 | 0 | 0 | 75 | 38 | 27 | 1 | 2 | 2 | 68 | 294 |
| Hourly Total | 14 | 140 | 16 | 0 | 0 | 170 | 80 | 205 | 98 | 1 | 14 | 384 | 10 | 112 | 116 | 0 | 0 | 238 | 111 | 98 | 18 | 8 | 26 | 235 | 1027 |
| 4:00 PM | 4 | 34 | 2 | 0 | 0 | 40 | 14 | 63 | 36 | 1 | 5 | 114 | 4 | 26 | 38 | 3 | 0 | 71 | 33 | 24 | 3 | 1 | 5 | 61 | 286 |
| 4:15 PM | 3 | 43 | 4 | 0 | 0 | 50 | 24 | 66 | 49 | 0 | 5 | 139 | 3 | 30 | 38 | 2 | 0 | 73 | 22 | 27 | 4 | 1 | 5 | 54 | 316 |
| 4:30 PM | 4 | 43 | 3 | 0 | 0 | 50 | 25 | 71 | 38 | 0 | 13 | 134 | 1 | 28 | 18 | 5 | 0 | 52 | 30 | 26 | 0 | 0 | 5 | 56 | 292 |
| 4:45 PM | 5 | 40 | 1 | 0 | 0 | 46 | 15 | 64 | 33 | 0 | 9 | 112 | 1 | 24 | 24 | 3 | 0 | 52 | 22 | 25 | 4 | 0 | 3 | 51 | 261 |
| Hourly Total | 16 | 160 | 10 | 0 | 0 | 186 | 78 | 264 | 156 | 1 | 32 | 499 | 9 | 108 | 118 | 13 | 0 | 248 | 107 | 102 | 11 | 2 | 18 | 222 | 1155 |
| 5:00 PM | 3 | 35 | 0 | 0 | 1 | 38 | 19 | 53 | 30 | 0 | 8 | 102 | 1 | 24 | 18 | 0 | 1 | 43 | 28 | 17 | 5 | 4 | 1 | 54 | 237 |
| 5:15 PM | 1 | 24 | 0 | 1 | 0 | 26 | 17 | 54 | 30 | 0 | 6 | 101 | 0 | 38 | 23 | 0 | 1 | 61 | 18 | 29 | 1 | 3 | 4 | 51 | 239 |
| 5:30 PM | 2 | 30 | 0 | 1 | 0 | 33 | 24 | 61 | 30 | 0 | 5 | 115 | 3 | 23 | 31 | 0 | 0 | 57 | 23 | 18 | 3 | 1 | 5 | 45 | 250 |
| 5:45 PM | 4 | 40 | 3 | 0 | 0 | 47 | 24 | 58 | 26 | 0 | 2 | 108 | 3 | 27 | 32 | 0 | 0 | 62 | 27 | 24 | 2 | 4 | 4 | 57 | 274 |
| Hourly Total | 10 | 129 | 3 | 2 | 1 | 144 | 84 | 226 | 116 | 0 | 21 | 426 | 7 | 112 | 104 | 0 | 2 | 223 | 96 | 88 | 11 | 12 | 14 | 207 | 1000 |
| *** BREAK *** | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 7:00 AM | 2 | 72 | 0 | 0 | 0 | 74 | 4 | 16 | 5 | 3 | 2 | 28 | 0 | 5 | 13 | 0 | 0 | 18 | 7 | 12 | 0 | 2 | 1 | 21 | 141 |
| 7:15 AM | 3 | 81 | 2 | 1 | 0 | 87 | 2 | 15 | 11 | 0 | 1 | 28 | 3 | 12 | 22 | 1 | 0 | 38 | 16 | 6 | 2 | 1 | 1 | 25 | 178 |
| 7:30 AM | 5 | 107 | 2 | 0 | 0 | 114 | 11 | 17 | 11 | 0 | 6 | 39 | 0 | 29 | 17 | 0 | 0 | 46 | 18 | 7 | 1 | 0 | 4 | 26 | 225 |
| 7:45 AM | 8 | 110 | 1 | 0 | 0 | 119 | 9 | 16 | 25 | 0 | 13 | 50 | 0 | 35 | 38 | 0 | 0 | 73 | 25 | 16 | 2 | 2 | 3 | 45 | 287 |
| Hourly Total | 18 | 370 | 5 | 1 | 0 | 394 | 26 | 64 | 52 | 3 | 22 | 145 | 3 | 81 | 90 | 1 | 0 | 175 | 66 | 41 | 5 | 5 | 9 | 117 | 831 |
| 8:00 AM | 1 | 96 | 1 | 1 | 0 | 99 | 11 | 29 | 22 | 1 | 7 | 63 | 0 | 33 | 24 | 1 | 0 | 58 | 19 | 18 | 2 | 0 | 4 | 39 | 259 |
| 8:15 AM | 1 | 90 | 0 | 0 | 0 | 91 | 7 | 26 | 20 | 0 | 1 | 53 | 1 | 25 | 21 | 0 | 0 | 47 | 13 | 14 | 1 | 0 | 3 | 28 | 219 |
| 8:30 AM | 6 | 101 | 5 | 1 | 0 | 113 | 9 | 26 | 31 | 1 | 4 | 67 | 2 | 29 | 21 | 0 | 0 | 52 | 18 | 20 | 3 | 1 | 7 | 42 | 274 |
| 8:45 AM | 4 | 93 | 1 | 0 | 0 | 98 | 15 | 24 | 32 | 1 | 1 | 72 | 0 | 47 | 23 | 0 | 0 | 70 | 23 | 21 | 1 | 4 | 9 | 49 | 289 |
| Hourly Total | 12 | 380 | 7 | 2 | 0 | 401 | 42 | 105 | 105 | 3 | 13 | 255 | 3 | 134 | 89 | 1 | 0 | 227 | 73 | 73 | 7 | 5 | 23 | 158 | 1041 |
| 9:00 AM | 9 | 65 | 1 | 0 | 0 | 75 | 12 | 31 | 11 | 7 | 3 | 61 | 2 | 25 | 11 | 0 | 0 | 38 | 15 | 15 | 6 | 4 | 4 | 40 | 214 |
| 9:15 AM | 7 | 46 | 2 | 0 | 0 | 55 | 12 | 17 | 27 | 0 | 0 | 56 | 2 | 17 | 12 | 0 | 0 | 31 | 12 | 14 | 1 | 2 | 4 | 29 | 171 |
| 9:30 AM | 1 | 40 | 1 | 0 | 0 | 42 | 8 | 17 | 29 | 0 | 1 | 54 | 1 | 23 | 11 | 0 | 0 | 35 | 17 | 14 | 0 | 0 | 4 | 31 | 162 |
| 9:45 AM | 3 | 39 | 3 | 0 | 0 | 45 | 18 | 22 | 29 | 1 | 2 | 70 | 0 | 27 | 19 | 0 | 0 | 46 | 12 | 21 | 1 | 0 | 9 | 34 | 195 |
| Hourly Total | 20 | 190 | 7 | 0 | 0 | 217 | 50 | 87 | 96 | 8 | 6 | 241 | 5 | 92 | 53 | 0 | 0 | 150 | 56 | 64 | 8 | 6 | 21 | 134 | 742 |
| *** BREAK *** | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 3:00 PM | 8 | 43 | 2 | 0 | 0 | 53 | 26 | 56 | 24 | 1 | 3 | 107 | 2 | 22 | 19 | 0 | 0 | 43 | 28 | 22 | 2 | 5 | 6 | 57 | 260 |
| 3:15 PM | 4 | 29 | 5 | 0 | 0 | 38 | 22 | 42 | 26 | 0 | 10 | 90 | 5 | 27 | 19 | 0 | 0 | 51 | 28 | 28 | 1 | 0 | 6 | 57 | 236 |
| 3:30 PM | 4 | 34 | 4 | 0 | 0 | 42 | 24 | 62 | 23 | 0 | 1 | 109 | 3 | 17 | 29 | 0 | 0 | 49 | 28 | 18 | 6 | 0 | 5 | 52 | 252 |
| 3:45 PM | 5 | 29 | 3 | 0 | 0 | 37 | 14 | 56 | 28 | 1 | 3 | 99 | 2 | 26 | 22 | 0 | 0 | 50 | 26 | 28 | 1 | 2 | 4 | 57 | 243 |
| Hourly Total | 21 | 135 | 14 | 0 | 0 | 170 | 86 | 216 | 101 | 2 | 17 | 405 | 12 | 92 | 89 | 0 | 0 | 193 | 110 | 96 | 10 | 7 | 21 | 223 | 991 |
| 4:00 PM | 5 | 53 | 1 | 1 | 0 | 60 | 15 | 58 | 31 | 1 | 11 | 105 | 2 | 32 | 41 | 0 | 0 | 75 | 23 | 32 | 1 | 4 | 8 | 60 | 300 |
| 4:15 PM | 6 | 47 | 2 | 0 | 0 | 55 | 24 | 68 | 27 | 0 | 4 | 119 | 2 | 33 | 18 | 0 | 0 | 53 | 37 | 33 | 3 | 0 | 6 | 73 | 300 |
| 4:30 PM | 5 | 48 | 3 | 0 | 0 | 56 | 25 | 61 | 53 | 0 | 15 | 139 | 2 | 31 | 21 | 0 | 0 | 54 | 24 | 31 | 4 | 3 | 8 | 62 | 311 |
| 4:45 PM | 4 | 41 | 4 | 0 | 0 | 49 | 21 | 70 | 43 | 0 | 4 | 134 | 2 | 40 | 21 | 0 | 0 | 63 | 24 | 29 | 3 | 3 | 5 | 59 | 305 |
| Hourly Total | 20 | 189 | 10 | 1 | 0 | 220 | 85 | 257 | 154 | 1 | 34 | 497 | 8 | 136 | 101 | 0 | 0 | 245 | 108 | 125 | 11 | 10 | 27 | 254 | 1216 |
| 5:00 PM | 3 | 39 | 2 | 0 | 0 | 44 | 26 | 68 | 23 | 2 | 2 | 119 | 5 | 26 | 22 | 0 | 0 | 53 | 39 | 19 | 2 | 1 | 1 | 61 | 277 |

| | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 5:15 PM | 5 | 32 | 1 | 0 | 0 | 38 | 18 | 65 | 23 | 0 | 6 | 106 | 0 | 28 | 16 | 0 | 0 | 44 | 21 | 24 | 3 | 1 | 6 | 49 | 237 |
| 5:30 PM | 5 | 41 | 0 | 0 | 0 | 46 | 26 | 52 | 14 | 1 | 1 | 93 | 1 | 24 | 30 | 0 | 0 | 55 | 24 | 28 | 2 | 3 | 0 | 57 | 251 |
| 5:45 PM | 0 | 44 | 1 | 0 | 0 | 45 | 28 | 52 | 31 | 0 | 2 | 111 | 2 | 17 | 28 | 0 | 0 | 47 | 26 | 19 | 3 | 1 | 3 | 49 | 252 |
| Hourly Total | 13 | 156 | 4 | 0 | 0 | 173 | 98 | 237 | 91 | 3 | 11 | 429 | 8 | 95 | 96 | 0 | 0 | 199 | 110 | 90 | 10 | 6 | 10 | 216 | 1017 |
| Grand Total | 193 | 2800 | 90 | 7 | 2 | 3090 | 793 | 1956 | 1258 | 39 | 228 | 4046 | 82 | 1249 | 1071 | 18 | 3 | 2420 | 1066 | 970 | 104 | 76 | 223 | 2216 | 11772 |
| Approach % | 6.2 | 90.6 | 2.9 | 0.2 | - | - | 19.6 | 48.3 | 31.1 | 1.0 | - | - | 3.4 | 51.6 | 44.3 | 0.7 | - | - | 48.1 | 43.8 | 4.7 | 3.4 | - | - | - |
| Total % | 1.6 | 23.8 | 0.8 | 0.1 | - | 26.2 | 6.7 | 16.6 | 10.7 | 0.3 | - | 34.4 | 0.7 | 10.6 | 9.1 | 0.2 | - | 20.6 | 9.1 | 8.2 | 0.9 | 0.6 | - | 18.8 | - |
| Lights | 187 | 2756 | 90 | 7 | - | 3040 | 592 | 1912 | 1238 | 37 | - | 3779 | 69 | 1082 | 1014 | 17 | - | 2182 | 1041 | 941 | 101 | 74 | - | 2157 | 11158 |
| % Lights | 96.9 | 98.4 | 100.0 | 100.0 | - | 98.4 | 74.7 | 97.8 | 98.4 | 94.9 | - | 93.4 | 84.1 | 86.6 | 94.7 | 94.4 | - | 90.2 | 97.7 | 97.0 | 97.1 | 97.4 | - | 97.3 | 94.8 |
| Other Vehicles | 6 | 44 | 0 | 0 | - | 50 | 201 | 44 | 20 | 2 | - | 267 | 13 | 167 | 57 | 1 | - | 238 | 25 | 29 | 3 | 2 | - | 59 | 614 |
| % Other Vehicles | 3.1 | 1.6 | 0.0 | 0.0 | - | 1.6 | 25.3 | 2.2 | 1.6 | 5.1 | - | 6.6 | 15.9 | 13.4 | 5.3 | 5.6 | - | 9.8 | 2.3 | 3.0 | 2.9 | 2.6 | - | 2.7 | 5.2 |
| Pedestrians | - | - | - | - | 2 | - | - | - | - | - | 228 | - | - | - | - | - | 3 | - | - | - | - | - | 223 | - | - |
| % Pedestrians | - | - | - | - | 100.0 | - | - | - | - | - | 100.0 | - | - | - | - | - | 100.0 | - | - | - | - | - | 100.0 | - | - |

Traffic Planning and Design, Inc
2500 East High Street
Suite 650
Pottstown, Pennsylvania, United States 19464
610.326.3100

Counter: MIO:
Set up By JH::

Count Name: 16 South New Street & Rosedale Avenue
Site Code:
Start Date: 12/05/2023


Turning Movement Data Plot

Counter: MIO:
Set up By JH::

Traffic Planning and Design, Inc
2500 East High Street
Suite 650
Pottstown, Pennsylvania, United States 19464
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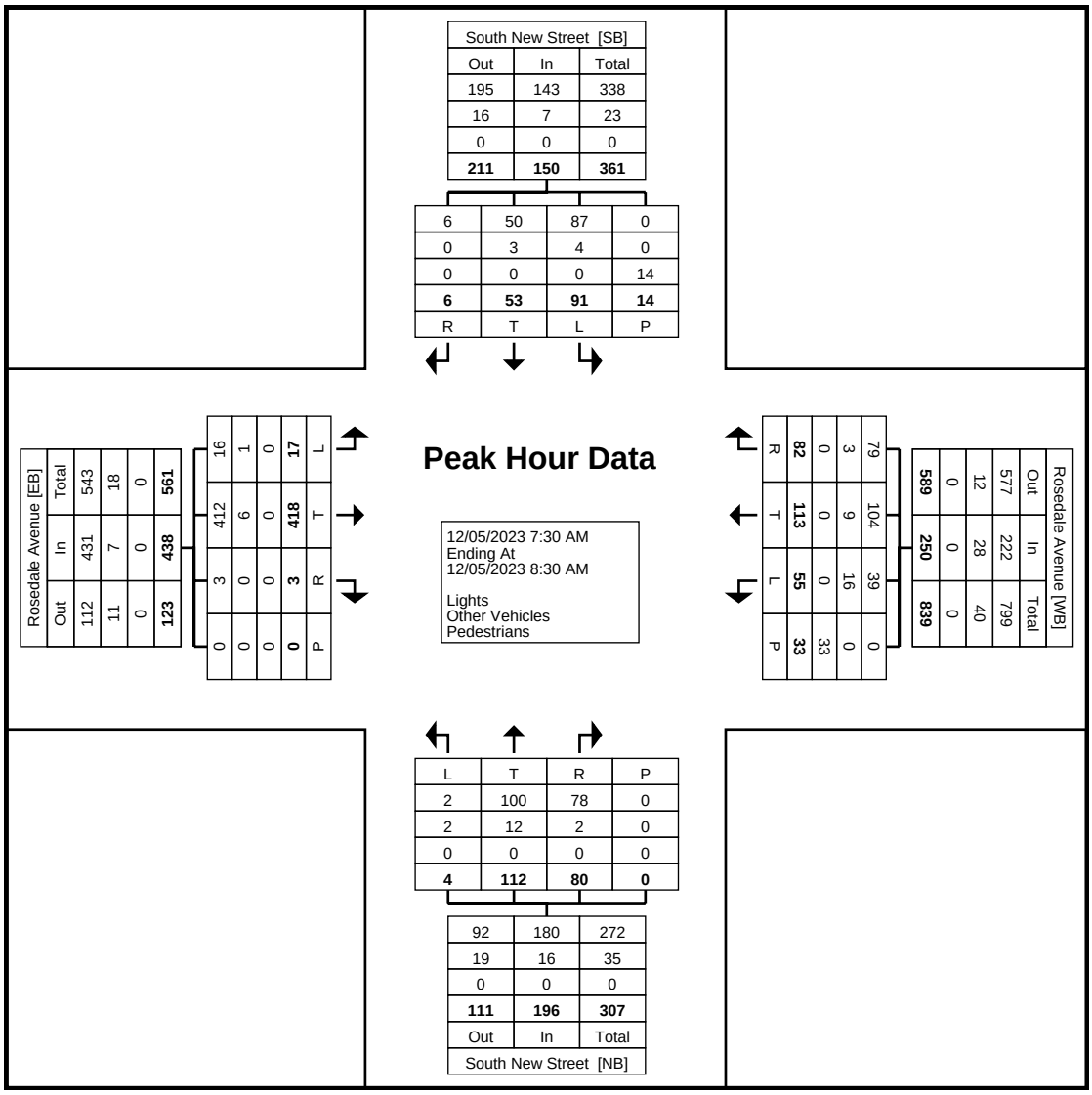
# Turning Movement Peak Hour Data (7:30 AM)

| Start Time | Rosedale Avenue Eastbound | | | | | | Rosedale Avenue Westbound | | | | | | South New Street Northbound | | | | | | South New Street Southbound | | | | | | Int. Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Left | Thru | Right | Right on Red | Peds | App. Total | Left | Thru | Right | Right on Red | Peds | App. Total | Left | Thru | Right | Right on Red | Peds | App. Total | Left | Thru | Right | Right on Red | Peds | App. Total | |
| 7:30 AM | 5 | 102 | 0 | 0 | 0 | 107 | 18 | 19 | 21 | 0 | 6 | 58 | 1 | 22 | 16 | 0 | 0 | 39 | 18 | 13 | 0 | 0 | 3 | 31 | 235 |
| 7:45 AM | 5 | 124 | 1 | 0 | 0 | 130 | 9 | 32 | 23 | 0 | 16 | 64 | 1 | 30 | 23 | 0 | 0 | 54 | 30 | 14 | 2 | 1 | 6 | 47 | 295 |
| 8:00 AM | 5 | 103 | 0 | 0 | 0 | 108 | 20 | 33 | 14 | 0 | 8 | 67 | 2 | 35 | 16 | 1 | 0 | 54 | 21 | 16 | 0 | 2 | 3 | 39 | 268 |
| 8:15 AM | 2 | 89 | 2 | 0 | 0 | 93 | 8 | 29 | 24 | 0 | 3 | 61 | 0 | 25 | 24 | 0 | 0 | 49 | 22 | 10 | 0 | 1 | 2 | 33 | 236 |
| Total | 17 | 418 | 3 | 0 | 0 | 438 | 55 | 113 | 82 | 0 | 33 | 250 | 4 | 112 | 79 | 1 | 0 | 196 | 91 | 53 | 2 | 4 | 14 | 150 | 1034 |
| Approach % | 3.9 | 95.4 | 0.7 | 0.0 | - | - | 22.0 | 45.2 | 32.8 | 0.0 | - | - | 2.0 | 57.1 | 40.3 | 0.5 | - | - | 60.7 | 35.3 | 1.3 | 2.7 | - | - | - |
| Total % | 1.6 | 40.4 | 0.3 | 0.0 | - | 42.4 | 5.3 | 10.9 | 7.9 | 0.0 | - | 24.2 | 0.4 | 10.8 | 7.6 | 0.1 | - | 19.0 | 8.8 | 5.1 | 0.2 | 0.4 | - | 14.5 | - |
| PHF | 0.850 | 0.843 | 0.375 | 0.000 | - | 0.842 | 0.688 | 0.856 | 0.854 | 0.000 | - | 0.933 | 0.500 | 0.800 | 0.823 | 0.250 | - | 0.907 | 0.758 | 0.828 | 0.250 | 0.500 | - | 0.798 | 0.876 |
| Lights | 16 | 412 | 3 | 0 | - | 431 | 39 | 104 | 79 | 0 | - | 222 | 2 | 100 | 77 | 1 | - | 180 | 87 | 50 | 2 | 4 | - | 143 | 976 |
| % Lights | 94.1 | 98.6 | 100.0 | - | - | 98.4 | 70.9 | 92.0 | 96.3 | - | - | 88.8 | 50.0 | 89.3 | 97.5 | 100.0 | - | 91.8 | 95.6 | 94.3 | 100.0 | 100.0 | - | 95.3 | 94.4 |
| Other Vehicles | 1 | 6 | 0 | 0 | - | 7 | 16 | 9 | 3 | 0 | - | 28 | 2 | 12 | 2 | 0 | - | 16 | 4 | 3 | 0 | 0 | - | 7 | 58 |
| % Other Vehicles | 5.9 | 1.4 | 0.0 | - | - | 1.6 | 29.1 | 8.0 | 3.7 | - | - | 11.2 | 50.0 | 10.7 | 2.5 | 0.0 | - | 8.2 | 4.4 | 5.7 | 0.0 | 0.0 | - | 4.7 | 5.6 |
| Pedestrians | - | - | - | - | 0 | - | - | - | - | - | 33 | - | - | - | - | - | 0 | - | - | - | - | - | 14 | - | - |
| % Pedestrians | - | - | - | - | - | - | - | - | - | - | 100.0 | - | - | - | - | - | - | - | - | - | - | - | 100.0 | - | - |

Traffic Planning and Design, Inc
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Counter: MIO:
Set up By JH::

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Site Code:
Start Date: 12/05/2023


Turning Movement Peak Hour Data Plot (7:30 AM)

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Pottstown, Pennsylvania, United States 19464
610.326.3100

Counter: MIO:
Set up By JH::

Count Name: 16 South New Street & Rosedale Avenue
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Start Date: 12/05/2023

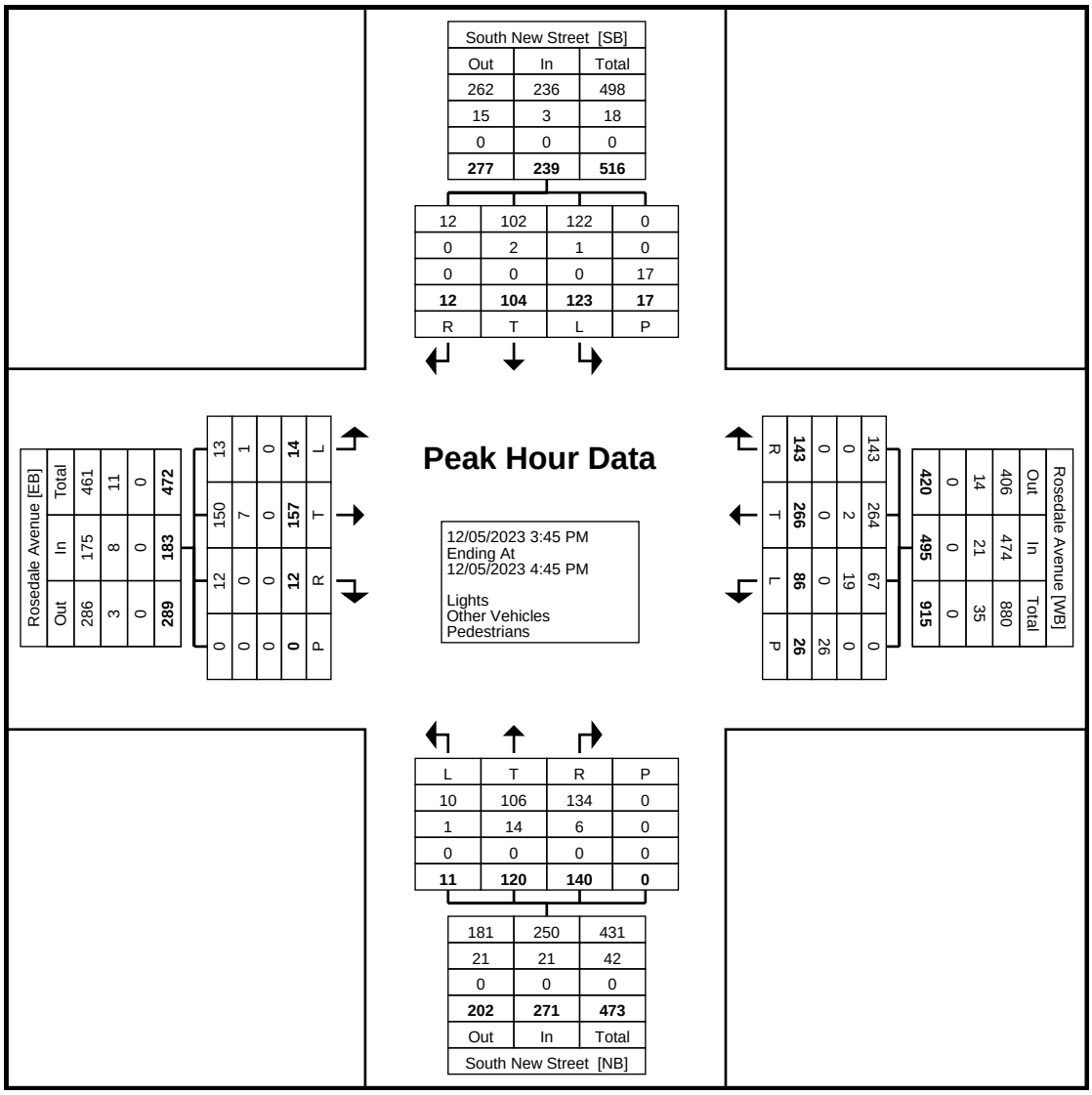

# Turning Movement Peak Hour Data (3:45 PM)

| Start Time | Rosedale Avenue Eastbound | | | | | | Rosedale Avenue Westbound | | | | | | South New Street Northbound | | | | | | South New Street Southbound | | | | | | Int. Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Left | Thru | Right | Right on Red | Peds | App. Total | Left | Thru | Right | Right on Red | Peds | App. Total | Left | Thru | Right | Right on Red | Peds | App. Total | Left | Thru | Right | Right on Red | Peds | App. Total | |
| 3:45 PM | 3 | 37 | 3 | 0 | 0 | 43 | 23 | 66 | 19 | 0 | 3 | 108 | 3 | 36 | 36 | 0 | 0 | 75 | 38 | 27 | 1 | 2 | 2 | 68 | 294 |
| 4:00 PM | 4 | 34 | 2 | 0 | 0 | 40 | 14 | 63 | 36 | 1 | 5 | 114 | 4 | 26 | 38 | 3 | 0 | 71 | 33 | 24 | 3 | 1 | 5 | 61 | 286 |
| 4:15 PM | 3 | 43 | 4 | 0 | 0 | 50 | 24 | 66 | 49 | 0 | 5 | 139 | 3 | 30 | 38 | 2 | 0 | 73 | 22 | 27 | 4 | 1 | 5 | 54 | 316 |
| 4:30 PM | 4 | 43 | 3 | 0 | 0 | 50 | 25 | 71 | 38 | 0 | 13 | 134 | 1 | 28 | 18 | 5 | 0 | 52 | 30 | 26 | 0 | 0 | 5 | 56 | 292 |
| Total | 14 | 157 | 12 | 0 | 0 | 183 | 86 | 266 | 142 | 1 | 26 | 495 | 11 | 120 | 130 | 10 | 0 | 271 | 123 | 104 | 8 | 4 | 17 | 239 | 1188 |
| Approach % | 7.7 | 85.8 | 6.6 | 0.0 | - | - | 17.4 | 53.7 | 28.7 | 0.2 | - | - | 4.1 | 44.3 | 48.0 | 3.7 | - | - | 51.5 | 43.5 | 3.3 | 1.7 | - | - | - |
| Total % | 1.2 | 13.2 | 1.0 | 0.0 | - | 15.4 | 7.2 | 22.4 | 12.0 | 0.1 | - | 41.7 | 0.9 | 10.1 | 10.9 | 0.8 | - | 22.8 | 10.4 | 8.8 | 0.7 | 0.3 | - | 20.1 | - |
| PHF | 0.875 | 0.913 | 0.750 | 0.000 | - | 0.915 | 0.860 | 0.937 | 0.724 | 0.250 | - | 0.890 | 0.688 | 0.833 | 0.855 | 0.500 | - | 0.903 | 0.809 | 0.963 | 0.500 | 0.500 | - | 0.879 | 0.940 |
| Lights | 13 | 150 | 12 | 0 | - | 175 | 67 | 264 | 142 | 1 | - | 474 | 10 | 106 | 124 | 10 | - | 250 | 122 | 102 | 8 | 4 | - | 236 | 1135 |
| % Lights | 92.9 | 95.5 | 100.0 | - | - | 95.6 | 77.9 | 99.2 | 100.0 | 100.0 | - | 95.8 | 90.9 | 88.3 | 95.4 | 100.0 | - | 92.3 | 99.2 | 98.1 | 100.0 | 100.0 | - | 98.7 | 95.5 |
| Other Vehicles | 1 | 7 | 0 | 0 | - | 8 | 19 | 2 | 0 | 0 | - | 21 | 1 | 14 | 6 | 0 | - | 21 | 1 | 2 | 0 | 0 | - | 3 | 53 |
| % Other Vehicles | 7.1 | 4.5 | 0.0 | - | - | 4.4 | 22.1 | 0.8 | 0.0 | 0.0 | - | 4.2 | 9.1 | 11.7 | 4.6 | 0.0 | - | 7.7 | 0.8 | 1.9 | 0.0 | 0.0 | - | 1.3 | 4.5 |
| Pedestrians | - | - | - | - | 0 | - | - | - | - | - | 26 | - | - | - | - | - | 0 | - | - | - | - | - | 17 | - | - |
| % Pedestrians | - | - | - | - | - | - | - | - | - | - | 100.0 | - | - | - | - | - | - | - | - | - | - | - | 100.0 | - | - |

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Counter: MIO:
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Site Code:
Start Date: 12/05/2023


Turning Movement Peak Hour Data Plot (3:45 PM)

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Counter: MIO:
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Count Name: 16 South New Street & Rosedale Avenue
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Start Date: 12/05/2023

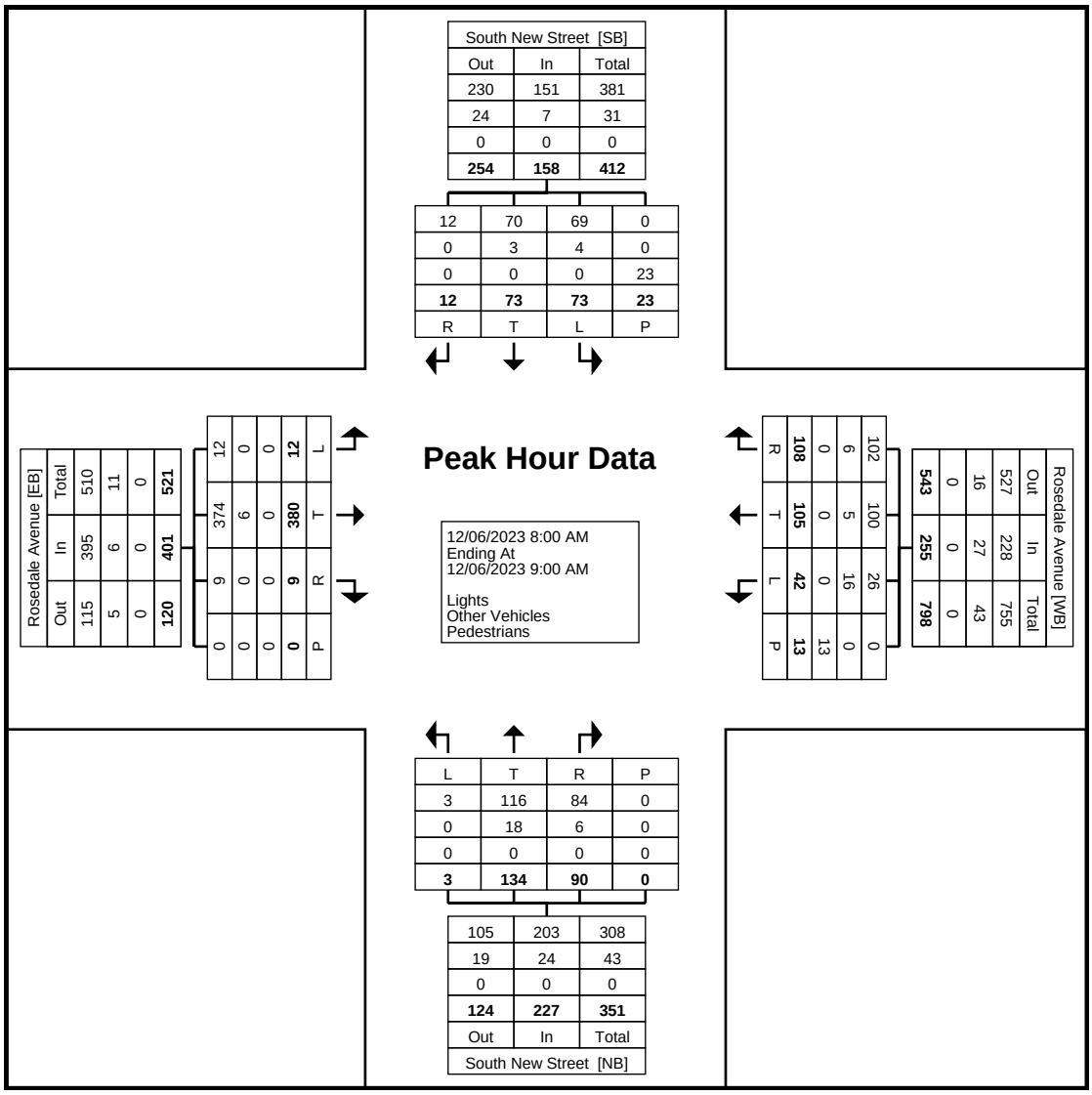

# Turning Movement Peak Hour Data (8:00 AM)

| Start Time | Rosedale Avenue Eastbound | | | | | | Rosedale Avenue Westbound | | | | | | South New Street Northbound | | | | | | South New Street Southbound | | | | | | Int. Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Left | Thru | Right | Right on Red | Peds | App. Total | Left | Thru | Right | Right on Red | Peds | App. Total | Left | Thru | Right | Right on Red | Peds | App. Total | Left | Thru | Right | Right on Red | Peds | App. Total | |
| 8:00 AM | 1 | 96 | 1 | 1 | 0 | 99 | 11 | 29 | 22 | 1 | 7 | 63 | 0 | 33 | 24 | 1 | 0 | 58 | 19 | 18 | 2 | 0 | 4 | 39 | 259 |
| 8:15 AM | 1 | 90 | 0 | 0 | 0 | 91 | 7 | 26 | 20 | 0 | 1 | 53 | 1 | 25 | 21 | 0 | 0 | 47 | 13 | 14 | 1 | 0 | 3 | 28 | 219 |
| 8:30 AM | 6 | 101 | 5 | 1 | 0 | 113 | 9 | 26 | 31 | 1 | 4 | 67 | 2 | 29 | 21 | 0 | 0 | 52 | 18 | 20 | 3 | 1 | 7 | 42 | 274 |
| 8:45 AM | 4 | 93 | 1 | 0 | 0 | 98 | 15 | 24 | 32 | 1 | 1 | 72 | 0 | 47 | 23 | 0 | 0 | 70 | 23 | 21 | 1 | 4 | 9 | 49 | 289 |
| Total | 12 | 380 | 7 | 2 | 0 | 401 | 42 | 105 | 105 | 3 | 13 | 255 | 3 | 134 | 89 | 1 | 0 | 227 | 73 | 73 | 7 | 5 | 23 | 158 | 1041 |
| Approach % | 3.0 | 94.8 | 1.7 | 0.5 | - | - | 16.5 | 41.2 | 41.2 | 1.2 | - | - | 1.3 | 59.0 | 39.2 | 0.4 | - | - | 46.2 | 46.2 | 4.4 | 3.2 | - | - | - |
| Total % | 1.2 | 36.5 | 0.7 | 0.2 | - | 38.5 | 4.0 | 10.1 | 10.1 | 0.3 | - | 24.5 | 0.3 | 12.9 | 8.5 | 0.1 | - | 21.8 | 7.0 | 7.0 | 0.7 | 0.5 | - | 15.2 | - |
| PHF | 0.500 | 0.941 | 0.350 | 0.500 | - | 0.887 | 0.700 | 0.905 | 0.820 | 0.750 | - | 0.885 | 0.375 | 0.713 | 0.927 | 0.250 | - | 0.811 | 0.793 | 0.869 | 0.583 | 0.313 | - | 0.806 | 0.901 |
| Lights | 12 | 374 | 7 | 2 | - | 395 | 26 | 100 | 99 | 3 | - | 228 | 3 | 116 | 84 | 0 | - | 203 | 69 | 70 | 7 | 5 | - | 151 | 977 |
| % Lights | 100.0 | 98.4 | 100.0 | 100.0 | - | 98.5 | 61.9 | 95.2 | 94.3 | 100.0 | - | 89.4 | 100.0 | 86.6 | 94.4 | 0.0 | - | 89.4 | 94.5 | 95.9 | 100.0 | 100.0 | - | 95.6 | 93.9 |
| Other Vehicles | 0 | 6 | 0 | 0 | - | 6 | 16 | 5 | 6 | 0 | - | 27 | 0 | 18 | 5 | 1 | - | 24 | 4 | 3 | 0 | 0 | - | 7 | 64 |
| % Other Vehicles | 0.0 | 1.6 | 0.0 | 0.0 | - | 1.5 | 38.1 | 4.8 | 5.7 | 0.0 | - | 10.6 | 0.0 | 13.4 | 5.6 | 100.0 | - | 10.6 | 5.5 | 4.1 | 0.0 | 0.0 | - | 4.4 | 6.1 |
| Pedestrians | - | - | - | - | 0 | - | - | - | - | - | 13 | - | - | - | - | - | 0 | - | - | - | - | - | 23 | - | - |
| % Pedestrians | - | - | - | - | - | - | - | - | - | - | 100.0 | - | - | - | - | - | - | - | - | - | - | - | 100.0 | - | - |

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610.326.3100

Counter: MIO:
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Count Name: 16 South New Street & Rosedale Avenue
Site Code:
Start Date: 12/05/2023


Turning Movement Peak Hour Data Plot (8:00 AM)

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Counter: MIO:
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Count Name: 16 South New Street & Rosedale Avenue
Site Code:
Start Date: 12/05/2023

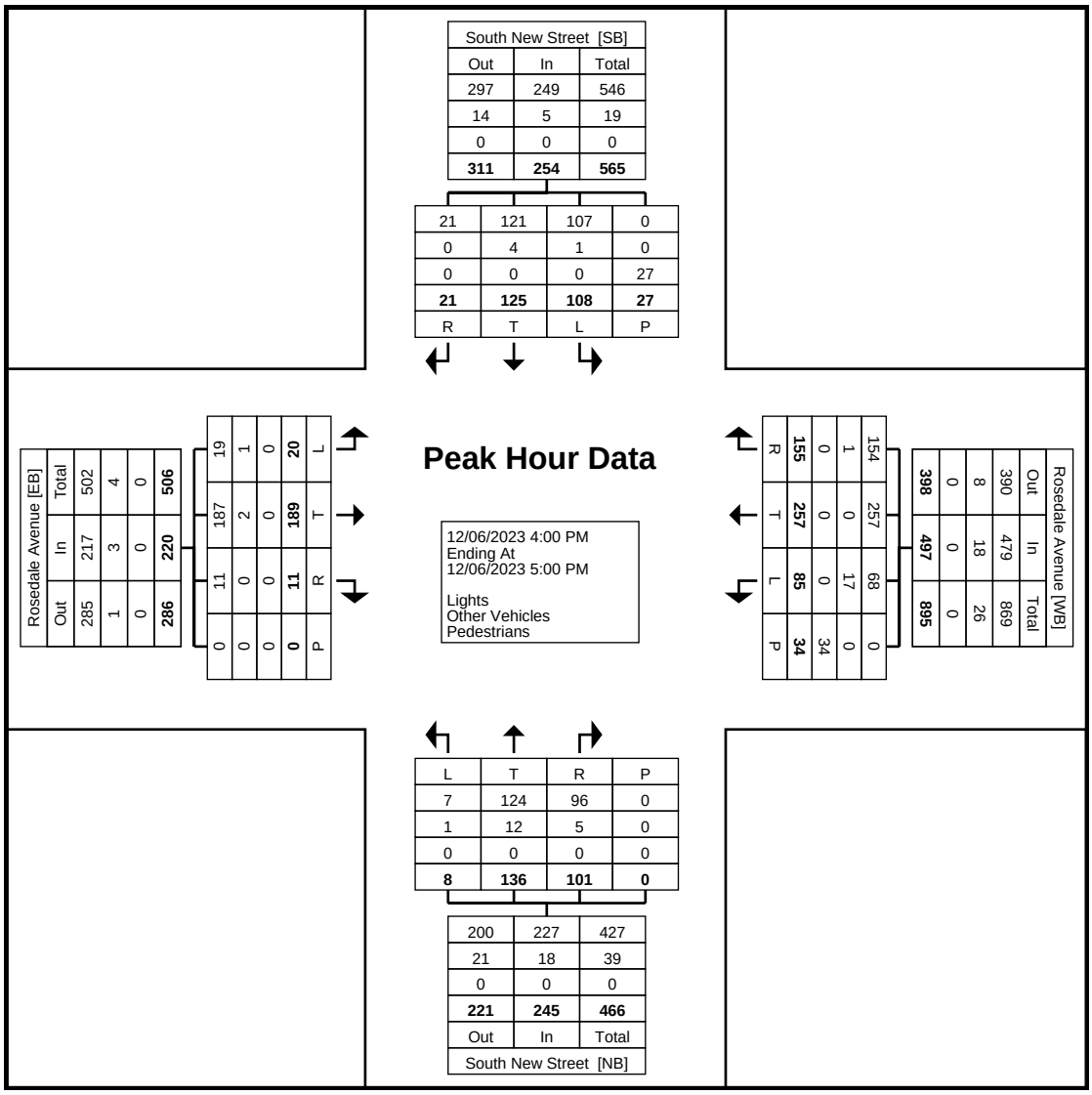

# Turning Movement Peak Hour Data (4:00 PM)

| Start Time | Rosedale Avenue Eastbound | | | | | | Rosedale Avenue Westbound | | | | | | South New Street Northbound | | | | | | South New Street Southbound | | | | | | Int. Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Left | Thru | Right | Right on Red | Peds | App. Total | Left | Thru | Right | Right on Red | Peds | App. Total | Left | Thru | Right | Right on Red | Peds | App. Total | Left | Thru | Right | Right on Red | Peds | App. Total | |
| 4:00 PM | 5 | 53 | 1 | 1 | 0 | 60 | 15 | 58 | 31 | 1 | 11 | 105 | 2 | 32 | 41 | 0 | 0 | 75 | 23 | 32 | 1 | 4 | 8 | 60 | 300 |
| 4:15 PM | 6 | 47 | 2 | 0 | 0 | 55 | 24 | 68 | 27 | 0 | 4 | 119 | 2 | 33 | 18 | 0 | 0 | 53 | 37 | 33 | 3 | 0 | 6 | 73 | 300 |
| 4:30 PM | 5 | 48 | 3 | 0 | 0 | 56 | 25 | 61 | 53 | 0 | 15 | 139 | 2 | 31 | 21 | 0 | 0 | 54 | 24 | 31 | 4 | 3 | 8 | 62 | 311 |
| 4:45 PM | 4 | 41 | 4 | 0 | 0 | 49 | 21 | 70 | 43 | 0 | 4 | 134 | 2 | 40 | 21 | 0 | 0 | 63 | 24 | 29 | 3 | 3 | 5 | 59 | 305 |
| Total | 20 | 189 | 10 | 1 | 0 | 220 | 85 | 257 | 154 | 1 | 34 | 497 | 8 | 136 | 101 | 0 | 0 | 245 | 108 | 125 | 11 | 10 | 27 | 254 | 1216 |
| Approach % | 9.1 | 85.9 | 4.5 | 0.5 | - | - | 17.1 | 51.7 | 31.0 | 0.2 | - | - | 3.3 | 55.5 | 41.2 | 0.0 | - | - | 42.5 | 49.2 | 4.3 | 3.9 | - | - | - |
| Total % | 1.6 | 15.5 | 0.8 | 0.1 | - | 18.1 | 7.0 | 21.1 | 12.7 | 0.1 | - | 40.9 | 0.7 | 11.2 | 8.3 | 0.0 | - | 20.1 | 8.9 | 10.3 | 0.9 | 0.8 | - | 20.9 | - |
| PHF | 0.833 | 0.892 | 0.625 | 0.250 | - | 0.917 | 0.850 | 0.918 | 0.726 | 0.250 | - | 0.894 | 1.000 | 0.850 | 0.616 | 0.000 | - | 0.817 | 0.730 | 0.947 | 0.688 | 0.625 | - | 0.870 | 0.977 |
| Lights | 19 | 187 | 10 | 1 | - | 217 | 68 | 257 | 153 | 1 | - | 479 | 7 | 124 | 96 | 0 | - | 227 | 107 | 121 | 11 | 10 | - | 249 | 1172 |
| % Lights | 95.0 | 98.9 | 100.0 | 100.0 | - | 98.6 | 80.0 | 100.0 | 99.4 | 100.0 | - | 96.4 | 87.5 | 91.2 | 95.0 | - | - | 92.7 | 99.1 | 96.8 | 100.0 | 100.0 | - | 98.0 | 96.4 |
| Other Vehicles | 1 | 2 | 0 | 0 | - | 3 | 17 | 0 | 1 | 0 | - | 18 | 1 | 12 | 5 | 0 | - | 18 | 1 | 4 | 0 | 0 | - | 5 | 44 |
| % Other Vehicles | 5.0 | 1.1 | 0.0 | 0.0 | - | 1.4 | 20.0 | 0.0 | 0.6 | 0.0 | - | 3.6 | 12.5 | 8.8 | 5.0 | - | - | 7.3 | 0.9 | 3.2 | 0.0 | 0.0 | - | 2.0 | 3.6 |
| Pedestrians | - | - | - | - | 0 | - | - | - | - | - | 34 | - | - | - | - | - | 0 | - | - | - | - | - | 27 | - | - |
| % Pedestrians | - | - | - | - | - | - | - | - | - | - | 100.0 | - | - | - | - | - | - | - | - | - | - | - | 100.0 | - | - |

Traffic Planning and Design, Inc
2500 East High Street
Suite 650
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610.326.3100

Counter: MIO:
Set up By JH::

Count Name: 16 South New Street & Rosedale Avenue
Site Code:
Start Date: 12/05/2023


Turning Movement Peak Hour Data Plot (4:00 PM)

Traffic Planning and Design, Inc
2500 East High Street
Suite 650
Pottstown, Pennsylvania, United States 19464
610.326.3100 kyoung@trafficpd.com

Counter: MIO:
Set up by: KY:

Count Name: (17) AM/PM South New Street x Nields Street.Campus Drive
Site Code:
Start Date: 12/06/2023
Page No: 1

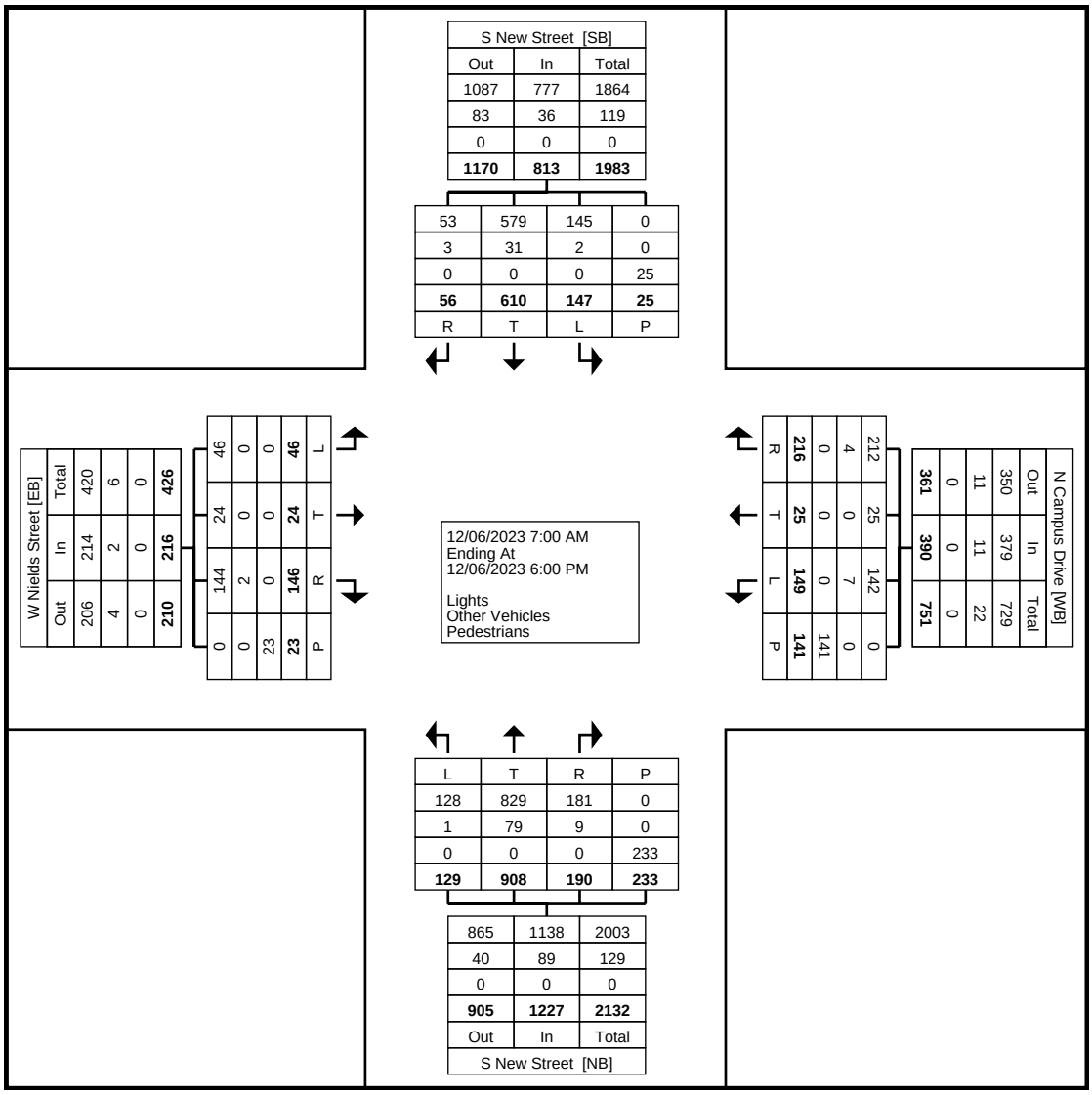
# Turning Movement Data

| Start Time | W Nields Street Eastbound | | | | | | N Campus Drive Westbound | | | | | | S New Street Northbound | | | | | | S New Street Southbound | | | | | | Int. Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Left | Thru | Right | Right on Red | Peds | App. Total | Left | Thru | Right | Right on Red | Peds | App. Total | Left | Thru | Right | Right on Red | Peds | App. Total | Left | Thru | Right | Right on Red | Peds | App. Total | |
| 7:00 AM | 2 | 0 | 1 | 0 | 1 | 3 | 2 | 1 | 1 | 1 | 2 | 5 | 4 | 2 | 0 | 1 | 5 | 7 | 0 | 1 | 0 | 0 | 1 | 1 | 16 |
| 7:15 AM | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 4 | 0 | 1 | 8 | 2 | 0 | 2 | 11 | 0 | 4 | 0 | 0 | 0 | 4 | 16 |
| 7:30 AM | 3 | 2 | 4 | 0 | 0 | 9 | 2 | 0 | 1 | 0 | 2 | 3 | 1 | 5 | 6 | 0 | 3 | 12 | 2 | 5 | 0 | 0 | 1 | 7 | 31 |
| 7:45 AM | 2 | 2 | 3 | 0 | 0 | 7 | 0 | 0 | 0 | 1 | 2 | 1 | 4 | 6 | 0 | 0 | 0 | 10 | 3 | 12 | 0 | 0 | 0 | 15 | 33 |
| Hourly Total | 7 | 4 | 9 | 0 | 1 | 20 | 4 | 1 | 2 | 2 | 10 | 9 | 10 | 21 | 8 | 1 | 10 | 40 | 5 | 22 | 0 | 0 | 2 | 27 | 96 |
| 8:00 AM | 1 | 0 | 5 | 0 | 0 | 6 | 2 | 0 | 1 | 0 | 1 | 3 | 0 | 15 | 4 | 0 | 4 | 19 | 1 | 18 | 2 | 0 | 0 | 21 | 49 |
| 8:15 AM | 2 | 0 | 5 | 0 | 0 | 7 | 1 | 0 | 2 | 1 | 3 | 4 | 3 | 18 | 5 | 0 | 2 | 26 | 4 | 15 | 1 | 0 | 0 | 20 | 57 |
| 8:30 AM | 1 | 1 | 2 | 0 | 1 | 4 | 4 | 0 | 2 | 1 | 7 | 7 | 2 | 32 | 8 | 1 | 6 | 43 | 10 | 24 | 3 | 1 | 0 | 38 | 92 |
| 8:45 AM | 4 | 2 | 8 | 0 | 0 | 14 | 4 | 0 | 1 | 1 | 3 | 6 | 7 | 42 | 16 | 0 | 20 | 65 | 16 | 33 | 2 | 0 | 3 | 51 | 136 |
| Hourly Total | 8 | 3 | 20 | 0 | 1 | 31 | 11 | 0 | 6 | 3 | 14 | 20 | 12 | 107 | 33 | 1 | 32 | 153 | 31 | 90 | 8 | 1 | 3 | 130 | 334 |
| 9:00 AM | 3 | 5 | 10 | 0 | 1 | 18 | 3 | 0 | 1 | 0 | 3 | 4 | 7 | 32 | 11 | 5 | 5 | 55 | 16 | 25 | 1 | 0 | 1 | 42 | 119 |
| 9:15 AM | 4 | 2 | 6 | 1 | 0 | 13 | 0 | 0 | 1 | 1 | 1 | 2 | 6 | 29 | 6 | 1 | 5 | 42 | 6 | 21 | 2 | 0 | 0 | 29 | 86 |
| 9:30 AM | 2 | 2 | 7 | 1 | 0 | 12 | 2 | 0 | 0 | 1 | 5 | 3 | 3 | 38 | 15 | 3 | 8 | 59 | 11 | 28 | 2 | 0 | 1 | 41 | 115 |
| 9:45 AM | 1 | 1 | 6 | 1 | 3 | 9 | 5 | 0 | 4 | 4 | 8 | 13 | 11 | 51 | 19 | 1 | 14 | 82 | 8 | 42 | 3 | 0 | 1 | 53 | 157 |
| Hourly Total | 10 | 10 | 29 | 3 | 4 | 52 | 10 | 0 | 6 | 6 | 17 | 22 | 27 | 150 | 51 | 10 | 32 | 238 | 41 | 116 | 8 | 0 | 3 | 165 | 477 |
| *** BREAK *** | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 3:00 PM | 1 | 1 | 6 | 0 | 0 | 8 | 14 | 1 | 13 | 2 | 12 | 30 | 6 | 54 | 10 | 1 | 7 | 71 | 7 | 25 | 3 | 1 | 2 | 36 | 145 |
| 3:15 PM | 0 | 0 | 5 | 0 | 0 | 5 | 11 | 2 | 13 | 1 | 6 | 27 | 5 | 37 | 3 | 0 | 20 | 45 | 4 | 24 | 1 | 0 | 0 | 29 | 106 |
| 3:30 PM | 2 | 0 | 5 | 2 | 1 | 9 | 5 | 1 | 4 | 0 | 7 | 10 | 8 | 33 | 9 | 0 | 11 | 50 | 5 | 31 | 1 | 1 | 2 | 38 | 107 |
| 3:45 PM | 4 | 1 | 6 | 0 | 10 | 11 | 12 | 1 | 17 | 4 | 19 | 34 | 8 | 58 | 11 | 0 | 17 | 77 | 3 | 39 | 3 | 0 | 3 | 45 | 167 |
| Hourly Total | 7 | 2 | 22 | 2 | 11 | 33 | 42 | 5 | 47 | 7 | 44 | 101 | 27 | 182 | 33 | 1 | 55 | 243 | 19 | 119 | 8 | 2 | 7 | 148 | 525 |
| 4:00 PM | 3 | 0 | 4 | 0 | 2 | 7 | 12 | 1 | 13 | 9 | 8 | 35 | 10 | 47 | 6 | 0 | 22 | 63 | 4 | 29 | 3 | 1 | 1 | 37 | 142 |
| 4:15 PM | 1 | 1 | 8 | 0 | 2 | 10 | 7 | 3 | 5 | 8 | 12 | 23 | 7 | 53 | 7 | 0 | 20 | 67 | 2 | 23 | 4 | 2 | 2 | 31 | 131 |
| 4:30 PM | 1 | 0 | 6 | 1 | 1 | 8 | 8 | 3 | 11 | 5 | 8 | 27 | 3 | 44 | 1 | 0 | 3 | 48 | 4 | 27 | 3 | 0 | 0 | 34 | 117 |
| 4:45 PM | 2 | 0 | 7 | 0 | 0 | 9 | 8 | 3 | 16 | 3 | 6 | 30 | 5 | 43 | 5 | 0 | 7 | 53 | 10 | 35 | 3 | 0 | 2 | 48 | 140 |
| Hourly Total | 7 | 1 | 25 | 1 | 5 | 34 | 35 | 10 | 45 | 25 | 34 | 115 | 25 | 187 | 19 | 0 | 52 | 231 | 20 | 114 | 13 | 3 | 5 | 150 | 530 |
| 5:00 PM | 1 | 1 | 8 | 0 | 0 | 10 | 14 | 3 | 12 | 9 | 3 | 38 | 6 | 58 | 10 | 0 | 12 | 74 | 6 | 30 | 1 | 1 | 1 | 38 | 160 |
| 5:15 PM | 1 | 1 | 10 | 1 | 1 | 13 | 16 | 2 | 5 | 6 | 11 | 29 | 4 | 56 | 9 | 0 | 13 | 69 | 10 | 43 | 1 | 0 | 0 | 54 | 165 |
| 5:30 PM | 2 | 1 | 7 | 0 | 0 | 10 | 9 | 4 | 15 | 9 | 6 | 37 | 10 | 73 | 6 | 0 | 9 | 89 | 9 | 42 | 3 | 5 | 1 | 59 | 195 |
| 5:45 PM | 3 | 1 | 8 | 1 | 0 | 13 | 8 | 0 | 6 | 5 | 2 | 19 | 8 | 74 | 8 | 0 | 18 | 90 | 6 | 34 | 1 | 1 | 3 | 42 | 164 |
| Hourly Total | 7 | 4 | 33 | 2 | 1 | 46 | 47 | 9 | 38 | 29 | 22 | 123 | 28 | 261 | 33 | 0 | 52 | 322 | 31 | 149 | 6 | 7 | 5 | 193 | 684 |
| Grand Total | 46 | 24 | 138 | 8 | 23 | 216 | 149 | 25 | 144 | 72 | 141 | 390 | 129 | 908 | 177 | 13 | 233 | 1227 | 147 | 610 | 43 | 13 | 25 | 813 | 2646 |
| Approach % | 21.3 | 11.1 | 63.9 | 3.7 | - | - | 38.2 | 6.4 | 36.9 | 18.5 | - | - | 10.5 | 74.0 | 14.4 | 1.1 | - | - | 18.1 | 75.0 | 5.3 | 1.6 | - | - | - |
| Total % | 1.7 | 0.9 | 5.2 | 0.3 | - | 8.2 | 5.6 | 0.9 | 5.4 | 2.7 | - | 14.7 | 4.9 | 34.3 | 6.7 | 0.5 | - | 46.4 | 5.6 | 23.1 | 1.6 | 0.5 | - | 30.7 | - |
| Lights | 46 | 24 | 136 | 8 | - | 214 | 142 | 25 | 141 | 71 | - | 379 | 128 | 829 | 168 | 13 | - | 1138 | 145 | 579 | 41 | 12 | - | 777 | 2508 |
| % Lights | 100.0 | 100.0 | 98.6 | 100.0 | - | 99.1 | 95.3 | 100.0 | 97.9 | 98.6 | - | 97.2 | 99.2 | 91.3 | 94.9 | 100.0 | - | 92.7 | 98.6 | 94.9 | 95.3 | 92.3 | - | 95.6 | 94.8 |
| Other Vehicles | 0 | 0 | 2 | 0 | - | 2 | 7 | 0 | 3 | 1 | - | 11 | 1 | 79 | 9 | 0 | - | 89 | 2 | 31 | 2 | 1 | - | 36 | 138 |
| % Other Vehicles | 0.0 | 0.0 | 1.4 | 0.0 | - | 0.9 | 4.7 | 0.0 | 2.1 | 1.4 | - | 2.8 | 0.8 | 8.7 | 5.1 | 0.0 | - | 7.3 | 1.4 | 5.1 | 4.7 | 7.7 | - | 4.4 | 5.2 |
| Pedestrians | - | - | - | - | 23 | - | - | - | - | - | 141 | - | - | - | - | - | 233 | - | - | - | - | - | 25 | - | - |
| % Pedestrians | - | - | - | - | 100.0 | - | - | - | - | - | 100.0 | - | - | - | - | - | 100.0 | - | - | - | - | - | 100.0 | - | - |

Traffic Planning and Design, Inc
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610.326.3100 kyoung@trafficpd.com

Counter: MIO:
Set up by: KY:

Count Name: (17) AM/PM South New Street x Nields Street.Campus Drive
Site Code:
Start Date: 12/06/2023


Turning Movement Data Plot

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Counter: MIO:
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Count Name: (17) AM/PM South New Street x Nields Street.Campus Drive
Site Code:
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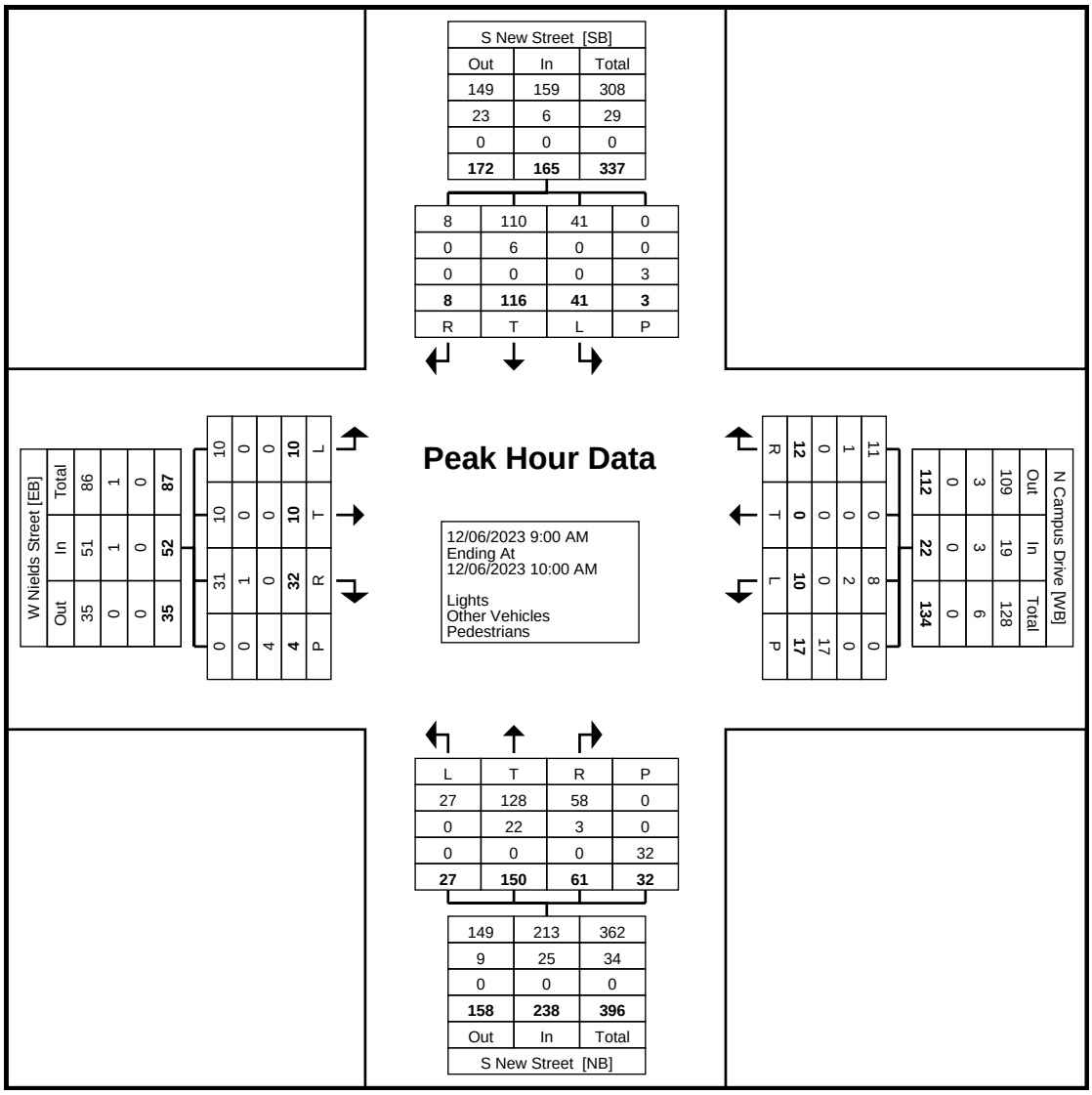

# Turning Movement Peak Hour Data (9:00 AM)

| Start Time | W Nields Street Eastbound | | | | | | N Campus Drive Westbound | | | | | | S New Street Northbound | | | | | | S New Street Southbound | | | | | | Int. Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Left | Thru | Right | Right on Red | Peds | App. Total | Left | Thru | Right | Right on Red | Peds | App. Total | Left | Thru | Right | Right on Red | Peds | App. Total | Left | Thru | Right | Right on Red | Peds | App. Total | |
| 9:00 AM | 3 | 5 | 10 | 0 | 1 | 18 | 3 | 0 | 1 | 0 | 3 | 4 | 7 | 32 | 11 | 5 | 5 | 55 | 16 | 25 | 1 | 0 | 1 | 42 | 119 |
| 9:15 AM | 4 | 2 | 6 | 1 | 0 | 13 | 0 | 0 | 1 | 1 | 1 | 2 | 6 | 29 | 6 | 1 | 5 | 42 | 6 | 21 | 2 | 0 | 0 | 29 | 86 |
| 9:30 AM | 2 | 2 | 7 | 1 | 0 | 12 | 2 | 0 | 0 | 1 | 5 | 3 | 3 | 38 | 15 | 3 | 8 | 59 | 11 | 28 | 2 | 0 | 1 | 41 | 115 |
| 9:45 AM | 1 | 1 | 6 | 1 | 3 | 9 | 5 | 0 | 4 | 4 | 8 | 13 | 11 | 51 | 19 | 1 | 14 | 82 | 8 | 42 | 3 | 0 | 1 | 53 | 157 |
| Total | 10 | 10 | 29 | 3 | 4 | 52 | 10 | 0 | 6 | 6 | 17 | 22 | 27 | 150 | 51 | 10 | 32 | 238 | 41 | 116 | 8 | 0 | 3 | 165 | 477 |
| Approach % | 19.2 | 19.2 | 55.8 | 5.8 | - | - | 45.5 | 0.0 | 27.3 | 27.3 | - | - | 11.3 | 63.0 | 21.4 | 4.2 | - | - | 24.8 | 70.3 | 4.8 | 0.0 | - | - | - |
| Total % | 2.1 | 2.1 | 6.1 | 0.6 | - | 10.9 | 2.1 | 0.0 | 1.3 | 1.3 | - | 4.6 | 5.7 | 31.4 | 10.7 | 2.1 | - | 49.9 | 8.6 | 24.3 | 1.7 | 0.0 | - | 34.6 | - |
| PHF | 0.625 | 0.500 | 0.725 | 0.750 | - | 0.722 | 0.500 | 0.000 | 0.375 | 0.375 | - | 0.423 | 0.614 | 0.735 | 0.671 | 0.500 | - | 0.726 | 0.641 | 0.690 | 0.667 | 0.000 | - | 0.778 | 0.760 |
| Lights | 10 | 10 | 28 | 3 | - | 51 | 8 | 0 | 5 | 6 | - | 19 | 27 | 128 | 48 | 10 | - | 213 | 41 | 110 | 8 | 0 | - | 159 | 442 |
| % Lights | 100.0 | 100.0 | 96.6 | 100.0 | - | 98.1 | 80.0 | - | 83.3 | 100.0 | - | 86.4 | 100.0 | 85.3 | 94.1 | 100.0 | - | 89.5 | 100.0 | 94.8 | 100.0 | - | - | 96.4 | 92.7 |
| Other Vehicles | 0 | 0 | 1 | 0 | - | 1 | 2 | 0 | 1 | 0 | - | 3 | 0 | 22 | 3 | 0 | - | 25 | 0 | 6 | 0 | 0 | - | 6 | 35 |
| % Other Vehicles | 0.0 | 0.0 | 3.4 | 0.0 | - | 1.9 | 20.0 | - | 16.7 | 0.0 | - | 13.6 | 0.0 | 14.7 | 5.9 | 0.0 | - | 10.5 | 0.0 | 5.2 | 0.0 | - | - | 3.6 | 7.3 |
| Pedestrians | - | - | - | - | 4 | - | - | - | - | - | 17 | - | - | - | - | - | 32 | - | - | - | - | - | 3 | - | - |
| % Pedestrians | - | - | - | - | 100.0 | - | - | - | - | - | 100.0 | - | - | - | - | - | 100.0 | - | - | - | - | - | 100.0 | - | - |

Traffic Planning and Design, Inc
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Pottstown, Pennsylvania, United States 19464
610.326.3100 kyoung@trafficpd.com

Counter: MIO:
Set up by: KY:

Count Name: (17) AM/PM South New Street x Nields Street.Campus Drive
Site Code:
Start Date: 12/06/2023


Turning Movement Peak Hour Data Plot (9:00 AM)

Counter: MIO:
Set up by: KY:

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Count Name: (17) AM/PM South New Street x Nields Street.Campus Drive
Site Code:
Start Date: 12/06/2023

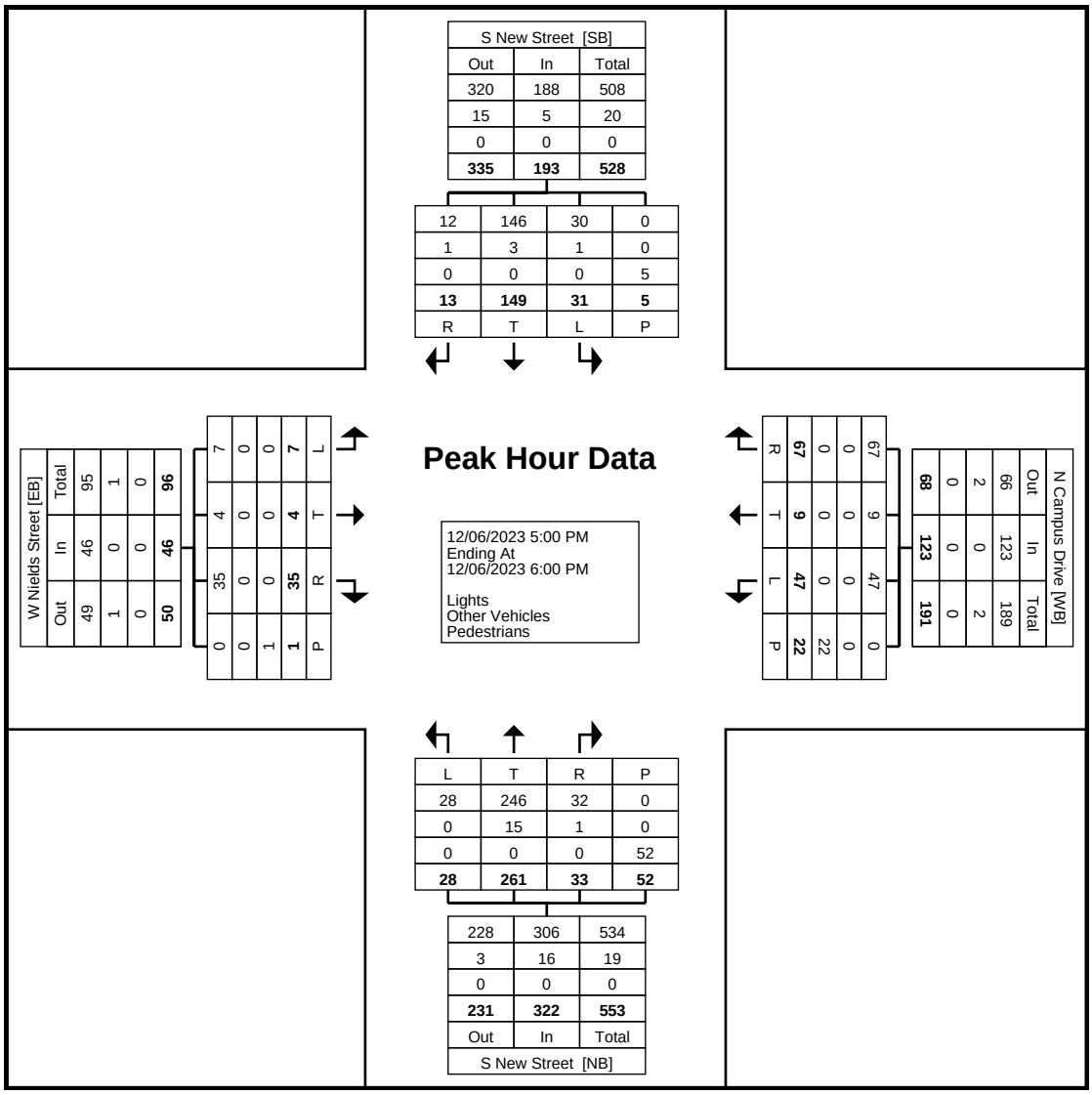

# Turning Movement Peak Hour Data (5:00 PM)

| Start Time | W Nields Street Eastbound | | | | | | N Campus Drive Westbound | | | | | | S New Street Northbound | | | | | | S New Street Southbound | | | | | | Int. Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Left | Thru | Right | Right on Red | Peds | App. Total | Left | Thru | Right | Right on Red | Peds | App. Total | Left | Thru | Right | Right on Red | Peds | App. Total | Left | Thru | Right | Right on Red | Peds | App. Total | |
| 5:00 PM | 1 | 1 | 8 | 0 | 0 | 10 | 14 | 3 | 12 | 9 | 3 | 38 | 6 | 58 | 10 | 0 | 12 | 74 | 6 | 30 | 1 | 1 | 1 | 38 | 160 |
| 5:15 PM | 1 | 1 | 10 | 1 | 1 | 13 | 16 | 2 | 5 | 6 | 11 | 29 | 4 | 56 | 9 | 0 | 13 | 69 | 10 | 43 | 1 | 0 | 0 | 54 | 165 |
| 5:30 PM | 2 | 1 | 7 | 0 | 0 | 10 | 9 | 4 | 15 | 9 | 6 | 37 | 10 | 73 | 6 | 0 | 9 | 89 | 9 | 42 | 3 | 5 | 1 | 59 | 195 |
| 5:45 PM | 3 | 1 | 8 | 1 | 0 | 13 | 8 | 0 | 6 | 5 | 2 | 19 | 8 | 74 | 8 | 0 | 18 | 90 | 6 | 34 | 1 | 1 | 3 | 42 | 164 |
| Total | 7 | 4 | 33 | 2 | 1 | 46 | 47 | 9 | 38 | 29 | 22 | 123 | 28 | 261 | 33 | 0 | 52 | 322 | 31 | 149 | 6 | 7 | 5 | 193 | 684 |
| Approach % | 15.2 | 8.7 | 71.7 | 4.3 | - | - | 38.2 | 7.3 | 30.9 | 23.6 | - | - | 8.7 | 81.1 | 10.2 | 0.0 | - | - | 16.1 | 77.2 | 3.1 | 3.6 | - | - | - |
| Total % | 1.0 | 0.6 | 4.8 | 0.3 | - | 6.7 | 6.9 | 1.3 | 5.6 | 4.2 | - | 18.0 | 4.1 | 38.2 | 4.8 | 0.0 | - | 47.1 | 4.5 | 21.8 | 0.9 | 1.0 | - | 28.2 | - |
| PHF | 0.583 | 1.000 | 0.825 | 0.500 | - | 0.885 | 0.734 | 0.563 | 0.633 | 0.806 | - | 0.809 | 0.700 | 0.882 | 0.825 | 0.000 | - | 0.894 | 0.775 | 0.866 | 0.500 | 0.350 | - | 0.818 | 0.877 |
| Lights | 7 | 4 | 33 | 2 | - | 46 | 47 | 9 | 38 | 29 | - | 123 | 28 | 246 | 32 | 0 | - | 306 | 30 | 146 | 6 | 6 | - | 188 | 663 |
| % Lights | 100.0 | 100.0 | 100.0 | 100.0 | - | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | - | 100.0 | 100.0 | 94.3 | 97.0 | - | - | 95.0 | 96.8 | 98.0 | 100.0 | 85.7 | - | 97.4 | 96.9 |
| Other Vehicles | 0 | 0 | 0 | 0 | - | 0 | 0 | 0 | 0 | 0 | - | 0 | 0 | 15 | 1 | 0 | - | 16 | 1 | 3 | 0 | 1 | - | 5 | 21 |
| % Other Vehicles | 0.0 | 0.0 | 0.0 | 0.0 | - | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | - | 0.0 | 0.0 | 5.7 | 3.0 | - | - | 5.0 | 3.2 | 2.0 | 0.0 | 14.3 | - | 2.6 | 3.1 |
| Pedestrians | - | - | - | - | 1 | - | - | - | - | - | 22 | - | - | - | - | - | 52 | - | - | - | - | - | 5 | - | - |
| % Pedestrians | - | - | - | - | 100.0 | - | - | - | - | - | 100.0 | - | - | - | - | - | 100.0 | - | - | - | - | - | 100.0 | - | - |

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610.326.3100 kyoung@trafficpd.com

Counter: MIO:
Set up by: KY:

Count Name: (17) AM/PM South New Street x Nields Street.Campus Drive
Site Code:
Start Date: 12/06/2023


Turning Movement Peak Hour Data Plot (5:00 PM)

Counter: MIO:
Set up By JH::

Traffic Planning and Design, Inc
2500 East High Street
Suite 650
Pottstown, Pennsylvania, United States 19464
610.326.3100

Count Name: 18 South New Street & Pomona Hill Drive
Site Code:
Start Date: 12/06/2023
Page No: 1

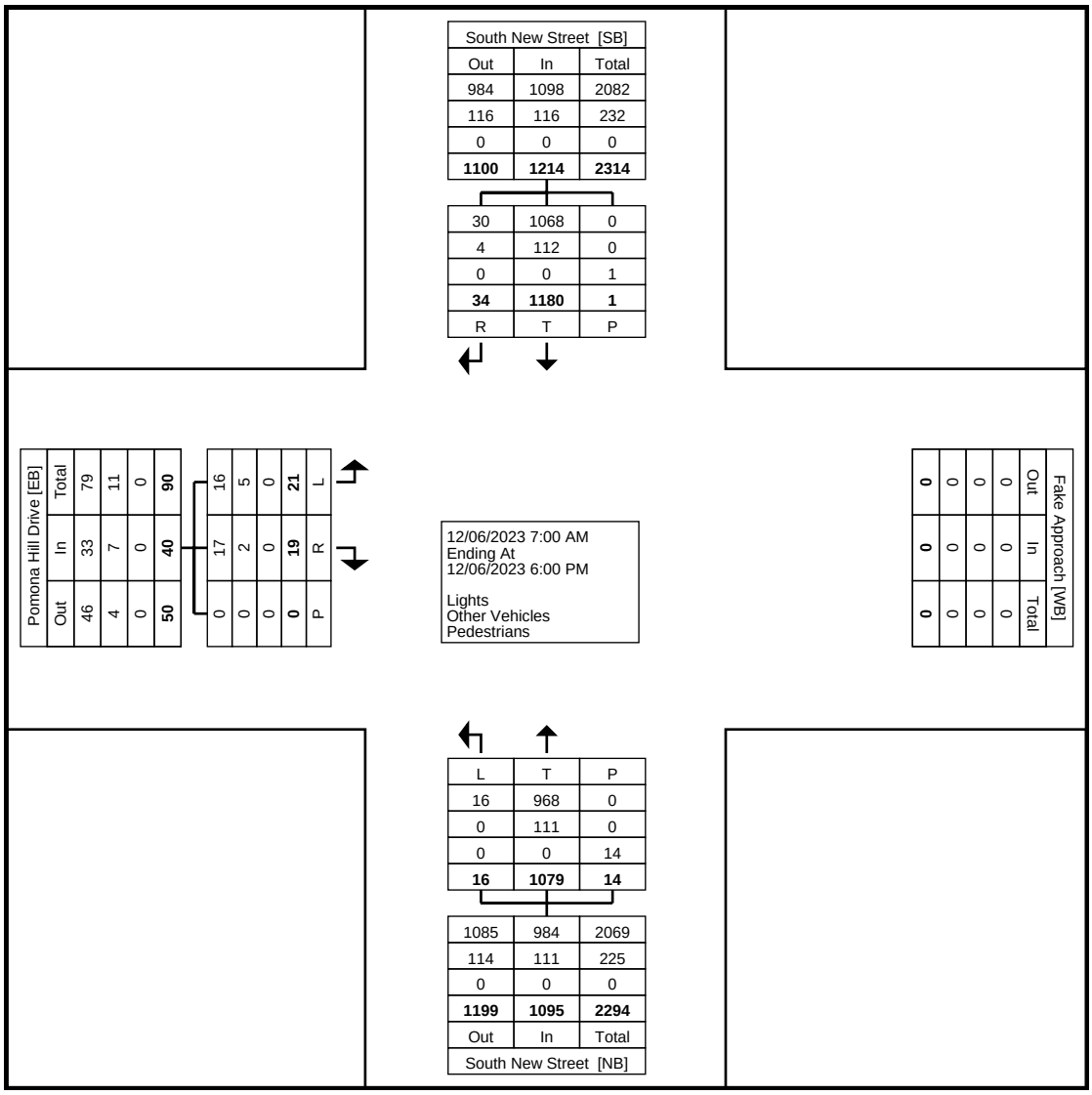
# Turning Movement Data

| Start Time | Pomona Hill Drive Eastbound | | | | South New Street Northbound | | | | South New Street Southbound | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Left | Right | Peds | App. Total | Left | Thru | Peds | App. Total | Thru | Right | Peds | App. Total | Int. Total |
| 7:00 AM | 1 | 1 | 0 | 2 | 0 | 17 | 1 | 17 | 14 | 1 | 0 | 15 | 34 |
| 7:15 AM | 4 | 1 | 0 | 5 | 0 | 20 | 1 | 20 | 16 | 2 | 0 | 18 | 43 |
| 7:30 AM | 0 | 2 | 0 | 2 | 0 | 45 | 0 | 45 | 34 | 2 | 0 | 36 | 83 |
| 7:45 AM | 2 | 0 | 0 | 2 | 1 | 83 | 0 | 84 | 35 | 3 | 0 | 38 | 124 |
| Hourly Total | 7 | 4 | 0 | 11 | 1 | 165 | 2 | 166 | 99 | 8 | 0 | 107 | 284 |
| 8:00 AM | 1 | 0 | 0 | 1 | 0 | 41 | 1 | 41 | 40 | 3 | 0 | 43 | 85 |
| 8:15 AM | 2 | 0 | 0 | 2 | 1 | 38 | 0 | 39 | 28 | 0 | 0 | 28 | 69 |
| 8:30 AM | 2 | 1 | 0 | 3 | 0 | 54 | 0 | 54 | 40 | 2 | 0 | 42 | 99 |
| 8:45 AM | 1 | 2 | 0 | 3 | 1 | 54 | 1 | 55 | 49 | 0 | 0 | 49 | 107 |
| Hourly Total | 6 | 3 | 0 | 9 | 2 | 187 | 2 | 189 | 157 | 5 | 0 | 162 | 360 |
| 9:00 AM | 1 | 0 | 0 | 1 | 0 | 28 | 0 | 28 | 37 | 0 | 0 | 37 | 66 |
| 9:15 AM | 0 | 1 | 0 | 1 | 0 | 30 | 1 | 30 | 29 | 1 | 0 | 30 | 61 |
| 9:30 AM | 0 | 1 | 0 | 1 | 0 | 32 | 2 | 32 | 29 | 1 | 1 | 30 | 63 |
| 9:45 AM | 0 | 0 | 0 | 0 | 0 | 43 | 0 | 43 | 57 | 2 | 0 | 59 | 102 |
| Hourly Total | 1 | 2 | 0 | 3 | 0 | 133 | 3 | 133 | 152 | 4 | 1 | 156 | 292 |
| *** BREAK *** | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 3:00 PM | 1 | 0 | 0 | 1 | 1 | 35 | 0 | 36 | 49 | 1 | 0 | 50 | 87 |
| 3:15 PM | 0 | 0 | 0 | 0 | 1 | 53 | 2 | 54 | 60 | 0 | 0 | 60 | 114 |
| 3:30 PM | 0 | 0 | 0 | 0 | 0 | 50 | 0 | 50 | 60 | 1 | 0 | 61 | 111 |
| 3:45 PM | 2 | 0 | 0 | 2 | 2 | 53 | 2 | 55 | 48 | 0 | 0 | 48 | 105 |
| Hourly Total | 3 | 0 | 0 | 3 | 4 | 191 | 4 | 195 | 217 | 2 | 0 | 219 | 417 |
| 4:00 PM | 1 | 3 | 0 | 4 | 2 | 73 | 1 | 75 | 73 | 3 | 0 | 76 | 155 |
| 4:15 PM | 0 | 1 | 0 | 1 | 0 | 43 | 1 | 43 | 75 | 0 | 0 | 75 | 119 |
| 4:30 PM | 0 | 3 | 0 | 3 | 2 | 65 | 0 | 67 | 88 | 0 | 0 | 88 | 158 |
| 4:45 PM | 1 | 0 | 0 | 1 | 0 | 48 | 0 | 48 | 66 | 4 | 0 | 70 | 119 |
| Hourly Total | 2 | 7 | 0 | 9 | 4 | 229 | 2 | 233 | 302 | 7 | 0 | 309 | 551 |
| 5:00 PM | 0 | 2 | 0 | 2 | 0 | 39 | 0 | 39 | 74 | 3 | 0 | 77 | 118 |
| 5:15 PM | 0 | 1 | 0 | 1 | 1 | 51 | 0 | 52 | 53 | 1 | 0 | 54 | 107 |
| 5:30 PM | 0 | 0 | 0 | 0 | 3 | 46 | 0 | 49 | 68 | 0 | 0 | 68 | 117 |
| 5:45 PM | 2 | 0 | 0 | 2 | 1 | 38 | 1 | 39 | 58 | 4 | 0 | 62 | 103 |
| Hourly Total | 2 | 3 | 0 | 5 | 5 | 174 | 1 | 179 | 253 | 8 | 0 | 261 | 445 |
| Grand Total | 21 | 19 | 0 | 40 | 16 | 1079 | 14 | 1095 | 1180 | 34 | 1 | 1214 | 2349 |
| Approach % | 52.5 | 47.5 | - | - | 1.5 | 98.5 | - | - | 97.2 | 2.8 | - | - | - |
| Total % | 0.9 | 0.8 | - | 1.7 | 0.7 | 45.9 | - | 46.6 | 50.2 | 1.4 | - | 51.7 | - |
| Lights | 16 | 17 | - | 33 | 16 | 968 | - | 984 | 1068 | 30 | - | 1098 | 2115 |
| % Lights | 76.2 | 89.5 | - | 82.5 | 100.0 | 89.7 | - | 89.9 | 90.5 | 88.2 | - | 90.4 | 90.0 |
| Other Vehicles | 5 | 2 | - | 7 | 0 | 111 | - | 111 | 112 | 4 | - | 116 | 234 |
| % Other Vehicles | 23.8 | 10.5 | - | 17.5 | 0.0 | 10.3 | - | 10.1 | 9.5 | 11.8 | - | 9.6 | 10.0 |
| Pedestrians | - | - | 0 | - | - | - | 14 | - | - | - | 1 | - | - |
| % Pedestrians | - | - | - | - | - | - | 100.0 | - | - | - | 100.0 | - | - |

Traffic Planning and Design, Inc
2500 East High Street
Suite 650
Pottstown, Pennsylvania, United States 19464
610.326.3100

Counter: MIO:
Set up By JH::

Count Name: 18 South New Street & Pomona Hill Drive
Site Code:
Start Date: 12/06/2023


Turning Movement Data Plot

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610.326.3100

Counter: MIO:
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Count Name: 18 South New Street & Pomona Hill Drive
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Start Date: 12/06/2023

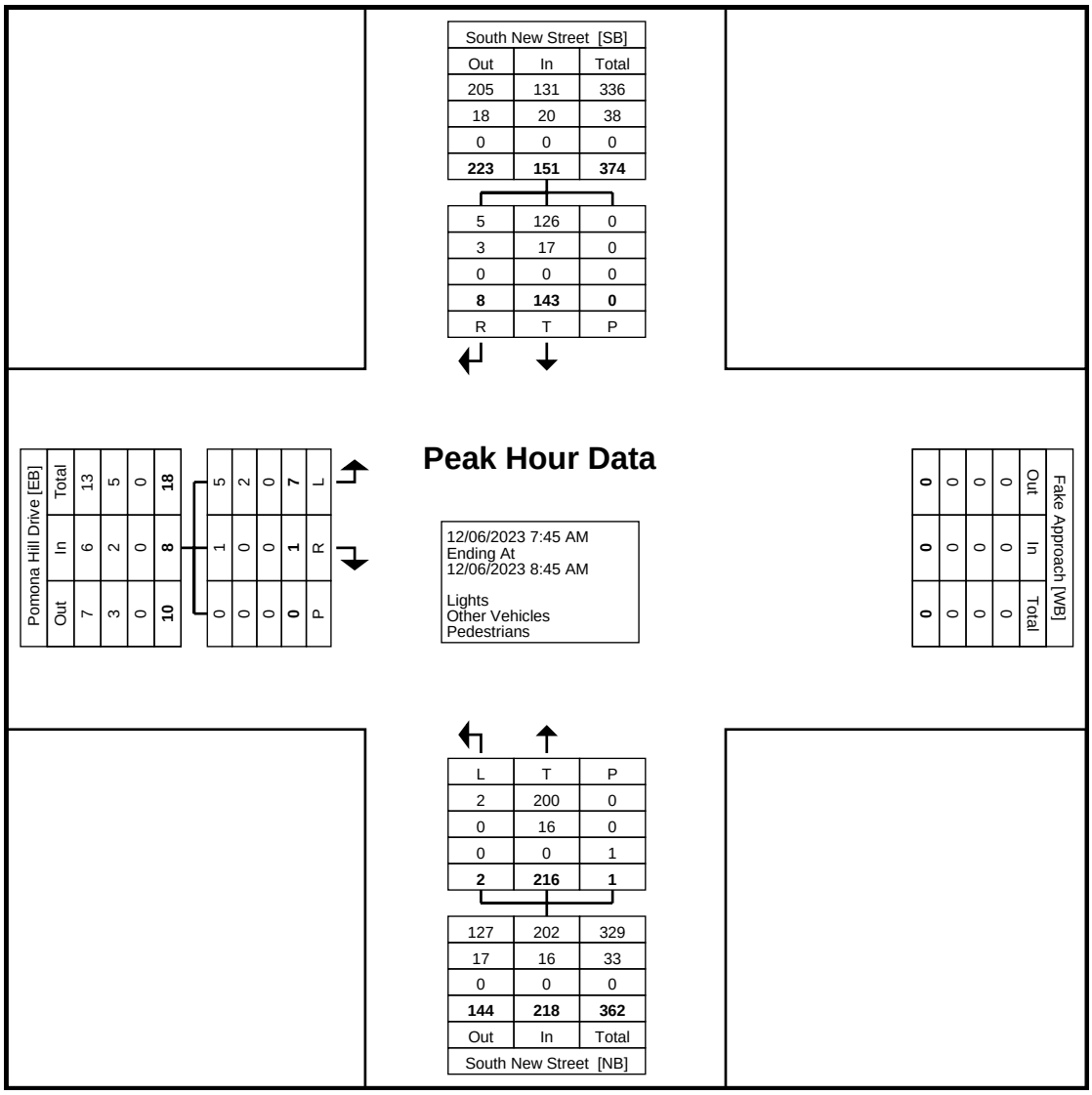

# Turning Movement Peak Hour Data (7:45 AM)

| Start Time | Pomona Hill Drive Eastbound | | | | South New Street Northbound | | | | South New Street Southbound | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Left | Right | Peds | App. Total | Left | Thru | Peds | App. Total | Thru | Right | Peds | App. Total | Int. Total |
| 7:45 AM | 2 | 0 | 0 | 2 | 1 | 83 | 0 | 84 | 35 | 3 | 0 | 38 | 124 |
| 8:00 AM | 1 | 0 | 0 | 1 | 0 | 41 | 1 | 41 | 40 | 3 | 0 | 43 | 85 |
| 8:15 AM | 2 | 0 | 0 | 2 | 1 | 38 | 0 | 39 | 28 | 0 | 0 | 28 | 69 |
| 8:30 AM | 2 | 1 | 0 | 3 | 0 | 54 | 0 | 54 | 40 | 2 | 0 | 42 | 99 |
| Total | 7 | 1 | 0 | 8 | 2 | 216 | 1 | 218 | 143 | 8 | 0 | 151 | 377 |
| Approach % | 87.5 | 12.5 | - | - | 0.9 | 99.1 | - | - | 94.7 | 5.3 | - | - | - |
| Total % | 1.9 | 0.3 | - | 2.1 | 0.5 | 57.3 | - | 57.8 | 37.9 | 2.1 | - | 40.1 | - |
| PHF | 0.875 | 0.250 | - | 0.667 | 0.500 | 0.651 | - | 0.649 | 0.894 | 0.667 | - | 0.878 | 0.760 |
| Lights | 5 | 1 | - | 6 | 2 | 200 | - | 202 | 126 | 5 | - | 131 | 339 |
| % Lights | 71.4 | 100.0 | - | 75.0 | 100.0 | 92.6 | - | 92.7 | 88.1 | 62.5 | - | 86.8 | 89.9 |
| Other Vehicles | 2 | 0 | - | 2 | 0 | 16 | - | 16 | 17 | 3 | - | 20 | 38 |
| % Other Vehicles | 28.6 | 0.0 | - | 25.0 | 0.0 | 7.4 | - | 7.3 | 11.9 | 37.5 | - | 13.2 | 10.1 |
| Pedestrians | - | - | 0 | - | - | - | 1 | - | - | - | 0 | - | - |
| % Pedestrians | - | - | - | - | - | - | 100.0 | - | - | - | - | - | - |

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Site Code:
Start Date: 12/06/2023


Turning Movement Peak Hour Data Plot (7:45 AM)

Traffic Planning and Design, Inc
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Suite 650
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610.326.3100

Counter: MIO:
Set up By JH::

Count Name: 18 South New Street & Pomona Hill Drive
Site Code:
Start Date: 12/06/2023

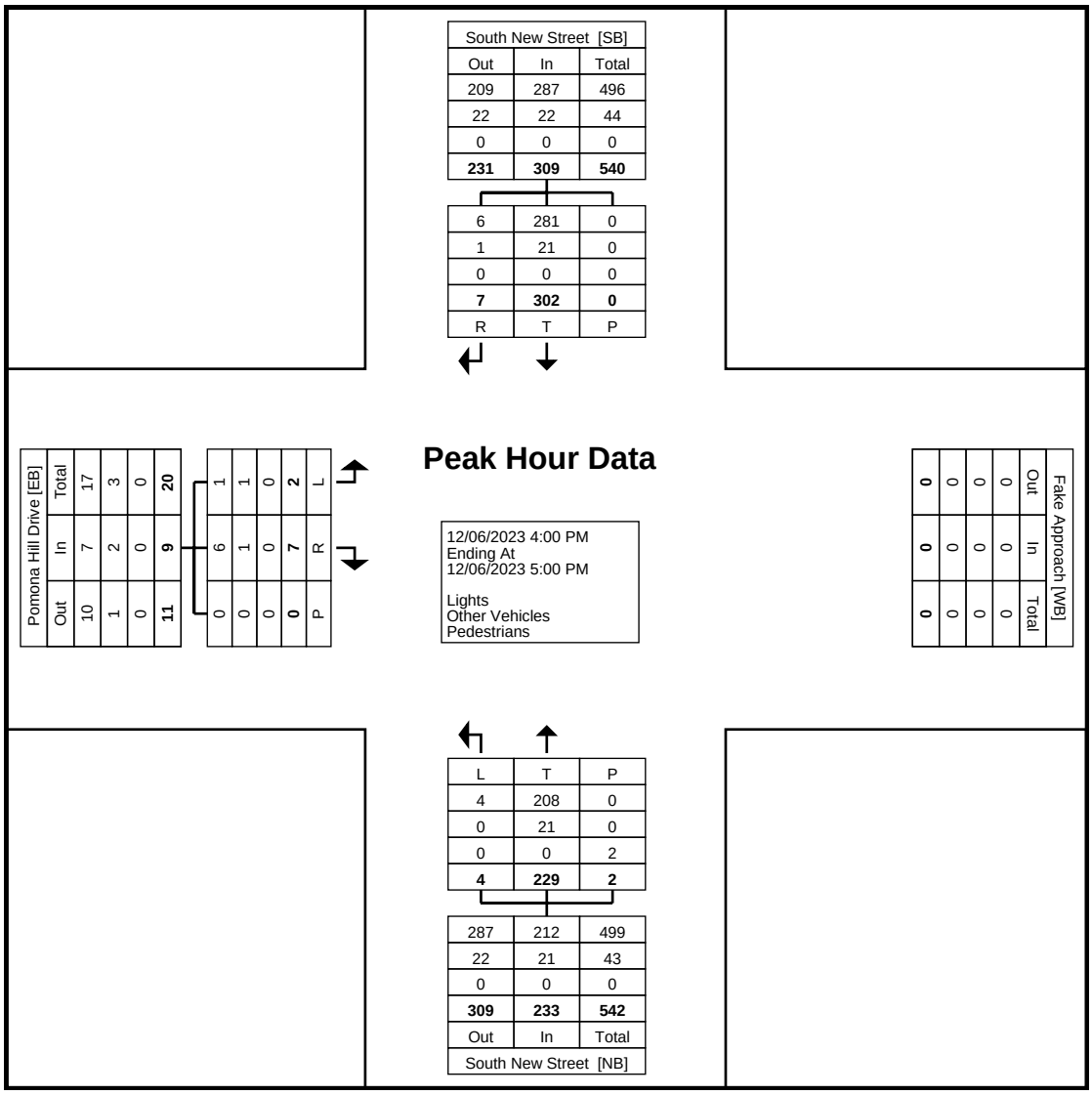

# Turning Movement Peak Hour Data (4:00 PM)

| Start Time | Pomona Hill Drive Eastbound | | | | South New Street Northbound | | | | South New Street Southbound | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Left | Right | Peds | App. Total | Left | Thru | Peds | App. Total | Thru | Right | Peds | App. Total | Int. Total |
| 4:00 PM | 1 | 3 | 0 | 4 | 2 | 73 | 1 | 75 | 73 | 3 | 0 | 76 | 155 |
| 4:15 PM | 0 | 1 | 0 | 1 | 0 | 43 | 1 | 43 | 75 | 0 | 0 | 75 | 119 |
| 4:30 PM | 0 | 3 | 0 | 3 | 2 | 65 | 0 | 67 | 88 | 0 | 0 | 88 | 158 |
| 4:45 PM | 1 | 0 | 0 | 1 | 0 | 48 | 0 | 48 | 66 | 4 | 0 | 70 | 119 |
| Total | 2 | 7 | 0 | 9 | 4 | 229 | 2 | 233 | 302 | 7 | 0 | 309 | 551 |
| Approach % | 22.2 | 77.8 | - | - | 1.7 | 98.3 | - | - | 97.7 | 2.3 | - | - | - |
| Total % | 0.4 | 1.3 | - | 1.6 | 0.7 | 41.6 | - | 42.3 | 54.8 | 1.3 | - | 56.1 | - |
| PHF | 0.500 | 0.583 | - | 0.563 | 0.500 | 0.784 | - | 0.777 | 0.858 | 0.438 | - | 0.878 | 0.872 |
| Lights | 1 | 6 | - | 7 | 4 | 208 | - | 212 | 281 | 6 | - | 287 | 506 |
| % Lights | 50.0 | 85.7 | - | 77.8 | 100.0 | 90.8 | - | 91.0 | 93.0 | 85.7 | - | 92.9 | 91.8 |
| Other Vehicles | 1 | 1 | - | 2 | 0 | 21 | - | 21 | 21 | 1 | - | 22 | 45 |
| % Other Vehicles | 50.0 | 14.3 | - | 22.2 | 0.0 | 9.2 | - | 9.0 | 7.0 | 14.3 | - | 7.1 | 8.2 |
| Pedestrians | - | - | 0 | - | - | - | 2 | - | - | - | 0 | - | - |
| % Pedestrians | - | - | - | - | - | - | 100.0 | - | - | - | - | - | - |

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Site Code:
Start Date: 12/06/2023


Turning Movement Peak Hour Data Plot (4:00 PM)

Counter: MIO:
Set up By JH::

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610.326.3100

Count Name: 19 South New Street & Glen Echo Field Access
Site Code:
Start Date: 12/06/2023
Page No: 1

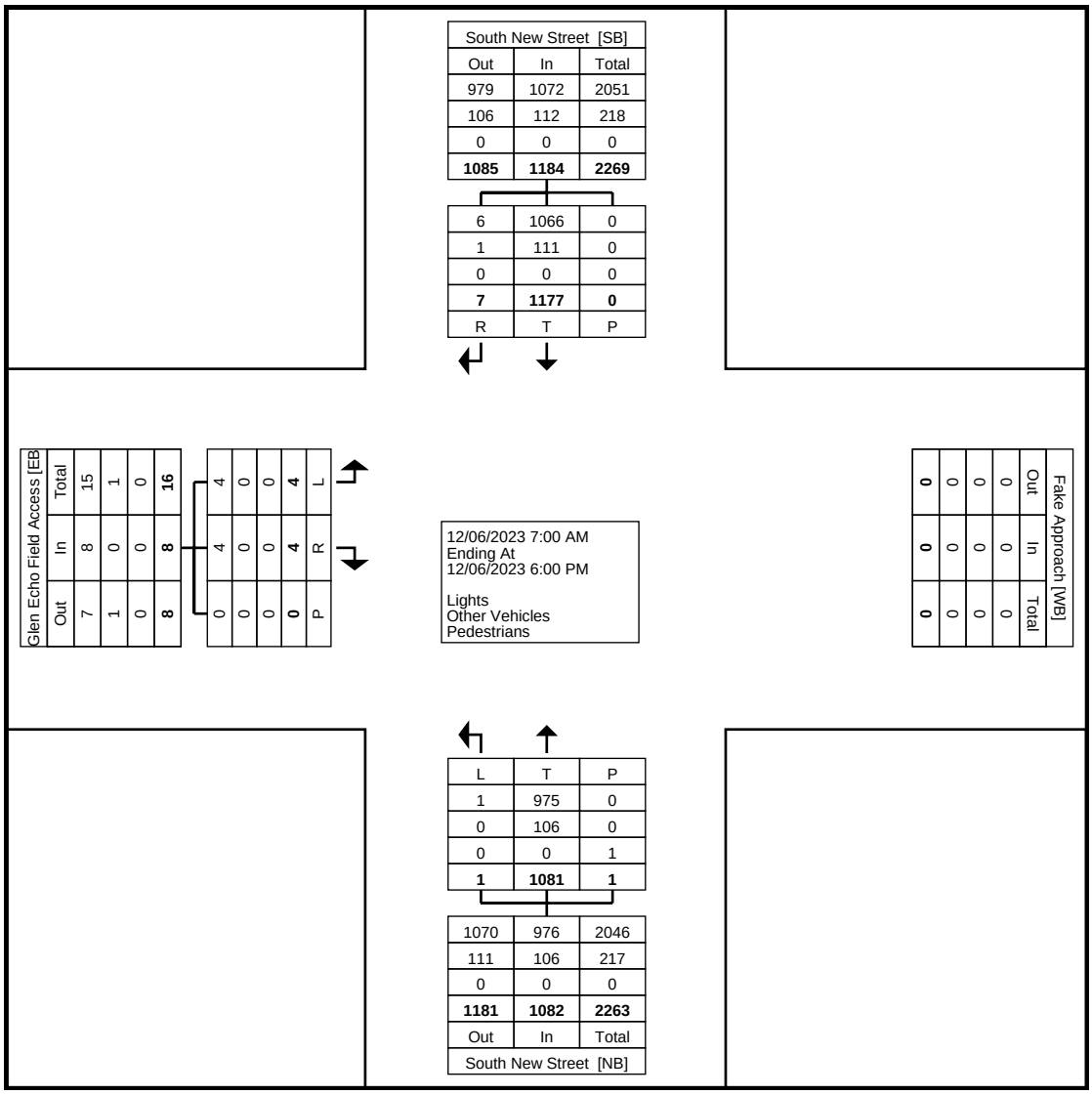
# Turning Movement Data

| Start Time | Glen Echo Field Access Eastbound | | | | South New Street Northbound | | | | South New Street Southbound | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Left | Right | Peds | App. Total | Left | Thru | Peds | App. Total | Thru | Right | Peds | App. Total | Int. Total |
| 7:00 AM | 0 | 0 | 0 | 0 | 0 | 18 | 0 | 18 | 16 | 0 | 0 | 16 | 34 |
| 7:15 AM | 0 | 0 | 0 | 0 | 0 | 18 | 0 | 18 | 17 | 0 | 0 | 17 | 35 |
| 7:30 AM | 0 | 0 | 0 | 0 | 0 | 48 | 0 | 48 | 33 | 1 | 0 | 34 | 82 |
| 7:45 AM | 0 | 1 | 0 | 1 | 0 | 79 | 0 | 79 | 35 | 0 | 0 | 35 | 115 |
| Hourly Total | 0 | 1 | 0 | 1 | 0 | 163 | 0 | 163 | 101 | 1 | 0 | 102 | 266 |
| 8:00 AM | 0 | 0 | 0 | 0 | 0 | 45 | 0 | 45 | 35 | 0 | 0 | 35 | 80 |
| 8:15 AM | 0 | 0 | 0 | 0 | 0 | 39 | 0 | 39 | 30 | 0 | 0 | 30 | 69 |
| 8:30 AM | 0 | 1 | 0 | 1 | 0 | 57 | 0 | 57 | 39 | 0 | 0 | 39 | 97 |
| 8:45 AM | 0 | 0 | 0 | 0 | 0 | 55 | 0 | 55 | 50 | 0 | 0 | 50 | 105 |
| Hourly Total | 0 | 1 | 0 | 1 | 0 | 196 | 0 | 196 | 154 | 0 | 0 | 154 | 351 |
| 9:00 AM | 0 | 0 | 0 | 0 | 0 | 29 | 0 | 29 | 32 | 1 | 0 | 33 | 62 |
| 9:15 AM | 0 | 0 | 0 | 0 | 0 | 29 | 0 | 29 | 30 | 1 | 0 | 31 | 60 |
| 9:30 AM | 0 | 0 | 0 | 0 | 0 | 34 | 0 | 34 | 29 | 0 | 0 | 29 | 63 |
| 9:45 AM | 0 | 0 | 0 | 0 | 0 | 46 | 0 | 46 | 56 | 1 | 0 | 57 | 103 |
| Hourly Total | 0 | 0 | 0 | 0 | 0 | 138 | 0 | 138 | 147 | 3 | 0 | 150 | 288 |
| *** BREAK *** | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 3:00 PM | 0 | 0 | 0 | 0 | 0 | 33 | 0 | 33 | 51 | 1 | 0 | 52 | 85 |
| 3:15 PM | 0 | 2 | 0 | 2 | 1 | 55 | 0 | 56 | 58 | 1 | 0 | 59 | 117 |
| 3:30 PM | 0 | 0 | 0 | 0 | 0 | 47 | 0 | 47 | 57 | 0 | 0 | 57 | 104 |
| 3:45 PM | 1 | 0 | 0 | 1 | 0 | 57 | 0 | 57 | 50 | 0 | 0 | 50 | 108 |
| Hourly Total | 1 | 2 | 0 | 3 | 1 | 192 | 0 | 193 | 216 | 2 | 0 | 218 | 414 |
| 4:00 PM | 0 | 0 | 0 | 0 | 0 | 69 | 0 | 69 | 71 | 0 | 0 | 71 | 140 |
| 4:15 PM | 1 | 0 | 0 | 1 | 0 | 39 | 1 | 39 | 77 | 0 | 0 | 77 | 117 |
| 4:30 PM | 2 | 0 | 0 | 2 | 0 | 61 | 0 | 61 | 86 | 0 | 0 | 86 | 149 |
| 4:45 PM | 0 | 0 | 0 | 0 | 0 | 48 | 0 | 48 | 68 | 0 | 0 | 68 | 116 |
| Hourly Total | 3 | 0 | 0 | 3 | 0 | 217 | 1 | 217 | 302 | 0 | 0 | 302 | 522 |
| 5:00 PM | 0 | 0 | 0 | 0 | 0 | 35 | 0 | 35 | 76 | 0 | 0 | 76 | 111 |
| 5:15 PM | 0 | 0 | 0 | 0 | 0 | 54 | 0 | 54 | 54 | 0 | 0 | 54 | 108 |
| 5:30 PM | 0 | 0 | 0 | 0 | 0 | 51 | 0 | 51 | 67 | 0 | 0 | 67 | 118 |
| 5:45 PM | 0 | 0 | 0 | 0 | 0 | 35 | 0 | 35 | 60 | 1 | 0 | 61 | 96 |
| Hourly Total | 0 | 0 | 0 | 0 | 0 | 175 | 0 | 175 | 257 | 1 | 0 | 258 | 433 |
| Grand Total | 4 | 4 | 0 | 8 | 1 | 1081 | 1 | 1082 | 1177 | 7 | 0 | 1184 | 2274 |
| Approach % | 50.0 | 50.0 | - | - | 0.1 | 99.9 | - | - | 99.4 | 0.6 | - | - | - |
| Total % | 0.2 | 0.2 | - | 0.4 | 0.0 | 47.5 | - | 47.6 | 51.8 | 0.3 | - | 52.1 | - |
| Lights | 4 | 4 | - | 8 | 1 | 975 | - | 976 | 1066 | 6 | - | 1072 | 2056 |
| % Lights | 100.0 | 100.0 | - | 100.0 | 100.0 | 90.2 | - | 90.2 | 90.6 | 85.7 | - | 90.5 | 90.4 |
| Other Vehicles | 0 | 0 | - | 0 | 0 | 106 | - | 106 | 111 | 1 | - | 112 | 218 |
| % Other Vehicles | 0.0 | 0.0 | - | 0.0 | 0.0 | 9.8 | - | 9.8 | 9.4 | 14.3 | - | 9.5 | 9.6 |
| Pedestrians | - | - | 0 | - | - | - | 1 | - | - | - | 0 | - | - |
| % Pedestrians | - | - | - | - | - | - | 100.0 | - | - | - | - | - | - |

Counter: MIO:
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Suite 650
Pottstown, Pennsylvania, United States 19464
610.326.3100

Count Name: 19 South New Street & Glen Echo Field Access
Site Code:
Start Date: 12/06/2023


Turning Movement Data Plot

Counter: MIO:
Set up By JH::

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Suite 650
Pottstown, Pennsylvania, United States 19464
610.326.3100

Count Name: 19 South New Street & Glen Echo Field Access
Site Code:
Start Date: 12/06/2023

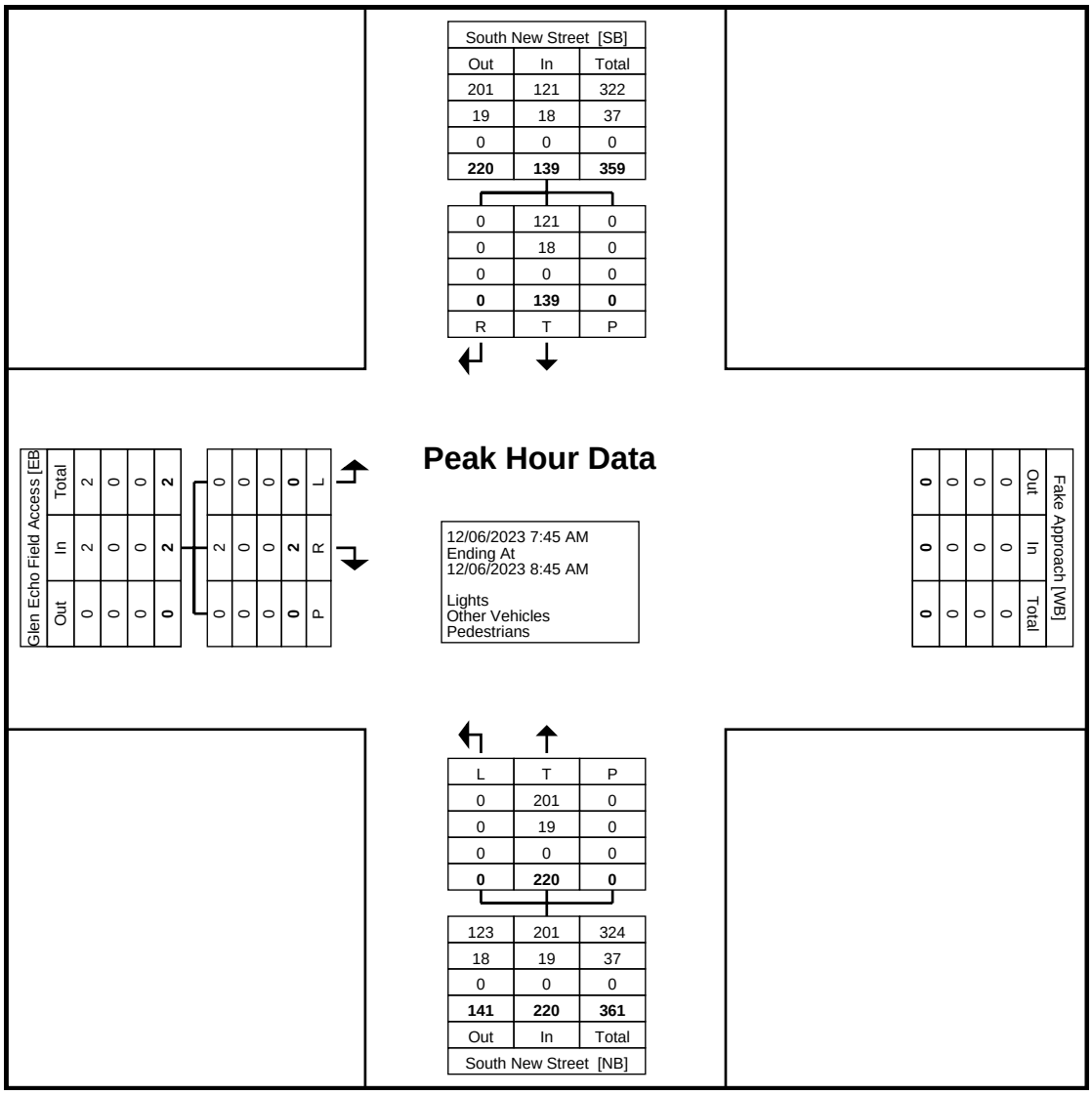

# Turning Movement Peak Hour Data (7:45 AM)

| Start Time | Glen Echo Field Access Eastbound | | | | South New Street Northbound | | | | South New Street Southbound | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Left | Right | Peds | App. Total | Left | Thru | Peds | App. Total | Thru | Right | Peds | App. Total | Int. Total |
| 7:45 AM | 0 | 1 | 0 | 1 | 0 | 79 | 0 | 79 | 35 | 0 | 0 | 35 | 115 |
| 8:00 AM | 0 | 0 | 0 | 0 | 0 | 45 | 0 | 45 | 35 | 0 | 0 | 35 | 80 |
| 8:15 AM | 0 | 0 | 0 | 0 | 0 | 39 | 0 | 39 | 30 | 0 | 0 | 30 | 69 |
| 8:30 AM | 0 | 1 | 0 | 1 | 0 | 57 | 0 | 57 | 39 | 0 | 0 | 39 | 97 |
| Total | 0 | 2 | 0 | 2 | 0 | 220 | 0 | 220 | 139 | 0 | 0 | 139 | 361 |
| Approach % | 0.0 | 100.0 | - | - | 0.0 | 100.0 | - | - | 100.0 | 0.0 | - | - | - |
| Total % | 0.0 | 0.6 | - | 0.6 | 0.0 | 60.9 | - | 60.9 | 38.5 | 0.0 | - | 38.5 | - |
| PHF | 0.000 | 0.500 | - | 0.500 | 0.000 | 0.696 | - | 0.696 | 0.891 | 0.000 | - | 0.891 | 0.785 |
| Lights | 0 | 2 | - | 2 | 0 | 201 | - | 201 | 121 | 0 | - | 121 | 324 |
| % Lights | - | 100.0 | - | 100.0 | - | 91.4 | - | 91.4 | 87.1 | - | - | 87.1 | 89.8 |
| Other Vehicles | 0 | 0 | - | 0 | 0 | 19 | - | 19 | 18 | 0 | - | 18 | 37 |
| % Other Vehicles | - | 0.0 | - | 0.0 | - | 8.6 | - | 8.6 | 12.9 | - | - | 12.9 | 10.2 |
| Pedestrians | - | - | 0 | - | - | - | 0 | - | - | - | 0 | - | - |
| % Pedestrians | - | - | - | - | - | - | - | - | - | - | - | - | - |

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Counter: MIO:
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Count Name: 19 South New Street & Glen Echo Field Access
Site Code:
Start Date: 12/06/2023


Turning Movement Peak Hour Data Plot (7:45 AM)

Counter: MIO:
Set up By JH::

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Pottstown, Pennsylvania, United States 19464
610.326.3100

Count Name: 19 South New Street & Glen Echo Field Access
Site Code:
Start Date: 12/06/2023

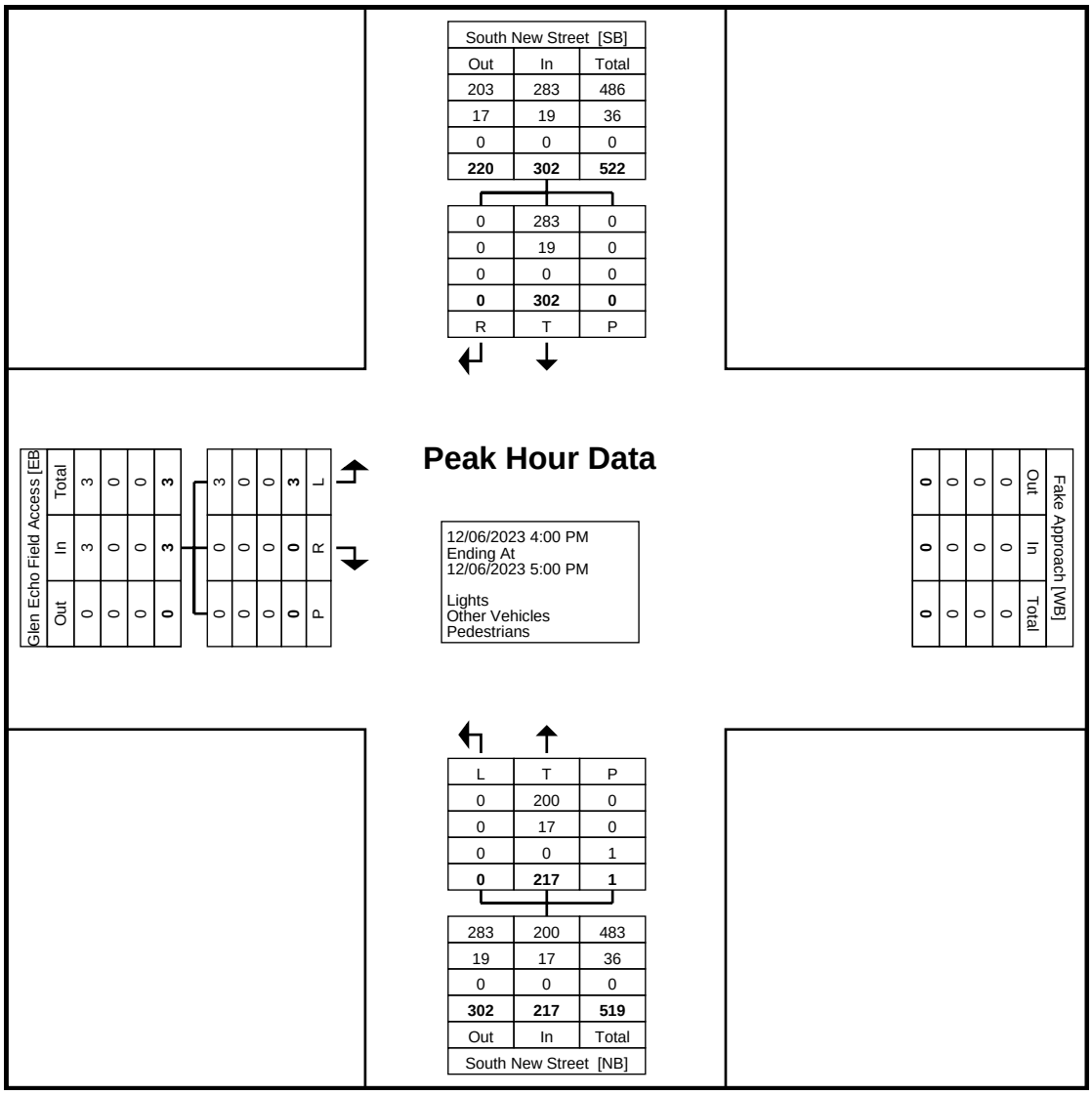

# Turning Movement Peak Hour Data (4:00 PM)

| Start Time | Glen Echo Field Access Eastbound | | | | South New Street Northbound | | | | South New Street Southbound | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Left | Right | Peds | App. Total | Left | Thru | Peds | App. Total | Thru | Right | Peds | App. Total | Int. Total |
| 4:00 PM | 0 | 0 | 0 | 0 | 0 | 69 | 0 | 69 | 71 | 0 | 0 | 71 | 140 |
| 4:15 PM | 1 | 0 | 0 | 1 | 0 | 39 | 1 | 39 | 77 | 0 | 0 | 77 | 117 |
| 4:30 PM | 2 | 0 | 0 | 2 | 0 | 61 | 0 | 61 | 86 | 0 | 0 | 86 | 149 |
| 4:45 PM | 0 | 0 | 0 | 0 | 0 | 48 | 0 | 48 | 68 | 0 | 0 | 68 | 116 |
| Total | 3 | 0 | 0 | 3 | 0 | 217 | 1 | 217 | 302 | 0 | 0 | 302 | 522 |
| Approach % | 100.0 | 0.0 | - | - | 0.0 | 100.0 | - | - | 100.0 | 0.0 | - | - | - |
| Total % | 0.6 | 0.0 | - | 0.6 | 0.0 | 41.6 | - | 41.6 | 57.9 | 0.0 | - | 57.9 | - |
| PHF | 0.375 | 0.000 | - | 0.375 | 0.000 | 0.786 | - | 0.786 | 0.878 | 0.000 | - | 0.878 | 0.876 |
| Lights | 3 | 0 | - | 3 | 0 | 200 | - | 200 | 283 | 0 | - | 283 | 486 |
| % Lights | 100.0 | - | - | 100.0 | - | 92.2 | - | 92.2 | 93.7 | - | - | 93.7 | 93.1 |
| Other Vehicles | 0 | 0 | - | 0 | 0 | 17 | - | 17 | 19 | 0 | - | 19 | 36 |
| % Other Vehicles | 0.0 | - | - | 0.0 | - | 7.8 | - | 7.8 | 6.3 | - | - | 6.3 | 6.9 |
| Pedestrians | - | - | 0 | - | - | - | 1 | - | - | - | 0 | - | - |
| % Pedestrians | - | - | - | - | - | - | 100.0 | - | - | - | - | - | - |

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610.326.3100

Counter: MIO:
Set up By JH::

Count Name: 19 South New Street & Glen Echo Field Access
Site Code:
Start Date: 12/06/2023


Turning Movement Peak Hour Data Plot (4:00 PM)

Traffic Planning and Design, Inc
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Pottstown, Pennsylvania, United States 19464
610.326.3100

Counter: MIO:
Set up By JH::

Count Name: 20 South New Street & 855 S New Street Access
Site Code:
Start Date: 12/06/2023

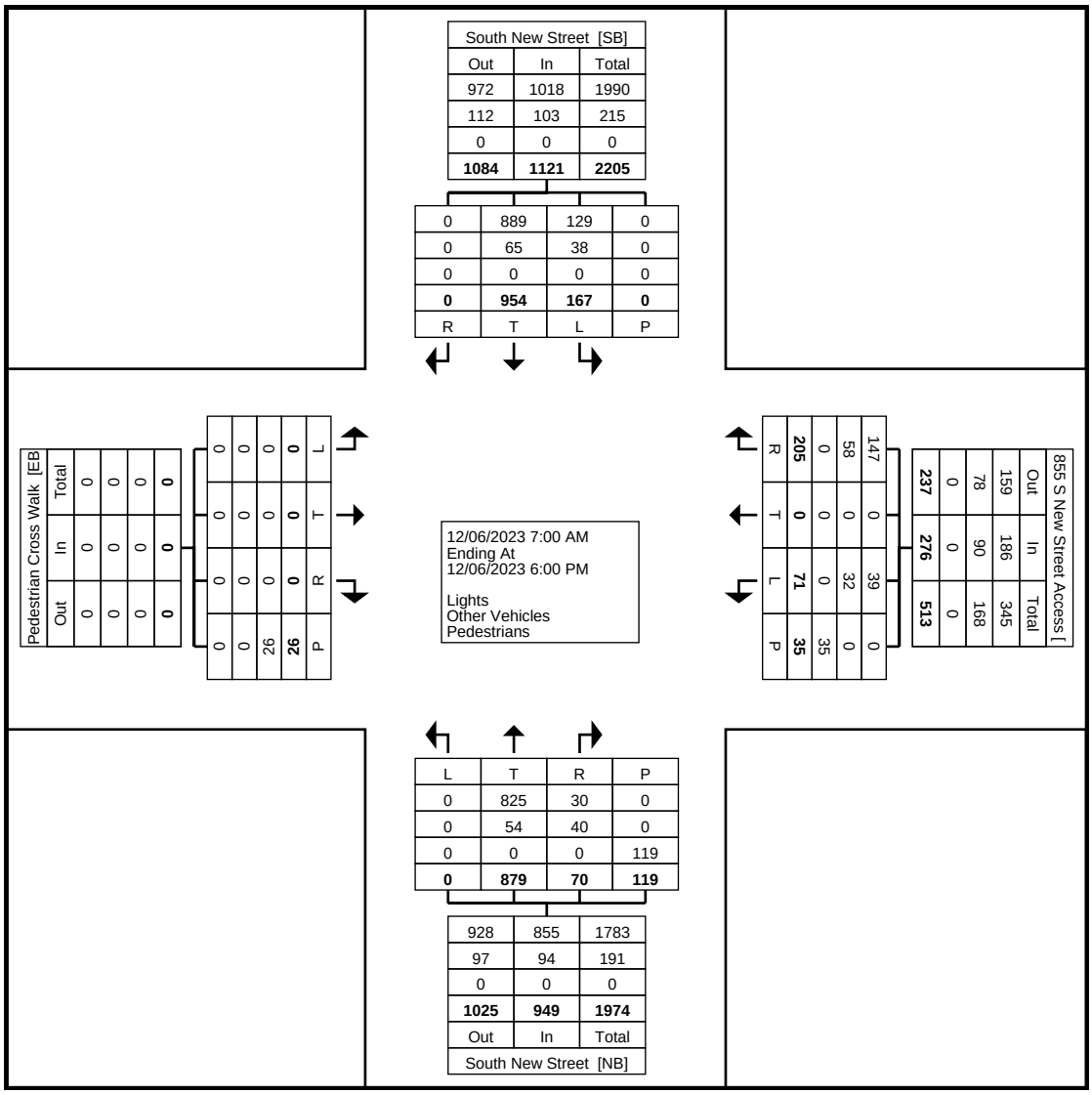

# Turning Movement Data

| Start Time | Pedestrian Cross Walk Eastbound | | | | | 855 S New Street Access Westbound | | | | | South New Street Northbound | | | | | South New Street Southbound | | | | | Int. Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Left | Thru | Right | Peds | App. Total | Left | Thru | Right | Peds | App. Total | Left | Thru | Right | Peds | App. Total | Left | Thru | Right | Peds | App. Total | |
| 7:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 18 | 0 | 0 | 18 | 0 | 16 | 0 | 0 | 16 | 34 |
| 7:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 2 | 1 | 0 | 16 | 1 | 1 | 17 | 0 | 16 | 0 | 0 | 16 | 34 |
| 7:30 AM | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 9 | 1 | 11 | 0 | 43 | 4 | 1 | 47 | 5 | 25 | 0 | 0 | 30 | 88 |
| 7:45 AM | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 10 | 3 | 12 | 0 | 68 | 4 | 3 | 72 | 9 | 27 | 0 | 0 | 36 | 120 |
| Hourly Total | 0 | 0 | 0 | 0 | 0 | 4 | 0 | 20 | 6 | 24 | 0 | 145 | 9 | 5 | 154 | 14 | 84 | 0 | 0 | 98 | 276 |
| 8:00 AM | 0 | 0 | 0 | 0 | 0 | 4 | 0 | 3 | 0 | 7 | 0 | 46 | 4 | 0 | 50 | 4 | 23 | 0 | 0 | 27 | 84 |
| 8:15 AM | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 3 | 4 | 4 | 0 | 35 | 3 | 4 | 38 | 3 | 28 | 0 | 0 | 31 | 73 |
| 8:30 AM | 0 | 0 | 0 | 1 | 0 | 4 | 0 | 9 | 2 | 13 | 0 | 49 | 4 | 5 | 53 | 13 | 22 | 0 | 0 | 35 | 101 |
| 8:45 AM | 0 | 0 | 0 | 2 | 0 | 4 | 0 | 10 | 0 | 14 | 0 | 46 | 10 | 4 | 56 | 18 | 20 | 0 | 0 | 38 | 108 |
| Hourly Total | 0 | 0 | 0 | 3 | 0 | 13 | 0 | 25 | 6 | 38 | 0 | 176 | 21 | 13 | 197 | 38 | 93 | 0 | 0 | 131 | 366 |
| 9:00 AM | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 2 | 2 | 4 | 0 | 26 | 6 | 3 | 32 | 4 | 19 | 0 | 0 | 23 | 59 |
| 9:15 AM | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 7 | 3 | 9 | 0 | 23 | 4 | 6 | 27 | 3 | 22 | 0 | 0 | 25 | 61 |
| 9:30 AM | 0 | 0 | 0 | 2 | 0 | 2 | 0 | 5 | 1 | 7 | 0 | 32 | 3 | 2 | 35 | 5 | 21 | 0 | 0 | 26 | 68 |
| 9:45 AM | 0 | 0 | 0 | 4 | 0 | 5 | 0 | 13 | 0 | 18 | 0 | 33 | 3 | 12 | 36 | 28 | 20 | 0 | 0 | 48 | 102 |
| Hourly Total | 0 | 0 | 0 | 6 | 0 | 11 | 0 | 27 | 6 | 38 | 0 | 114 | 16 | 23 | 130 | 40 | 82 | 0 | 0 | 122 | 290 |
| *** BREAK *** | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 3:00 PM | 0 | 0 | 0 | 0 | 0 | 7 | 0 | 8 | 0 | 15 | 0 | 25 | 3 | 4 | 28 | 9 | 43 | 0 | 0 | 52 | 95 |
| 3:15 PM | 0 | 0 | 0 | 3 | 0 | 7 | 0 | 17 | 1 | 24 | 0 | 37 | 3 | 5 | 40 | 13 | 46 | 0 | 0 | 59 | 123 |
| 3:30 PM | 0 | 0 | 0 | 8 | 0 | 6 | 0 | 16 | 0 | 22 | 0 | 32 | 2 | 8 | 34 | 9 | 46 | 0 | 0 | 55 | 111 |
| 3:45 PM | 0 | 0 | 0 | 6 | 0 | 4 | 0 | 15 | 3 | 19 | 0 | 39 | 3 | 8 | 42 | 12 | 37 | 0 | 0 | 49 | 110 |
| Hourly Total | 0 | 0 | 0 | 17 | 0 | 24 | 0 | 56 | 4 | 80 | 0 | 133 | 11 | 25 | 144 | 43 | 172 | 0 | 0 | 215 | 439 |
| 4:00 PM | 0 | 0 | 0 | 0 | 0 | 4 | 0 | 18 | 3 | 22 | 0 | 48 | 2 | 4 | 50 | 9 | 65 | 0 | 0 | 74 | 146 |
| 4:15 PM | 0 | 0 | 0 | 0 | 0 | 5 | 0 | 11 | 3 | 16 | 0 | 26 | 5 | 20 | 31 | 4 | 74 | 0 | 0 | 78 | 125 |
| 4:30 PM | 0 | 0 | 0 | 0 | 0 | 6 | 0 | 19 | 0 | 25 | 0 | 44 | 1 | 7 | 45 | 7 | 77 | 0 | 0 | 84 | 154 |
| 4:45 PM | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 10 | 2 | 11 | 0 | 39 | 2 | 5 | 41 | 4 | 66 | 0 | 0 | 70 | 122 |
| Hourly Total | 0 | 0 | 0 | 0 | 0 | 16 | 0 | 58 | 8 | 74 | 0 | 157 | 10 | 36 | 167 | 24 | 282 | 0 | 0 | 306 | 547 |
| 5:00 PM | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 3 | 0 | 4 | 0 | 30 | 1 | 3 | 31 | 1 | 73 | 0 | 0 | 74 | 109 |
| 5:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 1 | 4 | 0 | 49 | 0 | 3 | 49 | 1 | 52 | 0 | 0 | 53 | 106 |
| 5:30 PM | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 7 | 2 | 9 | 0 | 45 | 1 | 6 | 46 | 1 | 64 | 0 | 0 | 65 | 120 |
| 5:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 5 | 2 | 5 | 0 | 30 | 1 | 5 | 31 | 5 | 52 | 0 | 0 | 57 | 93 |
| Hourly Total | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 19 | 5 | 22 | 0 | 154 | 3 | 17 | 157 | 8 | 241 | 0 | 0 | 249 | 428 |
| Grand Total | 0 | 0 | 0 | 26 | 0 | 71 | 0 | 205 | 35 | 276 | 0 | 879 | 70 | 119 | 949 | 167 | 954 | 0 | 0 | 1121 | 2346 |
| Approach % | 0.0 | 0.0 | 0.0 | - | - | 25.7 | 0.0 | 74.3 | - | - | 0.0 | 92.6 | 7.4 | - | - | 14.9 | 85.1 | 0.0 | - | - | - |
| Total % | 0.0 | 0.0 | 0.0 | - | 0.0 | 3.0 | 0.0 | 8.7 | - | 11.8 | 0.0 | 37.5 | 3.0 | - | 40.5 | 7.1 | 40.7 | 0.0 | - | 47.8 | - |
| Lights | 0 | 0 | 0 | - | 0 | 39 | 0 | 147 | - | 186 | 0 | 825 | 30 | - | 855 | 129 | 889 | 0 | - | 1018 | 2059 |
| % Lights | - | - | - | - | - | 54.9 | - | 71.7 | - | 67.4 | - | 93.9 | 42.9 | - | 90.1 | 77.2 | 93.2 | - | - | 90.8 | 87.8 |
| Other Vehicles | 0 | 0 | 0 | - | 0 | 32 | 0 | 58 | - | 90 | 0 | 54 | 40 | - | 94 | 38 | 65 | 0 | - | 103 | 287 |
| % Other Vehicles | - | - | - | - | - | 45.1 | - | 28.3 | - | 32.6 | - | 6.1 | 57.1 | - | 9.9 | 22.8 | 6.8 | - | - | 9.2 | 12.2 |
| Pedestrians | - | - | - | 26 | - | - | - | - | 35 | - | - | - | - | 119 | - | - | - | - | 0 | - | - |
| % Pedestrians | - | - | - | 100.0 | - | - | - | - | 100.0 | - | - | - | - | 100.0 | - | - | - | - | - | - | - |

Traffic Planning and Design, Inc
2500 East High Street
Suite 650
Pottstown, Pennsylvania, United States 19464
610.326.3100

Counter: MIO:
Set up By JH::

Count Name: 20 South New Street & 855 S New Street Access
Site Code:
Start Date: 12/06/2023


Turning Movement Data Plot

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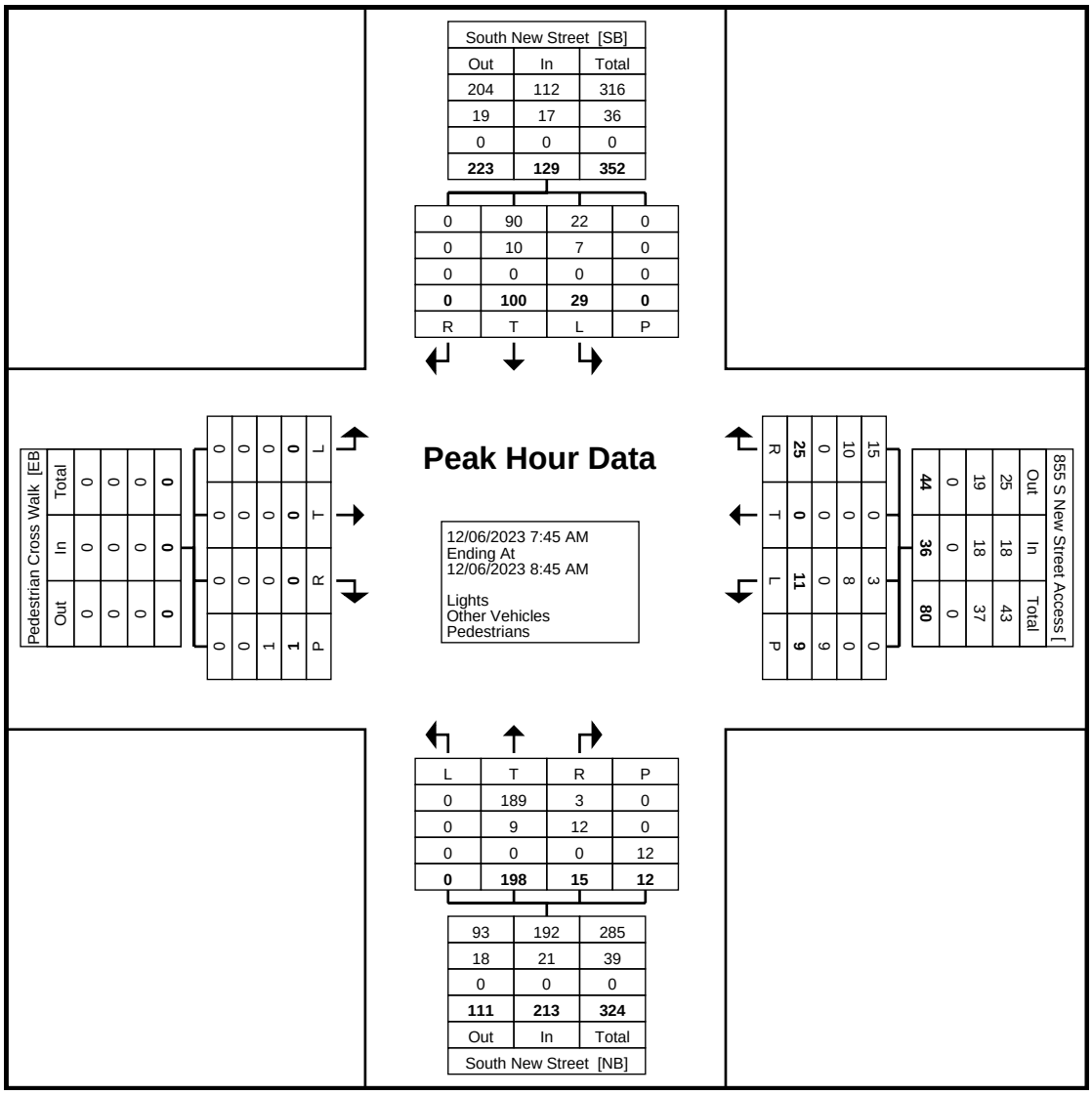

# Turning Movement Peak Hour Data (7:45 AM)

| Start Time | Pedestrian Cross Walk Eastbound | | | | | 855 S New Street Access Westbound | | | | | South New Street Northbound | | | | | South New Street Southbound | | | | | Int. Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Left | Thru | Right | Peds | App. Total | Left | Thru | Right | Peds | App. Total | Left | Thru | Right | Peds | App. Total | Left | Thru | Right | Peds | App. Total | |
| 7:45 AM | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 10 | 3 | 12 | 0 | 68 | 4 | 3 | 72 | 9 | 27 | 0 | 0 | 36 | 120 |
| 8:00 AM | 0 | 0 | 0 | 0 | 0 | 4 | 0 | 3 | 0 | 7 | 0 | 46 | 4 | 0 | 50 | 4 | 23 | 0 | 0 | 27 | 84 |
| 8:15 AM | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 3 | 4 | 4 | 0 | 35 | 3 | 4 | 38 | 3 | 28 | 0 | 0 | 31 | 73 |
| 8:30 AM | 0 | 0 | 0 | 1 | 0 | 4 | 0 | 9 | 2 | 13 | 0 | 49 | 4 | 5 | 53 | 13 | 22 | 0 | 0 | 35 | 101 |
| Total | 0 | 0 | 0 | 1 | 0 | 11 | 0 | 25 | 9 | 36 | 0 | 198 | 15 | 12 | 213 | 29 | 100 | 0 | 0 | 129 | 378 |
| Approach % | 0.0 | 0.0 | 0.0 | - | - | 30.6 | 0.0 | 69.4 | - | - | 0.0 | 93.0 | 7.0 | - | - | 22.5 | 77.5 | 0.0 | - | - | - |
| Total % | 0.0 | 0.0 | 0.0 | - | 0.0 | 2.9 | 0.0 | 6.6 | - | 9.5 | 0.0 | 52.4 | 4.0 | - | 56.3 | 7.7 | 26.5 | 0.0 | - | 34.1 | - |
| PHF | 0.000 | 0.000 | 0.000 | - | 0.000 | 0.688 | 0.000 | 0.625 | - | 0.692 | 0.000 | 0.728 | 0.938 | - | 0.740 | 0.558 | 0.893 | 0.000 | - | 0.896 | 0.788 |
| Lights | 0 | 0 | 0 | - | 0 | 3 | 0 | 15 | - | 18 | 0 | 189 | 3 | - | 192 | 22 | 90 | 0 | - | 112 | 322 |
| % Lights | - | - | - | - | - | 27.3 | - | 60.0 | - | 50.0 | - | 95.5 | 20.0 | - | 90.1 | 75.9 | 90.0 | - | - | 86.8 | 85.2 |
| Other Vehicles | 0 | 0 | 0 | - | 0 | 8 | 0 | 10 | - | 18 | 0 | 9 | 12 | - | 21 | 7 | 10 | 0 | - | 17 | 56 |
| % Other Vehicles | - | - | - | - | - | 72.7 | - | 40.0 | - | 50.0 | - | 4.5 | 80.0 | - | 9.9 | 24.1 | 10.0 | - | - | 13.2 | 14.8 |
| Pedestrians | - | - | - | 1 | - | - | - | - | 9 | - | - | - | - | 12 | - | - | - | - | 0 | - | - |
| % Pedestrians | - | - | - | 100.0 | - | - | - | - | 100.0 | - | - | - | - | 100.0 | - | - | - | - | - | - | - |

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Turning Movement Peak Hour Data Plot (7:45 AM)

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610.326.3100

Counter: MIO:
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Count Name: 20 South New Street & 855 S New Street Access
Site Code:
Start Date: 12/06/2023

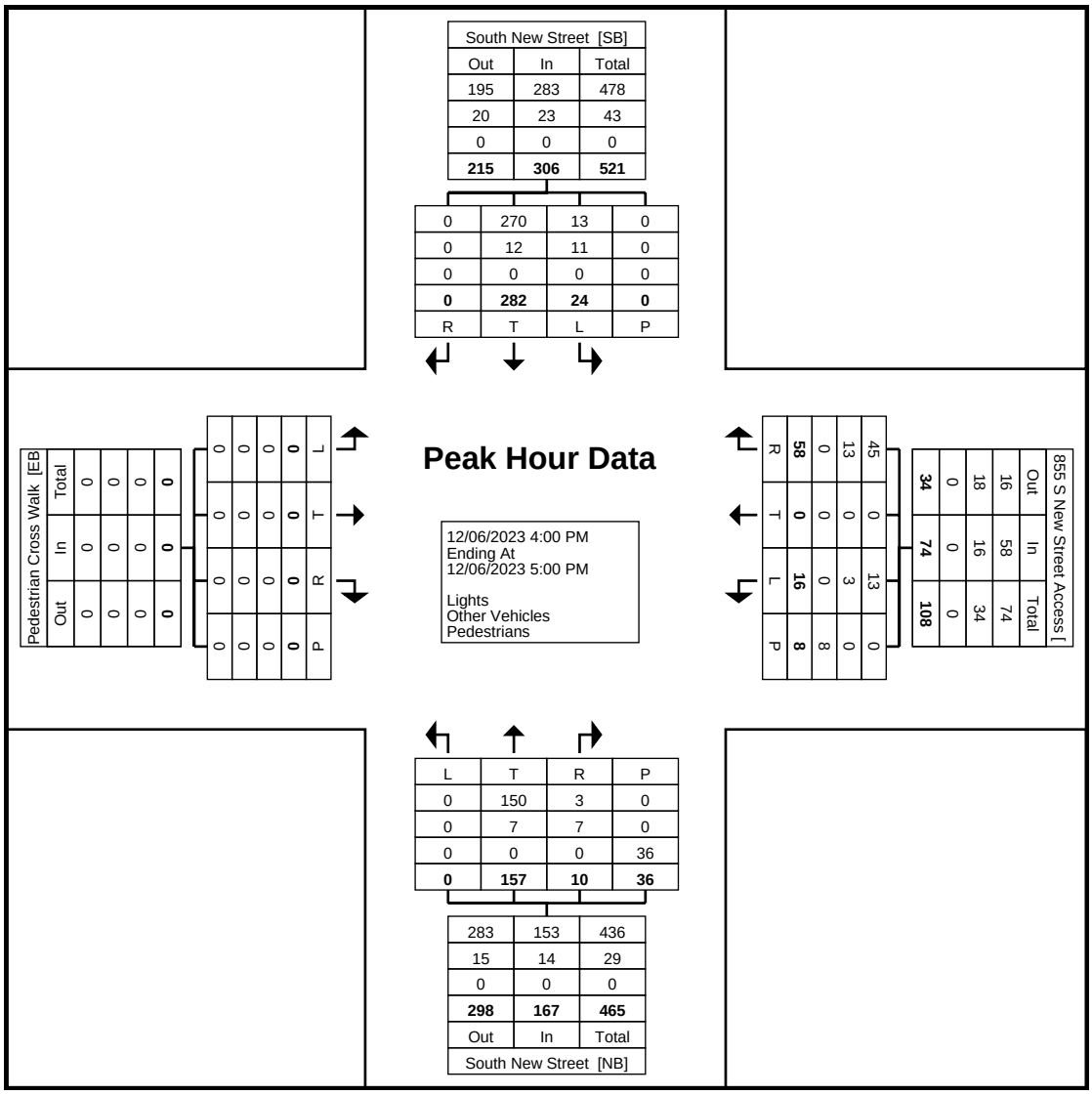

# Turning Movement Peak Hour Data (4:00 PM)

| Start Time | Pedestrian Cross Walk Eastbound | | | | | 855 S New Street Access Westbound | | | | | South New Street Northbound | | | | | South New Street Southbound | | | | | Int. Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Left | Thru | Right | Peds | App. Total | Left | Thru | Right | Peds | App. Total | Left | Thru | Right | Peds | App. Total | Left | Thru | Right | Peds | App. Total | |
| 4:00 PM | 0 | 0 | 0 | 0 | 0 | 4 | 0 | 18 | 3 | 22 | 0 | 48 | 2 | 4 | 50 | 9 | 65 | 0 | 0 | 74 | 146 |
| 4:15 PM | 0 | 0 | 0 | 0 | 0 | 5 | 0 | 11 | 3 | 16 | 0 | 26 | 5 | 20 | 31 | 4 | 74 | 0 | 0 | 78 | 125 |
| 4:30 PM | 0 | 0 | 0 | 0 | 0 | 6 | 0 | 19 | 0 | 25 | 0 | 44 | 1 | 7 | 45 | 7 | 77 | 0 | 0 | 84 | 154 |
| 4:45 PM | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 10 | 2 | 11 | 0 | 39 | 2 | 5 | 41 | 4 | 66 | 0 | 0 | 70 | 122 |
| Total | 0 | 0 | 0 | 0 | 0 | 16 | 0 | 58 | 8 | 74 | 0 | 157 | 10 | 36 | 167 | 24 | 282 | 0 | 0 | 306 | 547 |
| Approach % | 0.0 | 0.0 | 0.0 | - | - | 21.6 | 0.0 | 78.4 | - | - | 0.0 | 94.0 | 6.0 | - | - | 7.8 | 92.2 | 0.0 | - | - | - |
| Total % | 0.0 | 0.0 | 0.0 | - | 0.0 | 2.9 | 0.0 | 10.6 | - | 13.5 | 0.0 | 28.7 | 1.8 | - | 30.5 | 4.4 | 51.6 | 0.0 | - | 55.9 | - |
| PHF | 0.000 | 0.000 | 0.000 | - | 0.000 | 0.667 | 0.000 | 0.763 | - | 0.740 | 0.000 | 0.818 | 0.500 | - | 0.835 | 0.667 | 0.916 | 0.000 | - | 0.911 | 0.888 |
| Lights | 0 | 0 | 0 | - | 0 | 13 | 0 | 45 | - | 58 | 0 | 150 | 3 | - | 153 | 13 | 270 | 0 | - | 283 | 494 |
| % Lights | - | - | - | - | - | 81.3 | - | 77.6 | - | 78.4 | - | 95.5 | 30.0 | - | 91.6 | 54.2 | 95.7 | - | - | 92.5 | 90.3 |
| Other Vehicles | 0 | 0 | 0 | - | 0 | 3 | 0 | 13 | - | 16 | 0 | 7 | 7 | - | 14 | 11 | 12 | 0 | - | 23 | 53 |
| % Other Vehicles | - | - | - | - | - | 18.8 | - | 22.4 | - | 21.6 | - | 4.5 | 70.0 | - | 8.4 | 45.8 | 4.3 | - | - | 7.5 | 9.7 |
| Pedestrians | - | - | - | 0 | - | - | - | - | 8 | - | - | - | - | 36 | - | - | - | - | 0 | - | - |
| % Pedestrians | - | - | - | - | - | - | - | - | 100.0 | - | - | - | - | 100.0 | - | - | - | - | - | - | - |

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Counter: MIO:
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Count Name: 20 South New Street & 855 S New Street Access
Site Code:
Start Date: 12/06/2023


Turning Movement Peak Hour Data Plot (4:00 PM)

Counter: MIO:
Set up By JH::

Traffic Planning and Design, Inc
2500 East High Street
Suite 650
Pottstown, Pennsylvania, United States 19464
610.326.3100

Count Name: 21 South New Street & S Campus Drive
Site Code:
Start Date: 12/06/2023
Page No: 1

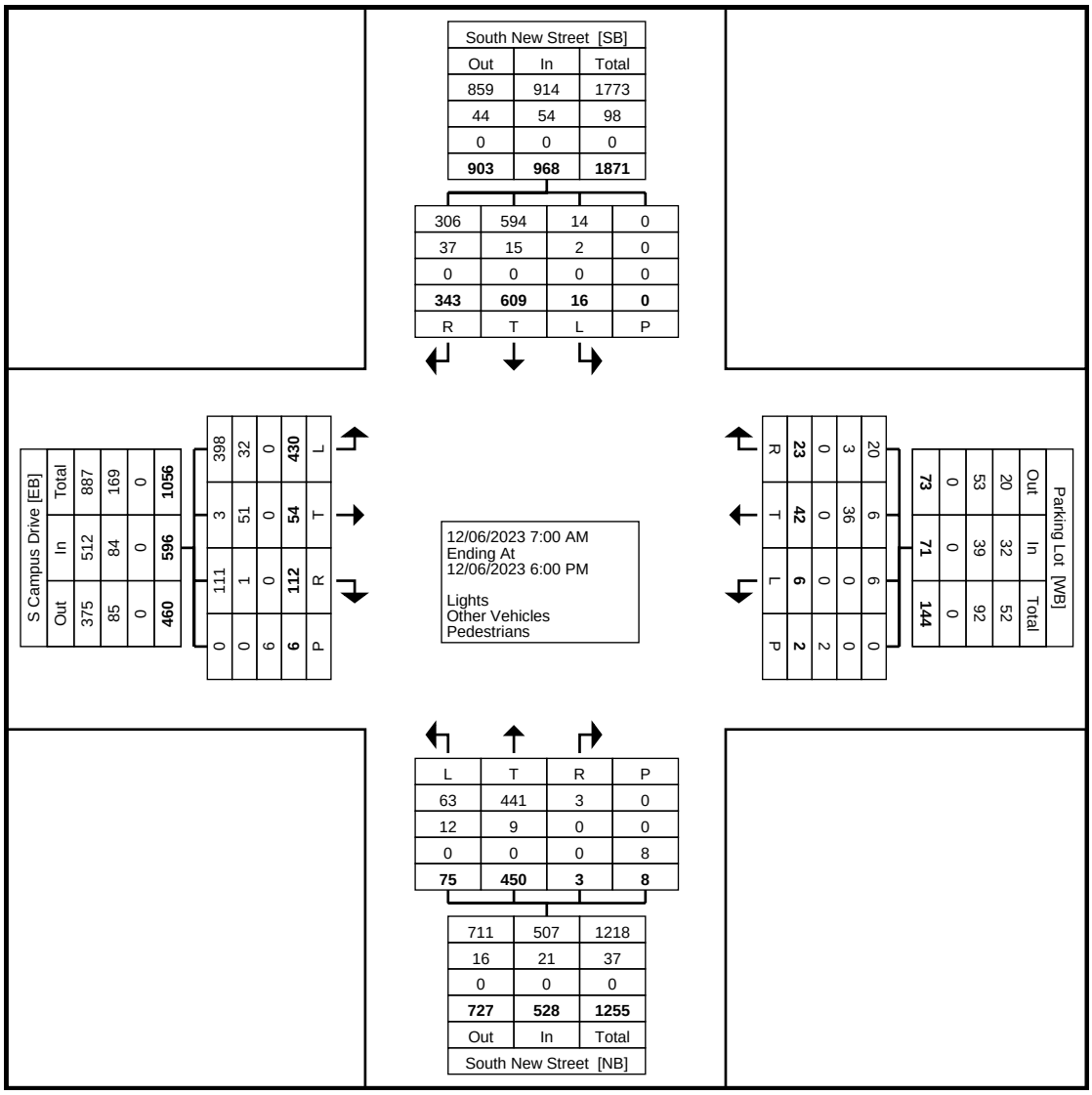
# Turning Movement Data

| Start Time | S Campus Drive Eastbound | | | | | Parking Lot Westbound | | | | | South New Street Northbound | | | | | South New Street Southbound | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Left | Thru | Right | Peds | App. Total | Left | Thru | Right | Peds | App. Total | Left | Thru | Right | Peds | App. Total | Left | Thru | Right | Peds | App. Total | Int. Total |
| 7:00 AM | 5 | 0 | 5 | 0 | 10 | 0 | 0 | 0 | 0 | 0 | 0 | 13 | 0 | 0 | 13 | 0 | 11 | 5 | 0 | 16 | 39 |
| 7:15 AM | 10 | 3 | 6 | 0 | 19 | 0 | 1 | 0 | 0 | 1 | 2 | 9 | 0 | 0 | 11 | 0 | 14 | 2 | 0 | 16 | 47 |
| 7:30 AM | 15 | 3 | 2 | 0 | 20 | 0 | 0 | 1 | 0 | 1 | 1 | 28 | 0 | 0 | 29 | 1 | 19 | 5 | 0 | 25 | 75 |
| 7:45 AM | 26 | 2 | 3 | 0 | 31 | 0 | 2 | 0 | 0 | 2 | 0 | 46 | 0 | 0 | 46 | 0 | 21 | 7 | 0 | 28 | 107 |
| Hourly Total | 56 | 8 | 16 | 0 | 80 | 0 | 3 | 1 | 0 | 4 | 3 | 96 | 0 | 0 | 99 | 1 | 65 | 19 | 0 | 85 | 268 |
| 8:00 AM | 5 | 2 | 3 | 0 | 10 | 0 | 1 | 1 | 0 | 2 | 4 | 37 | 0 | 0 | 41 | 1 | 19 | 7 | 0 | 27 | 80 |
| 8:15 AM | 11 | 3 | 1 | 0 | 15 | 0 | 4 | 2 | 0 | 6 | 1 | 26 | 1 | 0 | 28 | 0 | 22 | 5 | 0 | 27 | 76 |
| 8:30 AM | 26 | 2 | 3 | 1 | 31 | 0 | 0 | 1 | 0 | 1 | 2 | 23 | 0 | 0 | 25 | 2 | 17 | 6 | 0 | 25 | 82 |
| 8:45 AM | 23 | 2 | 1 | 0 | 26 | 0 | 2 | 0 | 0 | 2 | 0 | 29 | 0 | 0 | 29 | 1 | 12 | 8 | 0 | 21 | 78 |
| Hourly Total | 65 | 9 | 8 | 1 | 82 | 0 | 7 | 4 | 0 | 11 | 7 | 115 | 1 | 0 | 123 | 4 | 70 | 26 | 0 | 100 | 316 |
| 9:00 AM | 8 | 2 | 1 | 0 | 11 | 0 | 2 | 0 | 0 | 2 | 3 | 23 | 0 | 0 | 26 | 1 | 8 | 8 | 0 | 17 | 56 |
| 9:15 AM | 9 | 2 | 5 | 0 | 16 | 0 | 1 | 1 | 1 | 2 | 1 | 13 | 0 | 0 | 14 | 0 | 13 | 8 | 0 | 21 | 53 |
| 9:30 AM | 18 | 3 | 4 | 1 | 25 | 0 | 0 | 1 | 0 | 1 | 4 | 11 | 0 | 0 | 15 | 0 | 11 | 12 | 0 | 23 | 64 |
| 9:45 AM | 22 | 3 | 2 | 0 | 27 | 0 | 1 | 0 | 0 | 1 | 2 | 12 | 0 | 0 | 14 | 1 | 14 | 10 | 0 | 25 | 67 |
| Hourly Total | 57 | 10 | 12 | 1 | 79 | 0 | 4 | 2 | 1 | 6 | 10 | 59 | 0 | 0 | 69 | 2 | 46 | 38 | 0 | 86 | 240 |
| *** BREAK *** | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 3:00 PM | 12 | 2 | 4 | 2 | 18 | 0 | 3 | 0 | 0 | 3 | 6 | 14 | 0 | 2 | 20 | 1 | 21 | 24 | 0 | 46 | 87 |
| 3:15 PM | 24 | 2 | 4 | 0 | 30 | 1 | 2 | 2 | 0 | 5 | 4 | 13 | 0 | 2 | 17 | 0 | 28 | 24 | 0 | 52 | 104 |
| 3:30 PM | 16 | 2 | 9 | 0 | 27 | 0 | 2 | 1 | 0 | 3 | 5 | 16 | 0 | 0 | 21 | 0 | 31 | 18 | 0 | 49 | 100 |
| 3:45 PM | 20 | 1 | 13 | 0 | 34 | 0 | 3 | 3 | 1 | 6 | 3 | 21 | 0 | 2 | 24 | 0 | 20 | 17 | 0 | 37 | 101 |
| Hourly Total | 72 | 7 | 30 | 2 | 109 | 1 | 10 | 6 | 1 | 17 | 18 | 64 | 0 | 6 | 82 | 1 | 100 | 83 | 0 | 184 | 392 |
| 4:00 PM | 32 | 3 | 8 | 0 | 43 | 1 | 3 | 8 | 0 | 12 | 2 | 13 | 0 | 0 | 15 | 1 | 45 | 21 | 0 | 67 | 137 |
| 4:15 PM | 15 | 1 | 7 | 0 | 23 | 0 | 3 | 0 | 0 | 3 | 6 | 11 | 0 | 0 | 17 | 0 | 49 | 26 | 0 | 75 | 118 |
| 4:30 PM | 25 | 4 | 8 | 2 | 37 | 1 | 3 | 0 | 0 | 4 | 8 | 21 | 0 | 2 | 29 | 0 | 50 | 26 | 0 | 76 | 146 |
| 4:45 PM | 20 | 0 | 7 | 0 | 27 | 2 | 1 | 0 | 0 | 3 | 2 | 17 | 1 | 0 | 20 | 1 | 43 | 22 | 0 | 66 | 116 |
| Hourly Total | 92 | 8 | 30 | 2 | 130 | 4 | 10 | 8 | 0 | 22 | 18 | 62 | 1 | 2 | 81 | 2 | 187 | 95 | 0 | 284 | 517 |
| 5:00 PM | 18 | 3 | 6 | 0 | 27 | 0 | 3 | 1 | 0 | 4 | 6 | 7 | 0 | 0 | 13 | 0 | 50 | 19 | 0 | 69 | 113 |
| 5:15 PM | 23 | 4 | 2 | 0 | 29 | 1 | 2 | 0 | 0 | 3 | 6 | 24 | 1 | 0 | 31 | 1 | 33 | 15 | 0 | 49 | 112 |
| 5:30 PM | 25 | 2 | 2 | 0 | 29 | 0 | 1 | 1 | 0 | 2 | 4 | 16 | 0 | 0 | 20 | 3 | 36 | 23 | 0 | 62 | 113 |
| 5:45 PM | 22 | 3 | 6 | 0 | 31 | 0 | 2 | 0 | 0 | 2 | 3 | 7 | 0 | 0 | 10 | 2 | 22 | 25 | 0 | 49 | 92 |
| Hourly Total | 88 | 12 | 16 | 0 | 116 | 1 | 8 | 2 | 0 | 11 | 19 | 54 | 1 | 0 | 74 | 6 | 141 | 82 | 0 | 229 | 430 |
| Grand Total | 430 | 54 | 112 | 6 | 596 | 6 | 42 | 23 | 2 | 71 | 75 | 450 | 3 | 8 | 528 | 16 | 609 | 343 | 0 | 968 | 2163 |
| Approach % | 72.1 | 9.1 | 18.8 | - | - | 8.5 | 59.2 | 32.4 | - | - | 14.2 | 85.2 | 0.6 | - | - | 1.7 | 62.9 | 35.4 | - | - | - |
| Total % | 19.9 | 2.5 | 5.2 | - | 27.6 | 0.3 | 1.9 | 1.1 | - | 3.3 | 3.5 | 20.8 | 0.1 | - | 24.4 | 0.7 | 28.2 | 15.9 | - | 44.8 | - |
| Lights | 398 | 3 | 111 | - | 512 | 6 | 6 | 20 | - | 32 | 63 | 441 | 3 | - | 507 | 14 | 594 | 306 | - | 914 | 1965 |
| % Lights | 92.6 | 5.6 | 99.1 | - | 85.9 | 100.0 | 14.3 | 87.0 | - | 45.1 | 84.0 | 98.0 | 100.0 | - | 96.0 | 87.5 | 97.5 | 89.2 | - | 94.4 | 90.8 |
| Other Vehicles | 32 | 51 | 1 | - | 84 | 0 | 36 | 3 | - | 39 | 12 | 9 | 0 | - | 21 | 2 | 15 | 37 | - | 54 | 198 |
| % Other Vehicles | 7.4 | 94.4 | 0.9 | - | 14.1 | 0.0 | 85.7 | 13.0 | - | 54.9 | 16.0 | 2.0 | 0.0 | - | 4.0 | 12.5 | 2.5 | 10.8 | - | 5.6 | 9.2 |
| Pedestrians | - | - | - | 6 | - | - | - | - | 2 | - | - | - | - | 8 | - | - | - | - | 0 | - | - |
| % Pedestrians | - | - | - | 100.0 | - | - | - | - | 100.0 | - | - | - | - | 100.0 | - | - | - | - | - | - | - |

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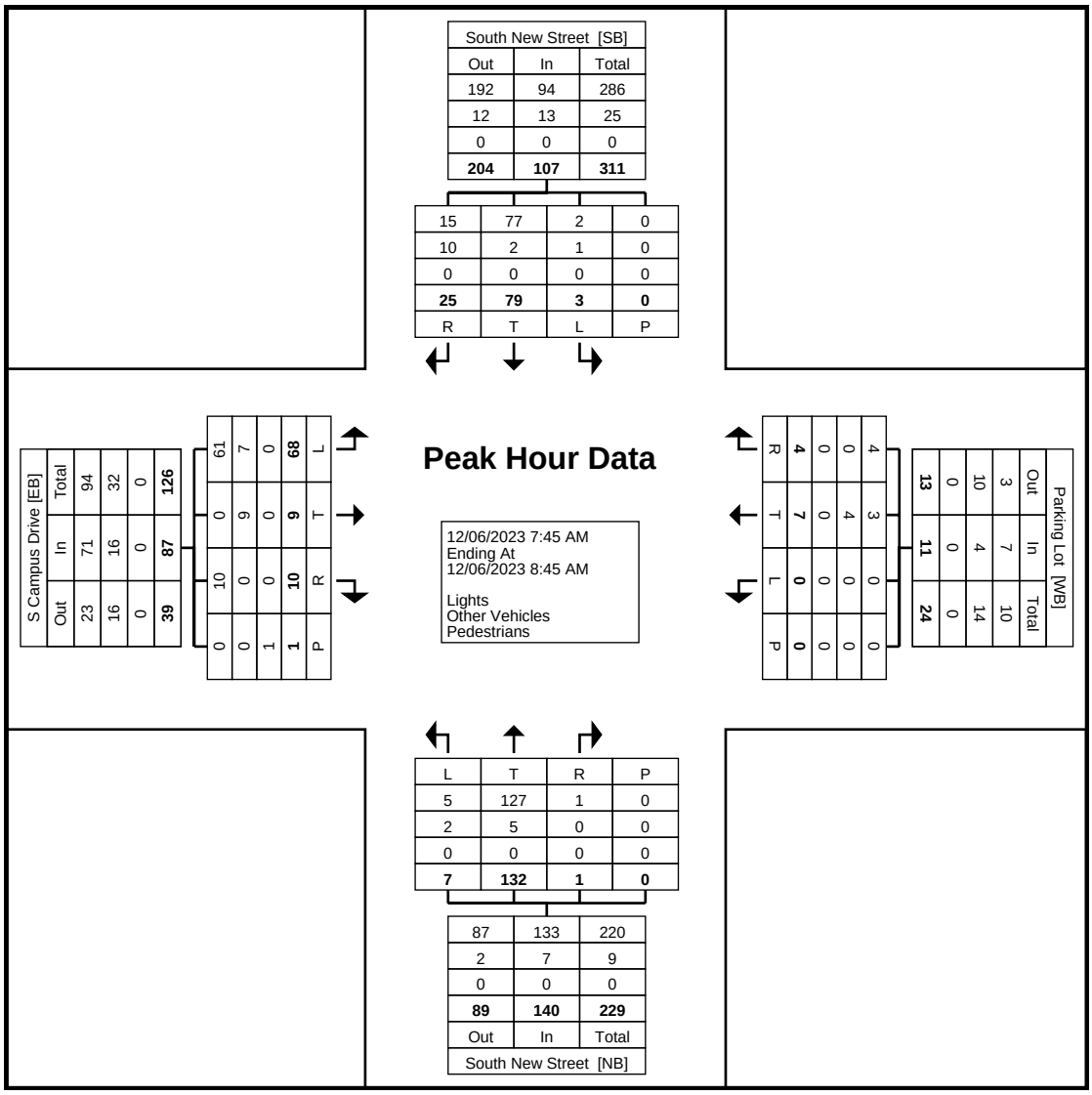

# Turning Movement Peak Hour Data (7:45 AM)

| Start Time | S Campus Drive Eastbound | | | | | Parking Lot Westbound | | | | | South New Street Northbound | | | | | South New Street Southbound | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Left | Thru | Right | Peds | App. Total | Left | Thru | Right | Peds | App. Total | Left | Thru | Right | Peds | App. Total | Left | Thru | Right | Peds | App. Total | Int. Total |
| 7:45 AM | 26 | 2 | 3 | 0 | 31 | 0 | 2 | 0 | 0 | 2 | 0 | 46 | 0 | 0 | 46 | 0 | 21 | 7 | 0 | 28 | 107 |
| 8:00 AM | 5 | 2 | 3 | 0 | 10 | 0 | 1 | 1 | 0 | 2 | 4 | 37 | 0 | 0 | 41 | 1 | 19 | 7 | 0 | 27 | 80 |
| 8:15 AM | 11 | 3 | 1 | 0 | 15 | 0 | 4 | 2 | 0 | 6 | 1 | 26 | 1 | 0 | 28 | 0 | 22 | 5 | 0 | 27 | 76 |
| 8:30 AM | 26 | 2 | 3 | 1 | 31 | 0 | 0 | 1 | 0 | 1 | 2 | 23 | 0 | 0 | 25 | 2 | 17 | 6 | 0 | 25 | 82 |
| Total | 68 | 9 | 10 | 1 | 87 | 0 | 7 | 4 | 0 | 11 | 7 | 132 | 1 | 0 | 140 | 3 | 79 | 25 | 0 | 107 | 345 |
| Approach % | 78.2 | 10.3 | 11.5 | - | - | 0.0 | 63.6 | 36.4 | - | - | 5.0 | 94.3 | 0.7 | - | - | 2.8 | 73.8 | 23.4 | - | - | - |
| Total % | 19.7 | 2.6 | 2.9 | - | 25.2 | 0.0 | 2.0 | 1.2 | - | 3.2 | 2.0 | 38.3 | 0.3 | - | 40.6 | 0.9 | 22.9 | 7.2 | - | 31.0 | - |
| PHF | 0.654 | 0.750 | 0.833 | - | 0.702 | 0.000 | 0.438 | 0.500 | - | 0.458 | 0.438 | 0.717 | 0.250 | - | 0.761 | 0.375 | 0.898 | 0.893 | - | 0.955 | 0.806 |
| Lights | 61 | 0 | 10 | - | 71 | 0 | 3 | 4 | - | 7 | 5 | 127 | 1 | - | 133 | 2 | 77 | 15 | - | 94 | 305 |
| % Lights | 89.7 | 0.0 | 100.0 | - | 81.6 | - | 42.9 | 100.0 | - | 63.6 | 71.4 | 96.2 | 100.0 | - | 95.0 | 66.7 | 97.5 | 60.0 | - | 87.9 | 88.4 |
| Other Vehicles | 7 | 9 | 0 | - | 16 | 0 | 4 | 0 | - | 4 | 2 | 5 | 0 | - | 7 | 1 | 2 | 10 | - | 13 | 40 |
| % Other Vehicles | 10.3 | 100.0 | 0.0 | - | 18.4 | - | 57.1 | 0.0 | - | 36.4 | 28.6 | 3.8 | 0.0 | - | 5.0 | 33.3 | 2.5 | 40.0 | - | 12.1 | 11.6 |
| Pedestrians | - | - | - | 1 | - | - | - | - | 0 | - | - | - | - | 0 | - | - | - | - | 0 | - | - |
| % Pedestrians | - | - | - | 100.0 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |

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Count Name: 21 South New Street & S Campus Drive
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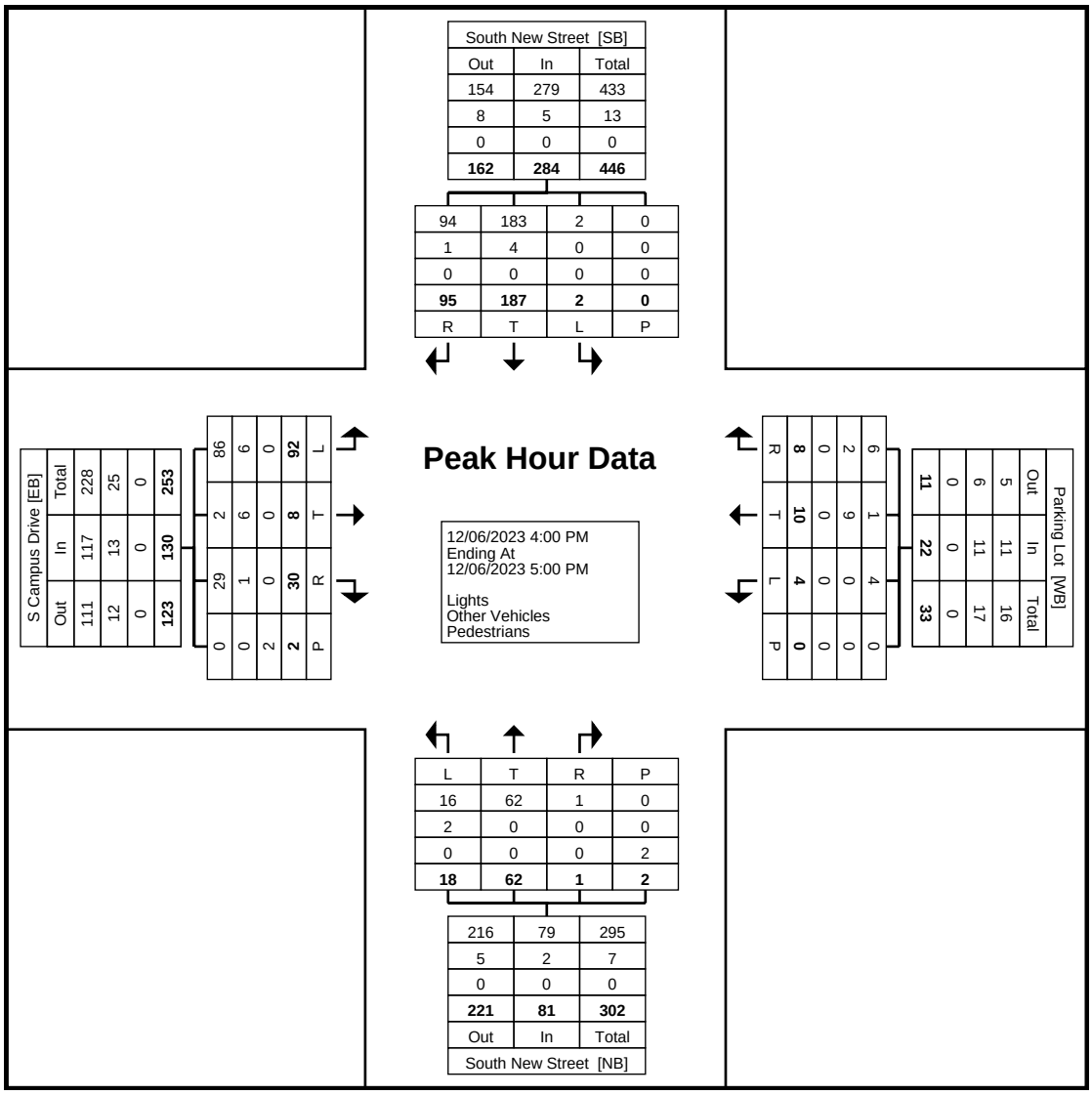

# Turning Movement Peak Hour Data (4:00 PM)

| Start Time | S Campus Drive Eastbound | | | | | Parking Lot Westbound | | | | | South New Street Northbound | | | | | South New Street Southbound | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Left | Thru | Right | Peds | App. Total | Left | Thru | Right | Peds | App. Total | Left | Thru | Right | Peds | App. Total | Left | Thru | Right | Peds | App. Total | Int. Total |
| 4:00 PM | 32 | 3 | 8 | 0 | 43 | 1 | 3 | 8 | 0 | 12 | 2 | 13 | 0 | 0 | 15 | 1 | 45 | 21 | 0 | 67 | 137 |
| 4:15 PM | 15 | 1 | 7 | 0 | 23 | 0 | 3 | 0 | 0 | 3 | 6 | 11 | 0 | 0 | 17 | 0 | 49 | 26 | 0 | 75 | 118 |
| 4:30 PM | 25 | 4 | 8 | 2 | 37 | 1 | 3 | 0 | 0 | 4 | 8 | 21 | 0 | 2 | 29 | 0 | 50 | 26 | 0 | 76 | 146 |
| 4:45 PM | 20 | 0 | 7 | 0 | 27 | 2 | 1 | 0 | 0 | 3 | 2 | 17 | 1 | 0 | 20 | 1 | 43 | 22 | 0 | 66 | 116 |
| Total | 92 | 8 | 30 | 2 | 130 | 4 | 10 | 8 | 0 | 22 | 18 | 62 | 1 | 2 | 81 | 2 | 187 | 95 | 0 | 284 | 517 |
| Approach % | 70.8 | 6.2 | 23.1 | - | - | 18.2 | 45.5 | 36.4 | - | - | 22.2 | 76.5 | 1.2 | - | - | 0.7 | 65.8 | 33.5 | - | - | - |
| Total % | 17.8 | 1.5 | 5.8 | - | 25.1 | 0.8 | 1.9 | 1.5 | - | 4.3 | 3.5 | 12.0 | 0.2 | - | 15.7 | 0.4 | 36.2 | 18.4 | - | 54.9 | - |
| PHF | 0.719 | 0.500 | 0.938 | - | 0.756 | 0.500 | 0.833 | 0.250 | - | 0.458 | 0.563 | 0.738 | 0.250 | - | 0.698 | 0.500 | 0.935 | 0.913 | - | 0.934 | 0.885 |
| Lights | 86 | 2 | 29 | - | 117 | 4 | 1 | 6 | - | 11 | 16 | 62 | 1 | - | 79 | 2 | 183 | 94 | - | 279 | 486 |
| % Lights | 93.5 | 25.0 | 96.7 | - | 90.0 | 100.0 | 10.0 | 75.0 | - | 50.0 | 88.9 | 100.0 | 100.0 | - | 97.5 | 100.0 | 97.9 | 98.9 | - | 98.2 | 94.0 |
| Other Vehicles | 6 | 6 | 1 | - | 13 | 0 | 9 | 2 | - | 11 | 2 | 0 | 0 | - | 2 | 0 | 4 | 1 | - | 5 | 31 |
| % Other Vehicles | 6.5 | 75.0 | 3.3 | - | 10.0 | 0.0 | 90.0 | 25.0 | - | 50.0 | 11.1 | 0.0 | 0.0 | - | 2.5 | 0.0 | 2.1 | 1.1 | - | 1.8 | 6.0 |
| Pedestrians | - | - | - | 2 | - | - | - | - | 0 | - | - | - | - | 2 | - | - | - | - | 0 | - | - |
| % Pedestrians | - | - | - | 100.0 | - | - | - | - | - | - | - | - | - | 100.0 | - | - | - | - | - | - | - |

Traffic Planning and Design, Inc
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610.326.3100

Counter: MIO:
Set up By JH::

Count Name: 21 South New Street & S Campus Drive
Site Code:
Start Date: 12/06/2023


Turning Movement Peak Hour Data Plot (4:00 PM)

Counter: MIO:
Set up By JH::

Traffic Planning and Design, Inc
2500 East High Street
Suite 650
Pottstown, Pennsylvania, United States 19464
610.326.3100

Count Name: 22 South New Street & Tigue Road-Stadium Drive
Site Code:
Start Date: 12/06/2023
Page No: 1

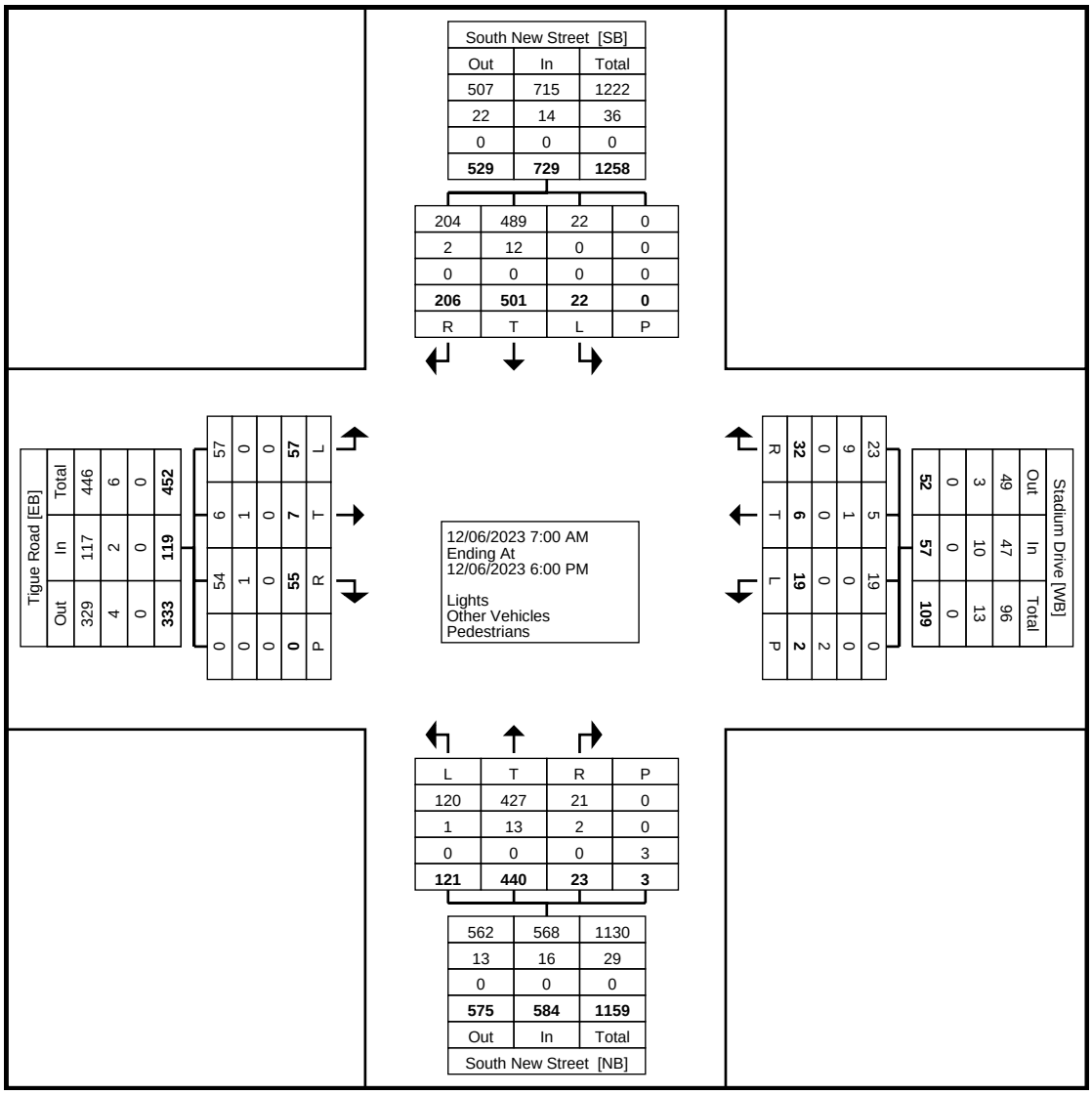
# Turning Movement Data

| Start Time | Tigue Road Eastbound | | | | | Stadium Drive Westbound | | | | | South New Street Northbound | | | | | South New Street Southbound | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Left | Thru | Right | Peds | App. Total | Left | Thru | Right | Peds | App. Total | Left | Thru | Right | Peds | App. Total | Left | Thru | Right | Peds | App. Total | Int. Total |
| 7:00 AM | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 15 | 1 | 2 | 16 | 0 | 10 | 5 | 0 | 15 | 32 |
| 7:15 AM | 1 | 0 | 3 | 0 | 4 | 0 | 0 | 0 | 0 | 0 | 1 | 9 | 1 | 0 | 11 | 0 | 16 | 4 | 0 | 20 | 35 |
| 7:30 AM | 3 | 1 | 1 | 0 | 5 | 0 | 0 | 2 | 0 | 2 | 5 | 25 | 3 | 0 | 33 | 1 | 13 | 7 | 0 | 21 | 61 |
| 7:45 AM | 2 | 0 | 3 | 0 | 5 | 2 | 0 | 1 | 0 | 3 | 5 | 46 | 2 | 0 | 53 | 1 | 18 | 5 | 0 | 24 | 85 |
| Hourly Total | 6 | 1 | 8 | 0 | 15 | 2 | 0 | 3 | 0 | 5 | 11 | 95 | 7 | 2 | 113 | 2 | 57 | 21 | 0 | 80 | 213 |
| 8:00 AM | 6 | 0 | 0 | 0 | 6 | 1 | 1 | 1 | 0 | 3 | 2 | 31 | 2 | 0 | 35 | 2 | 17 | 3 | 0 | 22 | 66 |
| 8:15 AM | 4 | 0 | 3 | 0 | 7 | 2 | 0 | 0 | 0 | 2 | 0 | 24 | 0 | 0 | 24 | 1 | 18 | 4 | 0 | 23 | 56 |
| 8:30 AM | 2 | 0 | 2 | 0 | 4 | 0 | 0 | 3 | 0 | 3 | 3 | 21 | 1 | 0 | 25 | 4 | 12 | 4 | 0 | 20 | 52 |
| 8:45 AM | 2 | 1 | 8 | 0 | 11 | 1 | 0 | 0 | 0 | 1 | 5 | 26 | 1 | 0 | 32 | 0 | 11 | 2 | 0 | 13 | 57 |
| Hourly Total | 14 | 1 | 13 | 0 | 28 | 4 | 1 | 4 | 0 | 9 | 10 | 102 | 4 | 0 | 116 | 7 | 58 | 13 | 0 | 78 | 231 |
| 9:00 AM | 2 | 0 | 6 | 0 | 8 | 0 | 0 | 2 | 0 | 2 | 3 | 20 | 0 | 0 | 23 | 0 | 7 | 3 | 0 | 10 | 43 |
| 9:15 AM | 2 | 0 | 1 | 0 | 3 | 0 | 0 | 1 | 1 | 1 | 1 | 11 | 0 | 0 | 12 | 2 | 14 | 2 | 0 | 18 | 34 |
| 9:30 AM | 6 | 0 | 1 | 0 | 7 | 0 | 0 | 0 | 0 | 0 | 6 | 10 | 1 | 0 | 17 | 1 | 11 | 3 | 0 | 15 | 39 |
| 9:45 AM | 2 | 0 | 2 | 0 | 4 | 1 | 0 | 1 | 0 | 2 | 3 | 12 | 1 | 0 | 16 | 2 | 13 | 1 | 0 | 16 | 38 |
| Hourly Total | 12 | 0 | 10 | 0 | 22 | 1 | 0 | 4 | 1 | 5 | 13 | 53 | 2 | 0 | 68 | 5 | 45 | 9 | 0 | 59 | 154 |
| *** BREAK *** | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 3:00 PM | 0 | 0 | 5 | 0 | 5 | 2 | 0 | 2 | 1 | 4 | 5 | 17 | 0 | 1 | 22 | 0 | 19 | 5 | 0 | 24 | 55 |
| 3:15 PM | 2 | 0 | 1 | 0 | 3 | 1 | 1 | 1 | 0 | 3 | 5 | 13 | 1 | 0 | 19 | 1 | 29 | 7 | 0 | 37 | 62 |
| 3:30 PM | 4 | 2 | 3 | 0 | 9 | 1 | 2 | 1 | 0 | 4 | 4 | 15 | 2 | 0 | 21 | 1 | 33 | 6 | 0 | 40 | 74 |
| 3:45 PM | 5 | 1 | 0 | 0 | 6 | 1 | 0 | 1 | 0 | 2 | 3 | 20 | 3 | 0 | 26 | 0 | 22 | 9 | 0 | 31 | 65 |
| Hourly Total | 11 | 3 | 9 | 0 | 23 | 5 | 3 | 5 | 1 | 13 | 17 | 65 | 6 | 1 | 88 | 2 | 103 | 27 | 0 | 132 | 256 |
| 4:00 PM | 2 | 1 | 0 | 0 | 3 | 1 | 0 | 2 | 0 | 3 | 17 | 10 | 0 | 0 | 27 | 1 | 32 | 21 | 0 | 54 | 87 |
| 4:15 PM | 2 | 0 | 5 | 0 | 7 | 1 | 0 | 1 | 0 | 2 | 12 | 12 | 2 | 0 | 26 | 2 | 37 | 18 | 0 | 57 | 92 |
| 4:30 PM | 1 | 1 | 3 | 0 | 5 | 3 | 1 | 3 | 0 | 7 | 13 | 30 | 0 | 0 | 43 | 0 | 37 | 21 | 0 | 58 | 113 |
| 4:45 PM | 2 | 0 | 0 | 0 | 2 | 0 | 1 | 1 | 0 | 2 | 6 | 14 | 1 | 0 | 21 | 0 | 33 | 17 | 0 | 50 | 75 |
| Hourly Total | 7 | 2 | 8 | 0 | 17 | 5 | 2 | 7 | 0 | 14 | 48 | 66 | 3 | 0 | 117 | 3 | 139 | 77 | 0 | 219 | 367 |
| 5:00 PM | 2 | 0 | 1 | 0 | 3 | 1 | 0 | 0 | 0 | 1 | 4 | 12 | 0 | 0 | 16 | 0 | 29 | 29 | 0 | 58 | 78 |
| 5:15 PM | 3 | 0 | 3 | 0 | 6 | 0 | 0 | 6 | 0 | 6 | 4 | 23 | 1 | 0 | 28 | 1 | 23 | 12 | 0 | 36 | 76 |
| 5:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 2 | 5 | 17 | 0 | 0 | 22 | 1 | 26 | 11 | 0 | 38 | 62 |
| 5:45 PM | 2 | 0 | 3 | 0 | 5 | 1 | 0 | 1 | 0 | 2 | 9 | 7 | 0 | 0 | 16 | 1 | 21 | 7 | 0 | 29 | 52 |
| Hourly Total | 7 | 0 | 7 | 0 | 14 | 2 | 0 | 9 | 0 | 11 | 22 | 59 | 1 | 0 | 82 | 3 | 99 | 59 | 0 | 161 | 268 |
| Grand Total | 57 | 7 | 55 | 0 | 119 | 19 | 6 | 32 | 2 | 57 | 121 | 440 | 23 | 3 | 584 | 22 | 501 | 206 | 0 | 729 | 1489 |
| Approach % | 47.9 | 5.9 | 46.2 | - | - | 33.3 | 10.5 | 56.1 | - | - | 20.7 | 75.3 | 3.9 | - | - | 3.0 | 68.7 | 28.3 | - | - | - |
| Total % | 3.8 | 0.5 | 3.7 | - | 8.0 | 1.3 | 0.4 | 2.1 | - | 3.8 | 8.1 | 29.6 | 1.5 | - | 39.2 | 1.5 | 33.6 | 13.8 | - | 49.0 | - |
| Lights | 57 | 6 | 54 | - | 117 | 19 | 5 | 23 | - | 47 | 120 | 427 | 21 | - | 568 | 22 | 489 | 204 | - | 715 | 1447 |
| % Lights | 100.0 | 85.7 | 98.2 | - | 98.3 | 100.0 | 83.3 | 71.9 | - | 82.5 | 99.2 | 97.0 | 91.3 | - | 97.3 | 100.0 | 97.6 | 99.0 | - | 98.1 | 97.2 |
| Other Vehicles | 0 | 1 | 1 | - | 2 | 0 | 1 | 9 | - | 10 | 1 | 13 | 2 | - | 16 | 0 | 12 | 2 | - | 14 | 42 |
| % Other Vehicles | 0.0 | 14.3 | 1.8 | - | 1.7 | 0.0 | 16.7 | 28.1 | - | 17.5 | 0.8 | 3.0 | 8.7 | - | 2.7 | 0.0 | 2.4 | 1.0 | - | 1.9 | 2.8 |
| Pedestrians | - | - | - | 0 | - | - | - | - | 2 | - | - | - | - | 3 | - | - | - | - | 0 | - | - |
| % Pedestrians | - | - | - | - | - | - | - | - | 100.0 | - | - | - | - | 100.0 | - | - | - | - | - | - | - |

Traffic Planning and Design, Inc
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610.326.3100

Counter: MIO:
Set up By JH::

Count Name: 22 South New Street & Tigue Road-Stadium Drive
Site Code:
Start Date: 12/06/2023


Turning Movement Data Plot

Traffic Planning and Design, Inc
2500 East High Street
Suite 650
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610.326.3100

Counter: MIO:
Set up By JH::

Count Name: 22 South New Street & Tigue Road-Stadium Drive
Site Code:
Start Date: 12/06/2023

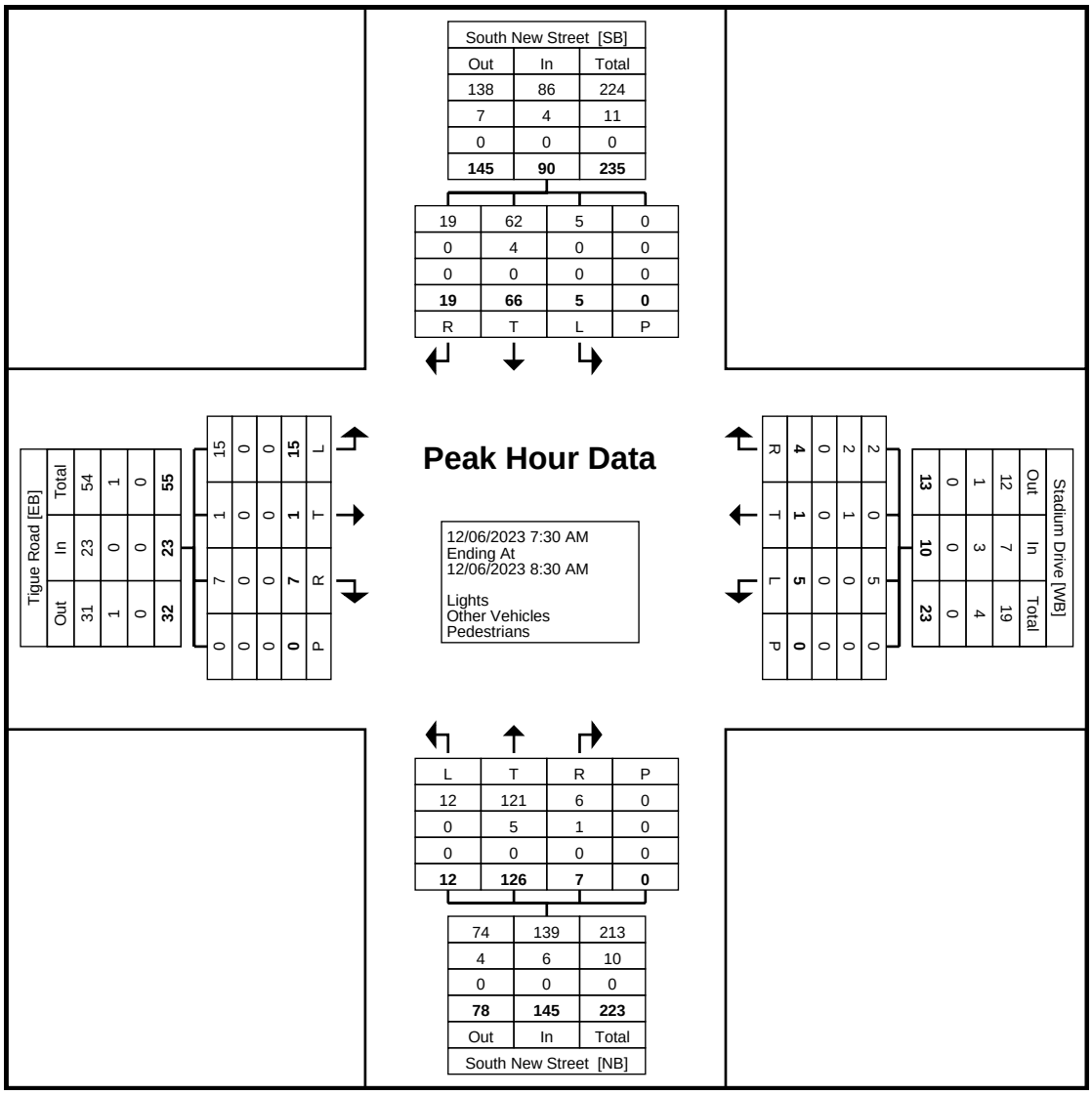

# Turning Movement Peak Hour Data (7:30 AM)

| Start Time | Tigue Road Eastbound | | | | | Stadium Drive Westbound | | | | | South New Street Northbound | | | | | South New Street Southbound | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Left | Thru | Right | Peds | App. Total | Left | Thru | Right | Peds | App. Total | Left | Thru | Right | Peds | App. Total | Left | Thru | Right | Peds | App. Total | Int. Total |
| 7:30 AM | 3 | 1 | 1 | 0 | 5 | 0 | 0 | 2 | 0 | 2 | 5 | 25 | 3 | 0 | 33 | 1 | 13 | 7 | 0 | 21 | 61 |
| 7:45 AM | 2 | 0 | 3 | 0 | 5 | 2 | 0 | 1 | 0 | 3 | 5 | 46 | 2 | 0 | 53 | 1 | 18 | 5 | 0 | 24 | 85 |
| 8:00 AM | 6 | 0 | 0 | 0 | 6 | 1 | 1 | 1 | 0 | 3 | 2 | 31 | 2 | 0 | 35 | 2 | 17 | 3 | 0 | 22 | 66 |
| 8:15 AM | 4 | 0 | 3 | 0 | 7 | 2 | 0 | 0 | 0 | 2 | 0 | 24 | 0 | 0 | 24 | 1 | 18 | 4 | 0 | 23 | 56 |
| Total | 15 | 1 | 7 | 0 | 23 | 5 | 1 | 4 | 0 | 10 | 12 | 126 | 7 | 0 | 145 | 5 | 66 | 19 | 0 | 90 | 268 |
| Approach % | 65.2 | 4.3 | 30.4 | - | - | 50.0 | 10.0 | 40.0 | - | - | 8.3 | 86.9 | 4.8 | - | - | 5.6 | 73.3 | 21.1 | - | - | - |
| Total % | 5.6 | 0.4 | 2.6 | - | 8.6 | 1.9 | 0.4 | 1.5 | - | 3.7 | 4.5 | 47.0 | 2.6 | - | 54.1 | 1.9 | 24.6 | 7.1 | - | 33.6 | - |
| PHF | 0.625 | 0.250 | 0.583 | - | 0.821 | 0.625 | 0.250 | 0.500 | - | 0.833 | 0.600 | 0.685 | 0.583 | - | 0.684 | 0.625 | 0.917 | 0.679 | - | 0.938 | 0.788 |
| Lights | 15 | 1 | 7 | - | 23 | 5 | 0 | 2 | - | 7 | 12 | 121 | 6 | - | 139 | 5 | 62 | 19 | - | 86 | 255 |
| % Lights | 100.0 | 100.0 | 100.0 | - | 100.0 | 100.0 | 0.0 | 50.0 | - | 70.0 | 100.0 | 96.0 | 85.7 | - | 95.9 | 100.0 | 93.9 | 100.0 | - | 95.6 | 95.1 |
| Other Vehicles | 0 | 0 | 0 | - | 0 | 0 | 1 | 2 | - | 3 | 0 | 5 | 1 | - | 6 | 0 | 4 | 0 | - | 4 | 13 |
| % Other Vehicles | 0.0 | 0.0 | 0.0 | - | 0.0 | 0.0 | 100.0 | 50.0 | - | 30.0 | 0.0 | 4.0 | 14.3 | - | 4.1 | 0.0 | 6.1 | 0.0 | - | 4.4 | 4.9 |
| Pedestrians | - | - | - | 0 | - | - | - | - | 0 | - | - | - | - | 0 | - | - | - | - | 0 | - | - |
| % Pedestrians | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |

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Counter: MIO:
Set up By JH::

Count Name: 22 South New Street & Tigue Road-Stadium Drive
Site Code:
Start Date: 12/06/2023


Turning Movement Peak Hour Data Plot (7:30 AM)

Traffic Planning and Design, Inc
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610.326.3100

Counter: MIO:
Set up By JH::

Count Name: 22 South New Street & Tigue Road-Stadium Drive
Site Code:
Start Date: 12/06/2023

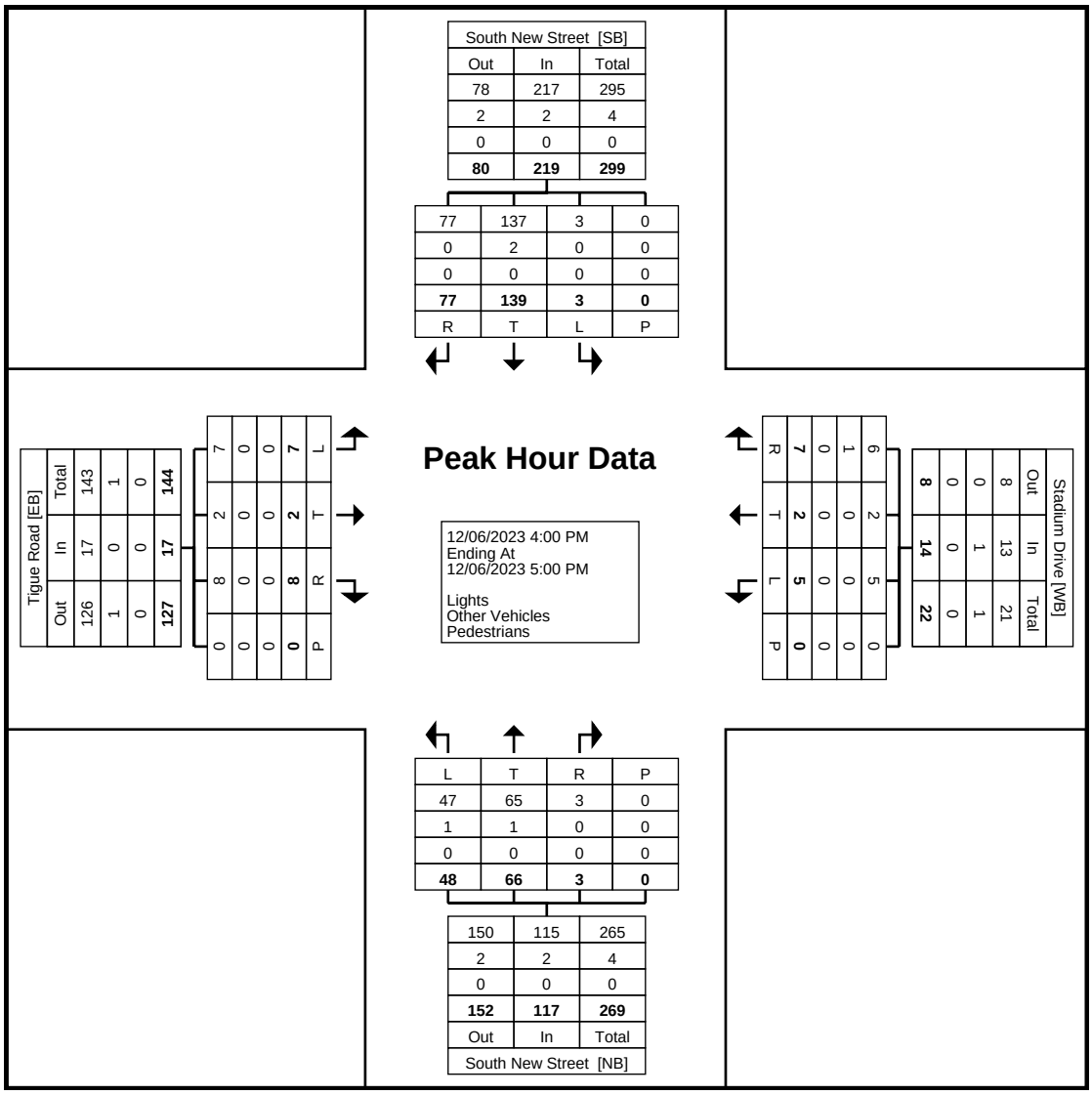

# Turning Movement Peak Hour Data (4:00 PM)

| Start Time | Tigue Road Eastbound | | | | | Stadium Drive Westbound | | | | | South New Street Northbound | | | | | South New Street Southbound | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Left | Thru | Right | Peds | App. Total | Left | Thru | Right | Peds | App. Total | Left | Thru | Right | Peds | App. Total | Left | Thru | Right | Peds | App. Total | Int. Total |
| 4:00 PM | 2 | 1 | 0 | 0 | 3 | 1 | 0 | 2 | 0 | 3 | 17 | 10 | 0 | 0 | 27 | 1 | 32 | 21 | 0 | 54 | 87 |
| 4:15 PM | 2 | 0 | 5 | 0 | 7 | 1 | 0 | 1 | 0 | 2 | 12 | 12 | 2 | 0 | 26 | 2 | 37 | 18 | 0 | 57 | 92 |
| 4:30 PM | 1 | 1 | 3 | 0 | 5 | 3 | 1 | 3 | 0 | 7 | 13 | 30 | 0 | 0 | 43 | 0 | 37 | 21 | 0 | 58 | 113 |
| 4:45 PM | 2 | 0 | 0 | 0 | 2 | 0 | 1 | 1 | 0 | 2 | 6 | 14 | 1 | 0 | 21 | 0 | 33 | 17 | 0 | 50 | 75 |
| Total | 7 | 2 | 8 | 0 | 17 | 5 | 2 | 7 | 0 | 14 | 48 | 66 | 3 | 0 | 117 | 3 | 139 | 77 | 0 | 219 | 367 |
| Approach % | 41.2 | 11.8 | 47.1 | - | - | 35.7 | 14.3 | 50.0 | - | - | 41.0 | 56.4 | 2.6 | - | - | 1.4 | 63.5 | 35.2 | - | - | - |
| Total % | 1.9 | 0.5 | 2.2 | - | 4.6 | 1.4 | 0.5 | 1.9 | - | 3.8 | 13.1 | 18.0 | 0.8 | - | 31.9 | 0.8 | 37.9 | 21.0 | - | 59.7 | - |
| PHF | 0.875 | 0.500 | 0.400 | - | 0.607 | 0.417 | 0.500 | 0.583 | - | 0.500 | 0.706 | 0.550 | 0.375 | - | 0.680 | 0.375 | 0.939 | 0.917 | - | 0.944 | 0.812 |
| Lights | 7 | 2 | 8 | - | 17 | 5 | 2 | 6 | - | 13 | 47 | 65 | 3 | - | 115 | 3 | 137 | 77 | - | 217 | 362 |
| % Lights | 100.0 | 100.0 | 100.0 | - | 100.0 | 100.0 | 100.0 | 85.7 | - | 92.9 | 97.9 | 98.5 | 100.0 | - | 98.3 | 100.0 | 98.6 | 100.0 | - | 99.1 | 98.6 |
| Other Vehicles | 0 | 0 | 0 | - | 0 | 0 | 0 | 1 | - | 1 | 1 | 1 | 0 | - | 2 | 0 | 2 | 0 | - | 2 | 5 |
| % Other Vehicles | 0.0 | 0.0 | 0.0 | - | 0.0 | 0.0 | 0.0 | 14.3 | - | 7.1 | 2.1 | 1.5 | 0.0 | - | 1.7 | 0.0 | 1.4 | 0.0 | - | 0.9 | 1.4 |
| Pedestrians | - | - | - | 0 | - | - | - | - | 0 | - | - | - | - | 0 | - | - | - | - | 0 | - | - |
| % Pedestrians | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |

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Counter: MIO:
Set up By JH::

Count Name: 22 South New Street & Tigue Road-Stadium Drive
Site Code:
Start Date: 12/06/2023


Turning Movement Peak Hour Data Plot (4:00 PM)

Traffic Planning and Design, Inc
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610.326.3100

Counter: MIO:
Set up By JH::

Count Name: 23 Matlack Street & Campus Drive (With Bikes)
Site Code:
Start Date: 04/25/2024

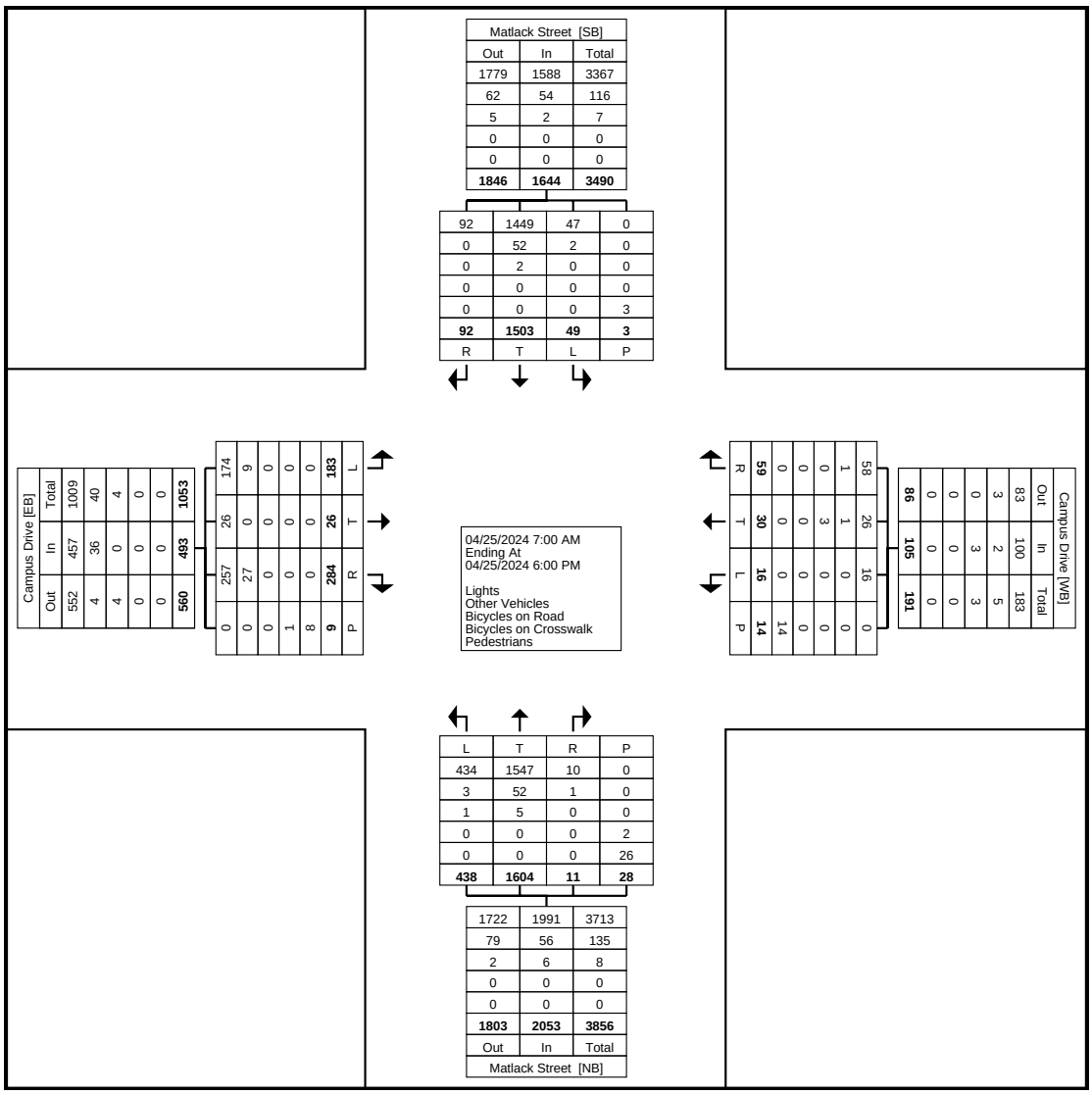

# Turning Movement Data

| Start Time | Campus Drive Eastbound | | | | | Campus Drive Westbound | | | | | Matlack Street Northbound | | | | | Matlack Street Southbound | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Left | Thru | Right | Peds | App. Total | Left | Thru | Right | Peds | App. Total | Left | Thru | Right | Peds | App. Total | Left | Thru | Right | Peds | App. Total | Int. Total |
| 7:00 AM | 2 | 2 | 3 | 0 | 7 | 1 | 2 | 4 | 0 | 7 | 4 | 23 | 2 | 0 | 29 | 4 | 67 | 1 | 0 | 72 | 115 |
| 7:15 AM | 11 | 0 | 5 | 0 | 16 | 0 | 1 | 8 | 0 | 9 | 11 | 53 | 1 | 0 | 65 | 0 | 83 | 3 | 0 | 86 | 176 |
| 7:30 AM | 3 | 1 | 9 | 0 | 13 | 0 | 0 | 2 | 0 | 2 | 25 | 64 | 0 | 2 | 89 | 2 | 79 | 2 | 0 | 83 | 187 |
| 7:45 AM | 5 | 3 | 6 | 0 | 14 | 0 | 2 | 4 | 0 | 6 | 27 | 56 | 0 | 0 | 83 | 3 | 81 | 4 | 1 | 88 | 191 |
| Hourly Total | 21 | 6 | 23 | 0 | 50 | 1 | 5 | 18 | 0 | 24 | 67 | 196 | 3 | 2 | 266 | 9 | 310 | 10 | 1 | 329 | 669 |
| 8:00 AM | 3 | 2 | 5 | 0 | 10 | 0 | 1 | 2 | 0 | 3 | 20 | 52 | 0 | 0 | 72 | 2 | 112 | 4 | 0 | 118 | 203 |
| 8:15 AM | 5 | 3 | 1 | 0 | 9 | 1 | 2 | 2 | 0 | 5 | 14 | 36 | 3 | 0 | 53 | 1 | 89 | 3 | 0 | 93 | 160 |
| 8:30 AM | 1 | 1 | 5 | 1 | 7 | 0 | 0 | 3 | 1 | 3 | 26 | 60 | 0 | 1 | 86 | 6 | 83 | 3 | 0 | 92 | 188 |
| 8:45 AM | 4 | 5 | 6 | 1 | 15 | 0 | 2 | 2 | 1 | 4 | 30 | 60 | 1 | 4 | 91 | 8 | 67 | 5 | 0 | 80 | 190 |
| Hourly Total | 13 | 11 | 17 | 2 | 41 | 1 | 5 | 9 | 2 | 15 | 90 | 208 | 4 | 5 | 302 | 17 | 351 | 15 | 0 | 383 | 741 |
| 9:00 AM | 4 | 2 | 7 | 0 | 13 | 1 | 2 | 3 | 3 | 6 | 47 | 61 | 0 | 2 | 108 | 4 | 60 | 0 | 0 | 64 | 191 |
| 9:15 AM | 6 | 1 | 15 | 0 | 22 | 0 | 5 | 8 | 2 | 13 | 41 | 60 | 1 | 4 | 102 | 5 | 58 | 5 | 0 | 68 | 205 |
| 9:30 AM | 3 | 1 | 9 | 0 | 13 | 0 | 2 | 5 | 1 | 7 | 19 | 49 | 0 | 2 | 68 | 6 | 30 | 2 | 0 | 38 | 126 |
| 9:45 AM | 0 | 2 | 3 | 0 | 5 | 0 | 3 | 2 | 0 | 5 | 23 | 59 | 0 | 2 | 82 | 4 | 39 | 1 | 0 | 44 | 136 |
| Hourly Total | 13 | 6 | 34 | 0 | 53 | 1 | 12 | 18 | 6 | 31 | 130 | 229 | 1 | 10 | 360 | 19 | 187 | 8 | 0 | 214 | 658 |
| *** BREAK *** | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 3:00 PM | 12 | 2 | 30 | 2 | 44 | 5 | 3 | 6 | 0 | 14 | 11 | 61 | 0 | 5 | 72 | 1 | 48 | 6 | 0 | 55 | 185 |
| 3:15 PM | 22 | 0 | 23 | 0 | 45 | 0 | 0 | 2 | 0 | 2 | 14 | 79 | 0 | 2 | 93 | 0 | 47 | 3 | 0 | 50 | 190 |
| 3:30 PM | 9 | 0 | 19 | 0 | 28 | 0 | 1 | 1 | 2 | 2 | 8 | 65 | 0 | 1 | 73 | 0 | 50 | 10 | 0 | 60 | 163 |
| 3:45 PM | 8 | 0 | 17 | 0 | 25 | 1 | 0 | 1 | 0 | 2 | 14 | 99 | 1 | 2 | 114 | 0 | 45 | 5 | 0 | 50 | 191 |
| Hourly Total | 51 | 2 | 89 | 2 | 142 | 6 | 4 | 10 | 2 | 20 | 47 | 304 | 1 | 10 | 352 | 1 | 190 | 24 | 0 | 215 | 729 |
| 4:00 PM | 14 | 0 | 16 | 2 | 30 | 1 | 0 | 0 | 0 | 1 | 23 | 94 | 0 | 0 | 117 | 0 | 51 | 2 | 0 | 53 | 201 |
| 4:15 PM | 13 | 0 | 17 | 1 | 30 | 1 | 1 | 1 | 2 | 3 | 18 | 77 | 1 | 0 | 96 | 1 | 73 | 8 | 1 | 82 | 211 |
| 4:30 PM | 3 | 0 | 15 | 1 | 18 | 0 | 1 | 3 | 1 | 4 | 13 | 98 | 0 | 0 | 111 | 1 | 63 | 3 | 1 | 67 | 200 |
| 4:45 PM | 16 | 0 | 16 | 0 | 32 | 0 | 0 | 0 | 0 | 0 | 6 | 87 | 0 | 1 | 93 | 0 | 45 | 2 | 0 | 47 | 172 |
| Hourly Total | 46 | 0 | 64 | 4 | 110 | 2 | 2 | 4 | 3 | 8 | 60 | 356 | 1 | 1 | 417 | 2 | 232 | 15 | 2 | 249 | 784 |
| 5:00 PM | 9 | 0 | 12 | 0 | 21 | 0 | 2 | 0 | 0 | 2 | 11 | 95 | 0 | 0 | 106 | 1 | 45 | 5 | 0 | 51 | 180 |
| 5:15 PM | 7 | 1 | 16 | 0 | 24 | 1 | 0 | 0 | 0 | 1 | 7 | 71 | 0 | 0 | 78 | 0 | 66 | 6 | 0 | 72 | 175 |
| 5:30 PM | 11 | 0 | 15 | 1 | 26 | 0 | 0 | 0 | 1 | 0 | 11 | 75 | 0 | 0 | 86 | 0 | 63 | 6 | 0 | 69 | 181 |
| 5:45 PM | 12 | 0 | 14 | 0 | 26 | 4 | 0 | 0 | 0 | 4 | 15 | 70 | 1 | 0 | 86 | 0 | 59 | 3 | 0 | 62 | 178 |
| Hourly Total | 39 | 1 | 57 | 1 | 97 | 5 | 2 | 0 | 1 | 7 | 44 | 311 | 1 | 0 | 356 | 1 | 233 | 20 | 0 | 254 | 714 |
| Grand Total | 183 | 26 | 284 | 9 | 493 | 16 | 30 | 59 | 14 | 105 | 438 | 1604 | 11 | 28 | 2053 | 49 | 1503 | 92 | 3 | 1644 | 4295 |
| Approach % | 37.1 | 5.3 | 57.6 | - | - | 15.2 | 28.6 | 56.2 | - | - | 21.3 | 78.1 | 0.5 | - | - | 3.0 | 91.4 | 5.6 | - | - | - |
| Total % | 4.3 | 0.6 | 6.6 | - | 11.5 | 0.4 | 0.7 | 1.4 | - | 2.4 | 10.2 | 37.3 | 0.3 | - | 47.8 | 1.1 | 35.0 | 2.1 | - | 38.3 | - |
| Lights | 174 | 26 | 257 | - | 457 | 16 | 26 | 58 | - | 100 | 434 | 1547 | 10 | - | 1991 | 47 | 1449 | 92 | - | 1588 | 4136 |
| % Lights | 95.1 | 100.0 | 90.5 | - | 92.7 | 100.0 | 86.7 | 98.3 | - | 95.2 | 99.1 | 96.4 | 90.9 | - | 97.0 | 95.9 | 96.4 | 100.0 | - | 96.6 | 96.3 |
| Other Vehicles | 9 | 0 | 27 | - | 36 | 0 | 1 | 1 | - | 2 | 3 | 52 | 1 | - | 56 | 2 | 52 | 0 | - | 54 | 148 |
| % Other Vehicles | 4.9 | 0.0 | 9.5 | - | 7.3 | 0.0 | 3.3 | 1.7 | - | 1.9 | 0.7 | 3.2 | 9.1 | - | 2.7 | 4.1 | 3.5 | 0.0 | - | 3.3 | 3.4 |
| Bicycles on Road | 0 | 0 | 0 | - | 0 | 0 | 3 | 0 | - | 3 | 1 | 5 | 0 | - | 6 | 0 | 2 | 0 | - | 2 | 11 |
| % Bicycles on Road | 0.0 | 0.0 | 0.0 | - | 0.0 | 0.0 | 10.0 | 0.0 | - | 2.9 | 0.2 | 0.3 | 0.0 | - | 0.3 | 0.0 | 0.1 | 0.0 | - | 0.1 | 0.3 |
| Bicycles on Crosswalk | - | - | - | 1 | - | - | - | - | 0 | - | - | - | - | 2 | - | - | - | - | 0 | - | - |
| % Bicycles on Crosswalk | - | - | - | 11.1 | - | - | - | - | 0.0 | - | - | - | - | 7.1 | - | - | - | - | 0.0 | - | - |
| Pedestrians | - | - | - | 8 | - | - | - | - | 14 | - | - | - | - | 26 | - | - | - | - | 3 | - | - |
| % Pedestrians | - | - | - | 88.9 | - | - | - | - | 100.0 | - | - | - | - | 92.9 | - | - | - | - | 100.0 | - | - |

Traffic Planning and Design, Inc
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610.326.3100

Counter: MIO:
Set up By JH::

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Site Code:
Start Date: 04/25/2024


Turning Movement Data Plot

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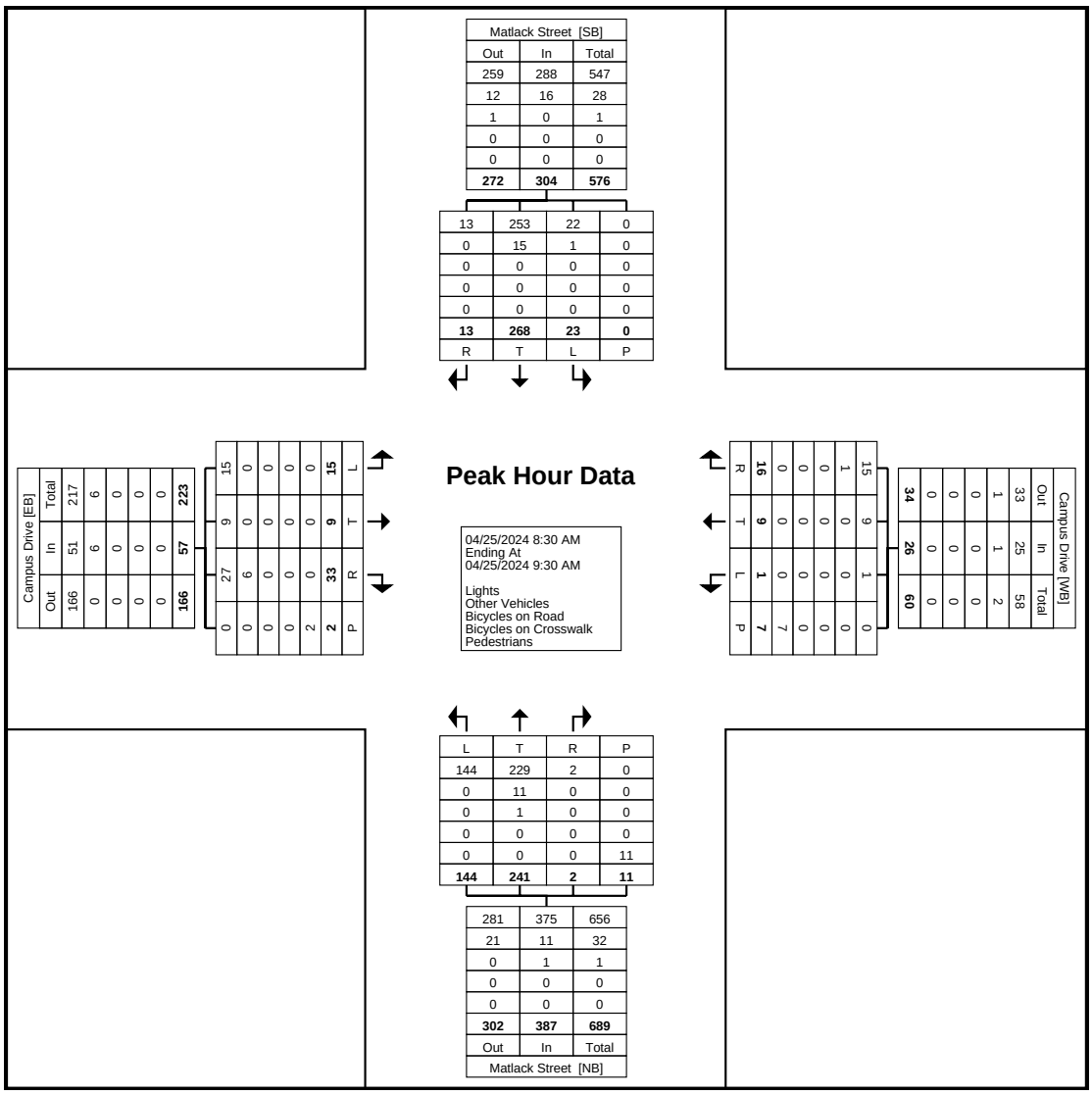

# Turning Movement Peak Hour Data (8:30 AM)

| Start Time | Campus Drive Eastbound | | | | | Campus Drive Westbound | | | | | Matlack Street Northbound | | | | | Matlack Street Southbound | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Left | Thru | Right | Peds | App. Total | Left | Thru | Right | Peds | App. Total | Left | Thru | Right | Peds | App. Total | Left | Thru | Right | Peds | App. Total | Int. Total |
| 8:30 AM | 1 | 1 | 5 | 1 | 7 | 0 | 0 | 3 | 1 | 3 | 26 | 60 | 0 | 1 | 86 | 6 | 83 | 3 | 0 | 92 | 188 |
| 8:45 AM | 4 | 5 | 6 | 1 | 15 | 0 | 2 | 2 | 1 | 4 | 30 | 60 | 1 | 4 | 91 | 8 | 67 | 5 | 0 | 80 | 190 |
| 9:00 AM | 4 | 2 | 7 | 0 | 13 | 1 | 2 | 3 | 3 | 6 | 47 | 61 | 0 | 2 | 108 | 4 | 60 | 0 | 0 | 64 | 191 |
| 9:15 AM | 6 | 1 | 15 | 0 | 22 | 0 | 5 | 8 | 2 | 13 | 41 | 60 | 1 | 4 | 102 | 5 | 58 | 5 | 0 | 68 | 205 |
| Total | 15 | 9 | 33 | 2 | 57 | 1 | 9 | 16 | 7 | 26 | 144 | 241 | 2 | 11 | 387 | 23 | 268 | 13 | 0 | 304 | 774 |
| Approach % | 26.3 | 15.8 | 57.9 | - | - | 3.8 | 34.6 | 61.5 | - | - | 37.2 | 62.3 | 0.5 | - | - | 7.6 | 88.2 | 4.3 | - | - | - |
| Total % | 1.9 | 1.2 | 4.3 | - | 7.4 | 0.1 | 1.2 | 2.1 | - | 3.4 | 18.6 | 31.1 | 0.3 | - | 50.0 | 3.0 | 34.6 | 1.7 | - | 39.3 | - |
| PHF | 0.625 | 0.450 | 0.550 | - | 0.648 | 0.250 | 0.450 | 0.500 | - | 0.500 | 0.766 | 0.988 | 0.500 | - | 0.896 | 0.719 | 0.807 | 0.650 | - | 0.826 | 0.944 |
| Lights | 15 | 9 | 27 | - | 51 | 1 | 9 | 15 | - | 25 | 144 | 229 | 2 | - | 375 | 22 | 253 | 13 | - | 288 | 739 |
| % Lights | 100.0 | 100.0 | 81.8 | - | 89.5 | 100.0 | 100.0 | 93.8 | - | 96.2 | 100.0 | 95.0 | 100.0 | - | 96.9 | 95.7 | 94.4 | 100.0 | - | 94.7 | 95.5 |
| Other Vehicles | 0 | 0 | 6 | - | 6 | 0 | 0 | 1 | - | 1 | 0 | 11 | 0 | - | 11 | 1 | 15 | 0 | - | 16 | 34 |
| % Other Vehicles | 0.0 | 0.0 | 18.2 | - | 10.5 | 0.0 | 0.0 | 6.3 | - | 3.8 | 0.0 | 4.6 | 0.0 | - | 2.8 | 4.3 | 5.6 | 0.0 | - | 5.3 | 4.4 |
| Bicycles on Road | 0 | 0 | 0 | - | 0 | 0 | 0 | 0 | - | 0 | 0 | 1 | 0 | - | 1 | 0 | 0 | 0 | - | 0 | 1 |
| % Bicycles on Road | 0.0 | 0.0 | 0.0 | - | 0.0 | 0.0 | 0.0 | 0.0 | - | 0.0 | 0.0 | 0.4 | 0.0 | - | 0.3 | 0.0 | 0.0 | 0.0 | - | 0.0 | 0.1 |
| Bicycles on Crosswalk | - | - | - | 0 | - | - | - | - | 0 | - | - | - | - | 0 | - | - | - | - | 0 | - | - |
| % Bicycles on Crosswalk | - | - | - | 0.0 | - | - | - | - | 0.0 | - | - | - | - | 0.0 | - | - | - | - | - | - | - |
| Pedestrians | - | - | - | 2 | - | - | - | - | 7 | - | - | - | - | 11 | - | - | - | - | 0 | - | - |
| % Pedestrians | - | - | - | 100.0 | - | - | - | - | 100.0 | - | - | - | - | 100.0 | - | - | - | - | - | - | - |

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Turning Movement Peak Hour Data Plot (8:30 AM)

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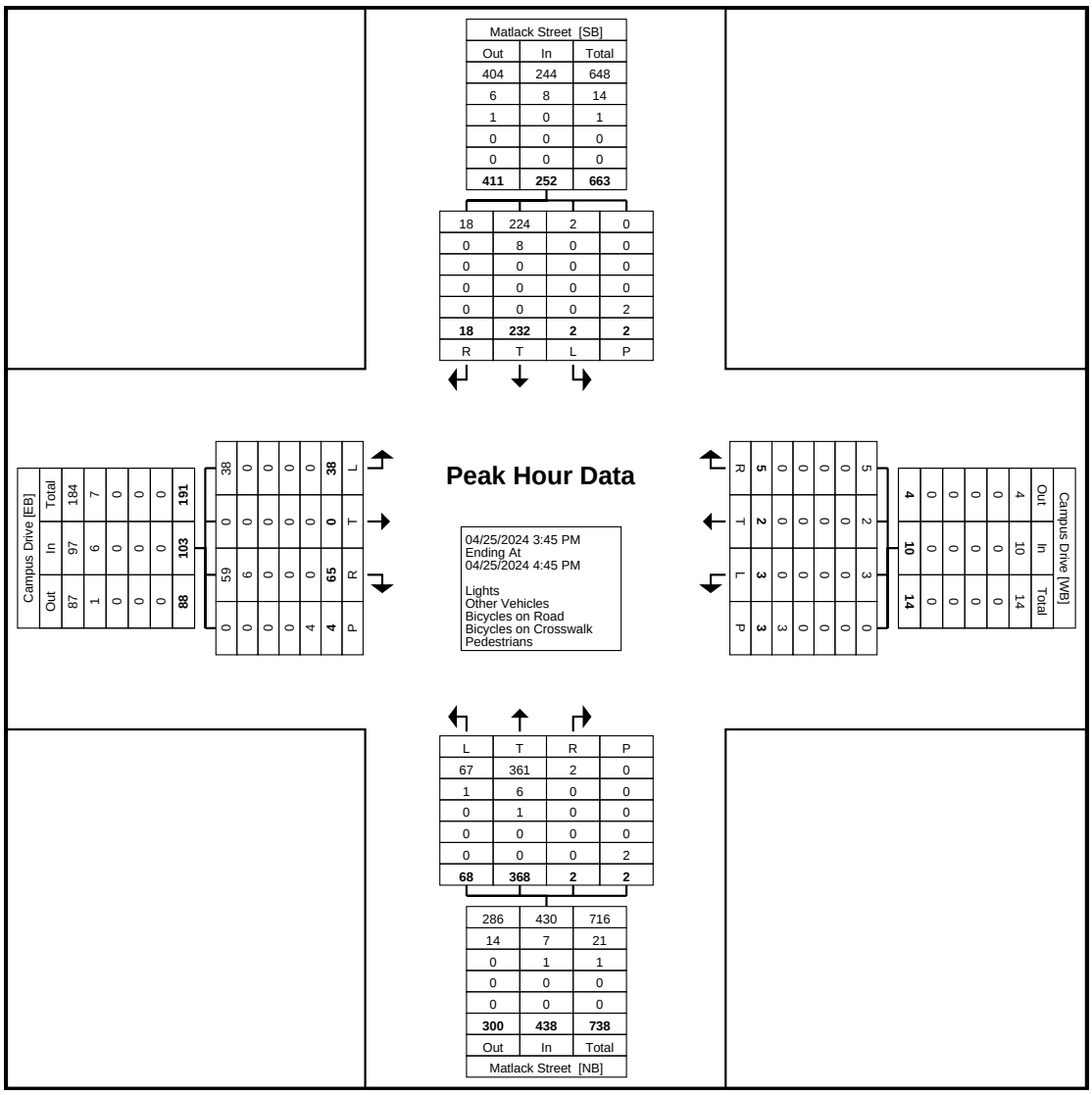

# Turning Movement Peak Hour Data (3:45 PM)

| Start Time | Campus Drive Eastbound | | | | | Campus Drive Westbound | | | | | Matlack Street Northbound | | | | | Matlack Street Southbound | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Left | Thru | Right | Peds | App. Total | Left | Thru | Right | Peds | App. Total | Left | Thru | Right | Peds | App. Total | Left | Thru | Right | Peds | App. Total | Int. Total |
| 3:45 PM | 8 | 0 | 17 | 0 | 25 | 1 | 0 | 1 | 0 | 2 | 14 | 99 | 1 | 2 | 114 | 0 | 45 | 5 | 0 | 50 | 191 |
| 4:00 PM | 14 | 0 | 16 | 2 | 30 | 1 | 0 | 0 | 0 | 1 | 23 | 94 | 0 | 0 | 117 | 0 | 51 | 2 | 0 | 53 | 201 |
| 4:15 PM | 13 | 0 | 17 | 1 | 30 | 1 | 1 | 1 | 2 | 3 | 18 | 77 | 1 | 0 | 96 | 1 | 73 | 8 | 1 | 82 | 211 |
| 4:30 PM | 3 | 0 | 15 | 1 | 18 | 0 | 1 | 3 | 1 | 4 | 13 | 98 | 0 | 0 | 111 | 1 | 63 | 3 | 1 | 67 | 200 |
| Total | 38 | 0 | 65 | 4 | 103 | 3 | 2 | 5 | 3 | 10 | 68 | 368 | 2 | 2 | 438 | 2 | 232 | 18 | 2 | 252 | 803 |
| Approach % | 36.9 | 0.0 | 63.1 | - | - | 30.0 | 20.0 | 50.0 | - | - | 15.5 | 84.0 | 0.5 | - | - | 0.8 | 92.1 | 7.1 | - | - | - |
| Total % | 4.7 | 0.0 | 8.1 | - | 12.8 | 0.4 | 0.2 | 0.6 | - | 1.2 | 8.5 | 45.8 | 0.2 | - | 54.5 | 0.2 | 28.9 | 2.2 | - | 31.4 | - |
| PHF | 0.679 | 0.000 | 0.956 | - | 0.858 | 0.750 | 0.500 | 0.417 | - | 0.625 | 0.739 | 0.929 | 0.500 | - | 0.936 | 0.500 | 0.795 | 0.563 | - | 0.768 | 0.951 |
| Lights | 38 | 0 | 59 | - | 97 | 3 | 2 | 5 | - | 10 | 67 | 361 | 2 | - | 430 | 2 | 224 | 18 | - | 244 | 781 |
| % Lights | 100.0 | - | 90.8 | - | 94.2 | 100.0 | 100.0 | 100.0 | - | 100.0 | 98.5 | 98.1 | 100.0 | - | 98.2 | 100.0 | 96.6 | 100.0 | - | 96.8 | 97.3 |
| Other Vehicles | 0 | 0 | 6 | - | 6 | 0 | 0 | 0 | - | 0 | 1 | 6 | 0 | - | 7 | 0 | 8 | 0 | - | 8 | 21 |
| % Other Vehicles | 0.0 | - | 9.2 | - | 5.8 | 0.0 | 0.0 | 0.0 | - | 0.0 | 1.5 | 1.6 | 0.0 | - | 1.6 | 0.0 | 3.4 | 0.0 | - | 3.2 | 2.6 |
| Bicycles on Road | 0 | 0 | 0 | - | 0 | 0 | 0 | 0 | - | 0 | 0 | 1 | 0 | - | 1 | 0 | 0 | 0 | - | 0 | 1 |
| % Bicycles on Road | 0.0 | - | 0.0 | - | 0.0 | 0.0 | 0.0 | 0.0 | - | 0.0 | 0.0 | 0.3 | 0.0 | - | 0.2 | 0.0 | 0.0 | 0.0 | - | 0.0 | 0.1 |
| Bicycles on Crosswalk | - | - | - | 0 | - | - | - | - | 0 | - | - | - | - | 0 | - | - | - | - | 0 | - | - |
| % Bicycles on Crosswalk | - | - | - | 0.0 | - | - | - | - | 0.0 | - | - | - | - | 0.0 | - | - | - | - | 0.0 | - | - |
| Pedestrians | - | - | - | 4 | - | - | - | - | 3 | - | - | - | - | 2 | - | - | - | - | 2 | - | - |
| % Pedestrians | - | - | - | 100.0 | - | - | - | - | 100.0 | - | - | - | - | 100.0 | - | - | - | - | 100.0 | - | - |

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Site Code:
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Turning Movement Peak Hour Data Plot (3:45 PM)

Counter: MIO:
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610.326.3100

Count Name: 24 Matlack Street & M1 Lot Southern Driveway (With Bikes)
Site Code:
Start Date: 04/25/2024

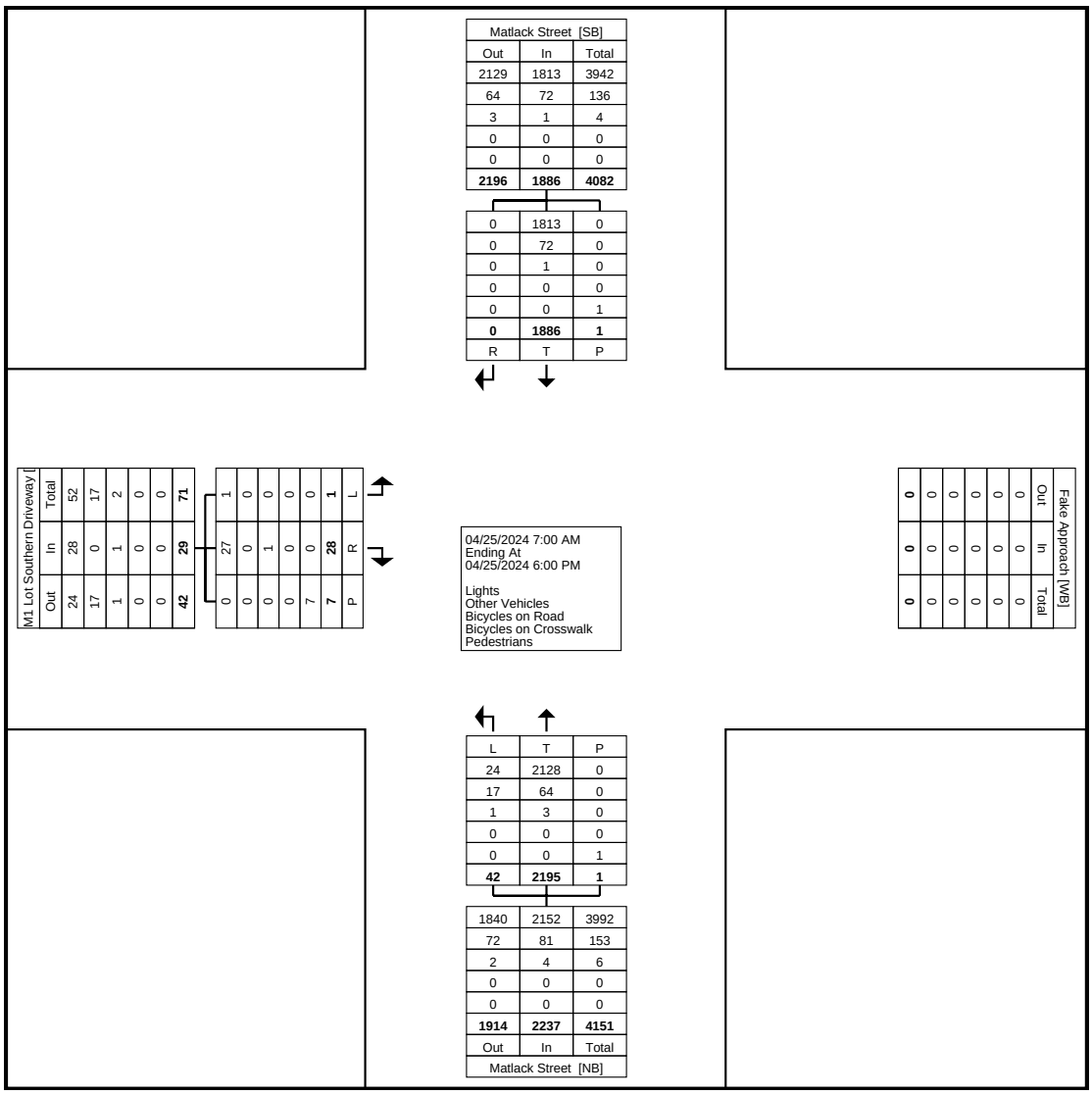

# Turning Movement Data

| Start Time | M1 Lot Southern Driveway Eastbound | | | | Matlack Street Northbound | | | | Matlack Street Southbound | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Left | Right | Peds | App. Total | Left | Thru | Peds | App. Total | Thru | Right | Peds | App. Total | Int. Total |
| 7:00 AM | 0 | 0 | 0 | 0 | 1 | 36 | 0 | 37 | 66 | 0 | 0 | 66 | 103 |
| 7:15 AM | 0 | 0 | 0 | 0 | 1 | 71 | 0 | 72 | 77 | 0 | 0 | 77 | 149 |
| 7:30 AM | 0 | 0 | 0 | 0 | 2 | 93 | 0 | 95 | 88 | 0 | 0 | 88 | 183 |
| 7:45 AM | 0 | 0 | 0 | 0 | 2 | 98 | 0 | 100 | 76 | 0 | 0 | 76 | 176 |
| Hourly Total | 0 | 0 | 0 | 0 | 6 | 298 | 0 | 304 | 307 | 0 | 0 | 307 | 611 |
| 8:00 AM | 0 | 0 | 0 | 0 | 1 | 88 | 0 | 89 | 110 | 0 | 0 | 110 | 199 |
| 8:15 AM | 0 | 1 | 0 | 1 | 4 | 60 | 0 | 64 | 85 | 0 | 0 | 85 | 150 |
| 8:30 AM | 0 | 2 | 0 | 2 | 3 | 97 | 0 | 100 | 71 | 0 | 0 | 71 | 173 |
| 8:45 AM | 0 | 1 | 0 | 1 | 1 | 104 | 0 | 105 | 63 | 0 | 0 | 63 | 169 |
| Hourly Total | 0 | 4 | 0 | 4 | 9 | 349 | 0 | 358 | 329 | 0 | 0 | 329 | 691 |
| 9:00 AM | 0 | 1 | 0 | 1 | 7 | 131 | 0 | 138 | 66 | 0 | 0 | 66 | 205 |
| 9:15 AM | 0 | 0 | 1 | 0 | 5 | 119 | 0 | 124 | 65 | 0 | 0 | 65 | 189 |
| 9:30 AM | 0 | 0 | 0 | 0 | 3 | 81 | 0 | 84 | 50 | 0 | 0 | 50 | 134 |
| 9:45 AM | 0 | 0 | 1 | 0 | 2 | 90 | 0 | 92 | 46 | 0 | 0 | 46 | 138 |
| Hourly Total | 0 | 1 | 2 | 1 | 17 | 421 | 0 | 438 | 227 | 0 | 0 | 227 | 666 |
| *** BREAK *** | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 3:00 PM | 1 | 4 | 0 | 5 | 2 | 71 | 0 | 73 | 95 | 0 | 0 | 95 | 173 |
| 3:15 PM | 0 | 5 | 1 | 5 | 1 | 82 | 0 | 83 | 94 | 0 | 0 | 94 | 182 |
| 3:30 PM | 0 | 3 | 0 | 3 | 1 | 71 | 0 | 72 | 77 | 0 | 0 | 77 | 152 |
| 3:45 PM | 0 | 1 | 1 | 1 | 3 | 109 | 0 | 112 | 66 | 0 | 0 | 66 | 179 |
| Hourly Total | 1 | 13 | 2 | 14 | 7 | 333 | 0 | 340 | 332 | 0 | 0 | 332 | 686 |
| 4:00 PM | 0 | 1 | 0 | 1 | 1 | 120 | 0 | 121 | 87 | 0 | 0 | 87 | 209 |
| 4:15 PM | 0 | 2 | 0 | 2 | 1 | 97 | 0 | 98 | 105 | 0 | 0 | 105 | 205 |
| 4:30 PM | 0 | 1 | 2 | 1 | 1 | 111 | 0 | 112 | 83 | 0 | 1 | 83 | 196 |
| 4:45 PM | 0 | 1 | 1 | 1 | 0 | 95 | 1 | 95 | 72 | 0 | 0 | 72 | 168 |
| Hourly Total | 0 | 5 | 3 | 5 | 3 | 423 | 1 | 426 | 347 | 0 | 1 | 347 | 778 |
| 5:00 PM | 0 | 3 | 0 | 3 | 0 | 109 | 0 | 109 | 73 | 0 | 0 | 73 | 185 |
| 5:15 PM | 0 | 2 | 0 | 2 | 0 | 83 | 0 | 83 | 96 | 0 | 0 | 96 | 181 |
| 5:30 PM | 0 | 0 | 0 | 0 | 0 | 94 | 0 | 94 | 93 | 0 | 0 | 93 | 187 |
| 5:45 PM | 0 | 0 | 0 | 0 | 0 | 85 | 0 | 85 | 82 | 0 | 0 | 82 | 167 |
| Hourly Total | 0 | 5 | 0 | 5 | 0 | 371 | 0 | 371 | 344 | 0 | 0 | 344 | 720 |
| Grand Total | 1 | 28 | 7 | 29 | 42 | 2195 | 1 | 2237 | 1886 | 0 | 1 | 1886 | 4152 |
| Approach % | 3.4 | 96.6 | - | - | 1.9 | 98.1 | - | - | 100.0 | 0.0 | - | - | - |
| Total % | 0.0 | 0.7 | - | 0.7 | 1.0 | 52.9 | - | 53.9 | 45.4 | 0.0 | - | 45.4 | - |
| Lights | 1 | 27 | - | 28 | 24 | 2128 | - | 2152 | 1813 | 0 | - | 1813 | 3993 |
| % Lights | 100.0 | 96.4 | - | 96.6 | 57.1 | 96.9 | - | 96.2 | 96.1 | - | - | 96.1 | 96.2 |
| Other Vehicles | 0 | 0 | - | 0 | 17 | 64 | - | 81 | 72 | 0 | - | 72 | 153 |
| % Other Vehicles | 0.0 | 0.0 | - | 0.0 | 40.5 | 2.9 | - | 3.6 | 3.8 | - | - | 3.8 | 3.7 |
| Bicycles on Road | 0 | 1 | - | 1 | 1 | 3 | - | 4 | 1 | 0 | - | 1 | 6 |
| % Bicycles on Road | 0.0 | 3.6 | - | 3.4 | 2.4 | 0.1 | - | 0.2 | 0.1 | - | - | 0.1 | 0.1 |
| Bicycles on Crosswalk | - | - | 0 | - | - | - | 0 | - | - | - | 0 | - | - |
| % Bicycles on Crosswalk | - | - | 0.0 | - | - | - | 0.0 | - | - | - | 0.0 | - | - |
| Pedestrians | - | - | 7 | - | - | - | 1 | - | - | - | 1 | - | - |
| % Pedestrians | - | - | 100.0 | - | - | - | 100.0 | - | - | - | 100.0 | - | - |

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Turning Movement Data Plot

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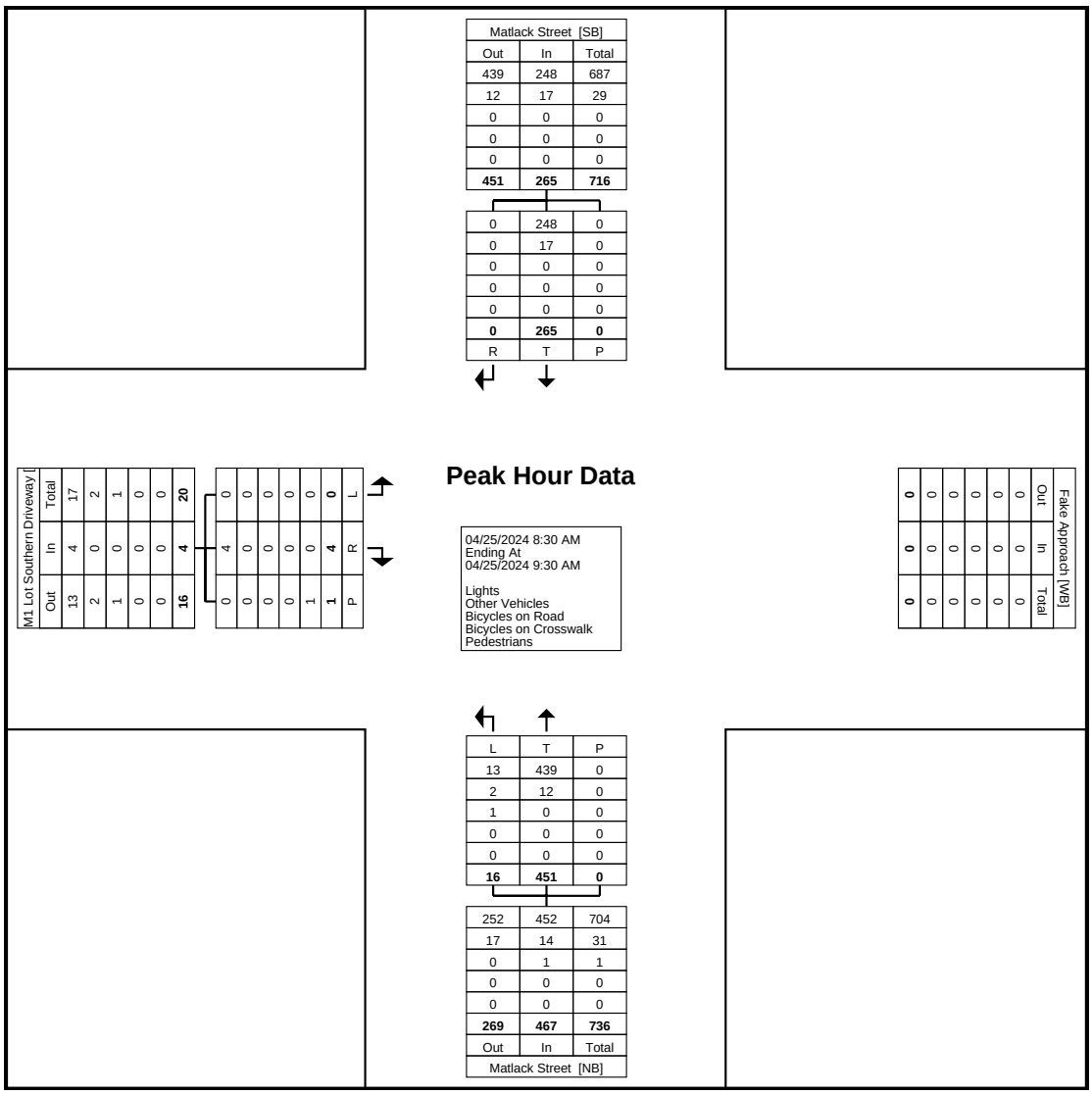

# Turning Movement Peak Hour Data (8:30 AM)

| Start Time | M1 Lot Southern Driveway Eastbound | | | | Matlack Street Northbound | | | | Matlack Street Southbound | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Left | Right | Peds | App. Total | Left | Thru | Peds | App. Total | Thru | Right | Peds | App. Total | Int. Total |
| 8:30 AM | 0 | 2 | 0 | 2 | 3 | 97 | 0 | 100 | 71 | 0 | 0 | 71 | 173 |
| 8:45 AM | 0 | 1 | 0 | 1 | 1 | 104 | 0 | 105 | 63 | 0 | 0 | 63 | 169 |
| 9:00 AM | 0 | 1 | 0 | 1 | 7 | 131 | 0 | 138 | 66 | 0 | 0 | 66 | 205 |
| 9:15 AM | 0 | 0 | 1 | 0 | 5 | 119 | 0 | 124 | 65 | 0 | 0 | 65 | 189 |
| Total | 0 | 4 | 1 | 4 | 16 | 451 | 0 | 467 | 265 | 0 | 0 | 265 | 736 |
| Approach % | 0.0 | 100.0 | - | - | 3.4 | 96.6 | - | - | 100.0 | 0.0 | - | - | - |
| Total % | 0.0 | 0.5 | - | 0.5 | 2.2 | 61.3 | - | 63.5 | 36.0 | 0.0 | - | 36.0 | - |
| PHF | 0.000 | 0.500 | - | 0.500 | 0.571 | 0.861 | - | 0.846 | 0.933 | 0.000 | - | 0.933 | 0.898 |
| Lights | 0 | 4 | - | 4 | 13 | 439 | - | 452 | 248 | 0 | - | 248 | 704 |
| % Lights | - | 100.0 | - | 100.0 | 81.3 | 97.3 | - | 96.8 | 93.6 | - | - | 93.6 | 95.7 |
| Other Vehicles | 0 | 0 | - | 0 | 2 | 12 | - | 14 | 17 | 0 | - | 17 | 31 |
| % Other Vehicles | - | 0.0 | - | 0.0 | 12.5 | 2.7 | - | 3.0 | 6.4 | - | - | 6.4 | 4.2 |
| Bicycles on Road | 0 | 0 | - | 0 | 1 | 0 | - | 1 | 0 | 0 | - | 0 | 1 |
| % Bicycles on Road | - | 0.0 | - | 0.0 | 6.3 | 0.0 | - | 0.2 | 0.0 | - | - | 0.0 | 0.1 |
| Bicycles on Crosswalk | - | - | 0 | - | - | - | 0 | - | - | - | 0 | - | - |
| % Bicycles on Crosswalk | - | - | 0.0 | - | - | - | - | - | - | - | - | - | - |
| Pedestrians | - | - | 1 | - | - | - | 0 | - | - | - | 0 | - | - |
| % Pedestrians | - | - | 100.0 | - | - | - | - | - | - | - | - | - | - |

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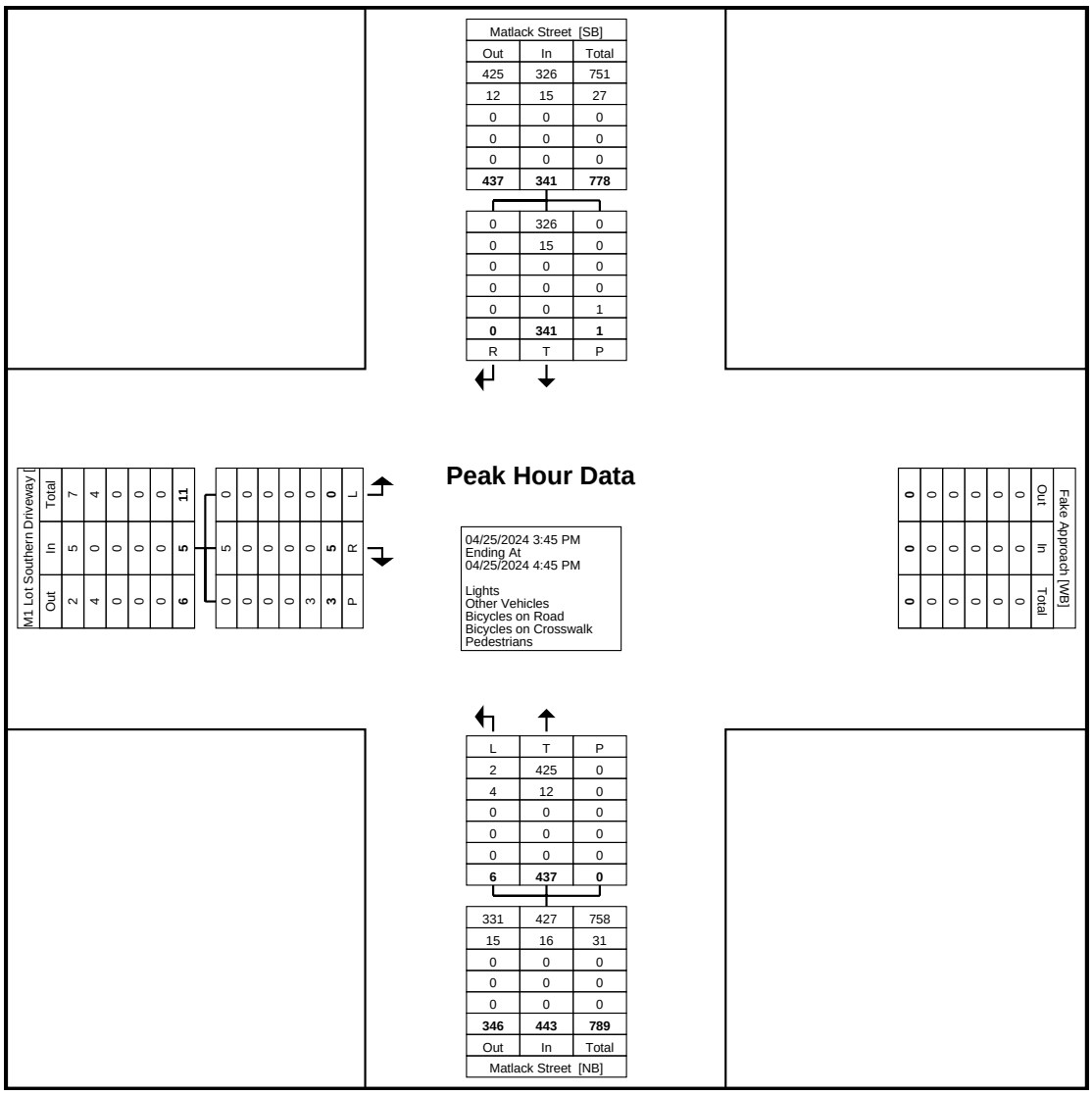

# Turning Movement Peak Hour Data (3:45 PM)

| Start Time | M1 Lot Southern Driveway Eastbound | | | | Matlack Street Northbound | | | | Matlack Street Southbound | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Left | Right | Peds | App. Total | Left | Thru | Peds | App. Total | Thru | Right | Peds | App. Total | Int. Total |
| 3:45 PM | 0 | 1 | 1 | 1 | 3 | 109 | 0 | 112 | 66 | 0 | 0 | 66 | 179 |
| 4:00 PM | 0 | 1 | 0 | 1 | 1 | 120 | 0 | 121 | 87 | 0 | 0 | 87 | 209 |
| 4:15 PM | 0 | 2 | 0 | 2 | 1 | 97 | 0 | 98 | 105 | 0 | 0 | 105 | 205 |
| 4:30 PM | 0 | 1 | 2 | 1 | 1 | 111 | 0 | 112 | 83 | 0 | 1 | 83 | 196 |
| Total | 0 | 5 | 3 | 5 | 6 | 437 | 0 | 443 | 341 | 0 | 1 | 341 | 789 |
| Approach % | 0.0 | 100.0 | - | - | 1.4 | 98.6 | - | - | 100.0 | 0.0 | - | - | - |
| Total % | 0.0 | 0.6 | - | 0.6 | 0.8 | 55.4 | - | 56.1 | 43.2 | 0.0 | - | 43.2 | - |
| PHF | 0.000 | 0.625 | - | 0.625 | 0.500 | 0.910 | - | 0.915 | 0.812 | 0.000 | - | 0.812 | 0.944 |
| Lights | 0 | 5 | - | 5 | 2 | 425 | - | 427 | 326 | 0 | - | 326 | 758 |
| % Lights | - | 100.0 | - | 100.0 | 33.3 | 97.3 | - | 96.4 | 95.6 | - | - | 95.6 | 96.1 |
| Other Vehicles | 0 | 0 | - | 0 | 4 | 12 | - | 16 | 15 | 0 | - | 15 | 31 |
| % Other Vehicles | - | 0.0 | - | 0.0 | 66.7 | 2.7 | - | 3.6 | 4.4 | - | - | 4.4 | 3.9 |
| Bicycles on Road | 0 | 0 | - | 0 | 0 | 0 | - | 0 | 0 | 0 | - | 0 | 0 |
| % Bicycles on Road | - | 0.0 | - | 0.0 | 0.0 | 0.0 | - | 0.0 | 0.0 | - | - | 0.0 | 0.0 |
| Bicycles on Crosswalk | - | - | 0 | - | - | - | 0 | - | - | - | 0 | - | - |
| % Bicycles on Crosswalk | - | - | 0.0 | - | - | - | - | - | - | - | 0.0 | - | - |
| Pedestrians | - | - | 3 | - | - | - | 0 | - | - | - | 1 | - | - |
| % Pedestrians | - | - | 100.0 | - | - | - | - | - | - | - | 100.0 | - | - |

Traffic Planning and Design, Inc
2500 East High Street
Suite 650
Pottstown, Pennsylvania, United States 19464
610.326.3100

Counter: MIO:
Set up By JH::

Count Name: 24 Matlack Street & M1 Lot Southern Driveway (With Bikes)
Site Code:
Start Date: 04/25/2024


Turning Movement Peak Hour Data Plot (3:45 PM)

Traffic Planning and Design, Inc
2500 East High Street
Suite 650
Pottstown, Pennsylvania, United States 19464
610.326.3100

Counter: MIO:
Set up By JH::

Count Name: 25 High Street & Campus Drive (With Bikes)
Site Code:
Start Date: 04/25/2024
Page No: 1

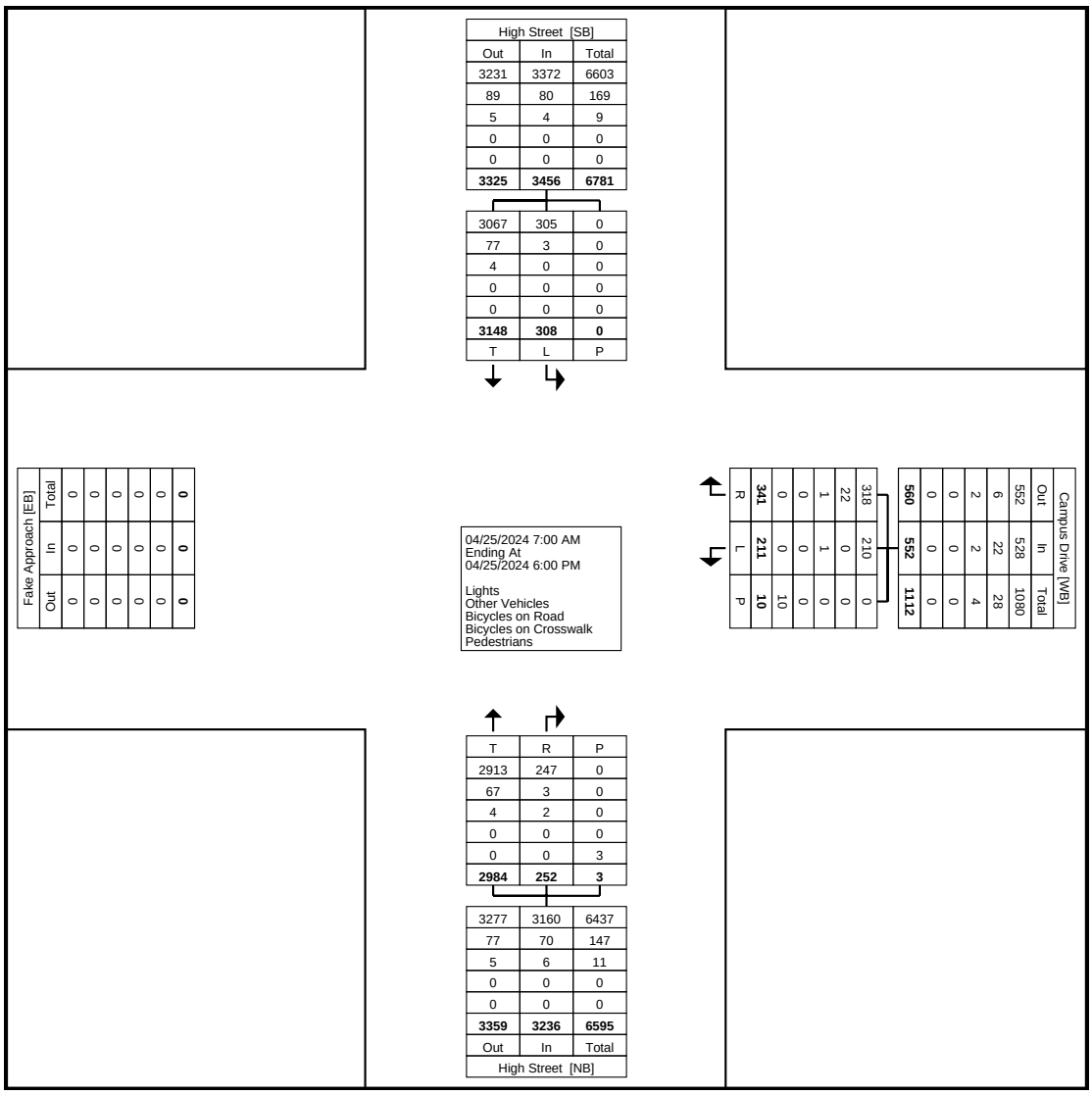
# Turning Movement Data

| Start Time | Campus Drive Westbound | | | | High Street Northbound | | | | High Street Southbound | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Left | Right | Peds | App. Total | Thru | Right | Peds | App. Total | Left | Thru | Peds | App. Total | Int. Total |
| 7:00 AM | 2 | 4 | 1 | 6 | 75 | 5 | 0 | 80 | 3 | 129 | 0 | 132 | 218 |
| 7:15 AM | 1 | 9 | 0 | 10 | 98 | 6 | 0 | 104 | 5 | 114 | 0 | 119 | 233 |
| 7:30 AM | 2 | 16 | 0 | 18 | 114 | 11 | 0 | 125 | 9 | 148 | 0 | 157 | 300 |
| 7:45 AM | 5 | 16 | 0 | 21 | 122 | 13 | 0 | 135 | 14 | 122 | 0 | 136 | 292 |
| Hourly Total | 10 | 45 | 1 | 55 | 409 | 35 | 0 | 444 | 31 | 513 | 0 | 544 | 1043 |
| 8:00 AM | 4 | 12 | 0 | 16 | 123 | 8 | 0 | 131 | 7 | 121 | 0 | 128 | 275 |
| 8:15 AM | 3 | 13 | 0 | 16 | 127 | 6 | 0 | 133 | 10 | 88 | 0 | 98 | 247 |
| 8:30 AM | 3 | 6 | 0 | 9 | 124 | 14 | 0 | 138 | 12 | 96 | 0 | 108 | 255 |
| 8:45 AM | 2 | 7 | 0 | 9 | 122 | 23 | 0 | 145 | 20 | 108 | 0 | 128 | 282 |
| Hourly Total | 12 | 38 | 0 | 50 | 496 | 51 | 0 | 547 | 49 | 413 | 0 | 462 | 1059 |
| 9:00 AM | 5 | 7 | 1 | 12 | 133 | 27 | 0 | 160 | 37 | 97 | 0 | 134 | 306 |
| 9:15 AM | 7 | 12 | 0 | 19 | 125 | 17 | 0 | 142 | 33 | 101 | 0 | 134 | 295 |
| 9:30 AM | 4 | 6 | 1 | 10 | 92 | 6 | 0 | 98 | 19 | 91 | 0 | 110 | 218 |
| 9:45 AM | 3 | 9 | 0 | 12 | 112 | 6 | 0 | 118 | 12 | 87 | 0 | 99 | 229 |
| Hourly Total | 19 | 34 | 2 | 53 | 462 | 56 | 0 | 518 | 101 | 376 | 0 | 477 | 1048 |
| *** BREAK *** | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 3:00 PM | 18 | 22 | 0 | 40 | 109 | 7 | 0 | 116 | 11 | 136 | 0 | 147 | 303 |
| 3:15 PM | 22 | 31 | 1 | 53 | 125 | 8 | 0 | 133 | 6 | 195 | 0 | 201 | 387 |
| 3:30 PM | 28 | 15 | 0 | 43 | 135 | 5 | 0 | 140 | 11 | 193 | 0 | 204 | 387 |
| 3:45 PM | 11 | 21 | 1 | 32 | 143 | 9 | 0 | 152 | 9 | 134 | 0 | 143 | 327 |
| Hourly Total | 79 | 89 | 2 | 168 | 512 | 29 | 0 | 541 | 37 | 658 | 0 | 695 | 1404 |
| 4:00 PM | 9 | 16 | 2 | 25 | 161 | 10 | 0 | 171 | 9 | 135 | 0 | 144 | 340 |
| 4:15 PM | 13 | 27 | 0 | 40 | 140 | 20 | 1 | 160 | 14 | 142 | 0 | 156 | 356 |
| 4:30 PM | 15 | 13 | 1 | 28 | 114 | 6 | 0 | 120 | 6 | 187 | 0 | 193 | 341 |
| 4:45 PM | 7 | 16 | 1 | 23 | 141 | 15 | 0 | 156 | 14 | 167 | 0 | 181 | 360 |
| Hourly Total | 44 | 72 | 4 | 116 | 556 | 51 | 1 | 607 | 43 | 631 | 0 | 674 | 1397 |
| 5:00 PM | 9 | 17 | 1 | 26 | 156 | 5 | 0 | 161 | 10 | 132 | 0 | 142 | 329 |
| 5:15 PM | 17 | 12 | 0 | 29 | 136 | 5 | 0 | 141 | 13 | 122 | 0 | 135 | 305 |
| 5:30 PM | 15 | 17 | 0 | 32 | 136 | 12 | 0 | 148 | 14 | 153 | 0 | 167 | 347 |
| 5:45 PM | 6 | 17 | 0 | 23 | 121 | 8 | 2 | 129 | 10 | 150 | 0 | 160 | 312 |
| Hourly Total | 47 | 63 | 1 | 110 | 549 | 30 | 2 | 579 | 47 | 557 | 0 | 604 | 1293 |
| Grand Total | 211 | 341 | 10 | 552 | 2984 | 252 | 3 | 3236 | 308 | 3148 | 0 | 3456 | 7244 |
| Approach % | 38.2 | 61.8 | - | - | 92.2 | 7.8 | - | - | 8.9 | 91.1 | - | - | - |
| Total % | 2.9 | 4.7 | - | 7.6 | 41.2 | 3.5 | - | 44.7 | 4.3 | 43.5 | - | 47.7 | - |
| Lights | 210 | 318 | - | 528 | 2913 | 247 | - | 3160 | 305 | 3067 | - | 3372 | 7060 |
| % Lights | 99.5 | 93.3 | - | 95.7 | 97.6 | 98.0 | - | 97.7 | 99.0 | 97.4 | - | 97.6 | 97.5 |
| Other Vehicles | 0 | 22 | - | 22 | 67 | 3 | - | 70 | 3 | 77 | - | 80 | 172 |
| % Other Vehicles | 0.0 | 6.5 | - | 4.0 | 2.2 | 1.2 | - | 2.2 | 1.0 | 2.4 | - | 2.3 | 2.4 |
| Bicycles on Road | 1 | 1 | - | 2 | 4 | 2 | - | 6 | 0 | 4 | - | 4 | 12 |
| % Bicycles on Road | 0.5 | 0.3 | - | 0.4 | 0.1 | 0.8 | - | 0.2 | 0.0 | 0.1 | - | 0.1 | 0.2 |
| Bicycles on Crosswalk | - | - | 0 | - | - | - | 0 | - | - | - | 0 | - | - |
| % Bicycles on Crosswalk | - | - | 0.0 | - | - | - | 0.0 | - | - | - | - | - | - |
| Pedestrians | - | - | 10 | - | - | - | 3 | - | - | - | 0 | - | - |
| % Pedestrians | - | - | 100.0 | - | - | - | 100.0 | - | - | - | - | - | - |

Traffic Planning and Design, Inc
2500 East High Street
Suite 650
Pottstown, Pennsylvania, United States 19464
610.326.3100

Counter: MIO:
Set up By JH::

Count Name: 25 High Street & Campus Drive (With Bikes)
Site Code:
Start Date: 04/25/2024


Turning Movement Data Plot

Traffic Planning and Design, Inc
2500 East High Street
Suite 650
Pottstown, Pennsylvania, United States 19464
610.326.3100

Counter: MIO:
Set up By JH::

Count Name: 25 High Street & Campus Drive (With Bikes)
Site Code:
Start Date: 04/25/2024

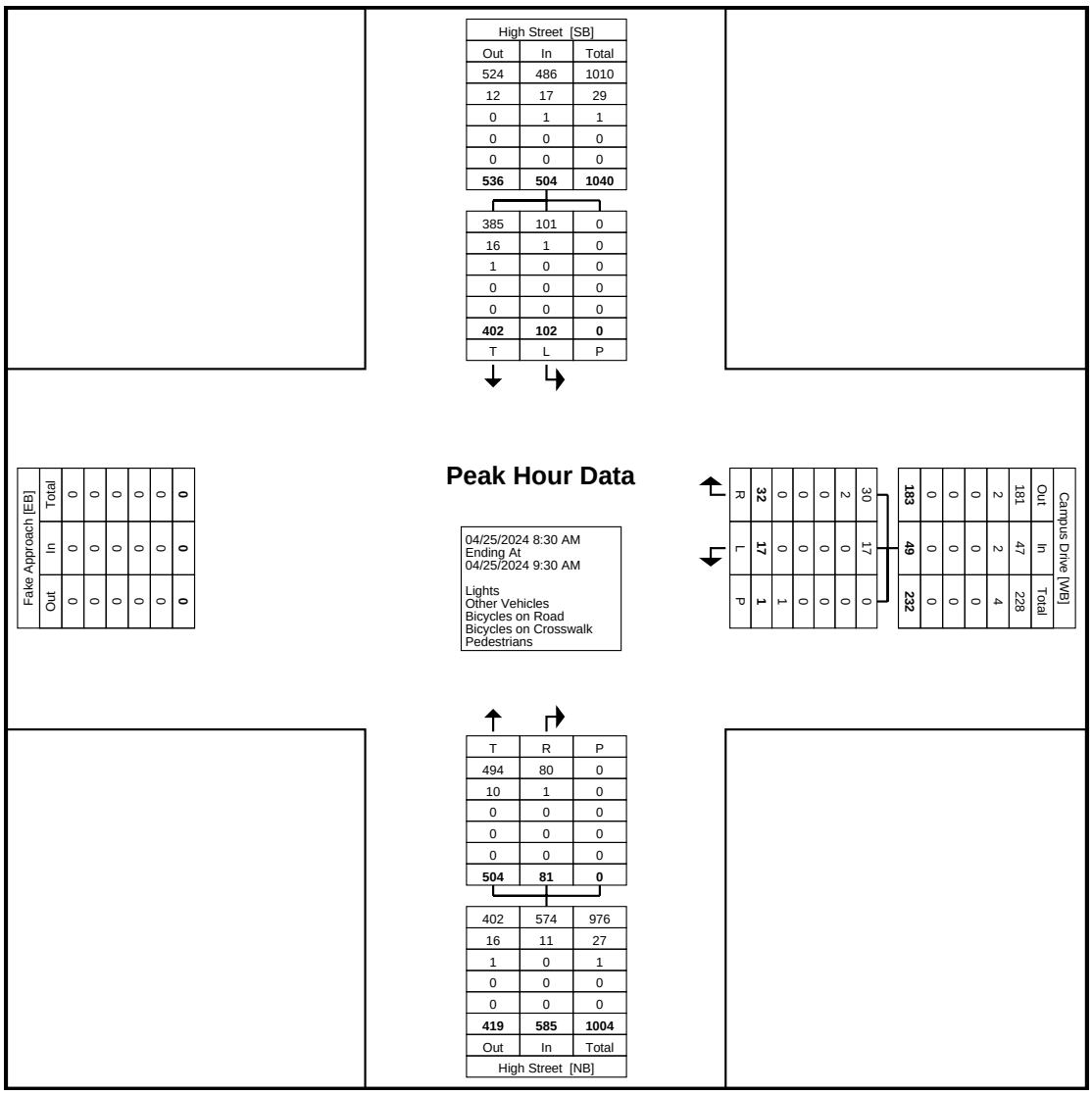

## Turning Movement Peak Hour Data (8:30 AM)

| Start Time | Campus Drive Westbound | | | | High Street Northbound | | | | High Street Southbound | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Left | Right | Peds | App. Total | Thru | Right | Peds | App. Total | Left | Thru | Peds | App. Total | Int. Total |
| 8:30 AM | 3 | 6 | 0 | 9 | 124 | 14 | 0 | 138 | 12 | 96 | 0 | 108 | 255 |
| 8:45 AM | 2 | 7 | 0 | 9 | 122 | 23 | 0 | 145 | 20 | 108 | 0 | 128 | 282 |
| 9:00 AM | 5 | 7 | 1 | 12 | 133 | 27 | 0 | 160 | 37 | 97 | 0 | 134 | 306 |
| 9:15 AM | 7 | 12 | 0 | 19 | 125 | 17 | 0 | 142 | 33 | 101 | 0 | 134 | 295 |
| Total | 17 | 32 | 1 | 49 | 504 | 81 | 0 | 585 | 102 | 402 | 0 | 504 | 1138 |
| Approach % | 34.7 | 65.3 | - | - | 86.2 | 13.8 | - | - | 20.2 | 79.8 | - | - | - |
| Total % | 1.5 | 2.8 | - | 4.3 | 44.3 | 7.1 | - | 51.4 | 9.0 | 35.3 | - | 44.3 | - |
| PHF | 0.607 | 0.667 | - | 0.645 | 0.947 | 0.750 | - | 0.914 | 0.689 | 0.931 | - | 0.940 | 0.930 |
| Lights | 17 | 30 | - | 47 | 494 | 80 | - | 574 | 101 | 385 | - | 486 | 1107 |
| % Lights | 100.0 | 93.8 | - | 95.9 | 98.0 | 98.8 | - | 98.1 | 99.0 | 95.8 | - | 96.4 | 97.3 |
| Other Vehicles | 0 | 2 | - | 2 | 10 | 1 | - | 11 | 1 | 16 | - | 17 | 30 |
| % Other Vehicles | 0.0 | 6.3 | - | 4.1 | 2.0 | 1.2 | - | 1.9 | 1.0 | 4.0 | - | 3.4 | 2.6 |
| Bicycles on Road | 0 | 0 | - | 0 | 0 | 0 | - | 0 | 0 | 1 | - | 1 | 1 |
| % Bicycles on Road | 0.0 | 0.0 | - | 0.0 | 0.0 | 0.0 | - | 0.0 | 0.0 | 0.2 | - | 0.2 | 0.1 |
| Bicycles on Crosswalk | - | - | 0 | - | - | - | 0 | - | - | - | 0 | - | - |
| % Bicycles on Crosswalk | - | - | 0.0 | - | - | - | - | - | - | - | - | - | - |
| Pedestrians | - | - | 1 | - | - | - | 0 | - | - | - | 0 | - | - |
| % Pedestrians | - | - | 100.0 | - | - | - | - | - | - | - | - | - | - |

Traffic Planning and Design, Inc
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Pottstown, Pennsylvania, United States 19464
610.326.3100

Counter: MIO:
Set up By JH::

Count Name: 25 High Street & Campus Drive (With Bikes)
Site Code:
Start Date: 04/25/2024


Turning Movement Peak Hour Data Plot (8:30 AM)

Counter: MIO:
Set up By JH::

Traffic Planning and Design, Inc
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Suite 650
Pottstown, Pennsylvania, United States 19464
610.326.3100



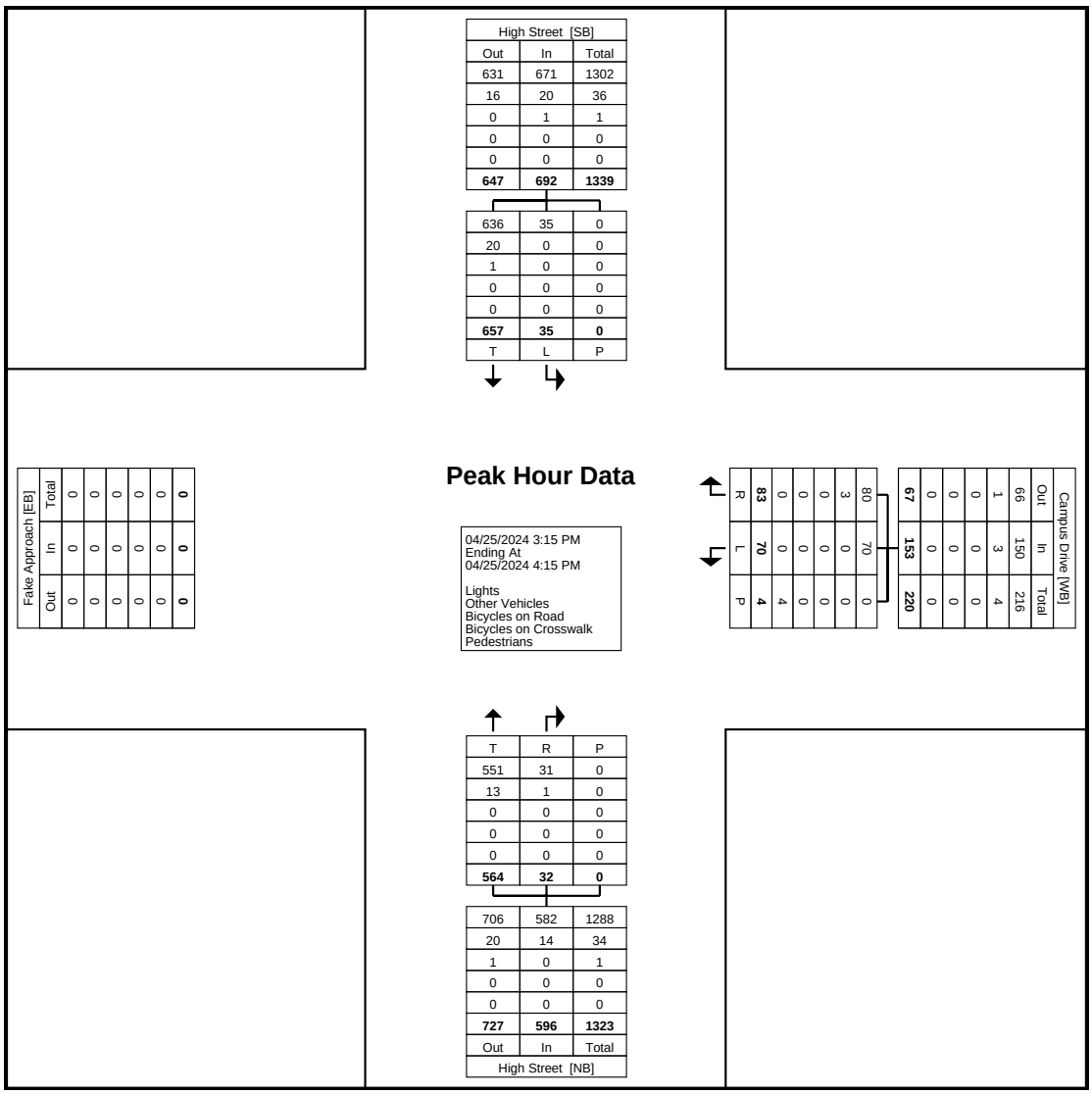
# Turning Movement Peak Hour Data (3:15 PM)

| Start Time | Campus Drive Westbound | | | | High Street Northbound | | | | High Street Southbound | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Left | Right | Peds | App. Total | Thru | Right | Peds | App. Total | Left | Thru | Peds | App. Total | Int. Total |
| 3:15 PM | 22 | 31 | 1 | 53 | 125 | 8 | 0 | 133 | 6 | 195 | 0 | 201 | 387 |
| 3:30 PM | 28 | 15 | 0 | 43 | 135 | 5 | 0 | 140 | 11 | 193 | 0 | 204 | 387 |
| 3:45 PM | 11 | 21 | 1 | 32 | 143 | 9 | 0 | 152 | 9 | 134 | 0 | 143 | 327 |
| 4:00 PM | 9 | 16 | 2 | 25 | 161 | 10 | 0 | 171 | 9 | 135 | 0 | 144 | 340 |
| Total | 70 | 83 | 4 | 153 | 564 | 32 | 0 | 596 | 35 | 657 | 0 | 692 | 1441 |
| Approach % | 45.8 | 54.2 | - | - | 94.6 | 5.4 | - | - | 5.1 | 94.9 | - | - | - |
| Total % | 4.9 | 5.8 | - | 10.6 | 39.1 | 2.2 | - | 41.4 | 2.4 | 45.6 | - | 48.0 | - |
| PHF | 0.625 | 0.669 | - | 0.722 | 0.876 | 0.800 | - | 0.871 | 0.795 | 0.842 | - | 0.848 | 0.931 |
| Lights | 70 | 80 | - | 150 | 551 | 31 | - | 582 | 35 | 636 | - | 671 | 1403 |
| % Lights | 100.0 | 96.4 | - | 98.0 | 97.7 | 96.9 | - | 97.7 | 100.0 | 96.8 | - | 97.0 | 97.4 |
| Other Vehicles | 0 | 3 | - | 3 | 13 | 1 | - | 14 | 0 | 20 | - | 20 | 37 |
| % Other Vehicles | 0.0 | 3.6 | - | 2.0 | 2.3 | 3.1 | - | 2.3 | 0.0 | 3.0 | - | 2.9 | 2.6 |
| Bicycles on Road | 0 | 0 | - | 0 | 0 | 0 | - | 0 | 0 | 1 | - | 1 | 1 |
| % Bicycles on Road | 0.0 | 0.0 | - | 0.0 | 0.0 | 0.0 | - | 0.0 | 0.0 | 0.2 | - | 0.1 | 0.1 |
| Bicycles on Crosswalk | - | - | 0 | - | - | - | 0 | - | - | - | 0 | - | - |
| % Bicycles on Crosswalk | - | - | 0.0 | - | - | - | - | - | - | - | - | - | - |
| Pedestrians | - | - | 4 | - | - | - | 0 | - | - | - | 0 | - | - |
| % Pedestrians | - | - | 100.0 | - | - | - | - | - | - | - | - | - | - |

Traffic Planning and Design, Inc
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Suite 650
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610.326.3100

Counter: MIO:
Set up By JH::

Count Name: 25 High Street & Campus Drive (With Bikes)
Site Code:
Start Date: 04/25/2024

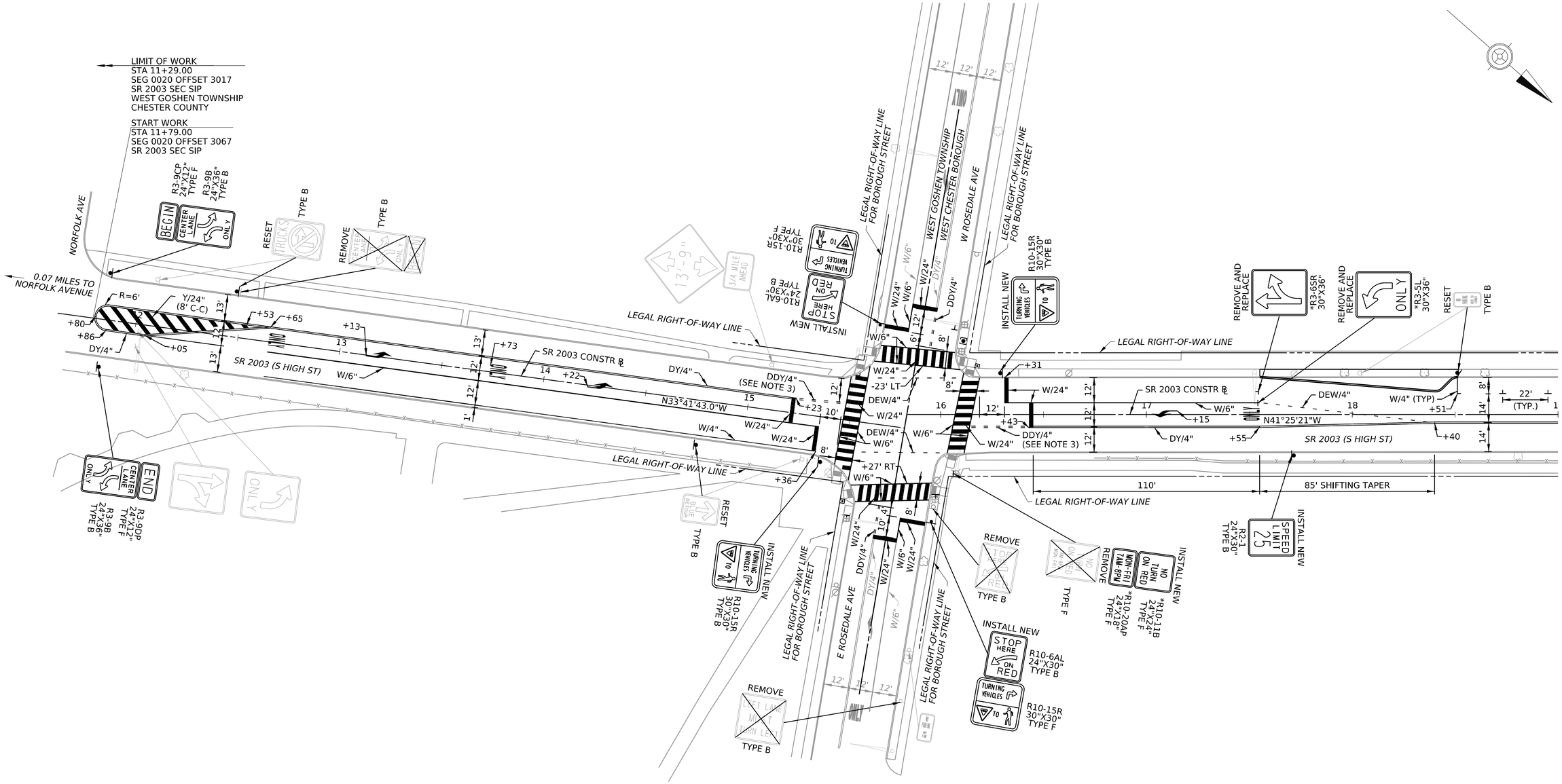

Turning Movement Peak Hour Data Plot (3:15 PM)

# APPENDIX C:
# *Planned Improvement Plans*

| DISTRICT | COUNTY | ROUTE | SECTION | SHEET |
|---|---|---|---|---|
| 6-0 | CHESTER | 2003 | SIP | 9 OF 14 |

WEST CHESTER BOROUGH AND WEST GOSHEN TOWNSHIP

| REV NO | REVISIONS | DATE | BY | APPD |
|---|---|---|---|---|
| | | | | |
| | | | | |




NOTES:
1. ALL EXISTING SIGNS TO REMAIN UNLESS OTHERWISE INDICATED ON THE PLANS.
2. SIGNS MARKED WITH AN * ARE QUANTIFIED ON TRAFFIC SIGNAL PLANS.
3. TAPER DOTTED DOUBLE YELLOW EXTENSION MARKINGS TO ALIGN WITH EDGE OF APPROACHING LANE.
4. CONTRACTOR TO PERFORM SELECTIVE TREE TRIMMING TO ENSURE VISIBILITY OF TRAFFIC SIGNAL EQUIPMENT AND SIGNS. SEE CONSTRUCTION PLAN.

SCALE
0 25 50 FEET

## SIGNING AND PAVEMENT MARKING PLAN

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
KEVIN J. POAD
ENGINEER
PE080985

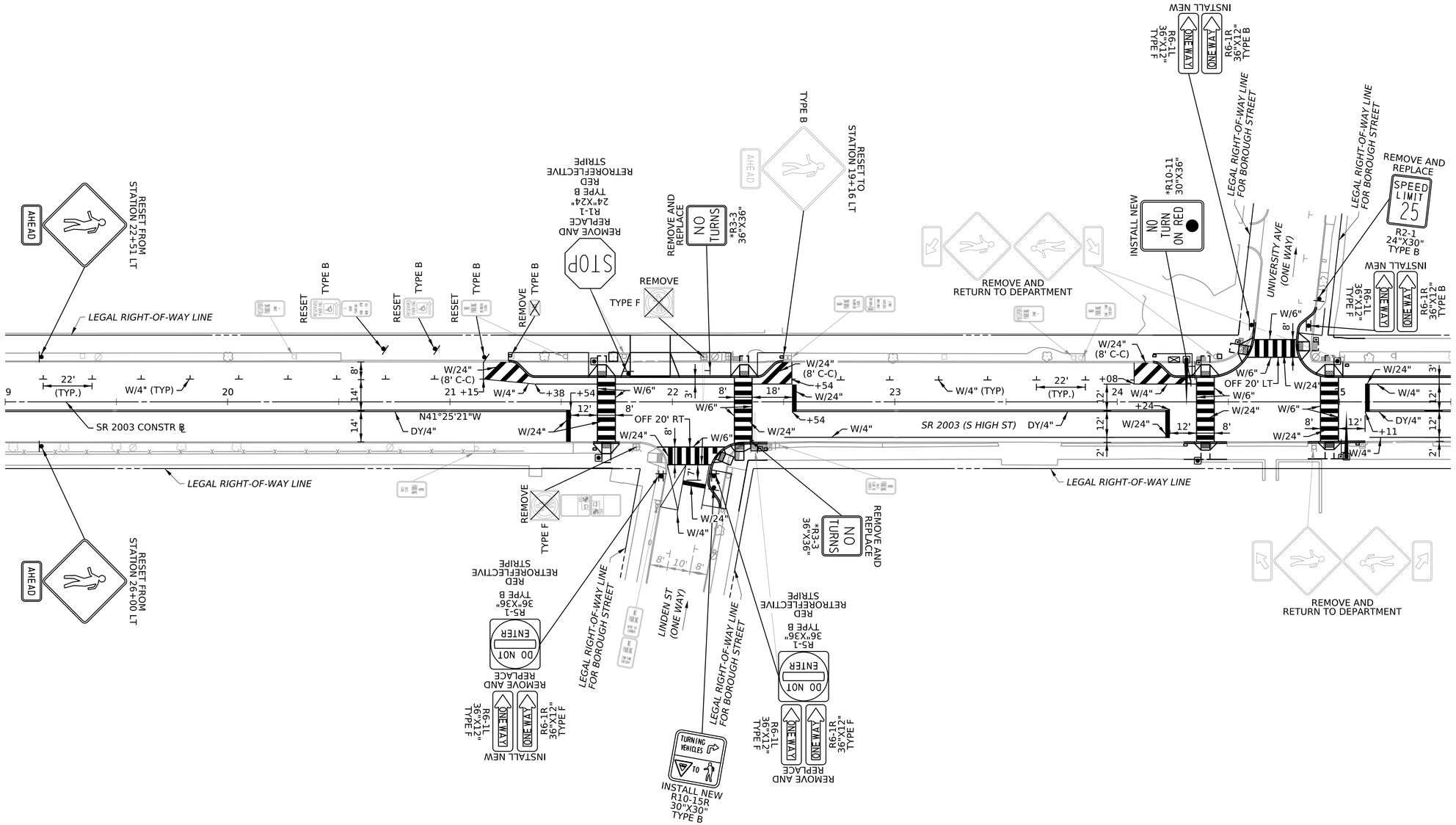
$$$$DATE$$$$
FILENAME: $$$DESIGNFILE$$

| DISTRICT | COUNTY | ROUTE | SECTION | SHEET |
|---|---|---|---|---|
| 6-0 | CHESTER | 2003 | SIP | 10 OF 14 |
| WEST CHESTER BOROUGH | | | | |

| REV NO | REVISIONS | DATE | BY | APPD |
|---|---|---|---|---|
| | | | | |
| | | | | |

SEE SHEET 9

SEE SHEET 11




NOTES:
1. ALL EXISTING SIGNS TO REMAIN UNLESS OTHERWISE INDICATED ON THE PLANS.
2. SIGNS MARKED WITH AN * ARE QUANTIFIED ON TRAFFIC SIGNAL PLANS.
3. TAPER DOTTED DOUBLE YELLOW EXTENSION MARKINGS TO ALIGN WITH EDGE OF APPROACHING LANE.
4. CONTRACTOR TO PERFORM SELECTIVE TREE TRIMMING TO ENSURE VISIBILITY OF TRAFFIC SIGNAL EQUIPMENT AND SIGNS. SEE CONSTRUCTION PLAN.

SCALE
0 25 50 FEET

## SIGNING AND PAVEMENT MARKING PLAN

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
KEVIN J. POAD
ENGINEER
PE080985

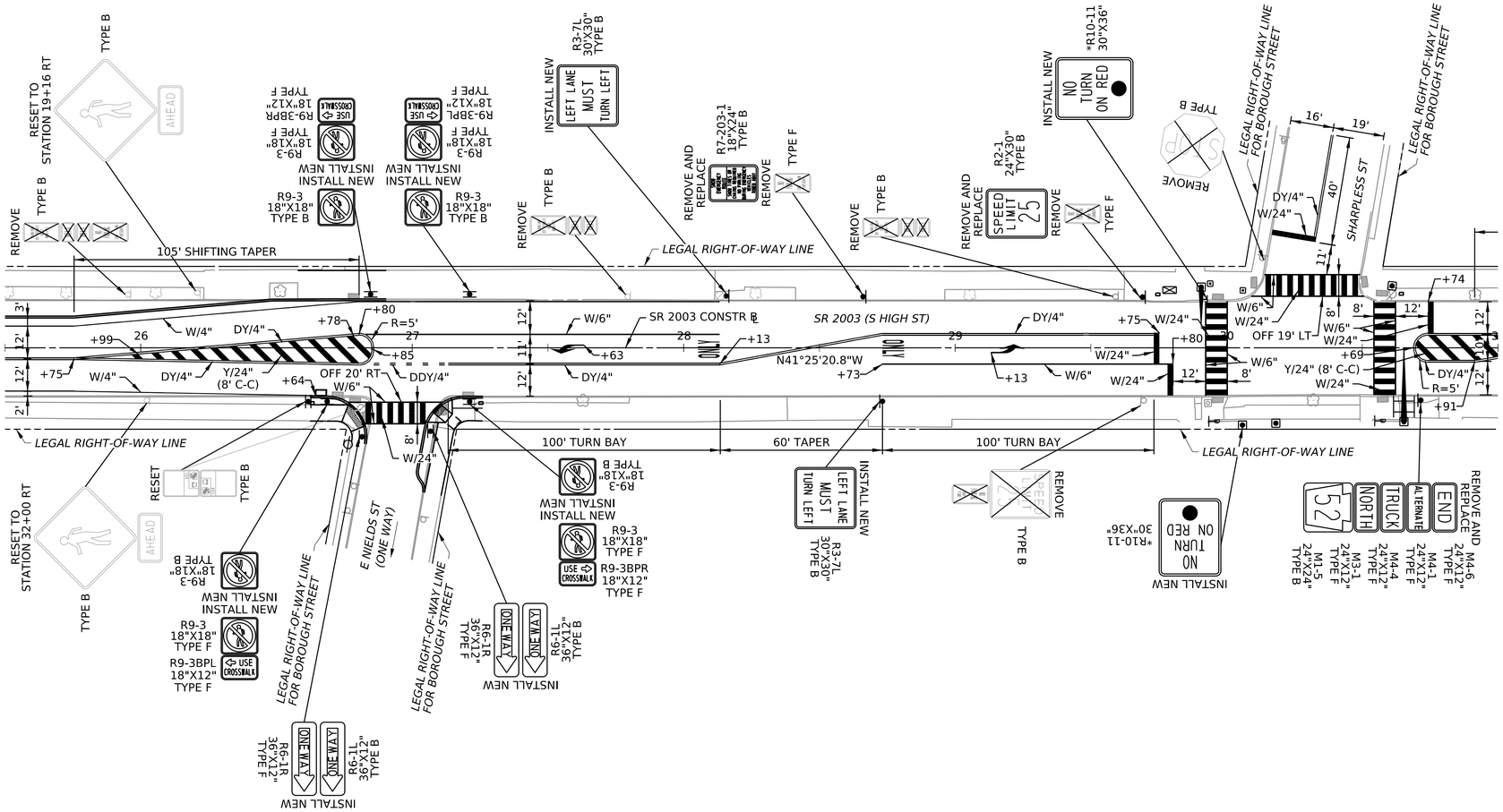
$$$$DATE$$$
FILENAME: $$DESIGNFILE$$

| DISTRICT | COUNTY | ROUTE | SECTION | SHEET |
|---|---|---|---|---|
| 6-0 | CHESTER | 2003 | SIP | 11 OF 14 |
| WEST CHESTER BOROUGH | | | | |

| REV NO | REVISIONS | DATE | BY | APPD |
|---|---|---|---|---|
| | | | | |
| | | | | |

SEE SHEET 10

SEE SHEET 12




NOTES:
1. ALL EXISTING SIGNS TO REMAIN UNLESS OTHERWISE INDICATED ON THE PLANS.
2. SIGNS MARKED WITH AN * ARE QUANTIFIED ON TRAFFIC SIGNAL PLANS.
3. TAPER DOTTED DOUBLE YELLOW EXTENSION MARKINGS TO ALIGN WITH EDGE OF APPROACHING LANE.
4. CONTRACTOR TO PERFORM SELECTIVE TREE TRIMMING TO ENSURE VISIBILITY OF TRAFFIC SIGNAL EQUIPMENT AND SIGNS. SEE CONSTRUCTION PLAN.

SCALE
0 25 50 FEET

## SIGNING AND PAVEMENT MARKING PLAN

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL ENGINEER
KEVIN J. POAD
PE080985

$$$$DATE$$$
FILENAME: $$DESIGNFILE$$

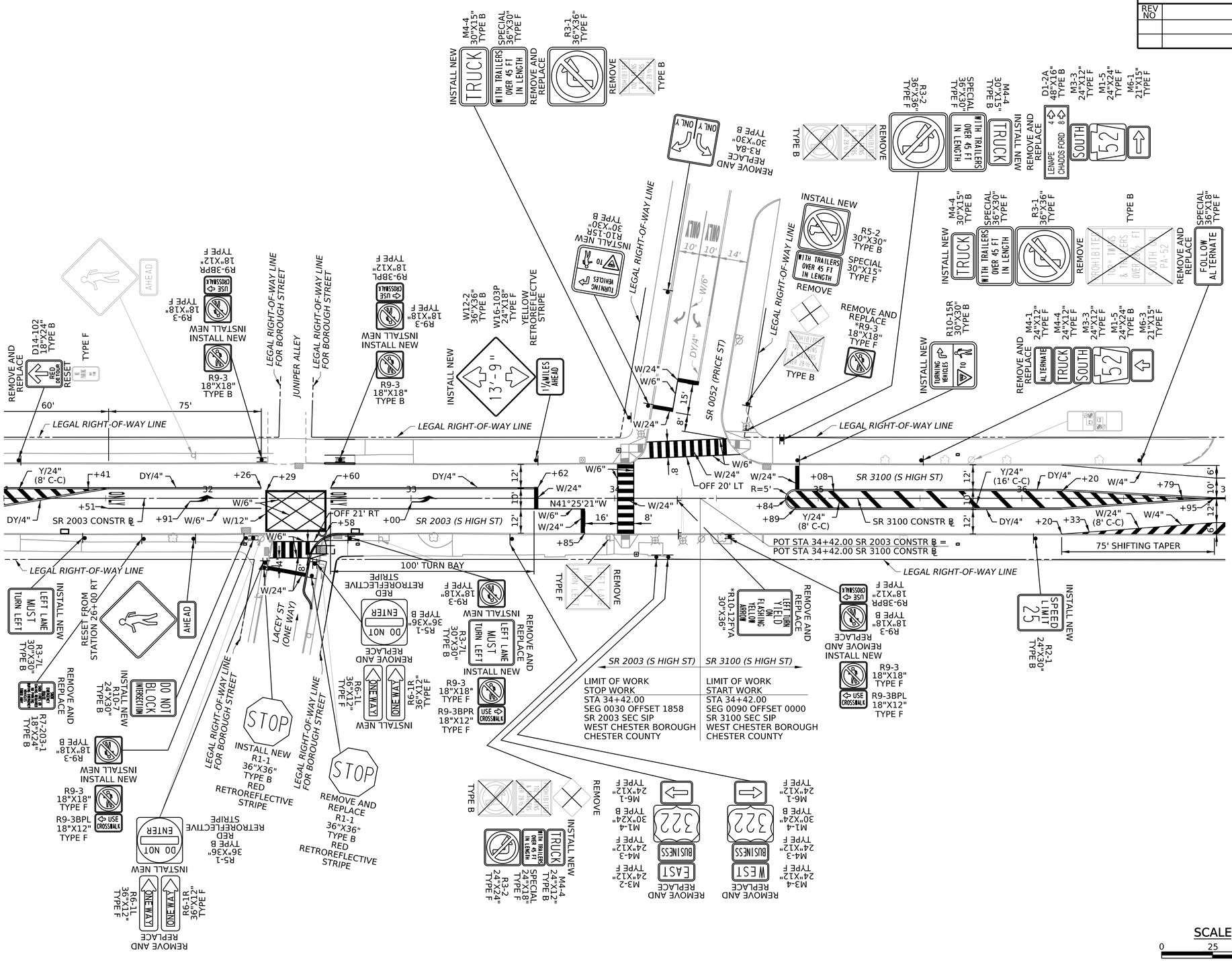
| DISTRICT | COUNTY | ROUTE | SECTION | SHEET |
|---|---|---|---|---|
| 6-0 | CHESTER | 2003/3100 | SIP | 12 OF 14 |

WEST CHESTER BOROUGH

| REV NO | REVISIONS | DATE | BY | APPD |
|---|---|---|---|---|
| | | | | |
| | | | | |

SEE SHEET 11

SEE SHEET 13




## SIGNING AND PAVEMENT MARKING PLAN

NOTES:
1. ALL EXISTING SIGNS TO REMAIN UNLESS OTHERWISE INDICATED ON THE PLANS.
2. SIGNS MARKED WITH AN * ARE QUANTIFIED ON TRAFFIC SIGNAL PLANS.
3. TAPER DOTTED DOUBLE YELLOW EXTENSION MARKINGS TO ALIGN WITH EDGE OF APPROACHING LANE.
4. CONTRACTOR TO PERFORM SELECTIVE TREE TRIMMING TO ENSURE VISIBILITY OF TRAFFIC SIGNAL EQUIPMENT AND SIGNS. SEE CONSTRUCTION PLAN.

COMMONWEALTH OF PENNSYLVANIA — REGISTERED PROFESSIONAL — KEVIN J. POAD — ENGINEER — PE080985

$$$$DATE$$$
FILENAME: $$DESIGNFILE$$$

## SIGN TABULATION*

| PLAN SYMBOL | SERIES NUMBER | SIZE | REMARKS |
|---|---|---|---|
| A | R10-3E(R) | 9"x15" | EDUCATIONAL PUSH BUTTON FOR WALK SIGNAL WITH COUNTDOWN TIMER (RIGHT) |
| B | R10-3E(L) | 9"x15" | EDUCATIONAL PUSH BUTTON FOR WALK SIGNAL WITH COUNTDOWN TIMER (LEFT) |
| C | D3-4 | 96"x16" | UNIVERSITY AVE |
| F | R6-1L | 36"x12" | HORIZONTAL LEFT ONE-WAY |
| H | R6-1R | 36"x12" | HORIZONTAL RIGHT ONE-WAY |
| J | R10-11 | 24"x30" | NO TURN ON RED ● |

* SEE SIGNING AND PAVEMENT MARKING PLAN FOR ADDITIONAL SIGNS NOT LABELLED ON THE SIGNAL PLANS.

## MOVEMENT, SEQUENCE AND TIMING DIAGRAM

| PHASE | 2+6 | | | | 4* | | | | FLASH |
|---|---|---|---|---|---|---|---|---|---|
| INTERVAL / SIGNAL | 1 | 2 | 3 | 4 | 5 | 6 | 7 | | |
| 1,2 | G | G | Y | R | R | R | R | | Y |
| 3,4 | G | G | Y | R | R | R | R | | Y |
| 5,6 | M | FH | H | H | M | FH | H | | OFF |
| 7,8* | H | H | H | H | M | FH | H | | OFF |
| 9,10* | H | H | H | H | M | FH | H | | OFF |
| | | | | | | | | | |
| | | | | | | | | | |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| FIXED | | | 3 | 2 | | | 2 | |
| MINIMUM | 13 | | | | | | | |
| PASSAGE | | | | | | | | |
| MAXIMUM | 39 | | | | | | | |
| PEDESTRIAN | 7ⓓ 6 | | | | 7 | 9 | | |
| MEMORY | MX | | | | NL | | | |

REFER TO SYSTEM PERMIT #I-0056, I-0057, I-0058 FOR PROGRAM TIMINGS AND WEEKLY PROGRAM CHART

OPERATION NOTES

ⓓ SIGNAL TO REMAIN MAN SYMBOL UNTIL ACTUATED BY PHASE 4.

* UPON PEDESTRIAN ACTUATION ONLY, OTHERWISE HAND SYMBOL AT ALL TIMES.

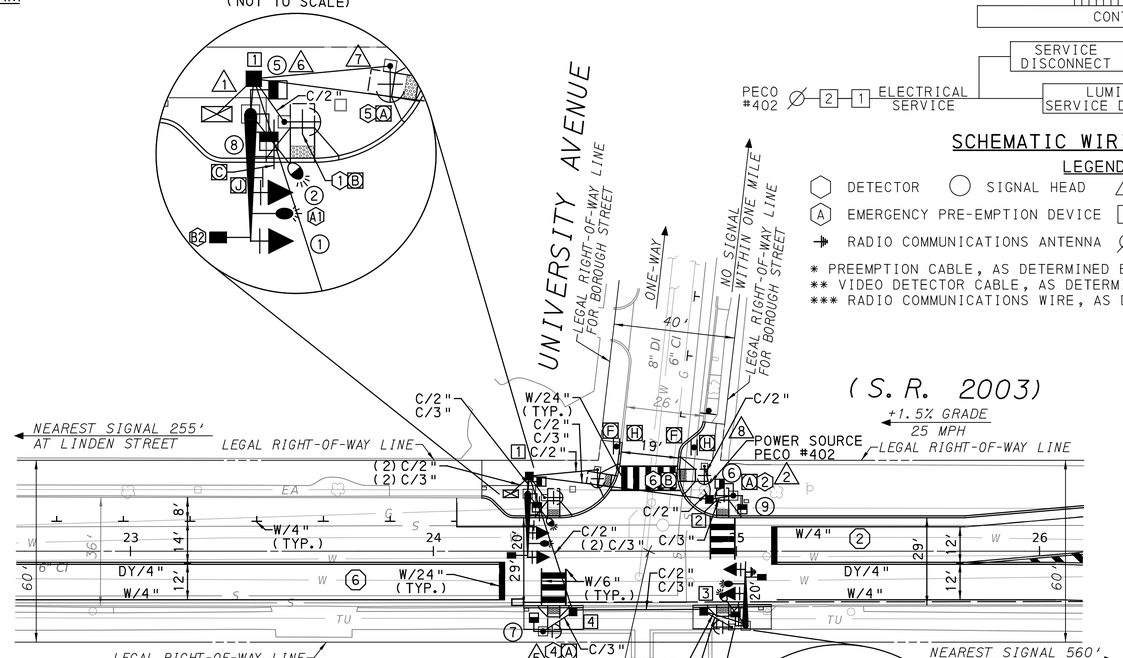
• PEDESTRIAN COUNTDOWN TIMER TO COUNT DOWN DURING FLASHING HAND INTERVAL.

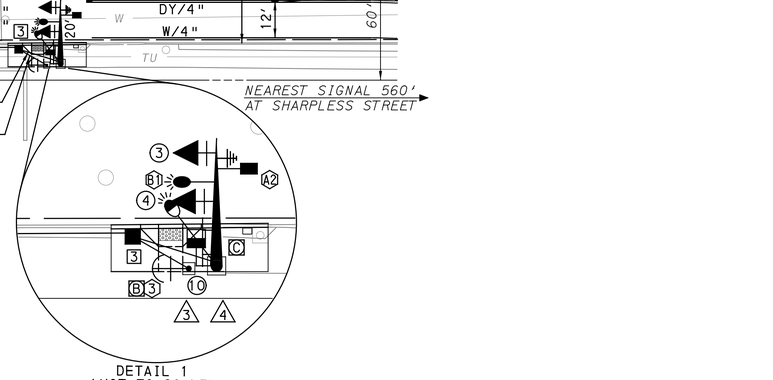
• CONTROLLER TO DWELL IN PHASE 2+6 UNTIL ACTUATED BY PHASE 4.

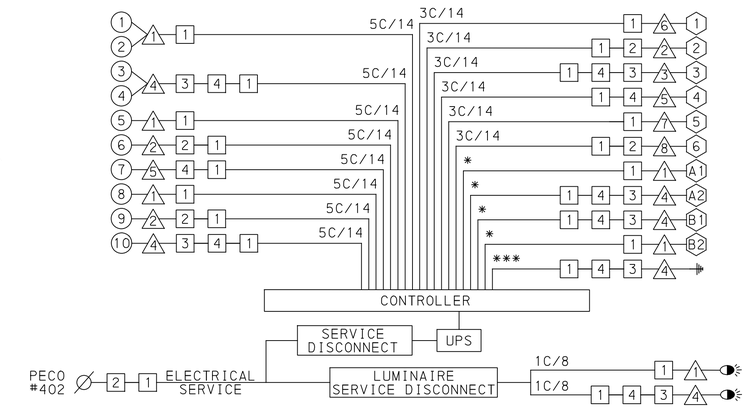
## CONSTRUCTION NOTES

1. INSTALL PROPOSED SIGNAL EQUIPMENT AS DETAILED ON THE PLAN.




## SCHEMATIC WIRING DIAGRAM

LEGEND

DETECTOR · SIGNAL HEAD · SIGNAL SUPPORT · LUMINAIRE
EMERGENCY PRE-EMPTION DEVICE · JUNCTION BOX · VIDEO DETECTOR
RADIO COMMUNICATIONS ANTENNA · UTILITY POLE

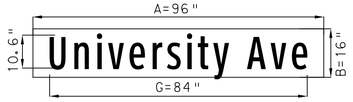
* PREEMPTION CABLE, AS DETERMINED BY MANUFACTURER
** VIDEO DETECTOR CABLE, AS DETERMINED BY MANUFACTURER
*** RADIO COMMUNICATIONS WIRE, AS DETERMINED BY MANUFACTURER

## LEGEND

| EXISTING | PROPOSED | DESCRIPTION |
|---|---|---|
| | (2) | PHASE NUMBER |
| 4 | 4 | MAST ARM |
| 4 | 4 | PEDESTAL/STUB POLE |
| | | LUMINAIRE WITH ARM |
| 4 | 4 | VEHICULAR SIGNAL HEAD WITH BACKPLATE AND TUNNEL VISORS |
| 4 | 4 | PEDESTRIAN SIGNAL HEAD |
| A | A | POST MOUNTED SIGN |
| A | A | STRUCTURE MOUNTED SIGN |
| A 4 | A 4 | PEDESTRIAN PUSH BUTTON/SIGN |
| | | CONTROLLER ASSEMBLY |
| J | 1 | JUNCTION BOX |
| A | A | EMERGENCY PRE-EMPTION DETECTOR |
| | | EMERGENCY PRE-EMPTION BEACON |
| | | VIDEO DETECTOR |
| 4 | 4 | VIDEO DETECTION ZONE |
| | | COMMUNICATIONS ANTENNA |
| | C/3" | CONDUIT/SIZE |
| W/4" | W/4" | SOLID WHITE LINE/WIDTH |
| DY/4" | DY/4" | DOUBLE SOLID YELLOW LINE/WIDTH |
| DDY/4" | DDY/4" | DOTTED DOUBLE YELLOW LINE/WIDTH |

## SIGN DETAILS

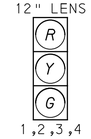
NOT TO SCALE




SIGN C

SERIES: D3-4
FONT: CLEARVIEW 1-W
10.6" UPPER CASE
8" LOWER CASE
LEGEND: WHITE (REFLECTORIZED)
BACKGROUND: GREEN (REFLECTORIZED)

## SIGNAL INDICATIONS




SIGNALS EQUIPPED WITH TUNNEL VISORS _____

SCALE

0 25 50 FEET

PREPARED BY:
KMJ CONSULTING, INC.
120 E LANCASTER AVE, SUITE 105
ARDMORE, PA 19003

COMMONWEALTH OF PENNSYLVANIA — REGISTERED PROFESSIONAL — MARTIN S. WILLIAMS — ENGINEER PE085649

Martin S. Williams — Digitally signed by Martin S. Williams, Date: 2024.01.24 13:24:30 -05'00'

| DISTRICT | COUNTY | ROUTE | SECTION | SHEET |
|---|---|---|---|---|
| 6-0 | CHESTER | 2003 | SIP | 7 OF 21 |
| WEST CHESTER BOROUGH | | | | |

| REVISION NUMBER | REVISIONS | DATE | BY |
|---|---|---|---|
| | | | |
| | | | |

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INSTALL POST MOUNTED SIGNALS WITH THE SIGNAL HEADS A MINIMUM OF 2 FEET BEHIND THE FACE OF THE CURB OR EDGE OF THE SHOULDER. PROVIDE A MINIMUM HORIZONTAL CLEARANCE OF 2 FEET FOR ALL SUPPORT POLES FOR OVERHEAD SIGNALS.

ERECT THE BOTTOM OF SIGNAL HEADS AND SIGNS OVER THE ROADWAY NOT LESS THAN 16 FEET NOR MORE THAN 19 FEET ABOVE THE ROADWAY. ERECT THE BOTTOM OF POST MOUNTED SIGNAL HEADS NOT LESS THAN 8 FEET NOR MORE THAN 15 FEET ABOVE THE SIDEWALK OR PAVEMENT GRADE.

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DETERMINE THE EXACT LOCATION OF DETECTORS WITH A PENNDOT REPRESENTATIVE PRIOR TO INSTALLATION.

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ISSUED ON 12/20/2022 FOR WEST CHESTER BOROUGH

FINAL DESIGN SERIAL NUMBER. _____
ISSUED ON FOR _____

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AND 10 WORKING DAYS IN DESIGN STAGE.

BEFORE YOU DIG, CALL
THE PA ONE CALL SYSTEM TELEPHONE NUMBER.

1-800-242-1776

PERMIT NO: 62-4055 FILE: 4055 SYSTEM PERMIT # I-0056

COUNTY: CHESTER
MUNICIPALITY: WEST CHESTER BOROUGH
INTERSECTION: SOUTH HIGH STREET (S.R. 2003) AND UNIVERSITY AVENUE

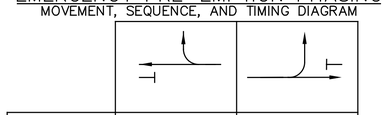
REVIEWED: _____ 1/25/2024
MUNICIPAL OFFICIAL DATE

RECOMMENDED: Margo Wolfgang Digitally signed by Margo Wolfgang Date: 2024.01.26 08:33:08 -05'00'
Kevin P. Lewis, P.E. Digitally signed by Kevin P. Lewis, P.E. Date: 2024.01.26 11:30:00 -05'00'
ADE - TRANSPORTATION OPERATIONS DATE

$$$$DATE$$$
FILENAME: $$DESIGNFILE$$

## EMERGENCY PRE-EMPTION PHASING

MOVEMENT, SEQUENCE, AND TIMING DIAGRAM



| PHASE | | 2 | | | | 6 | | |
|---|---|---|---|---|---|---|---|---|
| INTERVAL / SIGNAL | SELECTIVE CLEARANCES | 8 | 9 | 10 | SELECTIVE CLEARANCES | 11 | 12 | 13 |
| 1,2 | | G | Y① | R① | | R | R | R |
| 3,4 | | R | R | R | | G | Y① | R① |
| 5,6 | | H | H | H | | H | H | H |
| 7,8 | | H | H | H | | H | H | H |
| 9,10 | | H | H | H | | H | H | H |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| FIXED | | * | 3 | 2 | | * | 3 | 2 |

* FOR DURATION OF PRE-EMPTION

① G IF RETURNING TO NORMAL OPERATIONS

NOTE: IF PRE-EMPTION EQUIPMENT HAS ENCODING CAPABILITIES FOR VEHICLE IDENTIFICATION, IT IS RECOMMENDED TO HAVE THE ZERO "00" FEATURE ON, TO GIVE UNCODED EMITTERS THE ABILITY TO ACTIVATE THE EMERGENCY PRE-EMPTION.

## EMERGENCY PRE-EMPTION NOTES:

- CONTROLLER TO BE EQUIPPED WITH EMERGENCY PRE-EMPTION FOR THE NORTHBOUND AND SOUTHBOUND APPROACHES OF HIGH STREET (SR 2003) WITH A FAIL SAFE DEVICE FOR EACH DIRECTION OF OPERATION. THIS EMERGENCY BEACON SHALL CONSIST OF A FLASHING WHITE FLOOD LIGHT, AND SHALL FLASH WHEN THE EMERGENCY VEHICLE HAS CONTROL OF THE INTERSECTION FOR THE APPROPRIATE APPROACH.

- THE SIGNALS, WHEN ACTIVATED BY EMERGENCY VEHICLES, SHALL TERMINATE ALL GREEN INDICATIONS IMMEDIATELY, FOLLOWED BY THE COMPLETE YELLOW AND RED CLEARANCE INTERVALS ACCORDINGLY. THEN THE GREEN INTERVAL FOR THE PRE-EMPTION PHASE SHALL FOLLOW. ONLY THOSE PHASES NOT POSING A YELLOW TRAP CONDITION MAY REMAIN GREEN (6) WHEN GOVERNED BY APPROACHING EMERGENCY VEHICLE.

- THE SIGNALS, WHEN ACTIVATED BY EMERGENCY VEHICLE SHALL TIME OUT ALL YELLOW AND RED INDICATIONS, FOLLOWED BY THE GREEN INTERVAL OF THE PRE-EMPTION PHASE GOVERNED BY THE APPROACHING EMERGENCY VEHICLE.

- IF THE SIGNAL HAS BEEN ACTUATED BY A PEDESTRIAN PUSHBUTTON AND THE SIGNAL IS PRE-EMPTED, THE PED "WALK" (MAN) INTERVAL SHALL TERMINATE IMMEDIATELY AND THE PED "CLEAR" (FLASHING HAND AND COUNTDOWN TIMER) INTERVAL SHALL TIME OUT, FOLLOWED BY THE APPROPRIATE SELECTIVE CLEARANCES BEFORE GOING INTO EMERGENCY PREEMPTION.

- IF THE SIGNALS, WHEN ACTIVATED BY AN EMERGENCY VEHICLE, ARE FLASHING ALL SIGNALS SHALL REMAIN FLASHING.

- IF ADDITIONAL PRE-EMPTION PHASES ARE ACTIVATED WHILE IN PRE-EMPTION, THE ORIGINAL PRE-EMPTION PHASE SHALL TIME OUT BEFORE PROCEEDING TO THE NEXT PRE-EMPTION PHASE.

- UPON COMPLETION OF PRE-EMPTION PHASE 2 OR 6 IN RETURNING TO NORMAL OPERATION, PHASE 2+6 INTERVAL 1 SHALL FOLLOW.

- IN EMERGENCY PRE-EMPTION, NO PRIORITY SHALL BE ESTABLISHED, PRE-EMPTION SHALL BE A "FIRST COME, FIRST SERVE" OPERATION.

- LOCATION OF EMERGENCY VEHICLE DETECTORS ARE TO BE FIELD ADJUSTED TO ACHIEVE MAXIMUM OPERATION.

SIGNAL SHALL BE EQUIPPED WITH ACCESSIBLE PEDESTRIAN SIGNAL (APS) WITH THE FOLLOWING FEATURES:

1. ADA COMPLIANT PUSHBUTTON WITH LATCHING LED INDICATOR AND TONE.

2. A TACTILE DIRECTIONAL ARROW ALIGNED PARALLEL TO THE CROSSING AND WHICH VIBRATES DURING THE WALK INDICATION.

3. A PUSHBUTTON LOCATOR TONE. THE LOCATOR TONE SHALL HAVE A DURATION OF 0.15 SECONDS AND REPEAT AT 1 SECOND INTERVALS, SHALL BE INTENSITY RESPONSIVE TO AMBIENT SOUND, AND AUDIBLE FROM 6 TO 12 FEET FROM THE PUSHBUTTON.

4. ACTUATION OF THE PEDESTRIAN PUSHBUTTON SHALL BE ACCOMPANIED BY THE SPEECH MESSAGE "WAIT" WHEN THE WALK INTERVAL IS NOT TIMING.

5. AN AUDIBLE WALK INDICATION AS FOLLOWS:

   - THE WALK INDICATION SHALL BE AN AN AUDIBLE PERCUSSIVE TONE. THE AUDIBLE TONE SHALL CONSIST OF 8 TO 10 RAPID TICKS PER SECOND.

| DISTRICT | COUNTY | ROUTE | SECTION | SHEET |
|---|---|---|---|---|
| 6-0 | CHESTER | 2003 | SIP | 8 OF 21 |
| WEST CHESTER BOROUGH | | | | |

| REVISION NUMBER | REVISIONS | DATE | BY |
|---|---|---|---|
| | | | |
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THE PA ONE CALL SYSTEM TELEPHONE NUMBER.

1-800-242-1776

PERMIT NO: 62-4055 FILE: 4055 SYSTEM PERMIT # I-0056

COUNTY: CHESTER

MUNICIPALITY: WEST CHESTER BOROUGH

INTERSECTION: SOUTH HIGH STREET (S.R. 2003) AND UNIVERSITY AVENUE

REVIEWED:

MUNICIPAL OFFICIAL — DATE 1/25/2024

RECOMMENDED: Margo Wolfgang — Digitally signed by Margo Wolfgang Date: 2024.01.26 08:33:42 -05'00'

Kevin P. Lewis, P.E. — Digitally signed by Kevin P. Lewis, P.E. Date: 2024.01.26 11:30:00 -05'00'

ADE - TRANSPORTATION OPERATIONS — DATE

PREPARED BY:
KMJ CONSULTING, INC.
120 E LANCASTER AVE, SUITE 105
ARDMORE, PA 19003

COMMONWEALTH OF PENNSYLVANIA — REGISTERED PROFESSIONAL — MARTIN S. WILLIAMS — ENGINEER PE085649

Martin S. Williams — Digitally signed by Martin S. Williams DN: cn=Martin S. Williams, o=KMJ Consulting, Inc., ou=Martin S. Williams Date: 2024.01.24 13:25:04-05'00'

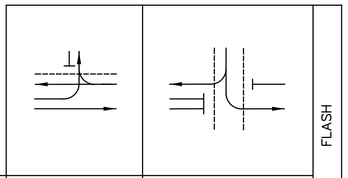
$$$$DATE$$
FILENAME= $$DESIGNFILE$$

## SIGN TABULATION*

| PLAN SYMBOL | SERIES NUMBER | SIZE | REMARKS |
|---|---|---|---|
| A | R10-3E(R) | 9"x15" | EDUCATIONAL PUSH BUTTON FOR WALK SIGNAL WITH COUNTDOWN TIMER (RIGHT) |
| B | R10-3E(L) | 9"x15" | EDUCATIONAL PUSH BUTTON FOR WALK SIGNAL WITH COUNTDOWN TIMER (LEFT) |
| C | D3-4 | 84"x16" | SHARPLESS ST |
| D | R10-11 | 24"x30" | NO TURN ON RED ● |
| F | R3-7L | 30"x30" | LEFT LANE MUST TURN LEFT |

* SEE SIGNING AND PAVEMENT MARKING PLAN FOR ADDITIONAL SIGNS NOT LABELLED ON THE SIGNAL PLANS.

## MOVEMENT, SEQUENCE AND TIMING DIAGRAM



| PHASE | 2+6 | | | | 4 | | | | | FLASH |
|---|---|---|---|---|---|---|---|---|---|---|
| INTERVAL / SIGNAL | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | |
| 1,2 | G | G | Y | R | R | R | R | R | R | Y |
| 3,4 | G | G | Y | R | R | R | R | R | R | Y |
| 5,6 | R | R | R | R | G① | G | G | Y | R | R |
| 7,8 | M | FH | H | H | H | H | H | H | H | OFF |
| 9,10 | H | H | H | H | M | M | FH | H | H | OFF |
| 11,12 | H | H | H | H | M | M | FH | H | H | OFF |
| | | | | | | | | | | |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| FIXED | | | 3 | 3 | | | | 3 | 3 |
| MINIMUM | 18 | | | | | 3 | | | |
| PASSAGE | | | | | | 3 | | | |
| MAXIMUM | 34 | | | | | 15 | | | |
| PEDESTRIAN | 7ⓓ | 11 | | | 3* | 4* | 10* | | |
| MEMORY | MX | | | | | NL | | | |

REFER TO SYSTEM PERMIT #I-0056, I-0057, I-0058 FOR PROGRAM TIMINGS AND WEEKLY PROGRAM CHART

OPERATION NOTES

① R IF PEDESTRIAN ACTUATED.

ⓓ SIGNAL TO REMAIN MAN SYMBOL UNTIL ACTUATED BY PHASE 4.

* UPON PEDESTRIAN ACTUATION ONLY, OTHERWISE HAND SYMBOL AT ALL TIMES.

- PEDESTRIAN COUNTDOWN TIMER TO COUNT DOWN DURING FLASHING HAND INTERVAL.
- CONTROLLER TO DWELL IN PHASE 2+6 UNTIL ACTUATED BY PHASE 4.

## LEGEND

| EXISTING | PROPOSED | DESCRIPTION |
|---|---|---|
| | ② | PHASE NUMBER |
| 4 | 4 | MAST ARM |
| 4 ○ | 4 ▣ | PEDESTAL/STUB POLE |
| | | LUMINAIRE WITH ARM |
| 4 | 4 | VEHICULAR SIGNAL HEAD WITH BACKPLATE AND TUNNEL VISORS |
| 4 | 4 | PEDESTRIAN SIGNAL HEAD |
| A | A | POST MOUNTED SIGN |
| A | A | STRUCTURE MOUNTED SIGN |
| A 4 | A 4 | PEDESTRIAN PUSH BUTTON/SIGN |
| | | CONTROLLER ASSEMBLY |
| 1 | 1 | JUNCTION BOX |
| A | A | EMERGENCY PRE-EMPTION DETECTOR |
| | | EMERGENCY PRE-EMPTION BEACON |
| | | VIDEO DETECTOR |
| 4 | 4 | VIDEO DETECTION ZONE |
| | | COMMUNICATIONS ANTENNA |
| | C/3" | CONDUIT/SIZE |
| W/4" | W/4" | SOLID WHITE LINE/WIDTH |
| DY/4" | DY/4" | DOUBLE SOLID YELLOW LINE/WIDTH |
| DDY/4" | DDY/4" | DOTTED DOUBLE YELLOW LINE/WIDTH |

$$$DATE$$$
FILENAME= $$DESIGNFILE$$

## CONSTRUCTION NOTES

1. INSTALL PROPOSED SIGNAL EQUIPMENT AS DETAILED ON THE PLAN.

## SIGN DETAILS

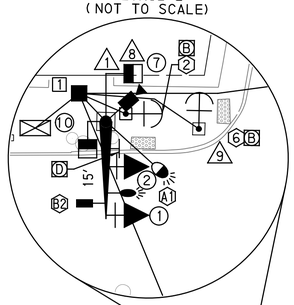
NOT TO SCALE

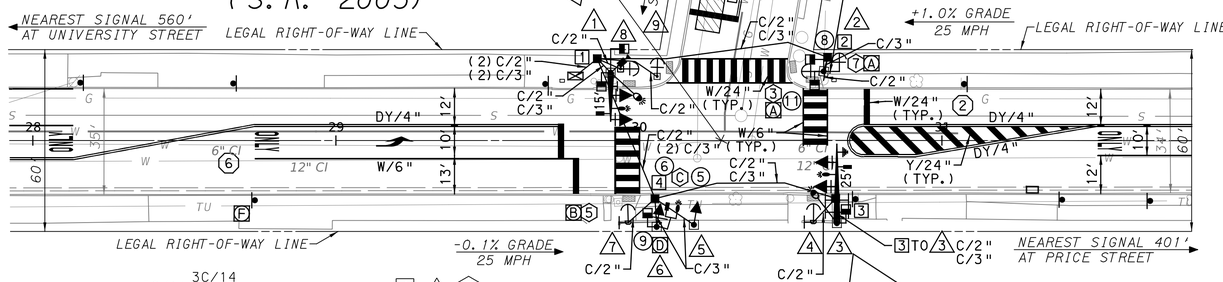


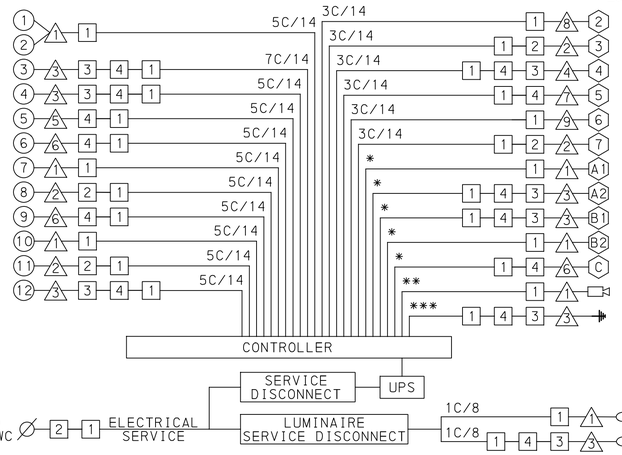

SIGN C

SERIES: D3-4
FONT: CLEARVIEW 1-W
10.6" UPPER CASE
8" LOWER CASE
LEGEND: WHITE (REFLECTORIZED)
BACKGROUND: GREEN (REFLECTORIZED)

DETAIL 2
(NOT TO SCALE)



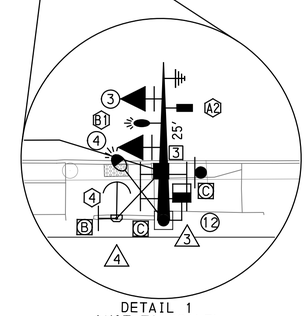




## SCHEMATIC WIRING DIAGRAM

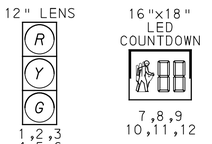
LEGEND

DETECTOR · SIGNAL HEAD · SIGNAL SUPPORT · LUMINAIRE
EMERGENCY PRE-EMPTION DEVICE · JUNCTION BOX · VIDEO DETECTOR
RADIO COMMUNICATIONS ANTENNA · UTILITY POLE

* PREEMPTION CABLE, AS DETERMINED BY MANUFACTURER
** VIDEO DETECTOR CABLE, AS DETERMINED BY MANUFACTURER
*** RADIO COMMUNICATIONS WIRE, AS DETERMINED BY MANUFACTURER




## SIGNAL INDICATIONS




SIGNALS EQUIPPED WITH TUNNEL VISORS _____

SCALE

0 25 50 FEET

PREPARED BY:
KMJ CONSULTING, INC.
120 E LANCASTER AVE, SUITE 105
ARDMORE, PA 19003

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
MARTIN S. WILLIAMS
ENGINEER
PE085649

Martin S. Williams
Digitally signed by Martin S. Williams
DN: C=US, E=mswilliams@kmjhc.com, O="KMJ Consulting, Inc.", CN=Martin S. Williams
Date: 2024.01.24 13:05:13-05'00'

| DISTRICT | COUNTY | ROUTE | SECTION | SHEET |
|---|---|---|---|---|
| 6-0 | CHESTER | 2003 | SIP | 10 OF 21 |
| WEST CHESTER BOROUGH | | | | |

| REVISION NUMBER | REVISIONS | DATE | BY |
|---|---|---|---|
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1-800-242-1776

PERMIT NO: 62-4054 FILE: 4054 SYSTEM PERMIT # I-0056

COUNTY: CHESTER

MUNICIPALITY: WEST CHESTER BOROUGH

INTERSECTION: SOUTH HIGH STREET (S.R. 2003)
AND SHARPLESS STREET

REVIEWED:

MUNICIPAL OFFICIAL 1/25/2024 DATE

RECOMMENDED: Margo Wolfgang Digitally signed by Margo Wolfgang Date: 2024.01.26 08:34:51 -05'00'

Kevin P. Lewis, P.E. Digitally signed by Kevin P. Lewis, P.E. Date: 2024.01.26 11:30:00 -05'00'

ADE - TRANSPORTATION OPERATIONS DATE

## EMERGENCY PRE-EMPTION PHASING
MOVEMENT, SEQUENCE, AND TIMING DIAGRAM



| PHASE | | 2 | | | | 6 | | | | 4 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| INTERVAL / SIGNAL | SELECTIVE CLEARANCES | 10 | 11 | 12 | SELECTIVE CLEARANCES | 13 | 14 | 15 | SELECTIVE CLEARANCES | 16 | 17 | 18 |
| 1,2 | | G | Y① | R① | | R | R | R | | R | R | R |
| 3,4 | | R | R | R | | G | Y① | R① | | R | R | R |
| 5,6 | | R | R | R | | R | R | R | | G | Y | R |
| 7,8 | | H | H | H | | H | H | H | | H | H | H |
| 9,10 | | H | H | H | | H | H | H | | H | H | H |
| 11,12 | | H | H | H | | H | H | H | | H | H | H |
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |
| FIXED | | * | 3 | 3 | | * | 3 | 3 | | * | 3 | 3 |

* FOR DURATION OF PRE-EMPTION
① G IF RETURNING TO NORMAL OPERATIONS

NOTE: IF PRE-EMPTION EQUIPMENT HAS ENCODING CAPABILITIES FOR VEHICLE IDENTIFICATION, IT IS RECOMMENDED TO HAVE THE ZERO "00" FEATURE ON, TO GIVE UNCODED EMITTERS THE ABILITY TO ACTIVATE THE EMERGENCY PRE-EMPTION.

## EMERGENCY PRE-EMPTION NOTES:

- CONTROLLER TO BE EQUIPPED WITH EMERGENCY PRE-EMPTION FOR THE NORTHBOUND AND SOUTHBOUND APPROACHES OF HIGH STREET (SR 2003) AND THE EASTBOUND APPROACH OF SHARPLESS STREET WITH A FAIL SAFE DEVICE FOR EACH DIRECTION OF OPERATION. THIS EMERGENCY BEACON SHALL CONSIST OF A FLASHING WHITE FLOOD LIGHT, AND SHALL FLASH WHEN THE EMERGENCY VEHICLE HAS CONTROL OF THE INTERSECTION FOR THE APPROPRIATE APPROACH.
- THE SIGNALS, WHEN ACTIVATED BY EMERGENCY VEHICLE, SHALL TERMINATE ALL GREEN INDICATIONS IMMEDIATELY, FOLLOWED BY THE COMPLETE YELLOW AND RED CLEARANCE INTERVALS ACCORDINGLY. THEN THE GREEN INTERVAL FOR THE PRE-EMPTION PHASE SHALL FOLLOW. ONLY THOSE PHASES NOT POSING A YELLOW TRAP CONDITION MAY REMAIN GREEN (4, 6) WHEN GOVERNED BY APPROACHING EMERGENCY VEHICLE
- THE SIGNALS, WHEN ACTIVATED BY EMERGENCY VEHICLE SHALL TIME OUT ALL YELLOW AND RED INDICATIONS, FOLLOWED BY THE GREEN INTERVAL OF THE PRE-EMPTION PHASE GOVERNED BY THE APPROACHING EMERGENCY VEHICLE.
- IF THE SIGNAL HAS BEEN ACTUATED BY A PEDESTRIAN PUSHBUTTON AND THE SIGNAL IS PRE-EMPTED, THE PED "WALK" (MAN) INTERVAL SHALL TERMINATE IMMEDIATELY AND THE PED "CLEAR" (FLASHING HAND AND COUNTDOWN TIMER) INTERVAL SHALL TIME OUT, FOLLOWED BY THE APPROPRIATE SELECTIVE CLEARANCES BEFORE GOING INTO EMERGENCY PREEMPTION.
- IF THE SIGNALS, WHEN ACTIVATED BY AN EMERGENCY VEHICLE, ARE FLASHING ALL SIGNALS SHALL REMAIN FLASHING.
- IF ADDITIONAL PRE-EMPTION PHASES ARE ACTIVATED WHILE IN PRE-EMPTION, THE ORIGINAL PRE-EMPTION PHASE SHALL TIME OUT BEFORE PROCEEDING TO THE NEXT PRE-EMPTION PHASE.
- UPON COMPLETION OF PRE-EMPTION PHASE 2,4 OR 6 IN RETURNING TO NORMAL OPERATION, PHASE 2+6 INTERVAL 1 SHALL FOLLOW.
- IN EMERGENCY PRE-EMPTION, NO PRIORITY SHALL BE ESTABLISHED, PRE-EMPTION SHALL BE A "FIRST COME, FIRST SERVE" OPERATION.
- LOCATION OF EMERGENCY VEHICLE DETECTORS ARE TO BE FIELD ADJUSTED TO ACHIEVE MAXIMUM OPERATION.

SIGNAL SHALL BE EQUIPPED WITH ACCESSIBLE PEDESTRIAN SIGNAL (APS) WITH THE FOLLOWING FEATURES:

1. ADA COMPLIANT PUSHBUTTON WITH LATCHING LED INDICATOR AND TONE.
2. A TACTILE DIRECTIONAL ARROW ALIGNED PARALLEL TO THE CROSSING AND WHICH VIBRATES DURING THE WALK INDICATION.
3. A PUSHBUTTON LOCATOR TONE. THE LOCATOR TONE SHALL HAVE A DURATION OF 0.15 SECONDS AND REPEAT AT 1 SECOND INTERVALS, SHALL BE INTENSITY RESPONSIVE TO AMBIENT SOUND, AND AUDIBLE FROM 6 TO 12 FEET FROM THE PUSHBUTTON.
4. ACTUATION OF THE PEDESTRIAN PUSHBUTTON SHALL BE ACCOMPANIED BY THE SPEECH MESSAGE "WAIT" WHEN THE WALK INTERVAL IS NOT TIMING.
5. AN AUDIBLE WALK INDICATION AS FOLLOWS:

   - THE WALK INDICATION SHALL BE THE SPEECH WALK MESSAGE:
   "HIGH STREET. WALK SIGN IS ON TO CROSS HIGH STREET."
   "SHARPLESS STREET. WALK SIGN IS ON TO CROSS SHARPLESS STREET."

| DISTRICT | COUNTY | ROUTE | SECTION | SHEET |
|---|---|---|---|---|
| 6-0 | CHESTER | 2003 | SIP | 11 OF 21 |
| WEST CHESTER BOROUGH | | | | |

| REVISION NUMBER | REVISIONS | DATE | BY |
|---|---|---|---|
| | | | |
| | | | |

## GENERAL NOTES

DO NOT MODIFY INSTALLATION WITHOUT PRIOR WRITTEN APPROVAL BY THE DEPARTMENT.

ALL SIGNS AND PAVEMENT MARKINGS INDICATED ARE PART OF THE PERMIT. INSTALL AND MAINTAIN IN ACCORDANCE WITH PUBLICATION 212 AND PUBLICATION 236.

INSTALL POST MOUNTED SIGNALS WITH THE SIGNAL HEADS A MINIMUM OF 2 FEET BEHIND THE FACE OF THE CURB OR EDGE OF THE SHOULDER. PROVIDE A MINIMUM HORIZONTAL CLEARANCE OF 2 FEET FOR ALL SUPPORT POLES FOR OVERHEAD SIGNALS.

ERECT THE BOTTOM OF SIGNAL HEADS AND SIGNS OVER THE ROADWAY NOT LESS THAN 16 FEET NOR MORE THAN 19 FEET ABOVE THE ROADWAY. ERECT THE BOTTOM OF POST MOUNTED SIGNAL HEADS NOT LESS THAN 8 FEET NOR MORE THAN 15 FEET ABOVE THE SIDEWALK OR PAVEMENT GRADE.

MAINTAIN A MINIMUM HORIZONTAL DISTANCE OF 8 FEET BETWEEN SIGNAL HEADS, MEASURED AT RIGHT ANGLES TO THE APPROACH.

DETERMINE THE EXACT LOCATION OF DETECTORS WITH A PENNDOT REPRESENTATIVE PRIOR TO INSTALLATION.

THE CONTRACTOR IS TO COMPLETE THE NECESSARY APPLICATION(S) IN ORDER TO OBTAIN ELECTRICAL SERVICE FROM THE LOCAL POWER COMPANY.

CONSULT WITH LOCAL OFFICIALS AND UTILITIES TO RESOLVE CONFLICTS PRIOR TO CONSTRUCTION.

THIS DRAWING CANNOT BE USED AS A CONSTRUCTION DRAWING UNLESS THE CONTRACTOR COMPLIES WITH THE PROVISIONS OF ACT 50, AS AMENDED, UNDERGROUND UTILITY PROTECTION ACT, DATED APRIL 28, 2018. PRIOR TO CONSTRUCTION, CONSULT WITH UTILITY COMPANIES TO RESOLVE ANY CONFLICTS.

THE PA ONE CALL NOTIFICATIONS PERFORMED DURING PROJECT DEVELOPMENT ARE AS FOLLOWS:

PRELIMINARY DESIGN SERIAL NUMBER. 20213541081
ISSUED ON 12/20/2022 FOR WEST CHESTER BOROUGH

FINAL DESIGN SERIAL NUMBER. _____
ISSUED ON _____ FOR _____

KMJ CONSULTING, INC. HAS NOT MADE AN INDEPENDENT DETERMINATION WITH RESPECT TO THE ACCURACY OR COMPLETENESS OF SUCH INFORMATION AND SPECIFICALLY DISCLAIMS ANY WARRANTY OR REPRESENTATION AS TO THE ACCURACY OF SUCH INFORMATION. ALL LOCATIONS OF UNDERGROUND UTILITIES ARE APPROXIMATE AND MUST BE FIELD VERIFIED PRIOR TO CONSTRUCTION.

## CALL BEFORE YOU DIG !

PENNSYLVANIA LAW REQUIRES
3 WORKING DAYS NOTICE FOR CONSTRUCTION PHASE
AND 10 WORKING DAYS IN DESIGN STAGE.

BEFORE YOU DIG, CALL
THE PA ONE CALL SYSTEM TELEPHONE NUMBER.

1-800-242-1776

PERMIT NO: 62-4054 FILE: 4054 SYSTEM PERMIT # I-0056

COUNTY: CHESTER
MUNICIPALITY: WEST CHESTER BOROUGH
INTERSECTION: SOUTH HIGH STREET (S.R. 2003) AND SHARPLESS STREET

PREPARED BY:
KMJ CONSULTING, INC.
120 E LANCASTER AVE, SUITE 105
ARDMORE, PA 19003

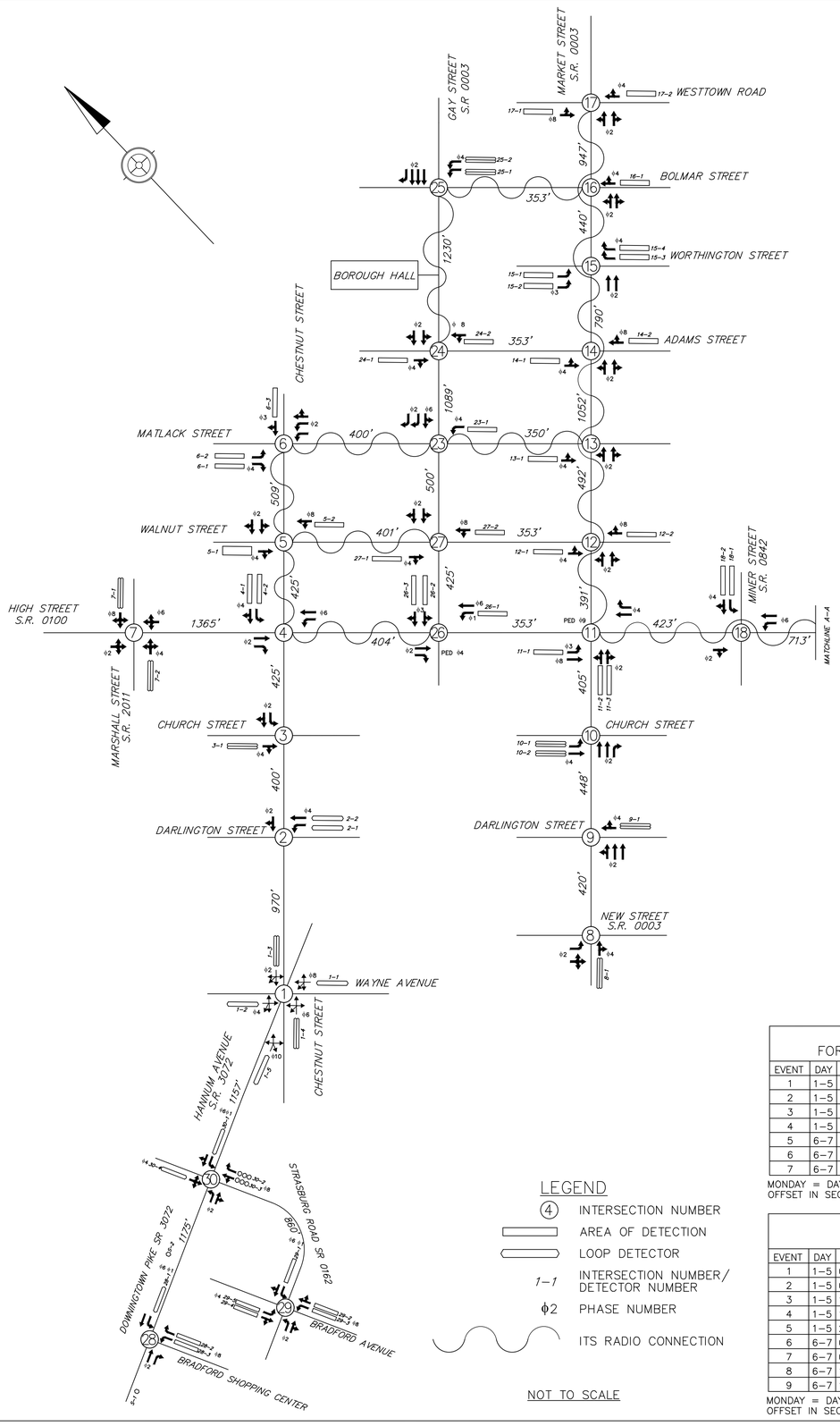
COMMONWEALTH OF PENNSYLVANIA — REGISTERED PROFESSIONAL — MARTIN S. WILLIAMS — ENGINEER PE085649

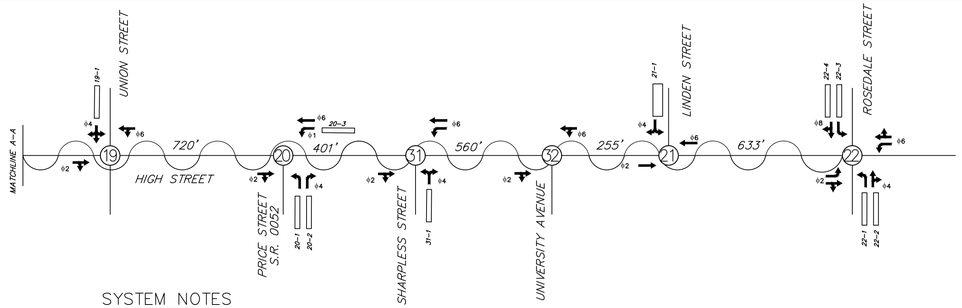
Martin S. Williams
Digitally signed by Martin S. Williams
DN: C=US, E=mwilliams@kmjcon.com, O=KMJ Consulting, P.C., CN=Martin S. Williams
Date: 2024.01.24 13:25:17-05'00'

REVIEWED:
MUNICIPAL OFFICIAL — 1/25/2024 DATE

RECOMMENDED: Margo Wolfgang Digitally signed by Margo Wolfgang Date: 2024.01.26 08:35:31 -05'00'
Kevin P. Lewis, P.E. Digitally signed by Kevin P. Lewis, P.E. Date: 2024.01.26 11:30:00 -05'00'
ADE - TRANSPORTATION OPERATIONS — DATE

$$$$DATE$$$$
FILENAME= $$DESIGNFILE$$




## SYSTEM NOTES

1. PROGRAM TO BE SELECTED BY PENNDOT UNIFIED COMMAND AND CONTROL SYSTEM (UCCS) OR TBC BACKUP.
2. OFFSETS ARE REFERENCED TO THE BEGINNING OF NEMA TS2 FIRST GREEN FOR INTERSECTIONS 2–27 AND 31–32. OFFSETS ARE REFERENCED TO BEGINNING OF GREEN FOR INTERSECTIONS 1 AND 28–30.
3. SYSTEM LIMITS:
   MARKET STREET (10 INTERSECTIONS) – NEW STREET TO WESTTOWN ROAD
   HIGH STREET (11 INTERSECTIONS) – ROSEDALE STREET TO MARSHALL STREET
   GAY STREET (5 INTERSECTIONS) – HIGH STREET TO BOLMAR STREET
   CHESTNUT STREET (6 INTERSECTIONS) – MATLACK STREET TO HANNUM AVENUE
   DOWNINGTOWN PIKE & STRASBURG ROAD(4 INTERSECTIONS)– WAYNE STREET TO BRADFORD AVE & BRADFORD SHOPPING CENTER
4. PRIMARY COORDINATION(SIGNALS 4, 5, 6, 11–27, 31, 32): UCCS VIA INTERSECTION ITS RADIOS/FIBER TO RT 0003/0202 CAMERA SPLICE.
   PRIMARY COORDINATION(SIGNALS 1, 28–30): GPS TIMECLOCK.
   SECONDARY COORDINATION: TBC (DEFAULT TO BACKUP TBC).
5. SYSTEM IS DESIGNED FOR PENNDOT UNIFIED COMMAND AND CONTROL (UCC) LOCATED AT PENNDOT. PENNDOT TO HAVE COMMUNICATION THROUGH UCC SYSTEM SOFTWARE AND BE REMOTELY ACCESSIBLE BY WEST CHESTER BOROUGH.
6. CYCLES, SPLITS & OFFSETS ARE IN SECONDS

Notes: – ALL SPLIT TIMES INCLUDE YELLOW AND RED TIMES FOR A GIVEN PHASE.
– REFER TO SIGNAL PERMIT PLAN FOR MAX 1, MAX 2, CLEARANCE AND PED TIMES.

CYCLE/SPLIT/OFFSET

| Program 1 = AM PEAK | | | | Phase | | | | | | | | Cycle | Offsets |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Intersections | | File # | MASTER | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | 1 |
| 30 | HANNUM & STRASBURG | 2746 | 4 | 20(LEAD) | 40 | | 30 | | 60 | | 30 | 90 | 38 |
| 29 | STRASBURG & BRADFORD | 2756 | 4 | 14(LEAD) | 42 | | 34 | | 56 | | 34 | 90 | 72 |
| 28 | DOWNINGTOWN & SHOPPING CENTER | 2739 | 4 | 14(LEAD) | 46 | | 30 | | 60 | | | 90 | 35 |
| 27 | GAY & WALNUT | 1162 | 3 | | 65 | | 25 | | | | 25 | 90 | 0 |
| 26 | GAY & HIGH | 1168 | 3 | 11(LEAD) | 29 | 27 | 23(PED) | | 40 | | | 90 | 1 |
| 25 | GAY & BOLMAR | 1710 | 3 | | 55 | | 35 | | | | | 90 | 30 |
| 24 | GAY & ADAMS | 2084 | 3 | | 58 | | 32 | | | | 32 | 90 | 42 |
| 23 | GAY & MATLACK | 1163 | 3 | 23 | 42 | | 25 | | 65 | | | 90 | 68 |
| 22 | HIGH & ROSEDALE | 1157 | 2 | | 57 | | 33 | | 57 | | 33 | 90 | 11 |
| 21 | HIGH & LINDEN | 1167 | 2 | | 63 | | 27 | | 63 | | | 90 | 84 |
| 32 | HIGH & UNIVERSITY | 4055 | 2 | | 63 | | 27 | | 63 | | | 90 | 79 |
| 31 | HIGH & SHARPLESS | 4054 | 2 | | 63 | | 27 | | 63 | | | 90 | 44 |
| 20 | HIGH & PRICE | 1166 | 2 | 11(LEAD) | 44 | | 35 | | 55 | | | 90 | 29 |
| 19 | HIGH & UNION | 2444 | 2 | | 55 | | 35 | | 55 | | | 90 | 33 |
| 18 | HIGH & MINER | 1160 | 2 | | 60 | | 30 | | 60 | | | 90 | 84 |
| 17 | MARKET & WESTTOWN | 0476 | 2 | | 58 | | 32 | | 58 | | 32 | 90 | 33 |
| 16 | MARKET & BOLMAR | 1452 | 2 | | 55 | | 35 | | | | | 90 | 16 |
| 15 | MARKET & WORTHINGTON | 1451 | 2 | | 49 | 25(SPLIT) | 16(SPLIT) | | 49 | | 41 | 90 | 17 |
| 14 | MARKET & ADAMS | 2370 | 2 | | 48 | | 42 | | 48 | | 42 | 90 | 3 |
| 13 | MARKET & MATLACK | 0232 | 2 | | 50 | | 40 | | | | | 90 | 73 |
| 12 | MARKET & WALNUT | 0231 | 2 | | 55 | | 35 | | 55 | | 35 | 90 | 58 |
| 11 | MARKET & HIGH | 1161 | 2 | 23(PED) | 28 | 11(LEAD) | 28 | | 51 | | 39 | 90 | 0 |
| 10 | MARKET & CHURCH | 1165 | 2 | | 55 | | 35 | | 55 | | | 90 | 33 |
| 9 | MARKET & DARLINGTON | 0293 | 2 | | 50 | | 40 | | 50 | | | 90 | 25 |
| 8 | MARKET & NEW | 1881 | 2 | | 50 | | 40 | | 50 | | | 90 | 14 |
| 7 | HIGH & MARSHALL | 1159 | 1 | | 50 | | 40 | | 50 | | 40 | 90 | 49 |
| 6 | CHESTNUT & MATLACK | 2011 | 1 | | 41 | 29 | 20 | | 41 | 25 | 24 | 90 | 16 |
| 5 | CHESTNUT & WALNUT | 1792 | 1 | | 60 | | 30 | | | | 30 | 90 | 19 |
| 4 | CHESTNUT & HIGH | 1164 | 1 | | 53 | | 37 | | 53 | | | 90 | 87 |
| 3 | CHESTNUT & CHURCH | 2010 | 1 | | 60 | | 30 | | 60 | | | 90 | 40 |
| 2 | CHESTNUT & DARLINGTON | 2009 | 1 | | 60 | | 30 | | 60 | | | 90 | 50 |
| 1 | CHESTNUT & HANNUM/WAYNE | 2008 | 1 | 35(SIDE) | 30 | | 26 | | 30 | | 26 | 90 | 11 |

WEEKLY PROGRAM CHART
FOR INTERSECTIONS 2–27 & 31–32

| EVENT | DAY | TIME | CYCLE | OFFSET | PROGRAM | REMARKS |
|---|---|---|---|---|---|---|
| 1 | 1–5 | 0615 | 90 | 1 | 1 | AM PEAK |
| 2 | 1–5 | 0930 | 90 | 1 | 2 | MIDDAY PEAK |
| 3 | 1–5 | 1430 | 90 | 1 | 3 | PM PEAK |
| 4 | 1–5 | 1830 | 80 | 1 | 4 | PM OFF PEAK |
| 5 | 6–7 | 0000 | 80 | 1 | 5 | WEEKEND AM PEAK |
| 6 | 6–7 | 0930 | 90 | 1 | 6 | WEEKEND MIDDAY PEAK |
| 7 | 6–7 | 1700 | 80 | 1 | 7 | WEEKEND PM PEAK |

MONDAY = DAY 1
OFFSET IN SECONDS
OFFSET REFERENCED TO START AT GREEN

WEEKLY PROGRAM CHART
FOR INTERSECTIONS 28–30

| EVENT | DAY | TIME | CYCLE | OFFSET | PROGRAM | REMARKS |
|---|---|---|---|---|---|---|
| 1 | 1–5 | 0615 | 90 | 1 | 1 | AM PEAK |
| 2 | 1–5 | 0930 | 90 | 1 | 2 | MIDDAY PEAK |
| 3 | 1–5 | 1430 | 90 | 1 | 3 | PM PEAK |
| 4 | 1–5 | 1830 | 80 | 1 | 4 | PM OFF PEAK |
| 5 | 1–5 | 2100 | – | – | MAX 1 | FREE |
| 6 | 6–7 | 0730 | 80 | 1 | 5 | WEEKEND AM PEAK |
| 7 | 6–7 | 1700 | 80 | 1 | 7 | WEEKEND PM PEAK |
| 8 | 6–7 | 2100 | – | – | MAX 1 | FREE |

MONDAY = DAY 1
OFFSET IN SECONDS
OFFSET REFERENCED TO START AT GREEN

WEEKLY PROGRAM CHART
FOR INTERSECTION 1

| EVENT | DAY | TIME | CYCLE | OFFSET | PROGRAM | REMARKS |
|---|---|---|---|---|---|---|
| 1 | 1–5 | 0615 | 90 | 1 | 1 | AM PEAK |
| 2 | 1–5 | 0930 | 90 | 1 | 2 | MIDDAY PEAK |
| 3 | 1–5 | 1430 | 90 | 1 | 3 | PM PEAK |
| 4 | 1–5 | 1830 | 80 | 1 | 4 | PM OFF PEAK |
| 5 | 1–5 | 2100 | – | – | MAX 1 | FREE |
| 6 | 6–7 | 0730 | 80 | 1 | 5 | WEEKEND AM PEAK |
| 7 | 6–7 | 0930 | 90 | 1 | 6 | WEEKEND MIDDAY PEAK |
| 8 | 6–7 | 1700 | 80 | 1 | 7 | WEEKEND PM PEAK |
| 9 | 6–7 | 1900 | – | – | MAX 1 | FREE |

MONDAY = DAY 1
OFFSET IN SECONDS
OFFSET REFERENCED TO START AT GREEN

LEGEND
④ INTERSECTION NUMBER
AREA OF DETECTION
LOOP DETECTOR
1–1 INTERSECTION NUMBER/ DETECTOR NUMBER
ϕ2 PHASE NUMBER
ITS RADIO CONNECTION

NOT TO SCALE

| DISTRICT | COUNTY | ROUTE | SECTION | SHEET |
|---|---|---|---|---|
| 6-0 | CHESTER | | SIP | 20 OF 21 |
| WEST CHESTER BOROUGH | | | | |

| REVISION NUMBER | REVISIONS | DATE | BY |
|---|---|---|---|
| | | | |
| | | | |

## GENERAL NOTES

NO MODIFICATIONS OF THIS INSTALLATION ARE PERMITTED UNLESS PRIOR APPROVAL IS GRANTED IN WRITING BY A REPRESENTATIVE OF THE DEPARTMENT OF TRANSPORTATION.

REFER TO TRAFFIC SIGNAL PERMIT DRAWING FOR INDIVIDUAL INTERSECTION OPERATION, GEOMETRY, PHASING AND CRITICAL TIMES.

FOR CONSTRUCTION AND INSPECTION THE SYSTEM PERMIT SHOULD ALWAYS BE ACCOMPANIED WITH TRAFFIC SIGNAL PERMIT DRAWING.

TEST THE SYSTEM AT LOCAL INTERSECTION LEVEL, SUBSYSTEM LEVEL MASTER CONTROLLER LEVEL AND PERSONAL COMPUTER REMOTE DIAL UP LEVEL.

GATHER THE SYSTEM FAILURE CRITICAL ALARMS REPORT AND ARCHIVE THEM WHERE APPLICABLE.

SET UP PENNDOT DISTRICT 6–0 COMPUTER WITH THE SYSTEM DATABASE AND GRAPHICS. MODIFY THE DATABASE AND GRAPHICS FOR SYSTEMS REVISIONS.

ASSIGN LOOP DETECTORS AND PROGRAM THE CONTROLLERS TO GATHER TRAFFIC VOLUMES IN 15 MINUTE INTERVAL, WHERE APPLICABLE.

EXACT LOCATION OF DETECTORS SHALL BE DETERMINED PRIOR TO INSTALLATION BY A REPRESENTATIVE OF PENNDOT.

OBTAIN POLE ATTACHMENT PERMIT FOR AERIAL FIBER OPTIC INSTALLATION.

MAINTAIN MASTER CONTROLLER COMMUNICATION SUCH AS PHONE DROPS.

PRIOR TO INSTALLATION THE CONTRACTOR SHALL CONSULT WITH THE LOCAL OFFICIALS AND UTILITY COMPANIES TO RESOLVE ANY PROBLEMS WHICH MAY BE CREATED DUE TO THE LOCATION OF UTILITIES.

THIS DRAWING CANNOT BE USED AS A CONSTRUCTION DRAWING UNLESS THE PERMITTEE COMPLIES WITH THE PROVISIONS OF THE LATEST AMENDMENT TO ACT 287, PREVENTION OF DAMAGE TO UNDERGROUND UTILITES, DATED DECEMBER 20, 1974.

WHEN LIQUID FUELS MONEY IS USED, SIGNAL INSTALLATION MUST CONFORM TO FORM 408 AND A COPY OF THE PROPOSED SPECIFICATIONS MUST BE SUBMITTED TO THE DISTRICT TRAFFIC UNIT FOR REVIEW PRIOR TO BIDDING.

PERMITTEE SHALL OBTAIN A HIGHWAY OCCUPANCY PERMIT FOR ANY CHANGES IN INTERSECTION GEOMETRY REGARDING EXCAVATION.

CONDUIT INSTALLED IN BITUMINOUS ROADWAY LESS THAN 5 YEARS OLD, OR CONCRETE ROADWAY REGARDLESS OF AGE, MUST BE BORED OR JACKED UNDER THE ROADWAY. INSTALL IN ACCORDANCE WITH TRAFFIC SIGNAL STANDARDS TC–8800 SERIES.

SYSTEM PERMIT # I-0056, I-0057, I-0058

COUNTY: CHESTER

MUNICIPALITY: WEST CHESTER BOROUGH

INTERSECTION: TRAFFIC SIGNAL SYSTEM

PREPARED BY:
KMJ CONSULTING, INC.
120 E LANCASTER AVE, SUITE 105
ARDMORE, PA 19003

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
MARTIN S. WILLIAMS
ENGINEER
PE085649

Digitally signed by Martin S. Williams
DN: C=US, E=mwilliams@kmjconsultants.com, O=KMJ Consulting, Inc., CN=Martin S. Williams
Date: 2024.01.24 13:25:45-05'00'

REVIEWED:

1/25/2024
MUNICIPAL OFFICIAL DATE

RECOMMENDED: Margo Wolfgang Digitally signed by Margo Wolfgang Date: 2024.01.26 08:41:12 -05'00'

Kevin P. Lewis, P.E. Digitally signed by Kevin P. Lewis, P.E. Date: 2024.01.26 11:30:00 -05'00'

ADE - TRANSPORTATION OPERATIONS DATE

CYCLE/SPLIT/OFFSET

Program 2 = MIDDAY PEAK

| | Intersections | File # | MASTER | Phase 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | Cycle | Offsets 1 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 30 | HANNUM & STRASBURG | 2746 | 4 | 15(LEAD) | 43 | | 32 | | 58 | | 32 | 90 | 34 |
| 29 | STRASBURG & BRADFORD | 2756 | 4 | 14(LEAD) | 42 | | 34 | | 56 | | 34 | 90 | 75 |
| 28 | DOWNINGTOWN & SHOPPING CENTER | 2739 | 4 | 15(LEAD) | 45 | | 30 | | 60 | | | 90 | 35 |
| 27 | GAY & WALNUT | 1162 | 3 | | 65 | | 25 | | | | 25 | 90 | 88 |
| 26 | GAY & HIGH | 1168 | 3 | 11(LEAD) | 28 | 28 | 23(PED) | | 39 | | | 90 | 0 |
| 25 | GAY & BOLMAR | 1710 | 3 | | 55 | | 35 | | | | | 90 | 30 |
| 24 | GAY & ADAMS | 2084 | 3 | | 58 | | 32 | | | | 32 | 90 | 43 |
| 23 | GAY & MATLACK | 1163 | 3 | 23 | 42 | | 25 | | 65 | | | 90 | 68 |
| 22 | HIGH & ROSEDALE | 1157 | 2 | | 59 | | 31 | | 59 | | 31 | 90 | 54 |
| 21 | HIGH & LINDEN | 1167 | 2 | | 64 | | 26 | | 64 | | | 90 | 36 |
| 32 | HIGH & UNIVERSITY | 4055 | 2 | | 64 | | 26 | | 64 | | | 90 | 0 |
| 31 | HIGH & SHARPLESS | 4054 | 2 | | 64 | | 26 | | 64 | | | 90 | 51 |
| 20 | HIGH & PRICE | 1166 | 2 | 13(LEAD) | 42 | | 35 | | 55 | | | 90 | 36 |
| 19 | HIGH & UNION | 2444 | 2 | | 57 | | 33 | | 57 | | | 90 | 33 |
| 18 | HIGH & MINER | 1160 | 2 | | 60 | | 30 | | 60 | | | 90 | 88 |
| 17 | MARKET & WESTTOWN | 0476 | 2 | | 58 | | 32 | | 58 | | 32 | 90 | 34 |
| 16 | MARKET & BOLMAR | 1452 | 2 | | 55 | | 35 | | | | | 90 | 22 |
| 15 | MARKET & WORTHINGTON | 1451 | 2 | | 47 | 27(SPLIT) | 16(SPLIT) | | 47 | | 43 | 90 | 20 |
| 14 | MARKET & ADAMS | 2370 | 2 | | 50 | | 40 | | 50 | | 40 | 90 | 2 |
| 13 | MARKET & MATLACK | 0232 | 2 | | 50 | | 40 | | | | | 90 | 74 |
| 12 | MARKET & WALNUT | 0231 | 2 | | 55 | | 35 | | 55 | | 35 | 90 | 60 |
| 11 | MARKET & HIGH | 1161 | 2 | 23(PED) | 27 | 11(LEAD) | 29 | | 50 | | 40 | 90 | 0 |
| 10 | MARKET & CHURCH | 1165 | 2 | | 55 | | 35 | | 55 | | | 90 | 30 |
| 9 | MARKET & DARLINGTON | 0293 | 2 | | 50 | | 40 | | 50 | | | 90 | 22 |
| 8 | MARKET & NEW | 1881 | 2 | | 53 | | 37 | | 53 | | | 90 | 20 |
| 7 | HIGH & MARSHALL | 1159 | 1 | | 54 | | 36 | | 54 | | 36 | 90 | 50 |
| 6 | CHESTNUT & MATLACK | 2011 | 1 | | 38 | 32 | 20 | | 38 | 25 | 27 | 90 | 24 |
| 5 | CHESTNUT & WALNUT | 1792 | 1 | | 60 | | 30 | | | | 30 | 90 | 24 |
| 4 | CHESTNUT & HIGH | 1164 | 1 | | 52 | | 38 | | 52 | | | 90 | 0 |
| 3 | CHESTNUT & CHURCH | 2010 | 1 | | 60 | | 30 | | 60 | | | 90 | 43 |
| 2 | CHESTNUT & DARLINGTON | 2009 | 1 | | 60 | | 30 | | 60 | | | 90 | 53 |
| 1 | CHESTNUT & HANNUM/WAYNE | 2008 | 1 | 30 | 33 | | 27 | | 33 | | 27 | 90 | 7 |

CYCLE/SPLIT/OFFSET

Program 3 = PM PEAK

| | Intersections | File # | MASTER | Phase 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | Cycle | Offsets 1 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 30 | HANNUM & STRASBURG | 2746 | 4 | 24(LEAD) | 35 | | 31 | | 59 | | 31 | 90 | 50 |
| 29 | STRASBURG & BRADFORD | 2756 | 4 | 14(LEAD) | 38 | | 38 | | 52 | | 38 | 90 | 83 |
| 28 | DOWNINGTOWN & SHOPPING CENTER | 2739 | 4 | 18(LEAD) | 42 | | 30 | | 60 | | | 90 | 30 |
| 27 | GAY & WALNUT | 1162 | 3 | | 59 | | 31 | | | | 31 | 90 | 23 |
| 26 | GAY & HIGH | 1168 | 3 | 11(LEAD) | 28 | 28 | 23(PED) | | 39 | | | 90 | 89 |
| 25 | GAY & BOLMAR | 1710 | 3 | | 55 | | 35 | | | | | 90 | 48 |
| 24 | GAY & ADAMS | 2084 | 3 | | 55 | | 35 | | | | 35 | 90 | 56 |
| 23 | GAY & MATLACK | 1163 | 3 | 23 | 42 | | 25 | | 65 | | | 90 | 74 |
| 22 | HIGH & ROSEDALE | 1157 | 2 | | 60 | | 30 | | 60 | | 30 | 90 | 54 |
| 21 | HIGH & LINDEN | 1167 | 2 | | 60 | | 30 | | 60 | | | 90 | 40 |
| 32 | HIGH & UNIVERSITY | 4055 | 2 | | 60 | | 30 | | 60 | | | 90 | 33 |
| 31 | HIGH & SHARPLESS | 4054 | 2 | | 60 | | 30 | | 60 | | | 90 | 42 |
| 20 | HIGH & PRICE | 1166 | 2 | 16(LEAD) | 44 | | 30 | | 60 | | | 90 | 36 |
| 19 | HIGH & UNION | 2444 | 2 | | 52 | | 38 | | 52 | | | 90 | 33 |
| 18 | HIGH & MINER | 1160 | 2 | | 58 | | 32 | | 58 | | | 90 | 79 |
| 17 | MARKET & WESTTOWN | 0476 | 2 | | 58 | | 32 | | 58 | | 32 | 90 | 31 |
| 16 | MARKET & BOLMAR | 1452 | 2 | | 55 | | 35 | | | | | 90 | 21 |
| 15 | MARKET & WORTHINGTON | 1451 | 2 | | 48 | 26(SPLIT) | 16(SPLIT) | | 48 | | 42 | 90 | 18 |
| 14 | MARKET & ADAMS | 2370 | 2 | | 45 | | 45 | | 45 | | 45 | 90 | 3 |
| 13 | MARKET & MATLACK | 0232 | 2 | | 50 | | 40 | | | | | 90 | 74 |
| 12 | MARKET & WALNUT | 0231 | 2 | | 55 | | 35 | | 55 | | 35 | 90 | 59 |
| 11 | MARKET & HIGH | 1161 | 2 | 23(PED) | 29 | 11(LEAD) | 27 | | 52 | | 38 | 90 | 0 |
| 10 | MARKET & CHURCH | 1165 | 2 | | 55 | | 35 | | 55 | | | 90 | 32 |
| 9 | MARKET & DARLINGTON | 0293 | 2 | | 50 | | 40 | | 50 | | | 90 | 23 |
| 8 | MARKET & NEW | 1881 | 2 | | 52 | | 38 | | 52 | | | 90 | 9 |
| 7 | HIGH & MARSHALL | 1159 | 1 | | 53 | | 37 | | 53 | | 37 | 90 | 44 |
| 6 | CHESTNUT & MATLACK | 2011 | 1 | | 40 | 30 | 20 | | 40 | 25 | 25 | 90 | 27 |
| 5 | CHESTNUT & WALNUT | 1792 | 1 | | 60 | | 30 | | | | 30 | 90 | 32 |
| 4 | CHESTNUT & HIGH | 1164 | 1 | | 43 | | 47 | | 43 | | | 90 | 3 |
| 3 | CHESTNUT & CHURCH | 2010 | 1 | | 60 | | 30 | | 60 | | | 90 | 46 |
| 2 | CHESTNUT & DARLINGTON | 2009 | 1 | | 60 | | 30 | | 60 | | | 90 | 56 |
| 1 | CHESTNUT & HANNUM/WAYNE | 2008 | 1 | 26 | 37 | | 27 | | 37 | | 27 | 90 | 10 |

CYCLE/SPLIT/OFFSET

Program 4 = PM OFF PEAK

| | Intersections | File # | MASTER | Phase 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | Cycle | Offsets 1 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 30 | HANNUM & STRASBURG | 2746 | 4 | 15(LEAD) | 37 | | 28 | | 52 | | 28 | 80 | 34 |
| 29 | STRASBURG & BRADFORD | 2756 | 4 | 12(LEAD) | 37 | | 31 | | 49 | | 31 | 80 | 65 |
| 28 | DOWNINGTOWN & SHOPPING CENTER | 2739 | 4 | 14(LEAD) | 36 | | 30 | | 50 | | | 80 | 22 |
| 27 | GAY & WALNUT | 1162 | 3 | | 55 | | 25 | | | | 25 | 80 | 76 |
| 26 | GAY & HIGH | 1168 | 3 | 11(LEAD) | 23 | 23 | 23(PED) | | 34 | | | 80 | 3 |
| 25 | GAY & BOLMAR | 1710 | 3 | | 48 | | 32 | | | | | 80 | 18 |
| 24 | GAY & ADAMS | 2084 | 3 | | 48 | | 32 | | | | 32 | 80 | 29 |
| 23 | GAY & MATLACK | 1163 | 3 | 23 | 32 | | 25 | | 55 | | | 80 | 52 |
| 22 | HIGH & ROSEDALE | 1157 | 2 | | 52 | | 28 | | 52 | | 28 | 80 | 36 |
| 21 | HIGH & LINDEN | 1167 | 2 | | 50 | | 30 | | 50 | | | 80 | 50 |
| 32 | HIGH & UNIVERSITY | 4055 | 2 | | 50 | | 30 | | 50 | | | 80 | 0 |
| 31 | HIGH & SHARPLESS | 4054 | 2 | | 50 | | 30 | | 50 | | | 80 | 39 |
| 20 | HIGH & PRICE | 1166 | 2 | 13(LEAD) | 37 | | 30 | | 50 | | | 80 | 39 |
| 19 | HIGH & UNION | 2444 | 2 | | 50 | | 30 | | 50 | | | 80 | 31 |
| 18 | HIGH & MINER | 1160 | 2 | | 50 | | 30 | | 50 | | | 80 | 78 |
| 17 | MARKET & WESTTOWN | 0476 | 2 | | 49 | | 31 | | 49 | | 31 | 80 | 42 |
| 16 | MARKET & BOLMAR | 1452 | 2 | | 48 | | 32 | | | | | 80 | 26 |
| 15 | MARKET & WORTHINGTON | 1451 | 2 | | 40 | 24(SPLIT) | 16(SPLIT) | | 40 | | 40 | 80 | 25 |
| 14 | MARKET & ADAMS | 2370 | 2 | | 42 | | 38 | | 42 | | 38 | 80 | 8 |
| 13 | MARKET & MATLACK | 0232 | 2 | | 45 | | 35 | | | | | 80 | 69 |
| 12 | MARKET & WALNUT | 0231 | 2 | | 45 | | 35 | | 45 | | 35 | 80 | 59 |
| 11 | MARKET & HIGH | 1161 | 2 | 23(PED) | 22 | 11(LEAD) | 24 | | 45 | | 35 | 80 | 0 |
| 10 | MARKET & CHURCH | 1165 | 2 | | 45 | | 35 | | 45 | | | 80 | 31 |
| 9 | MARKET & DARLINGTON | 0293 | 2 | | 45 | | 35 | | 45 | | | 80 | 19 |
| 8 | MARKET & NEW | 1881 | 2 | | 49 | | 31 | | 49 | | | 80 | 19 |
| 7 | HIGH & MARSHALL | 1159 | 1 | | | | | | | | | FREE (MAX 1) | |
| 6 | CHESTNUT & MATLACK | 2011 | 1 | | 35 | 25 | 20 | | 35 | 25 | 20 | 80 | 19 |
| 5 | CHESTNUT & WALNUT | 1792 | 1 | | 50 | | 30 | | | | 30 | 80 | 33 |
| 4 | CHESTNUT & HIGH | 1164 | 1 | | 44 | | 36 | | 44 | | | 80 | 4 |
| 3 | CHESTNUT & CHURCH | 2010 | 1 | | 50 | | 30 | | 50 | | | 80 | 46 |
| 2 | CHESTNUT & DARLINGTON | 2009 | 1 | | 50 | | 30 | | 50 | | | 80 | 55 |
| 1 | CHESTNUT & HANNUM/WAYNE | 2008 | 1 | 25 | 30 | | 25 | | 30 | | 25 | 80 | 18 |

CYCLE/SPLIT/OFFSET

Program 5 = WEEKEND AM PEAK

| | Intersections | File # | MASTER | Phase 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | Cycle | Offsets 1 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 30 | HANNUM & STRASBURG | 2746 | 4 | 15(LEAD) | 37 | | 28 | | 52 | | 28 | 80 | 34 |
| 29 | STRASBURG & BRADFORD | 2756 | 4 | 12(LEAD) | 37 | | 31 | | 49 | | 31 | 80 | 65 |
| 28 | DOWNINGTOWN & SHOPPING CENTER | 2739 | 4 | 14(LEAD) | 36 | | 30 | | 50 | | | 80 | 22 |
| 27 | GAY & WALNUT | 1162 | 3 | | 55 | | 25 | | | | 25 | 80 | 76 |
| 26 | GAY & HIGH | 1168 | 3 | 11(LEAD) | 23 | 23 | 23(PED) | | 34 | | | 80 | 3 |
| 25 | GAY & BOLMAR | 1710 | 3 | | 48 | | 32 | | | | | 80 | 18 |
| 24 | GAY & ADAMS | 2084 | 3 | | 48 | | 32 | | | | 32 | 80 | 29 |
| 23 | GAY & MATLACK | 1163 | 3 | 23 | 32 | | 25 | | 55 | | | 80 | 52 |
| 22 | HIGH & ROSEDALE | 1157 | 2 | | 48 | | 32 | | 48 | | 32 | 80 | 0 |
| 21 | HIGH & LINDEN | 1167 | 2 | | 50 | | 30 | | 50 | | | 80 | 61 |
| 32 | HIGH & UNIVERSITY | 4055 | 2 | | 50 | | 30 | | 50 | | | 80 | 0 |
| 31 | HIGH & SHARPLESS | 4054 | 2 | | 50 | | 30 | | 50 | | | 80 | 42 |
| 20 | HIGH & PRICE | 1166 | 2 | 13(LEAD) | 37 | | 30 | | 50 | | | 80 | 39 |
| 19 | HIGH & UNION | 2444 | 2 | | 50 | | 30 | | 50 | | | 80 | 31 |
| 18 | HIGH & MINER | 1160 | 2 | | 50 | | 30 | | 50 | | | 80 | 78 |
| 17 | MARKET & WESTTOWN | 0476 | 2 | | 49 | | 31 | | 49 | | 31 | 80 | 42 |
| 16 | MARKET & BOLMAR | 1452 | 2 | | 48 | | 32 | | | | | 80 | 26 |
| 15 | MARKET & WORTHINGTON | 1451 | 2 | | 40 | 24(SPLIT) | 16(SPLIT) | | 40 | | 40 | 80 | 25 |
| 14 | MARKET & ADAMS | 2370 | 2 | | 42 | | 38 | | 42 | | 38 | 80 | 8 |
| 13 | MARKET & MATLACK | 0232 | 2 | | 45 | | 35 | | | | | 80 | 69 |
| 12 | MARKET & WALNUT | 0231 | 2 | | 45 | | 35 | | 45 | | 35 | 80 | 59 |
| 11 | MARKET & HIGH | 1161 | 2 | 23(PED) | 24 | 11(LEAD) | 22 | | 47 | | 33 | 80 | 0 |
| 10 | MARKET & CHURCH | 1165 | 2 | | 45 | | 35 | | 45 | | | 80 | 31 |
| 9 | MARKET & DARLINGTON | 0293 | 2 | | 45 | | 35 | | 45 | | | 80 | 19 |
| 8 | MARKET & NEW | 1881 | 2 | | 47 | | 33 | | 47 | | | 80 | 19 |
| 7 | HIGH & MARSHALL | 1159 | 1 | | | | | | | | | FREE (MAX 1) | |
| 6 | CHESTNUT & MATLACK | 2011 | 1 | | 35 | 25 | 20 | | 35 | 25 | 20 | 80 | 19 |
| 5 | CHESTNUT & WALNUT | 1792 | 1 | | 50 | | 30 | | | | 30 | 80 | 33 |
| 4 | CHESTNUT & HIGH | 1164 | 1 | | 44 | | 36 | | 44 | | | 80 | 4 |
| 3 | CHESTNUT & CHURCH | 2010 | 1 | | 50 | | 30 | | 50 | | | 80 | 46 |
| 2 | CHESTNUT & DARLINGTON | 2009 | 1 | | 50 | | 30 | | 50 | | | 80 | 55 |
| 1 | CHESTNUT & HANNUM/WAYNE | 2008 | 1 | 25 | 30 | | 25 | | 30 | | 25 | 80 | 18 |

CYCLE/SPLIT/OFFSET

Program 6 = WEEKEND MIDDAY PEAK

| | Intersections | File # | MASTER | Phase 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | Cycle | Offsets 1 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 30 | HANNUM & STRASBURG | 2746 | 4 | 15(LEAD) | 43 | | 32 | | 58 | | 32 | 90 | 34 |
| 29 | STRASBURG & BRADFORD | 2756 | 4 | 14(LEAD) | 41 | | 35 | | 55 | | 35 | 90 | 75 |
| 28 | DOWNINGTOWN & SHOPPING CENTER | 2739 | 4 | 15(LEAD) | 45 | | 30 | | 60 | | | 90 | 35 |
| 27 | GAY & WALNUT | 1162 | 3 | | 65 | | 25 | | | | 25 | 90 | 88 |
| 26 | GAY & HIGH | 1168 | 3 | 11(LEAD) | 28 | 28 | 23(PED) | | 39 | | | 90 | 0 |
| 25 | GAY & BOLMAR | 1710 | 3 | | 55 | | 35 | | | | | 90 | 30 |
| 24 | GAY & ADAMS | 2084 | 3 | | 58 | | 32 | | | | 32 | 90 | 41 |
| 23 | GAY & MATLACK | 1163 | 3 | 23 | 42 | | 25 | | 65 | | | 90 | 62 |
| 22 | HIGH & ROSEDALE | 1157 | 2 | | 62 | | 28 | | 62 | | 28 | 90 | 49 |
| 21 | HIGH & LINDEN | 1167 | 2 | | 60 | | 30 | | 60 | | | 90 | 40 |
| 32 | HIGH & UNIVERSITY | 4055 | 2 | | 60 | | 30 | | 60 | | | 90 | 0 |
| 31 | HIGH & SHARPLESS | 4054 | 2 | | 60 | | 30 | | 60 | | | 90 | 47 |
| 20 | HIGH & PRICE | 1166 | 2 | 13(LEAD) | 47 | | 30 | | 60 | | | 90 | 29 |
| 19 | HIGH & UNION | 2444 | 2 | | 57 | | 33 | | 57 | | | 90 | 33 |
| 18 | HIGH & MINER | 1160 | 2 | | 60 | | 30 | | 60 | | | 90 | 88 |
| 17 | MARKET & WESTTOWN | 0476 | 2 | | 58 | | 32 | | 58 | | 32 | 90 | 35 |
| 16 | MARKET & BOLMAR | 1452 | 2 | | 55 | | 35 | | | | | 90 | 22 |
| 15 | MARKET & WORTHINGTON | 1451 | 2 | | 48 | 26(SPLIT) | 16(SPLIT) | | 48 | | 42 | 90 | 20 |
| 14 | MARKET & ADAMS | 2370 | 2 | | 45 | | 45 | | 45 | | 45 | 90 | 7 |
| 13 | MARKET & MATLACK | 0232 | 2 | | 50 | | 40 | | | | | 90 | 74 |
| 12 | MARKET & WALNUT | 0231 | 2 | | 55 | | 35 | | 55 | | 35 | 90 | 60 |
| 11 | MARKET & HIGH | 1161 | 2 | 23(PED) | 29 | 11(LEAD) | 27 | | 52 | | 38 | 90 | 0 |
| 10 | MARKET & CHURCH | 1165 | 2 | | 55 | | 35 | | 55 | | | 90 | 30 |
| 9 | MARKET & DARLINGTON | 0293 | 2 | | 50 | | 40 | | 50 | | | 90 | 21 |
| 8 | MARKET & NEW | 1881 | 2 | | 53 | | 37 | | 53 | | | 90 | 19 |
| 7 | HIGH & MARSHALL | 1159 | 1 | | 54 | | 36 | | 54 | | 36 | 90 | 50 |
| 6 | CHESTNUT & MATLACK | 2011 | 1 | | 38 | 32 | 20 | | 38 | 25 | 27 | 90 | 24 |
| 5 | CHESTNUT & WALNUT | 1792 | 1 | | 60 | | 30 | | | | 30 | 90 | 24 |
| 4 | CHESTNUT & HIGH | 1164 | 1 | | 52 | | 38 | | 52 | | | 90 | 0 |
| 3 | CHESTNUT & CHURCH | 2010 | 1 | | 60 | | 30 | | 60 | | | 90 | 44 |
| 2 | CHESTNUT & DARLINGTON | 2009 | 1 | | 60 | | 30 | | 60 | | | 90 | 53 |
| 1 | CHESTNUT & HANNUM/WAYNE | 2008 | 1 | 30 | 35 | | 25 | | 35 | | 25 | 90 | 4 |

CYCLE/SPLIT/OFFSET

Program 7 = WEEKEND PM PEAK

| | Intersections | File # | MASTER | Phase 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | Cycle | Offsets 1 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 30 | HANNUM & STRASBURG | 2746 | 4 | 15(LEAD) | 37 | | 28 | | 52 | | 28 | 80 | 34 |
| 29 | STRASBURG & BRADFORD | 2756 | 4 | 12(LEAD) | 37 | | 31 | | 49 | | 31 | 80 | 65 |
| 28 | DOWNINGTOWN & SHOPPING CENTER | 2739 | 4 | 14(LEAD) | 36 | | 30 | | 50 | | | 80 | 22 |
| 27 | GAY & WALNUT | 1162 | 3 | | 55 | | 25 | | | | 25 | 80 | 76 |
| 26 | GAY & HIGH | 1168 | 3 | 11(LEAD) | 23 | 23 | 23(PED) | | 34 | | | 80 | 3 |
| 25 | GAY & BOLMAR | 1710 | 3 | | 48 | | 32 | | | | | 80 | 18 |
| 24 | GAY & ADAMS | 2084 | 3 | | 48 | | 32 | | | | 32 | 80 | 29 |
| 23 | GAY & MATLACK | 1163 | 3 | 23 | 32 | | 25 | | 55 | | | 80 | 52 |
| 22 | HIGH & ROSEDALE | 1157 | 2 | | 52 | | 28 | | 52 | | 28 | 80 | 12 |
| 21 | HIGH & LINDEN | 1167 | 2 | | 50 | | 30 | | 50 | | | 80 | 1 |
| 32 | HIGH & UNIVERSITY | 4055 | 2 | | 50 | | 30 | | 50 | | | 80 | 0 |
| 31 | HIGH & SHARPLESS | 4054 | 2 | | 50 | | 30 | | 50 | | | 80 | 47 |
| 20 | HIGH & PRICE | 1166 | 2 | 13(LEAD) | 37 | | 30 | | 50 | | | 80 | 39 |
| 19 | HIGH & UNION | 2444 | 2 | | 50 | | 30 | | 50 | | | 80 | 31 |
| 18 | HIGH & MINER | 1160 | 2 | | 50 | | 30 | | 50 | | | 80 | 78 |
| 17 | MARKET & WESTTOWN | 0476 | 2 | | 49 | | 31 | | 49 | | 31 | 80 | 42 |
| 16 | MARKET & BOLMAR | 1452 | 2 | | 48 | | 32 | | | | | 80 | 26 |
| 15 | MARKET & WORTHINGTON | 1451 | 2 | | 40 | 24(SPLIT) | 16(SPLIT) | | 40 | | 40 | 80 | 25 |
| 14 | MARKET & ADAMS | 2370 | 2 | | 42 | | 38 | | 42 | | 38 | 80 | 8 |
| 13 | MARKET & MATLACK | 0232 | 2 | | 45 | | 35 | | | | | 80 | 69 |
| 12 | MARKET & WALNUT | 0231 | 2 | | 45 | | 35 | | 45 | | 35 | 80 | 59 |
| 11 | MARKET & HIGH | 1161 | 2 | 23(PED) | 24 | 11(LEAD) | 22 | | 47 | | 33 | 80 | 0 |
| 10 | MARKET & CHURCH | 1165 | 2 | | 45 | | 35 | | 45 | | | 80 | 31 |
| 9 | MARKET & DARLINGTON | 0293 | 2 | | 45 | | 35 | | 45 | | | 80 | 19 |
| 8 | MARKET & NEW | 1881 | 2 | | 47 | | 33 | | 47 | | | 80 | 19 |
| 7 | HIGH & MARSHALL | 1159 | 1 | | | | | | | | | FREE (MAX 1) | |
| 6 | CHESTNUT & MATLACK | 2011 | 1 | | 35 | 25 | 20 | | 35 | 25 | 20 | 80 | 19 |
| 5 | CHESTNUT & WALNUT | 1792 | 1 | | 50 | | 30 | | | | 30 | 80 | 33 |
| 4 | CHESTNUT & HIGH | 1164 | 1 | | 44 | | 36 | | 44 | | | 80 | 4 |
| 3 | CHESTNUT & CHURCH | 2010 | 1 | | 50 | | 30 | | 50 | | | 80 | 46 |
| 2 | CHESTNUT & DARLINGTON | 2009 | 1 | | 50 | | 30 | | 50 | | | 80 | 55 |
| 1 | CHESTNUT & HANNUM/WAYNE | 2008 | 1 | 25 | 30 | | 25 | | 30 | | 25 | 80 | 18 |

Notes: – ALL SPLIT TIMES INCLUDE YELLOW AND RED TIMES FOR A GIVEN PHASE.
– REFER TO SIGNAL PERMIT PLAN FOR MAX 1, MAX 2, CLEARANCE AND PED TIMES.

| DISTRICT | COUNTY | ROUTE | SECTION | SHEET |
|---|---|---|---|---|
| 6-0 | CHESTER | | SIP | 21 OF 21 |

WEST CHESTER BOROUGH

| REVISION NUMBER | REVISIONS | DATE | BY |
|---|---|---|---|
| | | | |
| | | | |

# GENERAL NOTES

NO MODIFICATIONS OF THIS INSTALLATION ARE PERMITTED UNLESS PRIOR APPROVAL IS GRANTED IN WRITING BY A REPRESENTATIVE OF THE DEPARTMENT OF TRANSPORTATION.

REFER TO TRAFFIC SIGNAL PERMIT DRAWING FOR INDIVIDUAL INTERSECTION OPERATION, GEOMETRY, PHASING AND CRITICAL TIMES.

FOR CONSTRUCTION AND INSPECTION THE SYSTEM PERMIT SHOULD ALWAYS BE ACCOMPANIED WITH TRAFFIC SIGNAL PERMIT DRAWING.

TEST THE SYSTEM AT LOCAL INTERSECTION LEVEL, SUBSYSTEM LEVEL MASTER CONTROLLER LEVEL AND PERSONAL COMPUTER REMOTE DIAL UP LEVEL.

GATHER THE SYSTEM FAILURE CRITICAL ALARMS REPORT AND ARCHIVE THEM WHERE APPLICABLE.

SET UP PENNDOT DISTRICT 6-0 COMPUTER WITH THE SYSTEM DATABASE AND GRAPHICS. MODIFY THE DATABASE AND GRAPHICS FOR SYSTEMS REVISIONS.

ASSIGN LOOP DETECTORS AND PROGRAM THE CONTROLLERS TO GATHER TRAFFIC VOLUMES IN 15 MINUTE INTERVAL, WHERE APPLICABLE.

EXACT LOCATION OF DETECTORS SHALL BE DETERMINED PRIOR TO INSTALLATION BY A REPRESENTATIVE OF PENNDOT.

OBTAIN POLE ATTACHMENT PERMIT FOR AERIAL FIBER OPTIC INSTALLATION.

MAINTAIN MASTER CONTROLLER COMMUNICATION SUCH AS PHONE DROPS.

PRIOR TO INSTALLATION THE CONTRACTOR SHALL CONSULT WITH THE LOCAL OFFICIALS AND UTILITY COMPANIES TO RESOLVE ANY PROBLEMS WHICH MAY BE CREATED DUE TO THE LOCATION OF UTILITIES.

THIS DRAWING CANNOT BE USED AS A CONSTRUCTION DRAWING UNLESS THE PERMITTEE COMPLIES WITH THE PROVISIONS OF THE LATEST AMENDMENT TO ACT 287, PREVENTION OF DAMAGE TO UNDERGROUND UTILITES, DATED DECEMBER 20, 1974.

WHEN LIQUID FUELS MONEY IS USED, SIGNAL INSTALLATION MUST CONFORM TO FORM 408 AND A COPY OF THE PROPOSED SPECIFICATIONS MUST BE SUBMITTED TO THE DISTRICT TRAFFIC UNIT FOR REVIEW PRIOR TO BIDDING.

PERMITTEE SHALL OBTAIN A HIGHWAY OCCUPANCY PERMIT FOR ANY CHANGES IN INTERSECTION GEOMETRY REGARDING EXCAVATION.

CONDUIT INSTALLED IN BITUMINOUS ROADWAY LESS THAN 5 YEARS OLD, OR CONCRETE ROADWAY REGARDLESS OF AGE, MUST BE BORED OR JACKED UNDER THE ROADWAY. INSTALL IN ACCORDANCE WITH TRAFFIC SIGNAL STANDARDS TC-8800 SERIES.

SYSTEM PERMIT # I-0056, I-0057, I-0058

COUNTY: CHESTER

MUNICIPALITY: WEST CHESTER BOROUGH

INTERSECTION: TRAFFIC SIGNAL SYSTEM

REVIEWED:

1/25/2024

MUNICIPAL OFFICIAL — DATE

RECOMMENDED: Margo Wolfgang Digitally signed by Margo Wolfgang Date: 2024.01.26 08:41:57 -05'00'

Kevin P. Lewis, P.E. Digitally signed by Kevin P. Lewis, P.E. Date: 2024.01.26 11:30:00 -05'00'

ADE - TRANSPORTATION OPERATIONS — DATE

PREPARED BY:
KMJ CONSULTING, INC.
120 E LANCASTER AVE, SUITE 105
ARDMORE, PA 19003

COMMONWEALTH OF PENNSYLVANIA — REGISTERED PROFESSIONAL — MARTIN S. WILLIAMS — ENGINEER PE085649

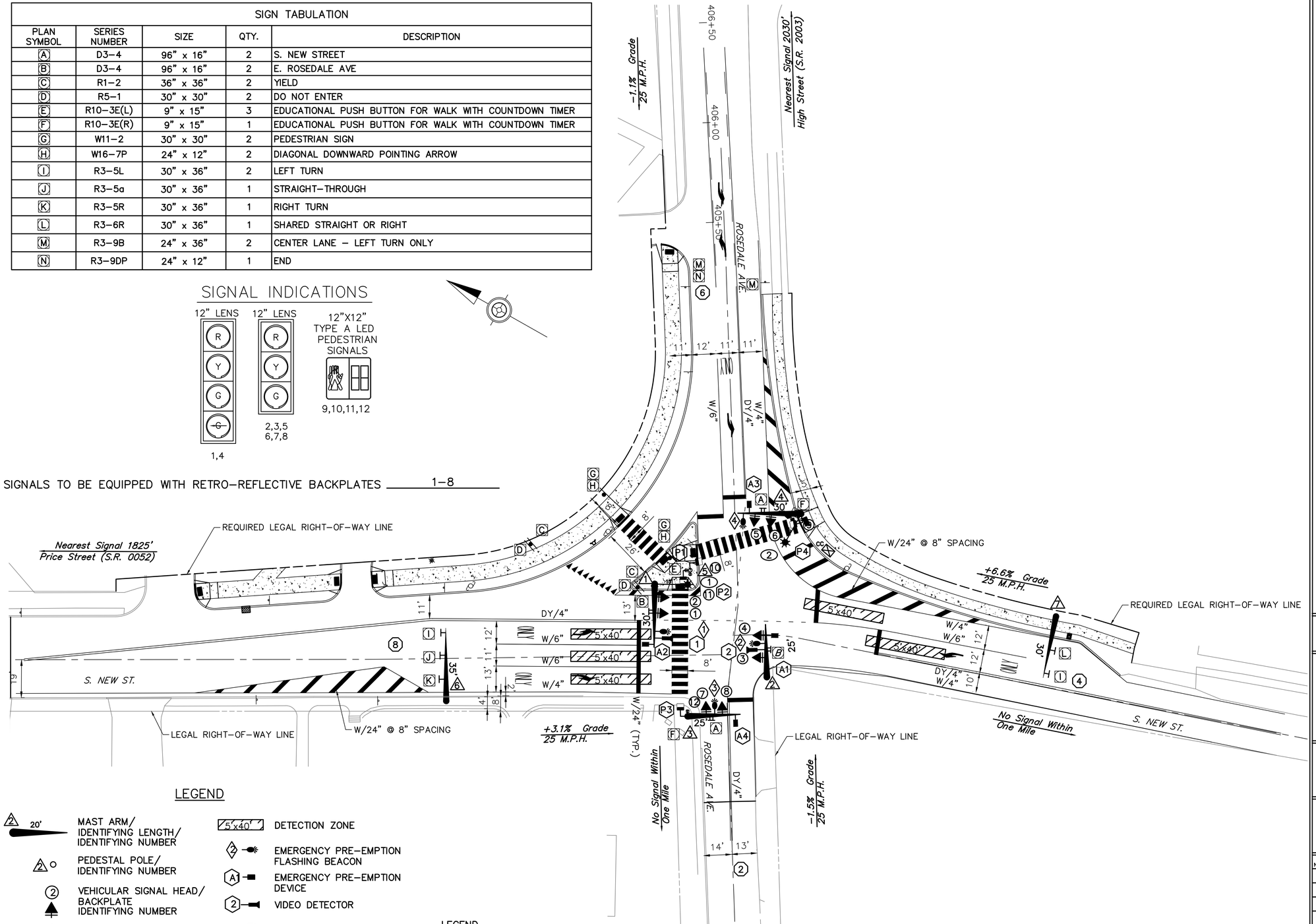
Martin S. Williams Digitally signed by Martin S. Williams DN: C=US, E=mswilliams@kmjcon.com, O=KMJ Consulting, Inc., CN=Martin S. Williams Date: 2024.01.24 15:29:04-05'00'

| SIGN TABULATION | | | | |
|---|---|---|---|---|
| PLAN SYMBOL | SERIES NUMBER | SIZE | QTY. | DESCRIPTION |
| A | D3–4 | 96" x 16" | 2 | S. NEW STREET |
| B | D3–4 | 96" x 16" | 2 | E. ROSEDALE AVE |
| C | R1–2 | 36" x 36" | 2 | YIELD |
| D | R5–1 | 30" x 30" | 2 | DO NOT ENTER |
| E | R10–3E(L) | 9" x 15" | 3 | EDUCATIONAL PUSH BUTTON FOR WALK WITH COUNTDOWN TIMER |
| F | R10–3E(R) | 9" x 15" | 1 | EDUCATIONAL PUSH BUTTON FOR WALK WITH COUNTDOWN TIMER |
| G | W11–2 | 30" x 30" | 2 | PEDESTRIAN SIGN |
| H | W16–7P | 24" x 12" | 2 | DIAGONAL DOWNWARD POINTING ARROW |
| I | R3–5L | 30" x 36" | 2 | LEFT TURN |
| J | R3–5a | 30" x 36" | 1 | STRAIGHT–THROUGH |
| K | R3–5R | 30" x 36" | 1 | RIGHT TURN |
| L | R3–6R | 30" x 36" | 1 | SHARED STRAIGHT OR RIGHT |
| M | R3–9B | 24" x 36" | 2 | CENTER LANE – LEFT TURN ONLY |
| N | R3–9DP | 24" x 12" | 1 | END |

## SIGNAL INDICATIONS




SIGNALS TO BE EQUIPPED WITH RETRO–REFLECTIVE BACKPLATES 1–8




## LEGEND

- MAST ARM/ IDENTIFYING LENGTH/ IDENTIFYING NUMBER
- PEDESTAL POLE/ IDENTIFYING NUMBER
- VEHICULAR SIGNAL HEAD/ BACKPLATE IDENTIFYING NUMBER
- PEDESTRIAN SIGNAL HEAD/ IDENTIFYING NUMBER
- PEDESTRIAN PUSHBUTTON/ SIGN/IDENTIFIER
- SIGNAL CABINET
- DETECTION ZONE
- EMERGENCY PRE–EMPTION FLASHING BEACON
- EMERGENCY PRE–EMPTION DEVICE
- VIDEO DETECTOR
- PHASE NUMBER
- SIGN/IDENTIFYING LETTER
- LUMINAIRE

LEGEND

*W/4" – EXISTING SOLID WHITE LINE, WIDTH*
*DY/4" – EXISTING SOLID DOUBLE YELLOW LINE, WIDTH*
W/4" – SOLID WHITE LINE, WIDTH
DY/4" – SOLID DOUBLE YELLOW LINE, WIDTH
*EXISTING POST MOUNTED SIGN*
PROPOSED POST MOUNTED SIGN

SCALE
25 FEET 0 25 FEET

# SIGNAL PERMIT PLAN

## GENERAL NOTES

NO MODIFICATIONS OF THIS INSTALLATION ARE PERMITTED UNLESS PRIOR APPROVAL IS GRANTED IN WRITING BY A REPRESENTATIVE OF THE DEPARTMENT OF TRANSPORTATION.

ALL MAINTENANCE WORK INCLUDING TRIMMING OF TREES, NECESSARY FOR PROPER VISIBILITY OF THE SIGNALS IS THE RESPONSIBILITY OF THE PERMITTEE.

ALL SIGNS AND PAVEMENT MARKINGS INDICATED ON THIS DRAWING ARE CONSIDERED PART OF THE PERMIT AND SHALL BE INSTALLED AND MAINTAINED IN ACCORDANCE WITH PUBLICATION NO. 212.

POST MOUNTED SIGNALS SHALL BE INSTALLED WITH THE SIGNAL HEADS A MINIMUM OF 2 FEET BEHIND THE FACE OF CURB OR THE EDGE OF THE SHOULDER. SUPPORT POLES FOR OVERHEAD SIGNALS SHALL ALSO HAVE A MINIMUM CLEARANCE HORIZONTALLY OF 2 FEET.

SIGNALS ERECTED OVER THE ROADWAY SHALL HAVE A MINIMUM VERTICAL CLEARANCE OF 16 FT. ABOVE THE ROADWAY. POST MOUNTED SIGNALS SHALL BE A MINIMUM OF 8 FT. ABOVE THE SIDEWALK OR PAVEMENT.

ALL OVERHEAD SIGNALS MUST BE RIGIDLY MOUNTED, TOP AND BOTTOM, AND EQUIPPED WITH BACKPLATES.

THE MINIMUM HORIZONTAL DISTANCE BETWEEN SIGNALS MEASURED AT RIGHT ANGLES TO THE APPROACH SHALL BE 8 FEET.

EXACT LOCATION OF DETECTORS SHALL BE DETERMINED PRIOR TO INSTALLATION BY A REPRESENTATIVE OF PENNDOT.

CURBING TO BE INSTALLED BY MUNICIPALITY AND WHERE NOTED, SHALL BE PLAIN CEMENT CONCRETE CURB OR GRANITE CURB, INSTALLED IN ACCORDANCE WITH DEPARTMENT SPECIFICATIONS FORM 408.

PRIOR TO INSTALLATION THE CONTRACTOR SHALL CONSULT WITH THE LOCAL OFFICIALS AND UTILITY COMPANIES TO RESOLVE ANY PROBLEMS WHICH MAY BE CREATED DUE TO THE LOCATION OF UTILITIES.

THIS DRAWING CANNOT BE USED AS A CONSTRUCTION DRAWING UNLESS THE PERMITTEE COMPLIES WITH THE PROVISIONS OF THE LATEST AMENDMENT TO ACT 287, PREVENTION OF DAMAGE TO UNDERGROUND UTILITIES, DATED DECEMBER 20, 1974.

WHEN LIQUID FUELS MONEY IS USED, SIGNAL INSTALLATION MUST CONFORM TO FORM 408 AND A COPY OF THE PROPOSED SPECIFICATIONS MUST BE SUBMITTED TO THE DISTRICT TRAFFIC UNIT, FOR REVIEW, PRIOR TO BIDDING.

PERMITTEE SHALL OBTAIN A HIGHWAY OCCUPANCY PERMIT FOR ANY CHANGES IN INTERSECTION GEOMETRY REGARDING EXCAVATION.

CONDUIT INSTALLED IN BITUMINOUS ROADWAY LESS THAN 5 YEARS OLD, OR CONCRETE ROADWAY REGARDLESS OF AGE, MUST BE BORED OR JACKED UNDER THE ROADWAY. INSTALL IN ACCORDANCE WITH TRAFFIC SIGNAL STANDARDS TC–8800 SERIES.

PENNSYLVANIA DEPARTMENT OF TRANSPORTATION
ENGINEERING DISTRICT 6–0

COUNTY: CHESTER
MUNICIPALITY: WEST CHESTER BOROUGH
INTERSECTION: SOUTH NEW STREET AND ROSEDALE AVENUE

REVIEWED:

DATE

MUNICIPAL OFFICIAL DATE

RECOMMENDED:

Mark L. Kray 12–5–89
DATE

Douglas May 12–5–89
DISTRICT TRAFFIC ENGINEER DATE

| NO. | REVISION | DES./ REVW. | DATE | REVW. | DATE | RECOM. | DATE |
|---|---|---|---|---|---|---|---|
| 2 | INCR–M/A Length & Reloc. Pole #8 | NV | 3/9/90 | MK | 3/9/90 | | |
| 3 | Added Sign (D) to NW + SW Corner | JJL | 3/23/90 | MK | 3/27/90 | DWM | 3/27/90 |
| 4 | Added Split Phase And Signs G & J & S/H #10 | NV | 9/21/90 | MK | 9/27/90 | DWM | 10/1/90 |
| 5 | Added Pre–emption on Rosedale Avenue | NV | 5/30/91 | MK | 5/30/91 | DWM | 5/30/91 |
| 6 | Added Sign (E) N.T. OR N.E. & N.W. Corner | JJL | 9/25/91 | MK | 9/25/91 | DWM | 9/30/91 |
| 7 | Change Timing on New Street | JJL | 3/12/92 | MK | 3/12/92 | DWM | 3/12/92 |
| 9 | Added Emergency Pre–emtion to South Street New Drawing New | PAI | 1/23/01 | MK | 3/14/01 | LRB | 3/15/01 |
| 10 | Add Sign "H" to NE + SW Corner | WDF | 1/13/09 | PL | 2/02/09 | LRB | 1/30/09 |
| 11 | Traffic Signal Reconstruction | POH | 11/17/23 | --- | TBD | LRB | TBD |

SHEET 1 OF 2 | PERMIT # 62–2639 | FILE # 2639

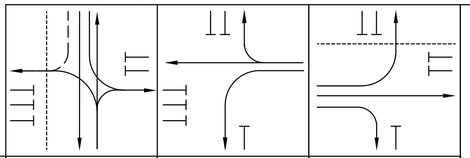
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OPERATION NOTES:

- SIGNAL TO DWELL IN PHASE 2+6, UNTIL ACTUATED BY PHASE 4,8.

MOVEMENT, SEQUENCE AND TIMING DIAGRAM



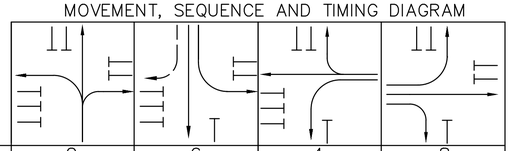
| PHASE | 2+6 | | | | 4 | | | | 8 | | | | FLASHING |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| INTERVAL / SIGNALS | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 5 | 6 | 7 | 8 | |
| 1 | R | R | R | R | G/-G | G/-G | Y | R | R | R | R | R | Y |
| 2 | R | R | R | R | G | G | Y | R | R | R | R | R | R |
| 3 | R | R | R | R | R | R | R | R | G | G | Y | R | R |
| 4 | R | R | R | R | R | R | R | R | G/-G | G/-G | Y | R | Y |
| 5,6 | G | G | Y | R | R | R | R | R | R | R | R | R | R |
| 7,8 | G | G | Y | R | R | R | R | R | R | R | R | R | R |
| 9,10 | H | H | H | H | H | H | H | H | M | FH | H | H | OFF |
| 11,12 | M | FH | H | H | H | H | H | H | H | H | H | H | OFF |

| FIXED | | | 3 | 3 | | 3 | 3 | | | 3 | 3 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MINIMUM | 15 | | | | 5 | | | | 5 | | | |
| PASSAGE | | | | | 3 | | | | 3 | | | |
| MAX 1 | 40 | | | | 15 | | | | 15 | | | |
| PROGRAM 1 | 41 | | | | 21 | | | | 32 | | | |
| PROGRAM 2 | 40 | | | | 24 | | | | 33 | | | |
| PEDESTRIAN | 9* | 12* | | | | | | | 11* | 15* | | |
| MEMORY | MX | | | | NL | | | | NL | | | |

* UPON PEDESTRIAN ACTUATION ONLY

EMERGENCY PRE-EMPTION PHASING

MOVEMENT, SEQUENCE AND TIMING DIAGRAM



| PHASE | | 2 | | | | 6 | | | | 4 | | | | 8 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| INTERVAL / SIGNALS | | 13 | 14 | 15 | | 16 | 17 | 18 | | 19 | 20 | 21 | | 22 | 23 | 24 |
| 1 | SELECTIVE CLEARANCES | R | R | R | SELECTIVE CLEARANCES | R | R | R | SELECTIVE CLEARANCES | G/-G | Y ⓐ | R ⓐ | SELECTIVE CLEARANCES | R | R | R |
| 2 | | R | R | R | | R | R | R | | G | Y ⓐ | R ⓐ | | R | R | R |
| 3 | | R | R | R | | R | R | R | | R | R | R | | G | Y ⓐ | R ⓐ |
| 4 | | R | R | R | | R | R | R | | R | R | R | | G/-G | Y ⓐ | R ⓐ |
| 5,6 | | G | Y ⓐ | R ⓐ | | R | R | R | | R | R | R | | R | R | R |
| 7,8 | | R | R | R | | G | Y ⓐ | R ⓐ | | R | R | R | | R | R | R |
| 9,10 | | H | H | H | | H | H | H | | H | H | H | | H | H | H |
| 11,12 | | H | H | H | | H | H | H | | H | H | H | | H | H | H |
| | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | |
| FIXED TIME | | * | 3 | 3 | | * | 3 | 3 | | * | 3 | 3 | | * | 3 | 3 |

* FOR DURATION OF PRE-EMPTION

NOTE: IF PRE-EMPTION EQUIPMENT HAS ENCODING CAPABILITIES FOR VEHICLE IDENTIFICATION, IT IS RECOMMENDED TO HAVE THE ZERO "00" FEATURE ON TO GIVE UNCODED EMITTERS THE ABILITY TO ACTIVATE THE EMERGENCY PRE-EMPTION.

ⓐ SIGNAL TO INDICATE G WHEN RETURNING TO NORMAL OPERATION.

ⓑ SIGNAL TO INDICATE G/-A- WHEN RETURNING TO NORMAL OPERATION.

EMERGENCY PRE-EMPTION NOTES:

- CONTROLLER TO BE EQUIPPED WITH EMERGENCY PRE-EMPTION FOR THE EASTBOUND & WESTBOUND APPROACHES OF ROSEDALE AVENUE, AND THE NORTHBOUND & SOUTHBOUND APPROACHES OF SOUTH NEW STREET, WITH A FLASHING FAIL SAFE DEVICE FOR EACH DIRECTION OF OPERATION.

  THIS FAIL SAFE DEVICE SHALL CONSIST OF A FLASHING WHITE FLOOD LIGHT, AND SHALL BEGIN FLASHING WHEN THE PREEMPTION PHASE DISPLAYS PREEMPTION GREEN FOR THE EMERGENCY VEHICLE APPROACH.

- THE SIGNALS, WHEN ACTIVATED BY AN EMERGENCY VEHICLE, SHALL TERMINATE ALL GREEN INDICATIONS EXCEPT THE GREEN INDICATIONS FOR THE PHASE GOVERNED BY THE APPROACHING EMERGENCY VEHICLE, FOLLOWED BY SELECTIVE CLEARANCES DEPENDENT UPON THE PHASE IN WHICH THE PRE-EMPTION OCCURS. THE GREEN INDICATIONS FOR THE PRE-EMPTED PHASE SHALL REMAIN GREEN FOR THE DURATION OF SIGNAL PRE-EMPTION WITH RED INDICATIONS DISPLAYED FOR ALL OTHER PHASES.

- THE SIGNALS, WHEN ACTIVATED BY AN EMERGENCY VEHICLE, SHALL TIME OUT ALL YELLOW AND RED INDICATIONS FOLLOWED BY THE GREEN INTERVAL OF THE PRE-EMPTION PHASE GOVERNED BY THE ACTUATION OF THE APPROACHING EMERGENCY VEHICLE.

- IF THE SIGNALS ARE FLASHING WHEN ACTIVATED BY AN EMERGENCY VEHICLE ALL SIGNALS SHALL REMAIN FLASHING.

- UPON COMPLETION OF PRE-EMPTION PHASE 2, 4, 6, OR 8, IN RETURNING TO NORMAL OPERATION PHASE 2+6 INTERVAL 1 SHALL FOLLOW.

- IF ADDITIONAL PRE-EMPTION PHASES ARE ACTIVATED WHILE IN PRE-EMPTION, THE ORIGINAL PRE-EMPTION PHASE SHALL TIME OUT BEFORE PROCEEDING TO THE NEXT PRE-EMPTION PHASE.

- IN EMERGENCY PRE-EMPTION, NO PRIORITY SHALL BE ESTABLISHED, PRE-EMPTION SHALL BE A "FIRST COME, FIRST SERVE" OPERATION.

- THE FIELD LOCATIONS OF THE PRE-EMPTION DETECTORS MAY DIFFER FROM THE LOCATIONS DEPICTED ON THE CONDITION DIAGRAM, AS THE DETECTORS MAY NEED TO BE RELOCATED AND/OR ADJUSTED TO PROVIDE ACCEPTABLE OPERATION AS DEEMED APPROPRIATE BY DEPARTMENT PERSONNEL.

| WEEKLY PROGRAM CHART | | | | | | |
|---|---|---|---|---|---|---|
| EVENT | DAY | TIME | CYCLE | OFFSET | PROGRAM | REMARKS |
| 1 | 1-5 | | 85 | - | 1 | AM PEAK |
| 2 | 1-5 | | - | - | MAX 1 | OFF PEAK |
| 3 | 1-5 | | 85 | - | 2 | PM PEAK |
| 4 | 1-7 | | - | - | MAX 1 | OFF PEAK |

* DAY 1 = MONDAY

# GENERAL NOTES

NO MODIFICATIONS OF THIS INSTALLATION ARE PERMITTED UNLESS PRIOR APPROVAL IS GRANTED IN WRITING BY A REPRESENTATIVE OF THE DEPARTMENT OF TRANSPORTATION.

ALL MAINTENANCE WORK INCLUDING TRIMMING OF TREES, NECESSARY FOR PROPER VISIBILITY OF THE SIGNALS IS THE RESPONSIBILITY OF THE PERMITTEE.

ALL SIGNS AND PAVEMENT MARKINGS INDICATED ON THIS DRAWING ARE CONSIDERED PART OF THE PERMIT AND SHALL BE INSTALLED AND MAINTAINED IN ACCORDANCE WITH PUBLICATION NO. 212.

POST MOUNTED SIGNALS SHALL BE INSTALLED WITH THE SIGNAL HEADS A MINIMUM OF 2 FEET BEHIND THE FACE OF CURB OR THE EDGE OF THE SHOULDER. SUPPORT POLES FOR OVERHEAD SIGNALS SHALL ALSO HAVE A MINIMUM CLEARANCE HORIZONTALLY OF 2 FEET.

SIGNALS ERECTED OVER THE ROADWAY SHALL HAVE A MINIMUM VERTICAL CLEARANCE OF 16 FT. ABOVE THE ROADWAY. POST MOUNTED SIGNALS SHALL BE A MINIMUM OF 8 FT. ABOVE THE SIDEWALK OR PAVEMENT.

ALL OVERHEAD SIGNALS MUST BE RIGIDLY MOUNTED, TOP AND BOTTOM, AND EQUIPPED WITH BACKPLATES.

THE MINIMUM HORIZONTAL DISTANCE BETWEEN SIGNALS MEASURED AT RIGHT ANGLES TO THE APPROACH SHALL BE 8 FEET.

EXACT LOCATION OF DETECTORS SHALL BE DETERMINED PRIOR TO INSTALLATION BY A REPRESENTATIVE OF PENNDOT.

CURBING TO BE INSTALLED BY MUNICIPALITY AND WHERE NOTED, SHALL BE PLAIN CEMENT CONCRETE CURB OR GRANITE CURB, INSTALLED IN ACCORDANCE WITH DEPARTMENT SPECIFICATIONS FORM 408.

PRIOR TO INSTALLATION THE CONTRACTOR SHALL CONSULT WITH THE LOCAL OFFICIALS AND UTILITY COMPANIES TO RESOLVE ANY PROBLEMS WHICH MAY BE CREATED DUE TO THE LOCATION OF UTILITIES.

THIS DRAWING CANNOT BE USED AS A CONSTRUCTION DRAWING UNLESS THE PERMITTEE COMPLIES WITH THE PROVISIONS OF THE LATEST AMENDMENT TO ACT 287, PREVENTION OF DAMAGE TO UNDERGROUND UTILITIES, DATED DECEMBER 20, 1974.

WHEN LIQUID FUELS MONEY IS USED, SIGNAL INSTALLATION MUST CONFORM TO FORM 408 AND A COPY OF THE PROPOSED SPECIFICATIONS MUST BE SUBMITTED TO THE DISTRICT TRAFFIC UNIT, FOR REVIEW, PRIOR TO BIDDING.

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PENNSYLVANIA DEPARTMENT OF TRANSPORTATION
ENGINEERING DISTRICT 6-0

COUNTY: CHESTER

MUNICIPALITY: WEST CHESTER BOROUGH

INTERSECTION: SOUTH NEW STREET AND ROSEDALE AVENUE

REVIEWED:

DATE

MUNICIPAL OFFICIAL DATE

RECOMMENDED:

Mark L. Kray 12-5-89
DATE

Douglas May 12-5-89
DISTRICT TRAFFIC ENGINEER DATE

| NO. | REVISION | DES./ REVW. | DATE | REVW. | DATE | RECOM. | DATE |
|---|---|---|---|---|---|---|---|
| 2 | INCR-M/A Length & Reloc. Pole #8 | NV | 3/9/90 | MK | 3/9/90 | | |
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| 9 | Added Emergency Pre-emtion to South Street New Drawing New | PAI | 1/23/01 | MK | 3/14/01 | LRB | 3/15/01 |
| 10 | Add Sign "H" to NE + SW Corner | WDF | 1/13/09 | PL | 2/02/09 | LRB | 1/30/09 |
| 11 | TBD | POH | 11/17/23 | --- | TBD | LRB | TBD |

SHEET 2 OF 2 | PERMIT # 62-2639 | FILE # 2639

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# APPENDIX D:
# *Volume Development Worksheets*

**TPD# WCU.04**
**1/31/2025**
**Traffic Volumes Worksheet**

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| **Intersection:** | **S New Street and Sharpless Street** | | | | | | | | | |
| **Synchro Node:** | **1** | **Adjacent intersections:** | **West** | **0** | **East** | **0** | **North** | **0** | **South** | **0** |

**Time Period: Weekday A.M. Peak Hour**

| | Eastbound | | | Westbound | | | Northbound | | | Southbound | | | Intersection |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | left | thru | right | left | thru | right | left | thru | right | left | thru | right | Volume |
| **2023 Existing Counts** | **4** | **54** | **7** | **48** | **10** | **5** | **9** | **88** | **77** | **10** | **114** | **1** | **427** |
| Balancing | | | | | | | | | | | | | 0 |
| **2024 Existing Volumes (Balanced)** | **4** | **54** | **7** | **48** | **10** | **5** | **9** | **88** | **77** | **10** | **114** | **1** | **427** |
| RD - Church Street (North) Closure | | | | 1 | | | | | | | | | |
| RD - University Ave Closure | | | | | | | | | | 8 | | | 8 |
| RD - Church Street (South) Closure | | | | | | | | | | | | | 0 |
| **Total Re-Distribution** | **0** | **0** | **0** | **1** | **0** | **0** | **0** | **0** | **0** | **8** | **0** | **0** | **10** |
| **2026 Projected (Build) Volumes** | **4** | **55** | **7** | **50** | **10** | **5** | **9** | **90** | **79** | **18** | **117** | **1** | **446** |
| Base growth (0.75% compounded for 17 yrs) | 1 | 7 | 1 | 7 | 1 | 1 | 1 | 12 | 10 | 1 | 15 | 0 | 57 |
| **2040 Base (No-Build) Volumes** | **5** | **61** | **8** | **55** | **11** | **6** | **10** | **100** | **87** | **11** | **129** | **1** | **484** |
| **2040 Projected (Build) Volumes** | **5** | **61** | **8** | **56** | **11** | **6** | **10** | **100** | **87** | **19** | **129** | **1** | **494** |

**Time Period: Weekday P.M. Peak Hour**

| | Eastbound | | | Westbound | | | Northbound | | | Southbound | | | Intersection |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | left | thru | right | left | thru | right | left | thru | right | left | thru | right | Volume |
| **2023 Existing Counts** | **0** | **27** | **5** | **56** | **38** | **22** | **23** | **189** | **120** | **16** | **137** | **3** | **636** |
| Balancing | | | | | | | | | | | | | 0 |
| **2024 Existing Volumes (Balanced)** | **0** | **27** | **5** | **56** | **38** | **22** | **23** | **189** | **120** | **16** | **137** | **3** | **636** |
| RD - Church Street (North) Closure | | | | 5 | | | | | | | | | |
| RD - University Ave Closure | | | | | | | | | | 14 | | | 14 |
| RD - Church Street (South) Closure | | | | | | | | | | | | | 0 |
| **Total Re-Distribution** | **0** | **0** | **0** | **5** | **0** | **0** | **0** | **0** | **0** | **14** | **0** | **0** | **19** |
| Base growth (0.75% compounded for 17 yrs) | 0 | 4 | 1 | 8 | 5 | 3 | 3 | 26 | 16 | 2 | 19 | 0 | 87 |
| **2040 Base (No-Build) Volumes** | **0** | **31** | **6** | **64** | **43** | **25** | **26** | **215** | **136** | **18** | **156** | **3** | **723** |
| **2040 Projected (Build) Volumes** | **0** | **31** | **6** | **69** | **43** | **25** | **26** | **215** | **136** | **32** | **156** | **3** | **742** |

**TPD# WCU.04**
**1/31/2025**
**Traffic Volumes Worksheet**

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Intersection:** | **Darlington Street and Sharpless Street** | | | | | | | | | | | |
| **Synchro Node:** | **2** | **Adjacent intersections:** | **West** | **0** | **East** | **0** | **North** | **0** | **South** | **0** | | |

**Time Period: Weekday A.M. Peak Hour**

| | Eastbound | | | Westbound | | | Northbound | | | Southbound | | | Intersection |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | left | thru | right | left | thru | right | left | thru | right | left | thru | right | Volume |
| **2023 Existing Counts** | **3** | **135** | **0** | **0** | **58** | **12** | **0** | **0** | **0** | **5** | **0** | **2** | **215** |
| Balancing | | | | | | | | | | | | | 0 |
| **2024 Existing Volumes (Balanced)** | **3** | **135** | **0** | **0** | **58** | **12** | **0** | **0** | **0** | **5** | **0** | **2** | **215** |
| RD - Church Street (North) Closure | | | | | 1 | | | | | | | | |
| RD - University Ave Closure | | | | 8 | | | | | | | | | 8 |
| RD - Church Street (South) Closure | | | | | | | | | | | | | 0 |
| **Total Re-Distribution** | **0** | **0** | **0** | **8** | **1** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **10** |
| **2026 Projected (Build) Volumes** | **3** | **138** | **0** | **8** | **60** | **12** | **0** | **0** | **0** | **5** | **0** | **2** | **229** |
| Base growth (0.75% compounded for 17 yrs) | 0 | 18 | 0 | 0 | 8 | 2 | 0 | 0 | 0 | 1 | 0 | 0 | 29 |
| **2040 Base (No-Build) Volumes** | **3** | **153** | **0** | **0** | **66** | **14** | **0** | **0** | **0** | **6** | **0** | **2** | **244** |
| **2040 Projected (Build) Volumes** | **3** | **153** | **0** | **8** | **67** | **14** | **0** | **0** | **0** | **6** | **0** | **2** | **254** |

**Time Period: Weekday P.M. Peak Hour**

| | Eastbound | | | Westbound | | | Northbound | | | Southbound | | | Intersection |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | left | thru | right | left | thru | right | left | thru | right | left | thru | right | Volume |
| **2023 Existing Counts** | **14** | **151** | **0** | **2** | **112** | **26** | **0** | **0** | **0** | **12** | **0** | **6** | **323** |
| Balancing | | | | | | | | | | | | | 0 |
| **2024 Existing Volumes (Balanced)** | **14** | **151** | **0** | **2** | **112** | **26** | **0** | **0** | **0** | **12** | **0** | **6** | **323** |
| RD - Church Street (North) Closure | | | | | 5 | | | | | | | | |
| RD - University Ave Closure | | | | 14 | | | | | | | | | 14 |
| RD - Church Street (South) Closure | | | | | | | | | | | | | 0 |
| **Total Re-Distribution** | **0** | **0** | **0** | **14** | **5** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **19** |
| Base growth (0.75% compounded for 17 yrs) | 2 | 20 | 0 | 0 | 15 | 4 | 0 | 0 | 0 | 2 | 0 | 1 | 44 |
| **2040 Base (No-Build) Volumes** | **16** | **171** | **0** | **2** | **127** | **30** | **0** | **0** | **0** | **14** | **0** | **7** | **367** |
| **2040 Projected (Build) Volumes** | **16** | **171** | **0** | **16** | **132** | **30** | **0** | **0** | **0** | **14** | **0** | **7** | **386** |

**TPD# WCU.04**
**1/31/2025**
**Traffic Volumes Worksheet**

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| **Intersection:** | **Sharpless Street and S Church Street** | | | | | | | | | |
| **Synchro Node:** | **3** | **Adjacent intersections:** | **West** | **0** | **East** | **0** | **North** | **0** | **South** | **0** |

**Time Period: Weekday A.M. Peak Hour**

| | Eastbound | | | Westbound | | | Northbound | | | Southbound | | | Intersection |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | left | thru | right | left | thru | right | left | thru | right | left | thru | right | Volume |
| **2023 Existing Counts** | **0** | **92** | **26** | **21** | **58** | **0** | **0** | **0** | **0** | **26** | **25** | **10** | **258** |
| Balancing | | | | | | | | | | | | | 0 |
| **2024 Existing Volumes (Balanced)** | **0** | **92** | **26** | **21** | **58** | **0** | **0** | **0** | **0** | **26** | **25** | **10** | **258** |
| RD - Church Street (North) Closure | | 6 | -6 | -5 | | | | | 41 | 4 | -5 | 1 | |
| RD - University Ave Closure | | | | | 8 | | | | | | | | 8 |
| RD - Church Street (South) Closure | | | | | | | | | | | | | 0 |
| **Total Re-Distribution** | **0** | **6** | **-6** | **-5** | **8** | **0** | **0** | **0** | **41** | **4** | **-5** | **1** | **45** |
| **2026 Projected (Build) Volumes** | **0** | **100** | **21** | **16** | **67** | **0** | **0** | **0** | **41** | **31** | **21** | **11** | **309** |
| Base growth (0.75% compounded for 17 yrs) | 0 | 12 | 4 | 3 | 8 | 0 | 0 | 0 | 0 | 4 | 3 | 1 | 35 |
| **2040 Base (No-Build) Volumes** | **0** | **104** | **30** | **24** | **66** | **0** | **0** | **0** | **0** | **30** | **28** | **11** | **293** |
| **2040 Projected (Build) Volumes** | **0** | **110** | **24** | **19** | **74** | **0** | **0** | **0** | **41** | **34** | **23** | **12** | **338** |

**Time Period: Weekday P.M. Peak Hour**

| | Eastbound | | | Westbound | | | Northbound | | | Southbound | | | Intersection |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | left | thru | right | left | thru | right | left | thru | right | left | thru | right | Volume |
| **2023 Existing Counts** | **0** | **113** | **45** | **29** | **115** | **0** | **0** | **0** | **0** | **29** | **46** | **27** | **404** |
| Balancing | | | | | | | | | | | | | 0 |
| **2024 Existing Volumes (Balanced)** | **0** | **113** | **45** | **29** | **115** | **0** | **0** | **0** | **0** | **29** | **46** | **27** | **404** |
| RD - Church Street (North) Closure | | 10 | -10 | -7 | | | | | 54 | 5 | -10 | 5 | |
| RD - University Ave Closure | | | | | 14 | | | | | | | | 14 |
| RD - Church Street (South) Closure | | | | | | | | | | | | | 0 |
| **Total Re-Distribution** | **0** | **10** | **-10** | **-7** | **14** | **0** | **0** | **0** | **54** | **5** | **-10** | **5** | **62** |
| Base growth (0.75% compounded for 17 yrs) | 0 | 15 | 6 | 4 | 16 | 0 | 0 | 0 | 0 | 4 | 6 | 4 | 55 |
| **2040 Base (No-Build) Volumes** | **0** | **128** | **51** | **33** | **131** | **0** | **0** | **0** | **0** | **33** | **52** | **31** | **459** |
| **2040 Projected (Build) Volumes** | **0** | **138** | **41** | **26** | **145** | **0** | **0** | **0** | **54** | **38** | **42** | **36** | **521** |

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**Traffic Volumes Worksheet**

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| **Intersection:** | **Sharpless Street and Reynolds Alley** | | | | | | | | | |
| **Synchro Node:** | **4** | **Adjacent intersections:** | **West** | **0** | **East** | **0** | **North** | **0** | **South** | **0** |

**Time Period: Weekday A.M. Peak Hour**

| | Eastbound | | | Westbound | | | Northbound | | | Southbound | | | Intersection |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | left | thru | right | left | thru | right | left | thru | right | left | thru | right | Volume |
| **2023 Existing Counts** | **0** | **86** | **14** | **6** | **114** | **0** | **11** | **0** | **8** | **0** | **0** | **0** | **239** |
| Balancing | | | | | | | | | | | | | 0 |
| **2024 Existing Volumes (Balanced)** | **0** | **86** | **14** | **6** | **114** | **0** | **11** | **0** | **8** | **0** | **0** | **0** | **239** |
| RD - Church Street (North) Closure | | 51 | | | -5 | | | | | | | | |
| RD - University Ave Closure | | | | | 8 | | | | | | | | 8 |
| RD - Church Street (South) Closure | | | | | | | | | | | | | 0 |
| **Total Re-Distribution** | **0** | **51** | **0** | **0** | **4** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **55** |
| **2026 Projected (Build) Volumes** | **0** | **139** | **14** | **6** | **121** | **0** | **11** | **0** | **8** | **0** | **0** | **0** | **299** |
| Base growth (0.75% compounded for 17 yrs) | 0 | 12 | 2 | 1 | 15 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 32 |
| **2040 Base (No-Build) Volumes** | **0** | **98** | **16** | **7** | **129** | **0** | **12** | **0** | **9** | **0** | **0** | **0** | **271** |
| **2040 Projected (Build) Volumes** | **0** | **149** | **16** | **7** | **133** | **0** | **12** | **0** | **9** | **0** | **0** | **0** | **326** |

**Time Period: Weekday P.M. Peak Hour**

| | Eastbound | | | Westbound | | | Northbound | | | Southbound | | | Intersection |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | left | thru | right | left | thru | right | left | thru | right | left | thru | right | Volume |
| **2023 Existing Counts** | **1** | **140** | **7** | **8** | **134** | **0** | **13** | **0** | **32** | **0** | **0** | **0** | **335** |
| Balancing | | | | | | | | | | | | | 0 |
| **2024 Existing Volumes (Balanced)** | **1** | **140** | **7** | **8** | **134** | **0** | **13** | **0** | **32** | **0** | **0** | **0** | **335** |
| RD - Church Street (North) Closure | | 69 | | | -7 | | | | | | | | |
| RD - University Ave Closure | | | | | 14 | | | | | | | | 14 |
| RD - Church Street (South) Closure | | | | | | | | | | | | | 0 |
| **Total Re-Distribution** | **0** | **69** | **0** | **0** | **8** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **77** |
| Base growth (0.75% compounded for 17 yrs) | 0 | 19 | 1 | 1 | 18 | 0 | 2 | 0 | 4 | 0 | 0 | 0 | 45 |
| **2040 Base (No-Build) Volumes** | **1** | **159** | **8** | **9** | **152** | **0** | **15** | **0** | **36** | **0** | **0** | **0** | **380** |
| **2040 Projected (Build) Volumes** | **1** | **228** | **8** | **9** | **160** | **0** | **15** | **0** | **36** | **0** | **0** | **0** | **457** |

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**Traffic Volumes Worksheet**

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| **Intersection:** | **Sharpless Street and S High Street** | | | | | | | | | |
| **Synchro Node:** | **5** | **Adjacent intersections:** | **West** | **0** | **East** | **0** | **North** | **0** | **South** | **0** |

**Time Period: Weekday A.M. Peak Hour**

| | Eastbound | | | Westbound | | | Northbound | | | Southbound | | | Intersection |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | left | thru | right | left | thru | right | left | thru | right | left | thru | right | Volume |
| **2023 Existing Counts** | **24** | **0** | **71** | **0** | **0** | **0** | **47** | **312** | **0** | **0** | **502** | **73** | **1029** |
| Balancing | | | | | | | | | | | | | 0 |
| **2024 Existing Volumes (Balanced)** | **24** | **0** | **71** | **0** | **0** | **0** | **47** | **312** | **0** | **0** | **502** | **73** | **1029** |
| RD - Church Street (North) Closure | | | 51 | | | | | | | | 5 | -5 | |
| RD - University Ave Closure | | | | | | | 1 | 8 | | | -7 | 7 | 9 |
| RD - Church Street (South) Closure | | | | | | | | | | | | | 0 |
| **Total Re-Distribution** | **0** | **0** | **51** | **0** | **0** | **0** | **1** | **8** | **0** | **0** | **-3** | **3** | **60** |
| **2026 Projected (Build) Volumes** | **25** | **0** | **124** | **0** | **0** | **0** | **49** | **327** | **0** | **0** | **510** | **78** | **1113** |
| Base growth (0.75% compounded for 17 yrs) | 3 | 0 | 10 | 0 | 0 | 0 | 6 | 42 | 0 | 0 | 68 | 10 | 139 |
| **2040 Base (No-Build) Volumes** | **27** | **0** | **81** | **0** | **0** | **0** | **53** | **354** | **0** | **0** | **570** | **83** | **1168** |
| **2040 Projected (Build) Volumes** | **27** | **0** | **132** | **0** | **0** | **0** | **54** | **362** | **0** | **0** | **567** | **86** | **1228** |

**Time Period: Weekday P.M. Peak Hour**

| | Eastbound | | | Westbound | | | Northbound | | | Southbound | | | Intersection |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | left | thru | right | left | thru | right | left | thru | right | left | thru | right | Volume |
| **2023 Existing Counts** | **35** | **0** | **134** | **0** | **0** | **0** | **73** | **464** | **0** | **0** | **515** | **67** | **1288** |
| Balancing | | | | | | | | | | | | | 0 |
| **2024 Existing Volumes (Balanced)** | **35** | **0** | **134** | **0** | **0** | **0** | **73** | **464** | **0** | **0** | **515** | **67** | **1288** |
| RD - Church Street (North) Closure | | | 69 | | | | | | | | 7 | -7 | |
| RD - University Ave Closure | | | | | | | 2 | 11 | | | -12 | 12 | 13 |
| RD - Church Street (South) Closure | | | | | | | | | | | | | 0 |
| **Total Re-Distribution** | **0** | **0** | **69** | **0** | **0** | **0** | **2** | **11** | **0** | **0** | **-6** | **6** | **82** |
| Base growth (0.75% compounded for 17 yrs) | 5 | 0 | 18 | 0 | 0 | 0 | 10 | 63 | 0 | 0 | 70 | 9 | 175 |
| **2040 Base (No-Build) Volumes** | **40** | **0** | **152** | **0** | **0** | **0** | **83** | **527** | **0** | **0** | **585** | **76** | **1463** |
| **2040 Projected (Build) Volumes** | **40** | **0** | **221** | **0** | **0** | **0** | **85** | **538** | **0** | **0** | **579** | **82** | **1545** |

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**Traffic Volumes Worksheet**

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| **Intersection:** | **S High Street and E Nields Street** | | | | | | | | | |
| **Synchro Node:** | **6** | **Adjacent intersections:** | **West** | **0** | **East** | **0** | **North** | **0** | **South** | **0** |

**Time Period: Weekday A.M. Peak Hour**

| | Eastbound | | | Westbound | | | Northbound | | | Southbound | | | Intersection |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | left | thru | right | left | thru | right | left | thru | right | left | thru | right | Volume |
| **2023 Existing Counts** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **356** | **11** | **141** | **434** | **0** | **942** |
| Balancing | | | | | | | | | | | | | 0 |
| **2024 Existing Volumes (Balanced)** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **356** | **11** | **141** | **434** | **0** | **942** |
| RD - Church Street (North) Closure | | | | | | | | | | | 56 | | |
| RD - University Ave Closure | | | | | | | | 9 | | | -7 | | 2 |
| RD - Church Street (South) Closure | | | | | | | | | | | | | 0 |
| **Total Re-Distribution** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **9** | **0** | **0** | **48** | **0** | **57** |
| **2026 Projected (Build) Volumes** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **373** | **11** | **144** | **492** | **0** | **1020** |
| Base growth (0.75% compounded for 17 yrs) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 48 | 1 | 19 | 59 | 0 | 127 |
| **2040 Base (No-Build) Volumes** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **404** | **12** | **160** | **493** | **0** | **1069** |
| **2040 Projected (Build) Volumes** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **413** | **12** | **160** | **541** | **0** | **1126** |

**Time Period: Weekday P.M. Peak Hour**

| | Eastbound | | | Westbound | | | Northbound | | | Southbound | | | Intersection |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | left | thru | right | left | thru | right | left | thru | right | left | thru | right | Volume |
| **2023 Existing Counts** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **539** | **32** | **138** | **501** | **0** | **1210** |
| Balancing | | | | | | | | | | | | | 0 |
| **2024 Existing Volumes (Balanced)** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **539** | **32** | **138** | **501** | **0** | **1210** |
| RD - Church Street (North) Closure | | | | | | | | | | | 76 | | |
| RD - University Ave Closure | | | | | | | | 13 | | | -12 | | 0 |
| RD - Church Street (South) Closure | | | | | | | | | | | | | 0 |
| **Total Re-Distribution** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **13** | **0** | **0** | **64** | **0** | **76** |
| Base growth (0.75% compounded for 17 yrs) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 73 | 4 | 19 | 68 | 0 | 164 |
| **2040 Base (No-Build) Volumes** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **612** | **36** | **157** | **569** | **0** | **1374** |
| **2040 Projected (Build) Volumes** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **625** | **36** | **157** | **633** | **0** | **1450** |

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**Traffic Volumes Worksheet**

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Intersection:** | **S High Street and University Avenue** | | | | | | | | | | | |
| **Synchro Node:** | **7** | **Adjacent intersections:** | **West** | **0** | **East** | **0** | **North** | **0** | **South** | **0** | | |

**Time Period: Weekday A.M. Peak Hour**

| | Eastbound | | | Westbound | | | Northbound | | | Southbound | | | Intersection |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | left | thru | right | left | thru | right | left | thru | right | left | thru | right | Volume |
| **2023 Existing Counts** | **0** | **0** | **0** | **0** | **0** | **0** | **50** | **374** | **0** | **0** | **413** | **11** | **848** |
| Balancing | | | | | | | | | | | | | 0 |
| **2024 Existing Volumes (Balanced)** | **0** | **0** | **0** | **0** | **0** | **0** | **50** | **374** | **0** | **0** | **413** | **11** | **848** |
| RD - Church Street (North) Closure | | | | | | | | | | | 56 | | |
| RD - University Ave Closure | 9 | | 10 | | | | -35 | | | | | -7 | -32 |
| RD - Church Street (South) Closure | | | | | | | | | | | | | 0 |
| **Total Re-Distribution** | **9** | **0** | **10** | **0** | **0** | **0** | **-35** | **0** | **0** | **0** | **56** | **-7** | **33** |
| **2026 Projected (Build) Volumes** | **9** | **0** | **10** | **0** | **0** | **0** | **16** | **382** | **0** | **0** | **478** | **4** | **899** |
| Base growth (0.75% compounded for 17 yrs) | 0 | 0 | 0 | 0 | 0 | 0 | 7 | 51 | 0 | 0 | 56 | 1 | 115 |
| **2040 Base (No-Build) Volumes** | **0** | **0** | **0** | **0** | **0** | **0** | **57** | **425** | **0** | **0** | **469** | **12** | **963** |
| **2040 Projected (Build) Volumes** | **9** | **0** | **10** | **0** | **0** | **0** | **22** | **425** | **0** | **0** | **525** | **5** | **996** |

**Time Period: Weekday P.M. Peak Hour**

| | Eastbound | | | Westbound | | | Northbound | | | Southbound | | | Intersection |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | left | thru | right | left | thru | right | left | thru | right | left | thru | right | Volume |
| **2023 Existing Counts** | **0** | **0** | **0** | **0** | **0** | **0** | **77** | **570** | **0** | **0** | **480** | **19** | **1146** |
| Balancing | | | | | | | | | | | | | 0 |
| **2024 Existing Volumes (Balanced)** | **0** | **0** | **0** | **0** | **0** | **0** | **77** | **570** | **0** | **0** | **480** | **19** | **1146** |
| RD - Church Street (North) Closure | | | | | | | | | | | 76 | | |
| RD - University Ave Closure | 13 | | 13 | | | | -49 | | | | | -12 | -36 |
| RD - Church Street (South) Closure | | | | | | | | | | | | | 0 |
| **Total Re-Distribution** | **13** | **0** | **13** | **0** | **0** | **0** | **-49** | **0** | **0** | **0** | **76** | **-12** | **40** |
| Base growth (0.75% compounded for 17 yrs) | 0 | 0 | 0 | 0 | 0 | 0 | 10 | 77 | 0 | 0 | 65 | 3 | 155 |
| **2040 Base (No-Build) Volumes** | **0** | **0** | **0** | **0** | **0** | **0** | **87** | **647** | **0** | **0** | **545** | **22** | **1301** |
| **2040 Projected (Build) Volumes** | **13** | **0** | **13** | **0** | **0** | **0** | **38** | **647** | **0** | **0** | **621** | **10** | **1341** |

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**Traffic Volumes Worksheet**

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| **Intersection:** | **Reynolds Alley and University Avenue** | | | | | | | | | |
| **Synchro Node:** | **8** | **Adjacent intersections:** | **West** | **0** | **East** | **0** | **North** | **0** | **South** | **0** |

**Time Period: Weekday A.M. Peak Hour**

| | Eastbound | | | Westbound | | | Northbound | | | Southbound | | | Intersection |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | left | thru | right | left | thru | right | left | thru | right | left | thru | right | Volume |
| **2023 Existing Counts** | **0** | **0** | **0** | **0** | **38** | **26** | **0** | **0** | **0** | **0** | **0** | **4** | **68** |
| Balancing | | | | | | | | | | | | | 0 |
| **2024 Existing Volumes (Balanced)** | **0** | **0** | **0** | **0** | **38** | **26** | **0** | **0** | **0** | **0** | **0** | **4** | **68** |
| RD - Church Street (North) Closure | | | | | | | | | | | | | |
| RD - University Ave Closure | | 14 | | | -42 | | | | | 5 | | -5 | -28 |
| RD - Church Street (South) Closure | | | | | | | | | | | | | 0 |
| **Total Re-Distribution** | **0** | **14** | **0** | **0** | **-42** | **0** | **0** | **0** | **0** | **5** | **0** | **-5** | **-28** |
| **2026 Projected (Build) Volumes** | **0** | **14** | **0** | **0** | **-3** | **27** | **0** | **0** | **0** | **5** | **0** | **-1** | **42** |
| Base growth (0.75% compounded for 17 yrs) | 0 | 0 | 0 | 0 | 5 | 4 | 0 | 0 | 0 | 0 | 0 | 1 | 10 |
| **2040 Base (No-Build) Volumes** | **0** | **0** | **0** | **0** | **43** | **30** | **0** | **0** | **0** | **0** | **0** | **5** | **78** |
| **2040 Projected (Build) Volumes** | **0** | **14** | **0** | **0** | **1** | **30** | **0** | **0** | **0** | **5** | **0** | **0** | **50** |

**Time Period: Weekday P.M. Peak Hour**

| | Eastbound | | | Westbound | | | Northbound | | | Southbound | | | Intersection |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | left | thru | right | left | thru | right | left | thru | right | left | thru | right | Volume |
| **2023 Existing Counts** | **0** | **0** | **0** | **0** | **78** | **12** | **0** | **0** | **0** | **0** | **0** | **4** | **94** |
| Balancing | | | | | | | | | | | | | 0 |
| **2024 Existing Volumes (Balanced)** | **0** | **0** | **0** | **0** | **78** | **12** | **0** | **0** | **0** | **0** | **0** | **4** | **94** |
| RD - Church Street (North) Closure | | | | | | | | | | | | | |
| RD - University Ave Closure | | 21 | | | -62 | | | | | 5 | | -5 | -41 |
| RD - Church Street (South) Closure | | | | | | | | | | | | | 0 |
| **Total Re-Distribution** | **0** | **21** | **0** | **0** | **-62** | **0** | **0** | **0** | **0** | **5** | **0** | **-5** | **-41** |
| Base growth (0.75% compounded for 17 yrs) | 0 | 0 | 0 | 0 | 11 | 2 | 0 | 0 | 0 | 0 | 0 | 1 | 14 |
| **2040 Base (No-Build) Volumes** | **0** | **0** | **0** | **0** | **89** | **14** | **0** | **0** | **0** | **0** | **0** | **5** | **108** |
| **2040 Projected (Build) Volumes** | **0** | **21** | **0** | **0** | **28** | **14** | **0** | **0** | **0** | **5** | **0** | **0** | **67** |

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| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| **Intersection:** | **Church Street and University Avenue** | | | | | | | | | |
| **Synchro Node:** | **9** | **Adjacent intersections:** | **West** | **0** | **East** | **0** | **North** | **0** | **South** | **0** |

**Time Period: Weekday A.M. Peak Hour**

| | Eastbound | | | Westbound | | | Northbound | | | Southbound | | | Intersection |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | left | thru | right | left | thru | right | left | thru | right | left | thru | right | Volume |
| **2023 Existing Counts** | **0** | **0** | **0** | **49** | **0** | **0** | **0** | **0** | **0** | **0** | **85** | **0** | **134** |
| Balancing | | | | | | | | | | | | | 0 |
| **2024 Existing Volumes (Balanced)** | **0** | **0** | **0** | **49** | **0** | **0** | **0** | **0** | **0** | **0** | **85** | **0** | **134** |
| RD - Church Street (North) Closure | | | | | | | | | | | -97 | | |
| RD - University Ave Closure | | | | -56 | | | | | | | | | -56 |
| RD - Church Street (South) Closure | | | | | | | | | | | | | 0 |
| **Total Re-Distribution** | **0** | **0** | **0** | **-56** | **0** | **0** | **0** | **0** | **0** | **0** | **-97** | **0** | **-153** |
| **2026 Projected (Build) Volumes** | **0** | **0** | **0** | **-6** | **0** | **0** | **0** | **0** | **0** | **0** | **-10** | **0** | **-16** |
| Base growth (0.75% compounded for 17 yrs) | 0 | 0 | 0 | 7 | 0 | 0 | 0 | 0 | 0 | 0 | 12 | 0 | 19 |
| **2040 Base (No-Build) Volumes** | **0** | **0** | **0** | **56** | **0** | **0** | **0** | **0** | **0** | **0** | **97** | **0** | **153** |
| **2040 Projected (Build) Volumes** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** |

**Time Period: Weekday P.M. Peak Hour**

| | Eastbound | | | Westbound | | | Northbound | | | Southbound | | | Intersection |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | left | thru | right | left | thru | right | left | thru | right | left | thru | right | Volume |
| **2023 Existing Counts** | **0** | **0** | **0** | **72** | **0** | **0** | **0** | **0** | **0** | **0** | **119** | **0** | **191** |
| Balancing | | | | | | | | | | | | | 0 |
| **2024 Existing Volumes (Balanced)** | **0** | **0** | **0** | **72** | **0** | **0** | **0** | **0** | **0** | **0** | **119** | **0** | **191** |
| RD - Church Street (North) Closure | | | | | | | | | | | -135 | | |
| RD - University Ave Closure | | | | -82 | | | | | | | | | -82 |
| RD - Church Street (South) Closure | | | | | | | | | | | | | 0 |
| **Total Re-Distribution** | **0** | **0** | **0** | **-82** | **0** | **0** | **0** | **0** | **0** | **0** | **-135** | **0** | **-217** |
| Base growth (0.75% compounded for 17 yrs) | 0 | 0 | 0 | 10 | 0 | 0 | 0 | 0 | 0 | 0 | 16 | 0 | 26 |
| **2040 Base (No-Build) Volumes** | **0** | **0** | **0** | **82** | **0** | **0** | **0** | **0** | **0** | **0** | **135** | **0** | **217** |
| **2040 Projected (Build) Volumes** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** |

**TPD# WCU.04**
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**Traffic Volumes Worksheet**

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| **Intersection:** | **S High Street and Linden Street** | | | | | | | | | |
| **Synchro Node:** | **10** | **Adjacent intersections:** | **West** | **0** | **East** | **0** | **North** | **0** | **South** | **0** |

**Time Period: Weekday A.M. Peak Hour**

| | Eastbound | | | Westbound | | | Northbound | | | Southbound | | | Intersection |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | left | thru | right | left | thru | right | left | thru | right | left | thru | right | Volume |
| **2023 Existing Counts** | **0** | **0** | **0** | **20** | **0** | **23** | **0** | **400** | **0** | **1** | **417** | **0** | **861** |
| Balancing | | | | | | | | | | | | | 0 |
| **2024 Existing Volumes (Balanced)** | **0** | **0** | **0** | **20** | **0** | **23** | **0** | **400** | **0** | **1** | **417** | **0** | **861** |
| RD - Church Street (North) Closure | | | | | | | | | | | 56 | | |
| RD - University Ave Closure | | | | | | | | -35 | | | 10 | | -25 |
| RD - Church Street (South) Closure | | | | | | | | | | | | | 0 |
| **Total Re-Distribution** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **-35** | **0** | **0** | **66** | **0** | **31** |
| **2026 Projected (Build) Volumes** | **0** | **0** | **0** | **20** | **0** | **24** | **0** | **374** | **0** | **1** | **492** | **0** | **911** |
| Base growth (0.75% compounded for 17 yrs) | 0 | 0 | 0 | 3 | 0 | 3 | 0 | 54 | 0 | 0 | 56 | 0 | 116 |
| **2040 Base (No-Build) Volumes** | **0** | **0** | **0** | **23** | **0** | **26** | **0** | **454** | **0** | **1** | **473** | **0** | **977** |
| **2040 Projected (Build) Volumes** | **0** | **0** | **0** | **23** | **0** | **26** | **0** | **419** | **0** | **1** | **539** | **0** | **1008** |

**Time Period: Weekday P.M. Peak Hour**

| | Eastbound | | | Westbound | | | Northbound | | | Southbound | | | Intersection |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | left | thru | right | left | thru | right | left | thru | right | left | thru | right | Volume |
| **2023 Existing Counts** | **0** | **0** | **0** | **50** | **0** | **62** | **0** | **589** | **0** | **0** | **483** | **0** | **1184** |
| Balancing | | | | | | | | | | | | | 0 |
| **2024 Existing Volumes (Balanced)** | **0** | **0** | **0** | **50** | **0** | **62** | **0** | **589** | **0** | **0** | **483** | **0** | **1184** |
| RD - Church Street (North) Closure | | | | | | | | | | | 76 | | |
| RD - University Ave Closure | | | | | | | | -49 | | | 13 | | -36 |
| RD - Church Street (South) Closure | | | | | | | | | | | | | 0 |
| **Total Re-Distribution** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **-49** | **0** | **0** | **89** | **0** | **40** |
| Base growth (0.75% compounded for 17 yrs) | 0 | 0 | 0 | 7 | 0 | 8 | 0 | 80 | 0 | 0 | 65 | 0 | 160 |
| **2040 Base (No-Build) Volumes** | **0** | **0** | **0** | **57** | **0** | **70** | **0** | **669** | **0** | **0** | **548** | **0** | **1344** |
| **2040 Projected (Build) Volumes** | **0** | **0** | **0** | **57** | **0** | **70** | **0** | **620** | **0** | **0** | **637** | **0** | **1384** |

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**1/31/2025**
**Traffic Volumes Worksheet**

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| **Intersection:** | **S High Street and Rosedale Avenue** | | | | | | | | | |
| **Synchro Node:** | **11** | **Adjacent intersections:** | **West** | **0** | **East** | **0** | **North** | **0** | **South** | **0** |

**Time Period: Weekday A.M. Peak Hour**

| | Eastbound | | | Westbound | | | Northbound | | | Southbound | | | Intersection |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | left | thru | right | left | thru | right | left | thru | right | left | thru | right | Volume |
| **2023 Existing Counts** | **42** | **341** | **92** | **41** | **217** | **69** | **50** | **318** | **53** | **51** | **380** | **22** | **1676** |
| Balancing | | | | | | | | | | | | | 0 |
| **2024 Existing Volumes (Balanced)** | **42** | **341** | **92** | **41** | **217** | **69** | **50** | **318** | **53** | **51** | **380** | **22** | **1676** |
| RD - Church Street (North) Closure | | -29 | -8 | | | | | | | 29 | 8 | | |
| RD - University Ave Closure | | | | | 6 | -6 | 29 | -29 | | | 10 | | 10 |
| RD - Church Street (South) Closure | | | | (27) | (-27) | | | | | | (3) | (-3) | 0 |
| **Total Re-Distribution** | **0** | **-29** | **-8** | **27** | **-21** | **-6** | **29** | **-29** | **0** | **29** | **21** | **-3** | **10** |
| **2026 Projected (Build) Volumes** | **43** | **320** | **86** | **69** | **201** | **65** | **80** | **296** | **54** | **81** | **410** | **19** | **1724** |
| Base growth (0.75% compounded for 17 yrs) | 6 | 46 | 12 | 6 | 29 | 9 | 7 | 43 | 7 | 7 | 51 | 3 | 226 |
| **2040 Base (No-Build) Volumes** | **48** | **387** | **104** | **47** | **246** | **78** | **57** | **361** | **60** | **58** | **431** | **25** | **1902** |
| **2040 Projected (Build) Volumes** | **48** | **358** | **96** | **74** | **225** | **72** | **86** | **332** | **60** | **87** | **452** | **22** | **1912** |

**Time Period: Weekday P.M. Peak Hour**

| | Eastbound | | | Westbound | | | Northbound | | | Southbound | | | Intersection |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | left | thru | right | left | thru | right | left | thru | right | left | thru | right | Volume |
| **2023 Existing Counts** | **59** | **226** | **116** | **47** | **299** | **84** | **68** | **404** | **86** | **46** | **363** | **40** | **1838** |
| Balancing | | | | | | | | | | | | | 0 |
| **2024 Existing Volumes (Balanced)** | **59** | **226** | **116** | **47** | **299** | **84** | **68** | **404** | **86** | **46** | **363** | **40** | **1838** |
| RD - Church Street (North) Closure | | -73 | -38 | | | | | | | 73 | 38 | | |
| RD - University Ave Closure | | | | | 8 | -8 | 41 | -41 | | | 13 | | 13 |
| RD - Church Street (South) Closure | | | | (29) | (-29) | | | | | | (4) | (-4) | 0 |
| **Total Re-Distribution** | **0** | **-73** | **-38** | **29** | **-21** | **-8** | **41** | **-41** | **0** | **73** | **55** | **-4** | **13** |
| Base growth (0.75% compounded for 17 yrs) | 8 | 31 | 16 | 6 | 40 | 11 | 9 | 55 | 12 | 6 | 49 | 5 | 248 |
| **2040 Base (No-Build) Volumes** | **67** | **257** | **132** | **53** | **339** | **95** | **77** | **459** | **98** | **52** | **412** | **45** | **2086** |
| **2040 Projected (Build) Volumes** | **67** | **184** | **94** | **82** | **318** | **87** | **118** | **418** | **98** | **125** | **467** | **41** | **2099** |

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**Traffic Volumes Worksheet**

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| **Intersection:** | **Matlack Street and Rosedale Avenue** | | | | | | | | | |
| **Synchro Node:** | **12** | **Adjacent intersections:** | **West** | **0** | **East** | **0** | **North** | **0** | **South** | **0** |

**Time Period: Weekday A.M. Peak Hour**

| | Eastbound | | | Westbound | | | Northbound | | | Southbound | | | Intersection |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | left | thru | right | left | thru | right | left | thru | right | left | thru | right | Volume |
| **2023 Existing Counts** | **0** | **142** | **262** | **53** | **58** | **0** | **247** | **0** | **47** | **6** | **56** | **17** | **888** |
| Balancing | | | | | | | | | | | | | 0 |
| **2024 Existing Volumes (Balanced)** | **0** | **142** | **262** | **53** | **58** | **0** | **247** | **0** | **47** | **6** | **56** | **17** | **888** |
| RD - Church Street (North) Closure | | | | | | | | | | | | | |
| RD - University Ave Closure | | | | | | | | | | | | | 0 |
| RD - Church Street (South) Closure | | | | | | | | | | | | | 0 |
| **Total Re-Distribution** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** |
| **2026 Projected (Build) Volumes** | **0** | **145** | **268** | **54** | **59** | **0** | **253** | **0** | **48** | **6** | **57** | **17** | **907** |
| Base growth (0.75% compounded for 17 yrs) | 0 | 19 | 35 | 7 | 8 | 0 | 33 | 0 | 6 | 1 | 8 | 2 | 119 |
| **2040 Base (No-Build) Volumes** | **0** | **161** | **297** | **60** | **66** | **0** | **280** | **0** | **53** | **7** | **64** | **19** | **1007** |
| **2040 Projected (Build) Volumes** | **0** | **161** | **297** | **60** | **66** | **0** | **280** | **0** | **53** | **7** | **64** | **19** | **1007** |

**Time Period: Weekday P.M. Peak Hour**

| | Eastbound | | | Westbound | | | Northbound | | | Southbound | | | Intersection |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | left | thru | right | left | thru | right | left | thru | right | left | thru | right | Volume |
| **2023 Existing Counts** | **1** | **140** | **151** | **58** | **158** | **0** | **262** | **0** | **106** | **11** | **64** | **24** | **975** |
| Balancing | | | | | | | | | | | | | 0 |
| **2024 Existing Volumes (Balanced)** | **1** | **140** | **151** | **58** | **158** | **0** | **262** | **0** | **106** | **11** | **64** | **24** | **975** |
| RD - Church Street (North) Closure | | | | | | | | | | | | | |
| RD - University Ave Closure | | | | | | | | | | | | | 0 |
| RD - Church Street (South) Closure | | | | | | | | | | | | | 0 |
| **Total Re-Distribution** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** |
| Base growth (0.75% compounded for 17 yrs) | 0 | 19 | 20 | 8 | 21 | 0 | 35 | 0 | 14 | 1 | 9 | 3 | 130 |
| **2040 Base (No-Build) Volumes** | **1** | **159** | **171** | **66** | **179** | **0** | **297** | **0** | **120** | **12** | **73** | **27** | **1105** |
| **2040 Projected (Build) Volumes** | **1** | **159** | **171** | **66** | **179** | **0** | **297** | **0** | **120** | **12** | **73** | **27** | **1105** |

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**Traffic Volumes Worksheet**

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Intersection:** | **Matlack Street and Carter Drive** | | | | | | | | | | | |
| **Synchro Node:** | **13** | **Adjacent intersections:** | **West** | **0** | **East** | **0** | **North** | **0** | **South** | **0** | | |

**Time Period: Weekday A.M. Peak Hour**

| | Eastbound | | | Westbound | | | Northbound | | | Southbound | | | Intersection |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | left | thru | right | left | thru | right | left | thru | right | left | thru | right | Volume |
| **2023 Existing Counts** | **1** | **1** | **1** | **51** | **0** | **37** | **11** | **354** | **110** | **79** | **287** | **5** | **937** |
| Balancing | | | | | | | | | | | | | 0 |
| **2024 Existing Volumes (Balanced)** | **1** | **1** | **1** | **51** | **0** | **37** | **11** | **354** | **110** | **79** | **287** | **5** | **937** |
| RD - Church Street (North) Closure | | | | | | | | | | | | | |
| RD - University Ave Closure | | | | | | | | | | | | | 0 |
| RD - Church Street (South) Closure | | | | | | | | | | | | | 0 |
| **Total Re-Distribution** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** |
| **2026 Projected (Build) Volumes** | **1** | **1** | **1** | **52** | **0** | **38** | **11** | **362** | **112** | **81** | **294** | **5** | **958** |
| Base growth (0.75% compounded for 17 yrs) | 0 | 0 | 0 | 7 | 0 | 5 | 1 | 48 | 15 | 11 | 39 | 1 | 127 |
| **2040 Base (No-Build) Volumes** | **1** | **1** | **1** | **58** | **0** | **42** | **12** | **402** | **125** | **90** | **326** | **6** | **1064** |
| **2040 Projected (Build) Volumes** | **1** | **1** | **1** | **58** | **0** | **42** | **12** | **402** | **125** | **90** | **326** | **6** | **1064** |

**Time Period: Weekday P.M. Peak Hour**

| | Eastbound | | | Westbound | | | Northbound | | | Southbound | | | Intersection |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | left | thru | right | left | thru | right | left | thru | right | left | thru | right | Volume |
| **2023 Existing Counts** | **14** | **4** | **27** | **74** | **1** | **61** | **5** | **272** | **58** | **48** | **271** | **5** | **840** |
| Balancing | | | | | | | | | | | | | 0 |
| **2024 Existing Volumes (Balanced)** | **14** | **4** | **27** | **74** | **1** | **61** | **5** | **272** | **58** | **48** | **271** | **5** | **840** |
| RD - Church Street (North) Closure | | | | | | | | | | | | | |
| RD - University Ave Closure | | | | | | | | | | | | | 0 |
| RD - Church Street (South) Closure | | | | | | | | | | | | | 0 |
| **Total Re-Distribution** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** |
| Base growth (0.75% compounded for 17 yrs) | 2 | 1 | 4 | 10 | 0 | 8 | 1 | 37 | 8 | 7 | 37 | 1 | 116 |
| **2040 Base (No-Build) Volumes** | **16** | **5** | **31** | **84** | **1** | **69** | **6** | **309** | **66** | **55** | **308** | **6** | **956** |
| **2040 Projected (Build) Volumes** | **16** | **5** | **31** | **84** | **1** | **69** | **6** | **309** | **66** | **55** | **308** | **6** | **956** |

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**1/31/2025**
**Traffic Volumes Worksheet**

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **Intersection:** | **Rosedale Avenue and Church Street** | | | | | | | | |
| **Synchro Node:** | **14** | **Adjacent intersections:** | **West** | **0** | **East** | **0** | **North** | **0** | **South** | **0** |

**Time Period: Weekday A.M. Peak Hour**

| | Eastbound | | | Westbound | | | Northbound | | | Southbound | | | Intersection |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | left | thru | right | left | thru | right | left | thru | right | left | thru | right | Volume |
| **2023 Existing Counts** | **0** | **431** | **11** | **26** | **229** | **0** | **0** | **0** | **0** | **33** | **5** | **31** | **766** |
| Balancing | | | | | | | | | | | | | 0 |
| **2024 Existing Volumes (Balanced)** | **0** | **431** | **11** | **26** | **229** | **0** | **0** | **0** | **0** | **33** | **5** | **31** | **766** |
| RD - Church Street (North) Closure | | | | | | | | | | -37 | -6 | -35 | |
| RD - University Ave Closure | | | | | 35 | | | | | | | | 35 |
| RD - Church Street (South) Closure | | | (-12) | (-30) | | | | | | | | | -42 |
| **Total Re-Distribution** | **0** | **0** | **-12** | **-30** | **35** | **0** | **0** | **0** | **0** | **-37** | **-6** | **-35** | **-85** |
| **2026 Projected (Build) Volumes** | **0** | **441** | **-1** | **-3** | **269** | **0** | **0** | **0** | **0** | **-3** | **-1** | **-3** | **699** |
| Base growth (0.75% compounded for 17 yrs) | 0 | 58 | 1 | 4 | 31 | 0 | 0 | 0 | 0 | 4 | 1 | 4 | 103 |
| **2040 Base (No-Build) Volumes** | **0** | **489** | **12** | **30** | **260** | **0** | **0** | **0** | **0** | **37** | **6** | **35** | **869** |
| **2040 Projected (Build) Volumes** | **0** | **489** | **0** | **0** | **295** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **784** |

**Time Period: Weekday P.M. Peak Hour**

| | Eastbound | | | Westbound | | | Northbound | | | Southbound | | | Intersection |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | left | thru | right | left | thru | right | left | thru | right | left | thru | right | Volume |
| **2023 Existing Counts** | **0** | **307** | **16** | **29** | **370** | **0** | **0** | **0** | **0** | **98** | **2** | **55** | **877** |
| Balancing | | | | | | | | | | | | | 0 |
| **2024 Existing Volumes (Balanced)** | **0** | **307** | **16** | **29** | **370** | **0** | **0** | **0** | **0** | **98** | **2** | **55** | **877** |
| RD - Church Street (North) Closure | | | | | | | | | | -111 | -2 | -62 | |
| RD - University Ave Closure | | | | | 49 | | | | | | | | 49 |
| RD - Church Street (South) Closure | | | (-18) | (-33) | | | | | | | | | -51 |
| **Total Re-Distribution** | **0** | **0** | **-18** | **-33** | **49** | **0** | **0** | **0** | **0** | **-111** | **-2** | **-62** | **-177** |
| Base growth (0.75% compounded for 17 yrs) | 0 | 42 | 2 | 4 | 50 | 0 | 0 | 0 | 0 | 13 | 0 | 7 | 118 |
| **2040 Base (No-Build) Volumes** | **0** | **349** | **18** | **33** | **420** | **0** | **0** | **0** | **0** | **111** | **2** | **62** | **995** |
| **2040 Projected (Build) Volumes** | **0** | **349** | **0** | **0** | **469** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **818** |

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**Traffic Volumes Worksheet**

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| **Intersection:** | **Rosedale Avenue and Pedestrian Crossing** | | | | | | | | | |
| **Synchro Node:** | **15** | **Adjacent intersections:** | **West** | **0** | **East** | **0** | **North** | **0** | **South** | **0** |

**Time Period: Weekday A.M. Peak Hour**

| | Eastbound | | | Westbound | | | Northbound | | | Southbound | | | Intersection |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | left | thru | right | left | thru | right | left | thru | right | left | thru | right | Volume |
| **2023 Existing Counts** | **0** | **432** | **0** | **0** | **260** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **692** |
| Balancing | | | | | | | | | | | | | 0 |
| **2024 Existing Volumes (Balanced)** | **0** | **432** | **0** | **0** | **260** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **692** |
| RD - Church Street (North) Closure | | | | | -35 | | | | | | | | |
| RD - University Ave Closure | | | | | 35 | | | | | | | | 35 |
| RD - Church Street (South) Closure | | (-12) | | | | | | | | | | | -12 |
| **Total Re-Distribution** | **0** | **-12** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **-12** |
| **2026 Projected (Build) Volumes** | **0** | **430** | **0** | **0** | **266** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **696** |
| Base growth (0.75% compounded for 17 yrs) | 0 | 59 | 0 | 0 | 35 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 94 |
| **2040 Base (No-Build) Volumes** | **0** | **491** | **0** | **0** | **295** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **786** |
| **2040 Projected (Build) Volumes** | **0** | **479** | **0** | **0** | **295** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **774** |

**Time Period: Weekday P.M. Peak Hour**

| | Eastbound | | | Westbound | | | Northbound | | | Southbound | | | Intersection |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | left | thru | right | left | thru | right | left | thru | right | left | thru | right | Volume |
| **2023 Existing Counts** | **0** | **310** | **0** | **0** | **434** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **744** |
| Balancing | | | | | | | | | | | | | 0 |
| **2024 Existing Volumes (Balanced)** | **0** | **310** | **0** | **0** | **434** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **744** |
| RD - Church Street (North) Closure | | | | | -62 | | | | | | | | |
| RD - University Ave Closure | | | | | 49 | | | | | | | | 49 |
| RD - Church Street (South) Closure | | (-18) | | | | | | | | | | | -18 |
| **Total Re-Distribution** | **0** | **-18** | **0** | **0** | **-13** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **-31** |
| Base growth (0.75% compounded for 17 yrs) | 0 | 42 | 0 | 0 | 59 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 101 |
| **2040 Base (No-Build) Volumes** | **0** | **352** | **0** | **0** | **493** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **845** |
| **2040 Projected (Build) Volumes** | **0** | **334** | **0** | **0** | **480** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **814** |

**TPD# WCU.04**
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**Traffic Volumes Worksheet**

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| **Intersection:** | **S New Street and Rosedale Avenue** | | | | | | | | | |
| **Synchro Node:** | **16** | **Adjacent intersections:** | **West** | **0** | **East** | **0** | **North** | **0** | **South** | **0** |

**Time Period: Weekday A.M. Peak Hour**

| | Eastbound | | | Westbound | | | Northbound | | | Southbound | | | Intersection |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | left | thru | right | left | thru | right | left | thru | right | left | thru | right | Volume |
| **2023 Existing Counts** | **17** | **418** | **3** | **55** | **113** | **82** | **4** | **112** | **80** | **91** | **53** | **6** | **1034** |
| Balancing | | | | | | | | | | | | | 0 |
| **2024 Existing Volumes (Balanced)** | **17** | **418** | **3** | **55** | **113** | **82** | **4** | **112** | **80** | **91** | **53** | **6** | **1034** |
| RD - Church Street (North) Closure | | | | -15 | -20 | | | | | 6 | 15 | 20 | |
| RD - University Ave Closure | | | | | | 35 | | | | | | | 35 |
| RD - Church Street (South) Closure | | | | | | | | | | | | | 0 |
| **Total Re-Distribution** | **0** | **0** | **0** | **-15** | **-20** | **35** | **0** | **0** | **0** | **6** | **15** | **20** | **41** |
| **2026 Projected (Build) Volumes** | **17** | **427** | **3** | **41** | **96** | **119** | **4** | **115** | **82** | **99** | **69** | **26** | **1098** |
| Base growth (0.75% compounded for 17 yrs) | 2 | 57 | 0 | 7 | 15 | 11 | 1 | 15 | 11 | 12 | 7 | 1 | 139 |
| **2040 Base (No-Build) Volumes** | **19** | **475** | **3** | **62** | **128** | **93** | **5** | **127** | **91** | **103** | **60** | **7** | **1173** |
| **2040 Projected (Build) Volumes** | **19** | **475** | **3** | **47** | **108** | **128** | **5** | **127** | **91** | **109** | **75** | **27** | **1214** |

**Time Period: Weekday P.M. Peak Hour**

| | Eastbound | | | Westbound | | | Northbound | | | Southbound | | | Intersection |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | left | thru | right | left | thru | right | left | thru | right | left | thru | right | Volume |
| **2023 Existing Counts** | **14** | **157** | **12** | **86** | **266** | **143** | **11** | **120** | **140** | **123** | **104** | **12** | **1188** |
| Balancing | | | | | | | | | | | | | 0 |
| **2024 Existing Volumes (Balanced)** | **14** | **157** | **12** | **86** | **266** | **143** | **11** | **120** | **140** | **123** | **104** | **12** | **1188** |
| RD - Church Street (North) Closure | | | | -22 | -40 | | | | | -3 | 22 | 40 | |
| RD - University Ave Closure | | | | | | 49 | | | | | | | 49 |
| RD - Church Street (South) Closure | | | | | | | | | | | | | 0 |
| **Total Re-Distribution** | **0** | **0** | **0** | **-22** | **-40** | **49** | **0** | **0** | **0** | **-3** | **22** | **40** | **46** |
| Base growth (0.75% compounded for 17 yrs) | 2 | 21 | 2 | 12 | 36 | 19 | 1 | 16 | 19 | 17 | 14 | 2 | 161 |
| **2040 Base (No-Build) Volumes** | **16** | **178** | **14** | **98** | **302** | **162** | **12** | **136** | **159** | **140** | **118** | **14** | **1349** |
| **2040 Projected (Build) Volumes** | **16** | **178** | **14** | **76** | **262** | **211** | **12** | **136** | **159** | **137** | **140** | **54** | **1395** |

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**Traffic Volumes Worksheet**

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| **Intersection:** | **S New Street and Nields Street/Campus Drive** | | | | | | | | | |
| **Synchro Node:** | **17** | **Adjacent intersections:** | **West** | **0** | **East** | **0** | **North** | **0** | **South** | **0** |

**Time Period: Weekday A.M. Peak Hour**

| | Eastbound | | | Westbound | | | Northbound | | | Southbound | | | Intersection |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | left | thru | right | left | thru | right | left | thru | right | left | thru | right | Volume |
| **2023 Existing Counts** | **10** | **10** | **32** | **10** | **0** | **12** | **27** | **150** | **61** | **41** | **116** | **8** | **477** |
| Balancing | | | | | | | | | | | | | 0 |
| **2024 Existing Volumes (Balanced)** | **10** | **10** | **32** | **10** | **0** | **12** | **27** | **150** | **61** | **41** | **116** | **8** | **477** |
| RD - Church Street (North) Closure | | | | 40 | | | | | | | 1 | | |
| RD - University Ave Closure | | | | | | | | | 35 | | | | 35 |
| RD - Church Street (South) Closure | | | | | | | | | | | | | 0 |
| **Total Re-Distribution** | **0** | **0** | **0** | **40** | **0** | **0** | **0** | **0** | **35** | **0** | **1** | **0** | **76** |
| **2026 Projected (Build) Volumes** | **10** | **10** | **33** | **50** | **0** | **12** | **28** | **153** | **97** | **42** | **120** | **8** | **563** |
| Base growth (0.75% compounded for 17 yrs) | 1 | 1 | 4 | 1 | 0 | 2 | 4 | 20 | 8 | 6 | 16 | 1 | 64 |
| **2040 Base (No-Build) Volumes** | **11** | **11** | **36** | **11** | **0** | **14** | **31** | **170** | **69** | **47** | **132** | **9** | **541** |
| **2040 Projected (Build) Volumes** | **11** | **11** | **36** | **51** | **0** | **14** | **31** | **170** | **104** | **47** | **133** | **9** | **617** |

**Time Period: Weekday P.M. Peak Hour**

| | Eastbound | | | Westbound | | | Northbound | | | Southbound | | | Intersection |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | left | thru | right | left | thru | right | left | thru | right | left | thru | right | Volume |
| **2023 Existing Counts** | **7** | **4** | **35** | **47** | **9** | **67** | **28** | **261** | **33** | **31** | **149** | **13** | **684** |
| Balancing | | | | | | | | | | | | | 0 |
| **2024 Existing Volumes (Balanced)** | **7** | **4** | **35** | **47** | **9** | **67** | **28** | **261** | **33** | **31** | **149** | **13** | **684** |
| RD - Church Street (North) Closure | | | | 54 | | | | | | | 5 | | |
| RD - University Ave Closure | | | | | | | | | 49 | | | | 49 |
| RD - Church Street (South) Closure | | | | | | | | | | | | | 0 |
| **Total Re-Distribution** | **0** | **0** | **0** | **54** | **0** | **0** | **0** | **0** | **49** | **0** | **5** | **0** | **108** |
| Base growth (0.75% compounded for 17 yrs) | 1 | 1 | 5 | 6 | 1 | 9 | 4 | 35 | 4 | 4 | 20 | 2 | 92 |
| **2040 Base (No-Build) Volumes** | **8** | **5** | **40** | **53** | **10** | **76** | **32** | **296** | **37** | **35** | **169** | **15** | **776** |
| **2040 Projected (Build) Volumes** | **8** | **5** | **40** | **107** | **10** | **76** | **32** | **296** | **86** | **35** | **174** | **15** | **884** |

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**Traffic Volumes Worksheet**

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| **Intersection:** | **S New Street and Pomona Hill Drive** | | | | | | | | | |
| **Synchro Node:** | **18** | **Adjacent intersections:** | **West** | **0** | **East** | **0** | **North** | **0** | **South** | **0** |

**Time Period: Weekday A.M. Peak Hour**

| | Eastbound | | | Westbound | | | Northbound | | | Southbound | | | Intersection |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | left | thru | right | left | thru | right | left | thru | right | left | thru | right | Volume |
| **2023 Existing Counts** | **7** | **0** | **1** | **0** | **0** | **0** | **2** | **216** | **0** | **0** | **143** | **8** | **377** |
| Balancing | | | | | | | | | | | | | 0 |
| **2024 Existing Volumes (Balanced)** | **7** | **0** | **1** | **0** | **0** | **0** | **2** | **216** | **0** | **0** | **143** | **8** | **377** |
| RD - Church Street (North) Closure | | | | | | | | | | | | | |
| RD - University Ave Closure | | | | | | | | | | | | | 0 |
| RD - Church Street (South) Closure | | | | | | | | | | | | | 0 |
| **Total Re-Distribution** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** |
| **2026 Projected (Build) Volumes** | **7** | **0** | **1** | **0** | **0** | **0** | **2** | **221** | **0** | **0** | **146** | **8** | **385** |
| Base growth (0.75% compounded for 17 yrs) | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 29 | 0 | 0 | 19 | 1 | 50 |
| **2040 Base (No-Build) Volumes** | **8** | **0** | **1** | **0** | **0** | **0** | **2** | **245** | **0** | **0** | **162** | **9** | **427** |
| **2040 Projected (Build) Volumes** | **8** | **0** | **1** | **0** | **0** | **0** | **2** | **245** | **0** | **0** | **162** | **9** | **427** |

**Time Period: Weekday P.M. Peak Hour**

| | Eastbound | | | Westbound | | | Northbound | | | Southbound | | | Intersection |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | left | thru | right | left | thru | right | left | thru | right | left | thru | right | Volume |
| **2023 Existing Counts** | **2** | **0** | **7** | **0** | **0** | **0** | **4** | **229** | **0** | **0** | **302** | **7** | **551** |
| Balancing | | | | | | | | | | | | | 0 |
| **2024 Existing Volumes (Balanced)** | **2** | **0** | **7** | **0** | **0** | **0** | **4** | **229** | **0** | **0** | **302** | **7** | **551** |
| RD - Church Street (North) Closure | | | | | | | | | | | | | |
| RD - University Ave Closure | | | | | | | | | | | | | 0 |
| RD - Church Street (South) Closure | | | | | | | | | | | | | 0 |
| **Total Re-Distribution** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** |
| Base growth (0.75% compounded for 17 yrs) | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 31 | 0 | 0 | 41 | 1 | 75 |
| **2040 Base (No-Build) Volumes** | **2** | **0** | **8** | **0** | **0** | **0** | **5** | **260** | **0** | **0** | **343** | **8** | **626** |
| **2040 Projected (Build) Volumes** | **2** | **0** | **8** | **0** | **0** | **0** | **5** | **260** | **0** | **0** | **343** | **8** | **626** |

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**Traffic Volumes Worksheet**

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| **Intersection:** | **S New Street and Glen Echo Field Access** | | | | | | | | | |
| **Synchro Node:** | **19** | **Adjacent intersections:** | **West** | **0** | **East** | **0** | **North** | **0** | **South** | **0** |

**Time Period: Weekday A.M. Peak Hour**

| | Eastbound | | | Westbound | | | Northbound | | | Southbound | | | Intersection |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | left | thru | right | left | thru | right | left | thru | right | left | thru | right | Volume |
| **2023 Existing Counts** | **0** | **0** | **2** | **0** | **0** | **0** | **0** | **220** | **0** | **0** | **139** | **0** | **361** |
| Balancing | | | | | | | | | | | | | 0 |
| **2024 Existing Volumes (Balanced)** | **0** | **0** | **2** | **0** | **0** | **0** | **0** | **220** | **0** | **0** | **139** | **0** | **361** |
| RD - Church Street (North) Closure | | | | | | | | | | | | | |
| RD - University Ave Closure | | | | | | | | | | | | | 0 |
| RD - Church Street (South) Closure | | | | | | | | | | | | | 0 |
| **Total Re-Distribution** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** |
| **2026 Projected (Build) Volumes** | **0** | **0** | **2** | **0** | **0** | **0** | **0** | **225** | **0** | **0** | **142** | **0** | **369** |
| Base growth (0.75% compounded for 17 yrs) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 30 | 0 | 0 | 19 | 0 | 49 |
| **2040 Base (No-Build) Volumes** | **0** | **0** | **2** | **0** | **0** | **0** | **0** | **250** | **0** | **0** | **158** | **0** | **410** |
| **2040 Projected (Build) Volumes** | **0** | **0** | **2** | **0** | **0** | **0** | **0** | **250** | **0** | **0** | **158** | **0** | **410** |

**Time Period: Weekday P.M. Peak Hour**

| | Eastbound | | | Westbound | | | Northbound | | | Southbound | | | Intersection |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | left | thru | right | left | thru | right | left | thru | right | left | thru | right | Volume |
| **2023 Existing Counts** | **3** | **0** | **0** | **0** | **0** | **0** | **0** | **217** | **0** | **0** | **302** | **0** | **522** |
| Balancing | | | | | | | | | | | | | 0 |
| **2024 Existing Volumes (Balanced)** | **3** | **0** | **0** | **0** | **0** | **0** | **0** | **217** | **0** | **0** | **302** | **0** | **522** |
| RD - Church Street (North) Closure | | | | | | | | | | | | | |
| RD - University Ave Closure | | | | | | | | | | | | | 0 |
| RD - Church Street (South) Closure | | | | | | | | | | | | | 0 |
| **Total Re-Distribution** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** |
| Base growth (0.75% compounded for 17 yrs) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 29 | 0 | 0 | 41 | 0 | 70 |
| **2040 Base (No-Build) Volumes** | **3** | **0** | **0** | **0** | **0** | **0** | **0** | **246** | **0** | **0** | **343** | **0** | **592** |
| **2040 Projected (Build) Volumes** | **3** | **0** | **0** | **0** | **0** | **0** | **0** | **246** | **0** | **0** | **343** | **0** | **592** |

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**Traffic Volumes Worksheet**

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| **Intersection:** | **S New Street and 855 S New Street** | | | | | | | | | |
| **Synchro Node:** | **20** | **Adjacent intersections:** | **West** | **0** | **East** | **0** | **North** | **0** | **South** | **0** |

**Time Period: Weekday A.M. Peak Hour**

| | Eastbound | | | Westbound | | | Northbound | | | Southbound | | | Intersection |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | left | thru | right | left | thru | right | left | thru | right | left | thru | right | Volume |
| **2023 Existing Counts** | **0** | **0** | **0** | **11** | **0** | **25** | **0** | **198** | **15** | **29** | **100** | **0** | **378** |
| Balancing | | | | | | | | | | | | | 0 |
| **2024 Existing Volumes (Balanced)** | **0** | **0** | **0** | **11** | **0** | **25** | **0** | **198** | **15** | **29** | **100** | **0** | **378** |
| RD - Church Street (North) Closure | | | | | | | | | | | | | |
| RD - University Ave Closure | | | | | | | | | | | | | 0 |
| RD - Church Street (South) Closure | | | | | | | | | | | | | 0 |
| **Total Re-Distribution** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** |
| **2026 Projected (Build) Volumes** | **0** | **0** | **0** | **11** | **0** | **26** | **0** | **202** | **15** | **30** | **102** | **0** | **386** |
| Base growth (0.75% compounded for 17 yrs) | 0 | 0 | 0 | 1 | 0 | 3 | 0 | 27 | 2 | 4 | 14 | 0 | 51 |
| **2040 Base (No-Build) Volumes** | **0** | **0** | **0** | **12** | **0** | **28** | **0** | **225** | **17** | **33** | **114** | **0** | **429** |
| **2040 Projected (Build) Volumes** | **0** | **0** | **0** | **12** | **0** | **28** | **0** | **225** | **17** | **33** | **114** | **0** | **429** |

**Time Period: Weekday P.M. Peak Hour**

| | Eastbound | | | Westbound | | | Northbound | | | Southbound | | | Intersection |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | left | thru | right | left | thru | right | left | thru | right | left | thru | right | Volume |
| **2023 Existing Counts** | **0** | **0** | **0** | **16** | **0** | **58** | **0** | **157** | **10** | **24** | **282** | **0** | **547** |
| Balancing | | | | | | | | | | | | | 0 |
| **2024 Existing Volumes (Balanced)** | **0** | **0** | **0** | **16** | **0** | **58** | **0** | **157** | **10** | **24** | **282** | **0** | **547** |
| RD - Church Street (North) Closure | | | | | | | | | | | | | |
| RD - University Ave Closure | | | | | | | | | | | | | 0 |
| RD - Church Street (South) Closure | | | | | | | | | | | | | 0 |
| **Total Re-Distribution** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** |
| Base growth (0.75% compounded for 17 yrs) | 0 | 0 | 0 | 2 | 0 | 8 | 0 | 21 | 1 | 3 | 38 | 0 | 73 |
| **2040 Base (No-Build) Volumes** | **0** | **0** | **0** | **18** | **0** | **66** | **0** | **178** | **11** | **27** | **320** | **0** | **620** |
| **2040 Projected (Build) Volumes** | **0** | **0** | **0** | **18** | **0** | **66** | **0** | **178** | **11** | **27** | **320** | **0** | **620** |

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**Traffic Volumes Worksheet**

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| **Intersection:** | **S New Street and S Campus Drive/Parking Lot** | | | | | | | | | |
| **Synchro Node:** | **21** | **Adjacent intersections:** | **West** | **0** | **East** | **0** | **North** | **0** | **South** | **0** |

**Time Period: Weekday A.M. Peak Hour**

| | Eastbound | | | Westbound | | | Northbound | | | Southbound | | | Intersection |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | left | thru | right | left | thru | right | left | thru | right | left | thru | right | Volume |
| **2023 Existing Counts** | **68** | **9** | **10** | **0** | **7** | **4** | **7** | **132** | **1** | **3** | **79** | **25** | **345** |
| Balancing | | | | | | | | | | | | | 0 |
| **2024 Existing Volumes (Balanced)** | **68** | **9** | **10** | **0** | **7** | **4** | **7** | **132** | **1** | **3** | **79** | **25** | **345** |
| RD - Church Street (North) Closure | | | | | | | | | | | | | |
| RD - University Ave Closure | | | | | | | | | | | | | 0 |
| RD - Church Street (South) Closure | | | | | | | | | | | | | 0 |
| **Total Re-Distribution** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** |
| **2026 Projected (Build) Volumes** | **70** | **9** | **10** | **0** | **7** | **4** | **7** | **135** | **1** | **3** | **81** | **26** | **353** |
| Base growth (0.75% compounded for 17 yrs) | 9 | 1 | 1 | 0 | 1 | 1 | 1 | 18 | 0 | 0 | 11 | 3 | 46 |
| **2040 Base (No-Build) Volumes** | **77** | **10** | **11** | **0** | **8** | **5** | **8** | **150** | **1** | **3** | **90** | **28** | **391** |
| **2040 Projected (Build) Volumes** | **77** | **10** | **11** | **0** | **8** | **5** | **8** | **150** | **1** | **3** | **90** | **28** | **391** |

**Time Period: Weekday P.M. Peak Hour**

| | Eastbound | | | Westbound | | | Northbound | | | Southbound | | | Intersection |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | left | thru | right | left | thru | right | left | thru | right | left | thru | right | Volume |
| **2023 Existing Counts** | **92** | **8** | **30** | **4** | **10** | **8** | **18** | **62** | **1** | **2** | **187** | **95** | **517** |
| Balancing | | | | | | | | | | | | | 0 |
| **2024 Existing Volumes (Balanced)** | **92** | **8** | **30** | **4** | **10** | **8** | **18** | **62** | **1** | **2** | **187** | **95** | **517** |
| RD - Church Street (North) Closure | | | | | | | | | | | | | |
| RD - University Ave Closure | | | | | | | | | | | | | 0 |
| RD - Church Street (South) Closure | | | | | | | | | | | | | 0 |
| **Total Re-Distribution** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** |
| Base growth (0.75% compounded for 17 yrs) | 12 | 1 | 4 | 1 | 1 | 1 | 2 | 8 | 0 | 0 | 25 | 13 | 68 |
| **2040 Base (No-Build) Volumes** | **104** | **9** | **34** | **5** | **11** | **9** | **20** | **70** | **1** | **2** | **212** | **108** | **585** |
| **2040 Projected (Build) Volumes** | **104** | **9** | **34** | **5** | **11** | **9** | **20** | **70** | **1** | **2** | **212** | **108** | **585** |

**TPD# WCU.04**
**1/31/2025**
**Traffic Volumes Worksheet**

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| **Intersection:** | **S New Street and Tigue Road/Stadium Drive** | | | | | | | | | |
| **Synchro Node:** | **22** | **Adjacent intersections:** | **West** | **0** | **East** | **0** | **North** | **0** | **South** | **0** |

**Time Period: Weekday A.M. Peak Hour**

| | Eastbound | | | Westbound | | | Northbound | | | Southbound | | | Intersection |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | left | thru | right | left | thru | right | left | thru | right | left | thru | right | Volume |
| **2023 Existing Counts** | **15** | **1** | **7** | **5** | **1** | **4** | **12** | **126** | **7** | **5** | **66** | **19** | **268** |
| Balancing | | | | | | | | | | | | | 0 |
| **2024 Existing Volumes (Balanced)** | **15** | **1** | **7** | **5** | **1** | **4** | **12** | **126** | **7** | **5** | **66** | **19** | **268** |
| RD - Church Street (North) Closure | | | | | | | | | | | | | |
| RD - University Ave Closure | | | | | | | | | | | | | 0 |
| RD - Church Street (South) Closure | | | | | | | | | | | | | 0 |
| **Total Re-Distribution** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** |
| **2026 Projected (Build) Volumes** | **15** | **1** | **7** | **5** | **1** | **4** | **12** | **129** | **7** | **5** | **67** | **19** | **272** |
| Base growth (0.75% compounded for 17 yrs) | 2 | 0 | 1 | 1 | 0 | 1 | 2 | 17 | 1 | 1 | 9 | 3 | 38 |
| **2040 Base (No-Build) Volumes** | **17** | **1** | **8** | **6** | **1** | **5** | **14** | **143** | **8** | **6** | **75** | **22** | **306** |
| **2040 Projected (Build) Volumes** | **17** | **1** | **8** | **6** | **1** | **5** | **14** | **143** | **8** | **6** | **75** | **22** | **306** |

**Time Period: Weekday P.M. Peak Hour**

| | Eastbound | | | Westbound | | | Northbound | | | Southbound | | | Intersection |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | left | thru | right | left | thru | right | left | thru | right | left | thru | right | Volume |
| **2023 Existing Counts** | **7** | **2** | **8** | **5** | **2** | **7** | **48** | **66** | **3** | **3** | **139** | **77** | **367** |
| Balancing | | | | | | | | | | | | | 0 |
| **2024 Existing Volumes (Balanced)** | **7** | **2** | **8** | **5** | **2** | **7** | **48** | **66** | **3** | **3** | **139** | **77** | **367** |
| RD - Church Street (North) Closure | | | | | | | | | | | | | |
| RD - University Ave Closure | | | | | | | | | | | | | 0 |
| RD - Church Street (South) Closure | | | | | | | | | | | | | 0 |
| **Total Re-Distribution** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** |
| Base growth (0.75% compounded for 17 yrs) | 1 | 0 | 1 | 1 | 0 | 1 | 7 | 9 | 0 | 0 | 19 | 10 | 49 |
| **2040 Base (No-Build) Volumes** | **8** | **2** | **9** | **6** | **2** | **8** | **55** | **75** | **3** | **3** | **158** | **87** | **416** |
| **2040 Projected (Build) Volumes** | **8** | **2** | **9** | **6** | **2** | **8** | **55** | **75** | **3** | **3** | **158** | **87** | **416** |

**TPD# WCU.04**
**1/31/2025**
**Traffic Volumes Worksheet**

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| **Intersection:** | **Matlack Street and Campus Drive** | | | | | | | | | |
| **Synchro Node:** | **23** | **Adjacent intersections:** | **West** | **0** | **East** | **0** | **North** | **0** | **South** | **0** |

**Time Period: Weekday A.M. Peak Hour**

| | Eastbound | | | Westbound | | | Northbound | | | Southbound | | | Intersection |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | left | thru | right | left | thru | right | left | thru | right | left | thru | right | Volume |
| **2024 Existing Counts** | **15** | **9** | **33** | **1** | **9** | **16** | **144** | **241** | **2** | **23** | **268** | **13** | **774** |
| Balancing | | | | | | | | | | | | | 0 |
| **2024 Existing Volumes (Balanced)** | **15** | **9** | **33** | **1** | **9** | **16** | **144** | **241** | **2** | **23** | **268** | **13** | **774** |
| RD - Church Street (North) Closure | | | | | | | | | | | | | |
| RD - University Ave Closure | | | | | | | | | | | | | 0 |
| RD - Church Street (South) Closure | | | | | | | | | | | | | 0 |
| **Total Re-Distribution** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** |
| **2026 Projected (Build) Volumes** | **15** | **9** | **33** | **1** | **9** | **16** | **146** | **245** | **2** | **23** | **272** | **13** | **784** |
| Base growth (0.75% compounded for 16 yrs) | 2 | 1 | 4 | 0 | 1 | 2 | 18 | 31 | 0 | 3 | 34 | 2 | 98 |
| **2040 Base (No-Build) Volumes** | **17** | **10** | **37** | **1** | **10** | **18** | **162** | **272** | **2** | **26** | **302** | **15** | **872** |
| **2040 Projected (Build) Volumes** | **17** | **10** | **37** | **1** | **10** | **18** | **162** | **272** | **2** | **26** | **302** | **15** | **872** |

**Time Period: Weekday P.M. Peak Hour**

| | Eastbound | | | Westbound | | | Northbound | | | Southbound | | | Intersection |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | left | thru | right | left | thru | right | left | thru | right | left | thru | right | Volume |
| **2024 Existing Counts** | **38** | **0** | **65** | **3** | **2** | **5** | **68** | **368** | **2** | **2** | **232** | **18** | **803** |
| Balancing | | | | | | | | | | | | | 0 |
| **2024 Existing Volumes (Balanced)** | **38** | **0** | **65** | **3** | **2** | **5** | **68** | **368** | **2** | **2** | **232** | **18** | **803** |
| RD - Church Street (North) Closure | | | | | | | | | | | | | |
| RD - University Ave Closure | | | | | | | | | | | | | 0 |
| RD - Church Street (South) Closure | | | | | | | | | | | | | 0 |
| **Total Re-Distribution** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** |
| Base growth (0.75% compounded for 16 yrs) | 5 | 0 | 8 | 0 | 0 | 1 | 9 | 47 | 0 | 0 | 29 | 2 | 101 |
| **2040 Base (No-Build) Volumes** | **43** | **0** | **73** | **3** | **2** | **6** | **77** | **415** | **2** | **2** | **261** | **20** | **904** |
| **2040 Projected (Build) Volumes** | **43** | **0** | **73** | **3** | **2** | **6** | **77** | **415** | **2** | **2** | **261** | **20** | **904** |

**TPD# WCU.04**
**1/31/2025**
**Traffic Volumes Worksheet**

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Intersection:** | **Matlack Street and M Lot Southern Driveway** | | | | | | | | | | | |
| **Synchro Node:** | **24** | **Adjacent intersections:** | **West** | **0** | **East** | **0** | **North** | **0** | **South** | **0** | | |

**Time Period: Weekday A.M. Peak Hour**

| | Eastbound | | | Westbound | | | Northbound | | | Southbound | | | Intersection |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | left | thru | right | left | thru | right | left | thru | right | left | thru | right | Volume |
| **2024 Existing Counts** | **0** | **0** | **4** | **0** | **0** | **0** | **16** | **451** | **0** | **0** | **265** | **0** | **736** |
| Balancing | | | | | | | | | | | | | 0 |
| **2024 Existing Volumes (Balanced)** | **0** | **0** | **4** | **0** | **0** | **0** | **16** | **451** | **0** | **0** | **265** | **0** | **736** |
| RD - Church Street (North) Closure | | | | | | | | | | | | | |
| RD - University Ave Closure | | | | | | | | | | | | | 0 |
| RD - Church Street (South) Closure | | | | | | | | | | | | | 0 |
| **Total Re-Distribution** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** |
| **2026 Projected (Build) Volumes** | **0** | **0** | **4** | **0** | **0** | **0** | **16** | **458** | **0** | **0** | **269** | **0** | **747** |
| Base growth (0.75% compounded for 16 yrs) | 0 | 0 | 1 | 0 | 0 | 0 | 2 | 57 | 0 | 0 | 34 | 0 | 94 |
| **2040 Base (No-Build) Volumes** | **0** | **0** | **5** | **0** | **0** | **0** | **18** | **508** | **0** | **0** | **299** | **0** | **830** |
| **2040 Projected (Build) Volumes** | **0** | **0** | **5** | **0** | **0** | **0** | **18** | **508** | **0** | **0** | **299** | **0** | **830** |

**Time Period: Weekday P.M. Peak Hour**

| | Eastbound | | | Westbound | | | Northbound | | | Southbound | | | Intersection |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | left | thru | right | left | thru | right | left | thru | right | left | thru | right | Volume |
| **2024 Existing Counts** | **0** | **0** | **5** | **0** | **0** | **0** | **6** | **437** | **0** | **0** | **341** | **0** | **789** |
| Balancing | | | | | | | | | | | | | 0 |
| **2024 Existing Volumes (Balanced)** | **0** | **0** | **5** | **0** | **0** | **0** | **6** | **437** | **0** | **0** | **341** | **0** | **789** |
| RD - Church Street (North) Closure | | | | | | | | | | | | | |
| RD - University Ave Closure | | | | | | | | | | | | | 0 |
| RD - Church Street (South) Closure | | | | | | | | | | | | | 0 |
| **Total Re-Distribution** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** |
| Base growth (0.75% compounded for 16 yrs) | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 55 | 0 | 0 | 43 | 0 | 100 |
| **2040 Base (No-Build) Volumes** | **0** | **0** | **6** | **0** | **0** | **0** | **7** | **492** | **0** | **0** | **384** | **0** | **889** |
| **2040 Projected (Build) Volumes** | **0** | **0** | **6** | **0** | **0** | **0** | **7** | **492** | **0** | **0** | **384** | **0** | **889** |

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**1/31/2025**
**Traffic Volumes Worksheet**

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Intersection:** | **S High Street and Campus Drive** | | | | | | | | | | | |
| **Synchro Node:** | **25** | **Adjacent intersections:** | **West** | **0** | **East** | **0** | **North** | **0** | **South** | **0** | | |

**Time Period: Weekday A.M. Peak Hour**

| | Eastbound | | | Westbound | | | Northbound | | | Southbound | | | Intersection |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | left | thru | right | left | thru | right | left | thru | right | left | thru | right | Volume |
| **2024 Existing Counts** | **0** | **0** | **0** | **17** | **0** | **32** | **0** | **504** | **81** | **102** | **402** | **0** | **1138** |
| Balancing | | | | | | | | | | | | | 0 |
| **2024 Existing Volumes (Balanced)** | **0** | **0** | **0** | **17** | **0** | **32** | **0** | **504** | **81** | **102** | **402** | **0** | **1138** |
| RD - Church Street (North) Closure | | | | | | | | 0 | | | 0 | | |
| RD - University Ave Closure | | | | | | | | 0 | | | 10 | | 10 |
| RD - Church Street (South) Closure | | | | | | | | 0 | | | 30 | | 30 |
| **Total Re-Distribution** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **40** | **0** | **40** |
| **2026 Projected (Build) Volumes** | **0** | **0** | **0** | **17** | **0** | **32** | **0** | **512** | **82** | **104** | **448** | **0** | **1195** |
| Base growth (0.75% compounded for 16 yrs) | 0 | 0 | 0 | 2 | 0 | 4 | 0 | 64 | 10 | 13 | 51 | 0 | 144 |
| **2040 Base (No-Build) Volumes** | **0** | **0** | **0** | **19** | **0** | **36** | **0** | **568** | **91** | **115** | **453** | **0** | **1282** |
| **2040 Projected (Build) Volumes** | **0** | **0** | **0** | **19** | **0** | **36** | **0** | **568** | **91** | **115** | **493** | **0** | **1322** |

**Time Period: Weekday P.M. Peak Hour**

| | Eastbound | | | Westbound | | | Northbound | | | Southbound | | | Intersection |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | left | thru | right | left | thru | right | left | thru | right | left | thru | right | Volume |
| **2024 Existing Counts** | **0** | **0** | **0** | **70** | **0** | **83** | **0** | **564** | **32** | **35** | **657** | **0** | **1441** |
| Balancing | | | | | | | | | | | | | 0 |
| **2024 Existing Volumes (Balanced)** | **0** | **0** | **0** | **70** | **0** | **83** | **0** | **564** | **32** | **35** | **657** | **0** | **1441** |
| RD - Church Street (North) Closure | | | | | | | | 0 | | | 0 | | |
| RD - University Ave Closure | | | | | | | | 0 | | | 13 | | 13 |
| RD - Church Street (South) Closure | | | | | | | | 0 | | | 33 | | 33 |
| **Total Re-Distribution** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **46** | **0** | **46** |
| Base growth (0.75% compounded for 16 yrs) | 0 | 0 | 0 | 9 | 0 | 11 | 0 | 72 | 4 | 4 | 83 | 0 | 183 |
| **2040 Base (No-Build) Volumes** | **0** | **0** | **0** | **79** | **0** | **94** | **0** | **636** | **36** | **39** | **740** | **0** | **1624** |
| **2040 Projected (Build) Volumes** | **0** | **0** | **0** | **79** | **0** | **94** | **0** | **636** | **36** | **39** | **786** | **0** | **1670** |

# APPENDIX E:
# *Capacity Analyses*

# Existing Conditions

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 4 | 54 | 7 | 48 | 10 | 5 | 9 | 88 | 77 | 10 | 114 | 1 |
| Future Volume (vph) | 4 | 54 | 7 | 48 | 10 | 5 | 9 | 88 | 77 | 10 | 114 | 1 |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Ped Bike Factor | | | | | | | | | | | | |
| Frt | | 0.986 | | | 0.989 | | | 0.940 | | | 0.999 | |
| Flt Protected | | 0.997 | | | 0.964 | | | 0.997 | | | 0.996 | |
| Satd. Flow (prot) | 0 | 1767 | 0 | 0 | 1811 | 0 | 0 | 1547 | 0 | 0 | 1833 | 0 |
| Flt Permitted | | 0.997 | | | 0.964 | | | 0.997 | | | 0.996 | |
| Satd. Flow (perm) | 0 | 1767 | 0 | 0 | 1811 | 0 | 0 | 1547 | 0 | 0 | 1833 | 0 |
| Sign Control | | Stop | | | Stop | | | Stop | | | Stop | |

Intersection Summary

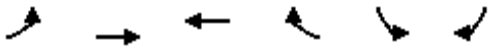
Control Type: Unsignalized

| Intersection | |
|---|---|
| Intersection Delay, s/veh | 9.2 |
| Intersection LOS | A |

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Vol, veh/h | 4 | 54 | 7 | 48 | 10 | 5 | 9 | 88 | 77 | 10 | 114 | 1 |
| Future Vol, veh/h | 4 | 54 | 7 | 48 | 10 | 5 | 9 | 88 | 77 | 10 | 114 | 1 |
| Peak Hour Factor | 0.74 | 0.74 | 0.74 | 0.74 | 0.74 | 0.74 | 0.74 | 0.74 | 0.74 | 0.74 | 0.74 | 0.74 |
| Heavy Vehicles, % | 50 | 4 | 0 | 0 | 0 | 0 | 11 | 9 | 20 | 0 | 4 | 0 |
| Mvmt Flow | 5 | 73 | 9 | 65 | 14 | 7 | 12 | 119 | 104 | 14 | 154 | 1 |
| Number of Lanes | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 0 |

| Approach | EB | WB | NB | SB |
|---|---|---|---|---|
| Opposing Approach | WB | EB | SB | NB |
| Opposing Lanes | 1 | 1 | 1 | 1 |
| Conflicting Approach Left | SB | NB | EB | WB |
| Conflicting Lanes Left | 1 | 1 | 1 | 1 |
| Conflicting Approach Right | NB | SB | WB | EB |
| Conflicting Lanes Right | 1 | 1 | 1 | 1 |
| HCM Control Delay | 9.7 | 8.8 | 9.4 | 9 |
| HCM LOS | A | A | A | A |

| Lane | NBLn1 | EBLn1 | WBLn1 | SBLn1 |
|---|---|---|---|---|
| Vol Left, % | 5% | 6% | 76% | 8% |
| Vol Thru, % | 51% | 83% | 16% | 91% |
| Vol Right, % | 44% | 11% | 8% | 1% |
| Sign Control | Stop | Stop | Stop | Stop |
| Traffic Vol by Lane | 174 | 65 | 63 | 125 |
| LT Vol | 9 | 4 | 48 | 10 |
| Through Vol | 88 | 54 | 10 | 114 |
| RT Vol | 77 | 7 | 5 | 1 |
| Lane Flow Rate | 235 | 88 | 85 | 169 |
| Geometry Grp | 1 | 1 | 1 | 1 |
| Degree of Util (X) | 0.294 | 0.14 | 0.12 | 0.218 |
| Departure Headway (Hd) | 4.5 | 5.74 | 5.063 | 4.649 |
| Convergence, Y/N | Yes | Yes | Yes | Yes |
| Cap | 797 | 622 | 704 | 770 |
| Service Time | 2.539 | 3.799 | 3.122 | 2.692 |
| HCM Lane V/C Ratio | 0.295 | 0.141 | 0.121 | 0.219 |
| HCM Control Delay | 9.4 | 9.7 | 8.8 | 9 |
| HCM Lane LOS | A | A | A | A |
| HCM 95th-tile Q | 1.2 | 0.5 | 0.4 | 0.8 |



| Lane Group | EBL | EBT | WBT | WBR | SBL | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (vph) | 3 | 135 | 58 | 12 | 5 | 2 |
| Future Volume (vph) | 3 | 135 | 58 | 12 | 5 | 2 |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Ped Bike Factor | | | | | | |
| Frt | | | 0.977 | | 0.955 | |
| Flt Protected | | 0.999 | | | 0.968 | |
| Satd. Flow (prot) | 0 | 1684 | 1826 | 0 | 1756 | 0 |
| Flt Permitted | | 0.999 | | | 0.968 | |
| Satd. Flow (perm) | 0 | 1684 | 1826 | 0 | 1756 | 0 |
| Sign Control | | Free | Free | | Stop | |

## Intersection Summary

Control Type: Unsignalized

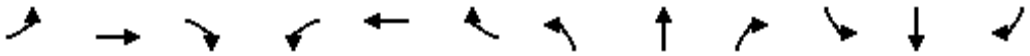
| Intersection | |
|---|---|
| Int Delay, s/veh | 0.4 |

| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 3 | 135 | 58 | 12 | 5 | 2 |
| Future Vol, veh/h | 3 | 135 | 58 | 12 | 5 | 2 |
| Conflicting Peds, #/hr | 3 | 0 | 0 | 3 | 14 | 13 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | - | - | 0 | - |
| Veh in Median Storage, # | - | 0 | 0 | - | 0 | - |
| Grade, % | - | 0 | 0 | - | 0 | - |
| Peak Hour Factor | 79 | 79 | 79 | 79 | 79 | 79 |
| Heavy Vehicles, % | 0 | 13 | 2 | 0 | 0 | 0 |
| Mvmt Flow | 4 | 171 | 73 | 15 | 6 | 3 |

| Major/Minor | Major1 | | Major2 | | Minor2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 91 | 0 | - | 0 | 277 | 97 |
| Stage 1 | - | - | - | - | 84 | - |
| Stage 2 | - | - | - | - | 193 | - |
| Critical Hdwy | 4.3 | - | - | - | 6.4 | 6.2 |
| Critical Hdwy Stg 1 | - | - | - | - | 5.4 | - |
| Critical Hdwy Stg 2 | - | - | - | - | 5.4 | - |
| Follow-up Hdwy | 3 | - | - | - | 3 | 3.1 |
| Pot Cap-1 Maneuver | 1118 | - | - | - | 821 | 1024 |
| Stage 1 | - | - | - | - | 1095 | - |
| Stage 2 | - | - | - | - | 973 | - |
| Platoon blocked, % | | - | - | - | | |
| Mov Cap-1 Maneuver | 1115 | - | - | - | 813 | 1008 |
| Mov Cap-2 Maneuver | - | - | - | - | 813 | - |
| Stage 1 | - | - | - | - | 1087 | - |
| Stage 2 | - | - | - | - | 970 | - |

| Approach | EB | WB | SB |
|---|---|---|---|
| HCM Control Delay, s | 0.2 | 0 | 9.2 |
| HCM LOS | | | A |

| Minor Lane/Major Mvmt | EBL | EBT | WBT | WBR | SBLn1 |
|---|---|---|---|---|---|
| Capacity (veh/h) | 1115 | - | - | - | 861 |
| HCM Lane V/C Ratio | 0.003 | - | - | - | 0.01 |
| HCM Control Delay (s) | 8.2 | 0 | - | - | 9.2 |
| HCM Lane LOS | A | A | - | - | A |
| HCM 95th %tile Q(veh) | 0 | - | - | - | 0 |



| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 0 | 92 | 26 | 21 | 58 | 0 | 0 | 0 | 0 | 26 | 25 | 10 |
| Future Volume (vph) | 0 | 92 | 26 | 21 | 58 | 0 | 0 | 0 | 0 | 26 | 25 | 10 |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Ped Bike Factor | | | | | | | | | | | | |
| Frt | | 0.970 | | | | | | | | | 0.978 | |
| Flt Protected | | | | | 0.987 | | | | | | 0.979 | |
| Satd. Flow (prot) | 0 | 1719 | 0 | 0 | 1733 | 0 | 0 | 0 | 0 | 0 | 1761 | 0 |
| Flt Permitted | | | | | 0.987 | | | | | | 0.979 | |
| Satd. Flow (perm) | 0 | 1719 | 0 | 0 | 1733 | 0 | 0 | 0 | 0 | 0 | 1761 | 0 |
| Sign Control | | Free | | | Free | | | Stop | | | Stop | |

Intersection Summary

Control Type: Unsignalized

| Intersection | |
|---|---|
| Int Delay, s/veh | 3 |

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Vol, veh/h | 0 | 92 | 26 | 21 | 58 | 0 | 0 | 0 | 0 | 26 | 25 | 10 |
| Future Vol, veh/h | 0 | 92 | 26 | 21 | 58 | 0 | 0 | 0 | 0 | 26 | 25 | 10 |
| Conflicting Peds, #/hr | 12 | 0 | 26 | 26 | 0 | 12 | 33 | 0 | 26 | 26 | 0 | 33 |
| Sign Control | Free | Free | Free | Free | Free | Free | Stop | Stop | Stop | Stop | Stop | Stop |
| RT Channelized | - | - | None | - | - | None | - | - | None | - | - | None |
| Storage Length | - | - | - | - | - | - | - | - | - | - | - | - |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | -1 | - | - | -1 | - | - | -1 | - | - | -3 | - |
| Peak Hour Factor | 77 | 77 | 77 | 77 | 77 | 77 | 77 | 77 | 77 | 77 | 77 | 77 |
| Heavy Vehicles, % | 0 | 0 | 35 | 33 | 0 | 0 | 0 | 0 | 0 | 0 | 12 | 0 |
| Mvmt Flow | 0 | 119 | 34 | 27 | 75 | 0 | 0 | 0 | 0 | 34 | 32 | 13 |

| Major/Minor | Major1 | | | Major2 | | | Minor2 | | |
|---|---|---|---|---|---|---|---|---|---|
| Conflicting Flow All | - | 0 | 0 | 179 | 0 | 0 | 291 | 308 | 108 |
| Stage 1 | - | - | - | - | - | - | 129 | 129 | - |
| Stage 2 | - | - | - | - | - | - | 162 | 179 | - |
| Critical Hdwy | - | - | - | 4.6 | - | - | 5.8 | 6.02 | 5.9 |
| Critical Hdwy Stg 1 | - | - | - | - | - | - | 4.8 | 5.02 | - |
| Critical Hdwy Stg 2 | - | - | - | - | - | - | 4.8 | 5.02 | - |
| Follow-up Hdwy | - | - | - | 3.3 | - | - | 3 | 4.108 | 3.1 |
| Pot Cap-1 Maneuver | 0 | - | - | 941 | - | 0 | 846 | 621 | 1019 |
| Stage 1 | 0 | - | - | - | - | 0 | 1066 | 787 | - |
| Stage 2 | 0 | - | - | - | - | 0 | 1034 | 755 | - |
| Platoon blocked, % | | - | - | | - | | | | |
| Mov Cap-1 Maneuver | - | - | - | 941 | - | - | 821 | 0 | 987 |
| Mov Cap-2 Maneuver | - | - | - | - | - | - | 821 | 0 | - |
| Stage 1 | - | - | - | - | - | - | 1066 | 0 | - |
| Stage 2 | - | - | - | - | - | - | 1003 | 0 | - |

| Approach | EB | WB | SB |
|---|---|---|---|
| HCM Control Delay, s | 0 | 2.4 | 9.6 |
| HCM LOS | | | A |

| Minor Lane/Major Mvmt | EBT | EBR | WBL | WBT | SBLn1 |
|---|---|---|---|---|---|
| Capacity (veh/h) | - | - | 941 | - | 861 |
| HCM Lane V/C Ratio | - | - | 0.029 | - | 0.092 |
| HCM Control Delay (s) | - | - | 8.9 | 0 | 9.6 |
| HCM Lane LOS | - | - | A | A | A |
| HCM 95th %tile Q(veh) | - | - | 0.1 | - | 0.3 |



| Lane Group | EBT | EBR | WBL | WBT | NBL | NBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (vph) | 86 | 14 | 6 | 114 | 11 | 8 |
| Future Volume (vph) | 86 | 14 | 6 | 114 | 11 | 8 |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Ped Bike Factor | | | | | | |
| Frt | 0.981 | | | | 0.944 | |
| Flt Protected | | | | 0.997 | 0.972 | |
| Satd. Flow (prot) | 1848 | 0 | 0 | 1825 | 1743 | 0 |
| Flt Permitted | | | | 0.997 | 0.972 | |
| Satd. Flow (perm) | 1848 | 0 | 0 | 1825 | 1743 | 0 |
| Sign Control | Free | | | Free | Stop | |

## Intersection Summary

Control Type: Unsignalized

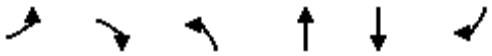
| Intersection | |
|---|---|
| Int Delay, s/veh | 1 |

| Movement | EBT | EBR | WBL | WBT | NBL | NBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 86 | 14 | 6 | 114 | 11 | 8 |
| Future Vol, veh/h | 86 | 14 | 6 | 114 | 11 | 8 |
| Conflicting Peds, #/hr | 0 | 22 | 22 | 0 | 4 | 2 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | - | - | 0 | - |
| Veh in Median Storage, # | 0 | - | - | 0 | 0 | - |
| Grade, % | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 79 | 79 | 79 | 79 | 79 | 79 |
| Heavy Vehicles, % | 1 | 0 | 0 | 4 | 0 | 0 |
| Mvmt Flow | 109 | 18 | 8 | 144 | 14 | 10 |

| Major/Minor | Major1 | | Major2 | | Minor1 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 0 | 0 | 149 | 0 | 304 | 142 |
| Stage 1 | - | - | - | - | 140 | - |
| Stage 2 | - | - | - | - | 164 | - |
| Critical Hdwy | - | - | 4.3 | - | 6.4 | 6.2 |
| Critical Hdwy Stg 1 | - | - | - | - | 5.4 | - |
| Critical Hdwy Stg 2 | - | - | - | - | 5.4 | - |
| Follow-up Hdwy | - | - | 3 | - | 3 | 3.1 |
| Pot Cap-1 Maneuver | - | - | 1068 | - | 791 | 966 |
| Stage 1 | - | - | - | - | 1031 | - |
| Stage 2 | - | - | - | - | 1004 | - |
| Platoon blocked, % | - | - | | - | | |
| Mov Cap-1 Maneuver | - | - | 1046 | - | 765 | 944 |
| Mov Cap-2 Maneuver | - | - | - | - | 765 | - |
| Stage 1 | - | - | - | - | 1009 | - |
| Stage 2 | - | - | - | - | 992 | - |

| Approach | EB | WB | NB |
|---|---|---|---|
| HCM Control Delay, s | 0 | 0.4 | 9.5 |
| HCM LOS | | | A |

| Minor Lane/Major Mvmt | NBLn1 | EBT | EBR | WBL | WBT |
|---|---|---|---|---|---|
| Capacity (veh/h) | 831 | - | - | 1046 | - |
| HCM Lane V/C Ratio | 0.029 | - | - | 0.007 | - |
| HCM Control Delay (s) | 9.5 | - | - | 8.5 | 0 |
| HCM Lane LOS | A | - | - | A | A |
| HCM 95th %tile Q(veh) | 0.1 | - | - | 0 | - |



| Lane Group | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (vph) | 24 | 71 | 47 | 312 | 502 | 73 |
| Future Volume (vph) | 24 | 71 | 47 | 312 | 502 | 73 |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Ped Bike Factor | | | | | | |
| Frt | 0.899 | | | | 0.983 | |
| Flt Protected | 0.988 | | | 0.993 | | |
| Satd. Flow (prot) | 1675 | 0 | 0 | 1808 | 1845 | 0 |
| Flt Permitted | 0.988 | | | 0.993 | | |
| Satd. Flow (perm) | 1675 | 0 | 0 | 1808 | 1845 | 0 |
| Sign Control | Stop | | | Free | Free | |

## Intersection Summary

Control Type: Unsignalized

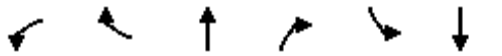
| Intersection | |
|---|---|
| Int Delay, s/veh | 2.3 |

| Movement | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 24 | 71 | 47 | 312 | 502 | 73 |
| Future Vol, veh/h | 24 | 71 | 47 | 312 | 502 | 73 |
| Conflicting Peds, #/hr | 22 | 11 | 10 | 0 | 0 | 10 |
| Sign Control | Stop | Stop | Free | Free | Free | Free |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | 0 | - | - | - | - | - |
| Veh in Median Storage, # | 0 | - | - | 0 | 0 | - |
| Grade, % | 0 | - | - | -1 | 0 | - |
| Peak Hour Factor | 83 | 83 | 83 | 83 | 83 | 83 |
| Heavy Vehicles, % | 0 | 1 | 4 | 5 | 1 | 3 |
| Mvmt Flow | 29 | 86 | 57 | 376 | 605 | 88 |

| Major/Minor | Minor2 | | Major1 | | Major2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 1171 | 670 | 703 | 0 | - | 0 |
| Stage 1 | 659 | - | - | - | - | - |
| Stage 2 | 512 | - | - | - | - | - |
| Critical Hdwy | 6.4 | 6.21 | 4.3 | - | - | - |
| Critical Hdwy Stg 1 | 5.4 | - | - | - | - | - |
| Critical Hdwy Stg 2 | 5.4 | - | - | - | - | - |
| Follow-up Hdwy | 3 | 3.1 | 3 | - | - | - |
| Pot Cap-1 Maneuver | 234 | 481 | 685 | - | - | - |
| Stage 1 | 580 | - | - | - | - | - |
| Stage 2 | 684 | - | - | - | - | - |
| Platoon blocked, % | | | | - | - | - |
| Mov Cap-1 Maneuver | 205 | 471 | 678 | - | - | - |
| Mov Cap-2 Maneuver | 205 | - | - | - | - | - |
| Stage 1 | 513 | - | - | - | - | - |
| Stage 2 | 677 | - | - | - | - | - |

| Approach | EB | NB | SB |
|---|---|---|---|
| HCM Control Delay, s | 19.9 | 1.4 | 0 |
| HCM LOS | C | | |

| Minor Lane/Major Mvmt | NBL | NBT | EBLn1 | SBT | SBR |
|---|---|---|---|---|---|
| Capacity (veh/h) | 678 | - | 355 | - | - |
| HCM Lane V/C Ratio | 0.084 | - | 0.322 | - | - |
| HCM Control Delay (s) | 10.8 | 0 | 19.9 | - | - |
| HCM Lane LOS | B | A | C | - | - |
| HCM 95th %tile Q(veh) | 0.3 | - | 1.4 | - | - |



| Lane Group | WBL | WBR | NBT | NBR | SBL | SBT |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (vph) | 0 | 0 | 356 | 11 | 141 | 434 |
| Future Volume (vph) | 0 | 0 | 356 | 11 | 141 | 434 |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Ped Bike Factor | | | | | | |
| Frt | | | 0.996 | | | |
| Flt Protected | | | | | | 0.988 |
| Satd. Flow (prot) | 1900 | 0 | 1817 | 0 | 0 | 1849 |
| Flt Permitted | | | | | | 0.988 |
| Satd. Flow (perm) | 1900 | 0 | 1817 | 0 | 0 | 1849 |
| Sign Control | Stop | | Free | | | Free |

| Intersection Summary |
|---|
| Control Type: Unsignalized |

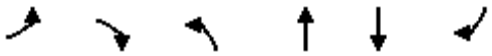
| Intersection | |
|---|---|
| Int Delay, s/veh | 1.6 |

| Movement | WBL | WBR | NBT | NBR | SBL | SBT |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 0 | 0 | 356 | 11 | 141 | 434 |
| Future Vol, veh/h | 0 | 0 | 356 | 11 | 141 | 434 |
| Conflicting Peds, #/hr | 39 | 1 | 0 | 16 | 16 | 0 |
| Sign Control | Stop | Stop | Free | Free | Free | Free |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | 0 | - | - | - | - | - |
| Veh in Median Storage, # | 0 | - | 0 | - | - | 0 |
| Grade, % | 0 | - | 0 | - | - | 0 |
| Peak Hour Factor | 84 | 84 | 84 | 84 | 84 | 84 |
| Heavy Vehicles, % | 0 | 0 | 4 | 9 | 0 | 2 |
| Mvmt Flow | 0 | 0 | 424 | 13 | 168 | 517 |

| Major/Minor | Minor1 | | Major1 | | Major2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 1339 | 448 | 0 | 0 | 453 | 0 |
| Stage 1 | 447 | - | - | - | - | - |
| Stage 2 | 892 | - | - | - | - | - |
| Critical Hdwy | 6.4 | 6.2 | - | - | 4.3 | - |
| Critical Hdwy Stg 1 | 5.4 | - | - | - | - | - |
| Critical Hdwy Stg 2 | 5.4 | - | - | - | - | - |
| Follow-up Hdwy | 3 | 3.1 | - | - | 3 | - |
| Pot Cap-1 Maneuver | 184 | 647 | - | - | 839 | - |
| Stage 1 | 735 | - | - | - | - | - |
| Stage 2 | 446 | - | - | - | - | - |
| Platoon blocked, % | | | - | - | | - |
| Mov Cap-1 Maneuver | 125 | 637 | - | - | 826 | - |
| Mov Cap-2 Maneuver | 125 | - | - | - | - | - |
| Stage 1 | 724 | - | - | - | - | - |
| Stage 2 | 307 | - | - | - | - | - |

| Approach | WB | NB | SB |
|---|---|---|---|
| HCM Control Delay, s | 0 | 0 | 2.6 |
| HCM LOS | A | | |

| Minor Lane/Major Mvmt | NBT | NBR | WBLn1 | SBL | SBT |
|---|---|---|---|---|---|
| Capacity (veh/h) | - | - | - | 826 | - |
| HCM Lane V/C Ratio | - | - | - | 0.203 | - |
| HCM Control Delay (s) | - | - | 0 | 10.5 | 0 |
| HCM Lane LOS | - | - | A | B | A |
| HCM 95th %tile Q(veh) | - | - | - | 0.8 | - |



| Lane Group | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (vph) | 0 | 0 | 50 | 374 | 413 | 11 |
| Future Volume (vph) | 0 | 0 | 50 | 374 | 413 | 11 |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Ped Bike Factor | | | | | | |
| Frt | | | | | 0.997 | |
| Flt Protected | | | | 0.994 | | |
| Satd. Flow (prot) | 1900 | 0 | 0 | 1797 | 1876 | 0 |
| Flt Permitted | | | | 0.994 | | |
| Satd. Flow (perm) | 1900 | 0 | 0 | 1797 | 1876 | 0 |
| Sign Control | Stop | | | Free | Free | |

| Intersection Summary |
|---|
| Control Type: Unsignalized |

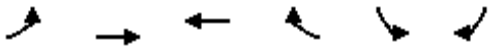
| Intersection | |
|---|---|
| Int Delay, s/veh | 0.6 |

| Movement | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 0 | 0 | 50 | 374 | 413 | 11 |
| Future Vol, veh/h | 0 | 0 | 50 | 374 | 413 | 11 |
| Conflicting Peds, #/hr | 17 | 32 | 40 | 0 | 0 | 40 |
| Sign Control | Stop | Stop | Free | Free | Free | Free |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | 0 | - | - | - | - | - |
| Veh in Median Storage, # | 0 | - | - | 0 | 0 | - |
| Grade, % | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 90 | 90 | 90 | 90 | 90 | 90 |
| Heavy Vehicles, % | 0 | 0 | 6 | 5 | 1 | 0 |
| Mvmt Flow | 0 | 0 | 56 | 416 | 459 | 12 |

| Major/Minor | Minor2 | | Major1 | | Major2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 1050 | 537 | 511 | 0 | - | 0 |
| Stage 1 | 505 | - | - | - | - | - |
| Stage 2 | 545 | - | - | - | - | - |
| Critical Hdwy | 6.4 | 6.2 | 4.4 | - | - | - |
| Critical Hdwy Stg 1 | 5.4 | - | - | - | - | - |
| Critical Hdwy Stg 2 | 5.4 | - | - | - | - | - |
| Follow-up Hdwy | 3 | 3.1 | 3.1 | - | - | - |
| Pot Cap-1 Maneuver | 278 | 575 | 769 | - | - | - |
| Stage 1 | 689 | - | - | - | - | - |
| Stage 2 | 659 | - | - | - | - | - |
| Platoon blocked, % | | | | - | - | - |
| Mov Cap-1 Maneuver | 232 | 536 | 740 | - | - | - |
| Mov Cap-2 Maneuver | 232 | - | - | - | - | - |
| Stage 1 | 598 | - | - | - | - | - |
| Stage 2 | 634 | - | - | - | - | - |

| Approach | EB | NB | SB |
|---|---|---|---|
| HCM Control Delay, s | 0 | 1.2 | 0 |
| HCM LOS | A | | |

| Minor Lane/Major Mvmt | NBL | NBT | EBLn1 | SBT | SBR |
|---|---|---|---|---|---|
| Capacity (veh/h) | 740 | - | - | - | - |
| HCM Lane V/C Ratio | 0.075 | - | - | - | - |
| HCM Control Delay (s) | 10.3 | 0 | 0 | - | - |
| HCM Lane LOS | B | A | A | - | - |
| HCM 95th %tile Q(veh) | 0.2 | - | - | - | - |



| Lane Group | EBL | EBT | WBT | WBR | SBL | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (vph) | 0 | 0 | 38 | 26 | 0 | 4 |
| Future Volume (vph) | 0 | 0 | 38 | 26 | 0 | 4 |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Ped Bike Factor | | | | | | |
| Frt | | | 0.945 | | 0.865 | |
| Flt Protected | | | | | | |
| Satd. Flow (prot) | 0 | 1900 | 1764 | 0 | 1308 | 0 |
| Flt Permitted | | | | | | |
| Satd. Flow (perm) | 0 | 1900 | 1764 | 0 | 1308 | 0 |
| Sign Control | | Free | Free | | Stop | |

## Intersection Summary

Control Type: Unsignalized

| Intersection | |
|---|---|
| Int Delay, s/veh | 0.5 |

| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 0 | 0 | 38 | 26 | 0 | 4 |
| Future Vol, veh/h | 0 | 0 | 38 | 26 | 0 | 4 |
| Conflicting Peds, #/hr | 44 | 0 | 0 | 44 | 7 | 3 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | - | - | 0 | - |
| Veh in Median Storage, # | - | 0 | 0 | - | 0 | - |
| Grade, % | - | 0 | 0 | - | 1 | - |
| Peak Hour Factor | 90 | 90 | 90 | 90 | 90 | 90 |
| Heavy Vehicles, % | 0 | 0 | 3 | 0 | 0 | 25 |
| Mvmt Flow | 0 | 0 | 42 | 29 | 0 | 4 |

| Major/Minor | Major1 | | Major2 | | Minor2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 115 | 0 | - | 0 | 108 | 104 |
| Stage 1 | - | - | - | - | 101 | - |
| Stage 2 | - | - | - | - | 7 | - |
| Critical Hdwy | 4.3 | - | - | - | 6.6 | 6.55 |
| Critical Hdwy Stg 1 | - | - | - | - | 5.6 | - |
| Critical Hdwy Stg 2 | - | - | - | - | 5.6 | - |
| Follow-up Hdwy | 3 | - | - | - | 3 | 3.3 |
| Pot Cap-1 Maneuver | 1097 | - | - | - | 1029 | 947 |
| Stage 1 | - | - | - | - | 1069 | - |
| Stage 2 | - | - | - | - | 1190 | - |
| Platoon blocked, % | | - | - | - | | |
| Mov Cap-1 Maneuver | 1051 | - | - | - | 945 | 905 |
| Mov Cap-2 Maneuver | - | - | - | - | 945 | - |
| Stage 1 | - | - | - | - | 1024 | - |
| Stage 2 | - | - | - | - | 1140 | - |

| Approach | EB | WB | SB |
|---|---|---|---|
| HCM Control Delay, s | 0 | 0 | 9 |
| HCM LOS | | | A |

| Minor Lane/Major Mvmt | EBL | EBT | WBT | WBR | SBLn1 |
|---|---|---|---|---|---|
| Capacity (veh/h) | 1051 | - | - | - | 905 |
| HCM Lane V/C Ratio | - | - | - | - | 0.005 |
| HCM Control Delay (s) | 0 | - | - | - | 9 |
| HCM Lane LOS | A | - | - | - | A |
| HCM 95th %tile Q(veh) | 0 | - | - | - | 0 |



| Lane Group | WBL | WBR | NBT | NBR | SBL | SBT |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (vph) | 49 | 0 | 0 | 0 | 0 | 85 |
| Future Volume (vph) | 49 | 0 | 0 | 0 | 0 | 85 |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Ped Bike Factor | | | | | | |
| Frt | | | | | | |
| Flt Protected | 0.950 | | | | | |
| Satd. Flow (prot) | 1761 | 0 | 0 | 0 | 0 | 1377 |
| Flt Permitted | 0.950 | | | | | |
| Satd. Flow (perm) | 1761 | 0 | 0 | 0 | 0 | 1377 |
| Sign Control | Stop | | Free | | | Free |

| Intersection Summary |
|---|
| Control Type: Unsignalized |

| Intersection | |
|---|---|
| Int Delay, s/veh | 8.9 |

| Movement | WBL | WBR | NBT | NBR | SBL | SBT |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 49 | 0 | 0 | 0 | 0 | 85 |
| Future Vol, veh/h | 49 | 0 | 0 | 0 | 0 | 85 |
| Conflicting Peds, #/hr | 211 | 317 | 0 | 384 | 384 | 0 |
| Sign Control | Stop | Stop | Free | Free | Free | Free |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | 0 | - | - | - | - | - |
| Veh in Median Storage, # | 0 | - | 0 | - | - | 0 |
| Grade, % | 1 | - | 0 | - | - | 0 |
| Peak Hour Factor | 62 | 62 | 62 | 62 | 62 | 62 |
| Heavy Vehicles, % | 2 | 0 | 0 | 0 | 0 | 38 |
| Mvmt Flow | 79 | 0 | 0 | 0 | 0 | 137 |

| Major/Minor | Minor1 | | Major2 | |
|---|---|---|---|---|
| Conflicting Flow All | 732 | - | 384 | 0 |
| Stage 1 | 384 | - | - | - |
| Stage 2 | 348 | - | - | - |
| Critical Hdwy | 6.62 | - | 4.3 | - |
| Critical Hdwy Stg 1 | - | - | - | - |
| Critical Hdwy Stg 2 | 5.62 | - | - | - |
| Follow-up Hdwy | 3 | - | 3 | - |
| Pot Cap-1 Maneuver | 417 | 0 | 886 | - |
| Stage 1 | - | 0 | - | - |
| Stage 2 | 803 | 0 | - | - |
| Platoon blocked, % | | | | - |
| Mov Cap-1 Maneuver | 264 | - | 562 | - |
| Mov Cap-2 Maneuver | 264 | - | - | - |
| Stage 1 | - | - | - | - |
| Stage 2 | 803 | - | - | - |

| Approach | WB | SB |
|---|---|---|
| HCM Control Delay, s | 24.4 | 0 |
| HCM LOS | C | |

| Minor Lane/Major Mvmt | WBLn1 | SBL | SBT |
|---|---|---|---|
| Capacity (veh/h) | 264 | 562 | - |
| HCM Lane V/C Ratio | 0.299 | - | - |
| HCM Control Delay (s) | 24.4 | 0 | - |
| HCM Lane LOS | C | A | - |
| HCM 95th %tile Q(veh) | 1.2 | 0 | - |

| Lane Group | WBL | WBR | NBT | NBR | SBL | SBT |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (vph) | 20 | 23 | 400 | 0 | 0 | 417 |
| Future Volume (vph) | 20 | 23 | 400 | 0 | 0 | 417 |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Ped Bike Factor | 0.90 | | | | | |
| Frt | 0.927 | | | | | |
| Flt Protected | 0.977 | | | | | |
| Satd. Flow (prot) | 1546 | 0 | 1838 | 0 | 0 | 1873 |
| Flt Permitted | 0.977 | | | | | |
| Satd. Flow (perm) | 1537 | 0 | 1838 | 0 | 0 | 1873 |
| Satd. Flow (RTOR) | 28 | | | | | |
| Turn Type | Prot | | NA | | | NA |
| Protected Phases | 4 | | 6 | | | 2 |
| Permitted Phases | | | | | | |
| Detector Phase | 4 | | 6 | | | 2 |
| Switch Phase | | | | | | |
| Minimum Initial (s) | 3.0 | | 49.0 | | | 49.0 |
| Minimum Split (s) | 19.0 | | 54.0 | | | 54.0 |
| Total Split (s) | 29.0 | | 55.0 | | | 55.0 |
| Total Split (%) | 34.5% | | 65.5% | | | 65.5% |
| Yellow Time (s) | 3.0 | | 3.0 | | | 3.0 |
| All-Red Time (s) | 2.0 | | 2.0 | | | 2.0 |
| Lost Time Adjust (s) | -1.0 | | -1.0 | | | -1.0 |
| Total Lost Time (s) | 4.0 | | 4.0 | | | 4.0 |
| Lead/Lag | | | | | | |
| Lead-Lag Optimize? | | | | | | |
| Recall Mode | None | | Max | | | Max |

| Intersection Summary |
|---|
| Cycle Length: 84 |
| Actuated Cycle Length: 69.6 |
| Natural Cycle: 75 |
| Control Type: Actuated-Uncoordinated |

Splits and Phases: 10: S High Street & Linden Street





| Movement | WBL | WBR | NBT | NBR | SBL | SBT |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (veh/h) | 20 | 23 | 400 | 0 | 0 | 417 |
| Future Volume (veh/h) | 20 | 23 | 400 | 0 | 0 | 417 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | 0.78 | | 1.00 | 1.00 | |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach | No | | No | | | No |
| Adj Sat Flow, veh/h/ln | 1703 | 1790 | 1837 | 0 | 0 | 1837 |
| Adj Flow Rate, veh/h | 24 | 23 | 482 | 0 | 0 | 502 |
| Peak Hour Factor | 0.83 | 0.83 | 0.83 | 0.83 | 0.83 | 0.83 |
| Percent Heavy Veh, % | 10 | 4 | 5 | 0 | 0 | 2 |
| Cap, veh/h | 84 | 80 | 1390 | 0 | 0 | 1390 |
| Arrive On Green | 0.12 | 0.12 | 0.76 | 0.00 | 0.00 | 0.76 |
| Sat Flow, veh/h | 670 | 642 | 1837 | 0 | 0 | 1837 |
| Grp Volume(v), veh/h | 48 | 0 | 482 | 0 | 0 | 502 |
| Grp Sat Flow(s),veh/h/ln | 1340 | 0 | 1837 | 0 | 0 | 1837 |
| Q Serve(g_s), s | 2.2 | 0.0 | 5.8 | 0.0 | 0.0 | 6.2 |
| Cycle Q Clear(g_c), s | 2.2 | 0.0 | 5.8 | 0.0 | 0.0 | 6.2 |
| Prop In Lane | 0.50 | 0.48 | | 0.00 | 0.00 | |
| Lane Grp Cap(c), veh/h | 167 | 0 | 1390 | 0 | 0 | 1390 |
| V/C Ratio(X) | 0.29 | 0.00 | 0.35 | 0.00 | 0.00 | 0.36 |
| Avail Cap(c_a), veh/h | 497 | 0 | 1390 | 0 | 0 | 1390 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 0.00 | 1.00 | 0.00 | 0.00 | 1.00 |
| Uniform Delay (d), s/veh | 26.8 | 0.0 | 2.7 | 0.0 | 0.0 | 2.7 |
| Incr Delay (d2), s/veh | 0.9 | 0.0 | 0.7 | 0.0 | 0.0 | 0.7 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(95%),veh/ln | 1.3 | 0.0 | 2.7 | 0.0 | 0.0 | 2.9 |
| Unsig. Movement Delay, s/veh | | | | | | |
| LnGrp Delay(d),s/veh | 27.7 | 0.0 | 3.4 | 0.0 | 0.0 | 3.5 |
| LnGrp LOS | C | A | A | A | A | A |
| Approach Vol, veh/h | 48 | | 482 | | | 502 |
| Approach Delay, s/veh | 27.7 | | 3.4 | | | 3.5 |
| Approach LOS | C | | A | | | A |

| Timer - Assigned Phs | | 2 | | 4 | | 6 |
|---|---|---|---|---|---|---|
| Phs Duration (G+Y+Rc), s | | 55.0 | | 12.4 | | 55.0 |
| Change Period (Y+Rc), s | | 5.0 | | 5.0 | | 5.0 |
| Max Green Setting (Gmax), s | | 50.0 | | 24.0 | | 50.0 |
| Max Q Clear Time (g_c+I1), s | | 0.0 | | 4.7 | | 0.0 |
| Green Ext Time (p_c), s | | 0.0 | | 0.1 | | 0.0 |

| Intersection Summary | |
|---|---|
| HCM 6th Ctrl Delay | 4.6 |
| HCM 6th LOS | A |

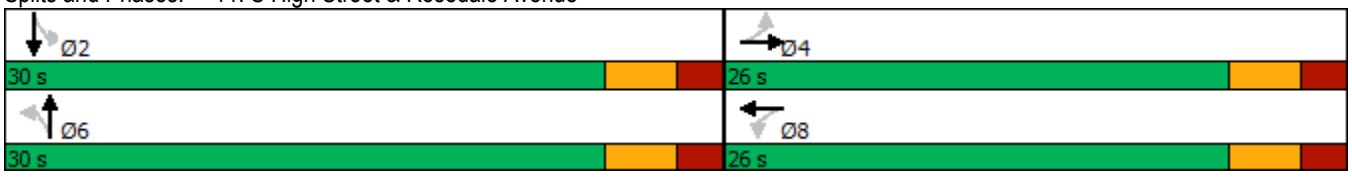
**Notes**

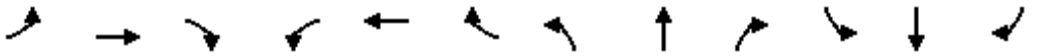
User approved volume balancing among the lanes for turning movement.

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 42 | 341 | 92 | 41 | 217 | 69 | 50 | 318 | 53 | 51 | 380 | 22 |
| Future Volume (vph) | 42 | 341 | 92 | 41 | 217 | 69 | 50 | 318 | 53 | 51 | 380 | 22 |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Ped Bike Factor | 0.93 | 0.97 | | 0.95 | 0.97 | | 0.97 | 0.98 | | 0.95 | 1.00 | |
| Frt | | 0.968 | | | 0.964 | | | 0.979 | | | 0.992 | |
| Flt Protected | 0.950 | | | 0.950 | | | 0.950 | | | 0.950 | | |
| Satd. Flow (prot) | 1590 | 1620 | 0 | 1582 | 1565 | 0 | 1483 | 1826 | 0 | 1645 | 1711 | 0 |
| Flt Permitted | 0.491 | | | 0.303 | | | 0.429 | | | 0.459 | | |
| Satd. Flow (perm) | 765 | 1620 | 0 | 481 | 1565 | 0 | 646 | 1826 | 0 | 756 | 1711 | 0 |
| Satd. Flow (RTOR) | | | | | | | | | | | | |
| Turn Type | Perm | NA | | Perm | NA | | Perm | NA | | Perm | NA | |
| Protected Phases | | 4 | | | 8 | | | 6 | | | 2 | |
| Permitted Phases | 4 | | | 8 | | | 6 | | | 2 | | |
| Detector Phase | 4 | 4 | | 8 | 8 | | 6 | 6 | | 2 | 2 | |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 3.0 | 3.0 | | 3.0 | 3.0 | | 3.0 | 3.0 | | 3.0 | 3.0 | |
| Minimum Split (s) | 25.0 | 25.0 | | 25.0 | 25.0 | | 23.0 | 23.0 | | 23.0 | 23.0 | |
| Total Split (s) | 26.0 | 26.0 | | 26.0 | 26.0 | | 30.0 | 30.0 | | 30.0 | 30.0 | |
| Total Split (%) | 46.4% | 46.4% | | 46.4% | 46.4% | | 53.6% | 53.6% | | 53.6% | 53.6% | |
| Yellow Time (s) | 3.0 | 3.0 | | 3.0 | 3.0 | | 3.0 | 3.0 | | 3.0 | 3.0 | |
| All-Red Time (s) | 2.0 | 2.0 | | 2.0 | 2.0 | | 2.0 | 2.0 | | 2.0 | 2.0 | |
| Lost Time Adjust (s) | -1.0 | -1.0 | | -1.0 | -1.0 | | -1.0 | -1.0 | | -1.0 | -1.0 | |
| Total Lost Time (s) | 4.0 | 4.0 | | 4.0 | 4.0 | | 4.0 | 4.0 | | 4.0 | 4.0 | |
| Lead/Lag | | | | | | | | | | | | |
| Lead-Lag Optimize? | | | | | | | | | | | | |
| Recall Mode | None | None | | None | None | | Max | Max | | Max | Max | |

| Intersection Summary |
|---|
| Cycle Length: 56 |
| Actuated Cycle Length: 53.3 |
| Natural Cycle: 50 |
| Control Type: Actuated-Uncoordinated |

Splits and Phases: 11: S High Street & Rosedale Avenue

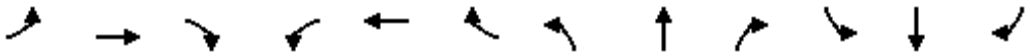




| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (veh/h) | 42 | 341 | 92 | 41 | 217 | 69 | 50 | 318 | 53 | 51 | 380 | 22 |
| Future Volume (veh/h) | 42 | 341 | 92 | 41 | 217 | 69 | 50 | 318 | 53 | 51 | 380 | 22 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 0.94 | | 0.89 | 0.96 | | 0.89 | 0.98 | | 0.94 | 0.98 | | 0.94 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach | | No | | | No | | | No | | | No | |
| Adj Sat Flow, veh/h/ln | 1696 | 1724 | 1780 | 1679 | 1693 | 1679 | 1666 | 1776 | 1791 | 1883 | 1883 | 1912 |
| Adj Flow Rate, veh/h | 44 | 359 | 96 | 43 | 228 | 65 | 53 | 335 | 55 | 54 | 400 | 22 |
| Peak Hour Factor | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 |
| Percent Heavy Veh, % | 7 | 5 | 1 | 7 | 6 | 7 | 6 | 3 | 2 | 2 | 2 | 0 |
| Cap, veh/h | 358 | 480 | 128 | 246 | 463 | 132 | 411 | 701 | 115 | 456 | 840 | 46 |
| Arrive On Green | 0.38 | 0.38 | 0.38 | 0.38 | 0.38 | 0.38 | 0.48 | 0.48 | 0.48 | 0.48 | 0.48 | 0.48 |
| Sat Flow, veh/h | 928 | 1274 | 341 | 809 | 1230 | 351 | 840 | 1471 | 242 | 977 | 1761 | 97 |
| Grp Volume(v), veh/h | 44 | 0 | 455 | 43 | 0 | 293 | 53 | 0 | 390 | 54 | 0 | 422 |
| Grp Sat Flow(s),veh/h/ln | 928 | 0 | 1614 | 809 | 0 | 1580 | 840 | 0 | 1713 | 977 | 0 | 1858 |
| Q Serve(g_s), s | 2.1 | 0.0 | 13.3 | 2.6 | 0.0 | 7.7 | 2.5 | 0.0 | 8.4 | 2.1 | 0.0 | 8.4 |
| Cycle Q Clear(g_c), s | 9.3 | 0.0 | 13.3 | 15.5 | 0.0 | 7.7 | 10.3 | 0.0 | 8.4 | 10.0 | 0.0 | 8.4 |
| Prop In Lane | 1.00 | | 0.21 | 1.00 | | 0.22 | 1.00 | | 0.14 | 1.00 | | 0.05 |
| Lane Grp Cap(c), veh/h | 358 | 0 | 608 | 246 | 0 | 595 | 411 | 0 | 817 | 456 | 0 | 886 |
| V/C Ratio(X) | 0.12 | 0.00 | 0.75 | 0.17 | 0.00 | 0.49 | 0.13 | 0.00 | 0.48 | 0.12 | 0.00 | 0.48 |
| Avail Cap(c_a), veh/h | 383 | 0 | 651 | 268 | 0 | 637 | 411 | 0 | 817 | 456 | 0 | 886 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 |
| Uniform Delay (d), s/veh | 16.4 | 0.0 | 14.8 | 21.2 | 0.0 | 13.0 | 13.0 | 0.0 | 9.7 | 12.9 | 0.0 | 9.7 |
| Incr Delay (d2), s/veh | 0.2 | 0.0 | 4.5 | 0.3 | 0.0 | 0.6 | 0.6 | 0.0 | 2.0 | 0.5 | 0.0 | 1.8 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(95%),veh/ln | 0.8 | 0.0 | 8.7 | 0.9 | 0.0 | 4.6 | 0.9 | 0.0 | 5.6 | 0.9 | 0.0 | 6.0 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 16.5 | 0.0 | 19.2 | 21.6 | 0.0 | 13.6 | 13.6 | 0.0 | 11.7 | 13.4 | 0.0 | 11.5 |
| LnGrp LOS | B | A | B | C | A | B | B | A | B | B | A | B |
| Approach Vol, veh/h | | 499 | | | 336 | | | 443 | | | 476 | |
| Approach Delay, s/veh | | 19.0 | | | 14.7 | | | 11.9 | | | 11.7 | |
| Approach LOS | | B | | | B | | | B | | | B | |

| Timer - Assigned Phs | | 2 | | 4 | | 6 | | 8 | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Phs Duration (G+Y+Rc), s | | 30.0 | | 24.5 | | 30.0 | | 24.5 | | | | |
| Change Period (Y+Rc), s | | 5.0 | | 5.0 | | 5.0 | | 5.0 | | | | |
| Max Green Setting (Gmax), s | | 25.0 | | 21.0 | | 25.0 | | 21.0 | | | | |
| Max Q Clear Time (g_c+I1), s | | 0.0 | | 15.3 | | 0.0 | | 18.0 | | | | |
| Green Ext Time (p_c), s | | 0.0 | | 1.1 | | 0.0 | | 0.4 | | | | |

| Intersection Summary | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| HCM 6th Ctrl Delay | | | 14.4 | | | | | | | | | |
| HCM 6th LOS | | | B | | | | | | | | | |



| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 0 | 142 | 262 | 53 | 58 | 0 | 247 | 0 | 47 | 6 | 56 | 17 |
| Future Volume (vph) | 0 | 142 | 262 | 53 | 58 | 0 | 247 | 0 | 47 | 6 | 56 | 17 |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Ped Bike Factor | | | | | | | | | | | | |
| Frt | | 0.912 | | | | | | | 0.850 | | 0.970 | |
| Flt Protected | | | | | 0.977 | | 0.950 | | | | 0.996 | |
| Satd. Flow (prot) | 0 | 1677 | 0 | 0 | 1661 | 0 | 1727 | 0 | 1474 | 0 | 1810 | 0 |
| Flt Permitted | | | | | 0.977 | | 0.950 | | | | 0.996 | |
| Satd. Flow (perm) | 0 | 1677 | 0 | 0 | 1661 | 0 | 1727 | 0 | 1474 | 0 | 1810 | 0 |
| Sign Control | | Stop | | | Stop | | | Stop | | | Stop | |

Intersection Summary

Control Type: Unsignalized

| Intersection | |
|---|---|
| Intersection Delay, s/veh | 13.6 |
| Intersection LOS | B |

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Vol, veh/h | 0 | 142 | 262 | 53 | 58 | 0 | 247 | 0 | 47 | 6 | 56 | 17 |
| Future Vol, veh/h | 0 | 142 | 262 | 53 | 58 | 0 | 247 | 0 | 47 | 6 | 56 | 17 |
| Peak Hour Factor | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 |
| Heavy Vehicles, % | 0 | 4 | 3 | 6 | 16 | 0 | 4 | 0 | 9 | 0 | 2 | 0 |
| Mvmt Flow | 0 | 148 | 273 | 55 | 60 | 0 | 257 | 0 | 49 | 6 | 58 | 18 |
| Number of Lanes | 0 | 1 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 |

| Approach | EB | WB | NB | SB |
|---|---|---|---|---|
| Opposing Approach | WB | EB | SB | NB |
| Opposing Lanes | 1 | 1 | 1 | 2 |
| Conflicting Approach Left | SB | NB | EB | WB |
| Conflicting Lanes Left | 1 | 2 | 1 | 1 |
| Conflicting Approach Right | NB | SB | WB | EB |
| Conflicting Lanes Right | 2 | 1 | 1 | 1 |
| HCM Control Delay | 14.7 | 10.4 | 14.2 | 9.9 |
| HCM LOS | B | B | B | A |

| Lane | NBLn1 | NBLn2 | EBLn1 | WBLn1 | SBLn1 |
|---|---|---|---|---|---|
| Vol Left, % | 100% | 0% | 0% | 48% | 8% |
| Vol Thru, % | 0% | 0% | 35% | 52% | 71% |
| Vol Right, % | 0% | 100% | 65% | 0% | 22% |
| Sign Control | Stop | Stop | Stop | Stop | Stop |
| Traffic Vol by Lane | 247 | 47 | 404 | 111 | 79 |
| LT Vol | 247 | 0 | 0 | 53 | 6 |
| Through Vol | 0 | 0 | 142 | 58 | 56 |
| RT Vol | 0 | 47 | 262 | 0 | 17 |
| Lane Flow Rate | 257 | 49 | 421 | 116 | 82 |
| Geometry Grp | 5 | 5 | 2 | 2 | 4a |
| Degree of Util (X) | 0.474 | 0.075 | 0.581 | 0.191 | 0.136 |
| Departure Headway (Hd) | 6.636 | 5.505 | 4.974 | 5.952 | 5.932 |
| Convergence, Y/N | Yes | Yes | Yes | Yes | Yes |
| Cap | 543 | 650 | 724 | 601 | 602 |
| Service Time | 4.374 | 3.242 | 3.015 | 4.007 | 3.986 |
| HCM Lane V/C Ratio | 0.473 | 0.075 | 0.581 | 0.193 | 0.136 |
| HCM Control Delay | 15.2 | 8.7 | 14.7 | 10.4 | 9.9 |
| HCM Lane LOS | C | A | B | B | A |
| HCM 95th-tile Q | 2.5 | 0.2 | 3.8 | 0.7 | 0.5 |

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 1 | 1 | 1 | 51 | 0 | 37 | 11 | 354 | 110 | 79 | 287 | 5 |
| Future Volume (vph) | 1 | 1 | 1 | 51 | 0 | 37 | 11 | 354 | 110 | 79 | 287 | 5 |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Ped Bike Factor | | | | | | | | | | | | |
| Frt | | 0.955 | | | 0.943 | | | 0.964 | | | 0.997 | |
| Flt Protected | | 0.984 | | | 0.972 | | 0.950 | | | 0.950 | | |
| Satd. Flow (prot) | 0 | 1768 | 0 | 0 | 1686 | 0 | 1805 | 1778 | 0 | 1787 | 1823 | 0 |
| Flt Permitted | | 0.984 | | | 0.972 | | 0.950 | | | 0.950 | | |
| Satd. Flow (perm) | 0 | 1768 | 0 | 0 | 1686 | 0 | 1805 | 1778 | 0 | 1787 | 1823 | 0 |
| Sign Control | | Stop | | | Stop | | | Free | | | Free | |

Intersection Summary

Control Type: Unsignalized

| Intersection | |
|---|---|
| Int Delay, s/veh | 3.1 |

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Vol, veh/h | 1 | 1 | 1 | 51 | 0 | 37 | 11 | 354 | 110 | 79 | 287 | 5 |
| Future Vol, veh/h | 1 | 1 | 1 | 51 | 0 | 37 | 11 | 354 | 110 | 79 | 287 | 5 |
| Conflicting Peds, #/hr | 4 | 0 | 1 | 1 | 0 | 4 | 6 | 0 | 0 | 0 | 0 | 6 |
| Sign Control | Stop | Stop | Stop | Stop | Stop | Stop | Free | Free | Free | Free | Free | Free |
| RT Channelized | - | - | None | - | - | None | - | - | None | - | - | None |
| Storage Length | - | - | - | - | - | - | 25 | - | - | 75 | - | - |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 2 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 89 | 89 | 89 | 89 | 89 | 89 | 89 | 89 | 89 | 89 | 89 | 89 |
| Heavy Vehicles, % | 0 | 0 | 0 | 2 | 0 | 5 | 0 | 3 | 3 | 1 | 4 | 0 |
| Mvmt Flow | 1 | 1 | 1 | 57 | 0 | 42 | 12 | 398 | 124 | 89 | 322 | 6 |

| Major/Minor | Minor2 | | | Minor1 | | | Major1 | | | Major2 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Conflicting Flow All | 1018 | 1055 | 332 | 989 | 996 | 464 | 334 | 0 | 0 | 522 | 0 | 0 |
| Stage 1 | 509 | 509 | - | 484 | 484 | - | - | - | - | - | - | - |
| Stage 2 | 509 | 546 | - | 505 | 512 | - | - | - | - | - | - | - |
| Critical Hdwy | 7.5 | 6.9 | 6.4 | 7.12 | 6.5 | 6.25 | 4.3 | - | - | 4.3 | - | - |
| Critical Hdwy Stg 1 | 6.5 | 5.9 | - | 6.12 | 5.5 | - | - | - | - | - | - | - |
| Critical Hdwy Stg 2 | 6.5 | 5.9 | - | 6.12 | 5.5 | - | - | - | - | - | - | - |
| Follow-up Hdwy | 3 | 4 | 3.1 | 3 | 4 | 3.1 | 3 | - | - | 3 | - | - |
| Pot Cap-1 Maneuver | 213 | 202 | 740 | 249 | 246 | 629 | 922 | - | - | 793 | - | - |
| Stage 1 | 587 | 512 | - | 640 | 555 | - | - | - | - | - | - | - |
| Stage 2 | 587 | 491 | - | 623 | 540 | - | - | - | - | - | - | - |
| Platoon blocked, % | | | | | | | | - | - | | - | - |
| Mov Cap-1 Maneuver | 178 | 176 | 735 | 224 | 214 | 627 | 917 | - | - | 793 | - | - |
| Mov Cap-2 Maneuver | 178 | 176 | - | 224 | 214 | - | - | - | - | - | - | - |
| Stage 1 | 576 | 452 | - | 632 | 548 | - | - | - | - | - | - | - |
| Stage 2 | 539 | 485 | - | 550 | 477 | - | - | - | - | - | - | - |

| Approach | EB | WB | NB | SB |
|---|---|---|---|---|
| HCM Control Delay, s | 20.4 | 22.2 | 0.2 | 2.2 |
| HCM LOS | C | C | | |

| Minor Lane/Major Mvmt | NBL | NBT | NBR | EBLn1 | WBLn1 | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|
| Capacity (veh/h) | 917 | - | - | 237 | 307 | 793 | - | - |
| HCM Lane V/C Ratio | 0.013 | - | - | 0.014 | 0.322 | 0.112 | - | - |
| HCM Control Delay (s) | 9 | - | - | 20.4 | 22.2 | 10.1 | - | - |
| HCM Lane LOS | A | - | - | C | C | B | - | - |
| HCM 95th %tile Q(veh) | 0 | - | - | 0 | 1.4 | 0.4 | - | - |

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 0 | 431 | 11 | 26 | 229 | 0 | 0 | 0 | 0 | 33 | 5 | 31 |
| Future Volume (vph) | 0 | 431 | 11 | 26 | 229 | 0 | 0 | 0 | 0 | 33 | 5 | 31 |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Ped Bike Factor | | | | | | | | | | | | |
| Frt | | 0.997 | | | | | | | | | 0.939 | |
| Flt Protected | | | | | 0.995 | | | | | | 0.977 | |
| Satd. Flow (prot) | 0 | 1986 | 0 | 0 | 1743 | 0 | 0 | 0 | 0 | 0 | 1362 | 0 |
| Flt Permitted | | | | | 0.995 | | | | | | 0.977 | |
| Satd. Flow (perm) | 0 | 1986 | 0 | 0 | 1743 | 0 | 0 | 0 | 0 | 0 | 1362 | 0 |
| Sign Control | | Stop | | | Stop | | | Stop | | | Stop | |

## Intersection Summary

Control Type: Unsignalized

| Intersection | |
|---|---|
| Intersection Delay, s/veh | 11.7 |
| Intersection LOS | B |

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Vol, veh/h | 0 | 431 | 11 | 26 | 229 | 0 | 0 | 0 | 0 | 33 | 5 | 31 |
| Future Vol, veh/h | 0 | 431 | 11 | 26 | 229 | 0 | 0 | 0 | 0 | 33 | 5 | 31 |
| Peak Hour Factor | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 |
| Heavy Vehicles, % | 0 | 3 | 0 | 4 | 7 | 0 | 0 | 0 | 0 | 33 | 0 | 42 |
| Mvmt Flow | 0 | 444 | 11 | 27 | 236 | 0 | 0 | 0 | 0 | 34 | 5 | 32 |
| Number of Lanes | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 |

| Approach | EB | WB | SB |
|---|---|---|---|
| Opposing Approach | WB | EB | |
| Opposing Lanes | 1 | 1 | 0 |
| Conflicting Approach Left | SB | | WB |
| Conflicting Lanes Left | 1 | 0 | 1 |
| Conflicting Approach Right | | SB | EB |
| Conflicting Lanes Right | 0 | 1 | 1 |
| HCM Control Delay | 13 | 10.1 | 9.7 |
| HCM LOS | B | B | A |

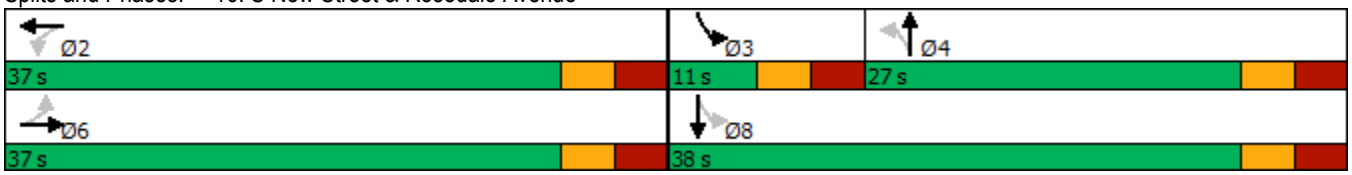
| Lane | EBLn1 | WBLn1 | SBLn1 |
|---|---|---|---|
| Vol Left, % | 0% | 10% | 48% |
| Vol Thru, % | 98% | 90% | 7% |
| Vol Right, % | 2% | 0% | 45% |
| Sign Control | Stop | Stop | Stop |
| Traffic Vol by Lane | 442 | 255 | 69 |
| LT Vol | 0 | 26 | 33 |
| Through Vol | 431 | 229 | 5 |
| RT Vol | 11 | 0 | 31 |
| Lane Flow Rate | 456 | 263 | 71 |
| Geometry Grp | 1 | 1 | 1 |
| Degree of Util (X) | 0.561 | 0.341 | 0.116 |
| Departure Headway (Hd) | 4.436 | 4.675 | 5.862 |
| Convergence, Y/N | Yes | Yes | Yes |
| Cap | 811 | 768 | 609 |
| Service Time | 2.466 | 2.713 | 3.923 |
| HCM Lane V/C Ratio | 0.562 | 0.342 | 0.117 |
| HCM Control Delay | 13 | 10.1 | 9.7 |
| HCM Lane LOS | B | B | A |
| HCM 95th-tile Q | 3.5 | 1.5 | 0.4 |

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 12 | 380 | 9 | 42 | 105 | 108 | 3 | 134 | 90 | 73 | 73 | 12 |
| Future Volume (vph) | 12 | 380 | 9 | 42 | 105 | 108 | 3 | 134 | 90 | 73 | 73 | 12 |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Ped Bike Factor | | 1.00 | | | 0.98 | | | 0.97 | | | 0.99 | |
| Frt | | 0.997 | | | 0.924 | | | 0.946 | | | 0.989 | |
| Flt Protected | | 0.998 | | 0.950 | | | | 0.999 | | | 0.977 | |
| Satd. Flow (prot) | 0 | 1780 | 0 | 1243 | 1438 | 0 | 0 | 1422 | 0 | 0 | 1949 | 0 |
| Flt Permitted | | 0.989 | | 0.490 | | | | 0.996 | | | 0.698 | |
| Satd. Flow (perm) | 0 | 1763 | 0 | 641 | 1438 | 0 | 0 | 1418 | 0 | 0 | 1372 | 0 |
| Satd. Flow (RTOR) | | 2 | | | | | | | | | 7 | |
| Lane Group Flow (vph) | 0 | 456 | 0 | 48 | 242 | 0 | 0 | 257 | 0 | 0 | 180 | 0 |
| Turn Type | Perm | NA | | Perm | NA | | Perm | NA | | pm+pt | NA | |
| Protected Phases | | 6 | | | 2 | | | 4 | | 3 | 8 | |
| Permitted Phases | 6 | | | 2 | | | 4 | | | 8 | | |
| Detector Phase | 6 | 6 | | 2 | 2 | | 4 | 4 | | 3 | 8 | |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 5.0 | 5.0 | | 5.0 | 5.0 | | 5.0 | 5.0 | | 5.0 | 5.0 | |
| Minimum Split (s) | 26.0 | 26.0 | | 26.0 | 26.0 | | 24.0 | 24.0 | | 11.0 | 24.0 | |
| Total Split (s) | 37.0 | 37.0 | | 37.0 | 37.0 | | 27.0 | 27.0 | | 11.0 | 38.0 | |
| Total Split (%) | 49.3% | 49.3% | | 49.3% | 49.3% | | 36.0% | 36.0% | | 14.7% | 50.7% | |
| Yellow Time (s) | 3.0 | 3.0 | | 3.0 | 3.0 | | 3.0 | 3.0 | | 3.0 | 3.0 | |
| All-Red Time (s) | 3.0 | 3.0 | | 3.0 | 3.0 | | 3.0 | 3.0 | | 3.0 | 3.0 | |
| Lost Time Adjust (s) | | -1.0 | | -1.0 | -1.0 | | | -1.0 | | | -1.0 | |
| Total Lost Time (s) | | 5.0 | | 5.0 | 5.0 | | | 5.0 | | | 5.0 | |
| Lead/Lag | | | | | | | Lag | Lag | | Lead | | |
| Lead-Lag Optimize? | | | | | | | Yes | Yes | | Yes | | |
| Recall Mode | Max | Max | | Max | Max | | None | None | | None | None | |
| Act Effct Green (s) | | 32.2 | | 32.2 | 32.2 | | | 16.3 | | | 16.3 | |
| Actuated g/C Ratio | | 0.55 | | 0.55 | 0.55 | | | 0.28 | | | 0.28 | |
| v/c Ratio | | 0.47 | | 0.14 | 0.31 | | | 0.65 | | | 0.47 | |
| Control Delay | | 10.9 | | 9.1 | 9.5 | | | 26.8 | | | 20.7 | |
| Queue Delay | | 0.0 | | 0.0 | 0.0 | | | 0.0 | | | 0.0 | |
| Total Delay | | 10.9 | | 9.1 | 9.5 | | | 26.8 | | | 20.7 | |
| LOS | | B | | A | A | | | C | | | C | |
| Approach Delay | | 10.9 | | | 9.4 | | | 26.8 | | | 20.7 | |
| Approach LOS | | B | | | A | | | C | | | C | |
| Queue Length 50th (ft) | | 87 | | 7 | 41 | | | 78 | | | 49 | |
| Queue Length 95th (ft) | | 178 | | 26 | 94 | | | 140 | | | 95 | |
| Internal Link Dist (ft) | | 1256 | | | 617 | | | 791 | | | 984 | |
| Turn Bay Length (ft) | | | | 90 | | | | | | | | |
| Base Capacity (vph) | | 970 | | 352 | 791 | | | 536 | | | 781 | |
| Starvation Cap Reductn | | 0 | | 0 | 0 | | | 0 | | | 0 | |
| Spillback Cap Reductn | | 0 | | 0 | 0 | | | 0 | | | 0 | |
| Storage Cap Reductn | | 0 | | 0 | 0 | | | 0 | | | 0 | |
| Reduced v/c Ratio | | 0.47 | | 0.14 | 0.31 | | | 0.48 | | | 0.23 | |

| Intersection Summary |
|---|
| Cycle Length: 75 |

| | |
|---|---|
| Actuated Cycle Length: 58.5 | |
| Natural Cycle: 65 | |
| Control Type: Actuated-Uncoordinated | |
| Maximum v/c Ratio: 0.65 | |
| Intersection Signal Delay: 15.5 | Intersection LOS: B |
| Intersection Capacity Utilization 67.9% | ICU Level of Service C |
| Analysis Period (min) 15 | |

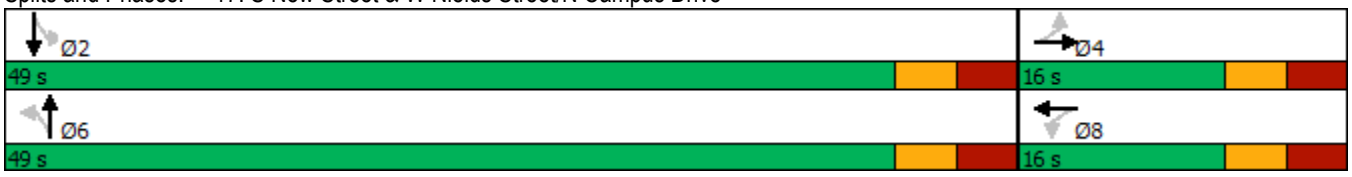
Splits and Phases: 16: S New Street & Rosedale Avenue

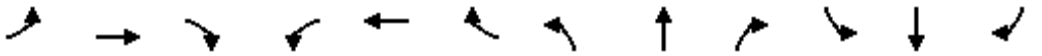


| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 10 | 10 | 32 | 10 | 0 | 12 | 27 | 150 | 61 | 41 | 116 | 8 |
| Future Volume (vph) | 10 | 10 | 32 | 10 | 0 | 12 | 27 | 150 | 61 | 41 | 116 | 8 |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Ped Bike Factor | | 0.95 | | | 0.96 | | 0.99 | 0.99 | | | 0.99 | |
| Frt | | 0.917 | | | 0.926 | | | 0.957 | | | 0.993 | |
| Flt Protected | | 0.991 | | | 0.978 | | 0.950 | | | | 0.988 | |
| Satd. Flow (prot) | 0 | 1608 | 0 | 0 | 1439 | 0 | 1645 | 1606 | 0 | 0 | 1979 | 0 |
| Flt Permitted | | 0.926 | | | 0.862 | | 0.622 | | | | 0.881 | |
| Satd. Flow (perm) | 0 | 1501 | 0 | 0 | 1240 | 0 | 1071 | 1606 | 0 | 0 | 1755 | 0 |
| Satd. Flow (RTOR) | | | | | 50 | | | 70 | | | 9 | |
| Turn Type | Perm | NA | | Perm | NA | | Perm | NA | | Perm | NA | |
| Protected Phases | | 4 | | | 8 | | | 6 | | | 2 | |
| Permitted Phases | 4 | | | 8 | | | 6 | | | 2 | | |
| Detector Phase | 4 | 4 | | 8 | 8 | | 6 | 6 | | 2 | 2 | |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 3.0 | 3.0 | | 3.0 | 3.0 | | 3.0 | 3.0 | | 3.0 | 3.0 | |
| Minimum Split (s) | 25.0 | 25.0 | | 25.0 | 25.0 | | 23.0 | 23.0 | | 23.0 | 23.0 | |
| Total Split (s) | 16.0 | 16.0 | | 16.0 | 16.0 | | 49.0 | 49.0 | | 49.0 | 49.0 | |
| Total Split (%) | 24.6% | 24.6% | | 24.6% | 24.6% | | 75.4% | 75.4% | | 75.4% | 75.4% | |
| Yellow Time (s) | 3.0 | 3.0 | | 3.0 | 3.0 | | 3.0 | 3.0 | | 3.0 | 3.0 | |
| All-Red Time (s) | 3.0 | 3.0 | | 3.0 | 3.0 | | 3.0 | 3.0 | | 3.0 | 3.0 | |
| Lost Time Adjust (s) | | -1.0 | | | -1.0 | | -1.0 | -1.0 | | | -1.0 | |
| Total Lost Time (s) | | 5.0 | | | 5.0 | | 5.0 | 5.0 | | | 5.0 | |
| Lead/Lag | | | | | | | | | | | | |
| Lead-Lag Optimize? | | | | | | | | | | | | |
| Recall Mode | None | None | | None | None | | Max | Max | | Max | Max | |

| Intersection Summary |
|---|
| Cycle Length: 65 |
| Actuated Cycle Length: 68.9 |
| Natural Cycle: 50 |
| Control Type: Actuated-Uncoordinated |

Splits and Phases: 17: S New Street & W Nields Street/N Campus Drive





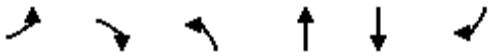
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (veh/h) | 10 | 10 | 32 | 10 | 0 | 12 | 27 | 150 | 61 | 41 | 116 | 8 |
| Future Volume (veh/h) | 10 | 10 | 32 | 10 | 0 | 12 | 27 | 150 | 61 | 41 | 116 | 8 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 0.87 | | 0.86 | 0.90 | | 0.86 | 0.99 | | 0.99 | 0.99 | | 0.99 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach | | No | | | No | | | No | | | No | |
| Adj Sat Flow, veh/h/ln | 1988 | 1988 | 1944 | 1627 | 1912 | 1798 | 1794 | 1647 | 1793 | 2066 | 1992 | 2066 |
| Adj Flow Rate, veh/h | 13 | 13 | 42 | 13 | 0 | 8 | 36 | 197 | 67 | 54 | 153 | 11 |
| Peak Hour Factor | 0.76 | 0.76 | 0.76 | 0.76 | 0.76 | 0.76 | 0.76 | 0.76 | 0.76 | 0.76 | 0.76 | 0.76 |
| Percent Heavy Veh, % | 0 | 0 | 3 | 20 | 0 | 8 | 0 | 15 | 5 | 0 | 5 | 0 |
| Cap, veh/h | 92 | 47 | 113 | 179 | 20 | 64 | 971 | 842 | 286 | 332 | 919 | 63 |
| Arrive On Green | 0.12 | 0.12 | 0.12 | 0.12 | 0.00 | 0.12 | 0.72 | 0.72 | 0.72 | 0.72 | 0.72 | 0.72 |
| Sat Flow, veh/h | 189 | 401 | 953 | 712 | 171 | 543 | 1163 | 1171 | 398 | 360 | 1279 | 87 |
| Grp Volume(v), veh/h | 68 | 0 | 0 | 21 | 0 | 0 | 36 | 0 | 264 | 218 | 0 | 0 |
| Grp Sat Flow(s),veh/h/ln | 1542 | 0 | 0 | 1426 | 0 | 0 | 1163 | 0 | 1570 | 1727 | 0 | 0 |
| Q Serve(g_s), s | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 3.5 | 0.0 | 0.0 | 0.0 |
| Cycle Q Clear(g_c), s | 2.4 | 0.0 | 0.0 | 0.7 | 0.0 | 0.0 | 0.4 | 0.0 | 3.5 | 2.1 | 0.0 | 0.0 |
| Prop In Lane | 0.19 | | 0.62 | 0.62 | | 0.38 | 1.00 | | 0.25 | 0.25 | | 0.05 |
| Lane Grp Cap(c), veh/h | 253 | 0 | 0 | 264 | 0 | 0 | 971 | 0 | 1128 | 1314 | 0 | 0 |
| V/C Ratio(X) | 0.27 | 0.00 | 0.00 | 0.08 | 0.00 | 0.00 | 0.04 | 0.00 | 0.23 | 0.17 | 0.00 | 0.00 |
| Avail Cap(c_a), veh/h | 344 | 0 | 0 | 343 | 0 | 0 | 971 | 0 | 1128 | 1314 | 0 | 0 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 0.00 |
| Uniform Delay (d), s/veh | 24.8 | 0.0 | 0.0 | 24.1 | 0.0 | 0.0 | 2.5 | 0.0 | 2.9 | 2.7 | 0.0 | 0.0 |
| Incr Delay (d2), s/veh | 0.6 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 | 0.1 | 0.0 | 0.5 | 0.3 | 0.0 | 0.0 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(95%),veh/ln | 1.6 | 0.0 | 0.0 | 0.5 | 0.0 | 0.0 | 0.2 | 0.0 | 1.5 | 1.1 | 0.0 | 0.0 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 25.4 | 0.0 | 0.0 | 24.2 | 0.0 | 0.0 | 2.6 | 0.0 | 3.4 | 3.0 | 0.0 | 0.0 |
| LnGrp LOS | C | A | A | C | A | A | A | A | A | A | A | A |
| Approach Vol, veh/h | | 68 | | | 21 | | | 300 | | | 218 | |
| Approach Delay, s/veh | | 25.4 | | | 24.2 | | | 3.3 | | | 3.0 | |
| Approach LOS | | C | | | C | | | A | | | A | |

| Timer - Assigned Phs | | 2 | | 4 | | 6 | | 8 | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Phs Duration (G+Y+Rc), s | | 49.0 | | 12.2 | | 49.0 | | 12.2 | | | | |
| Change Period (Y+Rc), s | | 6.0 | | 6.0 | | 6.0 | | 6.0 | | | | |
| Max Green Setting (Gmax), s | | 43.0 | | 10.0 | | 43.0 | | 10.0 | | | | |
| Max Q Clear Time (g_c+I1), s | | 0.0 | | 4.4 | | 0.0 | | 2.7 | | | | |
| Green Ext Time (p_c), s | | 0.0 | | 0.1 | | 0.0 | | 0.0 | | | | |

| Intersection Summary | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| HCM 6th Ctrl Delay | | | 6.4 | | | | | | | | | |
| HCM 6th LOS | | | A | | | | | | | | | |

**Notes**

User approved pedestrian interval to be less than phase max green.



| Lane Group | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (vph) | 7 | 1 | 2 | 216 | 143 | 8 |
| Future Volume (vph) | 7 | 1 | 2 | 216 | 143 | 8 |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Ped Bike Factor | | | | | | |
| Frt | 0.986 | | | | 0.993 | |
| Flt Protected | 0.957 | | | 0.999 | | |
| Satd. Flow (prot) | 1436 | 0 | 0 | 1784 | 1663 | 0 |
| Flt Permitted | 0.957 | | | 0.999 | | |
| Satd. Flow (perm) | 1436 | 0 | 0 | 1784 | 1663 | 0 |
| Sign Control | Stop | | | Stop | Stop | |

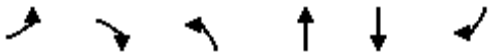
| Intersection Summary |
|---|
| Control Type: Unsignalized |

| Intersection | |
|---|---|
| Intersection Delay, s/veh | 8.9 |
| Intersection LOS | A |

| Movement | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 7 | 1 | 2 | 216 | 143 | 8 |
| Future Vol, veh/h | 7 | 1 | 2 | 216 | 143 | 8 |
| Peak Hour Factor | 0.76 | 0.76 | 0.76 | 0.76 | 0.76 | 0.76 |
| Heavy Vehicles, % | 29 | 0 | 0 | 7 | 12 | 38 |
| Mvmt Flow | 9 | 1 | 3 | 284 | 188 | 11 |
| Number of Lanes | 1 | 0 | 0 | 1 | 1 | 0 |

| Approach | EB | NB | SB |
|---|---|---|---|
| Opposing Approach | | SB | NB |
| Opposing Lanes | 0 | 1 | 1 |
| Conflicting Approach Left | SB | EB | |
| Conflicting Lanes Left | 1 | 1 | 0 |
| Conflicting Approach Right | NB | | EB |
| Conflicting Lanes Right | 1 | 0 | 1 |
| HCM Control Delay | 8.6 | 9.1 | 8.7 |
| HCM LOS | A | A | A |

| Lane | NBLn1 | EBLn1 | SBLn1 |
|---|---|---|---|
| Vol Left, % | 1% | 88% | 0% |
| Vol Thru, % | 99% | 0% | 95% |
| Vol Right, % | 0% | 12% | 5% |
| Sign Control | Stop | Stop | Stop |
| Traffic Vol by Lane | 218 | 8 | 151 |
| LT Vol | 2 | 7 | 0 |
| Through Vol | 216 | 0 | 143 |
| RT Vol | 0 | 1 | 8 |
| Lane Flow Rate | 287 | 11 | 199 |
| Geometry Grp | 1 | 1 | 1 |
| Degree of Util (X) | 0.324 | 0.016 | 0.238 |
| Departure Headway (Hd) | 4.068 | 5.543 | 4.304 |
| Convergence, Y/N | Yes | Yes | Yes |
| Cap | 875 | 650 | 827 |
| Service Time | 2.133 | 3.543 | 2.376 |
| HCM Lane V/C Ratio | 0.328 | 0.017 | 0.241 |
| HCM Control Delay | 9.1 | 8.6 | 8.7 |
| HCM Lane LOS | A | A | A |
| HCM 95th-tile Q | 1.4 | 0 | 0.9 |



| Lane Group | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (vph) | 0 | 2 | 0 | 220 | 139 | 0 |
| Future Volume (vph) | 0 | 2 | 0 | 220 | 139 | 0 |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Frt | 0.865 | | | | | |
| Flt Protected | | | | | | |
| Satd. Flow (prot) | 1635 | 0 | 0 | 1726 | 1698 | 0 |
| Flt Permitted | | | | | | |
| Satd. Flow (perm) | 1635 | 0 | 0 | 1726 | 1698 | 0 |
| Sign Control | Stop | | | Free | Free | |

| Intersection Summary |
|---|
| Control Type: Unsignalized |

| Intersection | |
|---|---|
| Int Delay, s/veh | 0 |

| Movement | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 0 | 2 | 0 | 220 | 139 | 0 |
| Future Vol, veh/h | 0 | 2 | 0 | 220 | 139 | 0 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Free | Free | Free | Free |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | 0 | - | - | - | - | - |
| Veh in Median Storage, # | 0 | - | - | 0 | 0 | - |
| Grade, % | 1 | - | - | 2 | -2 | - |
| Peak Hour Factor | 79 | 79 | 79 | 79 | 79 | 79 |
| Heavy Vehicles, % | 0 | 0 | 0 | 9 | 13 | 0 |
| Mvmt Flow | 0 | 3 | 0 | 278 | 176 | 0 |

| Major/Minor | Minor2 | | Major1 | | Major2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 454 | 176 | 176 | 0 | - | 0 |
| Stage 1 | 176 | - | - | - | - | - |
| Stage 2 | 278 | - | - | - | - | - |
| Critical Hdwy | 6.6 | 6.3 | 4.3 | - | - | - |
| Critical Hdwy Stg 1 | 5.6 | - | - | - | - | - |
| Critical Hdwy Stg 2 | 5.6 | - | - | - | - | - |
| Follow-up Hdwy | 3 | 3.1 | 3 | - | - | - |
| Pot Cap-1 Maneuver | 627 | 920 | 1046 | - | - | - |
| Stage 1 | 981 | - | - | - | - | - |
| Stage 2 | 872 | - | - | - | - | - |
| Platoon blocked, % | | | | - | - | - |
| Mov Cap-1 Maneuver | 627 | 920 | 1046 | - | - | - |
| Mov Cap-2 Maneuver | 627 | - | - | - | - | - |
| Stage 1 | 981 | - | - | - | - | - |
| Stage 2 | 872 | - | - | - | - | - |

| Approach | EB | NB | SB |
|---|---|---|---|
| HCM Control Delay, s | 8.9 | 0 | 0 |
| HCM LOS | A | | |

| Minor Lane/Major Mvmt | NBL | NBT | EBLn1 | SBT | SBR |
|---|---|---|---|---|---|
| Capacity (veh/h) | 1046 | - | 920 | - | - |
| HCM Lane V/C Ratio | - | - | 0.003 | - | - |
| HCM Control Delay (s) | 0 | - | 8.9 | - | - |
| HCM Lane LOS | A | - | A | - | - |
| HCM 95th %tile Q(veh) | 0 | - | 0 | - | - |



| Lane Group | WBL | WBR | NBT | NBR | SBL | SBT |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (vph) | 11 | 25 | 198 | 15 | 29 | 100 |
| Future Volume (vph) | 11 | 25 | 198 | 15 | 29 | 100 |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Ped Bike Factor | | | | | | |
| Frt | | 0.850 | 0.990 | | | |
| Flt Protected | 0.950 | | | | | 0.989 |
| Satd. Flow (prot) | 1038 | 1148 | 1697 | 0 | 0 | 1685 |
| Flt Permitted | 0.950 | | | | | 0.989 |
| Satd. Flow (perm) | 1038 | 1148 | 1697 | 0 | 0 | 1685 |
| Sign Control | Stop | | Free | | | Free |

## Intersection Summary

Control Type: Unsignalized

| Intersection | |
|---|---|
| Int Delay, s/veh | 1.8 |

| Movement | WBL | WBR | NBT | NBR | SBL | SBT |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 11 | 25 | 198 | 15 | 29 | 100 |
| Future Vol, veh/h | 11 | 25 | 198 | 15 | 29 | 100 |
| Conflicting Peds, #/hr | 12 | 0 | 0 | 9 | 9 | 0 |
| Sign Control | Stop | Stop | Free | Free | Free | Free |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | 0 | 0 | - | - | - | - |
| Veh in Median Storage, # | 0 | - | 0 | - | - | 0 |
| Grade, % | 1 | - | 1 | - | - | -3 |
| Peak Hour Factor | 79 | 79 | 79 | 79 | 79 | 79 |
| Heavy Vehicles, % | 73 | 40 | 5 | 80 | 24 | 10 |
| Mvmt Flow | 14 | 32 | 251 | 19 | 37 | 127 |

| Major/Minor | Minor1 | | Major1 | | Major2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 483 | 270 | 0 | 0 | 279 | 0 |
| Stage 1 | 270 | - | - | - | - | - |
| Stage 2 | 213 | - | - | - | - | - |
| Critical Hdwy | 7.33 | 6.7 | - | - | 4.5 | - |
| Critical Hdwy Stg 1 | 6.33 | - | - | - | - | - |
| Critical Hdwy Stg 2 | 6.33 | - | - | - | - | - |
| Follow-up Hdwy | 3.7 | 3.5 | - | - | 3.2 | - |
| Pot Cap-1 Maneuver | 462 | 708 | - | - | 896 | - |
| Stage 1 | 693 | - | - | - | - | - |
| Stage 2 | 745 | - | - | - | - | - |
| Platoon blocked, % | | | - | - | | - |
| Mov Cap-1 Maneuver | 432 | 702 | - | - | 888 | - |
| Mov Cap-2 Maneuver | 432 | - | - | - | - | - |
| Stage 1 | 687 | - | - | - | - | - |
| Stage 2 | 703 | - | - | - | - | - |

| Approach | WB | NB | SB |
|---|---|---|---|
| HCM Control Delay, s | 11.4 | 0 | 2.1 |
| HCM LOS | B | | |

| Minor Lane/Major Mvmt | NBT | NBR | WBLn1 | WBLn2 | SBL | SBT |
|---|---|---|---|---|---|---|
| Capacity (veh/h) | - | - | 432 | 702 | 888 | - |
| HCM Lane V/C Ratio | - | - | 0.032 | 0.045 | 0.041 | - |
| HCM Control Delay (s) | - | - | 13.6 | 10.4 | 9.2 | 0 |
| HCM Lane LOS | - | - | B | B | A | A |
| HCM 95th %tile Q(veh) | - | - | 0.1 | 0.1 | 0.1 | - |

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 68 | 9 | 10 | 0 | 7 | 4 | 7 | 132 | 1 | 3 | 79 | 25 |
| Future Volume (vph) | 68 | 9 | 10 | 0 | 7 | 4 | 7 | 132 | 1 | 3 | 79 | 25 |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Ped Bike Factor | | | | | | | | | | | | |
| Frt | | 0.922 | | | 0.946 | | | 0.999 | | | 0.969 | |
| Flt Protected | 0.950 | | | | | | | 0.997 | | | 0.998 | |
| Satd. Flow (prot) | 1649 | 1191 | 0 | 1928 | 1335 | 0 | 0 | 1789 | 0 | 0 | 1633 | 0 |
| Flt Permitted | 0.950 | | | | | | | 0.997 | | | 0.998 | |
| Satd. Flow (perm) | 1649 | 1191 | 0 | 1928 | 1335 | 0 | 0 | 1789 | 0 | 0 | 1633 | 0 |
| Sign Control | | Stop | | | Stop | | | Free | | | Free | |

Intersection Summary

Control Type: Unsignalized

| Intersection | |
|---|---|
| Int Delay, s/veh | 3.3 |

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Vol, veh/h | 68 | 9 | 10 | 0 | 7 | 4 | 7 | 132 | 1 | 3 | 79 | 25 |
| Future Vol, veh/h | 68 | 9 | 10 | 0 | 7 | 4 | 7 | 132 | 1 | 3 | 79 | 25 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 1 |
| Sign Control | Stop | Stop | Stop | Stop | Stop | Stop | Free | Free | Free | Free | Free | Free |
| RT Channelized | - | - | None | - | - | None | - | - | None | - | - | None |
| Storage Length | 0 | - | - | 0 | - | - | - | - | - | - | - | - |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | -1 | - | - | -3 | - | - | 1 | - | - | 0 | - |
| Peak Hour Factor | 81 | 81 | 81 | 81 | 81 | 81 | 81 | 81 | 81 | 81 | 81 | 81 |
| Heavy Vehicles, % | 10 | 100 | 0 | 0 | 57 | 0 | 29 | 4 | 0 | 33 | 3 | 40 |
| Mvmt Flow | 84 | 11 | 12 | 0 | 9 | 5 | 9 | 163 | 1 | 4 | 98 | 31 |

| Major/Minor | Minor2 | | | Minor1 | | | Major1 | | | Major2 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Conflicting Flow All | 312 | 305 | 115 | 315 | 320 | 164 | 130 | 0 | 0 | 164 | 0 | 0 |
| Stage 1 | 123 | 123 | - | 182 | 182 | - | - | - | - | - | - | - |
| Stage 2 | 189 | 182 | - | 133 | 138 | - | - | - | - | - | - | - |
| Critical Hdwy | 7 | 7.3 | 6.1 | 6.5 | 6.47 | 5.9 | 4.6 | - | - | 4.6 | - | - |
| Critical Hdwy Stg 1 | 6 | 6.3 | - | 5.5 | 5.47 | - | - | - | - | - | - | - |
| Critical Hdwy Stg 2 | 6 | 6.3 | - | 5.5 | 5.47 | - | - | - | - | - | - | - |
| Follow-up Hdwy | 3.1 | 4.9 | 3.1 | 3 | 4.513 | 3.1 | 3.3 | - | - | 3.3 | - | - |
| Pot Cap-1 Maneuver | 722 | 484 | 1004 | 773 | 545 | 952 | 980 | - | - | 953 | - | - |
| Stage 1 | 997 | 643 | - | 979 | 677 | - | - | - | - | - | - | - |
| Stage 2 | 918 | 603 | - | 1035 | 704 | - | - | - | - | - | - | - |
| Platoon blocked, % | | | | | | | | - | - | | - | - |
| Mov Cap-1 Maneuver | 700 | 476 | 1003 | 741 | 536 | 952 | 979 | - | - | 953 | - | - |
| Mov Cap-2 Maneuver | 700 | 476 | - | 741 | 536 | - | - | - | - | - | - | - |
| Stage 1 | 986 | 639 | - | 969 | 670 | - | - | - | - | - | - | - |
| Stage 2 | 892 | 597 | - | 999 | 700 | - | - | - | - | - | - | - |

| Approach | EB | WB | NB | SB |
|---|---|---|---|---|
| HCM Control Delay, s | 10.8 | 10.8 | 0.4 | 0.2 |
| HCM LOS | B | B | | |

| Minor Lane/Major Mvmt | NBL | NBT | NBR | EBLn1 | EBLn2 | WBLn1 | WBLn2 | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|
| Capacity (veh/h) | 979 | - | - | 700 | 658 | - | 637 | 953 | - | - |
| HCM Lane V/C Ratio | 0.009 | - | - | 0.12 | 0.036 | - | 0.021 | 0.004 | - | - |
| HCM Control Delay (s) | 8.7 | 0 | - | 10.8 | 10.7 | 0 | 10.8 | 8.8 | 0 | - |
| HCM Lane LOS | A | A | - | B | B | A | B | A | A | - |
| HCM 95th %tile Q(veh) | 0 | - | - | 0.4 | 0.1 | - | 0.1 | 0 | - | - |

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 15 | 1 | 7 | 5 | 1 | 4 | 12 | 126 | 7 | 5 | 66 | 19 |
| Future Volume (vph) | 15 | 1 | 7 | 5 | 1 | 4 | 12 | 126 | 7 | 5 | 66 | 19 |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Frt | | 0.958 | | | 0.944 | | | 0.993 | | | 0.972 | |
| Flt Protected | | 0.968 | | | 0.976 | | | 0.996 | | | 0.997 | |
| Satd. Flow (prot) | 0 | 1753 | 0 | 0 | 1348 | 0 | 0 | 1804 | 0 | 0 | 1763 | 0 |
| Flt Permitted | | 0.968 | | | 0.976 | | | 0.996 | | | 0.997 | |
| Satd. Flow (perm) | 0 | 1753 | 0 | 0 | 1348 | 0 | 0 | 1804 | 0 | 0 | 1763 | 0 |
| Sign Control | | Stop | | | Stop | | | Stop | | | Stop | |

| Intersection Summary |
|---|
| Control Type: Unsignalized |

| Intersection | |
|---|---|
| Intersection Delay, s/veh | 7.9 |
| Intersection LOS | A |

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Vol, veh/h | 15 | 1 | 7 | 5 | 1 | 4 | 12 | 126 | 7 | 5 | 66 | 19 |
| Future Vol, veh/h | 15 | 1 | 7 | 5 | 1 | 4 | 12 | 126 | 7 | 5 | 66 | 19 |
| Peak Hour Factor | 0.79 | 0.79 | 0.79 | 0.79 | 0.79 | 0.79 | 0.79 | 0.79 | 0.79 | 0.79 | 0.79 | 0.79 |
| Heavy Vehicles, % | 0 | 0 | 0 | 0 | 100 | 50 | 0 | 4 | 14 | 0 | 6 | 0 |
| Mvmt Flow | 19 | 1 | 9 | 6 | 1 | 5 | 15 | 159 | 9 | 6 | 84 | 24 |
| Number of Lanes | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 0 |

| Approach | EB | WB | NB | SB |
|---|---|---|---|---|
| Opposing Approach | WB | EB | SB | NB |
| Opposing Lanes | 1 | 1 | 1 | 1 |
| Conflicting Approach Left | SB | NB | EB | WB |
| Conflicting Lanes Left | 1 | 1 | 1 | 1 |
| Conflicting Approach Right | NB | SB | WB | EB |
| Conflicting Lanes Right | 1 | 1 | 1 | 1 |
| HCM Control Delay | 7.7 | 7.5 | 8.2 | 7.6 |
| HCM LOS | A | A | A | A |

| Lane | NBLn1 | EBLn1 | WBLn1 | SBLn1 |
|---|---|---|---|---|
| Vol Left, % | 8% | 65% | 50% | 6% |
| Vol Thru, % | 87% | 4% | 10% | 73% |
| Vol Right, % | 5% | 30% | 40% | 21% |
| Sign Control | Stop | Stop | Stop | Stop |
| Traffic Vol by Lane | 145 | 23 | 10 | 90 |
| LT Vol | 12 | 15 | 5 | 5 |
| Through Vol | 126 | 1 | 1 | 66 |
| RT Vol | 7 | 7 | 4 | 19 |
| Lane Flow Rate | 184 | 29 | 13 | 114 |
| Geometry Grp | 1 | 1 | 1 | 1 |
| Degree of Util (X) | 0.206 | 0.036 | 0.016 | 0.126 |
| Departure Headway (Hd) | 4.046 | 4.495 | 4.427 | 3.995 |
| Convergence, Y/N | Yes | Yes | Yes | Yes |
| Cap | 881 | 801 | 813 | 887 |
| Service Time | 2.097 | 2.496 | 2.428 | 2.062 |
| HCM Lane V/C Ratio | 0.209 | 0.036 | 0.016 | 0.129 |
| HCM Control Delay | 8.2 | 7.7 | 7.5 | 7.6 |
| HCM Lane LOS | A | A | A | A |
| HCM 95th-tile Q | 0.8 | 0.1 | 0 | 0.4 |

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 15 | 9 | 33 | 1 | 9 | 16 | 144 | 241 | 2 | 23 | 268 | 13 |
| Future Volume (vph) | 15 | 9 | 33 | 1 | 9 | 16 | 144 | 241 | 2 | 23 | 268 | 13 |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Ped Bike Factor | | | | | | | | | | | | |
| Frt | | | 0.850 | | 0.918 | | | 0.999 | | | | 0.850 |
| Flt Protected | | 0.970 | | | 0.998 | | 0.950 | | | 0.950 | | |
| Satd. Flow (prot) | 0 | 1825 | 1355 | 0 | 1671 | 0 | 1814 | 1817 | 0 | 1727 | 1783 | 1607 |
| Flt Permitted | | 0.970 | | | 0.998 | | 0.950 | | | 0.950 | | |
| Satd. Flow (perm) | 0 | 1825 | 1355 | 0 | 1671 | 0 | 1814 | 1817 | 0 | 1727 | 1783 | 1607 |
| Sign Control | | Stop | | | Stop | | | Free | | | Free | |

Intersection Summary

Control Type: Unsignalized

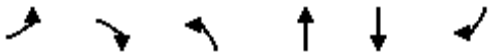
| Intersection | |
|---|---|
| Int Delay, s/veh | 3.8 |

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Vol, veh/h | 15 | 9 | 33 | 1 | 9 | 16 | 144 | 241 | 2 | 23 | 268 | 13 |
| Future Vol, veh/h | 15 | 9 | 33 | 1 | 9 | 16 | 144 | 241 | 2 | 23 | 268 | 13 |
| Conflicting Peds, #/hr | 0 | 0 | 11 | 11 | 0 | 0 | 2 | 0 | 7 | 7 | 0 | 2 |
| Sign Control | Stop | Stop | Stop | Stop | Stop | Stop | Free | Free | Free | Free | Free | Free |
| RT Channelized | - | - | None | - | - | None | - | - | None | - | - | None |
| Storage Length | - | - | 65 | - | - | - | 75 | - | - | 160 | - | 100 |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 2 | - | - | 1 | - | - | -1 | - | - | 1 | - |
| Peak Hour Factor | 94 | 94 | 94 | 94 | 94 | 94 | 94 | 94 | 94 | 94 | 94 | 94 |
| Heavy Vehicles, % | 0 | 0 | 18 | 0 | 0 | 6 | 0 | 5 | 0 | 4 | 6 | 0 |
| Mvmt Flow | 16 | 10 | 35 | 1 | 10 | 17 | 153 | 256 | 2 | 24 | 285 | 14 |

| Major/Minor | Minor2 | | | Minor1 | | | Major1 | | | Major2 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Conflicting Flow All | 912 | 906 | 298 | 944 | 919 | 264 | 301 | 0 | 0 | 265 | 0 | 0 |
| Stage 1 | 335 | 335 | - | 570 | 570 | - | - | - | - | - | - | - |
| Stage 2 | 577 | 571 | - | 374 | 349 | - | - | - | - | - | - | - |
| Critical Hdwy | 7.5 | 6.9 | 6.58 | 7.3 | 6.7 | 6.36 | 4.3 | - | - | 4.3 | - | - |
| Critical Hdwy Stg 1 | 6.5 | 5.9 | - | 6.3 | 5.7 | - | - | - | - | - | - | - |
| Critical Hdwy Stg 2 | 6.5 | 5.9 | - | 6.3 | 5.7 | - | - | - | - | - | - | - |
| Follow-up Hdwy | 3 | 4 | 3.3 | 3 | 4 | 3.2 | 3 | - | - | 3 | - | - |
| Pot Cap-1 Maneuver | 256 | 251 | 723 | 256 | 260 | 792 | 947 | - | - | 975 | - | - |
| Stage 1 | 751 | 622 | - | 556 | 493 | - | - | - | - | - | - | - |
| Stage 2 | 533 | 477 | - | 726 | 625 | - | - | - | - | - | - | - |
| Platoon blocked, % | | | | | | | | - | - | | - | - |
| Mov Cap-1 Maneuver | 208 | 203 | 714 | 198 | 211 | 787 | 945 | - | - | 969 | - | - |
| Mov Cap-2 Maneuver | 208 | 203 | - | 198 | 211 | - | - | - | - | - | - | - |
| Stage 1 | 628 | 605 | - | 463 | 410 | - | - | - | - | - | - | - |
| Stage 2 | 427 | 397 | - | 656 | 608 | - | - | - | - | - | - | - |

| Approach | EB | WB | NB | SB |
|---|---|---|---|---|
| HCM Control Delay, s | 16.4 | 15.2 | 3.6 | 0.7 |
| HCM LOS | C | C | | |

| Minor Lane/Major Mvmt | NBL | NBT | NBR | EBLn1 | EBLn2 | WBLn1 | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|
| Capacity (veh/h) | 945 | - | - | 206 | 714 | 382 | 969 | - | - |
| HCM Lane V/C Ratio | 0.162 | - | - | 0.124 | 0.049 | 0.072 | 0.025 | - | - |
| HCM Control Delay (s) | 9.5 | - | - | 24.9 | 10.3 | 15.2 | 8.8 | - | - |
| HCM Lane LOS | A | - | - | C | B | C | A | - | - |
| HCM 95th %tile Q(veh) | 0.6 | - | - | 0.4 | 0.2 | 0.2 | 0.1 | - | - |



| Lane Group | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (vph) | 0 | 4 | 16 | 451 | 265 | 0 |
| Future Volume (vph) | 0 | 4 | 16 | 451 | 265 | 0 |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Ped Bike Factor | | | | | | |
| Frt | 0.865 | | | | | |
| Flt Protected | | | 0.950 | | | |
| Satd. Flow (prot) | 1652 | 0 | 1605 | 1854 | 1792 | 0 |
| Flt Permitted | | | 0.950 | | | |
| Satd. Flow (perm) | 1652 | 0 | 1605 | 1854 | 1792 | 0 |
| Sign Control | Stop | | | Free | Free | |

## Intersection Summary

Control Type: Unsignalized

| Intersection | |
|---|---|
| Int Delay, s/veh | 0.2 |

| Movement | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 0 | 4 | 16 | 451 | 265 | 0 |
| Future Vol, veh/h | 0 | 4 | 16 | 451 | 265 | 0 |
| Conflicting Peds, #/hr | 0 | 0 | 1 | 0 | 0 | 1 |
| Sign Control | Stop | Stop | Free | Free | Free | Free |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | 0 | - | 25 | - | - | - |
| Veh in Median Storage, # | 0 | - | - | 0 | 0 | - |
| Grade, % | -1 | - | - | -1 | 0 | - |
| Peak Hour Factor | 90 | 90 | 90 | 90 | 90 | 90 |
| Heavy Vehicles, % | 0 | 0 | 13 | 3 | 6 | 0 |
| Mvmt Flow | 0 | 4 | 18 | 501 | 294 | 0 |

| Major/Minor | Minor2 | | Major1 | | Major2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 832 | 295 | 295 | 0 | - | 0 |
| Stage 1 | 295 | - | - | - | - | - |
| Stage 2 | 537 | - | - | - | - | - |
| Critical Hdwy | 6.2 | 6.1 | 4.4 | - | - | - |
| Critical Hdwy Stg 1 | 5.2 | - | - | - | - | - |
| Critical Hdwy Stg 2 | 5.2 | - | - | - | - | - |
| Follow-up Hdwy | 3 | 3.1 | 3.1 | - | - | - |
| Pot Cap-1 Maneuver | 397 | 798 | 917 | - | - | - |
| Stage 1 | 884 | - | - | - | - | - |
| Stage 2 | 685 | - | - | - | - | - |
| Platoon blocked, % | | | | - | - | - |
| Mov Cap-1 Maneuver | 388 | 797 | 916 | - | - | - |
| Mov Cap-2 Maneuver | 521 | - | - | - | - | - |
| Stage 1 | 865 | - | - | - | - | - |
| Stage 2 | 684 | - | - | - | - | - |

| Approach | EB | NB | SB |
|---|---|---|---|
| HCM Control Delay, s | 9.5 | 0.3 | 0 |
| HCM LOS | A | | |

| Minor Lane/Major Mvmt | NBL | NBT | EBLn1 | SBT | SBR |
|---|---|---|---|---|---|
| Capacity (veh/h) | 916 | - | 797 | - | - |
| HCM Lane V/C Ratio | 0.019 | - | 0.006 | - | - |
| HCM Control Delay (s) | 9 | - | 9.5 | - | - |
| HCM Lane LOS | A | - | A | - | - |
| HCM 95th %tile Q(veh) | 0.1 | - | 0 | - | - |



| Lane Group | WBL | WBR | NBT | NBR | SBL | SBT |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (vph) | 17 | 32 | 504 | 81 | 102 | 402 |
| Future Volume (vph) | 17 | 32 | 504 | 81 | 102 | 402 |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Ped Bike Factor | | | | | | |
| Frt | | 0.850 | | 0.850 | | |
| Flt Protected | 0.950 | | | | 0.950 | |
| Satd. Flow (prot) | 1796 | 1516 | 1863 | 1599 | 1796 | 1836 |
| Flt Permitted | 0.950 | | | | 0.950 | |
| Satd. Flow (perm) | 1796 | 1516 | 1863 | 1599 | 1796 | 1836 |
| Sign Control | Stop | | Free | | | Free |

## Intersection Summary

Control Type: Unsignalized

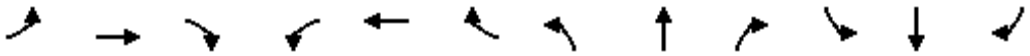
| Intersection | |
|---|---|
| Int Delay, s/veh | 1.6 |

| Movement | WBL | WBR | NBT | NBR | SBL | SBT |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 17 | 32 | 504 | 81 | 102 | 402 |
| Future Vol, veh/h | 17 | 32 | 504 | 81 | 102 | 402 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 1 | 1 | 0 |
| Sign Control | Stop | Stop | Free | Free | Free | Free |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | 0 | 115 | - | 175 | 25 | - |
| Veh in Median Storage, # | 0 | - | 0 | - | - | 0 |
| Grade, % | 1 | - | 0 | - | - | -1 |
| Peak Hour Factor | 93 | 93 | 93 | 93 | 93 | 93 |
| Heavy Vehicles, % | 0 | 6 | 2 | 1 | 1 | 4 |
| Mvmt Flow | 18 | 34 | 542 | 87 | 110 | 432 |

| Major/Minor | Minor1 | | Major1 | | Major2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 1195 | 543 | 0 | 0 | 630 | 0 |
| Stage 1 | 543 | - | - | - | - | - |
| Stage 2 | 652 | - | - | - | - | - |
| Critical Hdwy | 6.6 | 6.36 | - | - | 4.3 | - |
| Critical Hdwy Stg 1 | 5.6 | - | - | - | - | - |
| Critical Hdwy Stg 2 | 5.6 | - | - | - | - | - |
| Follow-up Hdwy | 3 | 3.2 | - | - | 3 | - |
| Pot Cap-1 Maneuver | 212 | 543 | - | - | 727 | - |
| Stage 1 | 641 | - | - | - | - | - |
| Stage 2 | 564 | - | - | - | - | - |
| Platoon blocked, % | | | - | - | | - |
| Mov Cap-1 Maneuver | 180 | 542 | - | - | 726 | - |
| Mov Cap-2 Maneuver | 329 | - | - | - | - | - |
| Stage 1 | 640 | - | - | - | - | - |
| Stage 2 | 478 | - | - | - | - | - |

| Approach | WB | NB | SB |
|---|---|---|---|
| HCM Control Delay, s | 13.7 | 0 | 2.2 |
| HCM LOS | B | | |

| Minor Lane/Major Mvmt | NBT | NBR | WBLn1 | WBLn2 | SBL | SBT |
|---|---|---|---|---|---|---|
| Capacity (veh/h) | - | - | 329 | 542 | 726 | - |
| HCM Lane V/C Ratio | - | - | 0.056 | 0.063 | 0.151 | - |
| HCM Control Delay (s) | - | - | 16.6 | 12.1 | 10.8 | - |
| HCM Lane LOS | - | - | C | B | B | - |
| HCM 95th %tile Q(veh) | - | - | 0.2 | 0.2 | 0.5 | - |



| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 0 | 27 | 5 | 56 | 38 | 22 | 23 | 189 | 120 | 16 | 137 | 3 |
| Future Volume (vph) | 0 | 27 | 5 | 56 | 38 | 22 | 23 | 189 | 120 | 16 | 137 | 3 |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Ped Bike Factor | | | | | | | | | | | | |
| Frt | | 0.980 | | | 0.974 | | | 0.951 | | | 0.998 | |
| Flt Protected | | | | | 0.976 | | | 0.997 | | | 0.995 | |
| Satd. Flow (prot) | 0 | 1712 | 0 | 0 | 1747 | 0 | 0 | 1701 | 0 | 0 | 1863 | 0 |
| Flt Permitted | | | | | 0.976 | | | 0.997 | | | 0.995 | |
| Satd. Flow (perm) | 0 | 1712 | 0 | 0 | 1747 | 0 | 0 | 1701 | 0 | 0 | 1863 | 0 |
| Sign Control | | Stop | | | Stop | | | Stop | | | Stop | |

## Intersection Summary

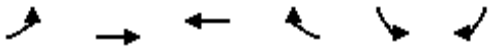
Control Type: Unsignalized

| Intersection | |
|---|---|
| Intersection Delay, s/veh | 10 |
| Intersection LOS | A |

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Vol, veh/h | 0 | 27 | 5 | 56 | 38 | 22 | 23 | 189 | 120 | 16 | 137 | 3 |
| Future Vol, veh/h | 0 | 27 | 5 | 56 | 38 | 22 | 23 | 189 | 120 | 16 | 137 | 3 |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Heavy Vehicles, % | 0 | 4 | 40 | 5 | 0 | 5 | 4 | 1 | 11 | 0 | 2 | 0 |
| Mvmt Flow | 0 | 29 | 5 | 61 | 41 | 24 | 25 | 205 | 130 | 17 | 149 | 3 |
| Number of Lanes | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 0 |

| Approach | EB | WB | NB | SB |
|---|---|---|---|---|
| Opposing Approach | WB | EB | SB | NB |
| Opposing Lanes | 1 | 1 | 1 | 1 |
| Conflicting Approach Left | SB | NB | EB | WB |
| Conflicting Lanes Left | 1 | 1 | 1 | 1 |
| Conflicting Approach Right | NB | SB | WB | EB |
| Conflicting Lanes Right | 1 | 1 | 1 | 1 |
| HCM Control Delay | 8.6 | 9.4 | 10.8 | 9.1 |
| HCM LOS | A | A | B | A |

| Lane | NBLn1 | EBLn1 | WBLn1 | SBLn1 |
|---|---|---|---|---|
| Vol Left, % | 7% | 0% | 48% | 10% |
| Vol Thru, % | 57% | 84% | 33% | 88% |
| Vol Right, % | 36% | 16% | 19% | 2% |
| Sign Control | Stop | Stop | Stop | Stop |
| Traffic Vol by Lane | 332 | 32 | 116 | 156 |
| LT Vol | 23 | 0 | 56 | 16 |
| Through Vol | 189 | 27 | 38 | 137 |
| RT Vol | 120 | 5 | 22 | 3 |
| Lane Flow Rate | 361 | 35 | 126 | 170 |
| Geometry Grp | 1 | 1 | 1 | 1 |
| Degree of Util (X) | 0.439 | 0.051 | 0.182 | 0.222 |
| Departure Headway (Hd) | 4.383 | 5.252 | 5.198 | 4.723 |
| Convergence, Y/N | Yes | Yes | Yes | Yes |
| Cap | 819 | 677 | 686 | 756 |
| Service Time | 2.424 | 3.323 | 3.259 | 2.773 |
| HCM Lane V/C Ratio | 0.441 | 0.052 | 0.184 | 0.225 |
| HCM Control Delay | 10.8 | 8.6 | 9.4 | 9.1 |
| HCM Lane LOS | B | A | A | A |
| HCM 95th-tile Q | 2.3 | 0.2 | 0.7 | 0.8 |



| Lane Group | EBL | EBT | WBT | WBR | SBL | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (vph) | 14 | 151 | 112 | 26 | 12 | 6 |
| Future Volume (vph) | 14 | 151 | 112 | 26 | 12 | 6 |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Ped Bike Factor | | | | | | |
| Frt | | | 0.975 | | 0.955 | |
| Flt Protected | | 0.996 | | | 0.968 | |
| Satd. Flow (prot) | 0 | 1748 | 1795 | 0 | 1756 | 0 |
| Flt Permitted | | 0.996 | | | 0.968 | |
| Satd. Flow (perm) | 0 | 1748 | 1795 | 0 | 1756 | 0 |
| Sign Control | | Free | Free | | Stop | |

## Intersection Summary

Control Type: Unsignalized

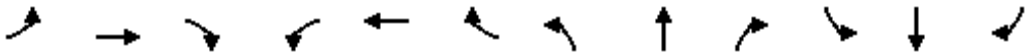
| Intersection | |
|---|---|
| Int Delay, s/veh | 0.9 |

| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 14 | 151 | 112 | 26 | 12 | 6 |
| Future Vol, veh/h | 14 | 151 | 112 | 26 | 12 | 6 |
| Conflicting Peds, #/hr | 4 | 0 | 0 | 4 | 19 | 10 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | - | - | 0 | - |
| Veh in Median Storage, # | - | 0 | 0 | - | 0 | - |
| Grade, % | - | 0 | 0 | - | 0 | - |
| Peak Hour Factor | 76 | 76 | 76 | 76 | 76 | 76 |
| Heavy Vehicles, % | 0 | 9 | 3 | 4 | 0 | 0 |
| Mvmt Flow | 18 | 199 | 147 | 34 | 16 | 8 |

| Major/Minor | Major1 | | Major2 | | Minor2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 185 | 0 | - | 0 | 422 | 178 |
| Stage 1 | - | - | - | - | 168 | - |
| Stage 2 | - | - | - | - | 254 | - |
| Critical Hdwy | 4.3 | - | - | - | 6.4 | 6.2 |
| Critical Hdwy Stg 1 | - | - | - | - | 5.4 | - |
| Critical Hdwy Stg 2 | - | - | - | - | 5.4 | - |
| Follow-up Hdwy | 3 | - | - | - | 3 | 3.1 |
| Pot Cap-1 Maneuver | 1038 | - | - | - | 672 | 922 |
| Stage 1 | - | - | - | - | 1000 | - |
| Stage 2 | - | - | - | - | 910 | - |
| Platoon blocked, % | | - | - | - | | |
| Mov Cap-1 Maneuver | 1034 | - | - | - | 653 | 910 |
| Mov Cap-2 Maneuver | - | - | - | - | 653 | - |
| Stage 1 | - | - | - | - | 976 | - |
| Stage 2 | - | - | - | - | 906 | - |

| Approach | EB | WB | SB |
|---|---|---|---|
| HCM Control Delay, s | 0.7 | 0 | 10.2 |
| HCM LOS | | | B |

| Minor Lane/Major Mvmt | EBL | EBT | WBT | WBR | SBLn1 |
|---|---|---|---|---|---|
| Capacity (veh/h) | 1034 | - | - | - | 721 |
| HCM Lane V/C Ratio | 0.018 | - | - | - | 0.033 |
| HCM Control Delay (s) | 8.5 | 0 | - | - | 10.2 |
| HCM Lane LOS | A | A | - | - | B |
| HCM 95th %tile Q(veh) | 0.1 | - | - | - | 0.1 |



| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 0 | 113 | 45 | 29 | 115 | 0 | 0 | 0 | 0 | 29 | 46 | 27 |
| Future Volume (vph) | 0 | 113 | 45 | 29 | 115 | 0 | 0 | 0 | 0 | 29 | 46 | 27 |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Ped Bike Factor | | | | | | | | | | | | |
| Frt | | 0.962 | | | | | | | | | 0.964 | |
| Flt Protected | | | | | 0.990 | | | | | | 0.986 | |
| Satd. Flow (prot) | 0 | 1675 | 0 | 0 | 1810 | 0 | 0 | 0 | 0 | 0 | 1768 | 0 |
| Flt Permitted | | | | | 0.990 | | | | | | 0.986 | |
| Satd. Flow (perm) | 0 | 1675 | 0 | 0 | 1810 | 0 | 0 | 0 | 0 | 0 | 1768 | 0 |
| Sign Control | | Free | | | Free | | | Stop | | | Stop | |

Intersection Summary

Control Type: Unsignalized

| Intersection | |
|---|---|
| Int Delay, s/veh | 3.4 |

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Vol, veh/h | 0 | 113 | 45 | 29 | 115 | 0 | 0 | 0 | 0 | 29 | 46 | 27 |
| Future Vol, veh/h | 0 | 113 | 45 | 29 | 115 | 0 | 0 | 0 | 0 | 29 | 46 | 27 |
| Conflicting Peds, #/hr | 14 | 0 | 82 | 82 | 0 | 14 | 59 | 0 | 83 | 83 | 0 | 59 |
| Sign Control | Free | Free | Free | Free | Free | Free | Stop | Stop | Stop | Stop | Stop | Stop |
| RT Channelized | - | - | None | - | - | None | - | - | None | - | - | None |
| Storage Length | - | - | - | - | - | - | - | - | - | - | - | - |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | -1 | - | - | -1 | - | - | -1 | - | - | -3 | - |
| Peak Hour Factor | 83 | 83 | 83 | 83 | 83 | 83 | 83 | 83 | 83 | 83 | 83 | 83 |
| Heavy Vehicles, % | 0 | 2 | 29 | 14 | 2 | 0 | 0 | 0 | 0 | 0 | 4 | 7 |
| Mvmt Flow | 0 | 136 | 54 | 35 | 139 | 0 | 0 | 0 | 0 | 35 | 55 | 33 |

| Major/Minor | Major1 | | | Major2 | | | Minor2 | | |
|---|---|---|---|---|---|---|---|---|---|
| Conflicting Flow All | - | 0 | 0 | 272 | 0 | 0 | 455 | 481 | 198 |
| Stage 1 | - | - | - | - | - | - | 209 | 209 | - |
| Stage 2 | - | - | - | - | - | - | 246 | 272 | - |
| Critical Hdwy | - | - | - | 4.4 | - | - | 5.8 | 5.94 | 5.97 |
| Critical Hdwy Stg 1 | - | - | - | - | - | - | 4.8 | 4.94 | - |
| Critical Hdwy Stg 2 | - | - | - | - | - | - | 4.8 | 4.94 | - |
| Follow-up Hdwy | - | - | - | 3.1 | - | - | 3 | 4.036 | 3.2 |
| Pot Cap-1 Maneuver | 0 | - | - | 934 | - | 0 | 693 | 522 | 884 |
| Stage 1 | 0 | - | - | - | - | 0 | 990 | 751 | - |
| Stage 2 | 0 | - | - | - | - | 0 | 956 | 713 | - |
| Platoon blocked, % | | - | - | | - | | | | |
| Mov Cap-1 Maneuver | - | - | - | 934 | - | - | 665 | 0 | 834 |
| Mov Cap-2 Maneuver | - | - | - | - | - | - | 665 | 0 | - |
| Stage 1 | - | - | - | - | - | - | 990 | 0 | - |
| Stage 2 | - | - | - | - | - | - | 917 | 0 | - |

| Approach | EB | WB | SB |
|---|---|---|---|
| HCM Control Delay, s | 0 | 1.8 | 10.9 |
| HCM LOS | | | B |

| Minor Lane/Major Mvmt | EBT | EBR | WBL | WBT | SBLn1 |
|---|---|---|---|---|---|
| Capacity (veh/h) | - | - | 934 | - | 737 |
| HCM Lane V/C Ratio | - | - | 0.037 | - | 0.167 |
| HCM Control Delay (s) | - | - | 9 | 0 | 10.9 |
| HCM Lane LOS | - | - | A | A | B |
| HCM 95th %tile Q(veh) | - | - | 0.1 | - | 0.6 |



| Lane Group | EBT | EBR | WBL | WBT | NBL | NBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (vph) | 140 | 7 | 8 | 134 | 13 | 32 |
| Future Volume (vph) | 140 | 7 | 8 | 134 | 13 | 32 |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Ped Bike Factor | | | | | | |
| Frt | 0.993 | | | | 0.904 | |
| Flt Protected | | | | 0.997 | 0.986 | |
| Satd. Flow (prot) | 1869 | 0 | 0 | 1809 | 1694 | 0 |
| Flt Permitted | | | | 0.997 | 0.986 | |
| Satd. Flow (perm) | 1869 | 0 | 0 | 1809 | 1694 | 0 |
| Sign Control | Free | | | Free | Stop | |

## Intersection Summary

Control Type: Unsignalized

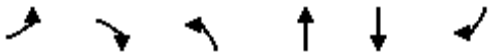
| Intersection | |
|---|---|
| Int Delay, s/veh | 1.6 |

| Movement | EBT | EBR | WBL | WBT | NBL | NBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 140 | 7 | 8 | 134 | 13 | 32 |
| Future Vol, veh/h | 140 | 7 | 8 | 134 | 13 | 32 |
| Conflicting Peds, #/hr | 0 | 52 | 52 | 0 | 19 | 5 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | - | - | 0 | - |
| Veh in Median Storage, # | 0 | - | - | 0 | 0 | - |
| Grade, % | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 93 | 93 | 93 | 93 | 93 | 93 |
| Heavy Vehicles, % | 1 | 0 | 0 | 5 | 0 | 0 |
| Mvmt Flow | 151 | 8 | 9 | 144 | 14 | 34 |

| Major/Minor | Major1 | | Major2 | | Minor1 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 0 | 0 | 211 | 0 | 388 | 212 |
| Stage 1 | - | - | - | - | 207 | - |
| Stage 2 | - | - | - | - | 181 | - |
| Critical Hdwy | - | - | 4.3 | - | 6.4 | 6.2 |
| Critical Hdwy Stg 1 | - | - | - | - | 5.4 | - |
| Critical Hdwy Stg 2 | - | - | - | - | 5.4 | - |
| Follow-up Hdwy | - | - | 3 | - | 3 | 3.1 |
| Pot Cap-1 Maneuver | - | - | 1017 | - | 705 | 882 |
| Stage 1 | - | - | - | - | 958 | - |
| Stage 2 | - | - | - | - | 985 | - |
| Platoon blocked, % | - | - | | - | | |
| Mov Cap-1 Maneuver | - | - | 967 | - | 651 | 834 |
| Mov Cap-2 Maneuver | - | - | - | - | 651 | - |
| Stage 1 | - | - | - | - | 910 | - |
| Stage 2 | - | - | - | - | 957 | - |

| Approach | EB | WB | NB |
|---|---|---|---|
| HCM Control Delay, s | 0 | 0.5 | 10 |
| HCM LOS | | | B |

| Minor Lane/Major Mvmt | NBLn1 | EBT | EBR | WBL | WBT |
|---|---|---|---|---|---|
| Capacity (veh/h) | 771 | - | - | 967 | - |
| HCM Lane V/C Ratio | 0.063 | - | - | 0.009 | - |
| HCM Control Delay (s) | 10 | - | - | 8.8 | 0 |
| HCM Lane LOS | B | - | - | A | A |
| HCM 95th %tile Q(veh) | 0.2 | - | - | 0 | - |



| Lane Group | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (vph) | 35 | 134 | 73 | 464 | 515 | 67 |
| Future Volume (vph) | 35 | 134 | 73 | 464 | 515 | 67 |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Ped Bike Factor | | | | | | |
| Frt | 0.893 | | | | 0.985 | |
| Flt Protected | 0.990 | | | 0.993 | | |
| Satd. Flow (prot) | 1653 | 0 | 0 | 1834 | 1849 | 0 |
| Flt Permitted | 0.990 | | | 0.993 | | |
| Satd. Flow (perm) | 1653 | 0 | 0 | 1834 | 1849 | 0 |
| Sign Control | Stop | | | Free | Free | |

## Intersection Summary

Control Type: Unsignalized

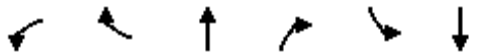
| Intersection | |
|---|---|
| Int Delay, s/veh | 4.5 |

| Movement | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 35 | 134 | 73 | 464 | 515 | 67 |
| Future Vol, veh/h | 35 | 134 | 73 | 464 | 515 | 67 |
| Conflicting Peds, #/hr | 34 | 26 | 44 | 0 | 0 | 44 |
| Sign Control | Stop | Stop | Free | Free | Free | Free |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | 0 | - | - | - | - | - |
| Veh in Median Storage, # | 0 | - | - | 0 | 0 | - |
| Grade, % | 0 | - | - | -1 | 0 | - |
| Peak Hour Factor | 94 | 94 | 94 | 94 | 94 | 94 |
| Heavy Vehicles, % | 0 | 2 | 6 | 3 | 1 | 3 |
| Mvmt Flow | 37 | 143 | 78 | 494 | 548 | 71 |

| Major/Minor | Minor2 | | Major1 | | Major2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 1312 | 654 | 663 | 0 | - | 0 |
| Stage 1 | 628 | - | - | - | - | - |
| Stage 2 | 684 | - | - | - | - | - |
| Critical Hdwy | 6.4 | 6.22 | 4.4 | - | - | - |
| Critical Hdwy Stg 1 | 5.4 | - | - | - | - | - |
| Critical Hdwy Stg 2 | 5.4 | - | - | - | - | - |
| Follow-up Hdwy | 3 | 3.1 | 3.1 | - | - | - |
| Pot Cap-1 Maneuver | 192 | 491 | 678 | - | - | - |
| Stage 1 | 601 | - | - | - | - | - |
| Stage 2 | 564 | - | - | - | - | - |
| Platoon blocked, % | | | | - | - | - |
| Mov Cap-1 Maneuver | 147 | 459 | 650 | - | - | - |
| Mov Cap-2 Maneuver | 147 | - | - | - | - | - |
| Stage 1 | 481 | - | - | - | - | - |
| Stage 2 | 540 | - | - | - | - | - |

| Approach | EB | NB | SB |
|---|---|---|---|
| HCM Control Delay, s | 29.9 | 1.5 | 0 |
| HCM LOS | D | | |

| Minor Lane/Major Mvmt | NBL | NBT | EBLn1 | SBT | SBR |
|---|---|---|---|---|---|
| Capacity (veh/h) | 650 | - | 319 | - | - |
| HCM Lane V/C Ratio | 0.119 | - | 0.564 | - | - |
| HCM Control Delay (s) | 11.3 | 0 | 29.9 | - | - |
| HCM Lane LOS | B | A | D | - | - |
| HCM 95th %tile Q(veh) | 0.4 | - | 3.3 | - | - |



| Lane Group | WBL | WBR | NBT | NBR | SBL | SBT |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (vph) | 0 | 0 | 539 | 32 | 138 | 501 |
| Future Volume (vph) | 0 | 0 | 539 | 32 | 138 | 501 |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Ped Bike Factor | | | | | | |
| Frt | | | 0.993 | | | |
| Flt Protected | | | | | | 0.989 |
| Satd. Flow (prot) | 1900 | 0 | 1832 | 0 | 0 | 1864 |
| Flt Permitted | | | | | | 0.989 |
| Satd. Flow (perm) | 1900 | 0 | 1832 | 0 | 0 | 1864 |
| Sign Control | Stop | | Free | | | Free |

| Intersection Summary |
|---|
| Control Type: Unsignalized |

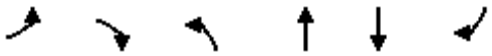
| Intersection | |
|---|---|
| Int Delay, s/veh | 1.4 |

| Movement | WBL | WBR | NBT | NBR | SBL | SBT |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 0 | 0 | 539 | 32 | 138 | 501 |
| Future Vol, veh/h | 0 | 0 | 539 | 32 | 138 | 501 |
| Conflicting Peds, #/hr | 82 | 3 | 0 | 51 | 51 | 0 |
| Sign Control | Stop | Stop | Free | Free | Free | Free |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | 0 | - | - | - | - | - |
| Veh in Median Storage, # | 0 | - | 0 | - | - | 0 |
| Grade, % | 0 | - | 0 | - | - | 0 |
| Peak Hour Factor | 93 | 93 | 93 | 93 | 93 | 93 |
| Heavy Vehicles, % | 0 | 0 | 3 | 3 | 0 | 1 |
| Mvmt Flow | 0 | 0 | 580 | 34 | 148 | 539 |

| Major/Minor | Minor1 | | Major1 | | Major2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 1565 | 651 | 0 | 0 | 665 | 0 |
| Stage 1 | 648 | - | - | - | - | - |
| Stage 2 | 917 | - | - | - | - | - |
| Critical Hdwy | 6.4 | 6.2 | - | - | 4.3 | - |
| Critical Hdwy Stg 1 | 5.4 | - | - | - | - | - |
| Critical Hdwy Stg 2 | 5.4 | - | - | - | - | - |
| Follow-up Hdwy | 3 | 3.1 | - | - | 3 | - |
| Pot Cap-1 Maneuver | 133 | 494 | - | - | 706 | - |
| Stage 1 | 588 | - | - | - | - | - |
| Stage 2 | 434 | - | - | - | - | - |
| Platoon blocked, % | | | - | - | | - |
| Mov Cap-1 Maneuver | 80 | 469 | - | - | 672 | - |
| Mov Cap-2 Maneuver | 80 | - | - | - | - | - |
| Stage 1 | 559 | - | - | - | - | - |
| Stage 2 | 274 | - | - | - | - | - |

| Approach | WB | NB | SB |
|---|---|---|---|
| HCM Control Delay, s | 0 | 0 | 2.6 |
| HCM LOS | A | | |

| Minor Lane/Major Mvmt | NBT | NBR | WBLn1 | SBL | SBT |
|---|---|---|---|---|---|
| Capacity (veh/h) | - | - | - | 672 | - |
| HCM Lane V/C Ratio | - | - | - | 0.221 | - |
| HCM Control Delay (s) | - | - | 0 | 11.9 | 0 |
| HCM Lane LOS | - | - | A | B | A |
| HCM 95th %tile Q(veh) | - | - | - | 0.8 | - |



| Lane Group | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (vph) | 0 | 0 | 77 | 570 | 480 | 19 |
| Future Volume (vph) | 0 | 0 | 77 | 570 | 480 | 19 |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Ped Bike Factor | | | | | | |
| Frt | | | | | 0.995 | |
| Flt Protected | | | | 0.994 | | |
| Satd. Flow (prot) | 1900 | 0 | 0 | 1834 | 1872 | 0 |
| Flt Permitted | | | | 0.994 | | |
| Satd. Flow (perm) | 1900 | 0 | 0 | 1834 | 1872 | 0 |
| Sign Control | Stop | | | Free | Free | |

| Intersection Summary |
|---|
| Control Type: Unsignalized |

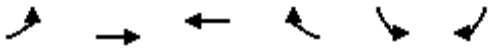
| Intersection | |
|---|---|
| Int Delay, s/veh | 0.8 |

| Movement | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 0 | 0 | 77 | 570 | 480 | 19 |
| Future Vol, veh/h | 0 | 0 | 77 | 570 | 480 | 19 |
| Conflicting Peds, #/hr | 46 | 54 | 133 | 0 | 0 | 133 |
| Sign Control | Stop | Stop | Free | Free | Free | Free |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | 0 | - | - | - | - | - |
| Veh in Median Storage, # | 0 | - | - | 0 | 0 | - |
| Grade, % | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 0 | 0 | 3 | 3 | 1 | 0 |
| Mvmt Flow | 0 | 0 | 84 | 620 | 522 | 21 |

| Major/Minor | Minor2 | | Major1 | | Major2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 1500 | 720 | 676 | 0 | - | 0 |
| Stage 1 | 666 | - | - | - | - | - |
| Stage 2 | 834 | - | - | - | - | - |
| Critical Hdwy | 6.4 | 6.2 | 4.3 | - | - | - |
| Critical Hdwy Stg 1 | 5.4 | - | - | - | - | - |
| Critical Hdwy Stg 2 | 5.4 | - | - | - | - | - |
| Follow-up Hdwy | 3 | 3.1 | 3 | - | - | - |
| Pot Cap-1 Maneuver | 146 | 451 | 700 | - | - | - |
| Stage 1 | 576 | - | - | - | - | - |
| Stage 2 | 477 | - | - | - | - | - |
| Platoon blocked, % | | | | - | - | - |
| Mov Cap-1 Maneuver | 88 | 374 | 611 | - | - | - |
| Mov Cap-2 Maneuver | 88 | - | - | - | - | - |
| Stage 1 | 397 | - | - | - | - | - |
| Stage 2 | 416 | - | - | - | - | - |

| Approach | EB | NB | SB |
|---|---|---|---|
| HCM Control Delay, s | 0 | 1.4 | 0 |
| HCM LOS | A | | |

| Minor Lane/Major Mvmt | NBL | NBT | EBLn1 | SBT | SBR |
|---|---|---|---|---|---|
| Capacity (veh/h) | 611 | - | - | - | - |
| HCM Lane V/C Ratio | 0.137 | - | - | - | - |
| HCM Control Delay (s) | 11.8 | 0 | 0 | - | - |
| HCM Lane LOS | B | A | A | - | - |
| HCM 95th %tile Q(veh) | 0.5 | - | - | - | - |



| Lane Group | EBL | EBT | WBT | WBR | SBL | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (vph) | 0 | 0 | 78 | 12 | 0 | 4 |
| Future Volume (vph) | 0 | 0 | 78 | 12 | 0 | 4 |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Ped Bike Factor | | | | | | |
| Frt | | | 0.982 | | 0.865 | |
| Flt Protected | | | | | | |
| Satd. Flow (prot) | 0 | 1900 | 1818 | 0 | 1635 | 0 |
| Flt Permitted | | | | | | |
| Satd. Flow (perm) | 0 | 1900 | 1818 | 0 | 1635 | 0 |
| Sign Control | | Free | Free | | Stop | |

## Intersection Summary

Control Type: Unsignalized

| Intersection | |
|---|---|
| Int Delay, s/veh | 0.4 |

| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 0 | 0 | 78 | 12 | 0 | 4 |
| Future Vol, veh/h | 0 | 0 | 78 | 12 | 0 | 4 |
| Conflicting Peds, #/hr | 74 | 0 | 0 | 74 | 8 | 3 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | - | - | 0 | - |
| Veh in Median Storage, # | - | 0 | 0 | - | 0 | - |
| Grade, % | - | 0 | 0 | - | 1 | - |
| Peak Hour Factor | 69 | 69 | 69 | 69 | 69 | 69 |
| Heavy Vehicles, % | 0 | 0 | 3 | 0 | 0 | 0 |
| Mvmt Flow | 0 | 0 | 113 | 17 | 0 | 6 |

| Major/Minor | Major1 | | Major2 | | Minor2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 204 | 0 | - | 0 | 204 | 199 |
| Stage 1 | - | - | - | - | 196 | - |
| Stage 2 | - | - | - | - | 8 | - |
| Critical Hdwy | 4.3 | - | - | - | 6.6 | 6.3 |
| Critical Hdwy Stg 1 | - | - | - | - | 5.6 | - |
| Critical Hdwy Stg 2 | - | - | - | - | 5.6 | - |
| Follow-up Hdwy | 3 | - | - | - | 3 | 3.1 |
| Pot Cap-1 Maneuver | 1023 | - | - | - | 898 | 892 |
| Stage 1 | - | - | - | - | 959 | - |
| Stage 2 | - | - | - | - | 1189 | - |
| Platoon blocked, % | | - | - | - | | |
| Mov Cap-1 Maneuver | 951 | - | - | - | 777 | 827 |
| Mov Cap-2 Maneuver | - | - | - | - | 777 | - |
| Stage 1 | - | - | - | - | 892 | - |
| Stage 2 | - | - | - | - | 1106 | - |

| Approach | EB | WB | SB |
|---|---|---|---|
| HCM Control Delay, s | 0 | 0 | 9.4 |
| HCM LOS | | | A |

| Minor Lane/Major Mvmt | EBL | EBT | WBT | WBR | SBLn1 |
|---|---|---|---|---|---|
| Capacity (veh/h) | 951 | - | - | - | 827 |
| HCM Lane V/C Ratio | - | - | - | - | 0.007 |
| HCM Control Delay (s) | 0 | - | - | - | 9.4 |
| HCM Lane LOS | A | - | - | - | A |
| HCM 95th %tile Q(veh) | 0 | - | - | - | 0 |



| Lane Group | WBL | WBR | NBT | NBR | SBL | SBT |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (vph) | 72 | 0 | 0 | 0 | 0 | 119 |
| Future Volume (vph) | 72 | 0 | 0 | 0 | 0 | 119 |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Ped Bike Factor | | | | | | |
| Frt | | | | | | |
| Flt Protected | 0.950 | | | | | |
| Satd. Flow (prot) | 1778 | 0 | 0 | 0 | 0 | 1624 |
| Flt Permitted | 0.950 | | | | | |
| Satd. Flow (perm) | 1778 | 0 | 0 | 0 | 0 | 1624 |
| Sign Control | Stop | | Free | | | Free |

| Intersection Summary |
|---|
| Control Type: Unsignalized |

| Intersection | |
|---|---|
| Int Delay, s/veh | 5.5 |

| Movement | WBL | WBR | NBT | NBR | SBL | SBT |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 72 | 0 | 0 | 0 | 0 | 119 |
| Future Vol, veh/h | 72 | 0 | 0 | 0 | 0 | 119 |
| Conflicting Peds, #/hr | 166 | 177 | 0 | 192 | 192 | 0 |
| Sign Control | Stop | Stop | Free | Free | Free | Free |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | 0 | - | - | - | - | - |
| Veh in Median Storage, # | 0 | - | 0 | - | - | 0 |
| Grade, % | 1 | - | 0 | - | - | 0 |
| Peak Hour Factor | 78 | 78 | 78 | 78 | 78 | 78 |
| Heavy Vehicles, % | 1 | 0 | 0 | 0 | 0 | 17 |
| Mvmt Flow | 92 | 0 | 0 | 0 | 0 | 153 |

| Major/Minor | Minor1 | | Major2 | |
|---|---|---|---|---|
| Conflicting Flow All | 511 | - | 192 | 0 |
| Stage 1 | 192 | - | - | - |
| Stage 2 | 319 | - | - | - |
| Critical Hdwy | 6.61 | - | 4.3 | - |
| Critical Hdwy Stg 1 | - | - | - | - |
| Critical Hdwy Stg 2 | 5.61 | - | - | - |
| Follow-up Hdwy | 3 | - | 3 | - |
| Pot Cap-1 Maneuver | 577 | 0 | 1032 | - |
| Stage 1 | - | 0 | - | - |
| Stage 2 | 831 | 0 | - | - |
| Platoon blocked, % | | | | - |
| Mov Cap-1 Maneuver | 471 | - | 843 | - |
| Mov Cap-2 Maneuver | 471 | - | - | - |
| Stage 1 | - | - | - | - |
| Stage 2 | 831 | - | - | - |

| Approach | WB | SB |
|---|---|---|
| HCM Control Delay, s | 14.5 | 0 |
| HCM LOS | B | |

| Minor Lane/Major Mvmt | WBLn1 | SBL | SBT |
|---|---|---|---|
| Capacity (veh/h) | 471 | 843 | - |
| HCM Lane V/C Ratio | 0.196 | - | - |
| HCM Control Delay (s) | 14.5 | 0 | - |
| HCM Lane LOS | B | A | - |
| HCM 95th %tile Q(veh) | 0.7 | 0 | - |

| Lane Group | WBL | WBR | NBT | NBR | SBL | SBT |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (vph) | 50 | 62 | 589 | 0 | 0 | 483 |
| Future Volume (vph) | 50 | 62 | 589 | 0 | 0 | 483 |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Ped Bike Factor | 0.70 | | | | | |
| Frt | 0.925 | | | | | |
| Flt Protected | 0.978 | | | | | |
| Satd. Flow (prot) | 1301 | 0 | 1873 | 0 | 0 | 1891 |
| Flt Permitted | 0.978 | | | | | |
| Satd. Flow (perm) | 1282 | 0 | 1873 | 0 | 0 | 1891 |
| Satd. Flow (RTOR) | 67 | | | | | |
| Turn Type | Prot | | NA | | | NA |
| Protected Phases | 4 | | 6 | | | 2 |
| Permitted Phases | | | | | | |
| Detector Phase | 4 | | 6 | | | 2 |
| Switch Phase | | | | | | |
| Minimum Initial (s) | 3.0 | | 49.0 | | | 49.0 |
| Minimum Split (s) | 19.0 | | 54.0 | | | 54.0 |
| Total Split (s) | 29.0 | | 55.0 | | | 55.0 |
| Total Split (%) | 34.5% | | 65.5% | | | 65.5% |
| Yellow Time (s) | 3.0 | | 3.0 | | | 3.0 |
| All-Red Time (s) | 2.0 | | 2.0 | | | 2.0 |
| Lost Time Adjust (s) | -1.0 | | -1.0 | | | -1.0 |
| Total Lost Time (s) | 4.0 | | 4.0 | | | 4.0 |
| Lead/Lag | | | | | | |
| Lead-Lag Optimize? | | | | | | |
| Recall Mode | None | | Max | | | Max |

| Intersection Summary |
|---|
| Cycle Length: 84 |
| Actuated Cycle Length: 69.8 |
| Natural Cycle: 75 |
| Control Type: Actuated-Uncoordinated |

Splits and Phases: 10: S High Street & Linden Street





| Movement | WBL | WBR | NBT | NBR | SBL | SBT |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (veh/h) | 50 | 62 | 589 | 0 | 0 | 483 |
| Future Volume (veh/h) | 50 | 62 | 589 | 0 | 0 | 483 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | 0.53 | | 1.00 | 1.00 | |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach | No | | No | | | No |
| Adj Sat Flow, veh/h/ln | 1849 | 1849 | 1866 | 0 | 0 | 1852 |
| Adj Flow Rate, veh/h | 54 | 59 | 633 | 0 | 0 | 519 |
| Peak Hour Factor | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 |
| Percent Heavy Veh, % | 0 | 0 | 3 | 0 | 0 | 1 |
| Cap, veh/h | 102 | 112 | 1300 | 0 | 0 | 1290 |
| Arrive On Green | 0.19 | 0.19 | 0.70 | 0.00 | 0.00 | 0.70 |
| Sat Flow, veh/h | 526 | 574 | 1866 | 0 | 0 | 1852 |
| Grp Volume(v), veh/h | 114 | 0 | 633 | 0 | 0 | 519 |
| Grp Sat Flow(s),veh/h/ln | 1109 | 0 | 1866 | 0 | 0 | 1852 |
| Q Serve(g_s), s | 6.8 | 0.0 | 11.4 | 0.0 | 0.0 | 8.7 |
| Cycle Q Clear(g_c), s | 6.8 | 0.0 | 11.4 | 0.0 | 0.0 | 8.7 |
| Prop In Lane | 0.47 | 0.52 | | 0.00 | 0.00 | |
| Lane Grp Cap(c), veh/h | 215 | 0 | 1300 | 0 | 0 | 1290 |
| V/C Ratio(X) | 0.53 | 0.00 | 0.49 | 0.00 | 0.00 | 0.40 |
| Avail Cap(c_a), veh/h | 379 | 0 | 1300 | 0 | 0 | 1290 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 0.00 | 1.00 | 0.00 | 0.00 | 1.00 |
| Uniform Delay (d), s/veh | 26.5 | 0.0 | 5.1 | 0.0 | 0.0 | 4.7 |
| Incr Delay (d2), s/veh | 2.0 | 0.0 | 1.3 | 0.0 | 0.0 | 0.9 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(95%),veh/ln | 3.4 | 0.0 | 6.9 | 0.0 | 0.0 | 5.2 |
| Unsig. Movement Delay, s/veh | | | | | | |
| LnGrp Delay(d),s/veh | 28.5 | 0.0 | 6.4 | 0.0 | 0.0 | 5.6 |
| LnGrp LOS | C | A | A | A | A | A |
| Approach Vol, veh/h | 114 | | 633 | | | 519 |
| Approach Delay, s/veh | 28.5 | | 6.4 | | | 5.6 |
| Approach LOS | C | | A | | | A |

| Timer - Assigned Phs | | 2 | | 4 | | 6 |
|---|---|---|---|---|---|---|
| Phs Duration (G+Y+Rc), s | | 55.0 | | 18.2 | | 55.0 |
| Change Period (Y+Rc), s | | 5.0 | | 5.0 | | 5.0 |
| Max Green Setting (Gmax), s | | 50.0 | | 24.0 | | 50.0 |
| Max Q Clear Time (g_c+I1), s | | 0.0 | | 9.3 | | 0.0 |
| Green Ext Time (p_c), s | | 0.0 | | 0.5 | | 0.0 |

| Intersection Summary | |
|---|---|
| HCM 6th Ctrl Delay | 8.1 |
| HCM 6th LOS | A |

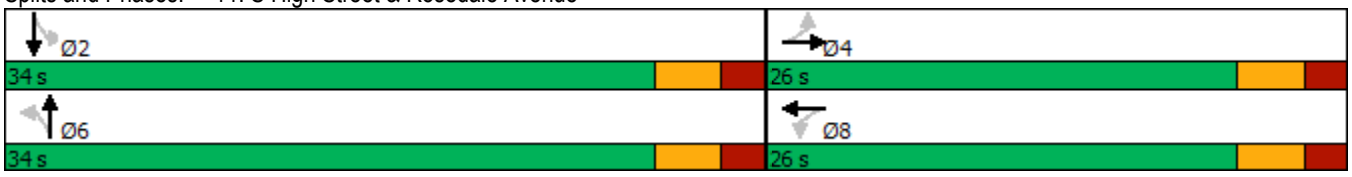
**Notes**

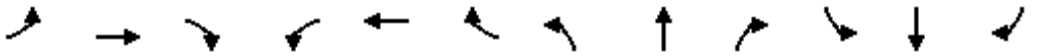
User approved volume balancing among the lanes for turning movement.

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 59 | 226 | 116 | 47 | 299 | 84 | 68 | 404 | 86 | 46 | 363 | 40 |
| Future Volume (vph) | 59 | 226 | 116 | 47 | 299 | 84 | 68 | 404 | 86 | 46 | 363 | 40 |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Ped Bike Factor | 0.89 | 0.90 | | 0.86 | 0.94 | | 0.92 | 0.96 | | 0.92 | 0.98 | |
| Frt | | 0.949 | | | 0.967 | | | 0.974 | | | 0.985 | |
| Flt Protected | 0.950 | | | 0.950 | | | 0.950 | | | 0.950 | | |
| Satd. Flow (prot) | 1620 | 1465 | 0 | 1660 | 1584 | 0 | 1572 | 1789 | 0 | 1645 | 1686 | 0 |
| Flt Permitted | 0.334 | | | 0.390 | | | 0.446 | | | 0.371 | | |
| Satd. Flow (perm) | 505 | 1465 | 0 | 586 | 1584 | 0 | 677 | 1789 | 0 | 591 | 1686 | 0 |
| Satd. Flow (RTOR) | | | | | | | | | | | | |
| Turn Type | Perm | NA | | Perm | NA | | Perm | NA | | Perm | NA | |
| Protected Phases | | 4 | | | 8 | | | 6 | | | 2 | |
| Permitted Phases | 4 | | | 8 | | | 6 | | | 2 | | |
| Detector Phase | 4 | 4 | | 8 | 8 | | 6 | 6 | | 2 | 2 | |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 3.0 | 3.0 | | 3.0 | 3.0 | | 3.0 | 3.0 | | 3.0 | 3.0 | |
| Minimum Split (s) | 25.0 | 25.0 | | 25.0 | 25.0 | | 23.0 | 23.0 | | 23.0 | 23.0 | |
| Total Split (s) | 26.0 | 26.0 | | 26.0 | 26.0 | | 34.0 | 34.0 | | 34.0 | 34.0 | |
| Total Split (%) | 43.3% | 43.3% | | 43.3% | 43.3% | | 56.7% | 56.7% | | 56.7% | 56.7% | |
| Yellow Time (s) | 3.0 | 3.0 | | 3.0 | 3.0 | | 3.0 | 3.0 | | 3.0 | 3.0 | |
| All-Red Time (s) | 2.0 | 2.0 | | 2.0 | 2.0 | | 2.0 | 2.0 | | 2.0 | 2.0 | |
| Lost Time Adjust (s) | -1.0 | -1.0 | | -1.0 | -1.0 | | -1.0 | -1.0 | | -1.0 | -1.0 | |
| Total Lost Time (s) | 4.0 | 4.0 | | 4.0 | 4.0 | | 4.0 | 4.0 | | 4.0 | 4.0 | |
| Lead/Lag | | | | | | | | | | | | |
| Lead-Lag Optimize? | | | | | | | | | | | | |
| Recall Mode | None | None | | None | None | | Max | Max | | Max | Max | |

| Intersection Summary |
|---|
| Cycle Length: 60 |
| Actuated Cycle Length: 56.9 |
| Natural Cycle: 50 |
| Control Type: Actuated-Uncoordinated |

Splits and Phases: 11: S High Street & Rosedale Avenue





| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (veh/h) | 59 | 226 | 116 | 47 | 299 | 84 | 68 | 404 | 86 | 46 | 363 | 40 |
| Future Volume (veh/h) | 59 | 226 | 116 | 47 | 299 | 84 | 68 | 404 | 86 | 46 | 363 | 40 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 0.91 | | 0.75 | 0.90 | | 0.75 | 0.96 | | 0.88 | 0.98 | | 0.88 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach | | No | | | No | | | No | | | No | |
| Adj Sat Flow, veh/h/ln | 1724 | 1710 | 1752 | 1750 | 1750 | 1707 | 1750 | 1791 | 1791 | 1883 | 1898 | 1869 |
| Adj Flow Rate, veh/h | 61 | 235 | 119 | 49 | 311 | 85 | 71 | 421 | 82 | 48 | 378 | 38 |
| Peak Hour Factor | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 |
| Percent Heavy Veh, % | 5 | 6 | 3 | 2 | 2 | 5 | 0 | 2 | 2 | 2 | 1 | 3 |
| Cap, veh/h | 242 | 339 | 172 | 254 | 435 | 119 | 448 | 722 | 141 | 395 | 850 | 85 |
| Arrive On Green | 0.36 | 0.36 | 0.36 | 0.36 | 0.36 | 0.36 | 0.51 | 0.51 | 0.51 | 0.51 | 0.51 | 0.51 |
| Sat Flow, veh/h | 827 | 952 | 482 | 865 | 1224 | 335 | 871 | 1419 | 276 | 881 | 1672 | 168 |
| Grp Volume(v), veh/h | 61 | 0 | 354 | 49 | 0 | 396 | 71 | 0 | 503 | 48 | 0 | 416 |
| Grp Sat Flow(s),veh/h/ln | 827 | 0 | 1435 | 865 | 0 | 1559 | 871 | 0 | 1696 | 881 | 0 | 1840 |
| Q Serve(g_s), s | 4.0 | 0.0 | 12.4 | 3.0 | 0.0 | 12.9 | 3.3 | 0.0 | 12.2 | 2.3 | 0.0 | 8.5 |
| Cycle Q Clear(g_c), s | 16.5 | 0.0 | 12.4 | 14.9 | 0.0 | 12.9 | 11.2 | 0.0 | 12.2 | 14.1 | 0.0 | 8.5 |
| Prop In Lane | 1.00 | | 0.34 | 1.00 | | 0.21 | 1.00 | | 0.16 | 1.00 | | 0.09 |
| Lane Grp Cap(c), veh/h | 242 | 0 | 510 | 254 | 0 | 554 | 448 | 0 | 863 | 395 | 0 | 936 |
| V/C Ratio(X) | 0.25 | 0.00 | 0.69 | 0.19 | 0.00 | 0.71 | 0.16 | 0.00 | 0.58 | 0.12 | 0.00 | 0.44 |
| Avail Cap(c_a), veh/h | 256 | 0 | 535 | 270 | 0 | 581 | 448 | 0 | 863 | 395 | 0 | 936 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 |
| Uniform Delay (d), s/veh | 23.3 | 0.0 | 16.3 | 22.4 | 0.0 | 16.4 | 12.6 | 0.0 | 10.1 | 14.8 | 0.0 | 9.2 |
| Incr Delay (d2), s/veh | 0.5 | 0.0 | 3.7 | 0.4 | 0.0 | 3.9 | 0.8 | 0.0 | 2.9 | 0.6 | 0.0 | 1.5 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(95%),veh/ln | 1.4 | 0.0 | 7.6 | 1.1 | 0.0 | 8.4 | 1.2 | 0.0 | 8.0 | 0.9 | 0.0 | 5.9 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 23.8 | 0.0 | 19.9 | 22.8 | 0.0 | 20.4 | 13.3 | 0.0 | 13.0 | 15.5 | 0.0 | 10.7 |
| LnGrp LOS | C | A | B | C | A | C | B | A | B | B | A | B |
| Approach Vol, veh/h | | 415 | | | 445 | | | 574 | | | 464 | |
| Approach Delay, s/veh | | 20.5 | | | 20.6 | | | 13.0 | | | 11.2 | |
| Approach LOS | | C | | | C | | | B | | | B | |

| Timer - Assigned Phs | | 2 | | 4 | | 6 | | 8 | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Phs Duration (G+Y+Rc), s | | 34.0 | | 25.0 | | 34.0 | | 25.0 | | | | |
| Change Period (Y+Rc), s | | 5.0 | | 5.0 | | 5.0 | | 5.0 | | | | |
| Max Green Setting (Gmax), s | | 29.0 | | 21.0 | | 29.0 | | 21.0 | | | | |
| Max Q Clear Time (g_c+I1), s | | 0.0 | | 19.0 | | 0.0 | | 17.4 | | | | |
| Green Ext Time (p_c), s | | 0.0 | | 0.4 | | 0.0 | | 0.7 | | | | |

| Intersection Summary | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| HCM 6th Ctrl Delay | | | 16.0 | | | | | | | | | |
| HCM 6th LOS | | | B | | | | | | | | | |

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 1 | 140 | 151 | 58 | 158 | 0 | 262 | 0 | 106 | 11 | 64 | 24 |
| Future Volume (vph) | 1 | 140 | 151 | 58 | 158 | 0 | 262 | 0 | 106 | 11 | 64 | 24 |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Ped Bike Factor | | | | | | | | | | | | |
| Frt | | 0.930 | | | | | | | 0.850 | | 0.967 | |
| Flt Protected | | | | | 0.987 | | 0.950 | | | | 0.994 | |
| Satd. Flow (prot) | 0 | 1708 | 0 | 0 | 1839 | 0 | 1761 | 0 | 1607 | 0 | 1803 | 0 |
| Flt Permitted | | | | | 0.987 | | 0.950 | | | | 0.994 | |
| Satd. Flow (perm) | 0 | 1708 | 0 | 0 | 1839 | 0 | 1761 | 0 | 1607 | 0 | 1803 | 0 |
| Sign Control | | Stop | | | Stop | | | Stop | | | Stop | |

Intersection Summary

Control Type: Unsignalized

| Intersection | |
|---|---|
| Intersection Delay, s/veh | 13.4 |
| Intersection LOS | B |

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Vol, veh/h | 1 | 140 | 151 | 58 | 158 | 0 | 262 | 0 | 106 | 11 | 64 | 24 |
| Future Vol, veh/h | 1 | 140 | 151 | 58 | 158 | 0 | 262 | 0 | 106 | 11 | 64 | 24 |
| Peak Hour Factor | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 |
| Heavy Vehicles, % | 0 | 4 | 3 | 0 | 2 | 0 | 2 | 0 | 0 | 0 | 2 | 0 |
| Mvmt Flow | 1 | 149 | 161 | 62 | 168 | 0 | 279 | 0 | 113 | 12 | 68 | 26 |
| Number of Lanes | 0 | 1 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 |

| Approach | EB | WB | NB | SB |
|---|---|---|---|---|
| Opposing Approach | WB | EB | SB | NB |
| Opposing Lanes | 1 | 1 | 1 | 2 |
| Conflicting Approach Left | SB | NB | EB | WB |
| Conflicting Lanes Left | 1 | 2 | 1 | 1 |
| Conflicting Approach Right | NB | SB | WB | EB |
| Conflicting Lanes Right | 2 | 1 | 1 | 1 |
| HCM Control Delay | 13.3 | 12.6 | 14.6 | 10.6 |
| HCM LOS | B | B | B | B |

| Lane | NBLn1 | NBLn2 | EBLn1 | WBLn1 | SBLn1 |
|---|---|---|---|---|---|
| Vol Left, % | 100% | 0% | 0% | 27% | 11% |
| Vol Thru, % | 0% | 0% | 48% | 73% | 65% |
| Vol Right, % | 0% | 100% | 52% | 0% | 24% |
| Sign Control | Stop | Stop | Stop | Stop | Stop |
| Traffic Vol by Lane | 262 | 106 | 292 | 216 | 99 |
| LT Vol | 262 | 0 | 1 | 58 | 11 |
| Through Vol | 0 | 0 | 140 | 158 | 64 |
| RT Vol | 0 | 106 | 151 | 0 | 24 |
| Lane Flow Rate | 279 | 113 | 311 | 230 | 105 |
| Geometry Grp | 5 | 5 | 2 | 2 | 4a |
| Degree of Util (X) | 0.522 | 0.172 | 0.471 | 0.379 | 0.181 |
| Departure Headway (Hd) | 6.746 | 5.492 | 5.455 | 5.938 | 6.172 |
| Convergence, Y/N | Yes | Yes | Yes | Yes | Yes |
| Cap | 532 | 650 | 655 | 602 | 577 |
| Service Time | 4.51 | 3.256 | 3.525 | 4.013 | 4.259 |
| HCM Lane V/C Ratio | 0.524 | 0.174 | 0.475 | 0.382 | 0.182 |
| HCM Control Delay | 16.7 | 9.4 | 13.3 | 12.6 | 10.6 |
| HCM Lane LOS | C | A | B | B | B |
| HCM 95th-tile Q | 3 | 0.6 | 2.5 | 1.8 | 0.7 |

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 14 | 4 | 27 | 74 | 1 | 61 | 5 | 272 | 58 | 48 | 271 | 5 |
| Future Volume (vph) | 14 | 4 | 27 | 74 | 1 | 61 | 5 | 272 | 58 | 48 | 271 | 5 |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Ped Bike Factor | | | | | | | | | | | | |
| Frt | | 0.920 | | | 0.939 | | | 0.974 | | | 0.997 | |
| Flt Protected | | 0.984 | | | 0.974 | | 0.950 | | | 0.950 | | |
| Satd. Flow (prot) | 0 | 1703 | 0 | 0 | 1713 | 0 | 1805 | 1814 | 0 | 1805 | 1858 | 0 |
| Flt Permitted | | 0.984 | | | 0.974 | | 0.950 | | | 0.950 | | |
| Satd. Flow (perm) | 0 | 1703 | 0 | 0 | 1713 | 0 | 1805 | 1814 | 0 | 1805 | 1858 | 0 |
| Sign Control | | Stop | | | Stop | | | Free | | | Free | |

Intersection Summary

Control Type: Unsignalized

| Intersection | |
|---|---|
| Int Delay, s/veh | 4 |

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Vol, veh/h | 14 | 4 | 27 | 74 | 1 | 61 | 5 | 272 | 58 | 48 | 271 | 5 |
| Future Vol, veh/h | 14 | 4 | 27 | 74 | 1 | 61 | 5 | 272 | 58 | 48 | 271 | 5 |
| Conflicting Peds, #/hr | 8 | 0 | 3 | 3 | 0 | 8 | 7 | 0 | 3 | 3 | 0 | 7 |
| Sign Control | Stop | Stop | Stop | Stop | Stop | Stop | Free | Free | Free | Free | Free | Free |
| RT Channelized | - | - | None | - | - | None | - | - | None | - | - | None |
| Storage Length | - | - | - | - | - | - | 25 | - | - | 75 | - | - |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 2 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 96 | 96 | 96 | 96 | 96 | 96 | 96 | 96 | 96 | 96 | 96 | 96 |
| Heavy Vehicles, % | 0 | 0 | 0 | 1 | 0 | 2 | 0 | 2 | 2 | 0 | 2 | 0 |
| Mvmt Flow | 15 | 4 | 28 | 77 | 1 | 64 | 5 | 283 | 60 | 50 | 282 | 5 |

| Major/Minor | Minor2 | | | Minor1 | | | Major1 | | | Major2 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Conflicting Flow All | 756 | 748 | 295 | 730 | 720 | 324 | 294 | 0 | 0 | 346 | 0 | 0 |
| Stage 1 | 392 | 392 | - | 326 | 326 | - | - | - | - | - | - | - |
| Stage 2 | 364 | 356 | - | 404 | 394 | - | - | - | - | - | - | - |
| Critical Hdwy | 7.5 | 6.9 | 6.4 | 7.11 | 6.5 | 6.22 | 4.3 | - | - | 4.3 | - | - |
| Critical Hdwy Stg 1 | 6.5 | 5.9 | - | 6.11 | 5.5 | - | - | - | - | - | - | - |
| Critical Hdwy Stg 2 | 6.5 | 5.9 | - | 6.11 | 5.5 | - | - | - | - | - | - | - |
| Follow-up Hdwy | 3 | 4 | 3.1 | 3 | 4 | 3.1 | 3 | - | - | 3 | - | - |
| Pot Cap-1 Maneuver | 335 | 316 | 778 | 379 | 356 | 760 | 952 | - | - | 914 | - | - |
| Stage 1 | 693 | 584 | - | 788 | 652 | - | - | - | - | - | - | - |
| Stage 2 | 721 | 608 | - | 712 | 609 | - | - | - | - | - | - | - |
| Platoon blocked, % | | | | | | | | - | - | | - | - |
| Mov Cap-1 Maneuver | 288 | 294 | 771 | 343 | 331 | 752 | 946 | - | - | 911 | - | - |
| Mov Cap-2 Maneuver | 288 | 294 | - | 343 | 331 | - | - | - | - | - | - | - |
| Stage 1 | 685 | 548 | - | 782 | 647 | - | - | - | - | - | - | - |
| Stage 2 | 651 | 603 | - | 642 | 571 | - | - | - | - | - | - | - |

| Approach | EB | WB | NB | SB |
|---|---|---|---|---|
| HCM Control Delay, s | 13.6 | 16.5 | 0.1 | 1.4 |
| HCM LOS | B | C | | |

| Minor Lane/Major Mvmt | NBL | NBT | NBR | EBLn1 | WBLn1 | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|
| Capacity (veh/h) | 946 | - | - | 463 | 454 | 911 | - | - |
| HCM Lane V/C Ratio | 0.006 | - | - | 0.101 | 0.312 | 0.055 | - | - |
| HCM Control Delay (s) | 8.8 | - | - | 13.6 | 16.5 | 9.2 | - | - |
| HCM Lane LOS | A | - | - | B | C | A | - | - |
| HCM 95th %tile Q(veh) | 0 | - | - | 0.3 | 1.3 | 0.2 | - | - |

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 0 | 307 | 16 | 29 | 370 | 0 | 0 | 0 | 0 | 98 | 2 | 55 |
| Future Volume (vph) | 0 | 307 | 16 | 29 | 370 | 0 | 0 | 0 | 0 | 98 | 2 | 55 |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Ped Bike Factor | | | | | | | | | | | | |
| Frt | | 0.993 | | | | | | | | | 0.952 | |
| Flt Protected | | | | | 0.996 | | | | | | 0.969 | |
| Satd. Flow (prot) | 0 | 1998 | 0 | 0 | 1845 | 0 | 0 | 0 | 0 | 0 | 1601 | 0 |
| Flt Permitted | | | | | 0.996 | | | | | | 0.969 | |
| Satd. Flow (perm) | 0 | 1998 | 0 | 0 | 1845 | 0 | 0 | 0 | 0 | 0 | 1601 | 0 |
| Sign Control | | Stop | | | Stop | | | Stop | | | Stop | |

Intersection Summary

Control Type: Unsignalized

| Intersection | |
|---|---|
| Intersection Delay, s/veh | 12.7 |
| Intersection LOS | B |

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Vol, veh/h | 0 | 307 | 16 | 29 | 370 | 0 | 0 | 0 | 0 | 98 | 2 | 55 |
| Future Vol, veh/h | 0 | 307 | 16 | 29 | 370 | 0 | 0 | 0 | 0 | 98 | 2 | 55 |
| Peak Hour Factor | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 |
| Heavy Vehicles, % | 0 | 2 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 10 | 0 | 25 |
| Mvmt Flow | 0 | 323 | 17 | 31 | 389 | 0 | 0 | 0 | 0 | 103 | 2 | 58 |
| Number of Lanes | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 |

| Approach | EB | WB | SB |
|---|---|---|---|
| Opposing Approach | WB | EB | |
| Opposing Lanes | 1 | 1 | 0 |
| Conflicting Approach Left | SB | | WB |
| Conflicting Lanes Left | 1 | 0 | 1 |
| Conflicting Approach Right | | SB | EB |
| Conflicting Lanes Right | 0 | 1 | 1 |
| HCM Control Delay | 12.1 | 13.8 | 10.9 |
| HCM LOS | B | B | B |

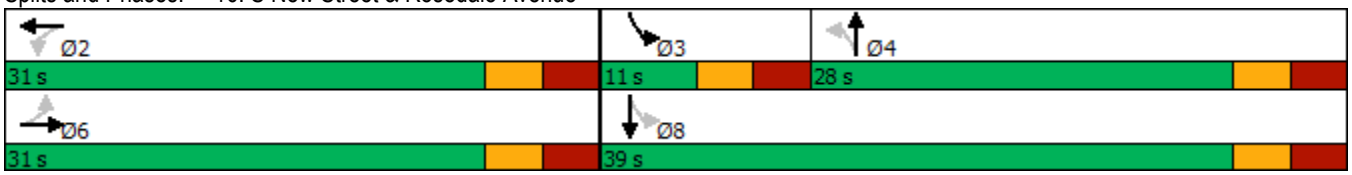
| Lane | EBLn1 | WBLn1 | SBLn1 |
|---|---|---|---|
| Vol Left, % | 0% | 7% | 63% |
| Vol Thru, % | 95% | 93% | 1% |
| Vol Right, % | 5% | 0% | 35% |
| Sign Control | Stop | Stop | Stop |
| Traffic Vol by Lane | 323 | 399 | 155 |
| LT Vol | 0 | 29 | 98 |
| Through Vol | 307 | 370 | 2 |
| RT Vol | 16 | 0 | 55 |
| Lane Flow Rate | 340 | 420 | 163 |
| Geometry Grp | 1 | 1 | 1 |
| Degree of Util (X) | 0.459 | 0.558 | 0.263 |
| Departure Headway (Hd) | 4.859 | 4.781 | 5.796 |
| Convergence, Y/N | Yes | Yes | Yes |
| Cap | 731 | 748 | 623 |
| Service Time | 2.95 | 2.867 | 3.796 |
| HCM Lane V/C Ratio | 0.465 | 0.561 | 0.262 |
| HCM Control Delay | 12.1 | 13.8 | 10.9 |
| HCM Lane LOS | B | B | B |
| HCM 95th-tile Q | 2.4 | 3.5 | 1.1 |

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 20 | 189 | 11 | 85 | 257 | 155 | 8 | 136 | 101 | 108 | 125 | 21 |
| Future Volume (vph) | 20 | 189 | 11 | 85 | 257 | 155 | 8 | 136 | 101 | 108 | 125 | 21 |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Ped Bike Factor | | 1.00 | | | 0.98 | | | 0.97 | | | 0.99 | |
| Frt | | 0.993 | | | 0.943 | | | 0.945 | | | 0.989 | |
| Flt Protected | | 0.996 | | 0.950 | | | | 0.998 | | | 0.979 | |
| Satd. Flow (prot) | 0 | 1705 | 0 | 1315 | 1553 | 0 | 0 | 1418 | 0 | 0 | 2015 | 0 |
| Flt Permitted | | 0.948 | | 0.665 | | | | 0.984 | | | 0.728 | |
| Satd. Flow (perm) | 0 | 1621 | 0 | 920 | 1553 | 0 | 0 | 1398 | 0 | 0 | 1483 | 0 |
| Satd. Flow (RTOR) | | 4 | | | | | | | | | 9 | |
| Lane Group Flow (vph) | 0 | 234 | 0 | 90 | 438 | 0 | 0 | 261 | 0 | 0 | 270 | 0 |
| Turn Type | Perm | NA | | Perm | NA | | Perm | NA | | pm+pt | NA | |
| Protected Phases | | 6 | | | 2 | | | 4 | | 3 | 8 | |
| Permitted Phases | 6 | | | 2 | | | 4 | | | 8 | | |
| Detector Phase | 6 | 6 | | 2 | 2 | | 4 | 4 | | 3 | 8 | |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 5.0 | 5.0 | | 5.0 | 5.0 | | 5.0 | 5.0 | | 5.0 | 5.0 | |
| Minimum Split (s) | 26.0 | 26.0 | | 26.0 | 26.0 | | 24.0 | 24.0 | | 11.0 | 24.0 | |
| Total Split (s) | 31.0 | 31.0 | | 31.0 | 31.0 | | 28.0 | 28.0 | | 11.0 | 39.0 | |
| Total Split (%) | 44.3% | 44.3% | | 44.3% | 44.3% | | 40.0% | 40.0% | | 15.7% | 55.7% | |
| Yellow Time (s) | 3.0 | 3.0 | | 3.0 | 3.0 | | 3.0 | 3.0 | | 3.0 | 3.0 | |
| All-Red Time (s) | 3.0 | 3.0 | | 3.0 | 3.0 | | 3.0 | 3.0 | | 3.0 | 3.0 | |
| Lost Time Adjust (s) | | -1.0 | | -1.0 | -1.0 | | | -1.0 | | | -1.0 | |
| Total Lost Time (s) | | 5.0 | | 5.0 | 5.0 | | | 5.0 | | | 5.0 | |
| Lead/Lag | | | | | | | Lag | Lag | | Lead | | |
| Lead-Lag Optimize? | | | | | | | Yes | Yes | | Yes | | |
| Recall Mode | Max | Max | | Max | Max | | None | None | | None | None | |
| Act Effct Green (s) | | 26.2 | | 26.2 | 26.2 | | | 15.8 | | | 15.8 | |
| Actuated g/C Ratio | | 0.50 | | 0.50 | 0.50 | | | 0.30 | | | 0.30 | |
| v/c Ratio | | 0.29 | | 0.19 | 0.56 | | | 0.62 | | | 0.59 | |
| Control Delay | | 9.9 | | 10.2 | 13.8 | | | 22.1 | | | 20.3 | |
| Queue Delay | | 0.0 | | 0.0 | 0.0 | | | 0.0 | | | 0.0 | |
| Total Delay | | 9.9 | | 10.2 | 13.8 | | | 22.1 | | | 20.3 | |
| LOS | | A | | B | B | | | C | | | C | |
| Approach Delay | | 9.9 | | | 13.2 | | | 22.1 | | | 20.3 | |
| Approach LOS | | A | | | B | | | C | | | C | |
| Queue Length 50th (ft) | | 37 | | 14 | 83 | | | 67 | | | 66 | |
| Queue Length 95th (ft) | | 95 | | 46 | 203 | | | 126 | | | 124 | |
| Internal Link Dist (ft) | | 1256 | | | 617 | | | 791 | | | 984 | |
| Turn Bay Length (ft) | | | | 90 | | | | | | | | |
| Base Capacity (vph) | | 817 | | 463 | 781 | | | 623 | | | 978 | |
| Starvation Cap Reductn | | 0 | | 0 | 0 | | | 0 | | | 0 | |
| Spillback Cap Reductn | | 0 | | 0 | 0 | | | 0 | | | 0 | |
| Storage Cap Reductn | | 0 | | 0 | 0 | | | 0 | | | 0 | |
| Reduced v/c Ratio | | 0.29 | | 0.19 | 0.56 | | | 0.42 | | | 0.28 | |

| Intersection Summary |
|---|
| Cycle Length: 70 |

| | |
|---|---|
| Actuated Cycle Length: 52.1 | |
| Natural Cycle: 65 | |
| Control Type: Actuated-Uncoordinated | |
| Maximum v/c Ratio: 0.62 | |
| Intersection Signal Delay: 15.9 | Intersection LOS: B |
| Intersection Capacity Utilization 73.4% | ICU Level of Service D |
| Analysis Period (min) 15 | |

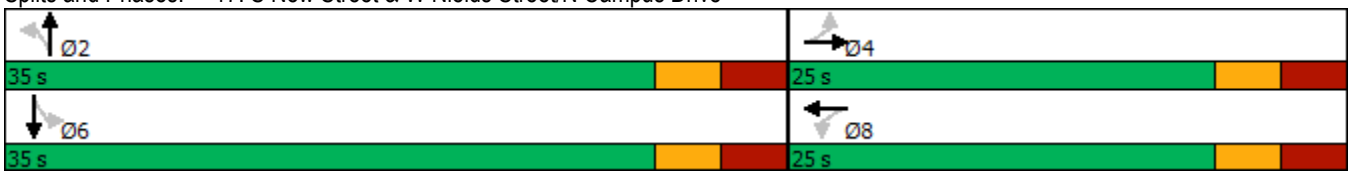
Splits and Phases: 16: S New Street & Rosedale Avenue

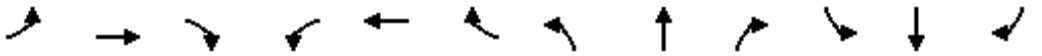


| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 7 | 4 | 35 | 47 | 9 | 67 | 28 | 261 | 33 | 31 | 149 | 13 |
| Future Volume (vph) | 7 | 4 | 35 | 47 | 9 | 67 | 28 | 261 | 33 | 31 | 149 | 13 |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Ped Bike Factor | | 0.92 | | | 0.96 | | 1.00 | 0.99 | | | 0.99 | |
| Frt | | 0.898 | | | 0.926 | | | 0.983 | | | 0.991 | |
| Flt Protected | | 0.993 | | | 0.981 | | 0.950 | | | | 0.992 | |
| Satd. Flow (prot) | 0 | 1556 | 0 | 0 | 1634 | 0 | 1645 | 1766 | 0 | 0 | 2001 | 0 |
| Flt Permitted | | 0.943 | | | 0.852 | | 0.621 | | | | 0.921 | |
| Satd. Flow (perm) | 0 | 1476 | 0 | 0 | 1378 | 0 | 1074 | 1766 | 0 | 0 | 1851 | 0 |
| Satd. Flow (RTOR) | | | | | 76 | | | 15 | | | 9 | |
| Turn Type | Perm | NA | | Perm | NA | | Perm | NA | | Perm | NA | |
| Protected Phases | | 4 | | | 8 | | | 2 | | | 6 | |
| Permitted Phases | 4 | | | 8 | | | 2 | | | 6 | | |
| Detector Phase | 4 | 4 | | 8 | 8 | | 2 | 2 | | 6 | 6 | |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 3.0 | 3.0 | | 3.0 | 3.0 | | 3.0 | 3.0 | | 3.0 | 3.0 | |
| Minimum Split (s) | 25.0 | 25.0 | | 25.0 | 25.0 | | 23.0 | 23.0 | | 23.0 | 23.0 | |
| Total Split (s) | 25.0 | 25.0 | | 25.0 | 25.0 | | 35.0 | 35.0 | | 35.0 | 35.0 | |
| Total Split (%) | 41.7% | 41.7% | | 41.7% | 41.7% | | 58.3% | 58.3% | | 58.3% | 58.3% | |
| Yellow Time (s) | 3.0 | 3.0 | | 3.0 | 3.0 | | 3.0 | 3.0 | | 3.0 | 3.0 | |
| All-Red Time (s) | 3.0 | 3.0 | | 3.0 | 3.0 | | 3.0 | 3.0 | | 3.0 | 3.0 | |
| Lost Time Adjust (s) | | -1.0 | | | -1.0 | | -1.0 | -1.0 | | | -1.0 | |
| Total Lost Time (s) | | 5.0 | | | 5.0 | | 5.0 | 5.0 | | | 5.0 | |
| Lead/Lag | | | | | | | | | | | | |
| Lead-Lag Optimize? | | | | | | | | | | | | |
| Recall Mode | None | None | | None | None | | Max | Max | | Max | Max | |

| Intersection Summary |
|---|
| Cycle Length: 60 |
| Actuated Cycle Length: 52.8 |
| Natural Cycle: 50 |
| Control Type: Actuated-Uncoordinated |

Splits and Phases: 17: S New Street & W Nields Street/N Campus Drive

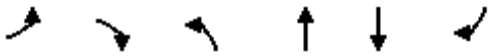




| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (veh/h) | 7 | 4 | 35 | 47 | 9 | 67 | 28 | 261 | 33 | 31 | 149 | 13 |
| Future Volume (veh/h) | 7 | 4 | 35 | 47 | 9 | 67 | 28 | 261 | 33 | 31 | 149 | 13 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 0.91 | | 0.90 | 0.91 | | 0.90 | 0.99 | | 0.98 | 0.99 | | 0.98 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach | | No | | | No | | | No | | | No | |
| Adj Sat Flow, veh/h/ln | 1988 | 1988 | 1988 | 1912 | 1912 | 1912 | 1794 | 1779 | 1822 | 2021 | 2036 | 1947 |
| Adj Flow Rate, veh/h | 8 | 5 | 38 | 53 | 10 | 43 | 32 | 297 | 38 | 35 | 169 | 7 |
| Peak Hour Factor | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 |
| Percent Heavy Veh, % | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 6 | 3 | 3 | 2 | 8 |
| Cap, veh/h | 105 | 73 | 294 | 249 | 65 | 146 | 805 | 865 | 111 | 193 | 895 | 35 |
| Arrive On Green | 0.25 | 0.25 | 0.25 | 0.25 | 0.25 | 0.25 | 0.56 | 0.56 | 0.56 | 0.56 | 0.56 | 0.56 |
| Sat Flow, veh/h | 108 | 291 | 1166 | 589 | 259 | 579 | 1144 | 1541 | 197 | 203 | 1595 | 62 |
| Grp Volume(v), veh/h | 51 | 0 | 0 | 106 | 0 | 0 | 32 | 0 | 335 | 211 | 0 | 0 |
| Grp Sat Flow(s),veh/h/ln | 1565 | 0 | 0 | 1428 | 0 | 0 | 1144 | 0 | 1738 | 1860 | 0 | 0 |
| Q Serve(g_s), s | 0.0 | 0.0 | 0.0 | 0.9 | 0.0 | 0.0 | 0.0 | 0.0 | 5.6 | 0.0 | 0.0 | 0.0 |
| Cycle Q Clear(g_c), s | 1.3 | 0.0 | 0.0 | 2.8 | 0.0 | 0.0 | 0.5 | 0.0 | 5.6 | 2.7 | 0.0 | 0.0 |
| Prop In Lane | 0.16 | | 0.75 | 0.50 | | 0.41 | 1.00 | | 0.11 | 0.17 | | 0.03 |
| Lane Grp Cap(c), veh/h | 472 | 0 | 0 | 460 | 0 | 0 | 805 | 0 | 976 | 1122 | 0 | 0 |
| V/C Ratio(X) | 0.11 | 0.00 | 0.00 | 0.23 | 0.00 | 0.00 | 0.04 | 0.00 | 0.34 | 0.19 | 0.00 | 0.00 |
| Avail Cap(c_a), veh/h | 657 | 0 | 0 | 629 | 0 | 0 | 805 | 0 | 976 | 1122 | 0 | 0 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 0.00 |
| Uniform Delay (d), s/veh | 15.5 | 0.0 | 0.0 | 16.0 | 0.0 | 0.0 | 5.2 | 0.0 | 6.4 | 5.7 | 0.0 | 0.0 |
| Incr Delay (d2), s/veh | 0.1 | 0.0 | 0.0 | 0.3 | 0.0 | 0.0 | 0.1 | 0.0 | 1.0 | 0.4 | 0.0 | 0.0 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(95%),veh/ln | 0.8 | 0.0 | 0.0 | 1.8 | 0.0 | 0.0 | 0.3 | 0.0 | 3.4 | 1.8 | 0.0 | 0.0 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 15.6 | 0.0 | 0.0 | 16.2 | 0.0 | 0.0 | 5.3 | 0.0 | 7.3 | 6.1 | 0.0 | 0.0 |
| LnGrp LOS | B | A | A | B | A | A | A | A | A | A | A | A |
| Approach Vol, veh/h | | 51 | | | 106 | | | 367 | | | 211 | |
| Approach Delay, s/veh | | 15.6 | | | 16.2 | | | 7.2 | | | 6.1 | |
| Approach LOS | | B | | | B | | | A | | | A | |

| Timer - Assigned Phs | | 2 | | 4 | | 6 | | 8 | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Phs Duration (G+Y+Rc), s | | 35.0 | | 18.5 | | 35.0 | | 18.5 | | | | |
| Change Period (Y+Rc), s | | 6.0 | | 6.0 | | 6.0 | | 6.0 | | | | |
| Max Green Setting (Gmax), s | | 29.0 | | 19.0 | | 29.0 | | 19.0 | | | | |
| Max Q Clear Time (g_c+I1), s | | 0.0 | | 3.3 | | 0.0 | | 4.8 | | | | |
| Green Ext Time (p_c), s | | 0.0 | | 0.1 | | 0.0 | | 0.3 | | | | |

| Intersection Summary | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| HCM 6th Ctrl Delay | | | 8.8 | | | | | | | | | |
| HCM 6th LOS | | | A | | | | | | | | | |



| Lane Group | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (vph) | 2 | 7 | 4 | 229 | 302 | 7 |
| Future Volume (vph) | 2 | 7 | 4 | 229 | 302 | 7 |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Ped Bike Factor | | | | | | |
| Frt | 0.892 | | | | 0.997 | |
| Flt Protected | 0.990 | | | 0.999 | | |
| Satd. Flow (prot) | 1398 | 0 | 0 | 1753 | 1768 | 0 |
| Flt Permitted | 0.990 | | | 0.999 | | |
| Satd. Flow (perm) | 1398 | 0 | 0 | 1753 | 1768 | 0 |
| Sign Control | Stop | | | Stop | Stop | |

## Intersection Summary

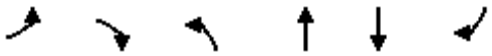
Control Type: Unsignalized

| Intersection | |
|---|---|
| Intersection Delay, s/veh | 9.9 |
| Intersection LOS | A |

| Movement | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 2 | 7 | 4 | 229 | 302 | 7 |
| Future Vol, veh/h | 2 | 7 | 4 | 229 | 302 | 7 |
| Peak Hour Factor | 0.87 | 0.87 | 0.87 | 0.87 | 0.87 | 0.87 |
| Heavy Vehicles, % | 50 | 14 | 0 | 9 | 7 | 14 |
| Mvmt Flow | 2 | 8 | 5 | 263 | 347 | 8 |
| Number of Lanes | 1 | 0 | 0 | 1 | 1 | 0 |

| Approach | EB | NB | SB |
|---|---|---|---|
| Opposing Approach | | SB | NB |
| Opposing Lanes | 0 | 1 | 1 |
| Conflicting Approach Left | SB | EB | |
| Conflicting Lanes Left | 1 | 1 | 0 |
| Conflicting Approach Right | NB | | EB |
| Conflicting Lanes Right | 1 | 0 | 1 |
| HCM Control Delay | 8.8 | 9.3 | 10.3 |
| HCM LOS | A | A | B |

| Lane | NBLn1 | EBLn1 | SBLn1 |
|---|---|---|---|
| Vol Left, % | 2% | 22% | 0% |
| Vol Thru, % | 98% | 0% | 98% |
| Vol Right, % | 0% | 78% | 2% |
| Sign Control | Stop | Stop | Stop |
| Traffic Vol by Lane | 233 | 9 | 309 |
| LT Vol | 4 | 2 | 0 |
| Through Vol | 229 | 0 | 302 |
| RT Vol | 0 | 7 | 7 |
| Lane Flow Rate | 268 | 10 | 355 |
| Geometry Grp | 1 | 1 | 1 |
| Degree of Util (X) | 0.319 | 0.016 | 0.417 |
| Departure Headway (Hd) | 4.285 | 5.666 | 4.222 |
| Convergence, Y/N | Yes | Yes | Yes |
| Cap | 844 | 634 | 842 |
| Service Time | 2.285 | 3.679 | 2.305 |
| HCM Lane V/C Ratio | 0.318 | 0.016 | 0.422 |
| HCM Control Delay | 9.3 | 8.8 | 10.3 |
| HCM Lane LOS | A | A | B |
| HCM 95th-tile Q | 1.4 | 0 | 2.1 |



| Lane Group | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (vph) | 3 | 0 | 0 | 217 | 302 | 0 |
| Future Volume (vph) | 3 | 0 | 0 | 217 | 302 | 0 |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Ped Bike Factor | | | | | | |
| Frt | | | | | | |
| Flt Protected | 0.950 | | | | | |
| Satd. Flow (prot) | 1796 | 0 | 0 | 1742 | 1810 | 0 |
| Flt Permitted | 0.950 | | | | | |
| Satd. Flow (perm) | 1796 | 0 | 0 | 1742 | 1810 | 0 |
| Sign Control | Stop | | | Free | Free | |

| Intersection Summary |
|---|
| Control Type: Unsignalized |

| Intersection | |
|---|---|
| Int Delay, s/veh | 0.1 |

| Movement | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 3 | 0 | 0 | 217 | 302 | 0 |
| Future Vol, veh/h | 3 | 0 | 0 | 217 | 302 | 0 |
| Conflicting Peds, #/hr | 0 | 1 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Free | Free | Free | Free |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | 0 | - | - | - | - | - |
| Veh in Median Storage, # | 0 | - | - | 0 | 0 | - |
| Grade, % | 1 | - | - | 2 | -2 | - |
| Peak Hour Factor | 88 | 88 | 88 | 88 | 88 | 88 |
| Heavy Vehicles, % | 0 | 0 | 0 | 8 | 6 | 0 |
| Mvmt Flow | 3 | 0 | 0 | 247 | 343 | 0 |

| Major/Minor | Minor2 | | Major1 | | Major2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 590 | 344 | 343 | 0 | - | 0 |
| Stage 1 | 343 | - | - | - | - | - |
| Stage 2 | 247 | - | - | - | - | - |
| Critical Hdwy | 6.6 | 6.3 | 4.3 | - | - | - |
| Critical Hdwy Stg 1 | 5.6 | - | - | - | - | - |
| Critical Hdwy Stg 2 | 5.6 | - | - | - | - | - |
| Follow-up Hdwy | 3 | 3.1 | 3 | - | - | - |
| Pot Cap-1 Maneuver | 515 | 735 | 916 | - | - | - |
| Stage 1 | 809 | - | - | - | - | - |
| Stage 2 | 904 | - | - | - | - | - |
| Platoon blocked, % | | | | - | - | - |
| Mov Cap-1 Maneuver | 515 | 734 | 916 | - | - | - |
| Mov Cap-2 Maneuver | 515 | - | - | - | - | - |
| Stage 1 | 809 | - | - | - | - | - |
| Stage 2 | 904 | - | - | - | - | - |

| Approach | EB | NB | SB |
|---|---|---|---|
| HCM Control Delay, s | 12 | 0 | 0 |
| HCM LOS | B | | |

| Minor Lane/Major Mvmt | NBL | NBT | EBLn1 | SBT | SBR |
|---|---|---|---|---|---|
| Capacity (veh/h) | 916 | - | 515 | - | - |
| HCM Lane V/C Ratio | - | - | 0.007 | - | - |
| HCM Control Delay (s) | 0 | - | 12 | - | - |
| HCM Lane LOS | A | - | B | - | - |
| HCM 95th %tile Q(veh) | 0 | - | 0 | - | - |



| Lane Group | WBL | WBR | NBT | NBR | SBL | SBT |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (vph) | 16 | 58 | 157 | 10 | 24 | 282 |
| Future Volume (vph) | 16 | 58 | 157 | 10 | 24 | 282 |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Ped Bike Factor | | | | | | |
| Frt | | 0.850 | 0.992 | | | |
| Flt Protected | 0.950 | | | | | 0.996 |
| Satd. Flow (prot) | 1509 | 1317 | 1723 | 0 | 0 | 1790 |
| Flt Permitted | 0.950 | | | | | 0.996 |
| Satd. Flow (perm) | 1509 | 1317 | 1723 | 0 | 0 | 1790 |
| Sign Control | Stop | | Free | | | Free |

## Intersection Summary

Control Type: Unsignalized

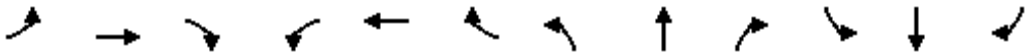
| Intersection | |
|---|---|
| Int Delay, s/veh | 1.8 |

| Movement | WBL | WBR | NBT | NBR | SBL | SBT |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 16 | 58 | 157 | 10 | 24 | 282 |
| Future Vol, veh/h | 16 | 58 | 157 | 10 | 24 | 282 |
| Conflicting Peds, #/hr | 36 | 0 | 0 | 8 | 8 | 0 |
| Sign Control | Stop | Stop | Free | Free | Free | Free |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | 0 | 0 | - | - | - | - |
| Veh in Median Storage, # | 0 | - | 0 | - | - | 0 |
| Grade, % | 1 | - | 1 | - | - | -3 |
| Peak Hour Factor | 89 | 89 | 89 | 89 | 89 | 89 |
| Heavy Vehicles, % | 19 | 22 | 5 | 70 | 46 | 4 |
| Mvmt Flow | 18 | 65 | 176 | 11 | 27 | 317 |

| Major/Minor | Minor1 | | Major1 | | Major2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 597 | 190 | 0 | 0 | 195 | 0 |
| Stage 1 | 190 | - | - | - | - | - |
| Stage 2 | 407 | - | - | - | - | - |
| Critical Hdwy | 6.79 | 6.52 | - | - | 4.8 | - |
| Critical Hdwy Stg 1 | 5.79 | - | - | - | - | - |
| Critical Hdwy Stg 2 | 5.79 | - | - | - | - | - |
| Follow-up Hdwy | 3.2 | 3.3 | - | - | 3.4 | - |
| Pot Cap-1 Maneuver | 470 | 843 | - | - | 894 | - |
| Stage 1 | 901 | - | - | - | - | - |
| Stage 2 | 697 | - | - | - | - | - |
| Platoon blocked, % | | | - | - | | - |
| Mov Cap-1 Maneuver | 434 | 837 | - | - | 887 | - |
| Mov Cap-2 Maneuver | 434 | - | - | - | - | - |
| Stage 1 | 894 | - | - | - | - | - |
| Stage 2 | 648 | - | - | - | - | - |

| Approach | WB | NB | SB |
|---|---|---|---|
| HCM Control Delay, s | 10.6 | 0 | 0.7 |
| HCM LOS | B | | |

| Minor Lane/Major Mvmt | NBT | NBR | WBLn1 | WBLn2 | SBL | SBT |
|---|---|---|---|---|---|---|
| Capacity (veh/h) | - | - | 434 | 837 | 887 | - |
| HCM Lane V/C Ratio | - | - | 0.041 | 0.078 | 0.03 | - |
| HCM Control Delay (s) | - | - | 13.7 | 9.7 | 9.2 | 0 |
| HCM Lane LOS | - | - | B | A | A | A |
| HCM 95th %tile Q(veh) | - | - | 0.1 | 0.3 | 0.1 | - |



| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 92 | 8 | 30 | 4 | 10 | 8 | 18 | 62 | 1 | 2 | 187 | 95 |
| Future Volume (vph) | 92 | 8 | 30 | 4 | 10 | 8 | 18 | 62 | 1 | 2 | 187 | 95 |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Ped Bike Factor | | | | | | | | | | | | |
| Frt | | 0.881 | | | 0.932 | | | 0.999 | | | 0.955 | |
| Flt Protected | 0.950 | | | 0.950 | | | | 0.989 | | | | |
| Satd. Flow (prot) | 1695 | 1425 | 0 | 1832 | 1118 | 0 | 0 | 1824 | 0 | 0 | 1785 | 0 |
| Flt Permitted | 0.950 | | | 0.950 | | | | 0.989 | | | | |
| Satd. Flow (perm) | 1695 | 1425 | 0 | 1832 | 1118 | 0 | 0 | 1824 | 0 | 0 | 1785 | 0 |
| Sign Control | | Stop | | | Stop | | | Free | | | Free | |

Intersection Summary

Control Type: Unsignalized

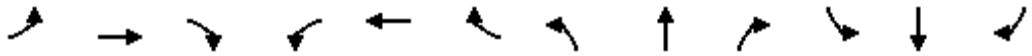
| Intersection | |
|---|---|
| Int Delay, s/veh | 3.8 |

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Vol, veh/h | 92 | 8 | 30 | 4 | 10 | 8 | 18 | 62 | 1 | 2 | 187 | 95 |
| Future Vol, veh/h | 92 | 8 | 30 | 4 | 10 | 8 | 18 | 62 | 1 | 2 | 187 | 95 |
| Conflicting Peds, #/hr | 0 | 0 | 2 | 2 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 2 |
| Sign Control | Stop | Stop | Stop | Stop | Stop | Stop | Free | Free | Free | Free | Free | Free |
| RT Channelized | - | - | None | - | - | None | - | - | None | - | - | None |
| Storage Length | 0 | - | - | 0 | - | - | - | - | - | - | - | - |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | -1 | - | - | -3 | - | - | 1 | - | - | 0 | - |
| Peak Hour Factor | 89 | 89 | 89 | 89 | 89 | 89 | 89 | 89 | 89 | 89 | 89 | 89 |
| Heavy Vehicles, % | 7 | 75 | 3 | 0 | 90 | 25 | 11 | 0 | 0 | 0 | 2 | 1 |
| Mvmt Flow | 103 | 9 | 34 | 4 | 11 | 9 | 20 | 70 | 1 | 2 | 210 | 107 |

| Major/Minor | Minor2 | | | Minor1 | | | Major1 | | | Major2 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Conflicting Flow All | 391 | 381 | 268 | 402 | 434 | 71 | 319 | 0 | 0 | 71 | 0 | 0 |
| Stage 1 | 270 | 270 | - | 111 | 111 | - | - | - | - | - | - | - |
| Stage 2 | 121 | 111 | - | 291 | 323 | - | - | - | - | - | - | - |
| Critical Hdwy | 6.97 | 7.05 | 6.13 | 6.5 | 6.8 | 6.15 | 4.4 | - | - | 4.3 | - | - |
| Critical Hdwy Stg 1 | 5.97 | 6.05 | - | 5.5 | 5.8 | - | - | - | - | - | - | - |
| Critical Hdwy Stg 2 | 5.97 | 6.05 | - | 5.5 | 5.8 | - | - | - | - | - | - | - |
| Follow-up Hdwy | 3.1 | 4.675 | 3.1 | 3 | 4.81 | 3.3 | 3.1 | - | - | 3 | - | - |
| Pot Cap-1 Maneuver | 642 | 463 | 824 | 683 | 434 | 998 | 899 | - | - | 1135 | - | - |
| Stage 1 | 832 | 580 | - | 1060 | 673 | - | - | - | - | - | - | - |
| Stage 2 | 1001 | 686 | - | 866 | 548 | - | - | - | - | - | - | - |
| Platoon blocked, % | | | | | | | | - | - | | - | - |
| Mov Cap-1 Maneuver | 611 | 450 | 821 | 632 | 422 | 998 | 897 | - | - | 1135 | - | - |
| Mov Cap-2 Maneuver | 611 | 450 | - | 632 | 422 | - | - | - | - | - | - | - |
| Stage 1 | 811 | 578 | - | 1036 | 658 | - | - | - | - | - | - | - |
| Stage 2 | 953 | 670 | - | 814 | 546 | - | - | - | - | - | - | - |

| Approach | EB | WB | NB | SB |
|---|---|---|---|---|
| HCM Control Delay, s | 11.6 | 11.4 | 2 | 0.1 |
| HCM LOS | B | B | | |

| Minor Lane/Major Mvmt | NBL | NBT | NBR | EBLn1 | EBLn2 | WBLn1 | WBLn2 | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|
| Capacity (veh/h) | 897 | - | - | 611 | 700 | 632 | 568 | 1135 | - | - |
| HCM Lane V/C Ratio | 0.023 | - | - | 0.169 | 0.061 | 0.007 | 0.036 | 0.002 | - | - |
| HCM Control Delay (s) | 9.1 | 0 | - | 12.1 | 10.5 | 10.7 | 11.6 | 8.2 | 0 | - |
| HCM Lane LOS | A | A | - | B | B | B | B | A | A | - |
| HCM 95th %tile Q(veh) | 0.1 | - | - | 0.6 | 0.2 | 0 | 0.1 | 0 | - | - |



| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 7 | 2 | 8 | 5 | 2 | 7 | 48 | 66 | 3 | 3 | 139 | 77 |
| Future Volume (vph) | 7 | 2 | 8 | 5 | 2 | 7 | 48 | 66 | 3 | 3 | 139 | 77 |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Frt | | 0.936 | | | 0.929 | | | 0.996 | | | 0.953 | |
| Flt Protected | | 0.979 | | | 0.983 | | | 0.980 | | | 0.999 | |
| Satd. Flow (prot) | 0 | 1732 | 0 | 0 | 1607 | 0 | 0 | 1819 | 0 | 0 | 1797 | 0 |
| Flt Permitted | | 0.979 | | | 0.983 | | | 0.980 | | | 0.999 | |
| Satd. Flow (perm) | 0 | 1732 | 0 | 0 | 1607 | 0 | 0 | 1819 | 0 | 0 | 1797 | 0 |
| Sign Control | | Stop | | | Stop | | | Stop | | | Stop | |

| Intersection Summary |
|---|
| Control Type: Unsignalized |

| Intersection | |
|---|---|
| Intersection Delay, s/veh | 8.3 |
| Intersection LOS | A |

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Vol, veh/h | 7 | 2 | 8 | 5 | 2 | 7 | 48 | 66 | 3 | 3 | 139 | 77 |
| Future Vol, veh/h | 7 | 2 | 8 | 5 | 2 | 7 | 48 | 66 | 3 | 3 | 139 | 77 |
| Peak Hour Factor | 0.81 | 0.81 | 0.81 | 0.81 | 0.81 | 0.81 | 0.81 | 0.81 | 0.81 | 0.81 | 0.81 | 0.81 |
| Heavy Vehicles, % | 0 | 0 | 0 | 0 | 0 | 14 | 2 | 2 | 0 | 0 | 1 | 0 |
| Mvmt Flow | 9 | 2 | 10 | 6 | 2 | 9 | 59 | 81 | 4 | 4 | 172 | 95 |
| Number of Lanes | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 0 |

| Approach | EB | WB | NB | SB |
|---|---|---|---|---|
| Opposing Approach | WB | EB | SB | NB |
| Opposing Lanes | 1 | 1 | 1 | 1 |
| Conflicting Approach Left | SB | NB | EB | WB |
| Conflicting Lanes Left | 1 | 1 | 1 | 1 |
| Conflicting Approach Right | NB | SB | WB | EB |
| Conflicting Lanes Right | 1 | 1 | 1 | 1 |
| HCM Control Delay | 7.7 | 7.7 | 8.2 | 8.5 |
| HCM LOS | A | A | A | A |

| Lane | NBLn1 | EBLn1 | WBLn1 | SBLn1 |
|---|---|---|---|---|
| Vol Left, % | 41% | 41% | 36% | 1% |
| Vol Thru, % | 56% | 12% | 14% | 63% |
| Vol Right, % | 3% | 47% | 50% | 35% |
| Sign Control | Stop | Stop | Stop | Stop |
| Traffic Vol by Lane | 117 | 17 | 14 | 219 |
| LT Vol | 48 | 7 | 5 | 3 |
| Through Vol | 66 | 2 | 2 | 139 |
| RT Vol | 3 | 8 | 7 | 77 |
| Lane Flow Rate | 144 | 21 | 17 | 270 |
| Geometry Grp | 1 | 1 | 1 | 1 |
| Degree of Util (X) | 0.171 | 0.027 | 0.022 | 0.29 |
| Departure Headway (Hd) | 4.271 | 4.59 | 4.567 | 3.866 |
| Convergence, Y/N | Yes | Yes | Yes | Yes |
| Cap | 831 | 785 | 788 | 919 |
| Service Time | 2.344 | 2.591 | 2.568 | 1.933 |
| HCM Lane V/C Ratio | 0.173 | 0.027 | 0.022 | 0.294 |
| HCM Control Delay | 8.2 | 7.7 | 7.7 | 8.5 |
| HCM Lane LOS | A | A | A | A |
| HCM 95th-tile Q | 0.6 | 0.1 | 0.1 | 1.2 |

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 38 | 0 | 65 | 3 | 2 | 5 | 68 | 368 | 2 | 2 | 232 | 18 |
| Future Volume (vph) | 38 | 0 | 65 | 3 | 2 | 5 | 68 | 368 | 2 | 2 | 232 | 18 |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Ped Bike Factor | | | | | | | | | | | | |
| Frt | | | 0.850 | | 0.932 | | | 0.999 | | | | 0.850 |
| Flt Protected | | 0.950 | | | 0.985 | | 0.950 | | | 0.950 | | |
| Satd. Flow (prot) | 0 | 1787 | 1467 | 0 | 1736 | 0 | 1778 | 1870 | 0 | 1796 | 1835 | 1607 |
| Flt Permitted | | 0.950 | | | 0.985 | | 0.950 | | | 0.950 | | |
| Satd. Flow (perm) | 0 | 1787 | 1467 | 0 | 1736 | 0 | 1778 | 1870 | 0 | 1796 | 1835 | 1607 |
| Sign Control | | Stop | | | Stop | | | Free | | | Free | |

Intersection Summary

Control Type: Unsignalized

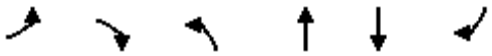
| Intersection | |
|---|---|
| Int Delay, s/veh | 2.7 |

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Vol, veh/h | 38 | 0 | 65 | 3 | 2 | 5 | 68 | 368 | 2 | 2 | 232 | 18 |
| Future Vol, veh/h | 38 | 0 | 65 | 3 | 2 | 5 | 68 | 368 | 2 | 2 | 232 | 18 |
| Conflicting Peds, #/hr | 2 | 0 | 2 | 2 | 0 | 2 | 4 | 0 | 3 | 3 | 0 | 4 |
| Sign Control | Stop | Stop | Stop | Stop | Stop | Stop | Free | Free | Free | Free | Free | Free |
| RT Channelized | - | - | None | - | - | None | - | - | None | - | - | None |
| Storage Length | - | - | 65 | - | - | - | 75 | - | - | 160 | - | 100 |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 2 | - | - | 1 | - | - | -1 | - | - | 1 | - |
| Peak Hour Factor | 95 | 95 | 95 | 95 | 95 | 95 | 95 | 95 | 95 | 95 | 95 | 95 |
| Heavy Vehicles, % | 0 | 0 | 9 | 0 | 0 | 0 | 2 | 2 | 0 | 0 | 3 | 0 |
| Mvmt Flow | 40 | 0 | 68 | 3 | 2 | 5 | 72 | 387 | 2 | 2 | 244 | 19 |

| Major/Minor | Minor2 | | | Minor1 | | | Major1 | | | Major2 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Conflicting Flow All | 790 | 788 | 250 | 829 | 806 | 393 | 267 | 0 | 0 | 392 | 0 | 0 |
| Stage 1 | 252 | 252 | - | 535 | 535 | - | - | - | - | - | - | - |
| Stage 2 | 538 | 536 | - | 294 | 271 | - | - | - | - | - | - | - |
| Critical Hdwy | 7.5 | 6.9 | 6.49 | 7.3 | 6.7 | 6.3 | 4.3 | - | - | 4.3 | - | - |
| Critical Hdwy Stg 1 | 6.5 | 5.9 | - | 6.3 | 5.7 | - | - | - | - | - | - | - |
| Critical Hdwy Stg 2 | 6.5 | 5.9 | - | 6.3 | 5.7 | - | - | - | - | - | - | - |
| Follow-up Hdwy | 3 | 4 | 3.2 | 3 | 4 | 3.1 | 3 | - | - | 3 | - | - |
| Pot Cap-1 Maneuver | 316 | 298 | 799 | 309 | 304 | 688 | 973 | - | - | 881 | - | - |
| Stage 1 | 844 | 683 | - | 583 | 512 | - | - | - | - | - | - | - |
| Stage 2 | 564 | 496 | - | 809 | 679 | - | - | - | - | - | - | - |
| Platoon blocked, % | | | | | | | | - | - | | - | - |
| Mov Cap-1 Maneuver | 292 | 274 | 794 | 265 | 279 | 685 | 969 | - | - | 878 | - | - |
| Mov Cap-2 Maneuver | 292 | 274 | - | 265 | 279 | - | - | - | - | - | - | - |
| Stage 1 | 778 | 679 | - | 538 | 473 | - | - | - | - | - | - | - |
| Stage 2 | 515 | 458 | - | 736 | 675 | - | - | - | - | - | - | - |

| Approach | EB | WB | NB | SB |
|---|---|---|---|---|
| HCM Control Delay, s | 13.4 | 14.5 | 1.4 | 0.1 |
| HCM LOS | B | B | | |

| Minor Lane/Major Mvmt | NBL | NBT | NBR | EBLn1 | EBLn2 | WBLn1 | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|
| Capacity (veh/h) | 969 | - | - | 292 | 794 | 388 | 878 | - | - |
| HCM Lane V/C Ratio | 0.074 | - | - | 0.137 | 0.086 | 0.027 | 0.002 | - | - |
| HCM Control Delay (s) | 9 | - | - | 19.3 | 10 | 14.5 | 9.1 | - | - |
| HCM Lane LOS | A | - | - | C | B | B | A | - | - |
| HCM 95th %tile Q(veh) | 0.2 | - | - | 0.5 | 0.3 | 0.1 | 0 | - | - |



| Lane Group | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (vph) | 0 | 5 | 6 | 437 | 341 | 0 |
| Future Volume (vph) | 0 | 5 | 6 | 437 | 341 | 0 |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Ped Bike Factor | | | | | | |
| Frt | 0.865 | | | | | |
| Flt Protected | | | 0.950 | | | |
| Satd. Flow (prot) | 1652 | 0 | 1086 | 1854 | 1827 | 0 |
| Flt Permitted | | | 0.950 | | | |
| Satd. Flow (perm) | 1652 | 0 | 1086 | 1854 | 1827 | 0 |
| Sign Control | Stop | | | Free | Free | |

## Intersection Summary

Control Type: Unsignalized

| Intersection | |
|---|---|
| Int Delay, s/veh | 0.1 |

| Movement | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 0 | 5 | 6 | 437 | 341 | 0 |
| Future Vol, veh/h | 0 | 5 | 6 | 437 | 341 | 0 |
| Conflicting Peds, #/hr | 1 | 0 | 3 | 0 | 0 | 3 |
| Sign Control | Stop | Stop | Free | Free | Free | Free |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | 0 | - | 25 | - | - | - |
| Veh in Median Storage, # | 0 | - | - | 0 | 0 | - |
| Grade, % | -1 | - | - | -1 | 0 | - |
| Peak Hour Factor | 94 | 94 | 94 | 94 | 94 | 94 |
| Heavy Vehicles, % | 0 | 0 | 67 | 3 | 4 | 0 |
| Mvmt Flow | 0 | 5 | 6 | 465 | 363 | 0 |

| Major/Minor | Minor2 | | Major1 | | Major2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 844 | 366 | 366 | 0 | - | 0 |
| Stage 1 | 366 | - | - | - | - | - |
| Stage 2 | 478 | - | - | - | - | - |
| Critical Hdwy | 6.2 | 6.1 | 5 | - | - | - |
| Critical Hdwy Stg 1 | 5.2 | - | - | - | - | - |
| Critical Hdwy Stg 2 | 5.2 | - | - | - | - | - |
| Follow-up Hdwy | 3 | 3.1 | 3.6 | - | - | - |
| Pot Cap-1 Maneuver | 391 | 728 | 718 | - | - | - |
| Stage 1 | 821 | - | - | - | - | - |
| Stage 2 | 729 | - | - | - | - | - |
| Platoon blocked, % | | | | - | - | - |
| Mov Cap-1 Maneuver | 386 | 726 | 716 | - | - | - |
| Mov Cap-2 Maneuver | 525 | - | - | - | - | - |
| Stage 1 | 812 | - | - | - | - | - |
| Stage 2 | 727 | - | - | - | - | - |

| Approach | EB | NB | SB |
|---|---|---|---|
| HCM Control Delay, s | 10 | 0.1 | 0 |
| HCM LOS | B | | |

| Minor Lane/Major Mvmt | NBL | NBT | EBLn1 | SBT | SBR |
|---|---|---|---|---|---|
| Capacity (veh/h) | 716 | - | 726 | - | - |
| HCM Lane V/C Ratio | 0.009 | - | 0.007 | - | - |
| HCM Control Delay (s) | 10.1 | - | 10 | - | - |
| HCM Lane LOS | B | - | B | - | - |
| HCM 95th %tile Q(veh) | 0 | - | 0 | - | - |



| Lane Group | WBL | WBR | NBT | NBR | SBL | SBT |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (vph) | 70 | 83 | 564 | 32 | 35 | 657 |
| Future Volume (vph) | 70 | 83 | 564 | 32 | 35 | 657 |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Ped Bike Factor | | | | | | |
| Frt | | 0.850 | | 0.850 | | |
| Flt Protected | 0.950 | | | | 0.950 | |
| Satd. Flow (prot) | 1796 | 1545 | 1863 | 1568 | 1814 | 1854 |
| Flt Permitted | 0.950 | | | | 0.950 | |
| Satd. Flow (perm) | 1796 | 1545 | 1863 | 1568 | 1814 | 1854 |
| Sign Control | Stop | | Free | | | Free |

## Intersection Summary

Control Type: Unsignalized

| Intersection | |
|---|---|
| Int Delay, s/veh | 2 |

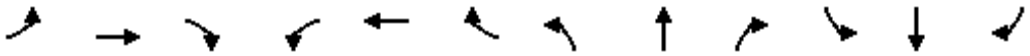
| Movement | WBL | WBR | NBT | NBR | SBL | SBT |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 70 | 83 | 564 | 32 | 35 | 657 |
| Future Vol, veh/h | 70 | 83 | 564 | 32 | 35 | 657 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 4 | 4 | 0 |
| Sign Control | Stop | Stop | Free | Free | Free | Free |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | 0 | 115 | - | 175 | 25 | - |
| Veh in Median Storage, # | 0 | - | 0 | - | - | 0 |
| Grade, % | 1 | - | 0 | - | - | -1 |
| Peak Hour Factor | 93 | 93 | 93 | 93 | 93 | 93 |
| Heavy Vehicles, % | 0 | 4 | 2 | 3 | 0 | 3 |
| Mvmt Flow | 75 | 89 | 606 | 34 | 38 | 706 |

| Major/Minor | Minor1 | | Major1 | | Major2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 1392 | 610 | 0 | 0 | 644 | 0 |
| Stage 1 | 610 | - | - | - | - | - |
| Stage 2 | 782 | - | - | - | - | - |
| Critical Hdwy | 6.6 | 6.34 | - | - | 4.3 | - |
| Critical Hdwy Stg 1 | 5.6 | - | - | - | - | - |
| Critical Hdwy Stg 2 | 5.6 | - | - | - | - | - |
| Follow-up Hdwy | 3 | 3.1 | - | - | 3 | - |
| Pot Cap-1 Maneuver | 158 | 510 | - | - | 719 | - |
| Stage 1 | 593 | - | - | - | - | - |
| Stage 2 | 484 | - | - | - | - | - |
| Platoon blocked, % | | | - | - | | - |
| Mov Cap-1 Maneuver | 149 | 508 | - | - | 716 | - |
| Mov Cap-2 Maneuver | 302 | - | - | - | - | - |
| Stage 1 | 591 | - | - | - | - | - |
| Stage 2 | 458 | - | - | - | - | - |

| Approach | WB | NB | SB |
|---|---|---|---|
| HCM Control Delay, s | 16.9 | 0 | 0.5 |
| HCM LOS | C | | |

| Minor Lane/Major Mvmt | NBT | NBR | WBLn1 | WBLn2 | SBL | SBT |
|---|---|---|---|---|---|---|
| Capacity (veh/h) | - | - | 302 | 508 | 716 | - |
| HCM Lane V/C Ratio | - | - | 0.249 | 0.176 | 0.053 | - |
| HCM Control Delay (s) | - | - | 20.8 | 13.6 | 10.3 | - |
| HCM Lane LOS | - | - | C | B | B | - |
| HCM 95th %tile Q(veh) | - | - | 1 | 0.6 | 0.2 | - |

# 2040 Future Conditions



| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 5 | 61 | 8 | 56 | 11 | 6 | 10 | 100 | 87 | 19 | 129 | 1 |
| Future Volume (vph) | 5 | 61 | 8 | 56 | 11 | 6 | 10 | 100 | 87 | 19 | 129 | 1 |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Ped Bike Factor | | | | | | | | | | | | |
| Frt | | 0.985 | | | 0.989 | | | 0.940 | | | 0.999 | |
| Flt Protected | | 0.997 | | | 0.963 | | | 0.997 | | | 0.994 | |
| Satd. Flow (prot) | 0 | 1756 | 0 | 0 | 1810 | 0 | 0 | 1547 | 0 | 0 | 1833 | 0 |
| Flt Permitted | | 0.997 | | | 0.963 | | | 0.997 | | | 0.994 | |
| Satd. Flow (perm) | 0 | 1756 | 0 | 0 | 1810 | 0 | 0 | 1547 | 0 | 0 | 1833 | 0 |
| Sign Control | | Stop | | | Stop | | | Stop | | | Stop | |

Intersection Summary

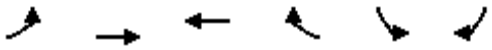
Control Type: Unsignalized

| Intersection | |
|---|---|
| Intersection Delay, s/veh | 9.8 |
| Intersection LOS | A |

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Vol, veh/h | 5 | 61 | 8 | 56 | 11 | 6 | 10 | 100 | 87 | 19 | 129 | 1 |
| Future Vol, veh/h | 5 | 61 | 8 | 56 | 11 | 6 | 10 | 100 | 87 | 19 | 129 | 1 |
| Peak Hour Factor | 0.74 | 0.74 | 0.74 | 0.74 | 0.74 | 0.74 | 0.74 | 0.74 | 0.74 | 0.74 | 0.74 | 0.74 |
| Heavy Vehicles, % | 50 | 4 | 0 | 0 | 0 | 0 | 11 | 9 | 20 | 0 | 4 | 0 |
| Mvmt Flow | 7 | 82 | 11 | 76 | 15 | 8 | 14 | 135 | 118 | 26 | 174 | 1 |
| Number of Lanes | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 0 |

| Approach | EB | WB | NB | SB |
|---|---|---|---|---|
| Opposing Approach | WB | EB | SB | NB |
| Opposing Lanes | 1 | 1 | 1 | 1 |
| Conflicting Approach Left | SB | NB | EB | WB |
| Conflicting Lanes Left | 1 | 1 | 1 | 1 |
| Conflicting Approach Right | NB | SB | WB | EB |
| Conflicting Lanes Right | 1 | 1 | 1 | 1 |
| HCM Control Delay | 10.2 | 9.2 | 10.1 | 9.6 |
| HCM LOS | B | A | B | A |

| Lane | NBLn1 | EBLn1 | WBLn1 | SBLn1 |
|---|---|---|---|---|
| Vol Left, % | 5% | 7% | 77% | 13% |
| Vol Thru, % | 51% | 82% | 15% | 87% |
| Vol Right, % | 44% | 11% | 8% | 1% |
| Sign Control | Stop | Stop | Stop | Stop |
| Traffic Vol by Lane | 197 | 74 | 73 | 149 |
| LT Vol | 10 | 5 | 56 | 19 |
| Through Vol | 100 | 61 | 11 | 129 |
| RT Vol | 87 | 8 | 6 | 1 |
| Lane Flow Rate | 266 | 100 | 99 | 201 |
| Geometry Grp | 1 | 1 | 1 | 1 |
| Degree of Util (X) | 0.342 | 0.165 | 0.144 | 0.268 |
| Departure Headway (Hd) | 4.629 | 5.929 | 5.251 | 4.788 |
| Convergence, Y/N | Yes | Yes | Yes | Yes |
| Cap | 772 | 600 | 677 | 745 |
| Service Time | 2.686 | 4.012 | 3.334 | 2.85 |
| HCM Lane V/C Ratio | 0.345 | 0.167 | 0.146 | 0.27 |
| HCM Control Delay | 10.1 | 10.2 | 9.2 | 9.6 |
| HCM Lane LOS | B | B | A | A |
| HCM 95th-tile Q | 1.5 | 0.6 | 0.5 | 1.1 |



| Lane Group | EBL | EBT | WBT | WBR | SBL | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (vph) | 3 | 153 | 67 | 14 | 6 | 2 |
| Future Volume (vph) | 3 | 153 | 67 | 14 | 6 | 2 |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Ped Bike Factor | | | | | | |
| Frt | | | 0.976 | | 0.963 | |
| Flt Protected | | 0.999 | | | 0.965 | |
| Satd. Flow (prot) | 0 | 1684 | 1824 | 0 | 1766 | 0 |
| Flt Permitted | | 0.999 | | | 0.965 | |
| Satd. Flow (perm) | 0 | 1684 | 1824 | 0 | 1766 | 0 |
| Sign Control | | Free | Free | | Stop | |

Intersection Summary

Control Type: Unsignalized

| Intersection | |
|---|---|
| Int Delay, s/veh | 0.4 |

| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 3 | 153 | 67 | 14 | 6 | 2 |
| Future Vol, veh/h | 3 | 153 | 67 | 14 | 6 | 2 |
| Conflicting Peds, #/hr | 3 | 0 | 0 | 3 | 14 | 13 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | - | - | 0 | - |
| Veh in Median Storage, # | - | 0 | 0 | - | 0 | - |
| Grade, % | - | 0 | 0 | - | 0 | - |
| Peak Hour Factor | 79 | 79 | 79 | 79 | 79 | 79 |
| Heavy Vehicles, % | 0 | 13 | 2 | 0 | 0 | 0 |
| Mvmt Flow | 4 | 194 | 85 | 18 | 8 | 3 |

| Major/Minor | Major1 | | Major2 | | Minor2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 106 | 0 | - | 0 | 313 | 110 |
| Stage 1 | - | - | - | - | 97 | - |
| Stage 2 | - | - | - | - | 216 | - |
| Critical Hdwy | 4.3 | - | - | - | 6.4 | 6.2 |
| Critical Hdwy Stg 1 | - | - | - | - | 5.4 | - |
| Critical Hdwy Stg 2 | - | - | - | - | 5.4 | - |
| Follow-up Hdwy | 3 | - | - | - | 3 | 3.1 |
| Pot Cap-1 Maneuver | 1105 | - | - | - | 782 | 1007 |
| Stage 1 | - | - | - | - | 1080 | - |
| Stage 2 | - | - | - | - | 948 | - |
| Platoon blocked, % | | - | - | - | | |
| Mov Cap-1 Maneuver | 1102 | - | - | - | 774 | 992 |
| Mov Cap-2 Maneuver | - | - | - | - | 774 | - |
| Stage 1 | - | - | - | - | 1072 | - |
| Stage 2 | - | - | - | - | 945 | - |

| Approach | EB | WB | SB |
|---|---|---|---|
| HCM Control Delay, s | 0.2 | 0 | 9.5 |
| HCM LOS | | | A |

| Minor Lane/Major Mvmt | EBL | EBT | WBT | WBR | SBLn1 |
|---|---|---|---|---|---|
| Capacity (veh/h) | 1102 | - | - | - | 819 |
| HCM Lane V/C Ratio | 0.003 | - | - | - | 0.012 |
| HCM Control Delay (s) | 8.3 | 0 | - | - | 9.5 |
| HCM Lane LOS | A | A | - | - | A |
| HCM 95th %tile Q(veh) | 0 | - | - | - | 0 |

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 0 | 110 | 24 | 19 | 74 | 0 | 0 | 0 | 41 | 34 | 23 | 12 |
| Future Volume (vph) | 0 | 110 | 24 | 19 | 74 | 0 | 0 | 0 | 41 | 34 | 23 | 12 |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Ped Bike Factor | | | | | | | | | | | | |
| Frt | | 0.976 | | | | | | 0.865 | | | 0.976 | |
| Flt Protected | | | | | 0.990 | | | | | | 0.976 | |
| Satd. Flow (prot) | 0 | 1754 | 0 | 0 | 1770 | 0 | 0 | 1652 | 0 | 0 | 1766 | 0 |
| Flt Permitted | | | | | 0.990 | | | | | | 0.976 | |
| Satd. Flow (perm) | 0 | 1754 | 0 | 0 | 1770 | 0 | 0 | 1652 | 0 | 0 | 1766 | 0 |
| Sign Control | | Free | | | Free | | | Stop | | | Stop | |

Intersection Summary

Control Type: Unsignalized

| Intersection | |
|---|---|
| Int Delay, s/veh | 4.1 |

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Vol, veh/h | 0 | 110 | 24 | 19 | 74 | 0 | 0 | 0 | 41 | 34 | 23 | 12 |
| Future Vol, veh/h | 0 | 110 | 24 | 19 | 74 | 0 | 0 | 0 | 41 | 34 | 23 | 12 |
| Conflicting Peds, #/hr | 12 | 0 | 26 | 26 | 0 | 12 | 33 | 0 | 26 | 26 | 0 | 33 |
| Sign Control | Free | Free | Free | Free | Free | Free | Stop | Stop | Stop | Stop | Stop | Stop |
| RT Channelized | - | - | None | - | - | None | - | - | None | - | - | None |
| Storage Length | - | - | - | - | - | - | - | - | - | - | - | - |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | -1 | - | - | -1 | - | - | -1 | - | - | -3 | - |
| Peak Hour Factor | 77 | 77 | 77 | 77 | 77 | 77 | 77 | 77 | 77 | 77 | 77 | 77 |
| Heavy Vehicles, % | 0 | 0 | 35 | 33 | 0 | 0 | 0 | 0 | 0 | 0 | 12 | 0 |
| Mvmt Flow | 0 | 143 | 31 | 25 | 96 | 0 | 0 | 0 | 53 | 44 | 30 | 16 |

| Major/Minor | Major1 | | | Major2 | | | Minor1 | | | Minor2 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Conflicting Flow All | - | 0 | 0 | 200 | 0 | 0 | 387 | 331 | 211 | 357 | 346 | 129 |
| Stage 1 | - | - | - | - | - | - | 185 | 185 | - | 146 | 146 | - |
| Stage 2 | - | - | - | - | - | - | 202 | 146 | - | 211 | 200 | - |
| Critical Hdwy | - | - | - | 4.6 | - | - | 6.9 | 6.3 | 6.1 | 6.5 | 6.02 | 5.9 |
| Critical Hdwy Stg 1 | - | - | - | - | - | - | 5.9 | 5.3 | - | 5.5 | 5.02 | - |
| Critical Hdwy Stg 2 | - | - | - | - | - | - | 5.9 | 5.3 | - | 5.5 | 5.02 | - |
| Follow-up Hdwy | - | - | - | 3.3 | - | - | 3.5 | 4 | 3.3 | 3 | 4.108 | 3.1 |
| Pot Cap-1 Maneuver | 0 | - | - | 925 | - | 0 | 588 | 603 | 839 | 728 | 595 | 993 |
| Stage 1 | 0 | - | - | - | - | 0 | 830 | 758 | - | 1020 | 776 | - |
| Stage 2 | 0 | - | - | - | - | 0 | 814 | 786 | - | 948 | 742 | - |
| Platoon blocked, % | | - | - | | - | | | | | | | |
| Mov Cap-1 Maneuver | - | - | - | 902 | - | - | 513 | 571 | 798 | 648 | 563 | 962 |
| Mov Cap-2 Maneuver | - | - | - | - | - | - | 513 | 571 | - | 648 | 563 | - |
| Stage 1 | - | - | - | - | - | - | 830 | 739 | - | 1020 | 753 | - |
| Stage 2 | - | - | - | - | - | - | 723 | 763 | - | 863 | 723 | - |

| Approach | EB | WB | NB | SB |
|---|---|---|---|---|
| HCM Control Delay, s | 0 | 1.9 | 9.8 | 11.4 |
| HCM LOS | | | A | B |

| Minor Lane/Major Mvmt | NBLn1 | EBT | EBR | WBL | WBT | SBLn1 |
|---|---|---|---|---|---|---|
| Capacity (veh/h) | 798 | - | - | 902 | - | 652 |
| HCM Lane V/C Ratio | 0.067 | - | - | 0.027 | - | 0.137 |
| HCM Control Delay (s) | 9.8 | - | - | 9.1 | 0 | 11.4 |
| HCM Lane LOS | A | - | - | A | A | B |
| HCM 95th %tile Q(veh) | 0.2 | - | - | 0.1 | - | 0.5 |



| Lane Group | EBT | EBR | WBL | WBT | NBL | NBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (vph) | 149 | 16 | 7 | 133 | 12 | 9 |
| Future Volume (vph) | 149 | 16 | 7 | 133 | 12 | 9 |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Ped Bike Factor | | | | | | |
| Frt | 0.987 | | | | 0.943 | |
| Flt Protected | | | | 0.997 | 0.972 | |
| Satd. Flow (prot) | 1858 | 0 | 0 | 1825 | 1742 | 0 |
| Flt Permitted | | | | 0.997 | 0.972 | |
| Satd. Flow (perm) | 1858 | 0 | 0 | 1825 | 1742 | 0 |
| Sign Control | Free | | | Free | Stop | |

## Intersection Summary

Control Type: Unsignalized

| Intersection | |
|---|---|
| Int Delay, s/veh | 0.8 |

| Movement | EBT | EBR | WBL | WBT | NBL | NBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 149 | 16 | 7 | 133 | 12 | 9 |
| Future Vol, veh/h | 149 | 16 | 7 | 133 | 12 | 9 |
| Conflicting Peds, #/hr | 0 | 22 | 22 | 0 | 4 | 2 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | - | - | 0 | - |
| Veh in Median Storage, # | 0 | - | - | 0 | 0 | - |
| Grade, % | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 79 | 79 | 79 | 79 | 79 | 79 |
| Heavy Vehicles, % | 1 | 0 | 0 | 4 | 0 | 0 |
| Mvmt Flow | 189 | 20 | 9 | 168 | 15 | 11 |

| Major/Minor | Major1 | | Major2 | | Minor1 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 0 | 0 | 231 | 0 | 411 | 223 |
| Stage 1 | - | - | - | - | 221 | - |
| Stage 2 | - | - | - | - | 190 | - |
| Critical Hdwy | - | - | 4.3 | - | 6.4 | 6.2 |
| Critical Hdwy Stg 1 | - | - | - | - | 5.4 | - |
| Critical Hdwy Stg 2 | - | - | - | - | 5.4 | - |
| Follow-up Hdwy | - | - | 3 | - | 3 | 3.1 |
| Pot Cap-1 Maneuver | - | - | 1001 | - | 683 | 869 |
| Stage 1 | - | - | - | - | 943 | - |
| Stage 2 | - | - | - | - | 976 | - |
| Platoon blocked, % | - | - | | - | | |
| Mov Cap-1 Maneuver | - | - | 980 | - | 659 | 849 |
| Mov Cap-2 Maneuver | - | - | - | - | 659 | - |
| Stage 1 | - | - | - | - | 923 | - |
| Stage 2 | - | - | - | - | 962 | - |

| Approach | EB | WB | NB |
|---|---|---|---|
| HCM Control Delay, s | 0 | 0.4 | 10.1 |
| HCM LOS | | | B |

| Minor Lane/Major Mvmt | NBLn1 | EBT | EBR | WBL | WBT |
|---|---|---|---|---|---|
| Capacity (veh/h) | 729 | - | - | 980 | - |
| HCM Lane V/C Ratio | 0.036 | - | - | 0.009 | - |
| HCM Control Delay (s) | 10.1 | - | - | 8.7 | 0 |
| HCM Lane LOS | B | - | - | A | A |
| HCM 95th %tile Q(veh) | 0.1 | - | - | 0 | - |

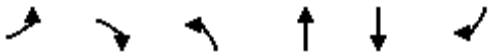
| Lane Group | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (vph) | 27 | 132 | 54 | 362 | 567 | 86 |
| Future Volume (vph) | 27 | 132 | 54 | 362 | 567 | 86 |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Ped Bike Factor | 0.95 | | | | 0.99 | |
| Frt | 0.888 | | | | 0.982 | |
| Flt Protected | 0.991 | | 0.950 | | | |
| Satd. Flow (prot) | 1510 | 0 | 1652 | 1723 | 1735 | 0 |
| Flt Permitted | 0.991 | | 0.313 | | | |
| Satd. Flow (perm) | 1496 | 0 | 544 | 1723 | 1735 | 0 |
| Satd. Flow (RTOR) | 159 | | | | 17 | |
| Turn Type | Prot | | Perm | NA | NA | |
| Protected Phases | 4 | | | 2 | 6 | |
| Permitted Phases | | | 2 | | | |
| Detector Phase | 4 | | 2 | 2 | 6 | |
| Switch Phase | | | | | | |
| Minimum Initial (s) | 3.0 | | 18.0 | 18.0 | 18.0 | |
| Minimum Split (s) | 24.0 | | 24.0 | 24.0 | 24.0 | |
| Total Split (s) | 27.0 | | 63.0 | 63.0 | 63.0 | |
| Total Split (%) | 30.0% | | 70.0% | 70.0% | 70.0% | |
| Yellow Time (s) | 3.0 | | 3.0 | 3.0 | 3.0 | |
| All-Red Time (s) | 3.0 | | 3.0 | 3.0 | 3.0 | |
| Lost Time Adjust (s) | -1.0 | | -1.0 | -1.0 | -1.0 | |
| Total Lost Time (s) | 5.0 | | 5.0 | 5.0 | 5.0 | |
| Lead/Lag | | | | | | |
| Lead-Lag Optimize? | | | | | | |
| Recall Mode | None | | C-Max | C-Max | C-Max | |

**Intersection Summary**

Cycle Length: 90
Actuated Cycle Length: 90
Offset: 44 (49%), Referenced to phase 2:NBTL and 6:SBT, Start of Green
Natural Cycle: 60
Control Type: Actuated-Coordinated

Splits and Phases: 5: S High Street & Sharpless Street





| Movement | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (veh/h) | 27 | 132 | 54 | 362 | 567 | 86 |
| Future Volume (veh/h) | 27 | 132 | 54 | 362 | 567 | 86 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | 0.94 | 1.00 | | | 0.99 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach | No | | | No | No | |
| Adj Sat Flow, veh/h/ln | 1800 | 1885 | 1780 | 1766 | 1786 | 1856 |
| Adj Flow Rate, veh/h | 33 | 159 | 65 | 436 | 683 | 104 |
| Peak Hour Factor | 0.83 | 0.83 | 0.83 | 0.83 | 0.83 | 0.83 |
| Percent Heavy Veh, % | 0 | 1 | 4 | 5 | 1 | 3 |
| Cap, veh/h | 45 | 215 | 395 | 1258 | 1077 | 164 |
| Arrive On Green | 0.18 | 0.18 | 1.00 | 1.00 | 0.71 | 0.71 |
| Sat Flow, veh/h | 252 | 1214 | 655 | 1766 | 1512 | 230 |
| Grp Volume(v), veh/h | 193 | 0 | 65 | 436 | 0 | 787 |
| Grp Sat Flow(s),veh/h/ln | 1474 | 0 | 655 | 1766 | 0 | 1743 |
| Q Serve(g_s), s | 11.2 | 0.0 | 3.4 | 0.0 | 0.0 | 21.3 |
| Cycle Q Clear(g_c), s | 11.2 | 0.0 | 24.2 | 0.0 | 0.0 | 21.3 |
| Prop In Lane | 0.17 | 0.82 | 1.00 | | | 0.13 |
| Lane Grp Cap(c), veh/h | 261 | 0 | 395 | 1258 | 0 | 1241 |
| V/C Ratio(X) | 0.74 | 0.00 | 0.16 | 0.35 | 0.00 | 0.63 |
| Avail Cap(c_a), veh/h | 360 | 0 | 395 | 1258 | 0 | 1241 |
| HCM Platoon Ratio | 1.00 | 1.00 | 2.00 | 2.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 |
| Uniform Delay (d), s/veh | 35.1 | 0.0 | 3.9 | 0.0 | 0.0 | 6.8 |
| Incr Delay (d2), s/veh | 5.1 | 0.0 | 0.9 | 0.8 | 0.0 | 2.5 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(95%),veh/ln | 7.8 | 0.0 | 0.8 | 0.5 | 0.0 | 11.8 |
| Unsig. Movement Delay, s/veh | | | | | | |
| LnGrp Delay(d),s/veh | 40.2 | 0.0 | 4.8 | 0.8 | 0.0 | 9.3 |
| LnGrp LOS | D | A | A | A | A | A |
| Approach Vol, veh/h | 193 | | | 501 | 787 | |
| Approach Delay, s/veh | 40.2 | | | 1.3 | 9.3 | |
| Approach LOS | D | | | A | A | |

| Timer - Assigned Phs | | 2 | | 4 | | 6 |
|---|---|---|---|---|---|---|
| Phs Duration (G+Y+Rc), s | | 69.1 | | 20.9 | | 69.1 |
| Change Period (Y+Rc), s | | 6.0 | | 6.0 | | 6.0 |
| Max Green Setting (Gmax), s | | 57.0 | | 21.0 | | 57.0 |
| Max Q Clear Time (g_c+I1), s | | 26.7 | | 13.7 | | 23.3 |
| Green Ext Time (p_c), s | | 3.8 | | 0.4 | | 7.4 |

| Intersection Summary | |
|---|---|
| HCM 6th Ctrl Delay | 10.6 |
| HCM 6th LOS | B |

**Notes**

User approved volume balancing among the lanes for turning movement.



| Lane Group | WBL | WBR | NBT | NBR | SBL | SBT |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (vph) | 0 | 0 | 413 | 12 | 160 | 541 |
| Future Volume (vph) | 0 | 0 | 413 | 12 | 160 | 541 |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Ped Bike Factor | | | | | | |
| Frt | | | 0.996 | | | |
| Flt Protected | | | | | 0.950 | |
| Satd. Flow (prot) | 1900 | 0 | 1817 | 0 | 1805 | 1863 |
| Flt Permitted | | | | | 0.950 | |
| Satd. Flow (perm) | 1900 | 0 | 1817 | 0 | 1805 | 1863 |
| Sign Control | Stop | | Free | | | Free |

| Intersection Summary |
|---|
| Control Type: Unsignalized |

| Intersection | |
|---|---|
| Int Delay, s/veh | 1.6 |

| Movement | WBL | WBR | NBT | NBR | SBL | SBT |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 0 | 0 | 413 | 12 | 160 | 541 |
| Future Vol, veh/h | 0 | 0 | 413 | 12 | 160 | 541 |
| Conflicting Peds, #/hr | 39 | 1 | 0 | 16 | 16 | 0 |
| Sign Control | Stop | Stop | Free | Free | Free | Free |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | 0 | - | - | - | 100 | - |
| Veh in Median Storage, # | 0 | - | 0 | - | - | 0 |
| Grade, % | 0 | - | 0 | - | - | 0 |
| Peak Hour Factor | 84 | 84 | 84 | 84 | 84 | 84 |
| Heavy Vehicles, % | 0 | 0 | 4 | 9 | 0 | 2 |
| Mvmt Flow | 0 | 0 | 492 | 14 | 190 | 644 |

| Major/Minor | Minor1 | | Major1 | | Major2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 1578 | 516 | 0 | 0 | 522 | 0 |
| Stage 1 | 515 | - | - | - | - | - |
| Stage 2 | 1063 | - | - | - | - | - |
| Critical Hdwy | 6.4 | 6.2 | - | - | 4.3 | - |
| Critical Hdwy Stg 1 | 5.4 | - | - | - | - | - |
| Critical Hdwy Stg 2 | 5.4 | - | - | - | - | - |
| Follow-up Hdwy | 3 | 3.1 | - | - | 3 | - |
| Pot Cap-1 Maneuver | 86 | 728 | - | - | 776 | - |
| Stage 1 | 765 | - | - | - | - | - |
| Stage 2 | 367 | - | - | - | - | - |
| Platoon blocked, % | 1 | 1 | - | - | 1 | - |
| Mov Cap-1 Maneuver | 61 | 716 | - | - | 764 | - |
| Mov Cap-2 Maneuver | 61 | - | - | - | - | - |
| Stage 1 | 753 | - | - | - | - | - |
| Stage 2 | 265 | - | - | - | - | - |

| Approach | WB | NB | SB |
|---|---|---|---|
| HCM Control Delay, s | 0 | 0 | 2.6 |
| HCM LOS | A | | |

| Minor Lane/Major Mvmt | NBT | NBR | WBLn1 | SBL | SBT |
|---|---|---|---|---|---|
| Capacity (veh/h) | - | - | - | 764 | - |
| HCM Lane V/C Ratio | - | - | - | 0.249 | - |
| HCM Control Delay (s) | - | - | 0 | 11.3 | - |
| HCM Lane LOS | - | - | A | B | - |
| HCM 95th %tile Q(veh) | - | - | - | 1 | - |

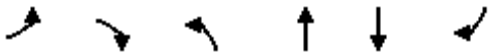
| Lane Group | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (vph) | 9 | 10 | 22 | 425 | 525 | 5 |
| Future Volume (vph) | 9 | 10 | 22 | 425 | 525 | 5 |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Ped Bike Factor | 0.93 | | | 1.00 | 1.00 | |
| Frt | 0.929 | | | | 0.999 | |
| Flt Protected | 0.977 | | | 0.998 | | |
| Satd. Flow (prot) | 1550 | 0 | 0 | 1710 | 1778 | 0 |
| Flt Permitted | 0.977 | | | 0.963 | | |
| Satd. Flow (perm) | 1518 | 0 | 0 | 1648 | 1778 | 0 |
| Satd. Flow (RTOR) | 11 | | | | 1 | |
| Turn Type | Prot | | Perm | NA | NA | |
| Protected Phases | 4 | | | 2 | 6 | |
| Permitted Phases | | | 2 | | | |
| Detector Phase | 4 | | 2 | 2 | 6 | |
| Switch Phase | | | | | | |
| Minimum Initial (s) | 5.0 | | 5.0 | 5.0 | 5.0 | |
| Minimum Split (s) | 24.0 | | 24.0 | 24.0 | 24.0 | |
| Total Split (s) | 27.0 | | 63.0 | 63.0 | 63.0 | |
| Total Split (%) | 30.0% | | 70.0% | 70.0% | 70.0% | |
| Yellow Time (s) | 3.0 | | 3.0 | 3.0 | 3.0 | |
| All-Red Time (s) | 3.0 | | 3.0 | 3.0 | 3.0 | |
| Lost Time Adjust (s) | -1.0 | | | -1.0 | -1.0 | |
| Total Lost Time (s) | 5.0 | | | 5.0 | 5.0 | |
| Lead/Lag | | | | | | |
| Lead-Lag Optimize? | | | | | | |
| Recall Mode | None | | C-Min | C-Min | C-Min | |

**Intersection Summary**

Cycle Length: 90
Actuated Cycle Length: 90
Offset: 79 (88%), Referenced to phase 2:NBTL and 6:SBT, Start of Green
Natural Cycle: 55
Control Type: Actuated-Coordinated

Splits and Phases: 7: S High Street & University Avenue





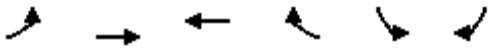
| Movement | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (veh/h) | 9 | 10 | 22 | 425 | 525 | 5 |
| Future Volume (veh/h) | 9 | 10 | 22 | 425 | 525 | 5 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | 0.83 | 1.00 | | | 0.97 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach | No | | | No | No | |
| Adj Sat Flow, veh/h/ln | 1800 | 1800 | 1716 | 1730 | 1786 | 1800 |
| Adj Flow Rate, veh/h | 10 | 11 | 24 | 472 | 583 | 6 |
| Peak Hour Factor | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 |
| Percent Heavy Veh, % | 0 | 0 | 6 | 5 | 1 | 0 |
| Cap, veh/h | 62 | 68 | 76 | 1298 | 1403 | 14 |
| Arrive On Green | 0.09 | 0.09 | 0.80 | 0.80 | 0.80 | 0.80 |
| Sat Flow, veh/h | 663 | 729 | 43 | 1632 | 1764 | 18 |
| Grp Volume(v), veh/h | 22 | 0 | 496 | 0 | 0 | 589 |
| Grp Sat Flow(s),veh/h/ln | 1458 | 0 | 1675 | 0 | 0 | 1782 |
| Q Serve(g_s), s | 1.2 | 0.0 | 0.0 | 0.0 | 0.0 | 9.1 |
| Cycle Q Clear(g_c), s | 1.2 | 0.0 | 7.4 | 0.0 | 0.0 | 9.1 |
| Prop In Lane | 0.45 | 0.50 | 0.05 | | | 0.01 |
| Lane Grp Cap(c), veh/h | 137 | 0 | 1374 | 0 | 0 | 1417 |
| V/C Ratio(X) | 0.16 | 0.00 | 0.36 | 0.00 | 0.00 | 0.42 |
| Avail Cap(c_a), veh/h | 357 | 0 | 1374 | 0 | 0 | 1417 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 0.00 | 0.95 | 0.00 | 0.00 | 1.00 |
| Uniform Delay (d), s/veh | 37.5 | 0.0 | 2.6 | 0.0 | 0.0 | 2.8 |
| Incr Delay (d2), s/veh | 0.5 | 0.0 | 0.7 | 0.0 | 0.0 | 0.9 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(95%),veh/ln | 0.8 | 0.0 | 3.6 | 0.0 | 0.0 | 4.5 |
| Unsig. Movement Delay, s/veh | | | | | | |
| LnGrp Delay(d),s/veh | 38.1 | 0.0 | 3.3 | 0.0 | 0.0 | 3.7 |
| LnGrp LOS | D | A | A | A | A | A |
| Approach Vol, veh/h | 22 | | | 496 | 589 | |
| Approach Delay, s/veh | 38.1 | | | 3.3 | 3.7 | |
| Approach LOS | D | | | A | A | |

| Timer - Assigned Phs | | 2 | | 4 | | 6 |
|---|---|---|---|---|---|---|
| Phs Duration (G+Y+Rc), s | | 76.6 | | 13.4 | | 76.6 |
| Change Period (Y+Rc), s | | 6.0 | | 6.0 | | 6.0 |
| Max Green Setting (Gmax), s | | 57.0 | | 21.0 | | 57.0 |
| Max Q Clear Time (g_c+I1), s | | 9.4 | | 3.7 | | 11.1 |
| Green Ext Time (p_c), s | | 4.0 | | 0.0 | | 4.9 |

| Intersection Summary | |
|---|---|
| HCM 6th Ctrl Delay | 4.2 |
| HCM 6th LOS | A |

**Notes**

User approved volume balancing among the lanes for turning movement.



| Lane Group | EBL | EBT | WBT | WBR | SBL | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (vph) | 0 | 14 | 1 | 30 | 5 | 0 |
| Future Volume (vph) | 0 | 14 | 1 | 30 | 5 | 0 |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Ped Bike Factor | | | | | | |
| Frt | | | 0.869 | | | |
| Flt Protected | | | | | 0.950 | |
| Satd. Flow (prot) | 0 | 1900 | 1650 | 0 | 1796 | 0 |
| Flt Permitted | | | | | 0.950 | |
| Satd. Flow (perm) | 0 | 1900 | 1650 | 0 | 1796 | 0 |
| Sign Control | | Free | Free | | Stop | |

| Intersection Summary |
|---|
| Control Type: Unsignalized |

| Intersection | |
|---|---|
| Int Delay, s/veh | 0.9 |

| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 0 | 14 | 1 | 30 | 5 | 0 |
| Future Vol, veh/h | 0 | 14 | 1 | 30 | 5 | 0 |
| Conflicting Peds, #/hr | 44 | 0 | 0 | 44 | 7 | 3 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | - | - | 0 | - |
| Veh in Median Storage, # | - | 0 | 0 | - | 0 | - |
| Grade, % | - | 0 | 0 | - | 1 | - |
| Peak Hour Factor | 90 | 90 | 90 | 90 | 90 | 90 |
| Heavy Vehicles, % | 0 | 0 | 3 | 0 | 0 | 25 |
| Mvmt Flow | 0 | 16 | 1 | 33 | 6 | 0 |

| Major/Minor | Major1 | | Major2 | | Minor2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 78 | 0 | - | 0 | 85 | 65 |
| Stage 1 | - | - | - | - | 62 | - |
| Stage 2 | - | - | - | - | 23 | - |
| Critical Hdwy | 4.3 | - | - | - | 6.6 | 6.55 |
| Critical Hdwy Stg 1 | - | - | - | - | 5.6 | - |
| Critical Hdwy Stg 2 | - | - | - | - | 5.6 | - |
| Follow-up Hdwy | 3 | - | - | - | 3 | 3.3 |
| Pot Cap-1 Maneuver | 1129 | - | - | - | 1064 | 998 |
| Stage 1 | - | - | - | - | 1118 | - |
| Stage 2 | - | - | - | - | 1169 | - |
| Platoon blocked, % | | - | - | - | | |
| Mov Cap-1 Maneuver | 1082 | - | - | - | 977 | 953 |
| Mov Cap-2 Maneuver | - | - | - | - | 977 | - |
| Stage 1 | - | - | - | - | 1071 | - |
| Stage 2 | - | - | - | - | 1120 | - |

| Approach | EB | WB | SB |
|---|---|---|---|
| HCM Control Delay, s | 0 | 0 | 8.7 |
| HCM LOS | | | A |

| Minor Lane/Major Mvmt | EBL | EBT | WBT | WBR | SBLn1 |
|---|---|---|---|---|---|
| Capacity (veh/h) | 1082 | - | - | - | 977 |
| HCM Lane V/C Ratio | - | - | - | - | 0.006 |
| HCM Control Delay (s) | 0 | - | - | - | 8.7 |
| HCM Lane LOS | A | - | - | - | A |
| HCM 95th %tile Q(veh) | 0 | - | - | - | 0 |



| Lane Group | WBL | WBR | NBT | NBR | SBL | SBT |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (vph) | 0 | 0 | 0 | 0 | 0 | 0 |
| Future Volume (vph) | 0 | 0 | 0 | 0 | 0 | 0 |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Ped Bike Factor | | | | | | |
| Frt | | | | | | |
| Flt Protected | | | | | | |
| Satd. Flow (prot) | 1853 | 0 | 0 | 0 | 0 | 1377 |
| Flt Permitted | | | | | | |
| Satd. Flow (perm) | 1853 | 0 | 0 | 0 | 0 | 1377 |
| Sign Control | Stop | | Free | | | Free |

| Intersection Summary |
|---|
| Control Type: Unsignalized |

| Intersection | |
|---|---|
| Int Delay, s/veh | 0 |

| Movement | WBL | WBR | NBT | NBR | SBL | SBT |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 0 | 0 | 0 | 0 | 0 | 0 |
| Future Vol, veh/h | 0 | 0 | 0 | 0 | 0 | 0 |
| Conflicting Peds, #/hr | 211 | 317 | 0 | 384 | 384 | 0 |
| Sign Control | Stop | Stop | Free | Free | Free | Free |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | 0 | - | - | - | - | - |
| Veh in Median Storage, # | 0 | - | 0 | - | - | 0 |
| Grade, % | 1 | - | 0 | - | - | 0 |
| Peak Hour Factor | 62 | 62 | 62 | 62 | 62 | 62 |
| Heavy Vehicles, % | 2 | 0 | 0 | 0 | 0 | 38 |
| Mvmt Flow | 0 | 0 | 0 | 0 | 0 | 0 |

| Major/Minor | Minor1 | | Major2 | |
|---|---|---|---|---|
| Conflicting Flow All | 597 | - | 384 | 0 |
| Stage 1 | 384 | - | - | - |
| Stage 2 | 213 | - | - | - |
| Critical Hdwy | 6.62 | - | 4.3 | - |
| Critical Hdwy Stg 1 | - | - | - | - |
| Critical Hdwy Stg 2 | 5.62 | - | - | - |
| Follow-up Hdwy | 3 | - | 3 | - |
| Pot Cap-1 Maneuver | 508 | 0 | 886 | - |
| Stage 1 | - | 0 | - | - |
| Stage 2 | 939 | 0 | - | - |
| Platoon blocked, % | | | | - |
| Mov Cap-1 Maneuver | 322 | - | 562 | - |
| Mov Cap-2 Maneuver | 322 | - | - | - |
| Stage 1 | - | - | - | - |
| Stage 2 | 939 | - | - | - |

| Approach | WB | SB |
|---|---|---|
| HCM Control Delay, s | 0 | 0 |
| HCM LOS | A | |

| Minor Lane/Major Mvmt | WBLn1 | SBL | SBT |
|---|---|---|---|
| Capacity (veh/h) | - | 562 | - |
| HCM Lane V/C Ratio | - | - | - |
| HCM Control Delay (s) | 0 | 0 | - |
| HCM Lane LOS | A | A | - |
| HCM 95th %tile Q(veh) | - | 0 | - |

| Lane Group | WBL | WBR | NBT | NBR | SBL | SBT |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (vph) | 23 | 26 | 419 | 0 | 1 | 539 |
| Future Volume (vph) | 23 | 26 | 419 | 0 | 1 | 539 |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Ped Bike Factor | 0.90 | | | | | 1.00 |
| Frt | 0.929 | | | | | |
| Flt Protected | 0.977 | | | | | |
| Satd. Flow (prot) | 1552 | 0 | 1838 | 0 | 0 | 1873 |
| Flt Permitted | 0.977 | | | | | |
| Satd. Flow (perm) | 1543 | 0 | 1838 | 0 | 0 | 1873 |
| Satd. Flow (RTOR) | 31 | | | | | |
| Turn Type | Prot | | NA | | Perm | NA |
| Protected Phases | 4 | | 6 | | | 2 |
| Permitted Phases | | | | | 2 | |
| Detector Phase | 4 | | 6 | | 2 | 2 |
| Switch Phase | | | | | | |
| Minimum Initial (s) | 3.0 | | 49.0 | | 49.0 | 49.0 |
| Minimum Split (s) | 19.0 | | 54.0 | | 54.0 | 54.0 |
| Total Split (s) | 29.0 | | 55.0 | | 55.0 | 55.0 |
| Total Split (%) | 34.5% | | 65.5% | | 65.5% | 65.5% |
| Yellow Time (s) | 3.0 | | 3.0 | | 3.0 | 3.0 |
| All-Red Time (s) | 2.0 | | 2.0 | | 2.0 | 2.0 |
| Lost Time Adjust (s) | -1.0 | | -1.0 | | | -1.0 |
| Total Lost Time (s) | 4.0 | | 4.0 | | | 4.0 |
| Lead/Lag | | | | | | |
| Lead-Lag Optimize? | | | | | | |
| Recall Mode | None | | Max | | Max | Max |

| Intersection Summary |
|---|
| Cycle Length: 84 |
| Actuated Cycle Length: 69.7 |
| Natural Cycle: 75 |
| Control Type: Actuated-Uncoordinated |

Splits and Phases: 10: S High Street & Linden Street





| Movement | WBL | WBR | NBT | NBR | SBL | SBT |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (veh/h) | 23 | 26 | 419 | 0 | 1 | 539 |
| Future Volume (veh/h) | 23 | 26 | 419 | 0 | 1 | 539 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | 0.79 | | 1.00 | 1.00 | |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach | No | | No | | | No |
| Adj Sat Flow, veh/h/ln | 1703 | 1790 | 1837 | 0 | 1866 | 1837 |
| Adj Flow Rate, veh/h | 28 | 26 | 505 | 0 | 1 | 649 |
| Peak Hour Factor | 0.83 | 0.83 | 0.83 | 0.83 | 0.83 | 0.83 |
| Percent Heavy Veh, % | 10 | 4 | 5 | 0 | 0 | 2 |
| Cap, veh/h | 88 | 82 | 1384 | 0 | 54 | 1383 |
| Arrive On Green | 0.13 | 0.13 | 0.75 | 0.00 | 0.75 | 0.75 |
| Sat Flow, veh/h | 687 | 638 | 1837 | 0 | 0 | 1836 |
| Grp Volume(v), veh/h | 55 | 0 | 505 | 0 | 650 | 0 |
| Grp Sat Flow(s),veh/h/ln | 1349 | 0 | 1837 | 0 | 1837 | 0 |
| Q Serve(g_s), s | 2.5 | 0.0 | 6.3 | 0.0 | 0.0 | 0.0 |
| Cycle Q Clear(g_c), s | 2.5 | 0.0 | 6.3 | 0.0 | 9.1 | 0.0 |
| Prop In Lane | 0.51 | 0.47 | | 0.00 | 0.00 | |
| Lane Grp Cap(c), veh/h | 173 | 0 | 1384 | 0 | 1437 | 0 |
| V/C Ratio(X) | 0.32 | 0.00 | 0.36 | 0.00 | 0.45 | 0.00 |
| Avail Cap(c_a), veh/h | 498 | 0 | 1384 | 0 | 1437 | 0 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 0.00 | 1.00 | 0.00 | 1.00 | 0.00 |
| Uniform Delay (d), s/veh | 26.8 | 0.0 | 2.8 | 0.0 | 3.2 | 0.0 |
| Incr Delay (d2), s/veh | 1.0 | 0.0 | 0.7 | 0.0 | 1.0 | 0.0 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(95%),veh/ln | 1.5 | 0.0 | 3.0 | 0.0 | 4.3 | 0.0 |
| Unsig. Movement Delay, s/veh | | | | | | |
| LnGrp Delay(d),s/veh | 27.8 | 0.0 | 3.6 | 0.0 | 4.2 | 0.0 |
| LnGrp LOS | C | A | A | A | A | A |
| Approach Vol, veh/h | 55 | | 505 | | | 650 |
| Approach Delay, s/veh | 27.8 | | 3.6 | | | 4.2 |
| Approach LOS | C | | A | | | A |

| Timer - Assigned Phs | | 2 | | 4 | | 6 |
|---|---|---|---|---|---|---|
| Phs Duration (G+Y+Rc), s | | 55.0 | | 12.7 | | 55.0 |
| Change Period (Y+Rc), s | | 5.0 | | 5.0 | | 5.0 |
| Max Green Setting (Gmax), s | | 50.0 | | 24.0 | | 50.0 |
| Max Q Clear Time (g_c+I1), s | | 0.0 | | 5.0 | | 0.0 |
| Green Ext Time (p_c), s | | 0.0 | | 0.1 | | 0.0 |

| Intersection Summary | |
|---|---|
| HCM 6th Ctrl Delay | 5.0 |
| HCM 6th LOS | A |

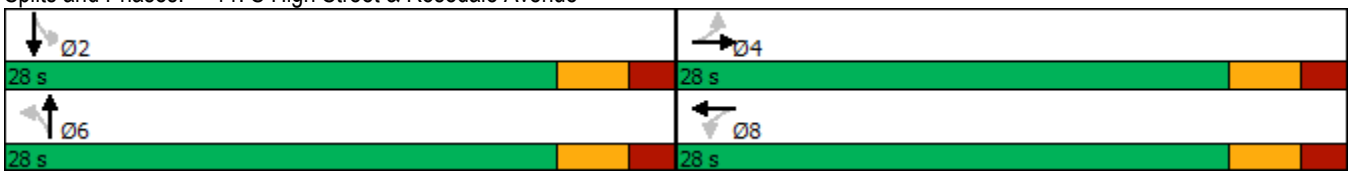
**Notes**

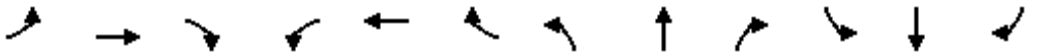
User approved volume balancing among the lanes for turning movement.

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 48 | 358 | 96 | 74 | 225 | 72 | 86 | 332 | 60 | 87 | 452 | 22 |
| Future Volume (vph) | 48 | 358 | 96 | 74 | 225 | 72 | 86 | 332 | 60 | 87 | 452 | 22 |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Ped Bike Factor | 0.93 | 0.97 | | 0.95 | 0.97 | | 0.97 | 0.98 | | 0.95 | 1.00 | |
| Frt | | 0.968 | | | 0.964 | | | 0.977 | | | 0.993 | |
| Flt Protected | 0.950 | | | 0.950 | | | 0.950 | | | 0.950 | | |
| Satd. Flow (prot) | 1590 | 1620 | 0 | 1582 | 1565 | 0 | 1483 | 1821 | 0 | 1645 | 1714 | 0 |
| Flt Permitted | 0.490 | | | 0.301 | | | 0.348 | | | 0.429 | | |
| Satd. Flow (perm) | 764 | 1620 | 0 | 478 | 1565 | 0 | 528 | 1821 | 0 | 709 | 1714 | 0 |
| Satd. Flow (RTOR) | | | | | | | | | | | | |
| Turn Type | Perm | NA | | Perm | NA | | Perm | NA | | Perm | NA | |
| Protected Phases | | 4 | | | 8 | | | 6 | | | 2 | |
| Permitted Phases | 4 | | | 8 | | | 6 | | | 2 | | |
| Detector Phase | 4 | 4 | | 8 | 8 | | 6 | 6 | | 2 | 2 | |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 3.0 | 3.0 | | 3.0 | 3.0 | | 3.0 | 3.0 | | 3.0 | 3.0 | |
| Minimum Split (s) | 25.0 | 25.0 | | 25.0 | 25.0 | | 23.0 | 23.0 | | 23.0 | 23.0 | |
| Total Split (s) | 28.0 | 28.0 | | 28.0 | 28.0 | | 28.0 | 28.0 | | 28.0 | 28.0 | |
| Total Split (%) | 50.0% | 50.0% | | 50.0% | 50.0% | | 50.0% | 50.0% | | 50.0% | 50.0% | |
| Yellow Time (s) | 3.0 | 3.0 | | 3.0 | 3.0 | | 3.0 | 3.0 | | 3.0 | 3.0 | |
| All-Red Time (s) | 2.0 | 2.0 | | 2.0 | 2.0 | | 2.0 | 2.0 | | 2.0 | 2.0 | |
| Lost Time Adjust (s) | -1.0 | -1.0 | | -1.0 | -1.0 | | -1.0 | -1.0 | | -1.0 | -1.0 | |
| Total Lost Time (s) | 4.0 | 4.0 | | 4.0 | 4.0 | | 4.0 | 4.0 | | 4.0 | 4.0 | |
| Lead/Lag | | | | | | | | | | | | |
| Lead-Lag Optimize? | | | | | | | | | | | | |
| Recall Mode | None | None | | None | None | | Max | Max | | Max | Max | |

| Intersection Summary |
|---|
| Cycle Length: 56 |
| Actuated Cycle Length: 52 |
| Natural Cycle: 50 |
| Control Type: Actuated-Uncoordinated |

Splits and Phases: 11: S High Street & Rosedale Avenue





| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (veh/h) | 48 | 358 | 96 | 74 | 225 | 72 | 86 | 332 | 60 | 87 | 452 | 22 |
| Future Volume (veh/h) | 48 | 358 | 96 | 74 | 225 | 72 | 86 | 332 | 60 | 87 | 452 | 22 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 0.95 | | 0.90 | 0.97 | | 0.90 | 0.98 | | 0.93 | 0.98 | | 0.93 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach | | No | | | No | | | No | | | No | |
| Adj Sat Flow, veh/h/ln | 1696 | 1724 | 1780 | 1679 | 1693 | 1679 | 1666 | 1776 | 1791 | 1883 | 1883 | 1912 |
| Adj Flow Rate, veh/h | 51 | 377 | 100 | 78 | 237 | 68 | 91 | 349 | 62 | 92 | 476 | 22 |
| Peak Hour Factor | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 |
| Percent Heavy Veh, % | 7 | 5 | 1 | 7 | 6 | 7 | 6 | 3 | 2 | 2 | 2 | 0 |
| Cap, veh/h | 385 | 517 | 137 | 266 | 498 | 143 | 334 | 648 | 115 | 403 | 795 | 37 |
| Arrive On Green | 0.40 | 0.40 | 0.40 | 0.40 | 0.40 | 0.40 | 0.45 | 0.45 | 0.45 | 0.45 | 0.45 | 0.45 |
| Sat Flow, veh/h | 924 | 1279 | 339 | 798 | 1230 | 353 | 787 | 1450 | 258 | 959 | 1779 | 82 |
| Grp Volume(v), veh/h | 51 | 0 | 477 | 78 | 0 | 305 | 91 | 0 | 411 | 92 | 0 | 498 |
| Grp Sat Flow(s),veh/h/ln | 924 | 0 | 1619 | 798 | 0 | 1584 | 787 | 0 | 1707 | 959 | 0 | 1861 |
| Q Serve(g_s), s | 2.3 | 0.0 | 13.4 | 4.9 | 0.0 | 7.6 | 5.2 | 0.0 | 9.4 | 4.1 | 0.0 | 10.9 |
| Cycle Q Clear(g_c), s | 9.4 | 0.0 | 13.4 | 17.7 | 0.0 | 7.6 | 15.6 | 0.0 | 9.4 | 13.0 | 0.0 | 10.9 |
| Prop In Lane | 1.00 | | 0.21 | 1.00 | | 0.22 | 1.00 | | 0.15 | 1.00 | | 0.04 |
| Lane Grp Cap(c), veh/h | 385 | 0 | 655 | 266 | 0 | 640 | 334 | 0 | 763 | 403 | 0 | 831 |
| V/C Ratio(X) | 0.13 | 0.00 | 0.73 | 0.29 | 0.00 | 0.48 | 0.27 | 0.00 | 0.54 | 0.23 | 0.00 | 0.60 |
| Avail Cap(c_a), veh/h | 424 | 0 | 723 | 299 | 0 | 707 | 334 | 0 | 763 | 403 | 0 | 831 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 |
| Uniform Delay (d), s/veh | 15.1 | 0.0 | 13.5 | 20.8 | 0.0 | 11.8 | 16.9 | 0.0 | 10.8 | 15.4 | 0.0 | 11.2 |
| Incr Delay (d2), s/veh | 0.2 | 0.0 | 3.4 | 0.6 | 0.0 | 0.6 | 2.0 | 0.0 | 2.7 | 1.3 | 0.0 | 3.2 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(95%),veh/ln | 0.8 | 0.0 | 8.4 | 1.6 | 0.0 | 4.4 | 1.9 | 0.0 | 6.5 | 1.7 | 0.0 | 8.0 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 15.2 | 0.0 | 16.9 | 21.4 | 0.0 | 12.4 | 18.9 | 0.0 | 13.6 | 16.7 | 0.0 | 14.4 |
| LnGrp LOS | B | A | B | C | A | B | B | A | B | B | A | B |
| Approach Vol, veh/h | | 528 | | | 383 | | | 502 | | | 590 | |
| Approach Delay, s/veh | | 16.7 | | | 14.2 | | | 14.5 | | | 14.8 | |
| Approach LOS | | B | | | B | | | B | | | B | |

| Timer - Assigned Phs | | 2 | | 4 | | 6 | | 8 | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Phs Duration (G+Y+Rc), s | | 28.0 | | 25.7 | | 28.0 | | 25.7 | | | | |
| Change Period (Y+Rc), s | | 5.0 | | 5.0 | | 5.0 | | 5.0 | | | | |
| Max Green Setting (Gmax), s | | 23.0 | | 23.0 | | 23.0 | | 23.0 | | | | |
| Max Q Clear Time (g_c+I1), s | | 0.0 | | 15.4 | | 0.0 | | 20.2 | | | | |
| Green Ext Time (p_c), s | | 0.0 | | 1.5 | | 0.0 | | 0.5 | | | | |

| Intersection Summary | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| HCM 6th Ctrl Delay | | | 15.1 | | | | | | | | | |
| HCM 6th LOS | | | B | | | | | | | | | |

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 0 | 161 | 297 | 60 | 66 | 0 | 280 | 0 | 53 | 7 | 64 | 19 |
| Future Volume (vph) | 0 | 161 | 297 | 60 | 66 | 0 | 280 | 0 | 53 | 7 | 64 | 19 |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Ped Bike Factor | | | | | | | | | | | | |
| Frt | | 0.913 | | | | | | | 0.850 | | 0.971 | |
| Flt Protected | | | | | 0.977 | | 0.950 | | | | 0.996 | |
| Satd. Flow (prot) | 0 | 1678 | 0 | 0 | 1661 | 0 | 1727 | 0 | 1474 | 0 | 1812 | 0 |
| Flt Permitted | | | | | 0.977 | | 0.950 | | | | 0.996 | |
| Satd. Flow (perm) | 0 | 1678 | 0 | 0 | 1661 | 0 | 1727 | 0 | 1474 | 0 | 1812 | 0 |
| Sign Control | | Stop | | | Stop | | | Stop | | | Stop | |

Intersection Summary

Control Type: Unsignalized

| Intersection | |
|---|---|
| Intersection Delay, s/veh | 16.7 |
| Intersection LOS | C |

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Vol, veh/h | 0 | 161 | 297 | 60 | 66 | 0 | 280 | 0 | 53 | 7 | 64 | 19 |
| Future Vol, veh/h | 0 | 161 | 297 | 60 | 66 | 0 | 280 | 0 | 53 | 7 | 64 | 19 |
| Peak Hour Factor | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 |
| Heavy Vehicles, % | 0 | 4 | 3 | 6 | 16 | 0 | 4 | 0 | 9 | 0 | 2 | 0 |
| Mvmt Flow | 0 | 168 | 309 | 63 | 69 | 0 | 292 | 0 | 55 | 7 | 67 | 20 |
| Number of Lanes | 0 | 1 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 |

| Approach | EB | WB | NB | SB |
|---|---|---|---|---|
| Opposing Approach | WB | EB | SB | NB |
| Opposing Lanes | 1 | 1 | 1 | 2 |
| Conflicting Approach Left | SB | NB | EB | WB |
| Conflicting Lanes Left | 1 | 2 | 1 | 1 |
| Conflicting Approach Right | NB | SB | WB | EB |
| Conflicting Lanes Right | 2 | 1 | 1 | 1 |
| HCM Control Delay | 19.3 | 11.3 | 16.8 | 10.7 |
| HCM LOS | C | B | C | B |

| Lane | NBLn1 | NBLn2 | EBLn1 | WBLn1 | SBLn1 |
|---|---|---|---|---|---|
| Vol Left, % | 100% | 0% | 0% | 48% | 8% |
| Vol Thru, % | 0% | 0% | 35% | 52% | 71% |
| Vol Right, % | 0% | 100% | 65% | 0% | 21% |
| Sign Control | Stop | Stop | Stop | Stop | Stop |
| Traffic Vol by Lane | 280 | 53 | 458 | 126 | 90 |
| LT Vol | 280 | 0 | 0 | 60 | 7 |
| Through Vol | 0 | 0 | 161 | 66 | 64 |
| RT Vol | 0 | 53 | 297 | 0 | 19 |
| Lane Flow Rate | 292 | 55 | 477 | 131 | 94 |
| Geometry Grp | 5 | 5 | 2 | 2 | 4a |
| Degree of Util (X) | 0.561 | 0.089 | 0.692 | 0.23 | 0.165 |
| Departure Headway (Hd) | 6.926 | 5.792 | 5.22 | 6.312 | 6.339 |
| Convergence, Y/N | Yes | Yes | Yes | Yes | Yes |
| Cap | 519 | 616 | 687 | 564 | 562 |
| Service Time | 4.69 | 3.555 | 3.285 | 4.401 | 4.43 |
| HCM Lane V/C Ratio | 0.563 | 0.089 | 0.694 | 0.232 | 0.167 |
| HCM Control Delay | 18.3 | 9.1 | 19.3 | 11.3 | 10.7 |
| HCM Lane LOS | C | A | C | B | B |
| HCM 95th-tile Q | 3.4 | 0.3 | 5.6 | 0.9 | 0.6 |

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 1 | 1 | 1 | 58 | 0 | 42 | 12 | 402 | 125 | 90 | 326 | 6 |
| Future Volume (vph) | 1 | 1 | 1 | 58 | 0 | 42 | 12 | 402 | 125 | 90 | 326 | 6 |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Ped Bike Factor | | | | | | | | | | | | |
| Frt | | 0.955 | | | 0.943 | | | 0.965 | | | 0.997 | |
| Flt Protected | | 0.984 | | | 0.972 | | 0.950 | | | 0.950 | | |
| Satd. Flow (prot) | 0 | 1768 | 0 | 0 | 1687 | 0 | 1805 | 1780 | 0 | 1787 | 1823 | 0 |
| Flt Permitted | | 0.984 | | | 0.972 | | 0.950 | | | 0.950 | | |
| Satd. Flow (perm) | 0 | 1768 | 0 | 0 | 1687 | 0 | 1805 | 1780 | 0 | 1787 | 1823 | 0 |
| Sign Control | | Stop | | | Stop | | | Free | | | Free | |

Intersection Summary

Control Type: Unsignalized

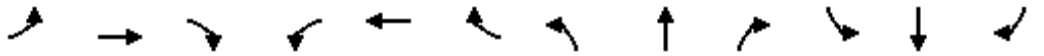
| Intersection | |
|---|---|
| Int Delay, s/veh | 3.9 |

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Vol, veh/h | 1 | 1 | 1 | 58 | 0 | 42 | 12 | 402 | 125 | 90 | 326 | 6 |
| Future Vol, veh/h | 1 | 1 | 1 | 58 | 0 | 42 | 12 | 402 | 125 | 90 | 326 | 6 |
| Conflicting Peds, #/hr | 4 | 0 | 1 | 1 | 0 | 4 | 6 | 0 | 0 | 0 | 0 | 6 |
| Sign Control | Stop | Stop | Stop | Stop | Stop | Stop | Free | Free | Free | Free | Free | Free |
| RT Channelized | - | - | None | - | - | None | - | - | None | - | - | None |
| Storage Length | - | - | - | - | - | - | 25 | - | - | 75 | - | - |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 2 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 89 | 89 | 89 | 89 | 89 | 89 | 89 | 89 | 89 | 89 | 89 | 89 |
| Heavy Vehicles, % | 0 | 0 | 0 | 2 | 0 | 5 | 0 | 3 | 3 | 1 | 4 | 0 |
| Mvmt Flow | 1 | 1 | 1 | 65 | 0 | 47 | 13 | 452 | 140 | 101 | 366 | 7 |

| Major/Minor | Minor2 | | | Minor1 | | | Major1 | | | Major2 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Conflicting Flow All | 1154 | 1196 | 377 | 1122 | 1129 | 526 | 379 | 0 | 0 | 592 | 0 | 0 |
| Stage 1 | 578 | 578 | - | 548 | 548 | - | - | - | - | - | - | - |
| Stage 2 | 576 | 618 | - | 574 | 581 | - | - | - | - | - | - | - |
| Critical Hdwy | 7.5 | 6.9 | 6.4 | 7.12 | 6.5 | 6.25 | 4.3 | - | - | 4.3 | - | - |
| Critical Hdwy Stg 1 | 6.5 | 5.9 | - | 6.12 | 5.5 | - | - | - | - | - | - | - |
| Critical Hdwy Stg 2 | 6.5 | 5.9 | - | 6.12 | 5.5 | - | - | - | - | - | - | - |
| Follow-up Hdwy | 3 | 4 | 3.1 | 3 | 4 | 3.1 | 3 | - | - | 3 | - | - |
| Pot Cap-1 Maneuver | 169 | 164 | 696 | 201 | 206 | 579 | 890 | - | - | 750 | - | - |
| Stage 1 | 533 | 473 | - | 589 | 520 | - | - | - | - | - | - | - |
| Stage 2 | 534 | 452 | - | 569 | 503 | - | - | - | - | - | - | - |
| Platoon blocked, % | | | | | | | | - | - | | - | - |
| Mov Cap-1 Maneuver | 136 | 139 | 691 | 177 | 174 | 577 | 885 | - | - | 750 | - | - |
| Mov Cap-2 Maneuver | 136 | 139 | - | 177 | 174 | - | - | - | - | - | - | - |
| Stage 1 | 522 | 407 | - | 580 | 512 | - | - | - | - | - | - | - |
| Stage 2 | 481 | 445 | - | 490 | 433 | - | - | - | - | - | - | - |

| Approach | EB | WB | NB | SB |
|---|---|---|---|---|
| HCM Control Delay, s | 24.5 | 30.6 | 0.2 | 2.2 |
| HCM LOS | C | D | | |

| Minor Lane/Major Mvmt | NBL | NBT | NBR | EBLn1 | WBLn1 | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|
| Capacity (veh/h) | 885 | - | - | 188 | 250 | 750 | - | - |
| HCM Lane V/C Ratio | 0.015 | - | - | 0.018 | 0.449 | 0.135 | - | - |
| HCM Control Delay (s) | 9.1 | - | - | 24.5 | 30.6 | 10.5 | - | - |
| HCM Lane LOS | A | - | - | C | D | B | - | - |
| HCM 95th %tile Q(veh) | 0 | - | - | 0.1 | 2.2 | 0.5 | - | - |



| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 0 | 489 | 0 | 0 | 295 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Future Volume (vph) | 0 | 489 | 0 | 0 | 295 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Ped Bike Factor | | | | | | | | | | | | |
| Frt | | | | | | | | | | | | |
| Flt Protected | | | | | | | | | | | | |
| Satd. Flow (prot) | 0 | 1990 | 0 | 0 | 1747 | 0 | 0 | 0 | 0 | 0 | 2000 | 0 |
| Flt Permitted | | | | | | | | | | | | |
| Satd. Flow (perm) | 0 | 1990 | 0 | 0 | 1747 | 0 | 0 | 0 | 0 | 0 | 2000 | 0 |
| Satd. Flow (RTOR) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 0 | 504 | 0 | 0 | 304 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Turn Type | | NA | | | NA | | | | | | | |
| Protected Phases | | 2 | | | 6 | | | | | 4 | 4 | |
| Permitted Phases | | | | 6 | | | | | | | | |
| Detector Phase | | 2 | | 6 | 6 | | | | | 4 | 4 | |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | | 5.0 | | 5.0 | 5.0 | | | | | 5.0 | 5.0 | |
| Minimum Split (s) | | 22.0 | | 22.0 | 22.0 | | | | | 23.0 | 23.0 | |
| Total Split (s) | | 31.0 | | 31.0 | 31.0 | | | | | 23.0 | 23.0 | |
| Total Split (%) | | 51.7% | | 51.7% | 51.7% | | | | | 38.3% | 38.3% | |
| Yellow Time (s) | | 3.0 | | 3.0 | 3.0 | | | | | 3.0 | 3.0 | |
| All-Red Time (s) | | 2.0 | | 2.0 | 2.0 | | | | | 2.0 | 2.0 | |
| Lost Time Adjust (s) | | -1.0 | | | -1.0 | | | | | | -1.0 | |
| Total Lost Time (s) | | 4.0 | | | 4.0 | | | | | | 4.0 | |
| Lead/Lag | | Lag | | Lag | Lag | | | | | Lag | Lag | |
| Lead-Lag Optimize? | | Yes | | Yes | Yes | | | | | Yes | Yes | |
| Recall Mode | | Max | | Max | Max | | | | | None | None | |
| Act Effct Green (s) | | 46.6 | | | 46.6 | | | | | | | |
| Actuated g/C Ratio | | 0.92 | | | 0.92 | | | | | | | |
| v/c Ratio | | 0.27 | | | 0.19 | | | | | | | |
| Control Delay | | 2.7 | | | 2.5 | | | | | | | |
| Queue Delay | | 0.0 | | | 0.0 | | | | | | | |
| Total Delay | | 2.7 | | | 2.5 | | | | | | | |
| LOS | | A | | | A | | | | | | | |
| Approach Delay | | 2.7 | | | 2.5 | | | | | | | |
| Approach LOS | | A | | | A | | | | | | | |
| Queue Length 50th (ft) | | 0 | | | 0 | | | | | | | |
| Queue Length 95th (ft) | | 155 | | | 91 | | | | | | | |
| Internal Link Dist (ft) | | 456 | | | 695 | | | 194 | | | 757 | |
| Turn Bay Length (ft) | | | | | | | | | | | | |
| Base Capacity (vph) | | 1834 | | | 1610 | | | | | | | |
| Starvation Cap Reductn | | 0 | | | 0 | | | | | | | |
| Spillback Cap Reductn | | 0 | | | 0 | | | | | | | |
| Storage Cap Reductn | | 0 | | | 0 | | | | | | | |
| Reduced v/c Ratio | | 0.27 | | | 0.19 | | | | | | | |

| Intersection Summary |
|---|
| Cycle Length: 60 |

| Lane Group | Ø1 | Ø3 | Ø5 |
|---|---|---|---|
| Lane Configurations | | | |
| Traffic Volume (vph) | | | |
| Future Volume (vph) | | | |
| Lane Util. Factor | | | |
| Ped Bike Factor | | | |
| Frt | | | |
| Flt Protected | | | |
| Satd. Flow (prot) | | | |
| Flt Permitted | | | |
| Satd. Flow (perm) | | | |
| Satd. Flow (RTOR) | | | |
| Lane Group Flow (vph) | | | |
| Turn Type | | | |
| Protected Phases | 1 | 3 | 5 |
| Permitted Phases | | | |
| Detector Phase | | | |
| Switch Phase | | | |
| Minimum Initial (s) | 1.0 | 1.0 | 1.0 |
| Minimum Split (s) | 3.0 | 3.0 | 3.0 |
| Total Split (s) | 3.0 | 3.0 | 3.0 |
| Total Split (%) | 5% | 5% | 5% |
| Yellow Time (s) | 2.0 | 2.0 | 2.0 |
| All-Red Time (s) | 0.0 | 0.0 | 0.0 |
| Lost Time Adjust (s) | | | |
| Total Lost Time (s) | | | |
| Lead/Lag | Lead | Lead | Lead |
| Lead-Lag Optimize? | Yes | Yes | Yes |
| Recall Mode | None | None | None |
| Act Effct Green (s) | | | |
| Actuated g/C Ratio | | | |
| v/c Ratio | | | |
| Control Delay | | | |
| Queue Delay | | | |
| Total Delay | | | |
| LOS | | | |
| Approach Delay | | | |
| Approach LOS | | | |
| Queue Length 50th (ft) | | | |
| Queue Length 95th (ft) | | | |
| Internal Link Dist (ft) | | | |
| Turn Bay Length (ft) | | | |
| Base Capacity (vph) | | | |
| Starvation Cap Reductn | | | |
| Spillback Cap Reductn | | | |
| Storage Cap Reductn | | | |
| Reduced v/c Ratio | | | |

| Intersection Summary |
|---|

| | |
|---|---|
| Actuated Cycle Length: 50.6 | |
| Natural Cycle: 55 | |
| Control Type: Semi Act-Uncoord | |
| Maximum v/c Ratio: 0.27 | |
| Intersection Signal Delay: 2.7 | Intersection LOS: A |
| Intersection Capacity Utilization 48.5% | ICU Level of Service A |
| Analysis Period (min) 15 | |

Splits and Phases: 14: Church Avenue/Church Street & Rosedale Avenue



| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 19 | 475 | 3 | 47 | 108 | 128 | 5 | 127 | 91 | 109 | 75 | 27 |
| Future Volume (vph) | 19 | 475 | 3 | 47 | 108 | 128 | 5 | 127 | 91 | 109 | 75 | 27 |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Ped Bike Factor | | 1.00 | | | 0.97 | | | 0.97 | | 0.95 | | |
| Frt | | 0.999 | | | 0.919 | | | 0.937 | | | | 0.850 |
| Flt Protected | | 0.998 | | 0.950 | | | 0.950 | | | 0.950 | | |
| Satd. Flow (prot) | 0 | 1842 | 0 | 1288 | 1523 | 0 | 1106 | 1469 | 0 | 1611 | 1609 | 1549 |
| Flt Permitted | | 0.981 | | 0.314 | | | 0.950 | | | 0.950 | | |
| Satd. Flow (perm) | 0 | 1809 | 0 | 426 | 1523 | 0 | 1106 | 1469 | 0 | 1530 | 1609 | 1549 |
| Satd. Flow (RTOR) | | | | | 52 | | | 31 | | | | 88 |
| Turn Type | Perm | NA | | Perm | NA | | Split | NA | | Split | NA | Perm |
| Protected Phases | | 2 | | | 6 | | 4 | 4 | | 8 | 8 | |
| Permitted Phases | 2 | | | 6 | | | | | | | | 8 |
| Detector Phase | 2 | 2 | | 6 | 6 | | 4 | 4 | | 8 | 8 | 8 |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 15.0 | 15.0 | | 15.0 | 15.0 | | 5.0 | 5.0 | | 5.0 | 5.0 | 5.0 |
| Minimum Split (s) | 27.0 | 27.0 | | 27.0 | 27.0 | | 11.0 | 11.0 | | 32.0 | 32.0 | 32.0 |
| Total Split (s) | 35.0 | 35.0 | | 35.0 | 35.0 | | 35.0 | 35.0 | | 42.0 | 42.0 | 42.0 |
| Total Split (%) | 31.3% | 31.3% | | 31.3% | 31.3% | | 31.3% | 31.3% | | 37.5% | 37.5% | 37.5% |
| Yellow Time (s) | 3.0 | 3.0 | | 3.0 | 3.0 | | 3.0 | 3.0 | | 3.0 | 3.0 | 3.0 |
| All-Red Time (s) | 3.0 | 3.0 | | 3.0 | 3.0 | | 3.0 | 3.0 | | 3.0 | 3.0 | 3.0 |
| Lost Time Adjust (s) | | -1.0 | | -1.0 | -1.0 | | -1.0 | -1.0 | | -1.0 | -1.0 | -1.0 |
| Total Lost Time (s) | | 5.0 | | 5.0 | 5.0 | | 5.0 | 5.0 | | 5.0 | 5.0 | 5.0 |
| Lead/Lag | | | | | | | | | | | | |
| Lead-Lag Optimize? | | | | | | | | | | | | |
| Recall Mode | Max | Max | | Max | Max | | None | None | | None | None | None |

| Intersection Summary |
|---|
| Cycle Length: 112 |
| Actuated Cycle Length: 77.9 |
| Natural Cycle: 90 |
| Control Type: Actuated-Uncoordinated |

Splits and Phases: 16: S New Street & Rosedale Avenue



| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (veh/h) | 19 | 475 | 3 | 47 | 108 | 128 | 5 | 127 | 91 | 109 | 75 | 27 |
| Future Volume (veh/h) | 19 | 475 | 3 | 47 | 108 | 128 | 5 | 127 | 91 | 109 | 75 | 27 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 0.99 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 0.93 | 1.00 | | 0.91 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach | | No | | | No | | | No | | | No | |
| Adj Sat Flow, veh/h/ln | 1822 | 1896 | 1911 | 1425 | 1724 | 1780 | 897 | 1445 | 1557 | 1655 | 1626 | 1779 |
| Adj Flow Rate, veh/h | 22 | 540 | 0 | 53 | 123 | 0 | 6 | 144 | 102 | 124 | 85 | 26 |
| Peak Hour Factor | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 |
| Percent Heavy Veh, % | 6 | 1 | 0 | 29 | 8 | 4 | 50 | 11 | 3 | 4 | 6 | 0 |
| Cap, veh/h | 63 | 716 | 0 | 252 | 671 | | 195 | 174 | 123 | 296 | 305 | 258 |
| Arrive On Green | 0.39 | 0.39 | 0.00 | 0.39 | 0.39 | 0.00 | 0.23 | 0.23 | 0.23 | 0.19 | 0.19 | 0.19 |
| Sat Flow, veh/h | 36 | 1841 | 0 | 659 | 1724 | 0 | 854 | 760 | 538 | 1576 | 1626 | 1375 |
| Grp Volume(v), veh/h | 562 | 0 | 0 | 53 | 123 | 0 | 6 | 0 | 246 | 124 | 85 | 26 |
| Grp Sat Flow(s),veh/h/ln | 1878 | 0 | 0 | 659 | 1724 | 0 | 854 | 0 | 1298 | 1576 | 1626 | 1375 |
| Q Serve(g_s), s | 5.0 | 0.0 | 0.0 | 0.0 | 3.6 | 0.0 | 0.4 | 0.0 | 13.9 | 5.3 | 3.5 | 1.2 |
| Cycle Q Clear(g_c), s | 20.0 | 0.0 | 0.0 | 11.0 | 3.6 | 0.0 | 0.4 | 0.0 | 13.9 | 5.3 | 3.5 | 1.2 |
| Prop In Lane | 0.04 | | 0.00 | 1.00 | | 0.00 | 1.00 | | 0.41 | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 779 | 0 | 0 | 252 | 671 | | 195 | 0 | 297 | 296 | 305 | 258 |
| V/C Ratio(X) | 0.72 | 0.00 | 0.00 | 0.21 | 0.18 | | 0.03 | 0.00 | 0.83 | 0.42 | 0.28 | 0.10 |
| Avail Cap(c_a), veh/h | 779 | 0 | 0 | 252 | 671 | | 332 | 0 | 505 | 756 | 780 | 660 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 0.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 20.5 | 0.0 | 0.0 | 17.7 | 15.5 | 0.0 | 23.1 | 0.0 | 28.3 | 27.6 | 26.8 | 25.9 |
| Incr Delay (d2), s/veh | 5.7 | 0.0 | 0.0 | 1.9 | 0.6 | 0.0 | 0.1 | 0.0 | 5.9 | 0.9 | 0.5 | 0.2 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(95%),veh/ln | 14.6 | 0.0 | 0.0 | 1.5 | 2.7 | 0.0 | 0.2 | 0.0 | 8.2 | 3.7 | 2.5 | 0.7 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 26.2 | 0.0 | 0.0 | 19.6 | 16.1 | 0.0 | 23.2 | 0.0 | 34.2 | 28.5 | 27.3 | 26.1 |
| LnGrp LOS | C | A | A | B | B | | C | A | C | C | C | C |
| Approach Vol, veh/h | | 562 | | | 176 | | | 252 | | | 235 | |
| Approach Delay, s/veh | | 26.2 | | | 17.2 | | | 33.9 | | | 27.8 | |
| Approach LOS | | C | | | B | | | C | | | C | |

| Timer - Assigned Phs | | 2 | | 4 | | 6 | | 8 | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Phs Duration (G+Y+Rc), s | | 35.0 | | 22.6 | | 35.0 | | 19.5 | | | | |
| Change Period (Y+Rc), s | | 6.0 | | 6.0 | | 6.0 | | 6.0 | | | | |
| Max Green Setting (Gmax), s | | 29.0 | | 29.0 | | 29.0 | | 36.0 | | | | |
| Max Q Clear Time (g_c+I1), s | | 0.0 | | 15.9 | | 0.0 | | 7.3 | | | | |
| Green Ext Time (p_c), s | | 0.0 | | 0.8 | | 0.0 | | 0.7 | | | | |

| Intersection Summary | | |
|---|---|---|
| HCM 6th Ctrl Delay | 26.8 | |
| HCM 6th LOS | C | |

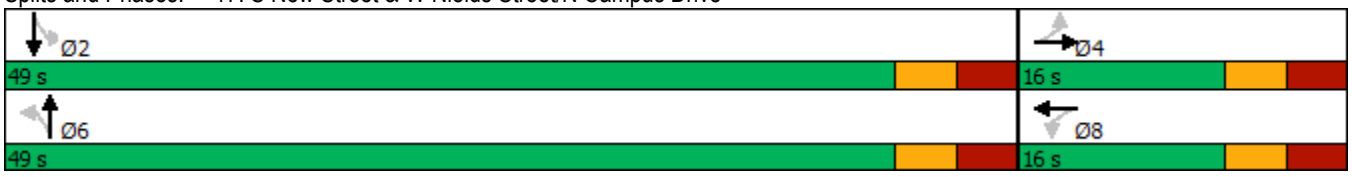
**Notes**

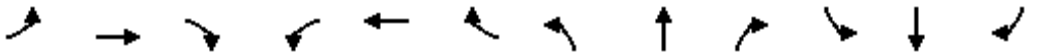
Unsignalized Delay for [WBR] is excluded from calculations of the approach delay and intersection delay.

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 11 | 11 | 36 | 51 | 0 | 14 | 31 | 170 | 104 | 47 | 133 | 9 |
| Future Volume (vph) | 11 | 11 | 36 | 51 | 0 | 14 | 31 | 170 | 104 | 47 | 133 | 9 |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Ped Bike Factor | | 0.95 | | | 0.96 | | 0.99 | 0.98 | | | 0.99 | |
| Frt | | 0.915 | | | 0.971 | | | 0.943 | | | 0.993 | |
| Flt Protected | | 0.991 | | | 0.962 | | 0.950 | | | | 0.988 | |
| Satd. Flow (prot) | 0 | 1603 | 0 | 0 | 1445 | 0 | 1645 | 1588 | 0 | 0 | 1979 | 0 |
| Flt Permitted | | 0.927 | | | 0.809 | | 0.605 | | | | 0.855 | |
| Satd. Flow (perm) | 0 | 1498 | 0 | 0 | 1168 | 0 | 1042 | 1588 | 0 | 0 | 1704 | 0 |
| Satd. Flow (RTOR) | | | | | 50 | | | 105 | | | 9 | |
| Turn Type | Perm | NA | | Perm | NA | | Perm | NA | | Perm | NA | |
| Protected Phases | | 4 | | | 8 | | | 6 | | | 2 | |
| Permitted Phases | 4 | | | 8 | | | 6 | | | 2 | | |
| Detector Phase | 4 | 4 | | 8 | 8 | | 6 | 6 | | 2 | 2 | |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 3.0 | 3.0 | | 3.0 | 3.0 | | 3.0 | 3.0 | | 3.0 | 3.0 | |
| Minimum Split (s) | 25.0 | 25.0 | | 25.0 | 25.0 | | 23.0 | 23.0 | | 23.0 | 23.0 | |
| Total Split (s) | 16.0 | 16.0 | | 16.0 | 16.0 | | 49.0 | 49.0 | | 49.0 | 49.0 | |
| Total Split (%) | 24.6% | 24.6% | | 24.6% | 24.6% | | 75.4% | 75.4% | | 75.4% | 75.4% | |
| Yellow Time (s) | 3.0 | 3.0 | | 3.0 | 3.0 | | 3.0 | 3.0 | | 3.0 | 3.0 | |
| All-Red Time (s) | 3.0 | 3.0 | | 3.0 | 3.0 | | 3.0 | 3.0 | | 3.0 | 3.0 | |
| Lost Time Adjust (s) | | -1.0 | | | -1.0 | | -1.0 | -1.0 | | | -1.0 | |
| Total Lost Time (s) | | 5.0 | | | 5.0 | | 5.0 | 5.0 | | | 5.0 | |
| Lead/Lag | | | | | | | | | | | | |
| Lead-Lag Optimize? | | | | | | | | | | | | |
| Recall Mode | None | None | | None | None | | Max | Max | | Max | Max | |

| Intersection Summary |
|---|
| Cycle Length: 65 |
| Actuated Cycle Length: 68.8 |
| Natural Cycle: 50 |
| Control Type: Actuated-Uncoordinated |

Splits and Phases: 17: S New Street & W Nields Street/N Campus Drive





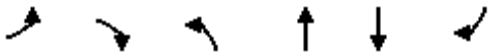
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (veh/h) | 11 | 11 | 36 | 51 | 0 | 14 | 31 | 170 | 104 | 47 | 133 | 9 |
| Future Volume (veh/h) | 11 | 11 | 36 | 51 | 0 | 14 | 31 | 170 | 104 | 47 | 133 | 9 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 0.90 | | 0.87 | 0.90 | | 0.87 | 0.99 | | 0.99 | 1.00 | | 0.99 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach | | No | | | No | | | No | | | No | |
| Adj Sat Flow, veh/h/ln | 1988 | 1988 | 1944 | 1627 | 1912 | 1798 | 1794 | 1647 | 1793 | 2066 | 1992 | 2066 |
| Adj Flow Rate, veh/h | 14 | 14 | 47 | 67 | 0 | 10 | 41 | 224 | 124 | 62 | 175 | 12 |
| Peak Hour Factor | 0.76 | 0.76 | 0.76 | 0.76 | 0.76 | 0.76 | 0.76 | 0.76 | 0.76 | 0.76 | 0.76 | 0.76 |
| Percent Heavy Veh, % | 0 | 0 | 3 | 20 | 0 | 8 | 0 | 15 | 5 | 0 | 5 | 0 |
| Cap, veh/h | 92 | 50 | 123 | 255 | 8 | 23 | 951 | 706 | 391 | 324 | 892 | 58 |
| Arrive On Green | 0.13 | 0.13 | 0.13 | 0.13 | 0.00 | 0.13 | 0.71 | 0.71 | 0.71 | 0.71 | 0.71 | 0.71 |
| Sat Flow, veh/h | 182 | 399 | 975 | 1160 | 61 | 182 | 1139 | 992 | 549 | 353 | 1253 | 81 |
| Grp Volume(v), veh/h | 75 | 0 | 0 | 77 | 0 | 0 | 41 | 0 | 348 | 249 | 0 | 0 |
| Grp Sat Flow(s),veh/h/ln | 1556 | 0 | 0 | 1404 | 0 | 0 | 1139 | 0 | 1541 | 1687 | 0 | 0 |
| Q Serve(g_s), s | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 5.2 | 0.0 | 0.0 | 0.0 |
| Cycle Q Clear(g_c), s | 2.6 | 0.0 | 0.0 | 2.6 | 0.0 | 0.0 | 0.4 | 0.0 | 5.2 | 2.6 | 0.0 | 0.0 |
| Prop In Lane | 0.19 | | 0.63 | 0.87 | | 0.13 | 1.00 | | 0.36 | 0.25 | | 0.05 |
| Lane Grp Cap(c), veh/h | 265 | 0 | 0 | 286 | 0 | 0 | 951 | 0 | 1097 | 1274 | 0 | 0 |
| V/C Ratio(X) | 0.28 | 0.00 | 0.00 | 0.27 | 0.00 | 0.00 | 0.04 | 0.00 | 0.32 | 0.20 | 0.00 | 0.00 |
| Avail Cap(c_a), veh/h | 344 | 0 | 0 | 351 | 0 | 0 | 951 | 0 | 1097 | 1274 | 0 | 0 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 0.00 |
| Uniform Delay (d), s/veh | 24.7 | 0.0 | 0.0 | 24.7 | 0.0 | 0.0 | 2.6 | 0.0 | 3.3 | 2.9 | 0.0 | 0.0 |
| Incr Delay (d2), s/veh | 0.6 | 0.0 | 0.0 | 0.5 | 0.0 | 0.0 | 0.1 | 0.0 | 0.8 | 0.3 | 0.0 | 0.0 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(95%),veh/ln | 1.8 | 0.0 | 0.0 | 1.9 | 0.0 | 0.0 | 0.2 | 0.0 | 2.2 | 1.4 | 0.0 | 0.0 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 25.3 | 0.0 | 0.0 | 25.2 | 0.0 | 0.0 | 2.7 | 0.0 | 4.1 | 3.3 | 0.0 | 0.0 |
| LnGrp LOS | C | A | A | C | A | A | A | A | A | A | A | A |
| Approach Vol, veh/h | | 75 | | | 77 | | | 389 | | | 249 | |
| Approach Delay, s/veh | | 25.3 | | | 25.2 | | | 3.9 | | | 3.3 | |
| Approach LOS | | C | | | C | | | A | | | A | |

| Timer - Assigned Phs | | 2 | | 4 | | 6 | | 8 | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Phs Duration (G+Y+Rc), s | | 49.0 | | 12.8 | | 49.0 | | 12.8 | | | | |
| Change Period (Y+Rc), s | | 6.0 | | 6.0 | | 6.0 | | 6.0 | | | | |
| Max Green Setting (Gmax), s | | 43.0 | | 10.0 | | 43.0 | | 10.0 | | | | |
| Max Q Clear Time (g_c+I1), s | | 0.0 | | 4.6 | | 0.0 | | 4.6 | | | | |
| Green Ext Time (p_c), s | | 0.0 | | 0.1 | | 0.0 | | 0.1 | | | | |

| Intersection Summary | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| HCM 6th Ctrl Delay | | | 7.8 | | | | | | | | | |
| HCM 6th LOS | | | A | | | | | | | | | |

**Notes**

User approved pedestrian interval to be less than phase max green.



| Lane Group | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (vph) | 8 | 1 | 2 | 245 | 162 | 9 |
| Future Volume (vph) | 8 | 1 | 2 | 245 | 162 | 9 |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Ped Bike Factor | | | | | | |
| Frt | 0.989 | | | | 0.993 | |
| Flt Protected | 0.956 | | | | | |
| Satd. Flow (prot) | 1433 | 0 | 0 | 1786 | 1664 | 0 |
| Flt Permitted | 0.956 | | | | | |
| Satd. Flow (perm) | 1433 | 0 | 0 | 1786 | 1664 | 0 |
| Sign Control | Stop | | | Stop | Stop | |

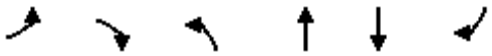
| Intersection Summary |
|---|
| Control Type: Unsignalized |

| Intersection | |
|---|---|
| Intersection Delay, s/veh | 9.4 |
| Intersection LOS | A |

| Movement | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 8 | 1 | 2 | 245 | 162 | 9 |
| Future Vol, veh/h | 8 | 1 | 2 | 245 | 162 | 9 |
| Peak Hour Factor | 0.76 | 0.76 | 0.76 | 0.76 | 0.76 | 0.76 |
| Heavy Vehicles, % | 29 | 0 | 0 | 7 | 12 | 38 |
| Mvmt Flow | 11 | 1 | 3 | 322 | 213 | 12 |
| Number of Lanes | 1 | 0 | 0 | 1 | 1 | 0 |

| Approach | EB | NB | SB |
|---|---|---|---|
| Opposing Approach | | SB | NB |
| Opposing Lanes | 0 | 1 | 1 |
| Conflicting Approach Left | SB | EB | |
| Conflicting Lanes Left | 1 | 1 | 0 |
| Conflicting Approach Right | NB | | EB |
| Conflicting Lanes Right | 1 | 0 | 1 |
| HCM Control Delay | 8.8 | 9.6 | 9.1 |
| HCM LOS | A | A | A |

| Lane | NBLn1 | EBLn1 | SBLn1 |
|---|---|---|---|
| Vol Left, % | 1% | 89% | 0% |
| Vol Thru, % | 99% | 0% | 95% |
| Vol Right, % | 0% | 11% | 5% |
| Sign Control | Stop | Stop | Stop |
| Traffic Vol by Lane | 247 | 9 | 171 |
| LT Vol | 2 | 8 | 0 |
| Through Vol | 245 | 0 | 162 |
| RT Vol | 0 | 1 | 9 |
| Lane Flow Rate | 325 | 12 | 225 |
| Geometry Grp | 1 | 1 | 1 |
| Degree of Util (X) | 0.369 | 0.019 | 0.271 |
| Departure Headway (Hd) | 4.091 | 5.692 | 4.336 |
| Convergence, Y/N | Yes | Yes | Yes |
| Cap | 868 | 633 | 817 |
| Service Time | 2.167 | 3.692 | 2.421 |
| HCM Lane V/C Ratio | 0.374 | 0.019 | 0.275 |
| HCM Control Delay | 9.6 | 8.8 | 9.1 |
| HCM Lane LOS | A | A | A |
| HCM 95th-tile Q | 1.7 | 0.1 | 1.1 |



| Lane Group | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (vph) | 0 | 2 | 0 | 250 | 158 | 0 |
| Future Volume (vph) | 0 | 2 | 0 | 250 | 158 | 0 |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Frt | 0.865 | | | | | |
| Flt Protected | | | | | | |
| Satd. Flow (prot) | 1635 | 0 | 0 | 1726 | 1698 | 0 |
| Flt Permitted | | | | | | |
| Satd. Flow (perm) | 1635 | 0 | 0 | 1726 | 1698 | 0 |
| Sign Control | Stop | | | Free | Free | |

| Intersection Summary |
|---|
| Control Type: Unsignalized |

| Intersection | |
|---|---|
| Int Delay, s/veh | 0 |

| Movement | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 0 | 2 | 0 | 250 | 158 | 0 |
| Future Vol, veh/h | 0 | 2 | 0 | 250 | 158 | 0 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Free | Free | Free | Free |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | 0 | - | - | - | - | - |
| Veh in Median Storage, # | 0 | - | - | 0 | 0 | - |
| Grade, % | 1 | - | - | 2 | -2 | - |
| Peak Hour Factor | 79 | 79 | 79 | 79 | 79 | 79 |
| Heavy Vehicles, % | 0 | 0 | 0 | 9 | 13 | 0 |
| Mvmt Flow | 0 | 3 | 0 | 316 | 200 | 0 |

| Major/Minor | Minor2 | | Major1 | | Major2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 516 | 200 | 200 | 0 | - | 0 |
| Stage 1 | 200 | - | - | - | - | - |
| Stage 2 | 316 | - | - | - | - | - |
| Critical Hdwy | 6.6 | 6.3 | 4.3 | - | - | - |
| Critical Hdwy Stg 1 | 5.6 | - | - | - | - | - |
| Critical Hdwy Stg 2 | 5.6 | - | - | - | - | - |
| Follow-up Hdwy | 3 | 3.1 | 3 | - | - | - |
| Pot Cap-1 Maneuver | 573 | 891 | 1026 | - | - | - |
| Stage 1 | 954 | - | - | - | - | - |
| Stage 2 | 835 | - | - | - | - | - |
| Platoon blocked, % | | | | - | - | - |
| Mov Cap-1 Maneuver | 573 | 891 | 1026 | - | - | - |
| Mov Cap-2 Maneuver | 573 | - | - | - | - | - |
| Stage 1 | 954 | - | - | - | - | - |
| Stage 2 | 835 | - | - | - | - | - |

| Approach | EB | NB | SB |
|---|---|---|---|
| HCM Control Delay, s | 9.1 | 0 | 0 |
| HCM LOS | A | | |

| Minor Lane/Major Mvmt | NBL | NBT | EBLn1 | SBT | SBR |
|---|---|---|---|---|---|
| Capacity (veh/h) | 1026 | - | 891 | - | - |
| HCM Lane V/C Ratio | - | - | 0.003 | - | - |
| HCM Control Delay (s) | 0 | - | 9.1 | - | - |
| HCM Lane LOS | A | - | A | - | - |
| HCM 95th %tile Q(veh) | 0 | - | 0 | - | - |



| Lane Group | WBL | WBR | NBT | NBR | SBL | SBT |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (vph) | 12 | 28 | 225 | 17 | 33 | 114 |
| Future Volume (vph) | 12 | 28 | 225 | 17 | 33 | 114 |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Ped Bike Factor | | | | | | |
| Frt | | 0.850 | 0.990 | | | |
| Flt Protected | 0.950 | | | | | 0.989 |
| Satd. Flow (prot) | 1038 | 1148 | 1696 | 0 | 0 | 1685 |
| Flt Permitted | 0.950 | | | | | 0.989 |
| Satd. Flow (perm) | 1038 | 1148 | 1696 | 0 | 0 | 1685 |
| Sign Control | Stop | | Free | | | Free |

## Intersection Summary

Control Type: Unsignalized

| Intersection | |
|---|---|
| Int Delay, s/veh | 1.8 |

| Movement | WBL | WBR | NBT | NBR | SBL | SBT |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 12 | 28 | 225 | 17 | 33 | 114 |
| Future Vol, veh/h | 12 | 28 | 225 | 17 | 33 | 114 |
| Conflicting Peds, #/hr | 12 | 0 | 0 | 9 | 9 | 0 |
| Sign Control | Stop | Stop | Free | Free | Free | Free |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | 0 | 0 | - | - | - | - |
| Veh in Median Storage, # | 0 | - | 0 | - | - | 0 |
| Grade, % | 1 | - | 1 | - | - | -3 |
| Peak Hour Factor | 79 | 79 | 79 | 79 | 79 | 79 |
| Heavy Vehicles, % | 73 | 40 | 5 | 80 | 24 | 10 |
| Mvmt Flow | 15 | 35 | 285 | 22 | 42 | 144 |

| Major/Minor | Minor1 | | Major1 | | Major2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 545 | 305 | 0 | 0 | 316 | 0 |
| Stage 1 | 305 | - | - | - | - | - |
| Stage 2 | 240 | - | - | - | - | - |
| Critical Hdwy | 7.33 | 6.7 | - | - | 4.5 | - |
| Critical Hdwy Stg 1 | 6.33 | - | - | - | - | - |
| Critical Hdwy Stg 2 | 6.33 | - | - | - | - | - |
| Follow-up Hdwy | 3.7 | 3.5 | - | - | 3.2 | - |
| Pot Cap-1 Maneuver | 419 | 674 | - | - | 869 | - |
| Stage 1 | 663 | - | - | - | - | - |
| Stage 2 | 720 | - | - | - | - | - |
| Platoon blocked, % | | | - | - | | - |
| Mov Cap-1 Maneuver | 389 | 668 | - | - | 862 | - |
| Mov Cap-2 Maneuver | 389 | - | - | - | - | - |
| Stage 1 | 657 | - | - | - | - | - |
| Stage 2 | 674 | - | - | - | - | - |

| Approach | WB | NB | SB |
|---|---|---|---|
| HCM Control Delay, s | 11.9 | 0 | 2.1 |
| HCM LOS | B | | |

| Minor Lane/Major Mvmt | NBT | NBR | WBLn1 | WBLn2 | SBL | SBT |
|---|---|---|---|---|---|---|
| Capacity (veh/h) | - | - | 389 | 668 | 862 | - |
| HCM Lane V/C Ratio | - | - | 0.039 | 0.053 | 0.048 | - |
| HCM Control Delay (s) | - | - | 14.6 | 10.7 | 9.4 | 0 |
| HCM Lane LOS | - | - | B | B | A | A |
| HCM 95th %tile Q(veh) | - | - | 0.1 | 0.2 | 0.2 | - |

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 77 | 10 | 11 | 0 | 8 | 5 | 8 | 150 | 1 | 3 | 90 | 28 |
| Future Volume (vph) | 77 | 10 | 11 | 0 | 8 | 5 | 8 | 150 | 1 | 3 | 90 | 28 |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Ped Bike Factor | | | | | | | | | | | | |
| Frt | | 0.919 | | | 0.944 | | | 0.999 | | | 0.968 | |
| Flt Protected | 0.950 | | | | | | | 0.997 | | | 0.999 | |
| Satd. Flow (prot) | 1649 | 1201 | 0 | 1928 | 1342 | 0 | 0 | 1789 | 0 | 0 | 1634 | 0 |
| Flt Permitted | 0.950 | | | | | | | 0.997 | | | 0.999 | |
| Satd. Flow (perm) | 1649 | 1201 | 0 | 1928 | 1342 | 0 | 0 | 1789 | 0 | 0 | 1634 | 0 |
| Sign Control | | Stop | | | Stop | | | Free | | | Free | |

Intersection Summary

Control Type: Unsignalized

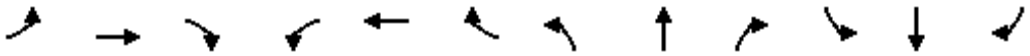
| Intersection | |
|---|---|
| Int Delay, s/veh | 3.4 |

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Vol, veh/h | 77 | 10 | 11 | 0 | 8 | 5 | 8 | 150 | 1 | 3 | 90 | 28 |
| Future Vol, veh/h | 77 | 10 | 11 | 0 | 8 | 5 | 8 | 150 | 1 | 3 | 90 | 28 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 1 |
| Sign Control | Stop | Stop | Stop | Stop | Stop | Stop | Free | Free | Free | Free | Free | Free |
| RT Channelized | - | - | None | - | - | None | - | - | None | - | - | None |
| Storage Length | 0 | - | - | 0 | - | - | - | - | - | - | - | - |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | -1 | - | - | -3 | - | - | 1 | - | - | 0 | - |
| Peak Hour Factor | 81 | 81 | 81 | 81 | 81 | 81 | 81 | 81 | 81 | 81 | 81 | 81 |
| Heavy Vehicles, % | 10 | 100 | 0 | 0 | 57 | 0 | 29 | 4 | 0 | 33 | 3 | 40 |
| Mvmt Flow | 95 | 12 | 14 | 0 | 10 | 6 | 10 | 185 | 1 | 4 | 111 | 35 |

| Major/Minor | Minor2 | | | Minor1 | | | Major1 | | | Major2 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Conflicting Flow All | 352 | 344 | 130 | 356 | 361 | 186 | 147 | 0 | 0 | 186 | 0 | 0 |
| Stage 1 | 138 | 138 | - | 206 | 206 | - | - | - | - | - | - | - |
| Stage 2 | 214 | 206 | - | 150 | 155 | - | - | - | - | - | - | - |
| Critical Hdwy | 7 | 7.3 | 6.1 | 6.5 | 6.47 | 5.9 | 4.6 | - | - | 4.6 | - | - |
| Critical Hdwy Stg 1 | 6 | 6.3 | - | 5.5 | 5.47 | - | - | - | - | - | - | - |
| Critical Hdwy Stg 2 | 6 | 6.3 | - | 5.5 | 5.47 | - | - | - | - | - | - | - |
| Follow-up Hdwy | 3.1 | 4.9 | 3.1 | 3 | 4.513 | 3.1 | 3.3 | - | - | 3.3 | - | - |
| Pot Cap-1 Maneuver | 679 | 458 | 985 | 729 | 518 | 927 | 966 | - | - | 936 | - | - |
| Stage 1 | 979 | 633 | - | 953 | 662 | - | - | - | - | - | - | - |
| Stage 2 | 890 | 587 | - | 1015 | 694 | - | - | - | - | - | - | - |
| Platoon blocked, % | | | | | | | | - | - | | - | - |
| Mov Cap-1 Maneuver | 655 | 450 | 984 | 695 | 509 | 927 | 965 | - | - | 936 | - | - |
| Mov Cap-2 Maneuver | 655 | 450 | - | 695 | 509 | - | - | - | - | - | - | - |
| Stage 1 | 966 | 629 | - | 942 | 654 | - | - | - | - | - | - | - |
| Stage 2 | 860 | 580 | - | 976 | 690 | - | - | - | - | - | - | - |

| Approach | EB | WB | NB | SB |
|---|---|---|---|---|
| HCM Control Delay, s | 11.3 | 11 | 0.4 | 0.2 |
| HCM LOS | B | B | | |

| Minor Lane/Major Mvmt | NBL | NBT | NBR | EBLn1 | EBLn2 | WBLn1 | WBLn2 | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|
| Capacity (veh/h) | 965 | - | - | 655 | 629 | - | 616 | 936 | - | - |
| HCM Lane V/C Ratio | 0.01 | - | - | 0.145 | 0.041 | - | 0.026 | 0.004 | - | - |
| HCM Control Delay (s) | 8.8 | 0 | - | 11.4 | 11 | 0 | 11 | 8.9 | 0 | - |
| HCM Lane LOS | A | A | - | B | B | A | B | A | A | - |
| HCM 95th %tile Q(veh) | 0 | - | - | 0.5 | 0.1 | - | 0.1 | 0 | - | - |



| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 17 | 1 | 8 | 6 | 1 | 5 | 14 | 143 | 8 | 6 | 75 | 22 |
| Future Volume (vph) | 17 | 1 | 8 | 6 | 1 | 5 | 14 | 143 | 8 | 6 | 75 | 22 |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Frt | | 0.959 | | | 0.946 | | | 0.994 | | | 0.971 | |
| Flt Protected | | 0.968 | | | 0.974 | | | 0.996 | | | 0.997 | |
| Satd. Flow (prot) | 0 | 1755 | 0 | 0 | 1375 | 0 | 0 | 1806 | 0 | 0 | 1763 | 0 |
| Flt Permitted | | 0.968 | | | 0.974 | | | 0.996 | | | 0.997 | |
| Satd. Flow (perm) | 0 | 1755 | 0 | 0 | 1375 | 0 | 0 | 1806 | 0 | 0 | 1763 | 0 |
| Sign Control | | Stop | | | Stop | | | Stop | | | Stop | |

| Intersection Summary |
|---|
| Control Type: Unsignalized |

| Intersection | |
|---|---|
| Intersection Delay, s/veh | 8.1 |
| Intersection LOS | A |

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Vol, veh/h | 17 | 1 | 8 | 6 | 1 | 5 | 14 | 143 | 8 | 6 | 75 | 22 |
| Future Vol, veh/h | 17 | 1 | 8 | 6 | 1 | 5 | 14 | 143 | 8 | 6 | 75 | 22 |
| Peak Hour Factor | 0.79 | 0.79 | 0.79 | 0.79 | 0.79 | 0.79 | 0.79 | 0.79 | 0.79 | 0.79 | 0.79 | 0.79 |
| Heavy Vehicles, % | 0 | 0 | 0 | 0 | 100 | 50 | 0 | 4 | 14 | 0 | 6 | 0 |
| Mvmt Flow | 22 | 1 | 10 | 8 | 1 | 6 | 18 | 181 | 10 | 8 | 95 | 28 |
| Number of Lanes | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 0 |

| Approach | EB | WB | NB | SB |
|---|---|---|---|---|
| Opposing Approach | WB | EB | SB | NB |
| Opposing Lanes | 1 | 1 | 1 | 1 |
| Conflicting Approach Left | SB | NB | EB | WB |
| Conflicting Lanes Left | 1 | 1 | 1 | 1 |
| Conflicting Approach Right | NB | SB | WB | EB |
| Conflicting Lanes Right | 1 | 1 | 1 | 1 |
| HCM Control Delay | 7.8 | 7.6 | 8.4 | 7.8 |
| HCM LOS | A | A | A | A |

| Lane | NBLn1 | EBLn1 | WBLn1 | SBLn1 |
|---|---|---|---|---|
| Vol Left, % | 8% | 65% | 50% | 6% |
| Vol Thru, % | 87% | 4% | 8% | 73% |
| Vol Right, % | 5% | 31% | 42% | 21% |
| Sign Control | Stop | Stop | Stop | Stop |
| Traffic Vol by Lane | 165 | 26 | 12 | 103 |
| LT Vol | 14 | 17 | 6 | 6 |
| Through Vol | 143 | 1 | 1 | 75 |
| RT Vol | 8 | 8 | 5 | 22 |
| Lane Flow Rate | 209 | 33 | 15 | 130 |
| Geometry Grp | 1 | 1 | 1 | 1 |
| Degree of Util (X) | 0.236 | 0.042 | 0.019 | 0.146 |
| Departure Headway (Hd) | 4.071 | 4.589 | 4.516 | 4.026 |
| Convergence, Y/N | Yes | Yes | Yes | Yes |
| Cap | 875 | 785 | 797 | 879 |
| Service Time | 2.132 | 2.59 | 2.517 | 2.105 |
| HCM Lane V/C Ratio | 0.239 | 0.042 | 0.019 | 0.148 |
| HCM Control Delay | 8.4 | 7.8 | 7.6 | 7.8 |
| HCM Lane LOS | A | A | A | A |
| HCM 95th-tile Q | 0.9 | 0.1 | 0.1 | 0.5 |

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 17 | 10 | 37 | 1 | 10 | 18 | 162 | 272 | 2 | 26 | 302 | 15 |
| Future Volume (vph) | 17 | 10 | 37 | 1 | 10 | 18 | 162 | 272 | 2 | 26 | 302 | 15 |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Ped Bike Factor | | | | | | | | | | | | |
| Frt | | | 0.850 | | 0.917 | | | 0.999 | | | | 0.850 |
| Flt Protected | | 0.970 | | | 0.998 | | 0.950 | | | 0.950 | | |
| Satd. Flow (prot) | 0 | 1825 | 1355 | 0 | 1669 | 0 | 1814 | 1817 | 0 | 1727 | 1783 | 1607 |
| Flt Permitted | | 0.970 | | | 0.998 | | 0.950 | | | 0.950 | | |
| Satd. Flow (perm) | 0 | 1825 | 1355 | 0 | 1669 | 0 | 1814 | 1817 | 0 | 1727 | 1783 | 1607 |
| Sign Control | | Stop | | | Stop | | | Free | | | Free | |

Intersection Summary

Control Type: Unsignalized

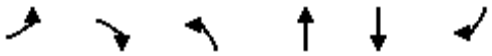
| Intersection | |
|---|---|
| Int Delay, s/veh | 4.1 |

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Vol, veh/h | 17 | 10 | 37 | 1 | 10 | 18 | 162 | 272 | 2 | 26 | 302 | 15 |
| Future Vol, veh/h | 17 | 10 | 37 | 1 | 10 | 18 | 162 | 272 | 2 | 26 | 302 | 15 |
| Conflicting Peds, #/hr | 0 | 0 | 11 | 11 | 0 | 0 | 2 | 0 | 7 | 7 | 0 | 2 |
| Sign Control | Stop | Stop | Stop | Stop | Stop | Stop | Free | Free | Free | Free | Free | Free |
| RT Channelized | - | - | None | - | - | None | - | - | None | - | - | None |
| Storage Length | - | - | 65 | - | - | - | 75 | - | - | 160 | - | 100 |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 2 | - | - | 1 | - | - | -1 | - | - | 1 | - |
| Peak Hour Factor | 94 | 94 | 94 | 94 | 94 | 94 | 94 | 94 | 94 | 94 | 94 | 94 |
| Heavy Vehicles, % | 0 | 0 | 18 | 0 | 0 | 6 | 0 | 5 | 0 | 4 | 6 | 0 |
| Mvmt Flow | 18 | 11 | 39 | 1 | 11 | 19 | 172 | 289 | 2 | 28 | 321 | 16 |

| Major/Minor | Minor2 | | | Minor1 | | | Major1 | | | Major2 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Conflicting Flow All | 1028 | 1021 | 334 | 1062 | 1036 | 297 | 339 | 0 | 0 | 298 | 0 | 0 |
| Stage 1 | 379 | 379 | - | 641 | 641 | - | - | - | - | - | - | - |
| Stage 2 | 649 | 642 | - | 421 | 395 | - | - | - | - | - | - | - |
| Critical Hdwy | 7.5 | 6.9 | 6.58 | 7.3 | 6.7 | 6.36 | 4.3 | - | - | 4.3 | - | - |
| Critical Hdwy Stg 1 | 6.5 | 5.9 | - | 6.3 | 5.7 | - | - | - | - | - | - | - |
| Critical Hdwy Stg 2 | 6.5 | 5.9 | - | 6.3 | 5.7 | - | - | - | - | - | - | - |
| Follow-up Hdwy | 3 | 4 | 3.3 | 3 | 4 | 3.2 | 3 | - | - | 3 | - | - |
| Pot Cap-1 Maneuver | 210 | 213 | 688 | 210 | 220 | 757 | 919 | - | - | 949 | - | - |
| Stage 1 | 706 | 593 | - | 504 | 456 | - | - | - | - | - | - | - |
| Stage 2 | 481 | 440 | - | 681 | 595 | - | - | - | - | - | - | - |
| Platoon blocked, % | | | | | | | | - | - | | - | - |
| Mov Cap-1 Maneuver | 163 | 166 | 679 | 155 | 172 | 752 | 917 | - | - | 943 | - | - |
| Mov Cap-2 Maneuver | 163 | 166 | - | 155 | 172 | - | - | - | - | - | - | - |
| Stage 1 | 573 | 574 | - | 407 | 368 | - | - | - | - | - | - | - |
| Stage 2 | 370 | 355 | - | 605 | 576 | - | - | - | - | - | - | - |

| Approach | EB | WB | NB | SB |
|---|---|---|---|---|
| HCM Control Delay, s | 19.5 | 17.1 | 3.7 | 0.7 |
| HCM LOS | C | C | | |

| Minor Lane/Major Mvmt | NBL | NBT | NBR | EBLn1 | EBLn2 | WBLn1 | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|
| Capacity (veh/h) | 917 | - | - | 164 | 679 | 328 | 943 | - | - |
| HCM Lane V/C Ratio | 0.188 | - | - | 0.175 | 0.058 | 0.094 | 0.029 | - | - |
| HCM Control Delay (s) | 9.8 | - | - | 31.6 | 10.6 | 17.1 | 8.9 | - | - |
| HCM Lane LOS | A | - | - | D | B | C | A | - | - |
| HCM 95th %tile Q(veh) | 0.7 | - | - | 0.6 | 0.2 | 0.3 | 0.1 | - | - |



| Lane Group | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (vph) | 0 | 5 | 18 | 508 | 299 | 0 |
| Future Volume (vph) | 0 | 5 | 18 | 508 | 299 | 0 |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Ped Bike Factor | | | | | | |
| Frt | 0.865 | | | | | |
| Flt Protected | | | 0.950 | | | |
| Satd. Flow (prot) | 1652 | 0 | 1605 | 1854 | 1792 | 0 |
| Flt Permitted | | | 0.950 | | | |
| Satd. Flow (perm) | 1652 | 0 | 1605 | 1854 | 1792 | 0 |
| Sign Control | Stop | | | Free | Free | |

Intersection Summary

Control Type: Unsignalized

| Intersection | |
|---|---|
| Int Delay, s/veh | 0.2 |

| Movement | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 0 | 5 | 18 | 508 | 299 | 0 |
| Future Vol, veh/h | 0 | 5 | 18 | 508 | 299 | 0 |
| Conflicting Peds, #/hr | 0 | 0 | 1 | 0 | 0 | 1 |
| Sign Control | Stop | Stop | Free | Free | Free | Free |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | 0 | - | 25 | - | - | - |
| Veh in Median Storage, # | 0 | - | - | 0 | 0 | - |
| Grade, % | -1 | - | - | -1 | 0 | - |
| Peak Hour Factor | 90 | 90 | 90 | 90 | 90 | 90 |
| Heavy Vehicles, % | 0 | 0 | 13 | 3 | 6 | 0 |
| Mvmt Flow | 0 | 6 | 20 | 564 | 332 | 0 |

| Major/Minor | Minor2 | | Major1 | | Major2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 937 | 333 | 333 | 0 | - | 0 |
| Stage 1 | 333 | - | - | - | - | - |
| Stage 2 | 604 | - | - | - | - | - |
| Critical Hdwy | 6.2 | 6.1 | 4.4 | - | - | - |
| Critical Hdwy Stg 1 | 5.2 | - | - | - | - | - |
| Critical Hdwy Stg 2 | 5.2 | - | - | - | - | - |
| Follow-up Hdwy | 3 | 3.1 | 3.1 | - | - | - |
| Pot Cap-1 Maneuver | 344 | 760 | 889 | - | - | - |
| Stage 1 | 849 | - | - | - | - | - |
| Stage 2 | 638 | - | - | - | - | - |
| Platoon blocked, % | | | | - | - | - |
| Mov Cap-1 Maneuver | 335 | 759 | 888 | - | - | - |
| Mov Cap-2 Maneuver | 477 | - | - | - | - | - |
| Stage 1 | 829 | - | - | - | - | - |
| Stage 2 | 637 | - | - | - | - | - |

| Approach | EB | NB | SB |
|---|---|---|---|
| HCM Control Delay, s | 9.8 | 0.3 | 0 |
| HCM LOS | A | | |

| Minor Lane/Major Mvmt | NBL | NBT | EBLn1 | SBT | SBR |
|---|---|---|---|---|---|
| Capacity (veh/h) | 888 | - | 759 | - | - |
| HCM Lane V/C Ratio | 0.023 | - | 0.007 | - | - |
| HCM Control Delay (s) | 9.1 | - | 9.8 | - | - |
| HCM Lane LOS | A | - | A | - | - |
| HCM 95th %tile Q(veh) | 0.1 | - | 0 | - | - |



| Lane Group | WBL | WBR | NBT | NBR | SBL | SBT |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (vph) | 19 | 36 | 568 | 91 | 115 | 493 |
| Future Volume (vph) | 19 | 36 | 568 | 91 | 115 | 493 |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Ped Bike Factor | | | | | | |
| Frt | | 0.850 | | 0.850 | | |
| Flt Protected | 0.950 | | | | 0.950 | |
| Satd. Flow (prot) | 1796 | 1516 | 1863 | 1599 | 1796 | 1836 |
| Flt Permitted | 0.950 | | | | 0.950 | |
| Satd. Flow (perm) | 1796 | 1516 | 1863 | 1599 | 1796 | 1836 |
| Sign Control | Stop | | Free | | | Free |

## Intersection Summary

Control Type: Unsignalized

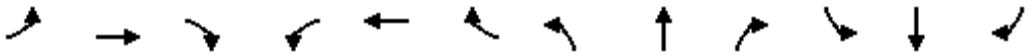
| Intersection | |
|---|---|
| Int Delay, s/veh | 1.6 |

| Movement | WBL | WBR | NBT | NBR | SBL | SBT |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 19 | 36 | 568 | 91 | 115 | 493 |
| Future Vol, veh/h | 19 | 36 | 568 | 91 | 115 | 493 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 1 | 1 | 0 |
| Sign Control | Stop | Stop | Free | Free | Free | Free |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | 0 | 115 | - | 175 | 25 | - |
| Veh in Median Storage, # | 0 | - | 0 | - | - | 0 |
| Grade, % | 1 | - | 0 | - | - | -1 |
| Peak Hour Factor | 93 | 93 | 93 | 93 | 93 | 93 |
| Heavy Vehicles, % | 0 | 6 | 2 | 1 | 1 | 4 |
| Mvmt Flow | 20 | 39 | 611 | 98 | 124 | 530 |

| Major/Minor | Minor1 | | Major1 | | Major2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 1390 | 612 | 0 | 0 | 710 | 0 |
| Stage 1 | 612 | - | - | - | - | - |
| Stage 2 | 778 | - | - | - | - | - |
| Critical Hdwy | 6.6 | 6.36 | - | - | 4.3 | - |
| Critical Hdwy Stg 1 | 5.6 | - | - | - | - | - |
| Critical Hdwy Stg 2 | 5.6 | - | - | - | - | - |
| Follow-up Hdwy | 3 | 3.2 | - | - | 3 | - |
| Pot Cap-1 Maneuver | 158 | 495 | - | - | 681 | - |
| Stage 1 | 591 | - | - | - | - | - |
| Stage 2 | 486 | - | - | - | - | - |
| Platoon blocked, % | | | - | - | | - |
| Mov Cap-1 Maneuver | 129 | 495 | - | - | 680 | - |
| Mov Cap-2 Maneuver | 273 | - | - | - | - | - |
| Stage 1 | 590 | - | - | - | - | - |
| Stage 2 | 398 | - | - | - | - | - |

| Approach | WB | NB | SB |
|---|---|---|---|
| HCM Control Delay, s | 15.1 | 0 | 2.2 |
| HCM LOS | C | | |

| Minor Lane/Major Mvmt | NBT | NBR | WBLn1 | WBLn2 | SBL | SBT |
|---|---|---|---|---|---|---|
| Capacity (veh/h) | - | - | 273 | 495 | 680 | - |
| HCM Lane V/C Ratio | - | - | 0.075 | 0.078 | 0.182 | - |
| HCM Control Delay (s) | - | - | 19.3 | 12.9 | 11.5 | - |
| HCM Lane LOS | - | - | C | B | B | - |
| HCM 95th %tile Q(veh) | - | - | 0.2 | 0.3 | 0.7 | - |



| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 0 | 31 | 6 | 69 | 43 | 25 | 26 | 215 | 136 | 32 | 156 | 3 |
| Future Volume (vph) | 0 | 31 | 6 | 69 | 43 | 25 | 26 | 215 | 136 | 32 | 156 | 3 |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Ped Bike Factor | | | | | | | | | | | | |
| Frt | | 0.977 | | | 0.976 | | | 0.951 | | | 0.998 | |
| Flt Protected | | | | | 0.975 | | | 0.997 | | | 0.992 | |
| Satd. Flow (prot) | 0 | 1694 | 0 | 0 | 1748 | 0 | 0 | 1702 | 0 | 0 | 1860 | 0 |
| Flt Permitted | | | | | 0.975 | | | 0.997 | | | 0.992 | |
| Satd. Flow (perm) | 0 | 1694 | 0 | 0 | 1748 | 0 | 0 | 1702 | 0 | 0 | 1860 | 0 |
| Sign Control | | Stop | | | Stop | | | Stop | | | Stop | |

## Intersection Summary

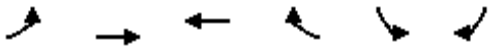
Control Type: Unsignalized

| Intersection | |
|---|---|
| Intersection Delay, s/veh | 11.2 |
| Intersection LOS | B |

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Vol, veh/h | 0 | 31 | 6 | 69 | 43 | 25 | 26 | 215 | 136 | 32 | 156 | 3 |
| Future Vol, veh/h | 0 | 31 | 6 | 69 | 43 | 25 | 26 | 215 | 136 | 32 | 156 | 3 |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Heavy Vehicles, % | 0 | 4 | 40 | 5 | 0 | 5 | 4 | 1 | 11 | 0 | 2 | 0 |
| Mvmt Flow | 0 | 34 | 7 | 75 | 47 | 27 | 28 | 234 | 148 | 35 | 170 | 3 |
| Number of Lanes | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 0 |

| Approach | EB | WB | NB | SB |
|---|---|---|---|---|
| Opposing Approach | WB | EB | SB | NB |
| Opposing Lanes | 1 | 1 | 1 | 1 |
| Conflicting Approach Left | SB | NB | EB | WB |
| Conflicting Lanes Left | 1 | 1 | 1 | 1 |
| Conflicting Approach Right | NB | SB | WB | EB |
| Conflicting Lanes Right | 1 | 1 | 1 | 1 |
| HCM Control Delay | 9 | 10.1 | 12.4 | 9.9 |
| HCM LOS | A | B | B | A |

| Lane | NBLn1 | EBLn1 | WBLn1 | SBLn1 |
|---|---|---|---|---|
| Vol Left, % | 7% | 0% | 50% | 17% |
| Vol Thru, % | 57% | 84% | 31% | 82% |
| Vol Right, % | 36% | 16% | 18% | 2% |
| Sign Control | Stop | Stop | Stop | Stop |
| Traffic Vol by Lane | 377 | 37 | 137 | 191 |
| LT Vol | 26 | 0 | 69 | 32 |
| Through Vol | 215 | 31 | 43 | 156 |
| RT Vol | 136 | 6 | 25 | 3 |
| Lane Flow Rate | 410 | 40 | 149 | 208 |
| Geometry Grp | 1 | 1 | 1 | 1 |
| Degree of Util (X) | 0.516 | 0.063 | 0.225 | 0.283 |
| Departure Headway (Hd) | 4.529 | 5.633 | 5.429 | 4.901 |
| Convergence, Y/N | Yes | Yes | Yes | Yes |
| Cap | 791 | 640 | 654 | 727 |
| Service Time | 2.594 | 3.633 | 3.526 | 2.981 |
| HCM Lane V/C Ratio | 0.518 | 0.063 | 0.228 | 0.286 |
| HCM Control Delay | 12.4 | 9 | 10.1 | 9.9 |
| HCM Lane LOS | B | A | B | A |
| HCM 95th-tile Q | 3 | 0.2 | 0.9 | 1.2 |



| Lane Group | EBL | EBT | WBT | WBR | SBL | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (vph) | 16 | 171 | 132 | 30 | 14 | 7 |
| Future Volume (vph) | 16 | 171 | 132 | 30 | 14 | 7 |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Ped Bike Factor | | | | | | |
| Frt | | | 0.975 | | 0.955 | |
| Flt Protected | | 0.996 | | | 0.968 | |
| Satd. Flow (prot) | 0 | 1748 | 1795 | 0 | 1756 | 0 |
| Flt Permitted | | 0.996 | | | 0.968 | |
| Satd. Flow (perm) | 0 | 1748 | 1795 | 0 | 1756 | 0 |
| Sign Control | | Free | Free | | Stop | |

Intersection Summary

Control Type: Unsignalized

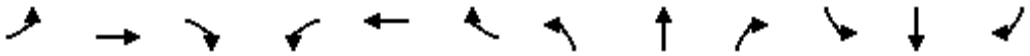
| Intersection | |
|---|---|
| Int Delay, s/veh | 1 |

| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 16 | 171 | 132 | 30 | 14 | 7 |
| Future Vol, veh/h | 16 | 171 | 132 | 30 | 14 | 7 |
| Conflicting Peds, #/hr | 4 | 0 | 0 | 4 | 19 | 10 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | - | - | 0 | - |
| Veh in Median Storage, # | - | 0 | 0 | - | 0 | - |
| Grade, % | - | 0 | 0 | - | 0 | - |
| Peak Hour Factor | 76 | 76 | 76 | 76 | 76 | 76 |
| Heavy Vehicles, % | 0 | 9 | 3 | 4 | 0 | 0 |
| Mvmt Flow | 21 | 225 | 174 | 39 | 18 | 9 |

| Major/Minor | Major1 | | Major2 | | Minor2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 217 | 0 | - | 0 | 484 | 208 |
| Stage 1 | - | - | - | - | 198 | - |
| Stage 2 | - | - | - | - | 286 | - |
| Critical Hdwy | 4.3 | - | - | - | 6.4 | 6.2 |
| Critical Hdwy Stg 1 | - | - | - | - | 5.4 | - |
| Critical Hdwy Stg 2 | - | - | - | - | 5.4 | - |
| Follow-up Hdwy | 3 | - | - | - | 3 | 3.1 |
| Pot Cap-1 Maneuver | 1012 | - | - | - | 617 | 887 |
| Stage 1 | - | - | - | - | 967 | - |
| Stage 2 | - | - | - | - | 878 | - |
| Platoon blocked, % | | | - | - | - | |
| Mov Cap-1 Maneuver | 1008 | - | - | - | 597 | 875 |
| Mov Cap-2 Maneuver | - | - | - | - | 597 | - |
| Stage 1 | - | - | - | - | 940 | - |
| Stage 2 | - | - | - | - | 874 | - |

| Approach | EB | WB | SB |
|---|---|---|---|
| HCM Control Delay, s | 0.7 | 0 | 10.6 |
| HCM LOS | | | B |

| Minor Lane/Major Mvmt | EBL | EBT | WBT | WBR | SBLn1 |
|---|---|---|---|---|---|
| Capacity (veh/h) | 1008 | - | - | - | 668 |
| HCM Lane V/C Ratio | 0.021 | - | - | - | 0.041 |
| HCM Control Delay (s) | 8.6 | 0 | - | - | 10.6 |
| HCM Lane LOS | A | A | - | - | B |
| HCM 95th %tile Q(veh) | 0.1 | - | - | - | 0.1 |



| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 0 | 138 | 41 | 26 | 145 | 0 | 0 | 0 | 54 | 38 | 42 | 36 |
| Future Volume (vph) | 0 | 138 | 41 | 26 | 145 | 0 | 0 | 0 | 54 | 38 | 42 | 36 |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Ped Bike Factor | | | | | | | | | | | | |
| Frt | | 0.969 | | | | | | 0.865 | | | 0.959 | |
| Flt Protected | | | | | 0.993 | | | | | | 0.984 | |
| Satd. Flow (prot) | 0 | 1711 | 0 | 0 | 1827 | 0 | 0 | 1652 | 0 | 0 | 1756 | 0 |
| Flt Permitted | | | | | 0.993 | | | | | | 0.984 | |
| Satd. Flow (perm) | 0 | 1711 | 0 | 0 | 1827 | 0 | 0 | 1652 | 0 | 0 | 1756 | 0 |
| Sign Control | | Free | | | Free | | | Stop | | | Stop | |

## Intersection Summary

Control Type: Unsignalized

| Intersection | |
|---|---|
| Int Delay, s/veh | 5 |

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Vol, veh/h | 0 | 138 | 41 | 26 | 145 | 0 | 0 | 0 | 54 | 38 | 42 | 36 |
| Future Vol, veh/h | 0 | 138 | 41 | 26 | 145 | 0 | 0 | 0 | 54 | 38 | 42 | 36 |
| Conflicting Peds, #/hr | 14 | 0 | 82 | 82 | 0 | 14 | 59 | 0 | 83 | 83 | 0 | 59 |
| Sign Control | Free | Free | Free | Free | Free | Free | Stop | Stop | Stop | Stop | Stop | Stop |
| RT Channelized | - | - | None | - | - | None | - | - | None | - | - | None |
| Storage Length | - | - | - | - | - | - | - | - | - | - | - | - |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | -1 | - | - | -1 | - | - | -1 | - | - | -3 | - |
| Peak Hour Factor | 83 | 83 | 83 | 83 | 83 | 83 | 83 | 83 | 83 | 83 | 83 | 83 |
| Heavy Vehicles, % | 0 | 2 | 29 | 14 | 2 | 0 | 0 | 0 | 0 | 0 | 4 | 7 |
| Mvmt Flow | 0 | 166 | 49 | 31 | 175 | 0 | 0 | 0 | 65 | 46 | 51 | 43 |

| Major/Minor | Major1 | | | Major2 | | | Minor1 | | | Minor2 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Conflicting Flow All | - | 0 | 0 | 297 | 0 | 0 | 616 | 510 | 356 | 543 | 534 | 234 |
| Stage 1 | - | - | - | - | - | - | 273 | 273 | - | 237 | 237 | - |
| Stage 2 | - | - | - | - | - | - | 343 | 237 | - | 306 | 297 | - |
| Critical Hdwy | - | - | - | 4.4 | - | - | 6.9 | 6.3 | 6.1 | 6.5 | 5.94 | 5.97 |
| Critical Hdwy Stg 1 | - | - | - | - | - | - | 5.9 | 5.3 | - | 5.5 | 4.94 | - |
| Critical Hdwy Stg 2 | - | - | - | - | - | - | 5.9 | 5.3 | - | 5.5 | 4.94 | - |
| Follow-up Hdwy | - | - | - | 3.1 | - | - | 3.5 | 4 | 3.3 | 3 | 4.036 | 3.2 |
| Pot Cap-1 Maneuver | 0 | - | - | 915 | - | 0 | 420 | 483 | 699 | 560 | 491 | 845 |
| Stage 1 | 0 | - | - | - | - | 0 | 749 | 698 | - | 921 | 734 | - |
| Stage 2 | 0 | - | - | - | - | 0 | 689 | 722 | - | 852 | 698 | - |
| Platoon blocked, % | | - | - | | - | | | | | | | |
| Mov Cap-1 Maneuver | - | - | - | 844 | - | - | 305 | 427 | 593 | 445 | 434 | 798 |
| Mov Cap-2 Maneuver | - | - | - | - | - | - | 305 | 427 | - | 445 | 434 | - |
| Stage 1 | - | - | - | - | - | - | 749 | 644 | - | 921 | 704 | - |
| Stage 2 | - | - | - | - | - | - | 547 | 692 | - | 699 | 644 | - |

| Approach | EB | WB | NB | SB |
|---|---|---|---|---|
| HCM Control Delay, s | 0 | 1.4 | 11.8 | 14.7 |
| HCM LOS | | | B | B |

| Minor Lane/Major Mvmt | NBLn1 | EBT | EBR | WBL | WBT | SBLn1 |
|---|---|---|---|---|---|---|
| Capacity (veh/h) | 593 | - | - | 844 | - | 510 |
| HCM Lane V/C Ratio | 0.11 | - | - | 0.037 | - | 0.274 |
| HCM Control Delay (s) | 11.8 | - | - | 9.4 | 0 | 14.7 |
| HCM Lane LOS | B | - | - | A | A | B |
| HCM 95th %tile Q(veh) | 0.4 | - | - | 0.1 | - | 1.1 |



| Lane Group | EBT | EBR | WBL | WBT | NBL | NBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (vph) | 228 | 8 | 9 | 160 | 15 | 36 |
| Future Volume (vph) | 228 | 8 | 9 | 160 | 15 | 36 |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Ped Bike Factor | | | | | | |
| Frt | 0.995 | | | | 0.904 | |
| Flt Protected | | | | 0.997 | 0.986 | |
| Satd. Flow (prot) | 1872 | 0 | 0 | 1809 | 1694 | 0 |
| Flt Permitted | | | | 0.997 | 0.986 | |
| Satd. Flow (perm) | 1872 | 0 | 0 | 1809 | 1694 | 0 |
| Sign Control | Free | | | Free | Stop | |

## Intersection Summary

Control Type: Unsignalized

| Intersection | |
|---|---|
| Int Delay, s/veh | 1.4 |

| Movement | EBT | EBR | WBL | WBT | NBL | NBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 228 | 8 | 9 | 160 | 15 | 36 |
| Future Vol, veh/h | 228 | 8 | 9 | 160 | 15 | 36 |
| Conflicting Peds, #/hr | 0 | 52 | 52 | 0 | 19 | 5 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | - | - | 0 | - |
| Veh in Median Storage, # | 0 | - | - | 0 | 0 | - |
| Grade, % | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 93 | 93 | 93 | 93 | 93 | 93 |
| Heavy Vehicles, % | 1 | 0 | 0 | 5 | 0 | 0 |
| Mvmt Flow | 245 | 9 | 10 | 172 | 16 | 39 |

| Major/Minor | Major1 | | Major2 | | Minor1 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 0 | 0 | 306 | 0 | 513 | 307 |
| Stage 1 | - | - | - | - | 302 | - |
| Stage 2 | - | - | - | - | 211 | - |
| Critical Hdwy | - | - | 4.3 | - | 6.4 | 6.2 |
| Critical Hdwy Stg 1 | - | - | - | - | 5.4 | - |
| Critical Hdwy Stg 2 | - | - | - | - | 5.4 | - |
| Follow-up Hdwy | - | - | 3 | - | 3 | 3.1 |
| Pot Cap-1 Maneuver | - | - | 943 | - | 592 | 779 |
| Stage 1 | - | - | - | - | 863 | - |
| Stage 2 | - | - | - | - | 954 | - |
| Platoon blocked, % | - | - | | - | | |
| Mov Cap-1 Maneuver | - | - | 896 | - | 546 | 737 |
| Mov Cap-2 Maneuver | - | - | - | - | 546 | - |
| Stage 1 | - | - | - | - | 820 | - |
| Stage 2 | - | - | - | - | 925 | - |

| Approach | EB | WB | NB |
|---|---|---|---|
| HCM Control Delay, s | 0 | 0.5 | 10.9 |
| HCM LOS | | | B |

| Minor Lane/Major Mvmt | NBLn1 | EBT | EBR | WBL | WBT |
|---|---|---|---|---|---|
| Capacity (veh/h) | 668 | - | - | 896 | - |
| HCM Lane V/C Ratio | 0.082 | - | - | 0.011 | - |
| HCM Control Delay (s) | 10.9 | - | - | 9.1 | 0 |
| HCM Lane LOS | B | - | - | A | A |
| HCM 95th %tile Q(veh) | 0.3 | - | - | 0 | - |

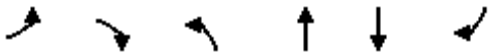
| Lane Group | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (vph) | 40 | 221 | 85 | 538 | 579 | 82 |
| Future Volume (vph) | 40 | 221 | 85 | 538 | 579 | 82 |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Ped Bike Factor | 0.92 | | 0.98 | | 0.98 | |
| Frt | 0.886 | | | | 0.983 | |
| Flt Protected | 0.992 | | 0.950 | | | |
| Satd. Flow (prot) | 1446 | 0 | 1621 | 1756 | 1720 | 0 |
| Flt Permitted | 0.992 | | 0.349 | | | |
| Satd. Flow (perm) | 1427 | 0 | 583 | 1756 | 1720 | 0 |
| Satd. Flow (RTOR) | 235 | | | | 15 | |
| Turn Type | Prot | | Perm | NA | NA | |
| Protected Phases | 4 | | | 2 | 6 | |
| Permitted Phases | | | 2 | | | |
| Detector Phase | 4 | | 2 | 2 | 6 | |
| Switch Phase | | | | | | |
| Minimum Initial (s) | 3.0 | | 18.0 | 18.0 | 18.0 | |
| Minimum Split (s) | 24.0 | | 24.0 | 24.0 | 24.0 | |
| Total Split (s) | 30.0 | | 60.0 | 60.0 | 60.0 | |
| Total Split (%) | 33.3% | | 66.7% | 66.7% | 66.7% | |
| Yellow Time (s) | 3.0 | | 3.0 | 3.0 | 3.0 | |
| All-Red Time (s) | 3.0 | | 3.0 | 3.0 | 3.0 | |
| Lost Time Adjust (s) | -1.0 | | -1.0 | -1.0 | -1.0 | |
| Total Lost Time (s) | 5.0 | | 5.0 | 5.0 | 5.0 | |
| Lead/Lag | | | | | | |
| Lead-Lag Optimize? | | | | | | |
| Recall Mode | None | | C-Max | C-Max | C-Max | |

**Intersection Summary**

Cycle Length: 90
Actuated Cycle Length: 90
Offset: 42 (47%), Referenced to phase 2:NBTL and 6:SBT, Start of Green
Natural Cycle: 60
Control Type: Actuated-Coordinated

Splits and Phases: 5: S High Street & Sharpless Street





| Movement | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (veh/h) | 40 | 221 | 85 | 538 | 579 | 82 |
| Future Volume (veh/h) | 40 | 221 | 85 | 538 | 579 | 82 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | 0.93 | 1.00 | | | 0.97 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach | No | | | No | No | |
| Adj Sat Flow, veh/h/ln | 1800 | 1772 | 1752 | 1795 | 1786 | 1758 |
| Adj Flow Rate, veh/h | 43 | 235 | 90 | 572 | 616 | 87 |
| Peak Hour Factor | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 |
| Percent Heavy Veh, % | 0 | 2 | 6 | 3 | 1 | 3 |
| Cap, veh/h | 51 | 278 | 385 | 1187 | 1008 | 142 |
| Arrive On Green | 0.23 | 0.23 | 1.00 | 1.00 | 0.66 | 0.66 |
| Sat Flow, veh/h | 224 | 1223 | 697 | 1795 | 1523 | 215 |
| Grp Volume(v), veh/h | 279 | 0 | 90 | 572 | 0 | 703 |
| Grp Sat Flow(s),veh/h/ln | 1452 | 0 | 697 | 1795 | 0 | 1738 |
| Q Serve(g_s), s | 16.5 | 0.0 | 4.9 | 0.0 | 0.0 | 20.7 |
| Cycle Q Clear(g_c), s | 16.5 | 0.0 | 25.1 | 0.0 | 0.0 | 20.7 |
| Prop In Lane | 0.15 | 0.84 | 1.00 | | | 0.12 |
| Lane Grp Cap(c), veh/h | 330 | 0 | 385 | 1187 | 0 | 1150 |
| V/C Ratio(X) | 0.84 | 0.00 | 0.23 | 0.48 | 0.00 | 0.61 |
| Avail Cap(c_a), veh/h | 403 | 0 | 385 | 1187 | 0 | 1150 |
| HCM Platoon Ratio | 1.00 | 1.00 | 2.00 | 2.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 |
| Uniform Delay (d), s/veh | 33.2 | 0.0 | 4.3 | 0.0 | 0.0 | 8.7 |
| Incr Delay (d2), s/veh | 12.9 | 0.0 | 1.4 | 1.4 | 0.0 | 2.4 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(95%),veh/ln | 11.3 | 0.0 | 1.2 | 0.8 | 0.0 | 12.1 |
| Unsig. Movement Delay, s/veh | | | | | | |
| LnGrp Delay(d),s/veh | 46.2 | 0.0 | 5.7 | 1.4 | 0.0 | 11.1 |
| LnGrp LOS | D | A | A | A | A | B |
| Approach Vol, veh/h | 279 | | | 662 | 703 | |
| Approach Delay, s/veh | 46.2 | | | 2.0 | 11.1 | |
| Approach LOS | D | | | A | B | |

| Timer - Assigned Phs | | 2 | | 4 | | 6 |
|---|---|---|---|---|---|---|
| Phs Duration (G+Y+Rc), s | | 64.5 | | 25.5 | | 64.5 |
| Change Period (Y+Rc), s | | 6.0 | | 6.0 | | 6.0 |
| Max Green Setting (Gmax), s | | 54.0 | | 24.0 | | 54.0 |
| Max Q Clear Time (g_c+I1), s | | 27.6 | | 19.0 | | 22.7 |
| Green Ext Time (p_c), s | | 5.2 | | 0.5 | | 6.1 |

| Intersection Summary | |
|---|---|
| HCM 6th Ctrl Delay | 13.4 |
| HCM 6th LOS | B |

**Notes**

User approved volume balancing among the lanes for turning movement.



| Lane Group | WBL | WBR | NBT | NBR | SBL | SBT |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (vph) | 0 | 0 | 625 | 36 | 157 | 633 |
| Future Volume (vph) | 0 | 0 | 625 | 36 | 157 | 633 |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Ped Bike Factor | | | | | | |
| Frt | | | 0.993 | | | |
| Flt Protected | | | | | 0.950 | |
| Satd. Flow (prot) | 1900 | 0 | 1832 | 0 | 1805 | 1881 |
| Flt Permitted | | | | | 0.950 | |
| Satd. Flow (perm) | 1900 | 0 | 1832 | 0 | 1805 | 1881 |
| Sign Control | Stop | | Free | | | Free |

| Intersection Summary |
|---|
| Control Type: Unsignalized |

| Intersection | |
|---|---|
| Int Delay, s/veh | 1.5 |

| Movement | WBL | WBR | NBT | NBR | SBL | SBT |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 0 | 0 | 625 | 36 | 157 | 633 |
| Future Vol, veh/h | 0 | 0 | 625 | 36 | 157 | 633 |
| Conflicting Peds, #/hr | 82 | 3 | 0 | 51 | 51 | 0 |
| Sign Control | Stop | Stop | Free | Free | Free | Free |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | 0 | - | - | - | 100 | - |
| Veh in Median Storage, # | 0 | - | 0 | - | - | 0 |
| Grade, % | 0 | - | 0 | - | - | 0 |
| Peak Hour Factor | 93 | 93 | 93 | 93 | 93 | 93 |
| Heavy Vehicles, % | 0 | 0 | 3 | 3 | 0 | 1 |
| Mvmt Flow | 0 | 0 | 672 | 39 | 169 | 681 |

| Major/Minor | Minor1 | | Major1 | | Major2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 1844 | 746 | 0 | 0 | 762 | 0 |
| Stage 1 | 743 | - | - | - | - | - |
| Stage 2 | 1101 | - | - | - | - | - |
| Critical Hdwy | 6.4 | 6.2 | - | - | 4.3 | - |
| Critical Hdwy Stg 1 | 5.4 | - | - | - | - | - |
| Critical Hdwy Stg 2 | 5.4 | - | - | - | - | - |
| Follow-up Hdwy | 3 | 3.1 | - | - | 3 | - |
| Pot Cap-1 Maneuver | *69 | *571 | - | - | 590 | - |
| Stage 1 | *590 | - | - | - | - | - |
| Stage 2 | *352 | - | - | - | - | - |
| Platoon blocked, % | 1 | 1 | - | - | 1 | - |
| Mov Cap-1 Maneuver | *42 | *542 | - | - | 562 | - |
| Mov Cap-2 Maneuver | *42 | - | - | - | - | - |
| Stage 1 | *561 | - | - | - | - | - |
| Stage 2 | *227 | - | - | - | - | - |

| Approach | WB | NB | SB |
|---|---|---|---|
| HCM Control Delay, s | 0 | 0 | 2.8 |
| HCM LOS | A | | |

| Minor Lane/Major Mvmt | NBT | NBR | WBLn1 | SBL | SBT |
|---|---|---|---|---|---|
| Capacity (veh/h) | - | - | - | 562 | - |
| HCM Lane V/C Ratio | - | - | - | 0.3 | - |
| HCM Control Delay (s) | - | - | 0 | 14.1 | - |
| HCM Lane LOS | - | - | A | B | - |
| HCM 95th %tile Q(veh) | - | - | - | 1.3 | - |

| Notes | | | |
|---|---|---|---|
| ~: Volume exceeds capacity | $: Delay exceeds 300s | +: Computation Not Defined | *: All major volume in platoon |

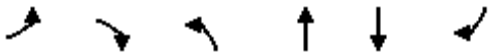
| Lane Group | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (vph) | 13 | 13 | 38 | 647 | 621 | 10 |
| Future Volume (vph) | 13 | 13 | 38 | 647 | 621 | 10 |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Ped Bike Factor | 0.83 | | | | 0.99 | |
| Frt | 0.932 | | | | 0.998 | |
| Flt Protected | 0.976 | | | 0.997 | | |
| Satd. Flow (prot) | 1471 | 0 | 0 | 1742 | 1765 | 0 |
| Flt Permitted | 0.976 | | | 0.943 | | |
| Satd. Flow (perm) | 1354 | 0 | 0 | 1648 | 1765 | 0 |
| Satd. Flow (RTOR) | 14 | | | | 2 | |
| Turn Type | Prot | | Perm | NA | NA | |
| Protected Phases | 4 | | | 2 | 6 | |
| Permitted Phases | | | 2 | | | |
| Detector Phase | 4 | | 2 | 2 | 6 | |
| Switch Phase | | | | | | |
| Minimum Initial (s) | 5.0 | | 13.0 | 13.0 | 13.0 | |
| Minimum Split (s) | 24.0 | | 24.0 | 24.0 | 24.0 | |
| Total Split (s) | 30.0 | | 60.0 | 60.0 | 60.0 | |
| Total Split (%) | 33.3% | | 66.7% | 66.7% | 66.7% | |
| Yellow Time (s) | 3.0 | | 3.0 | 3.0 | 3.0 | |
| All-Red Time (s) | 2.0 | | 2.0 | 2.0 | 2.0 | |
| Lost Time Adjust (s) | -1.0 | | | -1.0 | -1.0 | |
| Total Lost Time (s) | 4.0 | | | 4.0 | 4.0 | |
| Lead/Lag | | | | | | |
| Lead-Lag Optimize? | | | | | | |
| Recall Mode | None | | C-Max | C-Max | C-Max | |

**Intersection Summary**

Cycle Length: 90
Actuated Cycle Length: 90
Offset: 33 (37%), Referenced to phase 2:NBTL and 6:SBT, Start of Green
Natural Cycle: 60
Control Type: Actuated-Coordinated

Splits and Phases: 7: S High Street & University Avenue





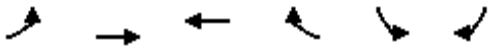
| Movement | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (veh/h) | 13 | 13 | 38 | 647 | 621 | 10 |
| Future Volume (veh/h) | 13 | 13 | 38 | 647 | 621 | 10 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | 0.72 | 1.00 | | | 0.92 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach | No | | | No | No | |
| Adj Sat Flow, veh/h/ln | 1800 | 1800 | 1758 | 1758 | 1786 | 1800 |
| Adj Flow Rate, veh/h | 14 | 14 | 41 | 703 | 675 | 11 |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Percent Heavy Veh, % | 0 | 0 | 3 | 3 | 1 | 0 |
| Cap, veh/h | 64 | 64 | 87 | 1319 | 1423 | 23 |
| Arrive On Green | 0.10 | 0.10 | 0.81 | 0.81 | 0.81 | 0.81 |
| Sat Flow, veh/h | 654 | 654 | 55 | 1621 | 1749 | 29 |
| Grp Volume(v), veh/h | 29 | 0 | 744 | 0 | 0 | 686 |
| Grp Sat Flow(s),veh/h/ln | 1354 | 0 | 1676 | 0 | 0 | 1778 |
| Q Serve(g_s), s | 1.8 | 0.0 | 0.0 | 0.0 | 0.0 | 10.5 |
| Cycle Q Clear(g_c), s | 1.8 | 0.0 | 12.3 | 0.0 | 0.0 | 10.5 |
| Prop In Lane | 0.48 | 0.48 | 0.06 | | | 0.02 |
| Lane Grp Cap(c), veh/h | 132 | 0 | 1406 | 0 | 0 | 1447 |
| V/C Ratio(X) | 0.22 | 0.00 | 0.53 | 0.00 | 0.00 | 0.47 |
| Avail Cap(c_a), veh/h | 391 | 0 | 1406 | 0 | 0 | 1447 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 0.00 | 0.89 | 0.00 | 0.00 | 1.00 |
| Uniform Delay (d), s/veh | 37.5 | 0.0 | 2.7 | 0.0 | 0.0 | 2.5 |
| Incr Delay (d2), s/veh | 0.8 | 0.0 | 1.3 | 0.0 | 0.0 | 1.1 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(95%),veh/ln | 1.1 | 0.0 | 5.5 | 0.0 | 0.0 | 4.8 |
| Unsig. Movement Delay, s/veh | | | | | | |
| LnGrp Delay(d),s/veh | 38.3 | 0.0 | 4.0 | 0.0 | 0.0 | 3.7 |
| LnGrp LOS | D | A | A | A | A | A |
| Approach Vol, veh/h | 29 | | | 744 | 686 | |
| Approach Delay, s/veh | 38.3 | | | 4.0 | 3.7 | |
| Approach LOS | D | | | A | A | |

| Timer - Assigned Phs | | 2 | | 4 | | 6 |
|---|---|---|---|---|---|---|
| Phs Duration (G+Y+Rc), s | | 77.2 | | 12.8 | | 77.2 |
| Change Period (Y+Rc), s | | 5.0 | | 5.0 | | 5.0 |
| Max Green Setting (Gmax), s | | 55.0 | | 25.0 | | 55.0 |
| Max Q Clear Time (g_c+I1), s | | 14.3 | | 4.3 | | 12.5 |
| Green Ext Time (p_c), s | | 7.2 | | 0.1 | | 6.1 |

| Intersection Summary | |
|---|---|
| HCM 6th Ctrl Delay | 4.5 |
| HCM 6th LOS | A |

**Notes**

User approved volume balancing among the lanes for turning movement.



| Lane Group | EBL | EBT | WBT | WBR | SBL | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (vph) | 0 | 21 | 28 | 14 | 5 | 0 |
| Future Volume (vph) | 0 | 21 | 28 | 14 | 5 | 0 |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Ped Bike Factor | | | | | | |
| Frt | | | 0.956 | | | |
| Flt Protected | | | | | 0.950 | |
| Satd. Flow (prot) | 0 | 1900 | 1780 | 0 | 1796 | 0 |
| Flt Permitted | | | | | 0.950 | |
| Satd. Flow (perm) | 0 | 1900 | 1780 | 0 | 1796 | 0 |
| Sign Control | | Free | Free | | Stop | |

| Intersection Summary |
|---|
| Control Type: Unsignalized |

| Intersection | |
|---|---|
| Int Delay, s/veh | 0.7 |

| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 0 | 21 | 28 | 14 | 5 | 0 |
| Future Vol, veh/h | 0 | 21 | 28 | 14 | 5 | 0 |
| Conflicting Peds, #/hr | 74 | 0 | 0 | 74 | 8 | 3 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | - | - | 0 | - |
| Veh in Median Storage, # | - | 0 | 0 | - | 0 | - |
| Grade, % | - | 0 | 0 | - | 1 | - |
| Peak Hour Factor | 69 | 69 | 69 | 69 | 69 | 69 |
| Heavy Vehicles, % | 0 | 0 | 3 | 0 | 0 | 0 |
| Mvmt Flow | 0 | 30 | 41 | 20 | 7 | 0 |

| Major/Minor | Major1 | | Major2 | | Minor2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 135 | 0 | - | 0 | 163 | 128 |
| Stage 1 | - | - | - | - | 125 | - |
| Stage 2 | - | - | - | - | 38 | - |
| Critical Hdwy | 4.3 | - | - | - | 6.6 | 6.3 |
| Critical Hdwy Stg 1 | - | - | - | - | 5.6 | - |
| Critical Hdwy Stg 2 | - | - | - | - | 5.6 | - |
| Follow-up Hdwy | 3 | - | - | - | 3 | 3.1 |
| Pot Cap-1 Maneuver | 1080 | - | - | - | 952 | 980 |
| Stage 1 | - | - | - | - | 1040 | - |
| Stage 2 | - | - | - | - | 1149 | - |
| Platoon blocked, % | | - | - | - | | |
| Mov Cap-1 Maneuver | 1004 | - | - | - | 823 | 908 |
| Mov Cap-2 Maneuver | - | - | - | - | 823 | - |
| Stage 1 | - | - | - | - | 967 | - |
| Stage 2 | - | - | - | - | 1069 | - |

| Approach | EB | WB | SB |
|---|---|---|---|
| HCM Control Delay, s | 0 | 0 | 9.4 |
| HCM LOS | | | A |

| Minor Lane/Major Mvmt | EBL | EBT | WBT | WBR | SBLn1 |
|---|---|---|---|---|---|
| Capacity (veh/h) | 1004 | - | - | - | 823 |
| HCM Lane V/C Ratio | - | - | - | - | 0.009 |
| HCM Control Delay (s) | 0 | - | - | - | 9.4 |
| HCM Lane LOS | A | - | - | - | A |
| HCM 95th %tile Q(veh) | 0 | - | - | - | 0 |



| Lane Group | WBL | WBR | NBT | NBR | SBL | SBT |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (vph) | 0 | 0 | 0 | 0 | 0 | 0 |
| Future Volume (vph) | 0 | 0 | 0 | 0 | 0 | 0 |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Ped Bike Factor | | | | | | |
| Frt | | | | | | |
| Flt Protected | | | | | | |
| Satd. Flow (prot) | 1872 | 0 | 0 | 0 | 0 | 1624 |
| Flt Permitted | | | | | | |
| Satd. Flow (perm) | 1872 | 0 | 0 | 0 | 0 | 1624 |
| Sign Control | Stop | | Free | | | Free |

## Intersection Summary

Control Type: Unsignalized

| Intersection | |
|---|---|
| Int Delay, s/veh | 0 |

| Movement | WBL | WBR | NBT | NBR | SBL | SBT |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 0 | 0 | 0 | 0 | 0 | 0 |
| Future Vol, veh/h | 0 | 0 | 0 | 0 | 0 | 0 |
| Conflicting Peds, #/hr | 166 | 177 | 0 | 192 | 192 | 0 |
| Sign Control | Stop | Stop | Free | Free | Free | Free |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | 0 | - | - | - | - | - |
| Veh in Median Storage, # | 0 | - | 0 | - | - | 0 |
| Grade, % | 1 | - | 0 | - | - | 0 |
| Peak Hour Factor | 78 | 78 | 78 | 78 | 78 | 78 |
| Heavy Vehicles, % | 1 | 0 | 0 | 0 | 0 | 17 |
| Mvmt Flow | 0 | 0 | 0 | 0 | 0 | 0 |

| Major/Minor | Minor1 | | Major2 | |
|---|---|---|---|---|
| Conflicting Flow All | 359 | - | 192 | 0 |
| Stage 1 | 192 | - | - | - |
| Stage 2 | 167 | - | - | - |
| Critical Hdwy | 6.61 | - | 4.3 | - |
| Critical Hdwy Stg 1 | - | - | - | - |
| Critical Hdwy Stg 2 | 5.61 | - | - | - |
| Follow-up Hdwy | 3 | - | 3 | - |
| Pot Cap-1 Maneuver | 718 | 0 | 1032 | - |
| Stage 1 | - | 0 | - | - |
| Stage 2 | 991 | 0 | - | - |
| Platoon blocked, % | | | | - |
| Mov Cap-1 Maneuver | 587 | - | 843 | - |
| Mov Cap-2 Maneuver | 587 | - | - | - |
| Stage 1 | - | - | - | - |
| Stage 2 | 991 | - | - | - |

| Approach | WB | SB |
|---|---|---|
| HCM Control Delay, s | 0 | 0 |
| HCM LOS | A | |

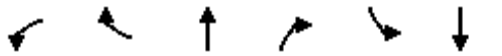
| Minor Lane/Major Mvmt | WBLn1 | SBL | SBT |
|---|---|---|---|
| Capacity (veh/h) | - | 843 | - |
| HCM Lane V/C Ratio | - | - | - |
| HCM Control Delay (s) | 0 | 0 | - |
| HCM Lane LOS | A | A | - |
| HCM 95th %tile Q(veh) | - | 0 | - |

| Lane Group | WBL | WBR | NBT | NBR | SBL | SBT |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (vph) | 57 | 70 | 620 | 0 | 0 | 637 |
| Future Volume (vph) | 57 | 70 | 620 | 0 | 0 | 637 |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Ped Bike Factor | 0.70 | | | | | |
| Frt | 0.926 | | | | | |
| Flt Protected | 0.978 | | | | | |
| Satd. Flow (prot) | 1304 | 0 | 1873 | 0 | 0 | 1891 |
| Flt Permitted | 0.978 | | | | | |
| Satd. Flow (perm) | 1285 | 0 | 1873 | 0 | 0 | 1891 |
| Satd. Flow (RTOR) | 75 | | | | | |
| Turn Type | Prot | | NA | | | NA |
| Protected Phases | 4 | | 6 | | | 2 |
| Permitted Phases | | | | | | |
| Detector Phase | 4 | | 6 | | | 2 |
| Switch Phase | | | | | | |
| Minimum Initial (s) | 3.0 | | 49.0 | | | 49.0 |
| Minimum Split (s) | 19.0 | | 54.0 | | | 54.0 |
| Total Split (s) | 29.0 | | 55.0 | | | 55.0 |
| Total Split (%) | 34.5% | | 65.5% | | | 65.5% |
| Yellow Time (s) | 3.0 | | 3.0 | | | 3.0 |
| All-Red Time (s) | 2.0 | | 2.0 | | | 2.0 |
| Lost Time Adjust (s) | -1.0 | | -1.0 | | | -1.0 |
| Total Lost Time (s) | 4.0 | | 4.0 | | | 4.0 |
| Lead/Lag | | | | | | |
| Lead-Lag Optimize? | | | | | | |
| Recall Mode | None | | Max | | | Max |

| Intersection Summary |
|---|
| Cycle Length: 84 |
| Actuated Cycle Length: 70 |
| Natural Cycle: 75 |
| Control Type: Actuated-Uncoordinated |

Splits and Phases: 10: S High Street & Linden Street





| Movement | WBL | WBR | NBT | NBR | SBL | SBT |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (veh/h) | 57 | 70 | 620 | 0 | 0 | 637 |
| Future Volume (veh/h) | 57 | 70 | 620 | 0 | 0 | 637 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | 0.53 | | 1.00 | 1.00 | |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach | No | | No | | | No |
| Adj Sat Flow, veh/h/ln | 1849 | 1849 | 1866 | 0 | 0 | 1852 |
| Adj Flow Rate, veh/h | 61 | 67 | 667 | 0 | 0 | 685 |
| Peak Hour Factor | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 |
| Percent Heavy Veh, % | 0 | 0 | 3 | 0 | 0 | 1 |
| Cap, veh/h | 103 | 114 | 1297 | 0 | 0 | 1286 |
| Arrive On Green | 0.20 | 0.20 | 0.69 | 0.00 | 0.00 | 0.69 |
| Sat Flow, veh/h | 527 | 579 | 1866 | 0 | 0 | 1852 |
| Grp Volume(v), veh/h | 129 | 0 | 667 | 0 | 0 | 685 |
| Grp Sat Flow(s),veh/h/ln | 1115 | 0 | 1866 | 0 | 0 | 1852 |
| Q Serve(g_s), s | 7.7 | 0.0 | 12.5 | 0.0 | 0.0 | 13.2 |
| Cycle Q Clear(g_c), s | 7.7 | 0.0 | 12.5 | 0.0 | 0.0 | 13.2 |
| Prop In Lane | 0.47 | 0.52 | | 0.00 | 0.00 | |
| Lane Grp Cap(c), veh/h | 219 | 0 | 1297 | 0 | 0 | 1286 |
| V/C Ratio(X) | 0.59 | 0.00 | 0.51 | 0.00 | 0.00 | 0.53 |
| Avail Cap(c_a), veh/h | 380 | 0 | 1297 | 0 | 0 | 1286 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 0.00 | 1.00 | 0.00 | 0.00 | 1.00 |
| Uniform Delay (d), s/veh | 26.8 | 0.0 | 5.3 | 0.0 | 0.0 | 5.4 |
| Incr Delay (d2), s/veh | 2.5 | 0.0 | 1.5 | 0.0 | 0.0 | 1.6 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(95%),veh/ln | 3.9 | 0.0 | 7.6 | 0.0 | 0.0 | 7.9 |
| Unsig. Movement Delay, s/veh | | | | | | |
| LnGrp Delay(d),s/veh | 29.3 | 0.0 | 6.8 | 0.0 | 0.0 | 7.0 |
| LnGrp LOS | C | A | A | A | A | A |
| Approach Vol, veh/h | 129 | | 667 | | | 685 |
| Approach Delay, s/veh | 29.3 | | 6.8 | | | 7.0 |
| Approach LOS | C | | A | | | A |

| Timer - Assigned Phs | | 2 | | 4 | | 6 |
|---|---|---|---|---|---|---|
| Phs Duration (G+Y+Rc), s | | 55.0 | | 18.4 | | 55.0 |
| Change Period (Y+Rc), s | | 5.0 | | 5.0 | | 5.0 |
| Max Green Setting (Gmax), s | | 50.0 | | 24.0 | | 50.0 |
| Max Q Clear Time (g_c+I1), s | | 0.0 | | 10.2 | | 0.0 |
| Green Ext Time (p_c), s | | 0.0 | | 0.5 | | 0.0 |

| Intersection Summary | |
|---|---|
| HCM 6th Ctrl Delay | 8.9 |
| HCM 6th LOS | A |

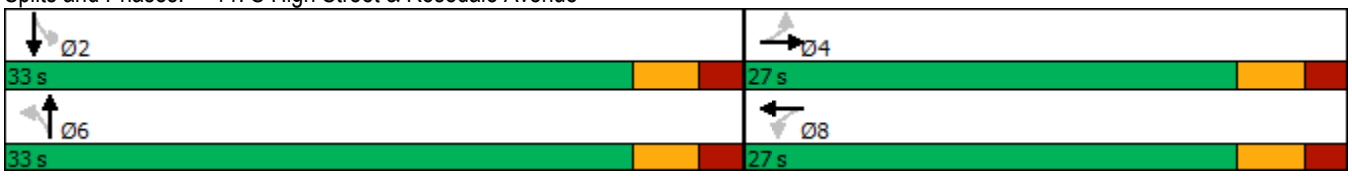
**Notes**

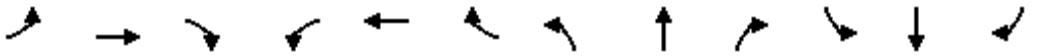
User approved volume balancing among the lanes for turning movement.

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 67 | 184 | 94 | 82 | 318 | 87 | 118 | 418 | 98 | 125 | 467 | 41 |
| Future Volume (vph) | 67 | 184 | 94 | 82 | 318 | 87 | 118 | 418 | 98 | 125 | 467 | 41 |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Ped Bike Factor | 0.89 | 0.91 | | 0.84 | 0.94 | | 0.94 | 0.96 | | 0.93 | 0.98 | |
| Frt | | 0.949 | | | 0.968 | | | 0.972 | | | 0.988 | |
| Flt Protected | 0.950 | | | 0.950 | | | 0.950 | | | 0.950 | | |
| Satd. Flow (prot) | 1620 | 1466 | 0 | 1660 | 1588 | 0 | 1572 | 1780 | 0 | 1645 | 1698 | 0 |
| Flt Permitted | 0.320 | | | 0.489 | | | 0.349 | | | 0.342 | | |
| Satd. Flow (perm) | 486 | 1466 | 0 | 714 | 1588 | 0 | 541 | 1780 | 0 | 549 | 1698 | 0 |
| Satd. Flow (RTOR) | | | | | | | | | | | | |
| Turn Type | Perm | NA | | Perm | NA | | Perm | NA | | Perm | NA | |
| Protected Phases | | 4 | | | 8 | | | 6 | | | 2 | |
| Permitted Phases | 4 | | | 8 | | | 6 | | | 2 | | |
| Detector Phase | 4 | 4 | | 8 | 8 | | 6 | 6 | | 2 | 2 | |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 3.0 | 3.0 | | 3.0 | 3.0 | | 3.0 | 3.0 | | 3.0 | 3.0 | |
| Minimum Split (s) | 25.0 | 25.0 | | 25.0 | 25.0 | | 23.0 | 23.0 | | 23.0 | 23.0 | |
| Total Split (s) | 27.0 | 27.0 | | 27.0 | 27.0 | | 33.0 | 33.0 | | 33.0 | 33.0 | |
| Total Split (%) | 45.0% | 45.0% | | 45.0% | 45.0% | | 55.0% | 55.0% | | 55.0% | 55.0% | |
| Yellow Time (s) | 3.0 | 3.0 | | 3.0 | 3.0 | | 3.0 | 3.0 | | 3.0 | 3.0 | |
| All-Red Time (s) | 2.0 | 2.0 | | 2.0 | 2.0 | | 2.0 | 2.0 | | 2.0 | 2.0 | |
| Lost Time Adjust (s) | -1.0 | -1.0 | | -1.0 | -1.0 | | -1.0 | -1.0 | | -1.0 | -1.0 | |
| Total Lost Time (s) | 4.0 | 4.0 | | 4.0 | 4.0 | | 4.0 | 4.0 | | 4.0 | 4.0 | |
| Lead/Lag | | | | | | | | | | | | |
| Lead-Lag Optimize? | | | | | | | | | | | | |
| Recall Mode | None | None | | None | None | | Max | Max | | Max | Max | |

| Intersection Summary |
|---|
| Cycle Length: 60 |
| Actuated Cycle Length: 56.6 |
| Natural Cycle: 55 |
| Control Type: Actuated-Uncoordinated |

Splits and Phases: 11: S High Street & Rosedale Avenue





| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (veh/h) | 67 | 184 | 94 | 82 | 318 | 87 | 118 | 418 | 98 | 125 | 467 | 41 |
| Future Volume (veh/h) | 67 | 184 | 94 | 82 | 318 | 87 | 118 | 418 | 98 | 125 | 467 | 41 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 0.92 | | 0.76 | 0.88 | | 0.76 | 0.97 | | 0.87 | 0.98 | | 0.87 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach | | No | | | No | | | No | | | No | |
| Adj Sat Flow, veh/h/ln | 1724 | 1710 | 1752 | 1750 | 1750 | 1707 | 1750 | 1791 | 1791 | 1883 | 1898 | 1869 |
| Adj Flow Rate, veh/h | 70 | 192 | 96 | 85 | 331 | 88 | 123 | 435 | 94 | 130 | 486 | 39 |
| Peak Hour Factor | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 |
| Percent Heavy Veh, % | 5 | 6 | 3 | 2 | 2 | 5 | 0 | 2 | 2 | 2 | 1 | 3 |
| Cap, veh/h | 242 | 354 | 177 | 319 | 455 | 121 | 367 | 687 | 149 | 359 | 849 | 68 |
| Arrive On Green | 0.37 | 0.37 | 0.37 | 0.37 | 0.37 | 0.37 | 0.50 | 0.50 | 0.50 | 0.50 | 0.50 | 0.50 |
| Sat Flow, veh/h | 820 | 962 | 481 | 898 | 1238 | 329 | 800 | 1386 | 300 | 863 | 1712 | 137 |
| Grp Volume(v), veh/h | 70 | 0 | 288 | 85 | 0 | 419 | 123 | 0 | 529 | 130 | 0 | 525 |
| Grp Sat Flow(s),veh/h/ln | 820 | 0 | 1443 | 898 | 0 | 1567 | 800 | 0 | 1686 | 863 | 0 | 1850 |
| Q Serve(g_s), s | 4.7 | 0.0 | 9.2 | 4.8 | 0.0 | 13.5 | 7.4 | 0.0 | 13.5 | 7.5 | 0.0 | 11.7 |
| Cycle Q Clear(g_c), s | 17.7 | 0.0 | 9.2 | 13.5 | 0.0 | 13.5 | 18.6 | 0.0 | 13.5 | 20.5 | 0.0 | 11.7 |
| Prop In Lane | 1.00 | | 0.33 | 1.00 | | 0.21 | 1.00 | | 0.18 | 1.00 | | 0.07 |
| Lane Grp Cap(c), veh/h | 242 | 0 | 531 | 319 | 0 | 576 | 367 | 0 | 836 | 359 | 0 | 917 |
| V/C Ratio(X) | 0.29 | 0.00 | 0.54 | 0.27 | 0.00 | 0.73 | 0.34 | 0.00 | 0.63 | 0.36 | 0.00 | 0.57 |
| Avail Cap(c_a), veh/h | 263 | 0 | 568 | 342 | 0 | 616 | 367 | 0 | 836 | 359 | 0 | 917 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 |
| Uniform Delay (d), s/veh | 23.4 | 0.0 | 14.6 | 19.7 | 0.0 | 16.0 | 16.7 | 0.0 | 10.8 | 18.2 | 0.0 | 10.4 |
| Incr Delay (d2), s/veh | 0.7 | 0.0 | 0.9 | 0.4 | 0.0 | 4.0 | 2.5 | 0.0 | 3.6 | 2.8 | 0.0 | 2.6 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(95%),veh/ln | 1.6 | 0.0 | 5.2 | 1.8 | 0.0 | 8.6 | 2.7 | 0.0 | 8.8 | 3.0 | 0.0 | 8.3 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 24.0 | 0.0 | 15.5 | 20.2 | 0.0 | 20.0 | 19.2 | 0.0 | 14.5 | 21.0 | 0.0 | 13.0 |
| LnGrp LOS | C | A | B | C | A | B | B | A | B | C | A | B |
| Approach Vol, veh/h | | 358 | | | 504 | | | 652 | | | 655 | |
| Approach Delay, s/veh | | 17.2 | | | 20.0 | | | 15.4 | | | 14.6 | |
| Approach LOS | | B | | | C | | | B | | | B | |

| Timer - Assigned Phs | | 2 | | 4 | | 6 | | 8 | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Phs Duration (G+Y+Rc), s | | 33.0 | | 25.5 | | 33.0 | | 25.5 | | | | |
| Change Period (Y+Rc), s | | 5.0 | | 5.0 | | 5.0 | | 5.0 | | | | |
| Max Green Setting (Gmax), s | | 28.0 | | 22.0 | | 28.0 | | 22.0 | | | | |
| Max Q Clear Time (g_c+I1), s | | 0.0 | | 20.2 | | 0.0 | | 16.0 | | | | |
| Green Ext Time (p_c), s | | 0.0 | | 0.3 | | 0.0 | | 1.3 | | | | |

| Intersection Summary | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| HCM 6th Ctrl Delay | | | 16.5 | | | | | | | | | |
| HCM 6th LOS | | | B | | | | | | | | | |

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 1 | 159 | 171 | 66 | 179 | 0 | 297 | 0 | 120 | 12 | 73 | 27 |
| Future Volume (vph) | 1 | 159 | 171 | 66 | 179 | 0 | 297 | 0 | 120 | 12 | 73 | 27 |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Ped Bike Factor | | | | | | | | | | | | |
| Frt | | 0.930 | | | | | | | 0.850 | | 0.967 | |
| Flt Protected | | | | | 0.987 | | 0.950 | | | | 0.995 | |
| Satd. Flow (prot) | 0 | 1708 | 0 | 0 | 1839 | 0 | 1761 | 0 | 1607 | 0 | 1805 | 0 |
| Flt Permitted | | | | | 0.987 | | 0.950 | | | | 0.995 | |
| Satd. Flow (perm) | 0 | 1708 | 0 | 0 | 1839 | 0 | 1761 | 0 | 1607 | 0 | 1805 | 0 |
| Sign Control | | Stop | | | Stop | | | Stop | | | Stop | |

Intersection Summary

Control Type: Unsignalized

| Intersection | |
|---|---|
| Intersection Delay, s/veh | 16.4 |
| Intersection LOS | C |

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Vol, veh/h | 1 | 159 | 171 | 66 | 179 | 0 | 297 | 0 | 120 | 12 | 73 | 27 |
| Future Vol, veh/h | 1 | 159 | 171 | 66 | 179 | 0 | 297 | 0 | 120 | 12 | 73 | 27 |
| Peak Hour Factor | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 |
| Heavy Vehicles, % | 0 | 4 | 3 | 0 | 2 | 0 | 2 | 0 | 0 | 0 | 2 | 0 |
| Mvmt Flow | 1 | 169 | 182 | 70 | 190 | 0 | 316 | 0 | 128 | 13 | 78 | 29 |
| Number of Lanes | 0 | 1 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 |

| Approach | EB | WB | NB | SB |
|---|---|---|---|---|
| Opposing Approach | WB | EB | SB | NB |
| Opposing Lanes | 1 | 1 | 1 | 2 |
| Conflicting Approach Left | SB | NB | EB | WB |
| Conflicting Lanes Left | 1 | 2 | 1 | 1 |
| Conflicting Approach Right | NB | SB | WB | EB |
| Conflicting Lanes Right | 2 | 1 | 1 | 1 |
| HCM Control Delay | 16.7 | 15 | 18.2 | 11.8 |
| HCM LOS | C | B | C | B |

| Lane | NBLn1 | NBLn2 | EBLn1 | WBLn1 | SBLn1 |
|---|---|---|---|---|---|
| Vol Left, % | 100% | 0% | 0% | 27% | 11% |
| Vol Thru, % | 0% | 0% | 48% | 73% | 65% |
| Vol Right, % | 0% | 100% | 52% | 0% | 24% |
| Sign Control | Stop | Stop | Stop | Stop | Stop |
| Traffic Vol by Lane | 297 | 120 | 331 | 245 | 112 |
| LT Vol | 297 | 0 | 1 | 66 | 12 |
| Through Vol | 0 | 0 | 159 | 179 | 73 |
| RT Vol | 0 | 120 | 171 | 0 | 27 |
| Lane Flow Rate | 316 | 128 | 352 | 261 | 119 |
| Geometry Grp | 5 | 5 | 2 | 2 | 4a |
| Degree of Util (X) | 0.63 | 0.21 | 0.577 | 0.465 | 0.225 |
| Departure Headway (Hd) | 7.177 | 5.918 | 5.902 | 6.427 | 6.785 |
| Convergence, Y/N | Yes | Yes | Yes | Yes | Yes |
| Cap | 502 | 606 | 613 | 560 | 528 |
| Service Time | 4.916 | 3.657 | 3.941 | 4.47 | 4.84 |
| HCM Lane V/C Ratio | 0.629 | 0.211 | 0.574 | 0.466 | 0.225 |
| HCM Control Delay | 21.4 | 10.2 | 16.7 | 15 | 11.8 |
| HCM Lane LOS | C | B | C | B | B |
| HCM 95th-tile Q | 4.3 | 0.8 | 3.7 | 2.4 | 0.9 |

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 16 | 5 | 31 | 84 | 1 | 69 | 6 | 309 | 66 | 55 | 308 | 6 |
| Future Volume (vph) | 16 | 5 | 31 | 84 | 1 | 69 | 6 | 309 | 66 | 55 | 308 | 6 |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Ped Bike Factor | | | | | | | | | | | | |
| Frt | | 0.920 | | | 0.940 | | | 0.974 | | | 0.997 | |
| Flt Protected | | 0.985 | | | 0.973 | | 0.950 | | | 0.950 | | |
| Satd. Flow (prot) | 0 | 1705 | 0 | 0 | 1713 | 0 | 1805 | 1814 | 0 | 1805 | 1858 | 0 |
| Flt Permitted | | 0.985 | | | 0.973 | | 0.950 | | | 0.950 | | |
| Satd. Flow (perm) | 0 | 1705 | 0 | 0 | 1713 | 0 | 1805 | 1814 | 0 | 1805 | 1858 | 0 |
| Sign Control | | Stop | | | Stop | | | Free | | | Free | |

Intersection Summary

Control Type: Unsignalized

| Intersection | |
|---|---|
| Int Delay, s/veh | 4.7 |

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Vol, veh/h | 16 | 5 | 31 | 84 | 1 | 69 | 6 | 309 | 66 | 55 | 308 | 6 |
| Future Vol, veh/h | 16 | 5 | 31 | 84 | 1 | 69 | 6 | 309 | 66 | 55 | 308 | 6 |
| Conflicting Peds, #/hr | 8 | 0 | 3 | 3 | 0 | 8 | 7 | 0 | 3 | 3 | 0 | 7 |
| Sign Control | Stop | Stop | Stop | Stop | Stop | Stop | Free | Free | Free | Free | Free | Free |
| RT Channelized | - | - | None | - | - | None | - | - | None | - | - | None |
| Storage Length | - | - | - | - | - | - | 25 | - | - | 75 | - | - |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 2 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 96 | 96 | 96 | 96 | 96 | 96 | 96 | 96 | 96 | 96 | 96 | 96 |
| Heavy Vehicles, % | 0 | 0 | 0 | 1 | 0 | 2 | 0 | 2 | 2 | 0 | 2 | 0 |
| Mvmt Flow | 17 | 5 | 32 | 88 | 1 | 72 | 6 | 322 | 69 | 57 | 321 | 6 |

| Major/Minor | Minor2 | | | Minor1 | | | Major1 | | | Major2 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Conflicting Flow All | 858 | 851 | 334 | 832 | 820 | 368 | 334 | 0 | 0 | 394 | 0 | 0 |
| Stage 1 | 445 | 445 | - | 372 | 372 | - | - | - | - | - | - | - |
| Stage 2 | 413 | 406 | - | 460 | 448 | - | - | - | - | - | - | - |
| Critical Hdwy | 7.5 | 6.9 | 6.4 | 7.11 | 6.5 | 6.22 | 4.3 | - | - | 4.3 | - | - |
| Critical Hdwy Stg 1 | 6.5 | 5.9 | - | 6.11 | 5.5 | - | - | - | - | - | - | - |
| Critical Hdwy Stg 2 | 6.5 | 5.9 | - | 6.11 | 5.5 | - | - | - | - | - | - | - |
| Follow-up Hdwy | 3 | 4 | 3.1 | 3 | 4 | 3.1 | 3 | - | - | 3 | - | - |
| Pot Cap-1 Maneuver | 281 | 272 | 738 | 322 | 312 | 717 | 922 | - | - | 879 | - | - |
| Stage 1 | 643 | 550 | - | 742 | 622 | - | - | - | - | - | - | - |
| Stage 2 | 673 | 575 | - | 662 | 576 | - | - | - | - | - | - | - |
| Platoon blocked, % | | | | | | | | - | - | | - | - |
| Mov Cap-1 Maneuver | 235 | 250 | 731 | 285 | 287 | 710 | 916 | - | - | 876 | - | - |
| Mov Cap-2 Maneuver | 235 | 250 | - | 285 | 287 | - | - | - | - | - | - | - |
| Stage 1 | 635 | 510 | - | 735 | 616 | - | - | - | - | - | - | - |
| Stage 2 | 595 | 569 | - | 584 | 535 | - | - | - | - | - | - | - |

| Approach | EB | WB | NB | SB |
|---|---|---|---|---|
| HCM Control Delay, s | 15.5 | 20.6 | 0.1 | 1.4 |
| HCM LOS | C | C | | |

| Minor Lane/Major Mvmt | NBL | NBT | NBR | EBLn1 | WBLn1 | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|
| Capacity (veh/h) | 916 | - | - | 398 | 389 | 876 | - | - |
| HCM Lane V/C Ratio | 0.007 | - | - | 0.136 | 0.412 | 0.065 | - | - |
| HCM Control Delay (s) | 9 | - | - | 15.5 | 20.6 | 9.4 | - | - |
| HCM Lane LOS | A | - | - | C | C | A | - | - |
| HCM 95th %tile Q(veh) | 0 | - | - | 0.5 | 2 | 0.2 | - | - |

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 0 | 349 | 0 | 0 | 469 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Future Volume (vph) | 0 | 349 | 0 | 0 | 469 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Ped Bike Factor | | | | | | | | | | | | |
| Frt | | | | | | | | | | | | |
| Flt Protected | | | | | | | | | | | | |
| Satd. Flow (prot) | 0 | 2010 | 0 | 0 | 1851 | 0 | 0 | 0 | 0 | 0 | 2000 | 0 |
| Flt Permitted | | | | | | | | | | | | |
| Satd. Flow (perm) | 0 | 2010 | 0 | 0 | 1851 | 0 | 0 | 0 | 0 | 0 | 2000 | 0 |
| Satd. Flow (RTOR) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 0 | 367 | 0 | 0 | 494 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Turn Type | | NA | | | NA | | | | | | | |
| Protected Phases | | 2 | | | 6 | | | | | 4 | 4 | |
| Permitted Phases | | | | 6 | | | | | | | | |
| Detector Phase | | 2 | | 6 | 6 | | | | | 4 | 4 | |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | | 5.0 | | 5.0 | 5.0 | | | | | 5.0 | 5.0 | |
| Minimum Split (s) | | 22.0 | | 22.0 | 22.0 | | | | | 21.0 | 21.0 | |
| Total Split (s) | | 33.0 | | 33.0 | 33.0 | | | | | 21.0 | 21.0 | |
| Total Split (%) | | 55.0% | | 55.0% | 55.0% | | | | | 35.0% | 35.0% | |
| Yellow Time (s) | | 3.0 | | 3.0 | 3.0 | | | | | 3.0 | 3.0 | |
| All-Red Time (s) | | 2.0 | | 2.0 | 2.0 | | | | | 2.0 | 2.0 | |
| Lost Time Adjust (s) | | -1.0 | | | -1.0 | | | | | | -1.0 | |
| Total Lost Time (s) | | 4.0 | | | 4.0 | | | | | | 4.0 | |
| Lead/Lag | | Lag | | Lag | Lag | | | | | Lag | Lag | |
| Lead-Lag Optimize? | | Yes | | Yes | Yes | | | | | Yes | Yes | |
| Recall Mode | | Max | | Max | Max | | | | | None | None | |
| Act Effct Green (s) | | 48.6 | | | 48.6 | | | | | | | |
| Actuated g/C Ratio | | 0.92 | | | 0.92 | | | | | | | |
| v/c Ratio | | 0.20 | | | 0.29 | | | | | | | |
| Control Delay | | 2.4 | | | 2.8 | | | | | | | |
| Queue Delay | | 0.0 | | | 0.0 | | | | | | | |
| Total Delay | | 2.4 | | | 2.8 | | | | | | | |
| LOS | | A | | | A | | | | | | | |
| Approach Delay | | 2.4 | | | 2.8 | | | | | | | |
| Approach LOS | | A | | | A | | | | | | | |
| Queue Length 50th (ft) | | 0 | | | 0 | | | | | | | |
| Queue Length 95th (ft) | | 106 | | | 156 | | | | | | | |
| Internal Link Dist (ft) | | 456 | | | 695 | | | 194 | | | 757 | |
| Turn Bay Length (ft) | | | | | | | | | | | | |
| Base Capacity (vph) | | 1857 | | | 1710 | | | | | | | |
| Starvation Cap Reductn | | 0 | | | 0 | | | | | | | |
| Spillback Cap Reductn | | 0 | | | 0 | | | | | | | |
| Storage Cap Reductn | | 0 | | | 0 | | | | | | | |
| Reduced v/c Ratio | | 0.20 | | | 0.29 | | | | | | | |

| Intersection Summary |
|---|
| Cycle Length: 60 |

| Lane Group | Ø1 | Ø3 | Ø5 |
|---|---|---|---|
| Lane Configurations | | | |
| Traffic Volume (vph) | | | |
| Future Volume (vph) | | | |
| Lane Util. Factor | | | |
| Ped Bike Factor | | | |
| Frt | | | |
| Flt Protected | | | |
| Satd. Flow (prot) | | | |
| Flt Permitted | | | |
| Satd. Flow (perm) | | | |
| Satd. Flow (RTOR) | | | |
| Lane Group Flow (vph) | | | |
| Turn Type | | | |
| Protected Phases | 1 | 3 | 5 |
| Permitted Phases | | | |
| Detector Phase | | | |
| Switch Phase | | | |
| Minimum Initial (s) | 1.0 | 1.0 | 1.0 |
| Minimum Split (s) | 3.0 | 3.0 | 3.0 |
| Total Split (s) | 3.0 | 3.0 | 3.0 |
| Total Split (%) | 5% | 5% | 5% |
| Yellow Time (s) | 2.0 | 2.0 | 2.0 |
| All-Red Time (s) | 0.0 | 0.0 | 0.0 |
| Lost Time Adjust (s) | | | |
| Total Lost Time (s) | | | |
| Lead/Lag | Lead | Lead | Lead |
| Lead-Lag Optimize? | Yes | Yes | Yes |
| Recall Mode | None | None | None |
| Act Effct Green (s) | | | |
| Actuated g/C Ratio | | | |
| v/c Ratio | | | |
| Control Delay | | | |
| Queue Delay | | | |
| Total Delay | | | |
| LOS | | | |
| Approach Delay | | | |
| Approach LOS | | | |
| Queue Length 50th (ft) | | | |
| Queue Length 95th (ft) | | | |
| Internal Link Dist (ft) | | | |
| Turn Bay Length (ft) | | | |
| Base Capacity (vph) | | | |
| Starvation Cap Reductn | | | |
| Spillback Cap Reductn | | | |
| Storage Cap Reductn | | | |
| Reduced v/c Ratio | | | |

| Intersection Summary |
|---|

| | |
|---|---|
| Actuated Cycle Length: 52.6 | |
| Natural Cycle: 50 | |
| Control Type: Semi Act-Uncoord | |
| Maximum v/c Ratio: 0.29 | |
| Intersection Signal Delay: 2.6 | Intersection LOS: A |
| Intersection Capacity Utilization 47.5% | ICU Level of Service A |
| Analysis Period (min) 15 | |

Splits and Phases: 14: Church Avenue/Church Street & Rosedale Avenue



| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 16 | 178 | 14 | 76 | 262 | 211 | 12 | 136 | 159 | 137 | 140 | 54 |
| Future Volume (vph) | 16 | 178 | 14 | 76 | 262 | 211 | 12 | 136 | 159 | 137 | 140 | 54 |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Ped Bike Factor | | | | | 0.97 | | | 0.97 | | 0.96 | | |
| Frt | | 0.991 | | | 0.933 | | | 0.919 | | | | 0.850 |
| Flt Protected | | 0.996 | | 0.950 | | | 0.950 | | | 0.950 | | |
| Satd. Flow (prot) | 0 | 1760 | 0 | 1362 | 1629 | 0 | 1522 | 1436 | 0 | 1659 | 1672 | 1549 |
| Flt Permitted | | 0.875 | | 0.580 | | | 0.950 | | | 0.950 | | |
| Satd. Flow (perm) | 0 | 1546 | 0 | 831 | 1629 | 0 | 1522 | 1436 | 0 | 1598 | 1672 | 1549 |
| Satd. Flow (RTOR) | | 3 | | | 33 | | | 54 | | | | 85 |
| Turn Type | Perm | NA | | Perm | NA | | Split | NA | | Split | NA | Perm |
| Protected Phases | | 2 | | | 6 | | 4 | 4 | | 8 | 8 | |
| Permitted Phases | 2 | | | 6 | | | | | | | | 8 |
| Detector Phase | 2 | 2 | | 6 | 6 | | 4 | 4 | | 8 | 8 | 8 |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 15.0 | 15.0 | | 15.0 | 15.0 | | 5.0 | 5.0 | | 5.0 | 5.0 | 5.0 |
| Minimum Split (s) | 27.0 | 27.0 | | 27.0 | 27.0 | | 11.0 | 11.0 | | 32.0 | 32.0 | 32.0 |
| Total Split (s) | 33.0 | 33.0 | | 33.0 | 33.0 | | 43.0 | 43.0 | | 39.0 | 39.0 | 39.0 |
| Total Split (%) | 28.7% | 28.7% | | 28.7% | 28.7% | | 37.4% | 37.4% | | 33.9% | 33.9% | 33.9% |
| Yellow Time (s) | 3.0 | 3.0 | | 3.0 | 3.0 | | 3.0 | 3.0 | | 3.0 | 3.0 | 3.0 |
| All-Red Time (s) | 3.0 | 3.0 | | 3.0 | 3.0 | | 3.0 | 3.0 | | 3.0 | 3.0 | 3.0 |
| Lost Time Adjust (s) | | -1.0 | | -1.0 | -1.0 | | -1.0 | -1.0 | | -1.0 | -1.0 | -1.0 |
| Total Lost Time (s) | | 5.0 | | 5.0 | 5.0 | | 5.0 | 5.0 | | 5.0 | 5.0 | 5.0 |
| Lead/Lag | | | | | | | | | | | | |
| Lead-Lag Optimize? | | | | | | | | | | | | |
| Recall Mode | Max | Max | | Max | Max | | None | None | | None | None | None |

| Intersection Summary |
|---|
| Cycle Length: 115 |
| Actuated Cycle Length: 80.3 |
| Natural Cycle: 90 |
| Control Type: Actuated-Uncoordinated |

Splits and Phases: 16: S New Street & Rosedale Avenue



| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (veh/h) | 16 | 178 | 14 | 76 | 262 | 211 | 12 | 136 | 159 | 137 | 140 | 54 |
| Future Volume (veh/h) | 16 | 178 | 14 | 76 | 262 | 211 | 12 | 136 | 159 | 137 | 140 | 54 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 0.99 | | 0.98 | 0.99 | | 1.00 | 1.00 | | 0.95 | 1.00 | | 0.93 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach | | No | | | No | | | No | | | No | |
| Adj Sat Flow, veh/h/ln | 1807 | 1837 | 1911 | 1524 | 1823 | 1837 | 1473 | 1431 | 1529 | 1697 | 1683 | 1779 |
| Adj Flow Rate, veh/h | 17 | 189 | 15 | 81 | 279 | 0 | 13 | 145 | 158 | 146 | 149 | 53 |
| Peak Hour Factor | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 |
| Percent Heavy Veh, % | 7 | 5 | 0 | 22 | 1 | 0 | 9 | 12 | 5 | 1 | 2 | 0 |
| Cap, veh/h | 70 | 555 | 42 | 406 | 638 | | 390 | 169 | 184 | 299 | 311 | 259 |
| Arrive On Green | 0.35 | 0.35 | 0.35 | 0.35 | 0.35 | 0.00 | 0.28 | 0.28 | 0.28 | 0.18 | 0.18 | 0.18 |
| Sat Flow, veh/h | 62 | 1586 | 120 | 947 | 1823 | 0 | 1403 | 609 | 664 | 1616 | 1683 | 1402 |
| Grp Volume(v), veh/h | 221 | 0 | 0 | 81 | 279 | 0 | 13 | 0 | 303 | 146 | 149 | 53 |
| Grp Sat Flow(s),veh/h/ln | 1767 | 0 | 0 | 947 | 1823 | 0 | 1403 | 0 | 1273 | 1616 | 1683 | 1402 |
| Q Serve(g_s), s | 0.0 | 0.0 | 0.0 | 0.0 | 9.4 | 0.0 | 0.5 | 0.0 | 18.1 | 6.5 | 6.3 | 2.6 |
| Cycle Q Clear(g_c), s | 7.2 | 0.0 | 0.0 | 6.0 | 9.4 | 0.0 | 0.5 | 0.0 | 18.1 | 6.5 | 6.3 | 2.6 |
| Prop In Lane | 0.08 | | 0.07 | 1.00 | | 0.00 | 1.00 | | 0.52 | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 667 | 0 | 0 | 406 | 638 | | 390 | 0 | 353 | 299 | 311 | 259 |
| V/C Ratio(X) | 0.33 | 0.00 | 0.00 | 0.20 | 0.44 | | 0.03 | 0.00 | 0.86 | 0.49 | 0.48 | 0.20 |
| Avail Cap(c_a), veh/h | 667 | 0 | 0 | 406 | 638 | | 666 | 0 | 604 | 687 | 715 | 596 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 0.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 19.3 | 0.0 | 0.0 | 18.9 | 20.0 | 0.0 | 21.1 | 0.0 | 27.4 | 29.2 | 29.2 | 27.6 |
| Incr Delay (d2), s/veh | 1.3 | 0.0 | 0.0 | 1.1 | 2.2 | 0.0 | 0.0 | 0.0 | 6.1 | 1.2 | 1.1 | 0.4 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(95%),veh/ln | 5.8 | 0.0 | 0.0 | 2.1 | 7.7 | 0.0 | 0.3 | 0.0 | 9.9 | 4.7 | 4.7 | 1.6 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 20.6 | 0.0 | 0.0 | 20.0 | 22.1 | 0.0 | 21.1 | 0.0 | 33.5 | 30.5 | 30.3 | 28.0 |
| LnGrp LOS | C | A | A | B | C | | C | A | C | C | C | C |
| Approach Vol, veh/h | | 221 | | | 360 | | | 316 | | | 348 | |
| Approach Delay, s/veh | | 20.6 | | | 21.6 | | | 33.0 | | | 30.0 | |
| Approach LOS | | C | | | C | | | C | | | C | |

| Timer - Assigned Phs | | 2 | | 4 | | 6 | | 8 | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Phs Duration (G+Y+Rc), s | | 33.0 | | 27.2 | | 33.0 | | 19.8 | | | | |
| Change Period (Y+Rc), s | | 6.0 | | 6.0 | | 6.0 | | 6.0 | | | | |
| Max Green Setting (Gmax), s | | 27.0 | | 37.0 | | 27.0 | | 33.0 | | | | |
| Max Q Clear Time (g_c+I1), s | | 0.0 | | 20.1 | | 0.0 | | 8.5 | | | | |
| Green Ext Time (p_c), s | | 0.0 | | 1.2 | | 0.0 | | 1.1 | | | | |

| Intersection Summary | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| HCM 6th Ctrl Delay | | | 26.7 | | | | | | | | | |
| HCM 6th LOS | | | C | | | | | | | | | |

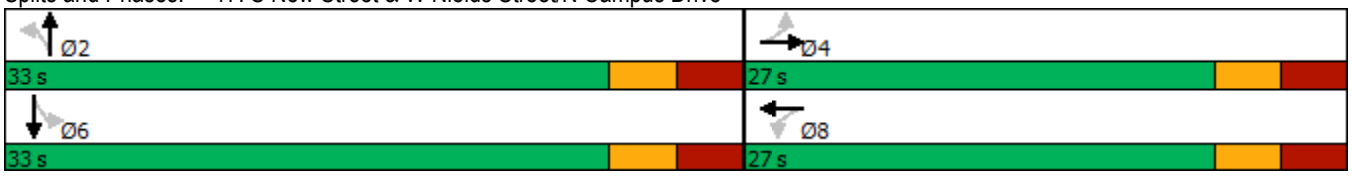
**Notes**

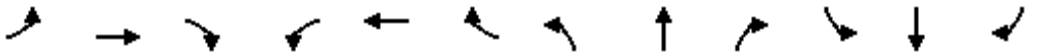
Unsignalized Delay for [WBR] is excluded from calculations of the approach delay and intersection delay.

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 8 | 5 | 40 | 107 | 10 | 76 | 32 | 296 | 86 | 35 | 174 | 15 |
| Future Volume (vph) | 8 | 5 | 40 | 107 | 10 | 76 | 32 | 296 | 86 | 35 | 174 | 15 |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Ped Bike Factor | | 0.92 | | | 0.95 | | 1.00 | 0.99 | | | 1.00 | |
| Frt | | 0.899 | | | 0.947 | | | 0.966 | | | 0.991 | |
| Flt Protected | | 0.993 | | | 0.973 | | 0.950 | | | | 0.992 | |
| Satd. Flow (prot) | 0 | 1558 | 0 | 0 | 1665 | 0 | 1645 | 1729 | 0 | 0 | 2001 | 0 |
| Flt Permitted | | 0.935 | | | 0.794 | | 0.651 | | | | 0.902 | |
| Satd. Flow (perm) | 0 | 1466 | 0 | 0 | 1302 | 0 | 1126 | 1729 | 0 | 0 | 1815 | 0 |
| Satd. Flow (RTOR) | | | | | 61 | | | 33 | | | 8 | |
| Turn Type | Perm | NA | | Perm | NA | | Perm | NA | | Perm | NA | |
| Protected Phases | | 4 | | | 8 | | | 2 | | | 6 | |
| Permitted Phases | 4 | | | 8 | | | 2 | | | 6 | | |
| Detector Phase | 4 | 4 | | 8 | 8 | | 2 | 2 | | 6 | 6 | |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 3.0 | 3.0 | | 3.0 | 3.0 | | 3.0 | 3.0 | | 3.0 | 3.0 | |
| Minimum Split (s) | 25.0 | 25.0 | | 25.0 | 25.0 | | 23.0 | 23.0 | | 23.0 | 23.0 | |
| Total Split (s) | 27.0 | 27.0 | | 27.0 | 27.0 | | 33.0 | 33.0 | | 33.0 | 33.0 | |
| Total Split (%) | 45.0% | 45.0% | | 45.0% | 45.0% | | 55.0% | 55.0% | | 55.0% | 55.0% | |
| Yellow Time (s) | 3.0 | 3.0 | | 3.0 | 3.0 | | 3.0 | 3.0 | | 3.0 | 3.0 | |
| All-Red Time (s) | 3.0 | 3.0 | | 3.0 | 3.0 | | 3.0 | 3.0 | | 3.0 | 3.0 | |
| Lost Time Adjust (s) | | -1.0 | | | -1.0 | | -1.0 | -1.0 | | | -1.0 | |
| Total Lost Time (s) | | 5.0 | | | 5.0 | | 5.0 | 5.0 | | | 5.0 | |
| Lead/Lag | | | | | | | | | | | | |
| Lead-Lag Optimize? | | | | | | | | | | | | |
| Recall Mode | None | None | | None | None | | Max | Max | | Max | Max | |

| Intersection Summary |
|---|
| Cycle Length: 60 |
| Actuated Cycle Length: 53.9 |
| Natural Cycle: 50 |
| Control Type: Actuated-Uncoordinated |

Splits and Phases: 17: S New Street & W Nields Street/N Campus Drive

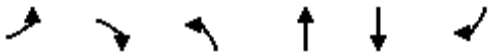




| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (veh/h) | 8 | 5 | 40 | 107 | 10 | 76 | 32 | 296 | 86 | 35 | 174 | 15 |
| Future Volume (veh/h) | 8 | 5 | 40 | 107 | 10 | 76 | 32 | 296 | 86 | 35 | 174 | 15 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 0.93 | | 0.91 | 0.92 | | 0.91 | 0.99 | | 0.98 | 0.99 | | 0.98 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach | | No | | | No | | | No | | | No | |
| Adj Sat Flow, veh/h/ln | 1988 | 1988 | 1988 | 1912 | 1912 | 1912 | 1794 | 1779 | 1822 | 2021 | 2036 | 1947 |
| Adj Flow Rate, veh/h | 9 | 6 | 43 | 122 | 11 | 53 | 36 | 336 | 98 | 40 | 198 | 9 |
| Peak Hour Factor | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 |
| Percent Heavy Veh, % | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 6 | 3 | 3 | 2 | 8 |
| Cap, veh/h | 111 | 83 | 330 | 347 | 46 | 112 | 762 | 696 | 203 | 178 | 839 | 35 |
| Arrive On Green | 0.28 | 0.28 | 0.28 | 0.28 | 0.28 | 0.28 | 0.53 | 0.53 | 0.53 | 0.53 | 0.53 | 0.53 |
| Sat Flow, veh/h | 113 | 295 | 1172 | 830 | 163 | 396 | 1113 | 1316 | 384 | 187 | 1586 | 67 |
| Grp Volume(v), veh/h | 58 | 0 | 0 | 186 | 0 | 0 | 36 | 0 | 434 | 247 | 0 | 0 |
| Grp Sat Flow(s),veh/h/ln | 1580 | 0 | 0 | 1389 | 0 | 0 | 1113 | 0 | 1700 | 1840 | 0 | 0 |
| Q Serve(g_s), s | 0.0 | 0.0 | 0.0 | 4.2 | 0.0 | 0.0 | 0.0 | 0.0 | 8.5 | 0.0 | 0.0 | 0.0 |
| Cycle Q Clear(g_c), s | 1.4 | 0.0 | 0.0 | 5.6 | 0.0 | 0.0 | 0.5 | 0.0 | 8.5 | 3.5 | 0.0 | 0.0 |
| Prop In Lane | 0.16 | | 0.74 | 0.66 | | 0.28 | 1.00 | | 0.23 | 0.16 | | 0.04 |
| Lane Grp Cap(c), veh/h | 524 | 0 | 0 | 504 | 0 | 0 | 762 | 0 | 899 | 1053 | 0 | 0 |
| V/C Ratio(X) | 0.11 | 0.00 | 0.00 | 0.37 | 0.00 | 0.00 | 0.05 | 0.00 | 0.48 | 0.23 | 0.00 | 0.00 |
| Avail Cap(c_a), veh/h | 729 | 0 | 0 | 685 | 0 | 0 | 762 | 0 | 899 | 1053 | 0 | 0 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 0.00 |
| Uniform Delay (d), s/veh | 14.1 | 0.0 | 0.0 | 15.5 | 0.0 | 0.0 | 6.0 | 0.0 | 7.9 | 6.7 | 0.0 | 0.0 |
| Incr Delay (d2), s/veh | 0.1 | 0.0 | 0.0 | 0.4 | 0.0 | 0.0 | 0.1 | 0.0 | 1.9 | 0.5 | 0.0 | 0.0 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(95%),veh/ln | 0.9 | 0.0 | 0.0 | 3.1 | 0.0 | 0.0 | 0.3 | 0.0 | 5.3 | 2.4 | 0.0 | 0.0 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 14.2 | 0.0 | 0.0 | 16.0 | 0.0 | 0.0 | 6.1 | 0.0 | 9.7 | 7.2 | 0.0 | 0.0 |
| LnGrp LOS | B | A | A | B | A | A | A | A | A | A | A | A |
| Approach Vol, veh/h | | 58 | | | 186 | | | 470 | | | 247 | |
| Approach Delay, s/veh | | 14.2 | | | 16.0 | | | 9.5 | | | 7.2 | |
| Approach LOS | | B | | | B | | | A | | | A | |

| Timer - Assigned Phs | | 2 | | 4 | | 6 | | 8 | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Phs Duration (G+Y+Rc), s | | 33.0 | | 19.9 | | 33.0 | | 19.9 | | | | |
| Change Period (Y+Rc), s | | 6.0 | | 6.0 | | 6.0 | | 6.0 | | | | |
| Max Green Setting (Gmax), s | | 27.0 | | 21.0 | | 27.0 | | 21.0 | | | | |
| Max Q Clear Time (g_c+I1), s | | 0.0 | | 3.4 | | 0.0 | | 7.6 | | | | |
| Green Ext Time (p_c), s | | 0.0 | | 0.1 | | 0.0 | | 0.6 | | | | |

| Intersection Summary | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| HCM 6th Ctrl Delay | | | 10.4 | | | | | | | | | |
| HCM 6th LOS | | | B | | | | | | | | | |



| Lane Group | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (vph) | 2 | 8 | 5 | 260 | 343 | 8 |
| Future Volume (vph) | 2 | 8 | 5 | 260 | 343 | 8 |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Ped Bike Factor | | | | | | |
| Frt | 0.890 | | | | 0.997 | |
| Flt Protected | 0.991 | | | 0.999 | | |
| Satd. Flow (prot) | 1404 | 0 | 0 | 1753 | 1768 | 0 |
| Flt Permitted | 0.991 | | | 0.999 | | |
| Satd. Flow (perm) | 1404 | 0 | 0 | 1753 | 1768 | 0 |
| Sign Control | Stop | | | Stop | Stop | |

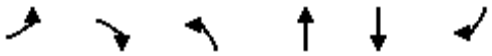
| Intersection Summary |
|---|
| Control Type: Unsignalized |

| Intersection | |
|---|---|
| Intersection Delay, s/veh | 10.7 |
| Intersection LOS | B |

| Movement | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 2 | 8 | 5 | 260 | 343 | 8 |
| Future Vol, veh/h | 2 | 8 | 5 | 260 | 343 | 8 |
| Peak Hour Factor | 0.87 | 0.87 | 0.87 | 0.87 | 0.87 | 0.87 |
| Heavy Vehicles, % | 50 | 14 | 0 | 9 | 7 | 14 |
| Mvmt Flow | 2 | 9 | 6 | 299 | 394 | 9 |
| Number of Lanes | 1 | 0 | 0 | 1 | 1 | 0 |

| Approach | EB | NB | SB |
|---|---|---|---|
| Opposing Approach | | SB | NB |
| Opposing Lanes | 0 | 1 | 1 |
| Conflicting Approach Left | SB | EB | |
| Conflicting Lanes Left | 1 | 1 | 0 |
| Conflicting Approach Right | NB | | EB |
| Conflicting Lanes Right | 1 | 0 | 1 |
| HCM Control Delay | 9 | 9.9 | 11.4 |
| HCM LOS | A | A | B |

| Lane | NBLn1 | EBLn1 | SBLn1 |
|---|---|---|---|
| Vol Left, % | 2% | 20% | 0% |
| Vol Thru, % | 98% | 0% | 98% |
| Vol Right, % | 0% | 80% | 2% |
| Sign Control | Stop | Stop | Stop |
| Traffic Vol by Lane | 265 | 10 | 351 |
| LT Vol | 5 | 2 | 0 |
| Through Vol | 260 | 0 | 343 |
| RT Vol | 0 | 8 | 8 |
| Lane Flow Rate | 305 | 11 | 403 |
| Geometry Grp | 1 | 1 | 1 |
| Degree of Util (X) | 0.367 | 0.019 | 0.488 |
| Departure Headway (Hd) | 4.338 | 5.828 | 4.352 |
| Convergence, Y/N | Yes | Yes | Yes |
| Cap | 832 | 614 | 835 |
| Service Time | 2.351 | 3.863 | 2.352 |
| HCM Lane V/C Ratio | 0.367 | 0.018 | 0.483 |
| HCM Control Delay | 9.9 | 9 | 11.4 |
| HCM Lane LOS | A | A | B |
| HCM 95th-tile Q | 1.7 | 0.1 | 2.7 |



| Lane Group | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (vph) | 3 | 0 | 0 | 246 | 343 | 0 |
| Future Volume (vph) | 3 | 0 | 0 | 246 | 343 | 0 |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Ped Bike Factor | | | | | | |
| Frt | | | | | | |
| Flt Protected | 0.950 | | | | | |
| Satd. Flow (prot) | 1796 | 0 | 0 | 1742 | 1810 | 0 |
| Flt Permitted | 0.950 | | | | | |
| Satd. Flow (perm) | 1796 | 0 | 0 | 1742 | 1810 | 0 |
| Sign Control | Stop | | | Free | Free | |

| Intersection Summary |
|---|
| Control Type: Unsignalized |

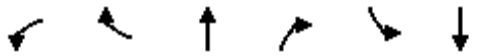
| Intersection | |
|---|---|
| Int Delay, s/veh | 0.1 |

| Movement | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 3 | 0 | 0 | 246 | 343 | 0 |
| Future Vol, veh/h | 3 | 0 | 0 | 246 | 343 | 0 |
| Conflicting Peds, #/hr | 0 | 1 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Free | Free | Free | Free |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | 0 | - | - | - | - | - |
| Veh in Median Storage, # | 0 | - | - | 0 | 0 | - |
| Grade, % | 1 | - | - | 2 | -2 | - |
| Peak Hour Factor | 88 | 88 | 88 | 88 | 88 | 88 |
| Heavy Vehicles, % | 0 | 0 | 0 | 8 | 6 | 0 |
| Mvmt Flow | 3 | 0 | 0 | 280 | 390 | 0 |

| Major/Minor | Minor2 | | Major1 | | Major2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 670 | 391 | 390 | 0 | - | 0 |
| Stage 1 | 390 | - | - | - | - | - |
| Stage 2 | 280 | - | - | - | - | - |
| Critical Hdwy | 6.6 | 6.3 | 4.3 | - | - | - |
| Critical Hdwy Stg 1 | 5.6 | - | - | - | - | - |
| Critical Hdwy Stg 2 | 5.6 | - | - | - | - | - |
| Follow-up Hdwy | 3 | 3.1 | 3 | - | - | - |
| Pot Cap-1 Maneuver | 458 | 690 | 882 | - | - | - |
| Stage 1 | 766 | - | - | - | - | - |
| Stage 2 | 870 | - | - | - | - | - |
| Platoon blocked, % | | | | - | - | - |
| Mov Cap-1 Maneuver | 458 | 689 | 882 | - | - | - |
| Mov Cap-2 Maneuver | 458 | - | - | - | - | - |
| Stage 1 | 766 | - | - | - | - | - |
| Stage 2 | 870 | - | - | - | - | - |

| Approach | EB | NB | SB |
|---|---|---|---|
| HCM Control Delay, s | 12.9 | 0 | 0 |
| HCM LOS | B | | |

| Minor Lane/Major Mvmt | NBL | NBT | EBLn1 | SBT | SBR |
|---|---|---|---|---|---|
| Capacity (veh/h) | 882 | - | 458 | - | - |
| HCM Lane V/C Ratio | - | - | 0.007 | - | - |
| HCM Control Delay (s) | 0 | - | 12.9 | - | - |
| HCM Lane LOS | A | - | B | - | - |
| HCM 95th %tile Q(veh) | 0 | - | 0 | - | - |



| Lane Group | WBL | WBR | NBT | NBR | SBL | SBT |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (vph) | 18 | 66 | 178 | 11 | 27 | 320 |
| Future Volume (vph) | 18 | 66 | 178 | 11 | 27 | 320 |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Ped Bike Factor | | | | | | |
| Frt | | 0.850 | 0.992 | | | |
| Flt Protected | 0.950 | | | | | 0.996 |
| Satd. Flow (prot) | 1509 | 1317 | 1726 | 0 | 0 | 1791 |
| Flt Permitted | 0.950 | | | | | 0.996 |
| Satd. Flow (perm) | 1509 | 1317 | 1726 | 0 | 0 | 1791 |
| Sign Control | Stop | | Free | | | Free |

## Intersection Summary

Control Type: Unsignalized

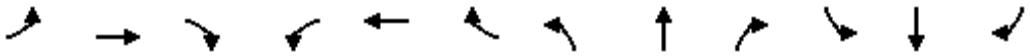
| Intersection | |
|---|---|
| Int Delay, s/veh | 1.9 |

| Movement | WBL | WBR | NBT | NBR | SBL | SBT |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 18 | 66 | 178 | 11 | 27 | 320 |
| Future Vol, veh/h | 18 | 66 | 178 | 11 | 27 | 320 |
| Conflicting Peds, #/hr | 36 | 0 | 0 | 8 | 8 | 0 |
| Sign Control | Stop | Stop | Free | Free | Free | Free |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | 0 | 0 | - | - | - | - |
| Veh in Median Storage, # | 0 | - | 0 | - | - | 0 |
| Grade, % | 1 | - | 1 | - | - | -3 |
| Peak Hour Factor | 89 | 89 | 89 | 89 | 89 | 89 |
| Heavy Vehicles, % | 19 | 22 | 5 | 70 | 46 | 4 |
| Mvmt Flow | 20 | 74 | 200 | 12 | 30 | 360 |

| Major/Minor | Minor1 | | Major1 | | Major2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 670 | 214 | 0 | 0 | 220 | 0 |
| Stage 1 | 214 | - | - | - | - | - |
| Stage 2 | 456 | - | - | - | - | - |
| Critical Hdwy | 6.79 | 6.52 | - | - | 4.8 | - |
| Critical Hdwy Stg 1 | 5.79 | - | - | - | - | - |
| Critical Hdwy Stg 2 | 5.79 | - | - | - | - | - |
| Follow-up Hdwy | 3.2 | 3.3 | - | - | 3.4 | - |
| Pot Cap-1 Maneuver | 422 | 815 | - | - | 875 | - |
| Stage 1 | 876 | - | - | - | - | - |
| Stage 2 | 657 | - | - | - | - | - |
| Platoon blocked, % | | | - | - | | - |
| Mov Cap-1 Maneuver | 387 | 809 | - | - | 868 | - |
| Mov Cap-2 Maneuver | 387 | - | - | - | - | - |
| Stage 1 | 869 | - | - | - | - | - |
| Stage 2 | 607 | - | - | - | - | - |

| Approach | WB | NB | SB |
|---|---|---|---|
| HCM Control Delay, s | 11 | 0 | 0.7 |
| HCM LOS | B | | |

| Minor Lane/Major Mvmt | NBT | NBR | WBLn1 | WBLn2 | SBL | SBT |
|---|---|---|---|---|---|---|
| Capacity (veh/h) | - | - | 387 | 809 | 868 | - |
| HCM Lane V/C Ratio | - | - | 0.052 | 0.092 | 0.035 | - |
| HCM Control Delay (s) | - | - | 14.8 | 9.9 | 9.3 | 0 |
| HCM Lane LOS | - | - | B | A | A | A |
| HCM 95th %tile Q(veh) | - | - | 0.2 | 0.3 | 0.1 | - |



| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 104 | 9 | 34 | 5 | 11 | 9 | 20 | 70 | 1 | 2 | 212 | 108 |
| Future Volume (vph) | 104 | 9 | 34 | 5 | 11 | 9 | 20 | 70 | 1 | 2 | 212 | 108 |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Ped Bike Factor | | | | | | | | | | | | |
| Frt | | 0.881 | | | 0.932 | | | 0.999 | | | 0.955 | |
| Flt Protected | 0.950 | | | 0.950 | | | | 0.989 | | | | |
| Satd. Flow (prot) | 1695 | 1426 | 0 | 1832 | 1120 | 0 | 0 | 1825 | 0 | 0 | 1785 | 0 |
| Flt Permitted | 0.950 | | | 0.950 | | | | 0.989 | | | | |
| Satd. Flow (perm) | 1695 | 1426 | 0 | 1832 | 1120 | 0 | 0 | 1825 | 0 | 0 | 1785 | 0 |
| Sign Control | | Stop | | | Stop | | | Free | | | Free | |

## Intersection Summary

Control Type: Unsignalized

| Intersection | |
|---|---|
| Int Delay, s/veh | 4 |

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Vol, veh/h | 104 | 9 | 34 | 5 | 11 | 9 | 20 | 70 | 1 | 2 | 212 | 108 |
| Future Vol, veh/h | 104 | 9 | 34 | 5 | 11 | 9 | 20 | 70 | 1 | 2 | 212 | 108 |
| Conflicting Peds, #/hr | 0 | 0 | 2 | 2 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 2 |
| Sign Control | Stop | Stop | Stop | Stop | Stop | Stop | Free | Free | Free | Free | Free | Free |
| RT Channelized | - | - | None | - | - | None | - | - | None | - | - | None |
| Storage Length | 0 | - | - | 0 | - | - | - | - | - | - | - | - |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | -1 | - | - | -3 | - | - | 1 | - | - | 0 | - |
| Peak Hour Factor | 89 | 89 | 89 | 89 | 89 | 89 | 89 | 89 | 89 | 89 | 89 | 89 |
| Heavy Vehicles, % | 7 | 75 | 3 | 0 | 90 | 25 | 11 | 0 | 0 | 0 | 2 | 1 |
| Mvmt Flow | 117 | 10 | 38 | 6 | 12 | 10 | 22 | 79 | 1 | 2 | 238 | 121 |

| Major/Minor | Minor2 | | | Minor1 | | | Major1 | | | Major2 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Conflicting Flow All | 440 | 429 | 303 | 453 | 489 | 80 | 361 | 0 | 0 | 80 | 0 | 0 |
| Stage 1 | 305 | 305 | - | 124 | 124 | - | - | - | - | - | - | - |
| Stage 2 | 135 | 124 | - | 329 | 365 | - | - | - | - | - | - | - |
| Critical Hdwy | 6.97 | 7.05 | 6.13 | 6.5 | 6.8 | 6.15 | 4.4 | - | - | 4.3 | - | - |
| Critical Hdwy Stg 1 | 5.97 | 6.05 | - | 5.5 | 5.8 | - | - | - | - | - | - | - |
| Critical Hdwy Stg 2 | 5.97 | 6.05 | - | 5.5 | 5.8 | - | - | - | - | - | - | - |
| Follow-up Hdwy | 3.1 | 4.675 | 3.1 | 3 | 4.81 | 3.3 | 3.1 | - | - | 3 | - | - |
| Pot Cap-1 Maneuver | 595 | 434 | 788 | 636 | 405 | 987 | 869 | - | - | 1127 | - | - |
| Stage 1 | 796 | 559 | - | 1045 | 665 | - | - | - | - | - | - | - |
| Stage 2 | 983 | 677 | - | 830 | 525 | - | - | - | - | - | - | - |
| Platoon blocked, % | | | | | | | | - | - | | - | - |
| Mov Cap-1 Maneuver | 561 | 421 | 785 | 580 | 392 | 987 | 867 | - | - | 1127 | - | - |
| Mov Cap-2 Maneuver | 561 | 421 | - | 580 | 392 | - | - | - | - | - | - | - |
| Stage 1 | 773 | 557 | - | 1017 | 647 | - | - | - | - | - | - | - |
| Stage 2 | 929 | 659 | - | 772 | 523 | - | - | - | - | - | - | - |

| Approach | EB | WB | NB | SB |
|---|---|---|---|---|
| HCM Control Delay, s | 12.4 | 11.9 | 2 | 0.1 |
| HCM LOS | B | B | | |

| Minor Lane/Major Mvmt | NBL | NBT | NBR | EBLn1 | EBLn2 | WBLn1 | WBLn2 | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|
| Capacity (veh/h) | 867 | - | - | 561 | 665 | 580 | 538 | 1127 | - | - |
| HCM Lane V/C Ratio | 0.026 | - | - | 0.208 | 0.073 | 0.01 | 0.042 | 0.002 | - | - |
| HCM Control Delay (s) | 9.3 | 0 | - | 13.1 | 10.8 | 11.3 | 12 | 8.2 | 0 | - |
| HCM Lane LOS | A | A | - | B | B | B | B | A | A | - |
| HCM 95th %tile Q(veh) | 0.1 | - | - | 0.8 | 0.2 | 0 | 0.1 | 0 | - | - |

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 8 | 2 | 9 | 6 | 2 | 8 | 55 | 75 | 3 | 3 | 158 | 87 |
| Future Volume (vph) | 8 | 2 | 9 | 6 | 2 | 8 | 55 | 75 | 3 | 3 | 158 | 87 |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Frt | | 0.935 | | | 0.929 | | | 0.997 | | | 0.953 | |
| Flt Protected | | 0.979 | | | 0.982 | | | 0.980 | | | 0.999 | |
| Satd. Flow (prot) | 0 | 1730 | 0 | 0 | 1606 | 0 | 0 | 1821 | 0 | 0 | 1797 | 0 |
| Flt Permitted | | 0.979 | | | 0.982 | | | 0.980 | | | 0.999 | |
| Satd. Flow (perm) | 0 | 1730 | 0 | 0 | 1606 | 0 | 0 | 1821 | 0 | 0 | 1797 | 0 |
| Sign Control | | Stop | | | Stop | | | Stop | | | Stop | |

| Intersection Summary |
|---|
| Control Type: Unsignalized |

| Intersection | |
|---|---|
| Intersection Delay, s/veh | 8.7 |
| Intersection LOS | A |

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Vol, veh/h | 8 | 2 | 9 | 6 | 2 | 8 | 55 | 75 | 3 | 3 | 158 | 87 |
| Future Vol, veh/h | 8 | 2 | 9 | 6 | 2 | 8 | 55 | 75 | 3 | 3 | 158 | 87 |
| Peak Hour Factor | 0.81 | 0.81 | 0.81 | 0.81 | 0.81 | 0.81 | 0.81 | 0.81 | 0.81 | 0.81 | 0.81 | 0.81 |
| Heavy Vehicles, % | 0 | 0 | 0 | 0 | 0 | 14 | 2 | 2 | 0 | 0 | 1 | 0 |
| Mvmt Flow | 10 | 2 | 11 | 7 | 2 | 10 | 68 | 93 | 4 | 4 | 195 | 107 |
| Number of Lanes | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 0 |

| Approach | EB | WB | NB | SB |
|---|---|---|---|---|
| Opposing Approach | WB | EB | SB | NB |
| Opposing Lanes | 1 | 1 | 1 | 1 |
| Conflicting Approach Left | SB | NB | EB | WB |
| Conflicting Lanes Left | 1 | 1 | 1 | 1 |
| Conflicting Approach Right | NB | SB | WB | EB |
| Conflicting Lanes Right | 1 | 1 | 1 | 1 |
| HCM Control Delay | 7.9 | 7.8 | 8.5 | 8.9 |
| HCM LOS | A | A | A | A |

| Lane | NBLn1 | EBLn1 | WBLn1 | SBLn1 |
|---|---|---|---|---|
| Vol Left, % | 41% | 42% | 38% | 1% |
| Vol Thru, % | 56% | 11% | 12% | 64% |
| Vol Right, % | 2% | 47% | 50% | 35% |
| Sign Control | Stop | Stop | Stop | Stop |
| Traffic Vol by Lane | 133 | 19 | 16 | 248 |
| LT Vol | 55 | 8 | 6 | 3 |
| Through Vol | 75 | 2 | 2 | 158 |
| RT Vol | 3 | 9 | 8 | 87 |
| Lane Flow Rate | 164 | 23 | 20 | 306 |
| Geometry Grp | 1 | 1 | 1 | 1 |
| Degree of Util (X) | 0.197 | 0.031 | 0.026 | 0.331 |
| Departure Headway (Hd) | 4.311 | 4.716 | 4.695 | 3.892 |
| Convergence, Y/N | Yes | Yes | Yes | Yes |
| Cap | 821 | 764 | 767 | 912 |
| Service Time | 2.399 | 2.717 | 2.698 | 1.972 |
| HCM Lane V/C Ratio | 0.2 | 0.03 | 0.026 | 0.336 |
| HCM Control Delay | 8.5 | 7.9 | 7.8 | 8.9 |
| HCM Lane LOS | A | A | A | A |
| HCM 95th-tile Q | 0.7 | 0.1 | 0.1 | 1.5 |

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 43 | 0 | 73 | 3 | 2 | 6 | 77 | 415 | 2 | 2 | 261 | 20 |
| Future Volume (vph) | 43 | 0 | 73 | 3 | 2 | 6 | 77 | 415 | 2 | 2 | 261 | 20 |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Ped Bike Factor | | | | | | | | | | | | |
| Frt | | | 0.850 | | 0.926 | | | 0.999 | | | | 0.850 |
| Flt Protected | | 0.950 | | | 0.987 | | 0.950 | | | 0.950 | | |
| Satd. Flow (prot) | 0 | 1787 | 1467 | 0 | 1728 | 0 | 1778 | 1870 | 0 | 1796 | 1835 | 1607 |
| Flt Permitted | | 0.950 | | | 0.987 | | 0.950 | | | 0.950 | | |
| Satd. Flow (perm) | 0 | 1787 | 1467 | 0 | 1728 | 0 | 1778 | 1870 | 0 | 1796 | 1835 | 1607 |
| Sign Control | | Stop | | | Stop | | | Free | | | Free | |

Intersection Summary

Control Type: Unsignalized

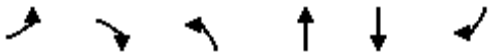
| Intersection | |
|---|---|
| Int Delay, s/veh | 2.9 |

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Vol, veh/h | 43 | 0 | 73 | 3 | 2 | 6 | 77 | 415 | 2 | 2 | 261 | 20 |
| Future Vol, veh/h | 43 | 0 | 73 | 3 | 2 | 6 | 77 | 415 | 2 | 2 | 261 | 20 |
| Conflicting Peds, #/hr | 2 | 0 | 2 | 2 | 0 | 2 | 4 | 0 | 3 | 3 | 0 | 4 |
| Sign Control | Stop | Stop | Stop | Stop | Stop | Stop | Free | Free | Free | Free | Free | Free |
| RT Channelized | - | - | None | - | - | None | - | - | None | - | - | None |
| Storage Length | - | - | 65 | - | - | - | 75 | - | - | 160 | - | 100 |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 2 | - | - | 1 | - | - | -1 | - | - | 1 | - |
| Peak Hour Factor | 95 | 95 | 95 | 95 | 95 | 95 | 95 | 95 | 95 | 95 | 95 | 95 |
| Heavy Vehicles, % | 0 | 0 | 9 | 0 | 0 | 0 | 2 | 2 | 0 | 0 | 3 | 0 |
| Mvmt Flow | 45 | 0 | 77 | 3 | 2 | 6 | 81 | 437 | 2 | 2 | 275 | 21 |

| Major/Minor | Minor2 | | | Minor1 | | | Major1 | | | Major2 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Conflicting Flow All | 889 | 887 | 281 | 933 | 907 | 443 | 300 | 0 | 0 | 442 | 0 | 0 |
| Stage 1 | 283 | 283 | - | 603 | 603 | - | - | - | - | - | - | - |
| Stage 2 | 606 | 604 | - | 330 | 304 | - | - | - | - | - | - | - |
| Critical Hdwy | 7.5 | 6.9 | 6.49 | 7.3 | 6.7 | 6.3 | 4.3 | - | - | 4.3 | - | - |
| Critical Hdwy Stg 1 | 6.5 | 5.9 | - | 6.3 | 5.7 | - | - | - | - | - | - | - |
| Critical Hdwy Stg 2 | 6.5 | 5.9 | - | 6.3 | 5.7 | - | - | - | - | - | - | - |
| Follow-up Hdwy | 3 | 4 | 3.2 | 3 | 4 | 3.1 | 3 | - | - | 3 | - | - |
| Pot Cap-1 Maneuver | 267 | 259 | 766 | 260 | 264 | 643 | 948 | - | - | 846 | - | - |
| Stage 1 | 808 | 660 | - | 531 | 475 | - | - | - | - | - | - | - |
| Stage 2 | 512 | 459 | - | 770 | 655 | - | - | - | - | - | - | - |
| Platoon blocked, % | | | | | | | | - | - | | - | - |
| Mov Cap-1 Maneuver | 244 | 235 | 762 | 217 | 239 | 640 | 944 | - | - | 844 | - | - |
| Mov Cap-2 Maneuver | 244 | 235 | - | 217 | 239 | - | - | - | - | - | - | - |
| Stage 1 | 736 | 656 | - | 484 | 433 | - | - | - | - | - | - | - |
| Stage 2 | 460 | 418 | - | 689 | 651 | - | - | - | - | - | - | - |

| Approach | EB | WB | NB | SB |
|---|---|---|---|---|
| HCM Control Delay, s | 15 | 15.7 | 1.4 | 0.1 |
| HCM LOS | C | C | | |

| Minor Lane/Major Mvmt | NBL | NBT | NBR | EBLn1 | EBLn2 | WBLn1 | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|
| Capacity (veh/h) | 944 | - | - | 244 | 762 | 348 | 844 | - | - |
| HCM Lane V/C Ratio | 0.086 | - | - | 0.186 | 0.101 | 0.033 | 0.002 | - | - |
| HCM Control Delay (s) | 9.2 | - | - | 23.1 | 10.3 | 15.7 | 9.3 | - | - |
| HCM Lane LOS | A | - | - | C | B | C | A | - | - |
| HCM 95th %tile Q(veh) | 0.3 | - | - | 0.7 | 0.3 | 0.1 | 0 | - | - |



| Lane Group | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (vph) | 0 | 6 | 7 | 492 | 384 | 0 |
| Future Volume (vph) | 0 | 6 | 7 | 492 | 384 | 0 |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Ped Bike Factor | | | | | | |
| Frt | 0.865 | | | | | |
| Flt Protected | | | 0.950 | | | |
| Satd. Flow (prot) | 1652 | 0 | 1086 | 1854 | 1827 | 0 |
| Flt Permitted | | | 0.950 | | | |
| Satd. Flow (perm) | 1652 | 0 | 1086 | 1854 | 1827 | 0 |
| Sign Control | Stop | | | Free | Free | |

## Intersection Summary

Control Type: Unsignalized

| Intersection | |
|---|---|
| Int Delay, s/veh | 0.1 |

| Movement | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 0 | 6 | 7 | 492 | 384 | 0 |
| Future Vol, veh/h | 0 | 6 | 7 | 492 | 384 | 0 |
| Conflicting Peds, #/hr | 1 | 0 | 3 | 0 | 0 | 3 |
| Sign Control | Stop | Stop | Free | Free | Free | Free |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | 0 | - | 25 | - | - | - |
| Veh in Median Storage, # | 0 | - | - | 0 | 0 | - |
| Grade, % | -1 | - | - | -1 | 0 | - |
| Peak Hour Factor | 94 | 94 | 94 | 94 | 94 | 94 |
| Heavy Vehicles, % | 0 | 0 | 67 | 3 | 4 | 0 |
| Mvmt Flow | 0 | 6 | 7 | 523 | 409 | 0 |

| Major/Minor | Minor2 | | Major1 | | Major2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 950 | 412 | 412 | 0 | - | 0 |
| Stage 1 | 412 | - | - | - | - | - |
| Stage 2 | 538 | - | - | - | - | - |
| Critical Hdwy | 6.2 | 6.1 | 5 | - | - | - |
| Critical Hdwy Stg 1 | 5.2 | - | - | - | - | - |
| Critical Hdwy Stg 2 | 5.2 | - | - | - | - | - |
| Follow-up Hdwy | 3 | 3.1 | 3.6 | - | - | - |
| Pot Cap-1 Maneuver | 338 | 686 | 688 | - | - | - |
| Stage 1 | 782 | - | - | - | - | - |
| Stage 2 | 685 | - | - | - | - | - |
| Platoon blocked, % | | | | - | - | - |
| Mov Cap-1 Maneuver | 333 | 684 | 686 | - | - | - |
| Mov Cap-2 Maneuver | 482 | - | - | - | - | - |
| Stage 1 | 772 | - | - | - | - | - |
| Stage 2 | 683 | - | - | - | - | - |

| Approach | EB | NB | SB |
|---|---|---|---|
| HCM Control Delay, s | 10.3 | 0.1 | 0 |
| HCM LOS | B | | |

| Minor Lane/Major Mvmt | NBL | NBT | EBLn1 | SBT | SBR |
|---|---|---|---|---|---|
| Capacity (veh/h) | 686 | - | 684 | - | - |
| HCM Lane V/C Ratio | 0.011 | - | 0.009 | - | - |
| HCM Control Delay (s) | 10.3 | - | 10.3 | - | - |
| HCM Lane LOS | B | - | B | - | - |
| HCM 95th %tile Q(veh) | 0 | - | 0 | - | - |



| Lane Group | WBL | WBR | NBT | NBR | SBL | SBT |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (vph) | 79 | 94 | 636 | 36 | 39 | 786 |
| Future Volume (vph) | 79 | 94 | 636 | 36 | 39 | 786 |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Ped Bike Factor | | | | | | |
| Frt | | 0.850 | | 0.850 | | |
| Flt Protected | 0.950 | | | | 0.950 | |
| Satd. Flow (prot) | 1796 | 1545 | 1863 | 1568 | 1814 | 1854 |
| Flt Permitted | 0.950 | | | | 0.950 | |
| Satd. Flow (perm) | 1796 | 1545 | 1863 | 1568 | 1814 | 1854 |
| Sign Control | Stop | | Free | | | Free |

## Intersection Summary

Control Type: Unsignalized

| Intersection | |
|---|---|
| Int Delay, s/veh | 2.4 |

| Movement | WBL | WBR | NBT | NBR | SBL | SBT |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 79 | 94 | 636 | 36 | 39 | 786 |
| Future Vol, veh/h | 79 | 94 | 636 | 36 | 39 | 786 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 4 | 4 | 0 |
| Sign Control | Stop | Stop | Free | Free | Free | Free |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | 0 | 115 | - | 175 | 25 | - |
| Veh in Median Storage, # | 0 | - | 0 | - | - | 0 |
| Grade, % | 1 | - | 0 | - | - | -1 |
| Peak Hour Factor | 93 | 93 | 93 | 93 | 93 | 93 |
| Heavy Vehicles, % | 0 | 4 | 2 | 3 | 0 | 3 |
| Mvmt Flow | 85 | 101 | 684 | 39 | 42 | 845 |

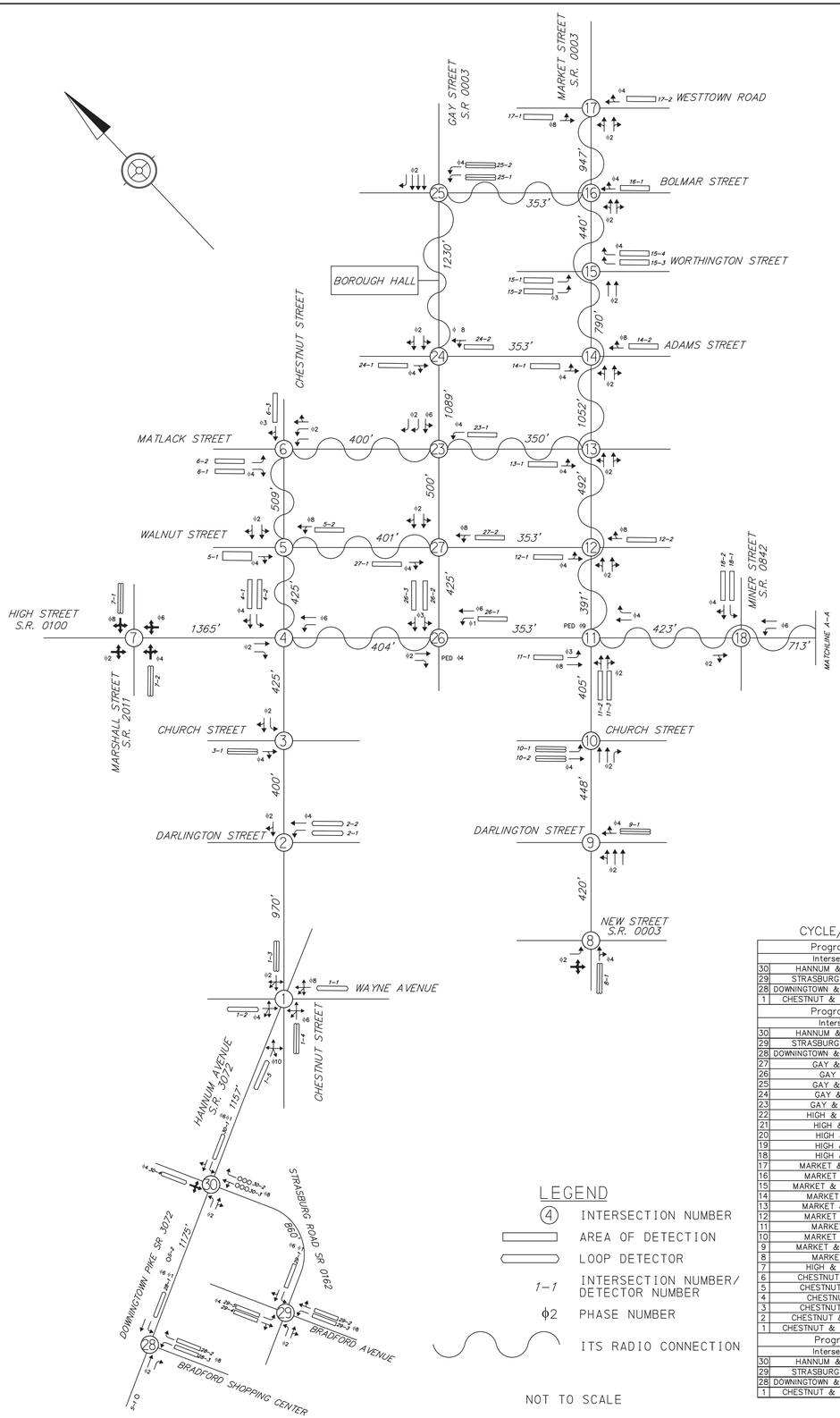
| Major/Minor | Minor1 | | Major1 | | Major2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 1617 | 688 | 0 | 0 | 727 | 0 |
| Stage 1 | 688 | - | - | - | - | - |
| Stage 2 | 929 | - | - | - | - | - |
| Critical Hdwy | 6.6 | 6.34 | - | - | 4.3 | - |
| Critical Hdwy Stg 1 | 5.6 | - | - | - | - | - |
| Critical Hdwy Stg 2 | 5.6 | - | - | - | - | - |
| Follow-up Hdwy | 3 | 3.1 | - | - | 3 | - |
| Pot Cap-1 Maneuver | 113 | 458 | - | - | 671 | - |
| Stage 1 | 541 | - | - | - | - | - |
| Stage 2 | 406 | - | - | - | - | - |
| Platoon blocked, % | | | - | - | | - |
| Mov Cap-1 Maneuver | 105 | 456 | - | - | 668 | - |
| Mov Cap-2 Maneuver | 249 | - | - | - | - | - |
| Stage 1 | 539 | - | - | - | - | - |
| Stage 2 | 380 | - | - | - | - | - |

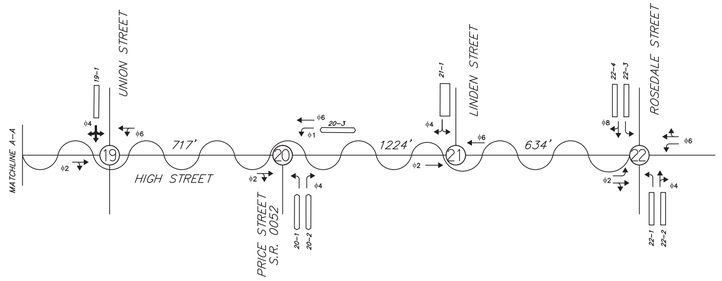
| Approach | WB | NB | SB |
|---|---|---|---|
| HCM Control Delay, s | 20.4 | 0 | 0.5 |
| HCM LOS | C | | |

| Minor Lane/Major Mvmt | NBT | NBR | WBLn1 | WBLn2 | SBL | SBT |
|---|---|---|---|---|---|---|
| Capacity (veh/h) | - | - | 249 | 456 | 668 | - |
| HCM Lane V/C Ratio | - | - | 0.341 | 0.222 | 0.063 | - |
| HCM Control Delay (s) | - | - | 26.8 | 15.1 | 10.8 | - |
| HCM Lane LOS | - | - | D | C | B | - |
| HCM 95th %tile Q(veh) | - | - | 1.5 | 0.8 | 0.2 | - |

# APPENDIX F:
# *Traffic Signal Plans*

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## SYSTEM NOTES

1. PROGRAM TO BE SELECTED BY PENNDOT UNIFIED COMMAND AND CONTROL SYSTEM (UCCS) OR TBC BACKUP.
2. OFFSETS ARE REFERENCED TO THE BEGINNING OF NEMA TS2 FIRST GREEN.
3. SYSTEM LIMITS:
   MARKET STREET (10 INTERSECTIONS) - NEW STREET TO WESTTOWN ROAD
   HIGH STREET (9 INTERSECTIONS) - ROSEDALE STREET TO MARSHALL STREET
   GAY STREET (5 INTERSECTIONS) - HIGH STREET TO BOLMAR STREET
   CHESTNUT STREET (6 INTERSECTIONS) - MATLACK STREET TO HANNUM AVENUE
   DOWNINGTOWN PIKE & STRASBURG ROAD(4 INTERSECTIONS)- WAYNE STREET TO BRADFORD AVE & BRADFORD SHOPPING CENTER
4. PRIMARY COORDINATION(SIGNALS 4, 5, 6, 11-27): UCCS VIA INTERSECTION ITS RADIOS/FIBER TO RT 0003/0202 CAMERA SPLICE.
   PRIMARY COORDINATION(SIGNALS 1, 28-30): GPS TIMECLOCK.
   SECONDARY COORDINATION: TBC (DEFAULT TO BACKUP TBC).
5. SYSTEM IS DESIGNED FOR THE SYSTEM SOFTWARE: INTELIGHT MAXVIEW.
6. CYCLES, SPLITS & OFFSETS ARE IN SECONDS

WEEKLY PROGRAM CHART FOR INTERSECTIONS 2-27

| EVENT | DAY | TIME | CYCLE | OFFSET | PROGRAM | REMARKS |
|---|---|---|---|---|---|---|
| 1 | 1-5 | 0600 | 80 | 1 | 2 | COORD. |
| 2 | 1-7 | 0900 | 80 | 1 | 2 | COORD. |
| 3 | 1-5 | 1500 | 80 | 1 | 2 | COORD. |
| 4 | 1-7 | 1900 | 80 | 1 | 2 | COORD. |

MONDAY = DAY 1
OFFSET IN SECONDS
OFFSET REFERENCED TO START AT GREEN

WEEKLY PROGRAM CHART FOR INTERSECTIONS 1 & 28-30

| EVENT | DAY | TIME | OFFSET | CYCLE | PROGRAM | REMARKS |
|---|---|---|---|---|---|---|
| 1 | 1-7 | 0000 | 2 | 80 | MAXIMUM 1 | FREE |
| 2 | 1-5 | 0600 | 2 | 80 | 1 | AM PEAK |
| 3 | 1-5 | 1000 | 2 | 80 | MAXIMUM 1 | FREE |
| 4 | 1-5 | 1500 | 2 | 80 | 2 | PM PEAK |
| 5 | 1-7 | 1900 | 2 | 80 | MAXIMUM 1 | FREE |
| 6 | 6-7 | 1000 | 2 | 80 | 3 | WEEKEND |
| | | | | | | |

MONDAY = DAY 1
OFFSET IN SECONDS
OFFSET REFERENCED TO START AT GREEN

Notes: – ALL SPLIT TIMES INCLUDE YELLOW AND RED TIMES FOR A GIVEN PHASE.
– REFER TO SIGNAL PERMIT PLAN FOR MAX 1, MAX 2, CLEARANCE AND PED TIMES.

CYCLE/SPLIT/OFFSET

| Program 1= | | Phase | | | | | | | | | | Cycle | Offsets | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Intersections | File # | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | | 1 | 2 | 3 |
| 30 HANNUM & STRASBURG | 2746 | 13(LEAD) | 41 | | 26 | | 54 | | 26 | | | 80 | | 0 | |
| 29 STRASBURG & BRADFORD | 2756 | 14(LEAD) | 41 | | 25 | | 55 | | 25 | | | 80 | | 9 | |
| 28 DOWNINGTOWN & SHOPPING CENTER | 2739 | 10(LEAD) | 53 | | | | 63 | | 17 | | | 80 | | 47 | |
| 1 CHESTNUT & HANNUM/WAYNE | 2008 | | 24 | | 24 | | 24 | | 24 | | 32(Side) | 80 | | 18 | |
| Program 2 = | | Phase | | | | | | | | | | Cycle | Offsets | | |
| Intersections | File # | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | | 1 | 2 | 3 |
| 30 HANNUM & STRASBURG | 2746 | 23(LEAD) | 25 | | 32 | | 48 | | 32 | | | 80 | | 0 | |
| 29 STRASBURG & BRADFORD | 2756 | 14(LEAD) | 36 | | 30 | | 50 | | 30 | | | 80 | | 71 | |
| 28 DOWNINGTOWN & SHOPPING CENTER | 2739 | 14(LEAD) | 46 | | | | 60 | | 20 | | | 80 | | 67 | |
| 27 GAY & WALNUT | 1162 | | 43 | | 37 | | | | 37 | | | 80 | 79 | | |
| 26 GAY & HIGH | 1168 | 11(Lead) | 24 | 23 | 22(Ped) | | 35 | | | | | 80 | 46 | | |
| 25 GAY & BOLMAR | 1710 | | 42 | | 38 | | | | | | | 80 | 7 | | |
| 24 GAY & ADAMS | 2084 | | 57 | | 23 | | | | 23 | | | 80 | 30 | | |
| 23 GAY & MATLACK | 1163 | | 60 | | 20 | | 60 | | | | | 80 | 69 | | |
| 22 HIGH & ROSEDALE | 1157 | | | | | | | | | | | | Free | | |
| 21 HIGH & LINDEN | 1167 | | | | | | | | | | | | Free | | |
| 20 HIGH & PRICE | 1166 | 16(Lead) | 36 | | 28 | | 52 | | | | | 80 | 28 | | |
| 19 HIGH & UNION | 2444 | | 51 | | 29 | | 51 | | | | | 80 | 73 | | |
| 18 HIGH & MINER | 1160 | | 54 | | 26 | | 54 | | | | | 80 | 69 | | |
| 17 MARKET & WESTTOWN | 0476 | | 50 | | 30 | | | | 30 | | | 80 | 42 | | |
| 16 MARKET & BOLMAR | 1452 | | 53 | | 27 | | | | | | | 80 | 31 | | |
| 15 MARKET & WORTHINGTON | 1451 | | 44 | 21(Split) | 15(Split) | | | | | | | 80 | 25 | | |
| 14 MARKET & ADAMS | 2370 | | 42 | | 38 | | | | 38 | | | 80 | 9 | | |
| 13 MARKET & MATLACK | 0232 | | 55 | | 25 | | | | | | | 80 | 50 | | |
| 12 MARKET & WALNUT | 0231 | | 45 | | 35 | | | | 35 | | | 80 | 50 | | |
| 11 MARKET & HIGH | 1161 | | 23 | 11(Lead) | 23 | | | | 34 | 23(Ped) | | 80 | 0 | | |
| 10 MARKET & CHURCH | 1165 | | 45 | | 35 | | | | | | | 80 | 35 | | |
| 9 MARKET & DARLINGTON | 0293 | | 38 | | 42 | | | | | | | 80 | 30 | | |
| 8 MARKET & NEW | 1881 | | 36 | | 44 | | | | | | | 80 | 8 | | |
| 7 HIGH & MARSHALL | 1159 | | | | | | | | | | | | Free | | |
| 6 CHESTNUT & MATLACK | 2011 | | 30 | 25 | 25 | | | | | | | 80 | 10 | | |
| 5 CHESTNUT & WALNUT | 1792 | | 34 | | 46 | | | | 46 | | | 80 | 2 | | |
| 4 CHESTNUT & HIGH | 1164 | | 34 | | 46 | | 34 | | | | | 80 | 54 | | |
| 3 CHESTNUT & CHURCH | 2010 | | 47 | | 33 | | | | | | | 80 | 18 | | |
| 2 CHESTNUT & DARLINGTON | 2009 | | 48 | | 32 | | | | | | | 80 | 28 | | |
| 1 CHESTNUT & HANNUM/WAYNE | 2008 | | 32 | | 25 | | 32 | | 25 | | 23(Side) | 80 | Uncoord. | 14 | |
| Program 3= | | Phase | | | | | | | | | | Cycle | Offsets | | |
| Intersections | File # | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | | 1 | 2 | 3 |
| 30 HANNUM & STRASBURG | 2746 | 20(LEAD) | 33 | | 27 | | 53 | | 27 | | | 80 | | 0 | |
| 29 STRASBURG & BRADFORD | 2756 | 14(LEAD) | 36 | | 30 | | 50 | | 30 | | | 80 | | 53 | |
| 28 DOWNINGTOWN & SHOPPING CENTER | 2739 | 16(LEAD) | 39 | | | | 55 | | 25 | | | 80 | | 52 | |
| 1 CHESTNUT & HANNUM/WAYNE | 2008 | | 31 | | 24 | | 31 | | 24 | | 25(Side) | 80 | | 44 | |

NOT TO SCALE

LEGEND

- (4) INTERSECTION NUMBER
- AREA OF DETECTION
- LOOP DETECTOR
- 1-1 INTERSECTION NUMBER/ DETECTOR NUMBER
- φ2 PHASE NUMBER
- ITS RADIO CONNECTION

NOT TO SCALE

# GENERAL NOTES

NO MODIFICATIONS OF THIS INSTALLATION ARE PERMITTED UNLESS PRIOR APPROVAL IS GRANTED IN WRITING BY A REPRESENTATIVE OF THE DEPARTMENT OF TRANSPORTATION.

REFER TO TRAFFIC SIGNAL PERMIT DRAWING FOR INDIVIDUAL INTERSECTION OPERATION, GEOMETRY, PHASING AND CRITICAL TIMES.

FOR CONSTRUCTION AND INSPECTION THE SYSTEM PERMIT SHOULD ALWAYS BE ACCOMPANIED WITH TRAFFIC SIGNAL PERMIT DRAWING.

TEST THE SYSTEM AT LOCAL INTERSECTION LEVEL, SUBSYSTEM LEVEL MASTER CONTROLLER LEVEL AND PERSONAL COMPUTER REMOTE DIAL UP LEVEL.

GATHER THE SYSTEM FAILURE CRITICAL ALARMS REPORT AND ARCHIVE THEM WHERE APPLICABLE.

SET UP PENNDOT DISTRICT 6-0 COMPUTER WITH THE SYSTEM DATABASE AND GRAPHICS. MODIFY THE DATABASE AND GRAPHICS FOR SYSTEMS REVISIONS.

ASSIGN LOOP DETECTORS AND PROGRAM THE CONTROLLERS TO GATHER TRAFFIC VOLUMES IN 15 MINUTE INTERVAL, WHERE APPLICABLE.

EXACT LOCATION OF DETECTORS SHALL BE DETERMINED PRIOR TO INSTALLATION BY A REPRESENTATIVE OF PENNDOT.

OBTAIN POLE ATTACHMENT PERMIT FOR AERIAL FIBER OPTIC INSTALLATION.

MAINTAIN MASTER CONTROLLER COMMUNICATION SUCH AS PHONE DROPS.

PRIOR TO INSTALLATION THE CONTRACTOR SHALL CONSULT WITH THE LOCAL OFFICIALS AND UTILITY COMPANIES TO RESOLVE ANY PROBLEMS WHICH MAY BE CREATED DUE TO THE LOCATION OF UTILITIES.

THIS DRAWING CANNOT BE USED AS A CONSTRUCTION DRAWING UNLESS THE PERMITTEE COMPLIES WITH THE PROVISIONS OF THE LATEST AMENDMENT TO ACT 287, PREVENTION OF DAMAGE TO UNDERGROUND UTILITES, DATED DECEMBER 20, 1974.

WHEN LIQUID FUELS MONEY IS USED, SIGNAL INSTALLATION MUST CONFORM TO FORM 408 AND A COPY OF THE PROPOSED SPECIFICATIONS MUST BE SUBMITTED TO THE DISTRICT TRAFFIC UNIT FOR REVIEW PRIOR TO BIDDING.

PERMITTEE SHALL OBTAIN A HIGHWAY OCCUPANCY PERMIT FOR ANY CHANGES IN INTERSECTION GEOMETRY REGARDING EXCAVATION.

CONDUIT INSTALLED IN BITUMINOUS ROADWAY LESS THAN 5 YEARS OLD, OR CONCRETE ROADWAY REGARDLESS OF AGE, MUST BE BORED OR JACKED UNDER THE ROADWAY. INSTALL IN ACCORDANCE WITH TRAFFIC SIGNAL STANDARDS TC-8800 SERIES.

PENNSYLVANIA DEPARTMENT OF TRANSPORTATION
ENGINEERING DISTRICT 6-0

COUNTY: CHESTER

MUNICIPALITY: WEST CHESTER BOROUGH

INTERSECTION: TRAFFIC SIGNAL SYSTEM

REVIEWED:

DocuSigned by: Michael A. Perrone, C.B.O. 999F48A2902F4CB... DATE 2/3/2021

DATE

RECOMMENDED:

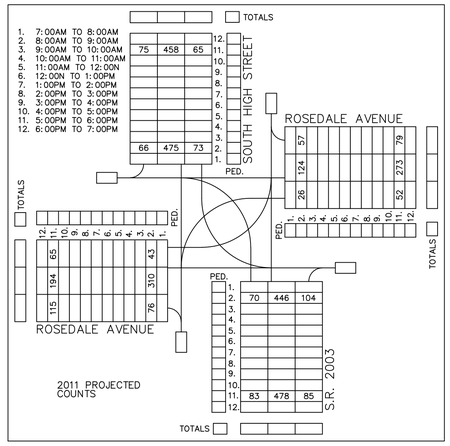
A.B. PATEL 5/20/03

L. R. BELMONTE 5/29/03
DISTRICT TRAFFIC ENGINEER DATE

| NO. | REVISION | DES./ REVW. | DATE | REVW. | DATE | RECOM. | DATE |
|---|---|---|---|---|---|---|---|
| 1 | ADDED INTERSECTIONS 28, 29, & 30 | TPD | 7/3/10 | LUTZ | 7/2/10 | LRB | 7/7/10 |
| 2 | REVISED PHASING INTERSECTION 23 | H&K | 5/9/13 | LUTZ | 8/27/13 | ABP | 8/27/13 |
| 3 | MODIFY TIMINGS AT INTERSECTION #29 | TPD | 8/25/20 | LUTZ | 9/17/20 | ABP | 9/21/20 |
| 4 | ADD INTERSECTIONS ALONG AND EAST OF HIGH ST (SOUTH OF MARSHALL) TO MAXVIEW | TPD | 2/2/21 | LUTZ | Digitally signed by LUTZ Date: 2021.02.08 09:43:25 -05'00' | ABP | Digitally signed by ABP Date: 2021.02.08 10:07:31 -05'00' |
| 5 | | | | | | | |
| 6 | | | | | | | |
| 7 | | | | | | | |
| 8 | | | | | | | |

SYSTEM PERMIT # I-0056, I-0057, I-0058

pw:\\PTG-PW-1S.ptd.trafficpd.com:TPDProjectwise\Documents\Active\WCB\00008 - Boro Signal System\CADD\Signals\GLO Signals\System Permit #1-0057 Rev 3.dgn
2/3/2021 10:23:58 AM rwoutersz Traffic Planning and Design, Inc.




## EMERGENCY PREEMPTION NOTES:

CONTROLLER TO BE EQUIPPED WITH EMERGENCY PREEMPTION FOR THE NORTHBOUND & SOUTHBOUND APPROACHES OF HIGH STREET AND THE EASTBOUND & WESTBOUND APPROACHES OF ROSEDALE AVENUE WITH A FAIL SAFE DEVICE FOR EACH DIRECTION OF OPERATION.

THIS FAIL SAFE DEVICE SHALL CONSIST OF A FLASHING WHITE FLOOD LIGHT, AND SHALL FLASH WHEN THE EMERGENCY VEHICLE HAS CONTROL OF THE INTERSECTION FOR THE APPROPRIATE APPROACH.

THE SIGNALS, WHEN ACTIVATED BY EMERGENCY VEHICLE, SHALL TERMINATE ALL GREEN INDICATIONS, EXCEPT THE GREEN INDICATIONS FOR THE PHASE GOVERNED BY THE APPROACHING EMERGENCY VEHICLE FOLLOWED BY SELECTIVE CLEARANCES DEPENDENT UPON THE PHASE IN WHICH THE PREEMPTION OCCURS. THE "GREEN" INDICATIONS FOR THE PREEMPTED PHASE SHALL REMAIN "GREEN" FOR THE DURATION OF SIGNAL PREEMPTION AND "RED" INDICATIONS DISPLAYED FOR ALL OTHER PHASES.

THE SIGNALS, WHEN ACTIVATED BY EMERGENCY VEHICLE SHALL TIME OUT ALL YELLOW AND RED INDICATIONS, FOLLOWED BY THE GREEN INTERVAL OF THE PREEMPTION PHASE GOVERNED BY THE APPROACHING EMERGENCY VEHICLE.

IF SIGNALS HAVE BEEN ACTUATED BY PEDESTRIAN PUSH BUTTON, AND THE SIGNAL IS PREEMPTED, DURING THE "MAN" PHASE, THE "MAN" PHASE SHALL TERMINATE IMMEDIATELY FOLLOWED BY THE "FLASHING HAND" INDICATION IN ITS ENTIRETY, FOLLOWED BY THE APPROPRIATE SELECTION CLEARANCES BEFORE PROCEEDING TO THE PRE-EMPTION PHASE.

IF THE SIGNALS, WHEN ACTIVATED BY AN EMERGENCY VEHICLE, ARE FLASHING, ALL SIGNALS SHALL REMAIN FLASHING.

UPON COMPLETION OF PREEMPTION PHASE A,B,C, OR D IN RETURNING TO NORMAL OPERATION, PHASE 2+6 INTERVAL 1 SHALL FOLLOW.

IN EMERGENCY PREEMPTION, NO PRIORITY SHALL BE ESTABLISHED. PREEMPTION SHALL BE A "FIRST COME, FIRST SERVE" OPERATION.

### CLOSED LOOP SIGNAL NOTES

1. PROGRAMS TO BE SELECTED BY CLOSED LOOP SYSTEM OR TBC BACKUP.
2. OFFSET REFERENCED TO THE BEGINNING OF YELLOW (PHASE 2+6, INTERVAL 3).
3. ACTUAL GREEN TIME DETERMINED BY CYCLE LENGTH.
4. SYSTEM:
   MARKET STREET(10 INTERSECTIONS)
   HIGH STREET(6 INTERSECTIONS)
   SYSTEM LIMITS:
   MARKET STREET-NEW STREET TO WESTTOWN ROAD
   HIGH STREET-ROASEDALE STREET TO MINER STREET

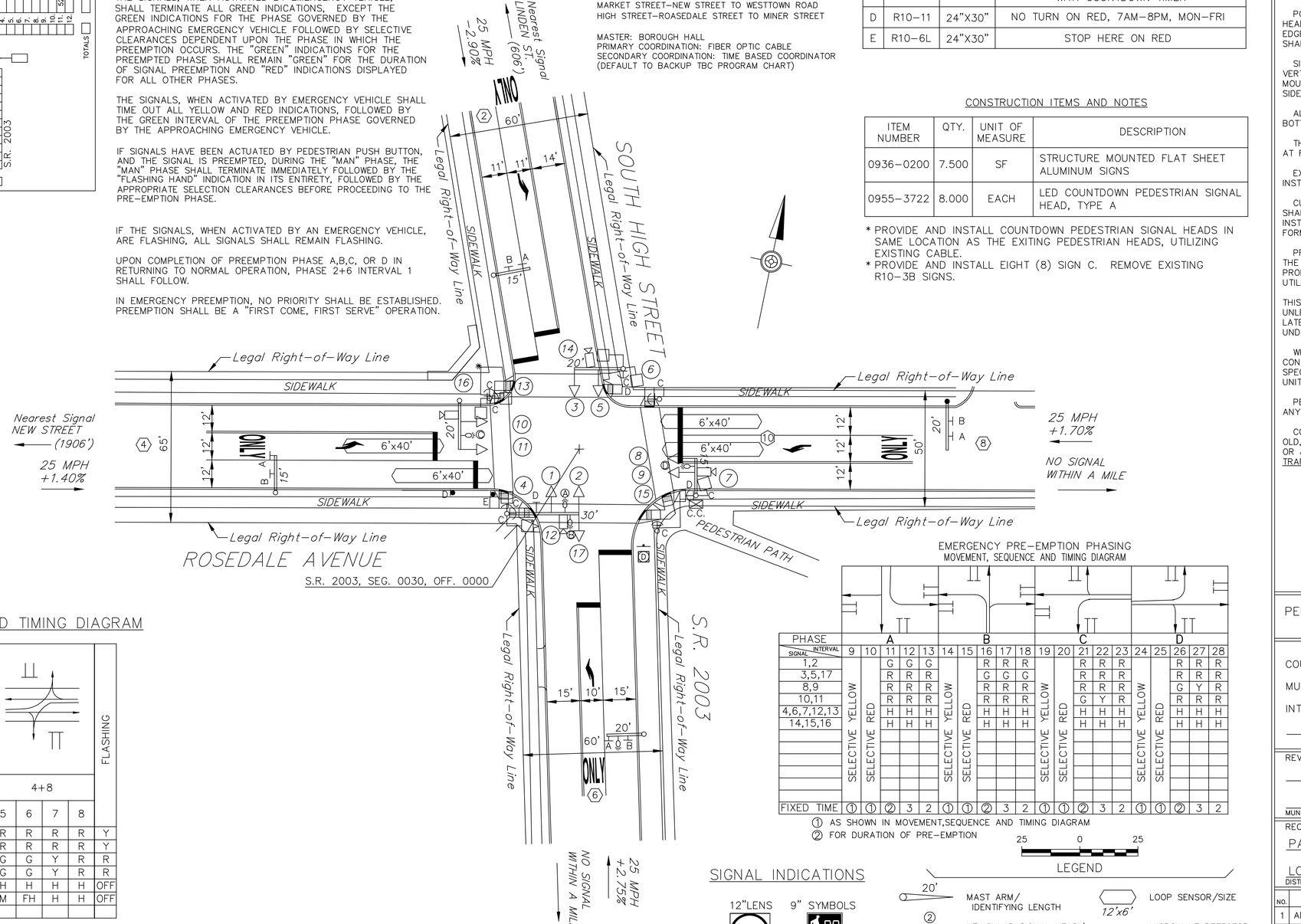
   MASTER: BOROUGH HALL
   PRIMARY COORDINATION: FIBER OPTIC CABLE
   SECONDARY COORDINATION: TIME BASED COORDINATOR
   (DEFAULT TO BACKUP TBC PROGRAM CHART)

| Symbol | Series | Size | Remarks |
|---|---|---|---|
| A | R3-5L | 30"X36" | LEFT TURN SIGN |
| B | R3-6SR | 30"X36" | OPTIONAL RIGHT TURN SIGN |
| C | R10-3E | 9"X15" | EDUC. PUSH BUTTON FOR WALK SIGNAL WITH COUNTDOWN TIMER |
| D | R10-11 | 24"X30" | NO TURN ON RED, 7AM-8PM, MON-FRI |
| E | R10-6L | 24"X30" | STOP HERE ON RED |

### CONSTRUCTION ITEMS AND NOTES

| ITEM NUMBER | QTY. | UNIT OF MEASURE | DESCRIPTION |
|---|---|---|---|
| 0936-0200 | 7.500 | SF | STRUCTURE MOUNTED FLAT SHEET ALUMINUM SIGNS |
| 0955-3722 | 8.000 | EACH | LED COUNTDOWN PEDESTRIAN SIGNAL HEAD, TYPE A |

* PROVIDE AND INSTALL COUNTDOWN PEDESTRIAN SIGNAL HEADS IN SAME LOCATION AS THE EXITING PEDESTRIAN HEADS, UTILIZING EXISTING CABLE.
* PROVIDE AND INSTALL EIGHT (8) SIGN C. REMOVE EXISTING R10-3B SIGNS.




### MOVEMENT, SEQUENCE AND TIMING DIAGRAM

| PHASE | 2+6 | | | | 4+8 | | | | FLASHING |
|---|---|---|---|---|---|---|---|---|---|
| INTERVAL / SIGNAL | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | |
| 1,2 | G | G | Y | R | R | R | R | R | Y |
| 3,5,17 | G | G | Y | R | R | R | R | R | Y |
| 8,9 | R | R | R | R | G | G | Y | R | R |
| 10,11 | R | R | R | R | G | G | Y | R | R |
| 4,6,7,16 | M | FH | H | H | H | H | H | H | OFF |
| 12,13,14,15 | H | H | H | H | M | FH | H | H | OFF |
| | | | | | | | | | |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| FIXED | | | 3 | 2 | | | 3 | 2 |
| MINIMUM | | | | | 3 | | | |
| PASSAGE | | | | | 3 | | | |
| MAXIMUM I | 25 | | | | 20 | | | |
| MAXIMUM I | 29 | | | | 21 | | | |
| PEDESTRIAN ① | 7 | 11 | | | 7 | 13 | | |
| MEMORY | MX | | | | NL | | | |

OPERATION NOTES
① UPON PEDESTRIAN ACTUATION ONLY, OTHERWISE HAND SYMBOL AT ALL TIMES.
● MAX II TO OPERATE MONDAY TO FRIDAY, FROM 2-6 PM. MAX I TO OPERATE AT ALL OTHER TIMES.

### EMERGENCY PRE-EMPTION PHASING MOVEMENT, SEQUENCE AND TIMING DIAGRAM

| PHASE | A | | | | | B | | | | | C | | | | | D | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| INTERVAL / SIGNAL | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 |
| 1,2 | SELECTIVE YELLOW | SELECTIVE RED | G | G | G | SELECTIVE YELLOW | SELECTIVE RED | R | R | R | SELECTIVE YELLOW | SELECTIVE RED | R | R | R | SELECTIVE YELLOW | SELECTIVE RED | R | R | R |
| 3,5,17 | | | R | R | R | | | G | G | G | | | R | R | R | | | R | R | R |
| 8,9 | | | R | R | R | | | R | R | R | | | R | R | R | | | G | Y | R |
| 10,11 | | | R | R | R | | | R | R | R | | | G | Y | R | | | R | R | R |
| 4,6,7,12,13 | | | H | H | H | | | H | H | H | | | H | H | H | | | H | H | H |
| 14,15,16 | | | H | H | H | | | H | H | H | | | H | H | H | | | H | H | H |
| FIXED TIME | ① | ① | ② | 3 | 2 | ① | ① | ② | 3 | 2 | ① | ① | ② | 3 | 2 | ① | ① | ② | 3 | 2 |

① AS SHOWN IN MOVEMENT,SEQUENCE AND TIMING DIAGRAM
② FOR DURATION OF PRE-EMPTION

25 0 25

### SIGNAL INDICATIONS

12"LENS: R, Y, G — 1,2,3,5 8,9,10,11

9" SYMBOLS — 4,6,7,12 13,14,15,16

### LEGEND

- 20' — MAST ARM/ IDENTIFYING LENGTH
- ② — VEHICULAR SIGNAL HEAD/ BACKPLATE/VISORS/ DIRECTIONAL ARROW/ IDENTIFYING NUMBER
- ② — PEDESTRIAN SIGNAL HEAD/ IDENTIFYING NUMBER
- PEDESTRIAN PUSHBUTTON/ SIGN
- A — SIGN/IDENTIFYING LETTER
- 12'x6' — LOOP SENSOR/SIZE
- MICROWAVE DETECTOR
- EMERGENCY PREEMPTION DEVICE
- CURB CUT RAMP
- ⌀ — UTILITY POLE
- ② — PHASE NUMBER
- C.C. — CONTROLLER CABINET
- LPR CAMERA

## GENERAL NOTES

NO MODIFICATIONS OF THIS INSTALLATION ARE PERMITTED UNLESS PRIOR APPROVAL IS GRANTED IN WRITING BY A REPRESENTATIVE OF THE DEPARTMENT OF TRANSPORTATION.

ALL MAINTENANCE WORK INCLUDING TRIMMING OF TREES, NECESSARY FOR PROPER VISIBILITY OF THE SIGNALS IS THE RESPONSIBILITY OF THE PERMITTEE.

ALL SIGNS AND PAVEMENT MARKINGS INDICATED ON THIS DRAWING ARE CONSIDERED PART OF THE PERMIT AND SHALL BE INSTALLED AND MAINTAINED IN ACCORDANCE WITH PUBLICATION NO. 212.

POST MOUNTED SIGNALS SHALL BE INSTALLED WITH THE SIGNAL HEADS A MINIMUM OF 2 FEET BEHIND THE FACE OF CURB OR THE EDGE OF THE SHOULDER. SUPPORT POLES FOR OVERHEAD SIGNALS SHALL ALSO HAVE A MINIMUM CLEARANCE HORIZONTALLY OF 2 FEET.

SIGNALS ERECTED OVER THE ROADWAY SHALL HAVE A MINIMUM VERTICAL CLEARANCE OF 16 FT. ABOVE THE ROADWAY. POST MOUNTED SIGNALS SHALL BE A MINIMUM OF 8 FT. ABOVE THE SIDEWALK OR PAVEMENT.

ALL OVERHEAD SIGNALS MUST BE RIGIDLY MOUNTED, TOP AND BOTTOM, AND EQUIPPED WITH BACKPLATES.

THE MINIMUM HORIZONTAL DISTANCE BETWEEN SIGNALS MEASURED AT RIGHT ANGLES TO THE APPROACH SHALL BE 8 FEET.

EXACT LOCATION OF DETECTORS SHALL BE DETERMINED PRIOR TO INSTALLATION BY A REPRESENTATIVE OF PENNDOT.

CURBING TO BE INSTALLED BY MUNICIPALITY AND WHERE NOTED, SHALL BE PLAIN CEMENT CONCRETE CURB OR GRANITE CURB, INSTALLED IN ACCORDANCE WITH DEPARTMENT SPECIFICATIONS FORM 408.

PRIOR TO INSTALLATION THE CONTRACTOR SHALL CONSULT WITH THE LOCAL OFFICIALS AND UTILITY COMPANIES TO RESOLVE ANY PROBLEMS WHICH MAY BE CREATED DUE TO THE LOCATION OF UTILITIES.

THIS DRAWING CANNOT BE USED AS A CONSTRUCTION DRAWING UNLESS THE PERMITTEE COMPLIES WITH THE PROVISIONS OF THE LATEST AMENDMENT TO ACT 287, PREVENTION OF DAMAGE TO UNDERGROUND UTILITIES, DATED DECEMBER 20, 1974.

WHEN LIQUID FUELS MONEY IS USED, SIGNAL INSTALLATION MUST CONFORM TO FORM 408 AND A COPY OF THE PROPOSED SPECIFICATIONS MUST BE SUBMITTED TO THE DISTRICT TRAFFIC UNIT, FOR REVIEW, PRIOR TO BIDDING.

PERMITTEE SHALL OBTAIN A HIGHWAY OCCUPANCY PERMIT FOR ANY CHANGES IN INTERSECTION GEOMETRY REGARDING EXCAVATION.

CONDUIT INSTALLED IN BITUMINOUS ROADWAY LESS THAN 5 YEARS OLD, OR CONCRETE ROADWAY REGARDLESS OF AGE, MUST BE BORED OR JACKED UNDER THE ROADWAY. INSTALL IN ACCORDANCE WITH TRAFFIC SIGNAL STANDARDS TC-7800 SERIES.

PENNSYLVANIA DEPARTMENT OF TRANSPORTATION
ENGINEERING DISTRICT 6-0

COUNTY: CHESTER
MUNICIPALITY: WEST CHESTER BOROUGH
INTERSECTION: SOUTH HIGH STREET (S.R. 2003)
ROSEDALE AVENUE (T-641)

REVIEWED:

DATE

MUNICIPAL OFFICIAL DATE

RECOMMENDED:
PAUL LUTZ 3/26/03

LOUIS R. BELMONTE 3/26/03
DISTRICT TRAFFIC ENGINEER DATE

| NO. | REVISION | DES./ REVW. | DATE | REVW. | DATE | RECOM. | DATE |
|---|---|---|---|---|---|---|---|
| 1 | ADDED SIGNS | WDF | 1/14/09 | LUTZ | 3/9/09 | LRB | 3/10/09 |
| 2 | SR 2020/SEC.CRC ADA UPDATE | MCM | 7/8/09 | LUTZ | 7/8/09 | LRB | 7/8/09 |
| 3 | REMOVE EXCLUSIVE PED. PHASE | MCM | 9/7/10 | LUTZ | 9/14/10 | LRB | 9/16/10 |
| 4 | ADDED 20" MAST ARM NE | JOO | 6/14/11 | | | | |
| 5 | NEW PED SIGNAL HEADS | MCM | 10/3/14 | LUTZ | 10/16/14 | ABP | 10/16/14 |
| 6 | ADD LPR CAMERA | SRP | 7/28/21 | | | | |
| 7 | | | | | | | |
| 8 | | | | | | | |

SHEET 2 OF 2 | PERMIT # 62-1157 | FILE # 1157

## MOVEMENT, SEQUENCE AND TIMING DIAGRAM

| PHASE | 2+6 | | | | 8 | | | | 4+8 | | | | FLASH |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| INTERVAL / SIGNALS | 1 | 2 | 3 | 4 | 5 | 6 | 7 | | 8 | 9 | 10 | 11 | |
| 1,2 | G | G | Y | R | R | R | R | | R | R | R | R | Y |
| 3,4 | G | G | Y | R | R | R | R | | R | R | R | R | Y |
| 5 | R | R | R | R | R | R | R | | G | G | Y | R | R |
| 6 | R | R | R | R | R | R | R | | G | G | Y | R | R |
| 7 | R | R | R | R | G/G | Y① | R② | | G | G | Y | R | R |
| 8 | R | R | R | R | G | Y | R | | G | G | Y | R | R |
| 9,10 | M | FH | H | H | H | H | H | | H | H | H | H | OFF |
| 11,12 | H | H | H | H | H | H | H | | M | FH | H | H | OFF |

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| FIXED | | | 3 | 3 | | 3 | 3 | | | | 3 | 3 |
| MINIMUM | 15 | | | | 5 | | | | 5 | | | |
| PASSAGE | | | | | 3 | | | | 3 | | | |
| MAX 1 | 30 | | | | 7 | | | | 15 | | | |
| | | | | | | | | | | | | |
| PEDESTRIAN* | 7 | 13 | | | | | | | 7 | 11 | | |
| | | | | | | | | | | | | |
| MEMORY | MX | | | | NL | | | | NL | | | |
| PROGRAM 1 | 31 | | 3 | 3 | 5 | 3 | 3 | | 21 | | 3 | 3 |
| PROGRAM 2 | 25 | | 3 | 3 | 5 | 3 | 3 | | 22 | | 3 | 3 |

* UPON PEDESTRIAN ACTUATION, OTHERWISE HAND SYMBOL AT ALL TIMES

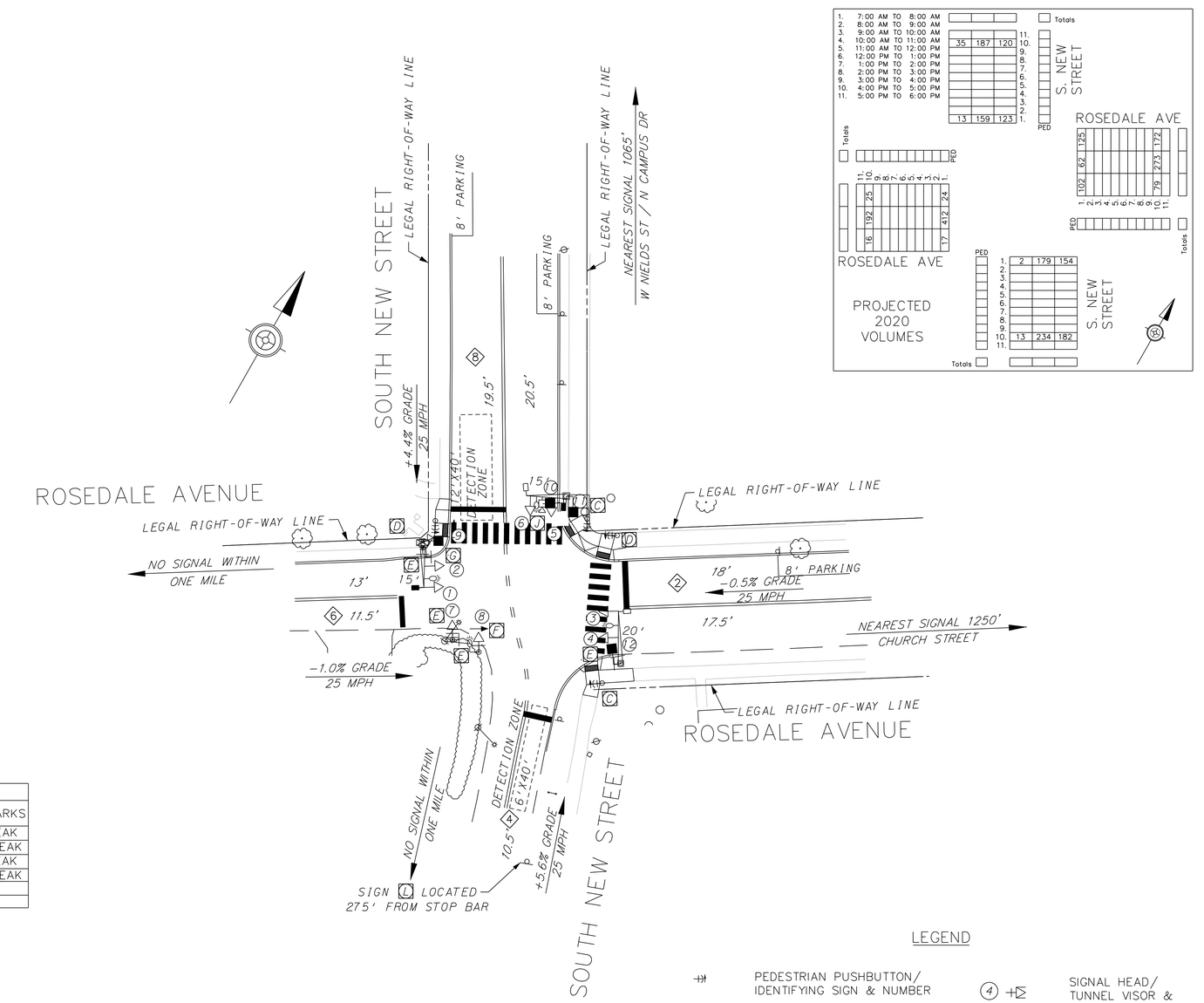
### OPERATION NOTES

① ¼ IF FOLLOWED BY 4+8
② G IF FOLLOWED BY 4+8

● CONTROLLER TO DWELL IN PHASE 2+6 UNTIL ACTUATED BY PHASE 4 OR 4+8

| WEEKLY PROGRAM CHART | | | | | | |
|---|---|---|---|---|---|---|
| EVENT | DAY* | TIME | CYCLE | OFFSET | PROGRAM | REMARKS |
| 1 | 1–5 | 0600 | 75 | – | 1 | AM PEAK |
| 2 | 1–5 | 0930 | – | – | MAX 1 | OFF PEAK |
| 3 | 1–5 | 1500 | 70 | – | 2 | PM PEAK |
| 4 | 1–7 | 1900 | – | – | MAX 1 | OFF PEAK |
| | | | | | | |
| | | | | | | |

* DAY 1 = MONDAY





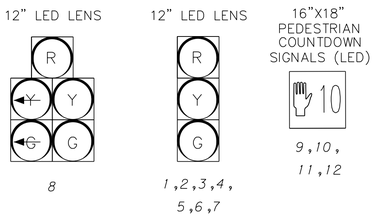


## SIGN TABULATION

| SYMBOL | SERIES | SIZE | DESCRIPTION |
|---|---|---|---|
| C | R10-3E(L) | 9"X15" | EDUCATIONAL PUSH BUTTON FOR WALK SIGNAL WITH COUNTDOWN TIMER ← |
| D | R10-3E(R) | 9"X15" | EDUCATIONAL PUSH BUTTON FOR WALK SIGNAL WITH COUNTDOWN TIMER → |
| E | R9-3 | 18"X18" | NO PEDESTRIAN CROSSING |
| F | R10-12 | 30"X36" | LEFT TURN YIELD ON GREEN ● |
| G | R10-11 | 30"X36" | NO TURN ON RED |
| J | R10-11 | 30"X36" | NO TURN ON RED ● |
| K | R10-6AL | 24"X30" | STOP HERE ON RED |
| L | W3-3 | 36"X36" | SIGNAL AHEAD SIGN |
| | | | |
| | | | |

0 25 50 FEET

## SIGNAL INDICATIONS




## LEGEND

- PEDESTRIAN PUSHBUTTON/ IDENTIFYING SIGN & NUMBER
- SIGNAL HEAD/ MAN/HAND SYMBOL & IDENTIFYING NUMBER
- PHASE NUMBER
- SIGNAL HEAD/ & IDENTIFYING NUMBER
- SIGNAL HEAD/ ARROW SECTION & IDENTIFYING NUMBER
- 20' MAST ARM/ IDENTIFYING LENGTH
- DETECTION ZONE — PROPOSED DETECTION ZONE
- SIGNAL HEAD/ TUNNEL VISOR & IDENTIFYING NUMBER
- (A) PROPOSED SIGN WITH IDENTIFYING LETTER
- CONTROLLER ASSEMBLY
- W/4" PROPOSED PAVEMENT MARKING, TYPE/WIDTH
- 10' LUMINAIRE/ IDENTIFYING ARM LENGTH
- VIDEO DETECTOR/ IDENTIFYING NUMBER
- FAIL-SAFE DEVICE\ PRE-EMPTION SENSOR
- PROPOSED PEDESTAL POLE

## GENERAL NOTES

NO MODIFICATIONS OF THIS INSTALLATION ARE PERMITTED UNLESS PRIOR APPROVAL IS GRANTED IN WRITING BY A REPRESENTATIVE OF THE DEPARTMENT OF TRANSPORTATION.

ALL MAINTENANCE WORK INCLUDING TRIMMING OF TREES, NECESSARY FOR PROPER VISIBILITY OF THE SIGNALS IS THE RESPONSIBILITY OF THE PERMITTEE.

ALL SIGNS AND PAVEMENT MARKINGS INDICATED ON THIS DRAWING ARE CONSIDERED PART OF THE PERMIT AND SHALL BE INSTALLED AND MAINTAINED IN ACCORDANCE WITH PUBLICATION NO. 212.

POST MOUNTED SIGNALS SHALL BE INSTALLED WITH THE SIGNAL HEADS A MINIMUM OF 2 FEET BEHIND THE FACE OF CURB OR THE EDGE OF THE SHOULDER. SUPPORT POLES FOR OVERHEAD SIGNALS SHALL ALSO HAVE A MINIMUM CLEARANCE HORIZONTALLY OF 2 FEET.

SIGNALS ERECTED OVER THE ROADWAY SHALL HAVE A MINIMUM VERTICAL CLEARANCE OF 16 FT. ABOVE THE ROADWAY. POST MOUNTED SIGNALS SHALL BE A MINIMUM OF 8 FT. ABOVE THE SIDEWALK OR PAVEMENT.

ALL OVERHEAD SIGNALS MUST BE RIGIDLY MOUNTED, TOP AND BOTTOM, AND EQUIPPED WITH BACKPLATES.

THE MINIMUM HORIZONTAL DISTANCE BETWEEN SIGNALS MEASURED AT RIGHT ANGLES TO THE APPROACH SHALL BE 8 FEET.

EXACT LOCATION OF DETECTORS SHALL BE DETERMINED PRIOR TO INSTALLATION BY A REPRESENTATIVE OF PENNDOT.

CURBING TO BE INSTALLED BY MUNICIPALITY AND WHERE NOTED, SHALL BE PLAIN CEMENT CONCRETE CURB OR GRANITE CURB, INSTALLED IN ACCORDANCE WITH DEPARTMENT SPECIFICATIONS FORM 408.

PRIOR TO INSTALLATION THE CONTRACTOR SHALL CONSULT WITH THE LOCAL OFFICIALS AND UTILITY COMPANIES TO RESOLVE ANY PROBLEMS WHICH MAY BE CREATED DUE TO THE LOCATION OF UTILITIES.

THIS DRAWING CANNOT BE USED AS A CONSTRUCTION DRAWING UNLESS THE PERMITTEE COMPLIES WITH THE PROVISIONS OF THE LATEST AMENDMENT TO ACT 287, PREVENTION OF DAMAGE TO UNDERGROUND UTILITIES, DATED DECEMBER 20, 1974.

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PENNSYLVANIA DEPARTMENT OF TRANSPORTATION
ENGINEERING DISTRICT 6-0

COUNTY: CHESTER
MUNICIPALITY: WEST CHESTER BOROUGH
INTERSECTION: SOUTH NEW STREET AND WEST ROSEDALE AVENUE

REVIEWED:

DATE

MUNICIPAL OFFICIAL DATE

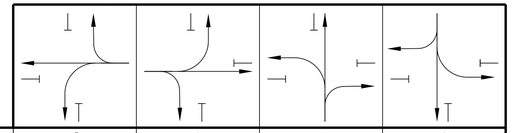
RECOMMENDED:

DISTRICT TRAFFIC ENGINEER DATE

| NO. | REVISION | DES./ REVW. | DATE | REVW. | DATE | RECOM. | DATE |
|---|---|---|---|---|---|---|---|
| | | | | | | | |
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| | | | | | | | |
| | | | | | | | |

SHEET 2 OF 3 | PERMIT # 62-2639 | FILE # 2639

EMERGENCY PRE-EMPTION
MOVEMENT, SEQUENCE AND TIMING DIAGRAM



| PHASE | 2 | | | | 6 | | | | 4 | | | | 8 | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| INTERVAL / SIGNALS | 12 | 13 | 14 | | 15 | 16 | 17 | | 18 | 19 | 20 | | 21 | 22 | 23 | |
| 1,2 | G | Y(G) | R(G) | | R | R | R | | R | R | R | | R | R | R | |
| 3,4 | R | R | R | | G | Y(G) | R(G) | | R | R | R | | R | R | R | |
| 5 | R | R | R | | R | R | R | | G | Y | R | | R | R | R | |
| 6 | R | R | R | | R | R | R | | G | Y | R | | R | R | R | |
| 7 | R | R | R | | R | R | R | | R | R | R | | G | Y | R | |
| 8 | R | R | R | | R | R | R | | R | R | R | | ←S G | Y | R | |
| 9,10 | H | H | H | | H | H | H | | H | H | H | | H | H | H | |
| 11,12 | H | H | H | | H | H | H | | H | H | H | | H | H | H | |
| | | | | | | | | | | | | | | | | |
| FIXED | ▲ | 3 | 3 | | ▲ | 3 | 3 | | ▲ | 3 | 3 | | ▲ | 3 | 3 | |

NOTE: IF PRE-EMPTION EQUIPEMENT HAS ENCODING CAPABILITIES FOR VEHICLE IDENTIFICATION, IT IS RECOMMENDED TO HAVE THE "00" FEATURE ON, TO GIVE UNCODED EMITTERS THE ABILITY TO ACTIVATE THE EMERGENCY PRE-EMPTION.

(G) SIGNAL TO INDICATE G WHEN RETURNING TO NORMAL OPERATION

▲ FOR DURATION OF OPTICAL PRE-EMPTION

## EMERGENCY PRE-EMPTION NOTES:

* CONTROLLER TO BE EQUIPPED WITH EMERGENCY PRE-EMPTION FOR THE NORTHBOUND AND SOUTHBOUND APPROACHES OF NEW STREET AND THE EASTBOUND AND WESTBOUND APPROACHES OF ROSEDALE AVENUE WITH A FAIL SAFE DEVICE FOR EACH DIRECTION OF OPERATION.

THIS EMERGENCY BEACON SHALL CONSIST OF A FLASHING WHITE FLOOD LIGHT, AND SHALL FLASH WHEN THE EMERGENCY VEHICLE HAS CONTROL OF THE INTERSECTION FOR THE APPROPRIATE APPROACH. LOCATION OF THE EMERGENCY VEHICLE DETECTORS ARE TO BE FIELD ADJUSTED TO ACHIEVE MAXIMUM OPERATION.

* THE SIGNALS, WHEN ACTIVATED BY EMERGENCY VEHICLES, SHALL TERMINATE ALL GREEN INDICATIONS IMMEDIATELY, FOLLOWED BY THE COMPLETE YELLOW AND RED CLEARANCE INTERVALS, ACCORDINGLY. THEN THE GREEN INTERVAL FOR THE PRE-EMPTED PHASE SHALL FOLLOW.

* THE SIGNALS, WHEN ACTIVATED BY EMERGENCY VEHICLE SHALL TIME OUT ALL YELLOW, HAND/MAN AND RED INDICATIONS, FOLLOWED BY THE GREEN INTERVAL OF THE PRE-EMPTION PHASE GOVERNED BY THE APPROACHING EMERGENCY VEHICLE.

* ONLY THOSE PHASES NOT POSING A YELLOW TRAP CONDITION MAY REMAIN GREEN (2 AND 8) WHEN GOVERNED BY THE APPROACHING EMERGENCY VEHICLE.

* IF THE SIGNAL HAS BEEN ACTUATED BY A PEDESTRIAN PUSH BUTTON, AND THE SIGNAL IS PRE-EMPTED DURING THE "MAN" INTERVAL, THE MAN INTERVAL SHALL TERMINATE IMMEDIATELY FOLLOWED BY THE "FLASHING HAND" INDICATION IN ITS ENTIRETY, FOLLOWED BY THE APPROPRIATE SELECTIVE CLEARANCES BEFORE PROCEEDING TO THE PRE-EMPTION PHASE.

* IF THE SIGNALS, WHEN ACTIVATED BY AN EMERGENCY VEHICLE ARE FLASHING, ALL SIGNALS SHALL REMAIN FLASHING.

* IF ADDITIONAL PRE-EMPTION, PHASES ARE ACTIVATED WHILE IN PRE-EMPTION, THE ORIGINAL PRE-EMPTION PHASE SHALL TIME OUT BEFORE PROCEEDING TO THE NEXT PRE-EMPTION PHASE.

* UPON COMPLETION OF PRE-EMPTION PHASES 2, 4, 6 OR 8 IN RETURNING TO NORMAL OPERATION, PHASE 2+6 INTERVAL 1 SHALL FOLLOW.

* IN EMERGENCY PRE-EMPTION, NO PRIORITY SHALL BE ESTABLISHED. PRE-EMPTION SHALL BE A "FIRST COME, FIRST SERVE" OPERATION.

0 25 50 FEET

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PENNSYLVANIA DEPARTMENT OF TRANSPORTATION
ENGINEERING DISTRICT 6-0

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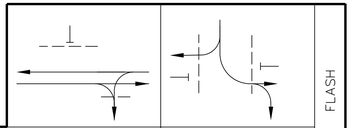
RECOMMENDED:

DISTRICT TRAFFIC ENGINEER DATE

| NO. | REVISION | DES./ REVW. | DATE | REVW. | DATE | RECOM. | DATE |
|---|---|---|---|---|---|---|---|
| 1 | | | | | | | |
| 2 | | | | | | | |
| 3 | | | | | | | |
| 4 | | | | | | | |
| 5 | | | | | | | |
| 6 | | | | | | | |
| 7 | | | | | | | |
| 8 | | | | | | | |

SHEET 3 OF 3 | PERMIT # 62-2639 | FILE # 2639

## MOVEMENT, SEQUENCE AND TIMING DIAGRAM



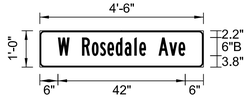
| PHASE | 2+6 | | | | | 4 | | | | | FLASH |
|---|---|---|---|---|---|---|---|---|---|---|---|
| INTERVAL / SIGNALS | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | |
| 1,2 | R | G | G | Y | R | R | R | R | R | R | Y |
| 3,4 | R | G | G | Y | R | R | R | R | R | R | Y |
| 5,6 | R | R | R | R | R | R | G | G | Y | R | R |
| 7,8 | M | M | FH | H | H | H | H | H | H | H | OFF |
| 9,10 | H | H | H | H | H | M | M | FH | H | H | OFF |
| 11,12 | H | H | H | H | H | M | M | FH | H | H | OFF |
| 13,14 | M | M | FH | H | H | H | H | H | H | H | OFF |

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| FIXED | | | | 3 | 2 | | | 3 | 2 | |
| MINIMUM | | 15 | | | | | 5 | | | |
| PASSAGE | | | | | | | 3 | | | |
| MAX 1 | | 40 | | | | | 18 | | | |
| | | | | | | | | | | |
| PEDESTRIAN* | 3 | 7 | 10 | | | 3 | 7 | 11 | | |
| | | | | | | | | | | |
| MEMORY | | MX | | | | | NL | | | |
| PROGRAM 1 | | 29 | | 3 | 2 | | 21 | | 3 | 2 |
| PROGRAM 2 | | 31 | | 3 | 2 | | 19 | | 3 | 2 |

* UPON PEDESTRIAN ACTUATION, OTHERWISE HAND SYMBOL AT ALL TIMES

### OPERATION NOTES

- CONTROLLER TO DWELL IN PHASE 2+6 UNTIL ACTUATED BY PHASE 4+8




DETAIL SIGN "A"
N.T.S.

D3-4

SERIES B LETTERING
6" UPPER CASE
4.4" LOWER CASE
REFLECTORIZED GREEN BACKGROUND
WHITE LEGEND

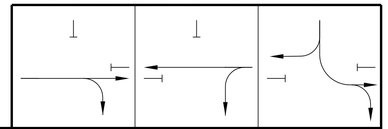



DETAIL SIGN "B"
N.T.S.

D3-4

SERIES B LETTERING
6" UPPER CASE
4.4" LOWER CASE
REFLECTORIZED GREEN BACKGROUND
WHITE LEGEND

## EMERGENCY PRE-EMPTION MOVEMENT, SEQUENCE AND TIMING DIAGRAM

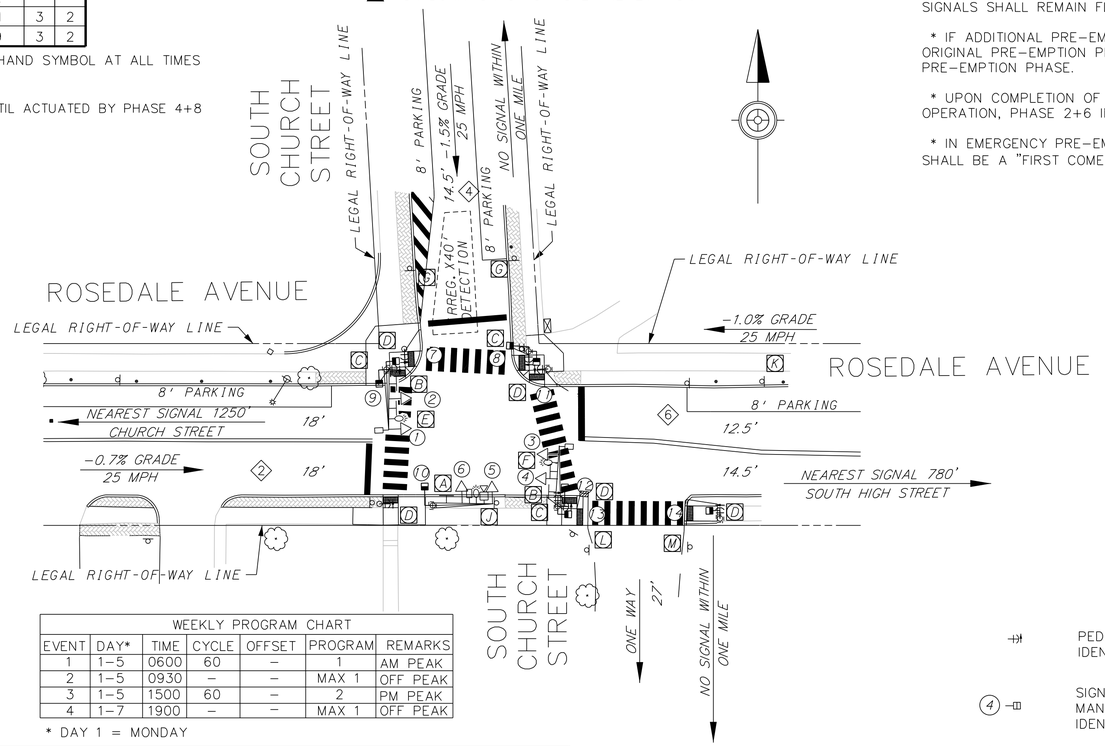


| PHASE | 2 | | | | 6 | | | | 4 | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| INTERVAL / SIGNALS | 11 | 12 | 13 | | 14 | 15 | 16 | | 17 | 18 | 19 | |
| 1,2 | R | R | R | | G | Y | R | | R | R | R | |
| 3,4 | G | Y(G) | R(G) | | R | R | R | | R | R | R | |
| 5,6 | R | R | R | | R | R | R | | G | Y | R | |
| 7,8 | H | H | H | | H | H | H | | H | H | H | |
| 9,10 | H | H | H | | H | H | H | | H | H | H | |
| 11,12 | H | H | H | | H | H | H | | H | H | H | |
| 13,14 | H | H | H | | H | H | H | | H | H | H | |
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |
| FIXED | ▲ | 3 | 2 | | ▲ | 3 | 2 | | ▲ | 3 | 2 | |

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(G) SIGNAL TO INDICATE G WHEN RETURNING TO NORMAL OPERATION

▲ FOR DURATION OF OPTICAL PRE-EMPTION




| WEEKLY PROGRAM CHART | | | | | | |
|---|---|---|---|---|---|---|
| EVENT | DAY* | TIME | CYCLE | OFFSET | PROGRAM | REMARKS |
| 1 | 1-5 | 0600 | 60 | – | 1 | AM PEAK |
| 2 | 1-5 | 0930 | – | – | MAX 1 | OFF PEAK |
| 3 | 1-5 | 1500 | 60 | – | 2 | PM PEAK |
| 4 | 1-7 | 1900 | – | – | MAX 1 | OFF PEAK |

* DAY 1 = MONDAY

## EMERGENCY PRE-EMPTION NOTES:

* CONTROLLER TO BE EQUIPPED WITH EMERGENCY PRE-EMPTION FOR THE EASTBOUND AND WESTBOUND APPROACHES OF ROSEDALE AVENUE AND THE SOUTHBOUND APPROACH OF SOUTH CHURCH STREET WITH A FAIL SAFE DEVICE FOR EACH DIRECTION OF OPERATION.

THIS EMERGENCY BEACON SHALL CONSIST OF A FLASHING WHITE FLOOD LIGHT, AND SHALL FLASH WHEN THE EMERGENCY VEHICLE HAS CONTROL OF THE INTERSECTION FOR THE APPROPRIATE APPROACH. LOCATION OF THE EMERGENCY VEHICLE DETECTORS ARE TO BE FIELD ADJUSTED TO ACHIEVE MAXIMUM OPERATION.

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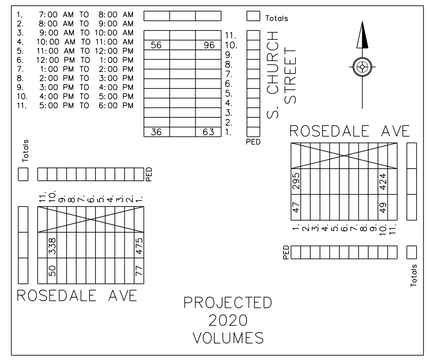
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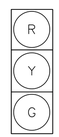
* UPON COMPLETION OF PRE-EMPTION PHASES 2, 4, 6 OR 8 IN RETURNING TO NORMAL OPERATION, PHASE 2+6 INTERVAL 2 SHALL FOLLOW.

* IN EMERGENCY PRE-EMPTION, NO PRIORITY SHALL BE ESTABLISHED. PRE-EMPTION SHALL BE A "FIRST COME, FIRST SERVE" OPERATION.




## SIGNAL INDICATIONS

12" LED LENS




1,2,3, 4,5,6

16"X18" PEDESTRIAN COUNTDOWN SIGNALS (LED)




7,8,9, 10,11,12, 13,14

## LEGEND

- PEDESTRIAN PUSHBUTTON/ IDENTIFYING SIGN & NUMBER
- (4) SIGNAL HEAD/ MAN/HAND SYMBOL & IDENTIFYING NUMBER
- ◇4 PHASE NUMBER
- (4) SIGNAL HEAD/ & IDENTIFYING NUMBER
- (4) SIGNAL HEAD/ ARROW SECTION & IDENTIFYING NUMBER
- 20' MAST ARM/ IDENTIFYING LENGTH
- DETECTION ZONE PROPOSED DETECTION ZONE
- (4) SIGNAL HEAD/ TUNNEL VISOR & IDENTIFYING NUMBER
- (A) PROPOSED SIGN WITH IDENTIFYING LETTER
- CONTROLLER ASSEMBLY
- W/4" PROPOSED PAVEMENT MARKING, TYPE/WIDTH
- 10' LUMINAIRE/ IDENTIFYING ARM LENGTH
- VIDEO DETECTOR/ IDENTIFYING NUMBER
- FAIL-SAFE DEVICE\ PRE-EMPTION SENSOR
- PROPOSED PEDESTAL POLE

## SIGN TABULATION

| SYMBOL | SERIES | SIZE | DESCRIPTION |
|---|---|---|---|
| (A) | D3-4 | 54"X12" | OVERHEAD STREET NAME SIGN "W Rosedale Ave" |
| (B) | D3-4 | 42"X12" | OVERHEAD STREET NAME SIGN "S Church St" |
| (C) | R10-3E(L) | 9"X15" | EDUCATIONAL PUSH BUTTON FOR WALK SIGNAL WITH COUNTDOWN TIMER ← |
| (D) | R10-3E(R) | 9"X15" | EDUCATIONAL PUSH BUTTON FOR WALK SIGNAL WITH COUNTDOWN TIMER → |
| (E) | R3-1 | 36"X36" | NO RIGHT TURN |
| (F) | R3-2 | 36"X36" | NO LEFT TURN |
| (G) | R5-1 | 30"X30" | DO NOT ENTER |
| (J) | SPECIAL | 30"X36" | TRUCKS NO RIGHT TURN |
| (K) | SPECIAL | 30"X36" | TRUCKS NO LEFT TURN |
| (L) | R6-1L | 36"X12" | HORIZONTAL LEFT ONE-WAY |
| (M) | R6-1R | 36"X12" | HORIZONTAL RIGHT ONE-WAY |

0 25 50 FEET

## GENERAL NOTES

NO MODIFICATIONS OF THIS INSTALLATION ARE PERMITTED UNLESS PRIOR APPROVAL IS GRANTED IN WRITING BY A REPRESENTATIVE OF THE DEPARTMENT OF TRANSPORTATION.

ALL MAINTENANCE WORK INCLUDING TRIMMING OF TREES, NECESSARY FOR PROPER VISIBILITY OF THE SIGNALS IS THE RESPONSIBILITY OF THE PERMITTEE.

ALL SIGNS AND PAVEMENT MARKINGS INDICATED ON THIS DRAWING ARE CONSIDERED PART OF THE PERMIT AND SHALL BE INSTALLED AND MAINTAINED IN ACCORDANCE WITH PUBLICATION NO. 212.

POST MOUNTED SIGNALS SHALL BE INSTALLED WITH THE SIGNAL HEADS A MINIMUM OF 2 FEET BEHIND THE FACE OF CURB OR THE EDGE OF THE SHOULDER. SUPPORT POLES FOR OVERHEAD SIGNALS SHALL ALSO HAVE A MINIMUM CLEARANCE HORIZONTALLY OF 2 FEET.

SIGNALS ERECTED OVER THE ROADWAY SHALL HAVE A MINIMUM VERTICAL CLEARANCE OF 16 FT. ABOVE THE ROADWAY. POST MOUNTED SIGNALS SHALL BE A MINIMUM OF 8 FT. ABOVE THE SIDEWALK OR PAVEMENT.

ALL OVERHEAD SIGNALS MUST BE RIGIDLY MOUNTED, TOP AND BOTTOM, AND EQUIPPED WITH BACKPLATES.

THE MINIMUM HORIZONTAL DISTANCE BETWEEN SIGNALS MEASURED AT RIGHT ANGLES TO THE APPROACH SHALL BE 8 FEET.

EXACT LOCATION OF DETECTORS SHALL BE DETERMINED PRIOR TO INSTALLATION BY A REPRESENTATIVE OF PENNDOT.

CURBING TO BE INSTALLED BY MUNICIPALITY AND WHERE NOTED, SHALL BE PLAIN CEMENT CONCRETE CURB OR GRANITE CURB, INSTALLED IN ACCORDANCE WITH DEPARTMENT SPECIFICATIONS FORM 408.

PRIOR TO INSTALLATION THE CONTRACTOR SHALL CONSULT WITH THE LOCAL OFFICIALS AND UTILITY COMPANIES TO RESOLVE ANY PROBLEMS WHICH MAY BE CREATED DUE TO THE LOCATION OF UTILITIES.

THIS DRAWING CANNOT BE USED AS A CONSTRUCTION DRAWING UNLESS THE PERMITTEE COMPLIES WITH THE PROVISIONS OF THE LATEST AMENDMENT TO ACT 287, PREVENTION OF DAMAGE TO UNDERGROUND UTILITIES, DATED DECEMBER 20, 1974.

WHEN LIQUID FUELS MONEY IS USED, SIGNAL INSTALLATION MUST CONFORM TO FORM 408 AND A COPY OF THE PROPOSED SPECIFICATIONS MUST BE SUBMITTED TO THE DISTRICT TRAFFIC UNIT, FOR REVIEW, PRIOR TO BIDDING.

PERMITTEE SHALL OBTAIN A HIGHWAY OCCUPANCY PERMIT FOR ANY CHANGES IN INTERSECTION GEOMETRY REGARDING EXCAVATION.

CONDUIT INSTALLED IN BITUMINOUS ROADWAY LESS THAN 5 YEARS OLD, OR CONCRETE ROADWAY REGARDLESS OF AGE, MUST BE BORED OR JACKED UNDER THE ROADWAY. INSTALL IN ACCORDANCE WITH TRAFFIC SIGNAL STANDARDS TC-8800 SERIES.

PENNSYLVANIA DEPARTMENT OF TRANSPORTATION
ENGINEERING DISTRICT 6-0

COUNTY: CHESTER

MUNICIPALITY: WEST CHESTER BOROUGH

INTERSECTION: WEST ROSEDALE AVENUE
SOUTH CHURCH STREET

REVIEWED:

DATE

MUNICIPAL OFFICIAL DATE

RECOMMENDED:

DISTRICT TRAFFIC ENGINEER DATE

| NO. | REVISION | DES./ REVW. | DATE | REVW. | DATE | RECOM. | DATE |
|---|---|---|---|---|---|---|---|
| | | | | | | | |
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| | | | | | | | |

SHEET 2 OF 2 | PERMIT # XX-XXXX | FILE # XXXX

## MOVEMENT, SEQUENCE AND TIMING DIAGRAM

| PHASE | 2+6 | | | | 4+8 | | | | FLASH |
|---|---|---|---|---|---|---|---|---|---|
| INTERVAL / SIGNALS | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | |
| 1,2 | G | G | Y | R | R | R | R | R | Y |
| 3,4 | G | G | Y | R | R | R | R | R | Y |
| 5,6 | R | R | R | R | G | G | Y | R | R |
| 7,8 | R | R | R | R | G | G | Y | R | R |
| 9,10 | H | H | H | H | M | FH | H | H | OFF |
| 11,12 | M | FH | H | H | H | H | H | H | OFF |
| | | | | | | | | | |
| | | | | | | | | | |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| FIXED | | | 3 | 3 | | | 3 | 3 |
| MINIMUM | | | | | 3 | | | |
| PASSAGE | | | | | 3 | | | |
| MAX 1 | 35 | | | | 10 | | | |
| | | | | | | | | |
| PEDESTRIAN* | 7 | 10 | | | 7 | 12 | | |
| | | | | | | | | |
| MEMORY | MX | | | | NL | | | |
| PROGRAM 1 | 43 | | 3 | 3 | 10 | | 3 | 3 |
| PROGRAM 2 | 29 | | 3 | 3 | 19 | | 3 | 3 |

* UPON PEDESTRIAN ACTUATION, OTHERWISE HAND SYMBOL AT ALL TIMES

### OPERATION NOTES

- CONTROLLER TO DWELL IN PHASE 2+6 UNTIL ACTUATED BY PHASE 4+8

| WEEKLY PROGRAM CHART | | | | | | |
|---|---|---|---|---|---|---|
| EVENT | DAY* | TIME | CYCLE | OFFSET | PROGRAM | REMARKS |
| 1 | 1-5 | 0600 | 65 | – | 1 | AM PEAK |
| 2 | 1-5 | 0930 | – | – | MAX 1 | OFF PEAK |
| 3 | 1-5 | 1500 | 60 | – | 2 | PM PEAK |
| 4 | 1-7 | 1900 | – | – | MAX 1 | OFF PEAK |
| | | | | | | |
| | | | | | | |

* DAY 1 = MONDAY

### SIGNAL INDICATIONS

12" LED LENS




1,2,3,4, 5,6,7,8

16"X18" PEDESTRIAN COUNTDOWN SIGNALS (LED)




9,10, 11,12

SIGNAL HEADS 1–8 TO BE EQUIPPED WITH YELLOW BACKPLATES

## EMERGENCY PRE-EMPTION MOVEMENT, SEQUENCE AND TIMING DIAGRAM

| PHASE | 2 | | | | 6 | | | | 4 | | | | 8 | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| INTERVAL / SIGNALS | 9 | 10 | 11 | | 12 | 13 | 14 | | 15 | 16 | 17 | | 18 | 19 | 20 | |
| 1,2 | R | R | R | | G | Y(G) | R(G) | | R | R | R | | R | R | R | |
| 3,4 | G | Y(G) | R(G) | | R | R | R | | R | R | R | | R | R | R | |
| 5,6 | R | R | R | | R | R | R | | G | Y | R | | R | R | R | |
| 7,8 | R | R | R | | R | R | R | | R | R | R | | G | Y | R | |
| 9,10 | H | H | H | | H | H | H | | H | H | H | | H | H | H | |
| 11,12 | H | H | H | | H | H | H | | H | H | H | | H | H | H | |
| | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | |
| FIXED | ▲ | 3 | 3 | | ▲ | 3 | 3 | | ▲ | 3 | 3 | | ▲ | 3 | 3 | |

NOTE: IF PRE-EMPTION EQUIPEMENT HAS ENCODING CAPABILITIES FOR VEHICLE IDENTIFICATION, IT IS RECOMMENDED TO HAVE THE "00" FEATURE ON, TO GIVE UNCODED EMITTERS THE ABILITY TO ACTIVATE THE EMERGENCY PRE-EMPTION.

(G) SIGNAL TO INDICATE G WHEN RETURNING TO NORMAL OPERATION

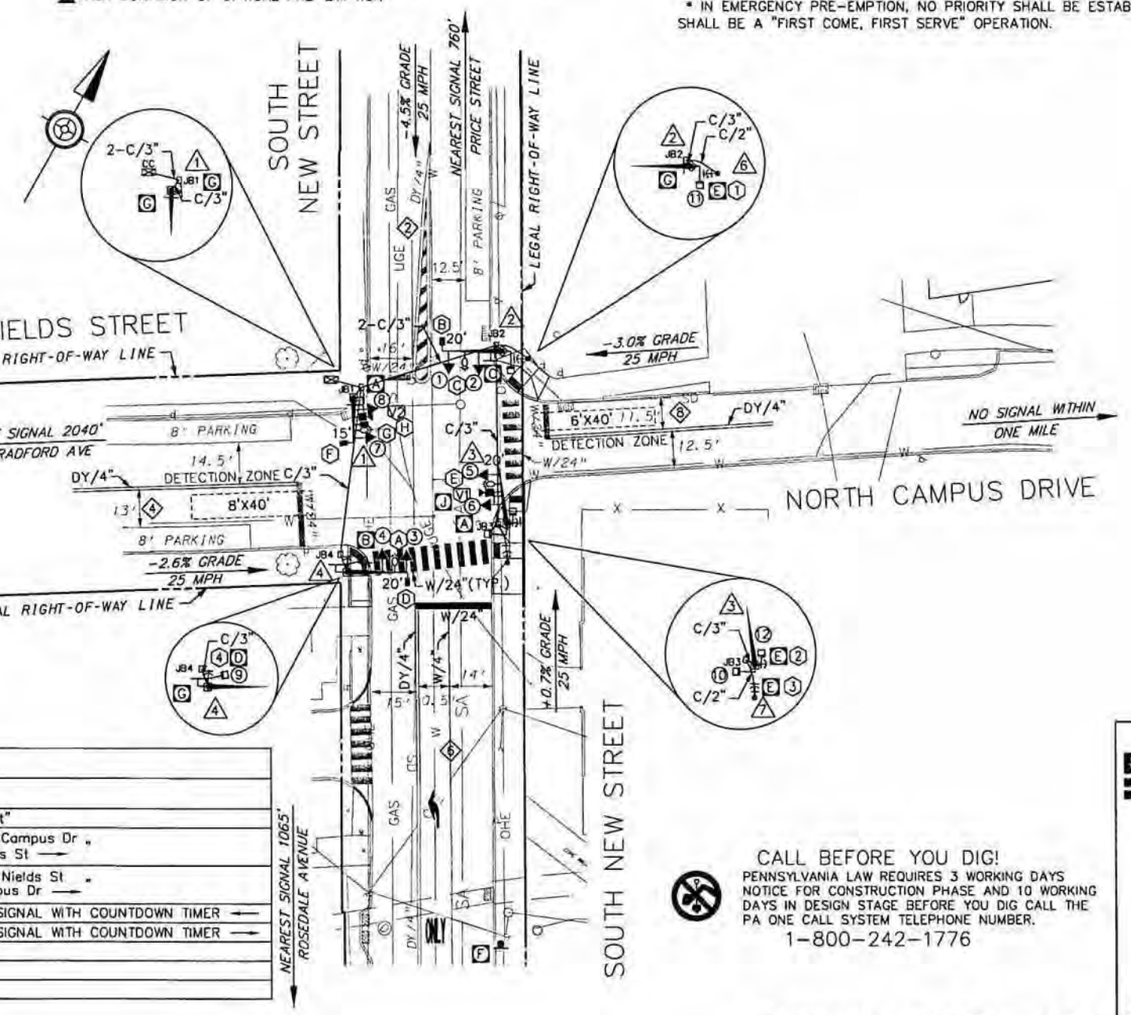
▲ FOR DURATION OF OPTICAL PRE-EMPTION

## EMERGENCY PRE-EMPTION NOTES:

- CONTROLLER TO BE EQUIPPED WITH EMERGENCY PRE-EMPTION FOR THE NORTHBOUND AND SOUTHBOUND APPROACHES OF SOUTH NEW STREET, THE EASTBOUND APPROACH OF WEST NIELDS STREET, AND WESTBOUND APPROACH OF NORTH CAMPUS DRIVE WITH A FAIL SAFE DEVICE FOR EACH DIRECTION OF OPERATION.

THIS EMERGENCY BEACON SHALL CONSIST OF A FLASHING WHITE FLOOD LIGHT, AND SHALL FLASH WHEN THE EMERGENCY VEHICLE HAS CONTROL OF THE INTERSECTION FOR THE APPROPRIATE APPROACH. LOCATION OF THE EMERGENCY VEHICLE DETECTORS ARE TO BE FIELD ADJUSTED TO ACHIEVE MAXIMUM OPERATION.

- THE SIGNALS, WHEN ACTIVATED BY EMERGENCY VEHICLES, SHALL TERMINATE ALL GREEN INDICATIONS IMMEDIATELY, FOLLOWED BY THE COMPLETE YELLOW AND RED CLEARANCE INTERVALS, ACCORDINGLY. THEN THE GREEN INTERVAL FOR THE PRE-EMPTED PHASE SHALL FOLLOW.
- THE SIGNALS, WHEN ACTIVATED BY EMERGENCY VEHICLE SHALL TIME OUT ALL YELLOW, HAND/MAN AND RED INDICATIONS, FOLLOWED BY THE GREEN INTERVAL OF THE PRE-EMPTION PHASE GOVERNED BY THE APPROACHING EMERGENCY VEHICLE.
- IF THE SIGNAL HAS BEEN ACTUATED BY A PEDESTRIAN PUSH BUTTON, AND THE SIGNAL IS PRE-EMPTED DURING THE "MAN" INTERVAL, THE MAN INTERVAL SHALL TERMINATE IMMEDIATELY FOLLOWED BY THE "FLASHING HAND" INDICATION IN ITS ENTIRETY, FOLLOWED BY THE APPROPRIATE SELECTIVE CLEARANCES BEFORE PROCEEDING TO THE PRE-EMPTION PHASE.
- IF THE SIGNALS, WHEN ACTIVATED BY AN EMERGENCY VEHICLE ARE FLASHING, ALL SIGNALS SHALL REMAIN FLASHING.
- IF ADDITIONAL PRE-EMPTION, PHASES ARE ACTIVATED WHILE IN PRE-EMPTION, THE ORIGINAL PRE-EMPTION PHASE SHALL TIME OUT BEFORE PROCEEDING TO THE NEXT PRE-EMPTION PHASE.
- UPON COMPLETION OF PRE-EMPTION PHASES 2, 4, 6 OR 8 IN RETURNING TO NORMAL OPERATION, PHASE 2+6 INTERVAL 1 SHALL FOLLOW.
- IN EMERGENCY PRE-EMPTION, NO PRIORITY SHALL BE ESTABLISHED. PRE-EMPTION SHALL BE A "FIRST COME, FIRST SERVE" OPERATION.




## SIGN TABULATION

| SYMBOL | SERIES | SIZE | DESCRIPTION |
|---|---|---|---|
| A | D3-4 | 36"X12" | OVERHEAD STREET NAME SIGN "S New St" |
| B | D3-5 | 54"X21" | OVERHEAD STREET NAME SIGN " ← N Campus Dr / W Nields St → " |
| C | D3-5 | 54"X21" | OVERHEAD STREET NAME SIGN " ← W Nields St / N Campus Dr → " |
| D | R10-3E(L) | 9"X15" | EDUCATIONAL PUSH BUTTON FOR WALK SIGNAL WITH COUNTDOWN TIMER ← |
| E | R10-3E(R) | 9"X15" | EDUCATIONAL PUSH BUTTON FOR WALK SIGNAL WITH COUNTDOWN TIMER → |
| F | R3-7L | 30"X30" | LEFT LANE MUST TURN LEFT |
| G | R9-3 | 18"X18" | NO PEDESTRIAN CROSSING |
| J | R10-11 | 30"X36" | NO TURN ON RED ● |

0 25 50 FEET

CALL BEFORE YOU DIG!
PENNSYLVANIA LAW REQUIRES 3 WORKING DAYS NOTICE FOR CONSTRUCTION PHASE AND 10 WORKING DAYS IN DESIGN STAGE BEFORE YOU DIG CALL THE PA ONE CALL SYSTEM TELEPHONE NUMBER.
1-800-242-1776

# TRAFFIC SIGNAL PLAN

PREPARED BY:
McCORMICK TAYLOR
2001 Market Street, 10th Floor
Philadelphia, Pennsylvania 19103

DATE: 12-13-17

| DISTRICT | COUNTY | ROUTE | SECTION | SHEET |
|---|---|---|---|---|
| 6-0 | CHESTER | ---- | --- | 1 OF 6 |
| | WEST CHESTER BOROUGH | | | |

| REVISION NUMBER | REVISIONS | DATE | BY |
|---|---|---|---|
| | | | |
| | | | |

## TRAFFIC SIGNAL NOTES

DO NOT MODIFY INSTALLATION WITHOUT PRIOR WRITTEN APPROVAL.

ALL SIGNS AND PAVEMENT MARKINGS INDICATED ARE CONSIDERED PART OF THE PERMIT AND SHALL BE INSTALLED AND MAINTAINED IN ACCORDANCE WITH PUBLICATION 212.

POST MOUNTED SIGNALS SHALL BE INSTALLED WITH THE SIGNAL HEADS A MINIMUM OF 2 FEET BEHIND FACE OF CURB OR EDGE OF SHOULDER. SUPPORT POLES FOR OVERHEAD SIGNALS SHALL ALSO HAVE A MINIMUM CLEARANCE HORIZONTALLY OF 2 FEET.

SIGNALS ERECTED OVER THE ROADWAY SHALL HAVE A MINIMUM VERTICAL CLEARANCE OF 16 FEET ABOVE THE ROADWAY. POST MOUNTED SIGNALS SHALL BE A MINIMUM OF 8 FEET ABOVE THE SIDEWALK OR PAVEMENT.

ALL OVERHEAD SIGNALS MUST BE RIGIDLY MOUNTED, TOP AND BOTTOM, AND EQUIPPED WITH BACKPLATES.

DETERMINE, PRIOR TO INSTALLATION, THE EXACT LOCATION OF DETECTORS WITH A REPREPESENTATIVE OF PENNDOT.

ALL WORK SHALL BE IN ACCORDANCE WITH THE LATEST EDITIONS OF THE FOLLOWING PENNDOT PUBLICATIONS:
- PUB 408 / 2016, SPECIFICATIONS
- PUB 148, TRAFFIC STANDARDS--SIGNALS, TC-8800 SERIES
- PUB 149, TRAFFIC SIGNAL DESIGN HANDBOOK
- PUB 236, HANDBOOK OF APPROVED SIGNS

THE TRAFFIC SIGNAL SUPPORTS SHALL BE LOCATED IN THE FIELD BY A PENNDOT RESIDENT ENGINEER

THE CONTRACTOR SHALL COMPLETE THE NECESSARY APPLICATION(S) IN ORDER TO OBTAIN ELECTRICAL SERVICE FROM THE LOCAL POWER COMPANY.

THE CONTRACTOR SHALL INSTALL ALL NEW TRAFFIC SIGNAL EQUIPMENT AND RELATED MATERIALS.

ALL EXISTING TRAFFIC SIGNAL EQUIPMENT THAT IS REMOVED SHALL BECOME THE PROPERTY OF WEST CHESTER BOROUGH, UNLESS OTHERWISE DIRECTED BY THE TOWNSHIP ENGINEER.

PAVEMENT MARKINGS ARE SHOWN FOR INFORMATIONAL PURPOSES ONLY, REFER TO PAVEMENT MARKING PLAN FOR INSTALLATION DETAILS.

REFER TO THE ROADWAY CONSTRUCTION PLANS FOR THE LOCATION OF UTILITIES AND PROPERTY OWNER INFORMATION.

THIS DRAWING CANNOT BE USED AS A CONSTRUCTION DRAWING UNLESS THE PERMITTEE COMPLIES WITH THE PROVISIONS OF THE LATEST AMENDMENT TO ACT 287, PREVENTION OF DAMAGE TO UNDERGROUND UTILITIES, DATED DECEMBER 20, 1974.

| EXISTING | PROPOSED | DESCRIPTION |
|---|---|---|
| | | MAST ARM |
| | | STRAIN POLE/PEDESTAL |
| ② | ② | VEHICULAR SIGNAL HEAD |
| ⑦ ② → | ① ① → | PEDESTRIAN PUSH BUTTON/SIGN |
| ③ | ③ | PEDESTRIAN SIGNAL HEAD |
| B C | B C | POST MOUNTED SIGN |
| | | MAST ARM MOUNTED SIGN |
| 1 | 1 | JUNCTION BOX |
| R2 | R2 | RADAR DETECTOR |
| V2 | V2 | VIDEO DETECTOR |
| 2 | 2 | DETECTION ZONE |
| cc1 | cc1 | CONTROLLER CABINET |
| A | A | EMERGENCY PREEMPTION DETECTOR |
| B | B | EMERGENCY PREEMPTION CONFIRMATION BEACON |
| —C/2"— | —C/2"— | CONDUIT/SIZE |
| 1 | 1 | LUMINAIRE |
| W/4" | W/4" | SOLID WHITE LINE/WIDTH |
| BW/4" | BW/4" | BROKEN WHITE LINE/WIDTH |
| BY/4" | BY/4" | BROKEN YELLOW LINE/WIDTH |
| Y/4" | Y/4" | SOLID YELLOW LINE/WIDTH |
| DY/4" | DY/4" | DOUBLE YELLOW LINE/WIDTH |
| DW/4" | DW/4" | DOTTED WHITE LINE/WIDTH |
| | | DETECTABLE WARNING SURFACE |
| (8) | | PHASE NUMBER |

COUNTY: CHESTER

MUNICIPALITY: WEST CHESTER BOROUGH

INTERSECTION: SOUTH NEW STREET AND WEST NIELDS ST / NORTH CAMPUS DR

REVIEWED:

MUNICIPAL OFFICIAL — DATE 12/14/17

RECOMMENDED:

DISTRICT TRAFFIC ENGINEER — DATE 12/18/17, 1-3-18

FILE # 3941

CONTRACTORS NOTES:

- ALL MATERIAL AND WORK TO CONFORM WITH WEST CHESTER BOROUGH SPECIFICATIONS FOR TRAFFIC SIGNAL EQUIPMENT, PENNDOT FORM 408, PENNDOT PUBLICATION 72M AND PENNDOT TC-8800 SERIES.
- JB #1 TO BE TYPE 17"X30".
- JB #2, #3, & #4 TO BE JB-27.
- WIRE SIGNAL HEAD #1 WITH 7C FOR POSSIBLE FUTURE PROTECTED LEFT TURN PHASE.
- INSTALL NEW TRAFFIC SIGNAL CONTROLLER: NAZTEC 900 SERIES, NEMA TS-2 TYPE 2 ATC (TYPE 1 MOUNTING), DOUBLE CONVERSION BATTERY BACKUP SYSTEM, EMERGENCY GENERATOR CONNECTION AND TOMAR OPTICAL PRE-EMPTION EQUIPMENT.
- INSTALL POLES, SIGNAL HEADS, VIDEO DETECTION CAMERAS, PUSH BUTTONS, EMERGENCY PRE-EMPTION EQUIPMENT AND SIGNS AS SHOWN.
- THE BATTERY BACK-UP SYSTEM IS TO BE CAPABLE OF 8 HOURS OF CONTINUOUS OPERATION DURING A POWER FAILURE AND BE EQUIPPED WITH CONFIRMATION LIGHTS MOUNTED (GREEN FOR NORMAL POWER, RED FOR BACK-UP POWER) MOUNTED ON THE OUTSIDE OF THE CONTROLLER CABINET.
- ALL RED, YELLOW, AND GREEN INDICATIONS INCLUDING ARROWS TO BE EQUIPPED WITH PENNDOT APPROVED LED LENSES. PEDESTRIAN SIGNAL HEADS SHALL BE LED AS WELL.
- THE LOCATION OF VIDEO DETECTION CAMERAS AND EMERGENCY PRE-EMPTION SHOULD BE REVIEWED AND APPROVED BY THE SUPPLIER PRIOR TO INSTALLATION.
- ALL PEDESTRIAN PUSH BUTTONS SHALL BE ADA COMPLIANT WITH LATCHING LED CONFIRMATION LIGHT AND TONE.
- TRAFFIC SIGNAL CONTRACTOR SHALL NOTIFY WEST CHESTER BOROUGH A MINIMUM OF 24 HOURS BEFORE ANY MEETINGS OR CONSTRUCTION BEGINS ON TRAFFIC SIGNAL.
- ALL SIGNAL HARDWARE AND SOFTWARE SHALL BE APPROVED BY WEST CHESTER BOROUGH PRIOR TO CONSTRUCTION.




DETAIL SIGN "A"
N.T.S.

D3-4

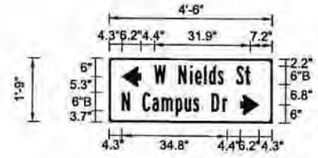
SERIES B LETTERING
6" UPPER CASE
4.4" LOWER CASE
REFLECTORIZED GREEN BACKGROUND
WHITE LEGEND AND BORDER




DETAIL SIGN "B"
N.T.S.

D3-5

SERIES B LETTERING
6" UPPER CASE
4.4" LOWER CASE
REFLECTORIZED GREEN BACKGROUND
WHITE LEGEND AND BORDER

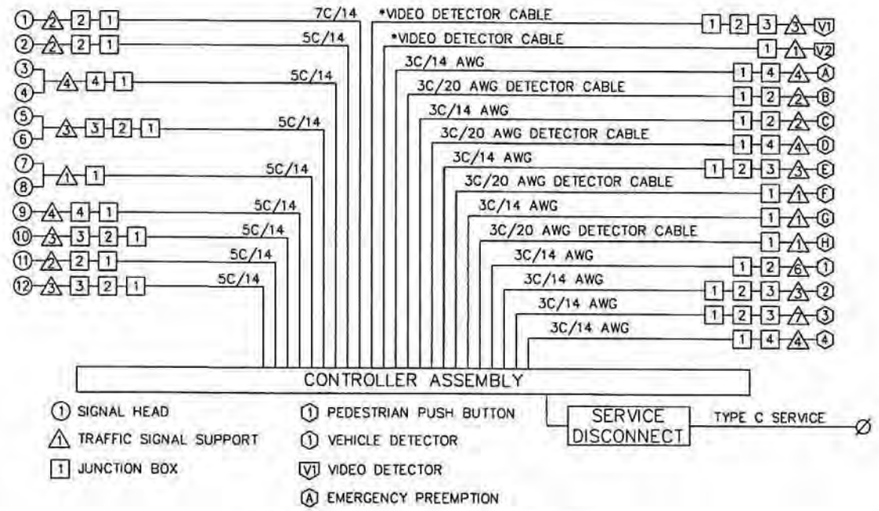



DETAIL SIGN "C"
N.T.S.

D3-5

SERIES B LETTERING
6" UPPER CASE
4.4" LOWER CASE
REFLECTORIZED GREEN BACKGROUND
WHITE LEGEND AND BORDER

WIRING DIAGRAM




5C/14 – CABLE (NO. OF CONDUCTORS/SIZE AWG)
* CABLE AS REQUIRED BY MANUFACTURER

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1-800-242-1776

0 25 50 FEET

# TRAFFIC SIGNAL PLAN

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
ERIK C. SCHMIDT
ENGINEER
PE084547

| DISTRICT | COUNTY | ROUTE | SECTION | SHEET |
|---|---|---|---|---|
| 6-0 | CHESTER | ---- | --- | 2 OF 6 |
| WEST CHESTER BOROUGH | | | | |

| REVISION NUMBER | REVISIONS | DATE | BY |
|---|---|---|---|
| | | | |
| | | | |

## TRAFFIC SIGNAL NOTES

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| EXISTING | PROPOSED | DESCRIPTION |
|---|---|---|
| | | MAST ARM |
| | | STRAIN POLE/PEDESTAL |
| | | VEHICULAR SIGNAL HEAD |
| | | PEDESTRIAN PUSH BUTTON/SIGN |
| | | PEDESTRIAN SIGNAL HEAD |
| | | POST MOUNTED SIGN |
| | | MAST ARM MOUNTED SIGN |
| | | JUNCTION BOX |
| | | RADAR DETECTOR |
| | | VIDEO DETECTOR |
| | | DETECTION ZONE |
| | | CONTROLLER CABINET |
| | | EMERGENCY PREEMPTION DETECTOR |
| | | EMERGENCY PREEMPTION CONFIRMATION BEACON |
| C/2" | C/2" | CONDUIT/SIZE |
| | | LUMINAIRE |
| W/4" | W/4" | SOLID WHITE LINE/WIDTH |
| BW/4" | BW/4" | BROKEN WHITE LINE/WIDTH |
| BY/4" | BY/4" | BROKEN YELLOW LINE/WIDTH |
| Y/4" | Y/4" | SOLID YELLOW LINE/WIDTH |
| DY/4" | DY/4" | DOUBLE YELLOW LINE/WIDTH |
| DW/4" | DW/4" | DOTTED WHITE LINE/WIDTH |
| | | DETECTABLE WARNING SURFACE |
| | | PHASE NUMBER |

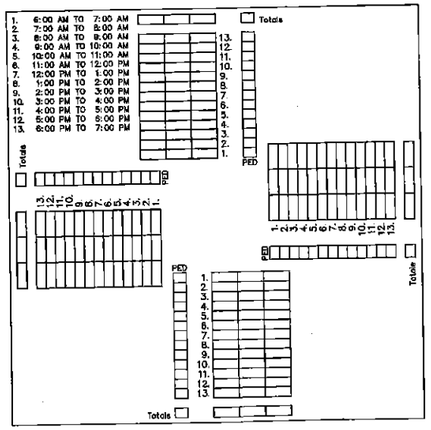
COUNTY: CHESTER
MUNICIPALITY: WEST CHESTER BOROUGH
INTERSECTION: SOUTH NEW STREET AND WEST NIELDS ST / NORTH CAMPUS DR

REVIEWED:
MUNICIPAL OFFICIAL — DATE 12/14/17

RECOMMENDED:
DISTRICT TRAFFIC ENGINEER — DATE 12/15/17, 1-3-18

FILE # 3941

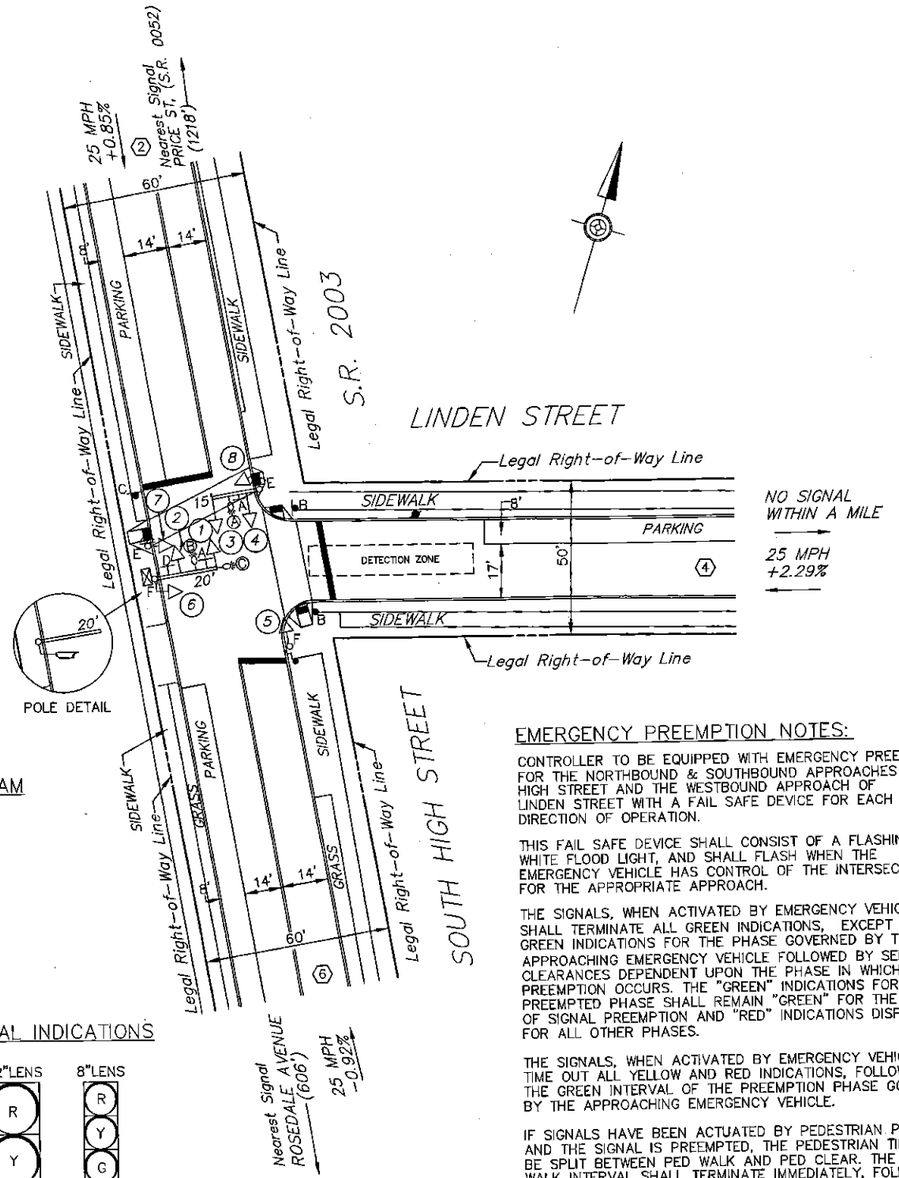
CHESTER. CO. WEST CHESTER. BOR. File No.




EMERGENCY PRE-EMPTION PHASING
MOVEMENT, SEQUENCE AND TIMING DIAGRAM

| PHASE | A | | | | C | | | | | B | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| INTERVAL / SIGNAL | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 |
| 1,2 | SELECTIVE YELLOW | | R | R | R | SELECTIVE YELLOW | | R | R | R | SELECTIVE YELLOW | | G | Y ③ | R ③ |
| 3,4 | SELECTIVE RED | | G | Y ③ | R ③ | SELECTIVE RED | | R | R | R | SELECTIVE RED | | R | R | R |
| 5 | | | R | R | R | | | R | R | R | | | R | R | R |
| 6,7 | | | R | R | R | | | G | Y | R | | | R | R | R |
| 8 | | | R | R | R | | | R | R | R | | | R | R | R |
| FIXED TIME | ① | ① | ② | 3 | 2 | ① | ① | ② | 3 | 2 | ① | ① | ② | 3 | 2 |

① AS SHOWN IN MOVEMENT, SEQUENCE AND TIMING DIAGRAM
② FOR DURATION OF PRE-EMPTION
③ G IF RETURNING TO NORMAL OPERATIONS




| Symbol | Series | Size | Remarks |
|---|---|---|---|
| A | R3-3 | 36"X36" | NO TURNS |
| B | R5-1 | 30"X30" | DO NOT ENTER |
| C | R10-6L | 24"X30" | STOP HERE ON RED |
| D | D3-1 | 66"X16" | LINDEN ST |
| E | R10-3 | 9"X12" | PUSH BUTTON FOR GREEN LIGHT |
| F | R9-3A | 18"X18" | NO PEDESTRIAN CROSSING |

CLOSED LOOP SIGNAL NOTES

1. PROGRAMS TO BE SELECTED BY CLOSED LOOP SYSTEM OR TBC BACKUP.
2. OFFSET REFERENCED TO THE BEGINNING OF YELLOW (PHASE 2+6, INTERVAL 1).
3. ACTUAL GREEN TIME DETERMINED BY CYCLE LENGTH.
4. SYSTEM:
   MARKET STREET(10 INTERSECTIONS)
   HIGH STREET(6 INTERSECTIONS)
   SYSTEM LIMITS:
   MARKET STREET-NEW STREET TO WESTTOWN ROAD
   HIGH STREET--ROASEDALE STREET TO MINER STREET

   MASTER: BOROUGH HALL
   PRIMARY COORDINATION: FIBER OPTIC CABLE
   SECONDARY COORDINATION: TIME BASED COORDINATOR
   (DEFAULT TO BACKUP TBC PROGRAM CHART)

## GENERAL NOTES

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ALL SIGNS AND PAVEMENT MARKINGS INDICATED ON THIS DRAWING ARE CONSIDERED PART OF THE PERMIT AND SHALL BE INSTALLED AND MAINTAINED IN ACCORDANCE WITH PUBLICATION NO. 212.

POST MOUNTED SIGNALS SHALL BE INSTALLED WITH THE SIGNAL HEADS A MINIMUM OF 2 FEET BEHIND THE FACE OF CURB OR THE EDGE OF THE SHOULDER. SUPPORT POLES FOR OVERHEAD SIGNALS SHALL ALSO HAVE A MINIMUM CLEARANCE HORIZONTALLY OF 2 FEET.

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PERMITTEE SHALL OBTAIN A HIGHWAY OCCUPANCY PERMIT FOR ANY CHANGES IN INTERSECTION GEOMETRY REGARDING EXCAVATION.

CONDUIT INSTALLED IN BITUMINOUS ROADWAY LESS THAN 5 YEARS OLD, OR CONCRETE ROADWAY REGARDLESS OF AGE, MUST BE BORED OR JACKED UNDER THE ROADWAY. INSTALL IN ACCORDANCE WITH TRAFFIC SIGNAL STANDARDS TC-7800 SERIES.

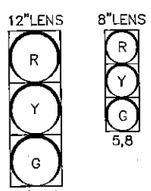
## MOVEMENT, SEQUENCE AND TIMING DIAGRAM

| PHASE | 2+6 | | | 4 | | | FLASHING |
|---|---|---|---|---|---|---|---|
| INTERVAL / SIGNAL | 1 | 2 | 3 | 4 | 5 | 6 | |
| 1,2,3,4 | G | Y | R | R | R | R | Y |
| 5 | G | Y | R | R | R | R | OFF |
| 6,7 | R | R | R | G | Y | R | R |
| 8 | R | R | R | G | Y | R | OFF |

| FIXED | | 3 | 2 | | 3 | 2 |
|---|---|---|---|---|---|---|
| MINIMUM | 49 | | | 3 | | |
| PASSAGE | | | | 3 | | |
| MAXIMUM | 50 | | | 24 | | |
| | | | | | | |
| PEDESTRIAN * | | | | 14 | | |
| MEMORY | MR | | | NL | | |

* UPON PEDESTRIAN ACTUATION ONLY CONTROLLER TO DWELL IN PHASE 2+6 UNTIL ACTUATED BY PHASE 4

SIGNAL INDICATIONS




## EMERGENCY PREEMPTION NOTES:

CONTROLLER TO BE EQUIPPED WITH EMERGENCY PREEMPTION FOR THE NORTHBOUND & SOUTHBOUND APPROACHES OF HIGH STREET AND THE WESTBOUND APPROACH OF LINDEN STREET WITH A FAIL SAFE DEVICE FOR EACH DIRECTION OF OPERATION.

THIS FAIL SAFE DEVICE SHALL CONSIST OF A FLASHING WHITE FLOOD LIGHT, AND SHALL FLASH WHEN THE EMERGENCY VEHICLE HAS CONTROL OF THE INTERSECTION FOR THE APPROPRIATE APPROACH.

THE SIGNALS, WHEN ACTIVATED BY EMERGENCY VEHICLE, SHALL TERMINATE ALL GREEN INDICATIONS, EXCEPT THE GREEN INDICATIONS FOR THE PHASE GOVERNED BY THE APPROACHING EMERGENCY VEHICLE FOLLOWED BY SELECTIVE CLEARANCES DEPENDENT UPON THE PHASE IN WHICH THE PREEMPTION OCCURS. THE "GREEN" INDICATIONS FOR THE PREEMPTED PHASE SHALL REMAIN "GREEN" FOR THE DURATION OF SIGNAL PREEMPTION AND "RED" INDICATIONS DISPLAYED FOR ALL OTHER PHASES.

THE SIGNALS, WHEN ACTIVATED BY EMERGENCY VEHICLE SHALL TIME OUT ALL YELLOW AND RED INDICATIONS, FOLLOWED BY THE GREEN INTERVAL OF THE PREEMPTION PHASE GOVERNED BY THE APPROACHING EMERGENCY VEHICLE.

IF SIGNALS HAVE BEEN ACTUATED BY PEDESTRIAN PUSH BUTTON, AND THE SIGNAL IS PREEMPTED, THE PEDESTRIAN TIME SHALL BE SPLIT BETWEEN PED WALK AND PED CLEAR. THE PED WALK INTERVAL SHALL TERMINATE IMMEDIATELY, FOLLOWED BY THE PED CLEAR INTERVAL. THIS INTERVAL SHALL TIME OUT FOLLOWED BY THE APPROPRIATE SELECTIVE CLEARANCES BEFORE GOING INTO EMERGENCY PREEMPTION.

IF THE SIGNALS, WHEN ACTIVATED BY AN EMERGENCY VEHICLE, ARE FLASHING, ALL SIGNALS SHALL REMAIN FLASHING.

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IN EMERGENCY PREEMPTION, NO PRIORITY SHALL BE ESTABLISHED. PREEMPTION SHALL BE A "FIRST COME, FIRST SERVE" OPERATION.

25 0 25

LEGEND

- 20' MAST ARM/IDENTIFYING LENGTH
- ② VEHICULAR SIGNAL HEAD/BACKPLATE/VISORS/DIRECTIONAL ARROW/IDENTIFYING NUMBER
- ② PEDESTRIAN SIGNAL HEAD/IDENTIFYING NUMBER
- PEDESTRIAN PUSHBUTTON/SIGN
- A SIGN/IDENTIFYING LETTER
- 12'x6' LOOP SENSOR/SIZE
- MICROWAVE DETECTOR
- EMERGENCY PREEMPTION DEVICE
- CURB CUT RAMP
- UTILITY POLE
- ② PHASE NUMBER
- DETECTION ZONE

PENNSYLVANIA DEPARTMENT OF TRANSPORTATION
ENGINEERING DISTRICT 6-0

COUNTY: CHESTER
MUNICIPALITY: WEST CHESTER BOROUGH
INTERSECTION: SOUTH HIGH STREET(S.R. 2003) AND LINDEN STREET

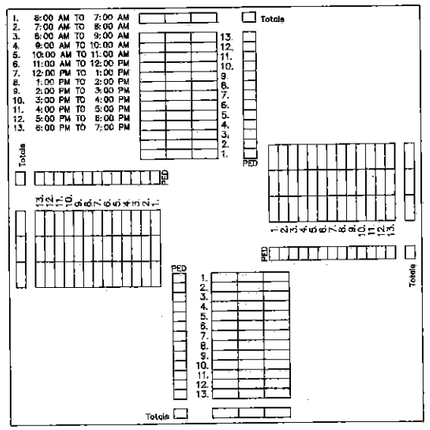
REVIEWED:
DATE
MUNICIPAL OFFICIAL DATE

RECOMMENDED:
PAUL LUTZ 3/26/03
LOUIS R. BELMONTE 3/26/03
DISTRICT TRAFFIC ENGINEER DATE

| NO. | REVISION | DES./REVW. | DATE | REVW. | DATE | RECOM. | DATE |
|---|---|---|---|---|---|---|---|
| 1 | ADD SIGN "A" | WDF | 1/13/09 | LUTZ | 2/2/09 | LRB | 1/30/09 |
| 2 | SR 2020/SEC.GRC ADA UPDATE REMOVE SOUTHERN PED CROSSING | MCM | 7/8/09 | LUTZ | 7/8/09 | LRB | 7/8/09 |
| 3 | ADDED VIDEO DETECTION | | | KW | 7/9/13 | [illegible] | [illegible] |
| 4 | | | | | | | |
| 5 | | | | | | | |
| 6 | | | | | | | |
| 7 | | | | | | | |
| 8 | | | | | | | |

SHEET 2 OF 2 | PERMIT # 62-1167 | FILE # 1167

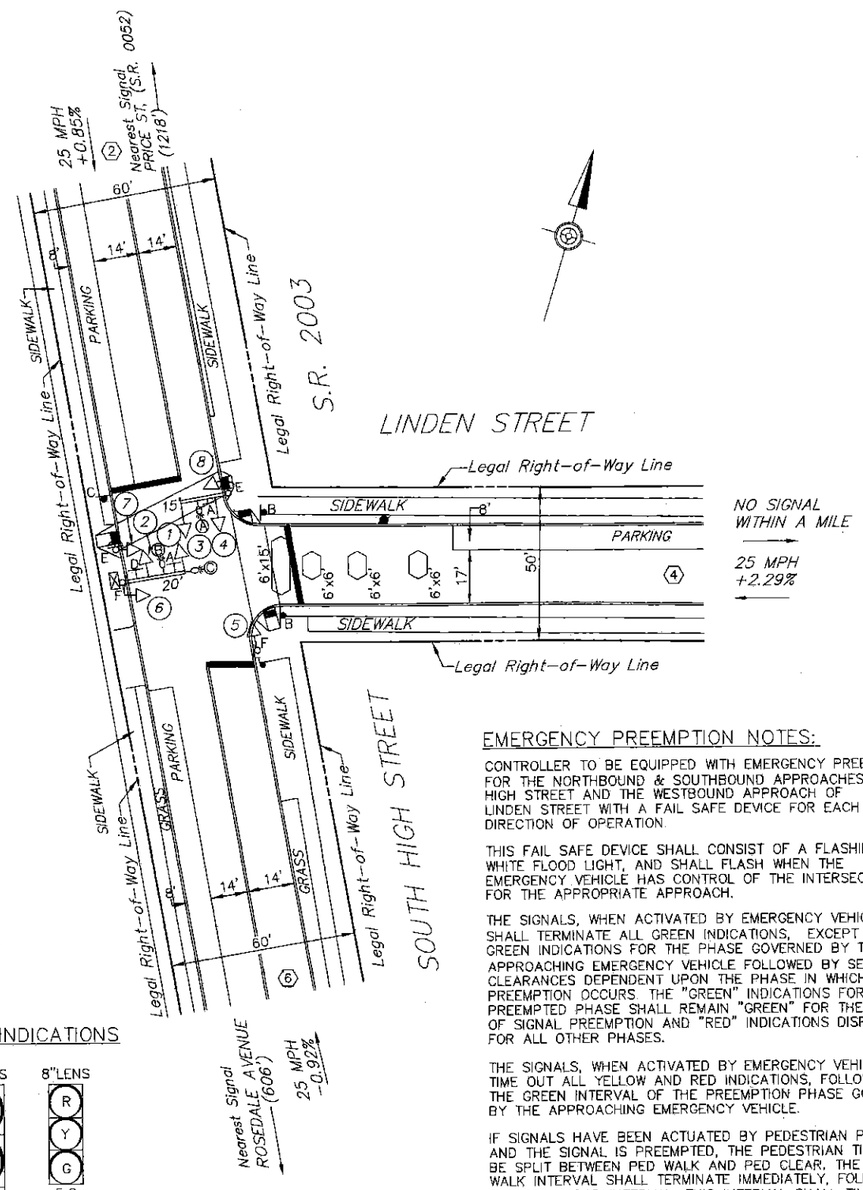
West Chester Borough File 1167




EMERGENCY PRE-EMPTION PHASING
MOVEMENT, SEQUENCE AND TIMING DIAGRAM

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| 3,4 | | | G | Y ③ | R ③ | | | R | R | R | | | R | R | R |
| 5 | | | R | R | R | | | R | R | R | | | R | R | R |
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| | SELECTIVE YELLOW | SELECTIVE RED | | | | SELECTIVE YELLOW | SELECTIVE RED | | | | SELECTIVE YELLOW | SELECTIVE RED | | | |
| FIXED TIME | ① | ① | ② | 3 | 2 | ① | ① | ② | 3 | 2 | ① | ① | ② | 3 | 2 |

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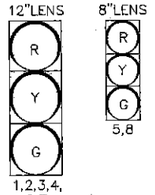
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25 0 25

LEGEND

| | | | |
|---|---|---|---|
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PENNSYLVANIA DEPARTMENT OF TRANSPORTATION
ENGINEERING DISTRICT 6-0

COUNTY: CHESTER
MUNICIPALITY: WEST CHESTER BOROUGH
INTERSECTION: SOUTH HIGH STREET(S.R. 2003) AND LINDEN STREET

REVIEWED:
DATE
MUNICIPAL OFFICIAL DATE

RECOMMENDED:
PAUL LUTZ 3/26/03
LOUIS R. BELMONTE 3/26/03
DISTRICT TRAFFIC ENGINEER DATE

| NO. | REVISION | DES./ REVW. | DATE | REVW. | DATE | RECOM. | DATE |
|---|---|---|---|---|---|---|---|
| 1 | ADD SIGN "A" | WDF | 1/13/09 | LUTZ | 2/2/09 | LRB | 1/30/09 |
| 2 | SR 2020/SEC.CRC ADA UPDATE REMOVE SOUTHERN PED. CROSSING | MCM | 7809 | Lutz | 7809 | LRB | 7809 |
| 3 | | | | | | | |
| 4 | | | | | | | |
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| 6 | | | | | | | |
| 7 | | | | | | | |
| 8 | | | | | | | |

SHEET 2 OF 2 | PERMIT # 62-1167 | FILE # 1167

P:\eng\809224\dwg\224SIG02 linden high 2.dwg, 6/29/2009 8:36:31 AM, bdayton