**To:** Plan Commission

**From:** Daniel Ritter, AICP, Community and Economic Development Director
Ronald Mentzer, Community and Economic Development Consultant

**Date:** February 12, 2026

**Re:** 1618 Plainfield Road, Proposed QuikTrip Redevelopment of Former Crest Hill City Hall - City Code and Zoning Ordinance Variation Requests and Preliminary/Final Plat of Subdivision – Plan Commission Case # V-26-2-2-1

***Project Details***

| | |
|---|---|
| **Project:** | New QuikTrip Convenience Store/Gas Station #4452 and Adjacent Future Commercial Project |
| **Applicant:** | QuikTrip Corporation |
| **Requests:** | Zoning variations for increased driveway widths on Plainfield Road/Route 30 and Knapp Drive, City Code Sign Code variations for an off-premises sign with an increased sign area, an increased number of wall signs, and adjustments to the permitted locations for wall signs. A Preliminary and Final Plat of Subdivision that resubdivides the 4.9-acre site into three separate lots. |
| **Location:** | 1618 Plainfield Road/U.S. Highway Route (the "Subject Property") |

***Site Details***

| | |
|---|---|
| **Lot Size:** | Approximately 4.9 acres |
| **Existing Zoning:** | B-3, Business Service District |
| **Existing Improvements:** | Former two-story City of Crest Hill City Hall, Public Works, and Police Department Building, stormwater detention pond, and approximately 66 parking spaces. |

***Surrounding Zoning and Land Use Summary***

| | Land Use | Comp Plan | Zoning |
|---|---|---|---|
| **Subject Parcel** | Vacant former Municipal Building and a Vacant Development Parcel | Community Facilities and Local Commercial | B-3 |
| **North** | Bank | Local Commercial | B-1 |
| **South** | U.S. Route 30/City of Joliet. | Unknown | Unknown |
| **East** | Senior Living Facility | Multi-Family Residential | R-2 |
| **West** | Bank, Misc. Commercial and Route 30 | Local and Regional Commercial | B-1 and City of Joliet |

***Site Location Map***



## APPLICATION MATERIALS

The application materials submitted for this project/case and reviewed by City staff/consultants are listed on attached Exhibit A and have been distributed with this report.

## APPLICATION BACKGROUND AND PROJECT SUMMARY

The Subject Property is owned by the City of Crest Hill. The eastern portion of the 4.9 +/- acre site is improved with the former City Hall/Public Works/Police Department Building which has been vacant since the City took occupancy of its new Public Works Building on Oakland Avenue and the new City Hall on City Center Boulevard. The western portion of the site is a vacant future commercial development site.

In the summer of 2024, the City of Crest Hill executed a purchase and sale agreement for the Subject Property with QuikTrip Corporation (QT). QT is proposing to demolish the existing building and pavement improvements on the Subject Property, resubdivide it into three lots, and develop each lot as follows:

- **Lot 1** (eastern lot): Construct a new 6,445 square foot QT convenience store, an eight pump island fueling canopy, 48 parking spaces, a right-in/right-out driveway on Route 30, and a new full access driveway on Knapp Drive.
- **Lot 2** (western lot): Construct a new full-access driveway on Route 30 at the very west edge of the lot, a new internal cross-access driveway between it and Lot 1 and prepare the lot for future sale and development. It is anticipated to be marketed for a quick-serve restaurant or a multi-tenant commercial building.
- **Lot 3** (northern lot): Expand the existing stormwater detention facility in this area of the Subject Property.

Collectively, these improvements comprise the "Project".

QT's purchase and redevelopment of the Subject Property is contingent on securing acceptable driveway permits from the Illinois Department of Transportation and obtaining City of Crest Hill approval of the variations outlined in this report.

## REQUESTED VARIATIONS

QT has requested City approval of the following specific variations for the Project:

1. **Increased Driveway Widths:** Section 11.6-7.2 of the Zoning Ordinance limits the maximum width of commercial driveways to 40 feet measured at the property line. QT is proposing to eliminate the large northern-most driveway on Knapp Drive and has requested approval of variations that allow for:
    a. The remaining proposed full-access Knapp Drive driveway on Lot 1 to be 81 feet wide
    b. The proposed eastern Route 30 right-in/right-out driveway on Lot 1 to be 95 feet wide
    c. The proposed western Route 30 full-access driveway on Lot 2 to be 47 feet wide

2. **A Multi-Tenant Off-Premises Monument Sign with Increased Sign Area**
    a. Section 15.12.067 of the City's Sign Code specifically prohibits off-premises signs "except when approved by the City Council". QT has requested a variation that allows for a 15-foot-tall, multi-tenant, vertical monument sign (MV-E2PQ-CC-65-BB) to be installed on the very west edge of proposed

Lot 2, adjacent to the Project's only full-access drive on Route 30. As reflected in the application materials for this sign, it will include a tenant panel for the future business that operates on Lot 2 and miscellaneous advertising and gas pricing information for the proposed Lot 1 QT store.

b. Section 15.12.080 (D)(1)(d) of the Sign Code limits the area of a freestanding commercial sign on the Subject Property, excluding electronic gas pricing components, to 50 sq. ft. per face. QT has requested a variation that allow for the proposed multi-tenant monument sign on Lot 2 to have a combined sign face area, excluding the electronic gas price component, of approximately 67 sq. ft.

**3. Increased Number of Commercial Wall Signs**

a. Section 15.12.080 (C)(1) of the Sign Code allows one wall sign per public right of way and no more than two wall signs along each street frontage. QT has requested approval of a variation that allow for the following wall signs to be installed on Lot 1:

i. ***Knapp Drive Frontage:*** An IDB 56 sq. ft. QT wall sign on the QT building and an IDC 20 sq. ft. QT wall sign on the gas pump island canopy.

ii. ***Route 30 Frontage:*** An IDB-56 sq. ft. QT wall sign and a 43.5 sq. ft. Gen4-CL60 Quick Trip Wall sign on the building and an IDC 20 sq. ft. QT wall sign on the gas pump island canopy.

iii. ***West Interior Side Property Line:*** An IDC 20 sq. ft. QT wall sign on the gas pump island canopy.

**4. Location of Wall/Canopy Signs**

a. Section 15.12.080 (C)(2) of the Sign Code prohibits a wall sign from projecting above the top of the façade/wall it is attached to. QT has requested a variation that allows each of the three IDC 20 QT wall signs proposed on the gas pump island canopy to extend four inches above the top edge of the canopy.

**5. Increased Area of Commercial Wall Signs**

a. Section 15.12.080 (C)(3) prohibits the area of individual wall signs from exceeding 15% of the wall/façade surface the sign is mounted to. QT has requested a variation that allows the IDC 20 QT wall signs proposed on the east and west façades of the gas pump island canopy to cover approximately 17.1% of the canopy face they are mounted to.

## OVERALL STAFF ANALYSIS

Overall, staff believes the QT's proposed Final Plat of Subdivision and project plans reflect the desirable redevelopment of a tax-exempt, obsolete governmental facility with a new high-quality, tax-generating QT convenience store and fueling station and a separate, yet to be identified, stand-alone complimentary commercial project. The proposed site circulation, driveway, and landscaping improvements will enhance the commercial character and desirability of the area while effectively managing the projected new traffic the Project will generate on the adjacent roadways. Staff is of the opinion that the requested variations are reasonable and acceptable given the underlying zoning of

the property, similar approvals the City has granted for other comparable projects in the community, and the character of the Subject Property and the adjacent commercial corridors. The resubdivision of the property and the creation of two adjacent commercial lots interconnected by an internal shared access drive that accommodates desirable private commercial development and businesses.

## STAFF INPUT ON SPECIFIC PROJECT COMPONENTS

### *Traffic and Circulation*

The Illinois Department of Transportation (IDOT) controls access onto the segment of Route 30 adjacent to the Subject Property. Late in 2025, IDOT finalized its review of the concept plans for this project and indicated the conceptual location and configuration of the project's Route 30 access driveways were acceptable.

The Lockport Fire Protection District has reviewed the application documents for the Project and has no objections or requested revisions at this time.

An attorney representing the Willow Falls Townhouse Association (the Association) submitted the September 16, 2025, letter attached as Exhibit B to formally document the Association's position regarding the proposed project and its request that all vehicular access to it be limited to Route 30 (no access allowed on Knapp Drive). This position is consistent with recent concerns Willow Falls residents have expressed regarding the speed, volume, and level of cut-through traffic on Knapp Drive. Knapp Drive is operated and maintained by the City of Crest Hill.

At the January 26, 2026, City Council Work Session meeting, the City's Director of Engineering presented a study summarizing traffic calming options that the City's traffic engineering consultant prepared for Knapp Drive in December of 2025. The detailed agenda packet backup information for this presentation can be accessed by clicking on agenda item 1. on the January 26, 2026, City Council Work Session agenda available on the City's Website here. The City Council ultimately concurred with Staff's recommendation to install:

- All-way stop signs at the Willow Circle South/Knapp Drive intersection.
- A barrier median on Theodore Street at the Knapp Drive intersection that prohibits left turns from eastbound Theodore Street to northbound Knapp Drive.
- Signage on Knapp Drive that prohibits left turns from southbound Knapp Drive to eastbound Theodore Street during the evening peak traffic hours of 3:30-7 PM Monday through Friday.
- Signage at the Knapp Drive driveway entrance to El Guero Fresh Market which will prohibit cut-thru traffic.

The Applicant prepared and submitted a detailed traffic impact study for the proposed Project. The City's Director of Engineering has reviewed the study and concurs with the following key study conclusions and staff recommendations:

- The traffic projected to be generated by the Project will be reduced due to the volume of pass-by traffic.
- The signalized intersections of Plainfield Road with Theodore Street and Larkin Avenue have sufficient reserve capacity to accommodate Project-generated traffic.

- The intersection of Theodore Street with Knapp Drive can accommodate the additional traffic this Project will generate once the staff recommended Knapp Drive traffic calming improvements are in place.
- Vehicular access to the Project will be provided via a right-in/right-out access drive on Route 30 and a full-access driveway on Route 30 and Knapp Drive.
- Inbound left-turn movements at the proposed full movement access drive on Route 30 can be accommodated within the existing two-way left-turn median.
- A new continuous right-turn lane will be constructed to serve both of the Project's planned Plainfield Road driveways.
- The planned full-movement access driveway on Plainfield Road will connect to an internal private drive and access easement that serves both the Lot 1 QT Project and the adjacent future commercial development on Lot 2.
- The proposed access system will adequately accommodate the traffic estimated to be generated by the Project and will ensure that efficient and flexible access is provided.

***Driveway Width Variations***

The Director of Engineering has also reviewed the various engineering-related site plans submitted for the project and has concluded that the design/width of the proposed access drives are substantially consistent with sound engineering principles and approved City of Crest Hill construction details and therefore has no objection to the City's approval of the requested driveway width variations. Community Development Department Staff believes the width and configuration of proposed driveways support safe and efficient vehicular access to and from the Project. Reductions to the width of these driveways compromise the ability of the Subject Property to support quality commercial end users and have a negative impact on the operational efficiency and safety of these driveways. It is important to note that the final configuration and alignment of these driveways will be determined during the final engineering review and permitting processes for this project.

***Sign Code Variations***

In general, the City's Sign Code does not effectively allow a reasonable level of gasoline pump island canopy signage or multi-tenant monument signs for adjacent commercial lots with a shared driveway configuration like what is proposed in this Project. Overall, the number, size, and location of proposed signs in this Project is generally consistent with the signage packages the City has approved for other gas/convenience store projects. The proposed signs will be constructed of high-quality materials, have a desirable coordinated design, and be appropriately located, given the amount of elevation change and somewhat irregular corner lot configuration of the Subject Property.

## VARIATION APPROVAL STANDARDS AND FINDINGS

Section 12.6-2 of the Zoning Ordinance states the Plan Commission shall recommend, and the City Council shall grant a variation only when it shall have been determined, and recorded in writing, that all of the following standards are complied with. Staff has drafted the following findings of fact identified in bold italic font. These drafted findings can be modified or changed as the Plan Commission deems fit and based on the specific findings from the public hearing. The Applicant has also included its responses to these standards in the supporting application materials distributed to the Plan Commission for this case.

1. That the property in question cannot yield a reasonable return if permitted to be used only under the conditions allowed by the regulations in that zone.

   ***The Subject Property cannot yield a reasonable return if it is limited solely to the uses and development standards permitted under the existing Zoning Ordinance and Sign Code regulations. Without approval of the requested driveway width variations, vehicular access to the site will be severely constrained and potentially less safe than the proposed design. Without the approval of the requested Sign Code variations, the quantity and placement of shared monument, wall, and canopy signage is less than the City has approved for other combined convenience and fueling facilities and adjacent commercial lot configurations within the community.***

   ***These limitations would place the Subject Property at a competitive disadvantage, diminish its desirability, and negatively affect its overall value. Approval of the requested variations is necessary to allow the Project to be developed as proposed, ensuring that the property can operate safely and efficiently while yielding a reasonable return.***

2. That the plight of the owner is due to unique circumstances.
   ***The plight of QT is due to unique circumstances specific to the property. The irregular corner-lot configuration, coupled with the existing configuration of adjacent roadway improvements, the operational requirements of the proposed commercial uses, and the necessity of shared internal driveway improvements, creates site-specific conditions not generally applicable to other properties in the zoning district. These unique circumstances justify approval of the requested variations.***

3. That the variations, if granted, will not alter the essential character of the locality.
   ***QT proposes to eliminate an existing excessively wide driveway on Knapp Drive and reconstruct the remaining three existing driveways serving the Subject Property in a manner consistent with sound engineering principles and the approved City of Crest Hill construction details.***

   ***The number, size, and placement of the proposed signs are generally consistent with signage packages previously approved by the City for other gas and*** **convenience store developments. The proposed signage will be constructed of** ***high-quality materials, feature an aesthetically pleasing and coordinated design, and be appropriately located given the site's elevation changes and irregular corner-lot configuration.***

   ***Accordingly, the requested variations will not negatively impact the overall commercial character of the adjacent commercial corridors.***

In addition, Section 12.6-2 of the Zoning Ordinance further suggests the Plan Commission supplement the above standards by taking into consideration the extent to which the facts listed on Exhibit C have been established by the evidence presented during the public hearing process and further support the approval of the Applicant's requests.

## STAFF RECOMMENDATION

Based on the drafted findings reflected in this staff report, Staff recommend the following motion to provide a recommendation to City Council. This motion may be amended by any Plan Commission member making the motion based upon the findings of the public hearing. Staff recommends that any motion be made in the positive form to correspond with the applicant's request and avoid confusion on the recommendation.

***The Plan Commission recommends that the City Council approve the QuikTrip No. 4452 Final Plat Subdivision and the Zoning Ordinance and Sign Code variations outlined in the February 12, 2026, Plan Commission staff report for Case # V-26-2-2-1, subject to the following conditions and requirements:***

1. ***The final plat of subdivision shall satisfy all applicable City ordinance, staff, and City Attorney requirements and shall include (either on the plat or in a separate document recorded with the Final Plat) appropriate cross-access easement and maintenance provisions for shared site improvements (pond, sign, and roadway). Any separate agreements/covenants shall be approved and recorded prior to any building occupancies or sale of any lots.***
2. ***All final engineering plans, related supporting information, and development security for the project shall be submitted for the Director of Engineering's review and approval in conjunction with the formal building permit application submitted for the project. Said plans shall be substantially consistent with the application documents submitted for Plan Commission Case #V-26-2-2-1.***
3. ***All final architectural, signage, and landscape plans for the project shall be submitted for Community Development Department staff review and approval in conjunction with the formal building permit application submitted for the project. Said plans shall be substantially consistent with the application documents submitted for Plan Commission Case #V-26-2-2-1.***
4. ***No new permanent driveway improvements shall be constructed onto the adjacent public roadways until proper permits have been issued by the authority having jurisdiction over the adjacent public roadway.***
5. ***The final design for the 15-foot-tall, multi-tenant, vertical monument sign (MV-E2PQ-CC-65-BB) installed on the very west edge of proposed Lot 2 shall be updated so that the tenant panel for the yet-to-be identified future commercial tenant on Lot 2 is located at the top of the sign face. A private agreement and covenant for this sign shall be approved by the city and recorded prior to issuance of a sign permit.***

# Exhibit A
## QuikTrip Application Materials for Store #4452

**Misc. Application Materials**

- 1/16/2026 Application for Development/Variations and Plat of Subdivision
- Undated Applicant "Development Request" Responses to Standards for Variations
- 12/24/2025 Traffic Impact Study Proposed QuikTrip Convenience Store
- 12/19/2024 Final Plat QuikTrip No. 4452 Subdivision (Sheets 1-3)
- Preliminary Stormwater Drainage Report for QuikTrip Store #4452 sealed 1/9/2026

**Building Elevations and Floor Plan**

- 02/04/2025 Building Elevations Sheet BE001
- 12/17/2025 Rough Dimension Floor Plan Sheet A110

**Engineering/Site Plans**

- 01/09/2026 Overall Development Plan Sheet C010
- 01/09/2026 Demolition Plan Sheet C030
- 01/09/2026 Overall Site Plan Sheet C100
- 01/09/2026 Site Plan Sheet C101
- 01/09/2026 Vehicle Tracking Delivery Trucks Sheet C103
- 01/16/2026 Emergency Vehicle Tracking Exhibit
- 01/09/2026 Overall Grading Plan Sheet C110
- 01/09/2026 Grading Plan Sheet C111
- 01/09/2026 Storm Sewer Plan Sheet C120

**Signage**

- 01/09/2026 Signage Plan Sheet C102
- 12/22/2025 4452 G4 Vertical 8 Gas Canopy drawing
- 03/06/2025 Approved IDB-56 SF Building ID Sign Plans (3 Sheets)
- 04/08/20 IDC-20 SF Building ID Sign (3 Sheets)
- 01/08/2026 MH-E2PGQ-CC-38-BB Horizontal Monument Sign (7 Sheets)
- 01/08/2026 MV-E2PQ-CC-65-BB 12'-0" Vertical Monument Sign (9 Sheets)
- 3/27/25 Approved Gen4 – CL60 Building Channel Letter Sign (4 Sheets)

**Lighting**

- 01/09/2026 Photometric Site Plan C160
- QuikTrip Store 4452 Lighting Cut Sheets for LSI Site Lights (8 pages), LSI Fuel Canopy Lights (6 pages), LSI Building Canopy Lights (4 pages), LSI Building Wall Sconces (5 pages), and LSI Light Poles (8 pages)

**Landscaping**

- 01/09/2026 Overall Landscape Impervious Surface Plan Sheet L100
- 01/09/2026 Landscape Plan Sheet L101

# Exhibit B
## Willow Falls Townhome Association Letter

KEOUGH MOODY

NAPERVILLE
114 East Van Buren Avenue
Naperville, IL 60540
phone 630 369 2700
facsimile 630 369 9279

CHICAGO
181 W. Madison, Suite 4700
Chicago, IL 60601
phone 312 899 9989
www.kmlegal.com

Writer's Direct Dial (630) 369-2700
Writer's Email rtb@kmlegal.com

Correspondence response to be sent to the Naperville office.

September 16, 2025

***VIA EMAIL, REGULAR AND CERTIFIED MAIL***
rsoliman@cityofcresthill.com

Mayor Raymond R. Soliman
City of Crest Hill
20600 City Center Blvd.
Crest Hill, IL 60403

**Re: Quick Trip Development – Knapp Corridor**

Dear Mayor Soliman:

Our firm represents the Willow Falls Townhome Association (the "Association"), which consists of 104 Townhomes located near the intersection of Knapp Drive and Willow Circle Drive in Crest Hill. This correspondence is sent on behalf of the Association to formally express its position regarding the proposed Quick Trip Development between U.S. Route 30 and Knapp Drive.

While the Association is encouraged by the City of Crest Hill's continued efforts to support economic development, it has significant concerns regarding the increased vehicular and pedestrian traffic, and the resulting safety impacts, that the proposed development is likely to bring to the surrounding residential area. These concerns, however, would likely be substantially mitigated by restricting vehicle access to the development from Knapp Drive. Accordingly, the Association respectfully requests that all vehicular access to the Quick Trip Development be limited to U.S. Route 30.

As you are aware, Knapp Drive currently experiences a high volume of non-local traffic using the corridor to bypass major intersections, including those at Larkin/Weber, IL Route 7, and U.S. Route 30. Residents have frequently observed this non-local traffic, as well as patrons of local businesses, disregarding the clearly posted 25 mph speed limit, creating serious safety concerns for other vehicles and pedestrians within the area. It is our understanding, however, that the City is seeking to reduce or eliminate the issues caused by this cut-through traffic, as evidenced by the recently approved resolution authorizing a Traffic Impact and Calming Analysis along the Knapp Corridor, from IL Route 7 (Theodore Street) to Larkin Avenue/Weber Road. The Association appreciates and supports this proactive initiative as it has been a cause of concern for quite some time.

To further support the City's initiative to reduce cut-through traffic, the Association urges the City to restrict vehicular access to the Quick Trip Development from Knapp Drive and require all ingress and egress to be routed exclusively via U.S. Route 30. Allowing access from Knapp Drive will likely undermine the City's efforts to mitigate cut-through traffic by providing another route for non-local traffic – thereby exacerbating congestion and safety concerns along the Knapp Corridor.

Conversely, directing all traffic to and from the development through U.S. Route 30 would provide patrons with efficient access immediately after the intersection of IL Route 7 and U.S. Route 30. Given the already elevated traffic volumes and speeding issues along Knapp Drive, the introduction of commercial traffic from a high-volume establishment such as Quick Trip would only intensify the existing challenges.

Accordingly, the Association strongly urges the City to restrict access to the development from Knapp Drive and to require all ingress and egress be routed exclusively through U.S. Route 30. Doing so would not only help preserve the character of the Knapp Corridor and the safety of its residents but may also support the City's broader goals of mitigating cut-through traffic.

We would like to be notified of any updates related to the Traffic Study and the Quick Trip Development. Please direct all notifications and correspondences regarding this matter via email to rrb@kmlegal.com.

Thank you for your attention to this matter.

Very truly yours,

REBECKA R. BRONKEMA
Attorney at Law

cc: Willow Falls Townhome Association

# Exhibit C

## Supplemental Variation Approval Facts to Consider Per Zoning Ordinance Section 12.6-2

1. *That the particular physical surroundings, shape, or topographical condition of the specific property involved will result in a particular hardship upon the owner, as distinguished from a mere inconvenience, if the strict letter of the regulations were carried out.*
2. *The conditions upon which the petition for a variation is based are unique to the property owner for which the variation is sought and are not applicable, generally, to the other property within the same zoning classification.*
3. *That the alleged difficulty or hardship is caused by the Ordinance and has not been created by any person presently having an interest in the property.*
4. *That the proposed variation will not impair an adequate supply of light and air to adjacent property or substantially increase congestion in the public streets or increase the danger of fire, or endanger the public safety, or substantially. diminish or impair property values within the adjacent neighborhood.*
5. *That the variation does not permit a use otherwise excluded from the particular zone except for uses authorized by the Plan Commission, subject to the approval of the City Council, as "similar and compatible uses."*
6. *That the variation granted is the minimum adjustment necessary for the reasonable use of the land.*
7. *That the granting of any variation is in harmony with the general purposes and intent of the Zoning Ordinance, and will not be injurious to the neighborhood, be detrimental to the public welfare, alter the essential character of the locality, or be in conflict with the Comprehensive Plan for development of the City.*
8. *That, for reasons fully set forth in the recommendations of the Plan Commission, and the report of the City Council, the aforesaid circumstances or conditions are such that the strict application of the provisions of the Zoning Ordinance deprives the applicant of any reasonable use of his land. Mere loss in value shall not justify a variation; there must be a deprivation of beneficial use of land.*

## *Application for Development*

For Office Use Only: **Case Number:** V-26-2-2-1

**Project Name:** QuikTrip 4452

| | |
|---|---|
| Owner: City of Crest Hill | Correspondence To: Ron Mentzer |
| Street No: 20600 City Center BLV | Street No: |
| City, State, Zip: Crest Hill, IL 60403 | City, State, Zip: |
| Phone: 815-741-5107 | Phone: |
| Email or fax: rmentzer@cityofcresthill.com | Email or fax: |

**Property Address:**
Street No: 1610 Plainfield RD
City, State, Zip: Crest Hill, IL 60403
PIN: 11-04-31-405-051-0000,
11-04-31-407-003-0000,11-04-31-405-050-0000

**Property Information:**

| | Lot 1 | Lot 2 | Outlot A |
|---|---|---|---|
| Lot Width: | 402.51' | 212.73' | 455.06' |
| Lot Depth: | 336.33' | 336.33' | 343.91 |
| Total Area: | 87,200.56fs | 71,685.79sf | 53,529.01sf |

* Attach a copy of the legal description of the property and applicable fees.
* Submit electronic version of the legal description to:
mdeharo@cityofcresthill.com and lthrasher@cityofcresthill.com.

Existing Zoning: B3 Existing Land Use: Vacant city building
Requested Zoning: B3 Proposed Land Use: New QuikTrip Convenience store with fuel offer on Lot one
And yet to be determined commercial or quick service restaurant on lot 2

**Adjoining Properties Zoning and Uses:**

North of Property: B-1 Chase Bank
South of Property: Theodore Street
East of Property: B2- senior living
West of Property: Unknown out of Crest Hill limits

Purpose Statement (intended use and approval sought): The requested zoning and sign ordinance Variations would allow for the former city hall building building and related site improvements to be demolished and overdeveloped with anew QuikTrip convenience store with fuel on lot 1 and a yet to be determine future commercial or a quick service restaurant.

**Development Request:** Please check all that apply and describe:

__ Rezoning: _____
*Please attach written responses to items listed in Section 12.8-5 of the Zoning Ordinance.

__ Special Use: _____
* Please attach written responses to items listed in Section 12.7-6 of the Zoning Ordinance.

X Variance: Increase sign, and increased number of freestanding sign and increased area of freestanding sing
* Please attach written responses to items listed in Section 12.6-2 of the Zoning Ordinance.

__ Planned Unit Development: _____
* Please attach written responses to items listed in Sections 10.0-4 & 10.5 of the Zoning Ordinance.

__ Annexation: _____

X Plat: Preliminary and final plat, subdivision and easement dedication

__ Other: _____

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**Contact Information** – if not yet known, please indicate as TBD. Check those parties in which copies of all correspondences should be forwarded.

---

__**Civil Engineer** Darla Holman Phone Number _____
Company MDG Email Address _____
__**Contractor** TBD Phone Number _____
Company _____ Email Address _____
__**Architect** Amanda Spitzer Phone Number _____
Company Lickle Email Address _____
__**Builder** TBD Phone Number _____
Company _____ Email Address _____

I agree to be present (in person or by counsel) when the Plan Commission and City Council hear this development request.

_____ 1-16-2025
Signature of the Applicant Date

If you (the applicant) are not the owner of record, please provide the owner's signature.

_____ _____
Signature of the Owner Date

Development Request

12.6-2 STANDARDS FOR VARIATIONS The Plan Commission shall recommend, and the City Council shall grant a variation only when it shall have been determined, and recorded in writing, that all of the following standards are complied with:

1. That the property in question cannot yield a reasonable return if permitted to be used only under the conditions allowed by the regulations in that zone;

**Due to the need for delivery truck it enter the site safely we are requesting a variance from the standard 30' maximum drive width to 41.08' and 80.85'. We are also requesting of an offsite signage for a multi-tenant.**

2. That the plight of the owner is due to unique circumstances;

**of the location of the site and the amount of space needed for trucks to make safe turning movements.**

3. That the variation, if granted, will not alter the essential character of the locality.

**The variance, if granted, will not alter the essential character of the locality and will also for safer turning movements for bigger trucks at our ingress and egress**

**CREST HILL, ILLINOIS – STORE #4452**
**DESCRIPTION OF PROPERTY**

PARCEL 1:

THAT PART OF THE SOUTHEAST QUARTER OF SECTION 31, IN TOWNSHIP 36 NORTH, AND IN RANGE 10 EAST OF THE THIRD PRINCIPAL MERIDIAN, IN LOCKPORT TOWNSHIP, WILL COUNTY, ILLINOIS, AS HEREINAFTER DESCRIBED: BEGINNING AT THE SOUTHEAST CORNER OF SAID SECTION 31; THENCE NORTHWESTERLY ALONG A LINE PARALLEL WITH THE CENTER LINE OF THE RIGHT OF WAY OF U.S. HIGHWAY ROUTE NO. 30, 500.00 FEET; THENCE NORTHEASTERLY ALONG A LINE THAT IS A RIGHT ANGLE TO THE AFORESAID CENTER LINE OF SAID RIGHT OF WAY OF SAID HIGHWAY, 541.1 FEET, TO THE EAST LINE OF SAID SECTION 31; THENCE SOUTH ALONG THE EAST LINE OF SAID SECTION 31, 736.9 FEET TO THE POINT OF BEGINNING, **EXCEPTING** THEREFROM THE RIGHT OF WAY OF U.S. HIGHWAY ROUTE NO. 30 (PLAINFIELD ROAD) AND WEBER ROAD WHICH INCLUDES THAT PART TAKEN AS PARCEL NO. 0138, CONDEMNED IN CASE NO. W73G1751ED, IN WILL COUNTY, ILLINOIS.

PARCEL 2:

THAT PART OF THE SOUTHEAST 1/4 OF SECTION 31, TOWNSHIP 36 NORTH, RANGE 10, EAST OF THE THIRD PRINCIPAL MERIDIAN, DESCRIBED AS FOLLOWS: COMMENCING AT THE SOUTHEAST CORNER OF THE SAID SOUTHEAST 1/4; THENCE NORTHWESTERLY ALONG A LINE PARALLEL WITH THE CENTER LINE OF UNITED STATES HIGHWAY ROUTE NUMBER 30, 500.00 FEET; THENCE NORTHEASTERLY ALONG A LINE FORMING A RIGHT ANGLE WITH THE LAST DESCRIBED LINE 541.10 FEET TO THE EAST LINE OF THE SAID SOUTHEAST 1/4; THENCE NORTH ALONG THE SAID EAST LINE OF THE SOUTHEAST 1/4, 157.04 FEET TO THE POINT OF BEGINNING; THENCE CONTINUE ALONG THE SAID EAST LINE OF THE SOUTHEAST 1/4, 156.16 FEET; THENCE SOUTHWESTERLY ALONG A LINE FORMING AN ANGLE OF 137 DEGREES 15 MINUTES TO THE LEFT WITH THE PROLONGATION OF THE LAST DESCRIBED LINE, 729.37 FEET TO THE NORTHEASTERLY RIGHT OF WAY LINE OF UNITED STATES HIGHWAY ROUTE NUMBER 30; THENCE SOUTHEASTERLY ALONG THE SAID NORTHEASTERLY RIGHT OF WAY LINE OF UNITED STATES HIGHWAY ROUTE NUMBER 30, 106.00 FEET; THENCE NORTHEASTERLY 615.01 FEET TO THE POINT OF BEGINNING, **EXCEPTING** THEREFROM THE RIGHT OF WAY OF WEBER ROAD WHICH INCLUDES THAT PART TAKEN AS PARCEL NUMBER 0138 CONDEMNED IN CASE NUMBER W73G1751ED, IN WILL COUNTY, ILLINOIS.

PARCEL 3:

THAT PART OF THE SOUTHEAST 1/4 OF SECTION 31, IN TOWNSHIP 36 NORTH, RANGE 10 EAST OF THE THIRD PRINCIPAL MERIDIAN, LOCKPORT TOWNSHIP, WILL COUNTY, ILLINOIS DESCRIBED AS FOLLOWS: COMMENCING AT THE SOUTHEAST CORNER OF THE SAID SOUTHEAST 1/4; THENCE NORTHWESTERLY ALONG A LINE PARALLEL WITH THE CENTER LINE OF U.S. HIGHWAY ROUTE NUMBER 30, 500.00 FEET; THENCE NORTHEASTERLY ALONG A LINE FORMING A RIGHT ANGLE WITH THE LAST

DESCRIBED LINE 41.10 FEET TO THE POINT OF BEGINNING, SAID POINT BEING ON THE NORTHEASTERLY RIGHT OF WAY LINE OF U.S. HIGHWAY ROUTE NUMBER 30; THENCE CONTINUE NORTHEASTERLY ALONG THE PROLONGATION OF THE LAST DESCRIBED LINE 500.00 FEET TO THE EAST LINE OF THE SAID SOUTHEAST 1/4; THENCE NORTH ALONG THE SAID EAST LINE OF THE SOUTHEAST 1/4 157.04 FEET; THENCE SOUTHWESTERLY ALONG A LINE FORMING AN ANGLE OF 137 DEGREES 15 MINUTES TO THE LEFT WITH THE PROLONGATION OF THE LAST DESCRIBED LINE, 615.01 FEET TO THE SAID NORTHEASTERLY RIGHT OF WAY LINE OF U.S. HIGHWAY NUMBER 30; THENCE SOUTHEASTERLY ALONG THE SAID NORTHEASTERLY RIGHT OF WAY LINE OF U.S. HIGHWAY ROUTE NUMBER 30, 106.60 FEET TO THE POINT OF BEGINNING, **EXCEPTING** THEREFROM THE RIGHT OF WAY OF WEBER ROAD WHICH INCLUDES THAT PART TAKEN AS PARCEL NUMBER 0138 CONDEMNED IN CASE NUMBER W773G 1751 ED, IN WILL COUNTY, ILLINOIS.

# Traffic Impact Study
# Proposed QuikTrip Convenience Store
Crest Hill, Illinois




Prepared For:

QuikTrip

KLOA
Kenig, Lindgren, O'Hara, Aboona, Inc.

December 24, 2025

# 1. Introduction

This report summarizes the methodologies, results, and findings of a traffic impact study conducted by Kenig, Lindgren, O'Hara, Aboona, Inc. (KLOA, Inc.) for a proposed QuikTrip Convenience Store to be located in Crest Hill, Illinois. The site, which currently contains a vacant Crest Hill Police Department building, is located in the north corner of the intersection of Plainfield Road (U.S. Route 30) with Theodore Street (Illinois Route 7). As proposed, the site will be developed with sixteen passenger vehicle fueling positions and an approximately 5,312 square-foot convenience store. In addition, the north parcel of the site has the potential to be developed with an approximately 3,000 square-foot fast-food restaurant with a drive-through. Access to the proposed development will be provided via a right-in/right-out access drive and a full movement access drive on Plainfield Road and a full movement access drive on Knapp Drive.

The purpose of this study was to examine background traffic conditions, assess the impact that the proposed development will have on traffic conditions in the area, and determine if any roadway or access improvements are necessary to accommodate traffic generated by the proposed development. **Figure 1** shows the location of the site in relation to the area roadway system. **Figure 2** shows an aerial view of the site. The sections of this report present the following:

- Existing roadway conditions
- A description of the proposed development
- Directional distribution of the development traffic
- Vehicle trip generation for the development
- Future traffic conditions including access to the development
- Traffic analyses for the weekday morning, weekday evening, and Saturday midday peak hours
- Recommendations with respect to adequacy of the site access and adjacent roadway system

Traffic capacity analyses were conducted for the weekday morning, weekday evening, and Saturday midday peak hours for the following conditions:

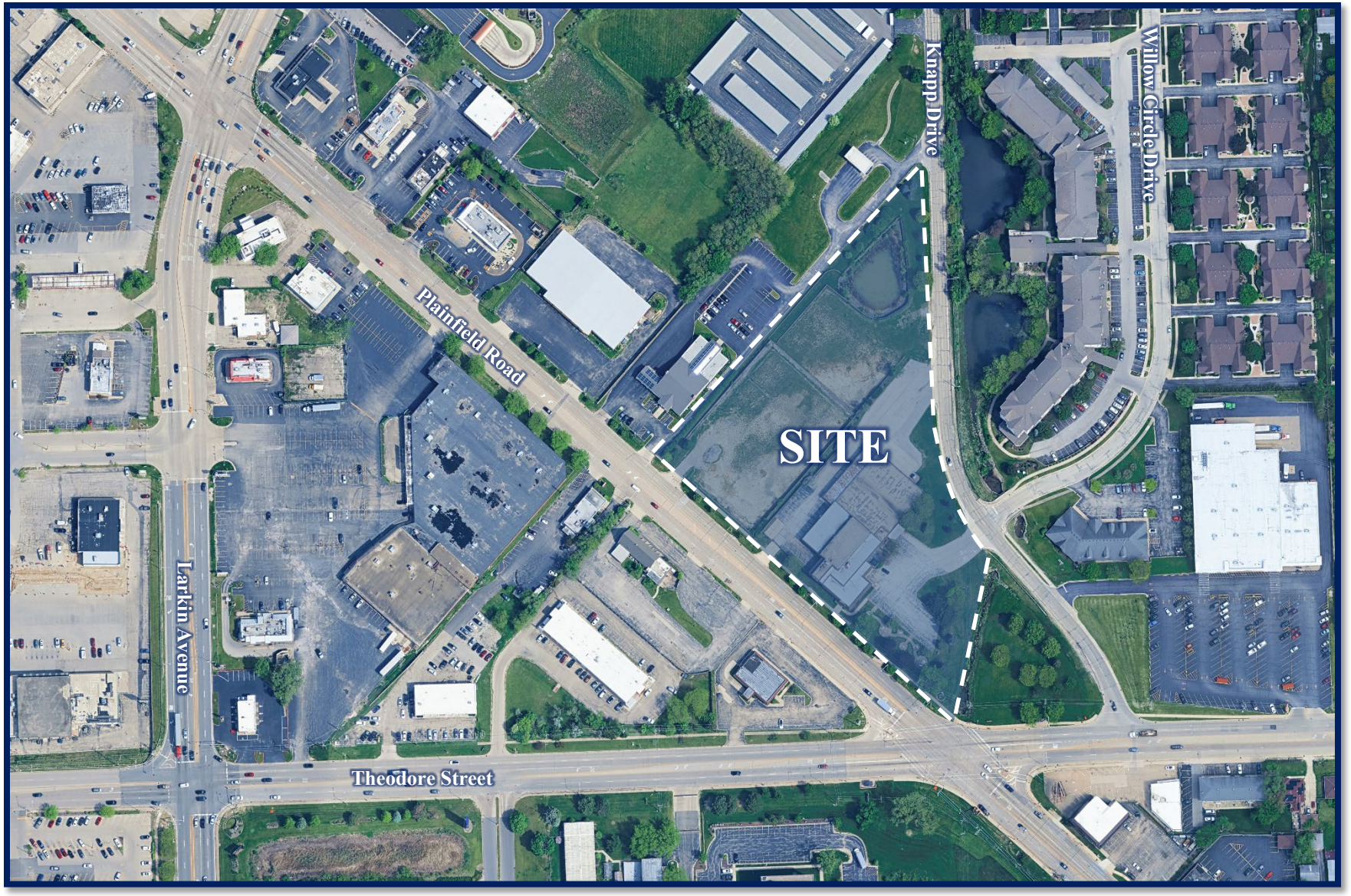
1. Existing Conditions – Analyzes the capacity of the existing roadway system using peak hour traffic volumes from traffic counts conducted in 2024.

2. Year 2030 No-Build Conditions – Analyzes the capacity of the future roadway system using existing traffic volumes increased by an ambient area growth factor not attributable to any particular development and the traffic that could be generated by the vacant parcel north of the site when it is occupied.

3. Year 2030 Total Projected Conditions – Analyzes the capacity of the future roadway system assuming the projected traffic volumes that include the Year 2030 No-Build volumes and the traffic estimated to be generated by the proposed development.




**Site Location** **Figure 1**




**Aerial View of Site** **Figure 2**

# 2. Existing Conditions

Existing transportation conditions in the vicinity of the site were documented based on field visits conducted by KLOA, Inc. in order to obtain a database for projecting future conditions. The following provides a description of the geographical location of the site, physical characteristics of the area roadway system including lane usage and traffic control devices, and existing peak hour traffic volumes.

## Site Location

The site, which currently contains a vacant Crest Hill Police building, is bounded by Chase Bank to the north, Knapp Street to the east, Theodore Street to the south, and Plainfield Road to the west. Land uses within the vicinity of the site are primarily residential to the east and commercial to the west.

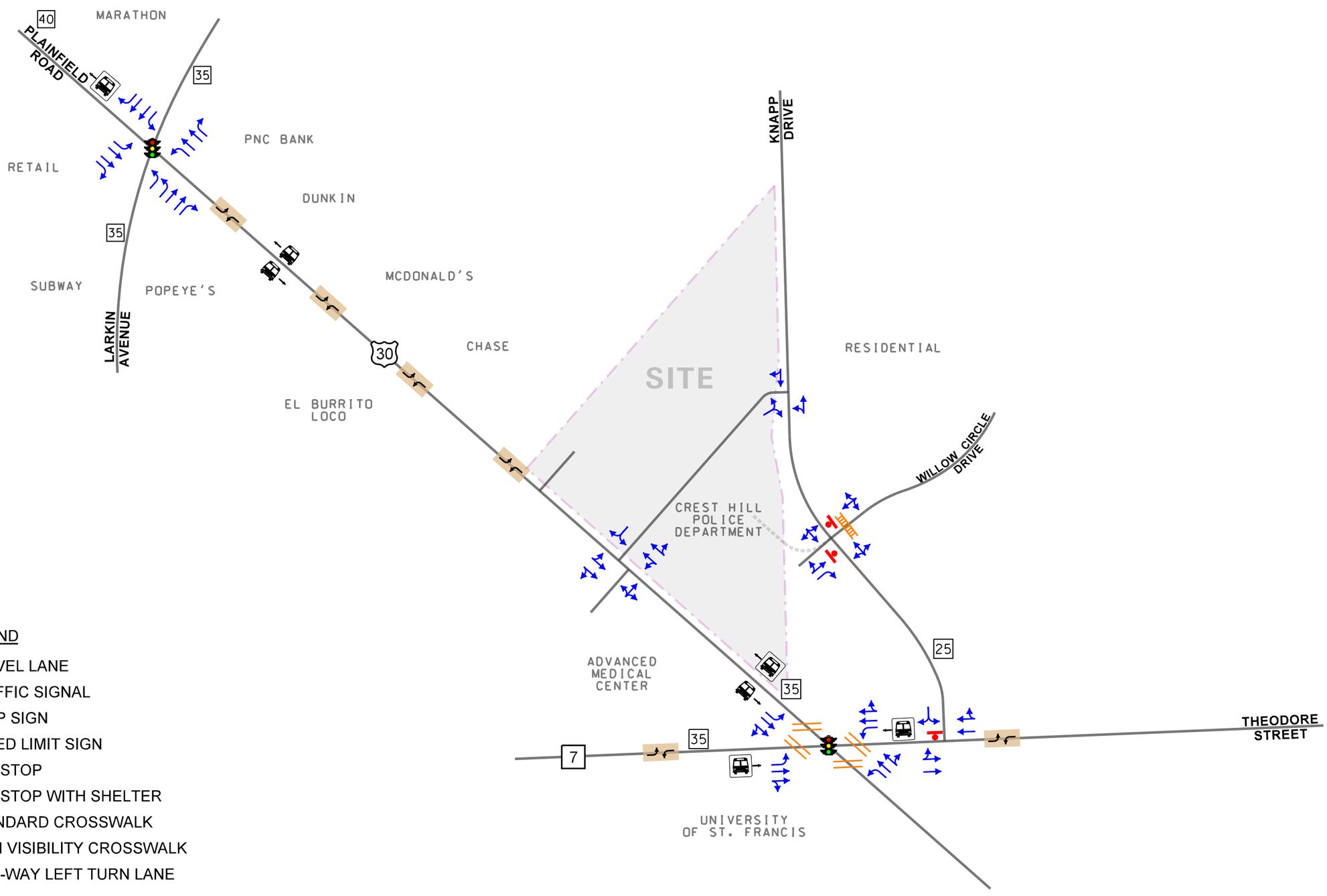
## Existing Roadway System Characteristics

The characteristics of the existing roadways near the development site are described below and illustrated in **Figure 3**.

*Plainfield Road (U.S. Route 30)* is a northwest-southeast other principal arterial roadway that generally provides two through lanes in each direction. At its signalized intersection with Theodore Street provides an exclusive left-turn lane, a through lane, and a shared through/right-turn lane on both approaches. At its signalized intersection with Larkin Avenue, Plainfield Road provides an exclusive left-turn lane, two through lanes, and an exclusive right-turn lane on both approaches. Plainfield Road is under the jurisdiction of the Illinois Department of Transportation (IDOT), is not designated as a Strategic Regional Arterial (SRA), and carries an Annual Average Daily Traffic (AADT) volume of 19,900 vehicles (IDOT 2023). Plainfield Road has a posted speed limit of 40 miles per hour west of Larkin Avenue and 35 miles per hour east of Larkin Avenue.

*Theodore Street* is an east-west other principal arterial roadway that provides two lanes in each direction. At its signalized intersection with Plainfield Road, Theodore Street provides an exclusive left-turn lane, two through lanes, and an exclusive right-turn lane on both approaches. At its unsignalized intersection with Knapp Drive, Theodore Street provides two lanes in each direction. Theodore Street is under the jurisdiction of IDOT, is not designated as an SRA, carries an AADT volume of 15,600 vehicles (IDOT 2023), and has a posted speed limit of 35 miles per hour.

*Larkin Avenue* is a north-south other principal arterial roadway that provides two lanes in each direction. At its signalized intersection with Plainfield Road, Theodore Street provides dual left-turn lanes, two through lanes, and an exclusive right-turn lane on both approaches. Larkin Avenue is under the jurisdiction of IDOT south of Plainfield Road and the Will County Division of Transportation north of Plainfield Road. Larkin Avenue is designated as an SRA, carries an AADT volume of 24,800 vehicles (IDOT 2023), and has a posted speed limit of 35 miles per hour.




LEGEND

- TRAVEL LANE
- TRAFFIC SIGNAL
- STOP SIGN
- SPEED LIMIT SIGN
- BUS STOP
- BUS STOP WITH SHELTER
- STANDARD CROSSWALK
- HIGH VISIBILITY CROSSWALK
- TWO-WAY LEFT TURN LANE

QUIKTRIP CONVENIENCE STORE
CREST HILL, ILLINOIS

EXISTING ROADWAY CHARACTERISTICS

KLOA
Kenig,Lindgren,O'Hara,Aboona,Inc.

Job No: 24-200 Figure: 3

*Knapp Drive* is a north-south local roadway that extends north from Theodore Street and provides one lane in each direction. At its unsignalized intersection with Theodore Street, Knapp Drive provides a shared left-turn/right-turn lane on the southbound approach and is under stop sign control. Knapp Drive is under the jurisdiction of the City of Crest Hill and has a posted speed limit of 25 miles per hour.

*Willow Circle Drive* is a north-south local roadway that extends north from Knapp Drive and provides one lane in each direction. At its unsignalized intersection with Knapp Drive, Willow Circle Drive is aligned opposite a site access drive, provides a shared left-turn/through/right-turn lane on the southbound approach, and is under stop sign control. Knapp Drive is under the jurisdiction of the City of Crest Hill and has a posted speed limit of 25 miles per hour.

## Traffic Signal Interconnect

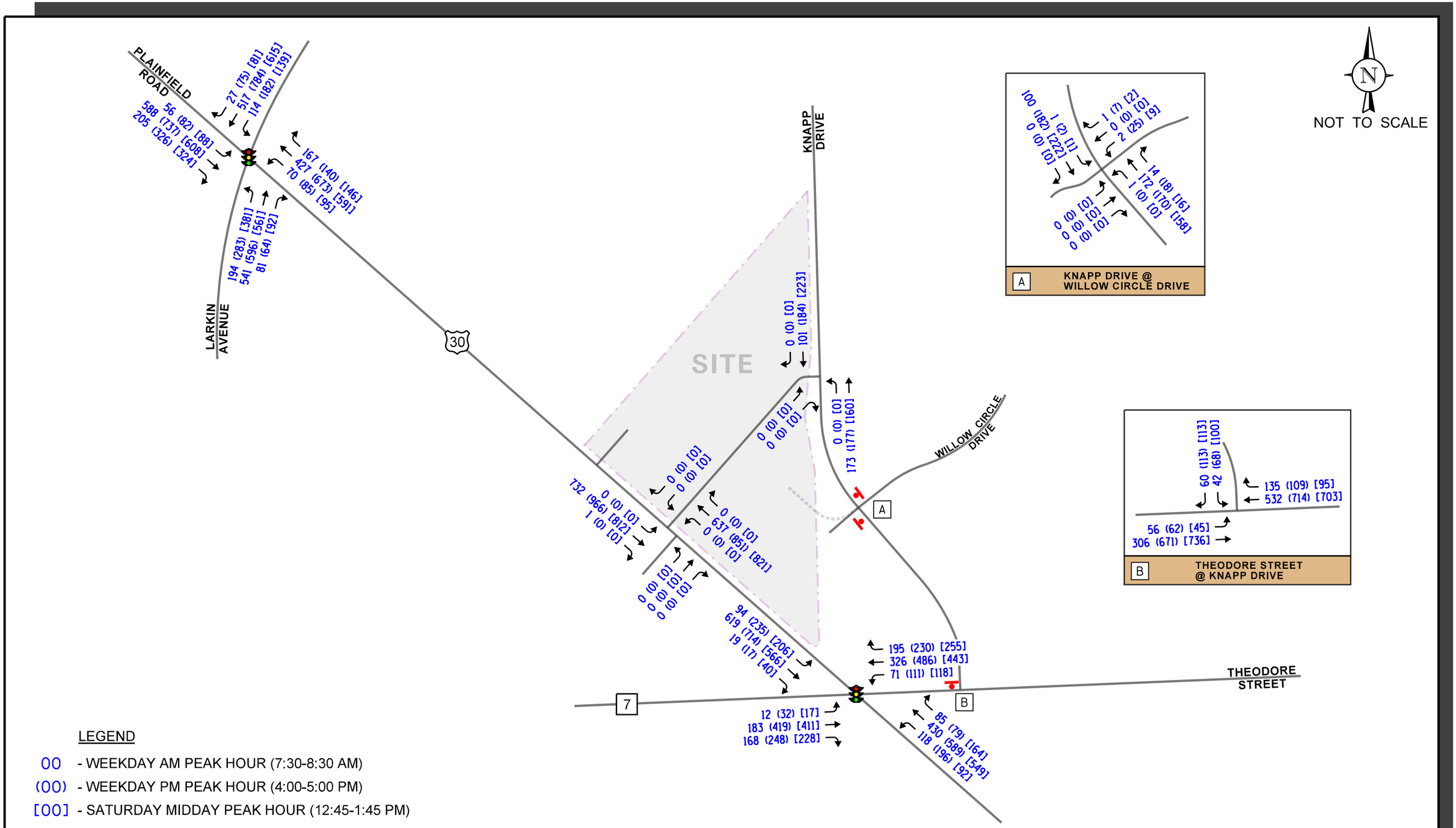
The signalized intersections of Plainfield Road with Larkin Avenue and Theodore Street are part of a six-intersection interconnect system that extends along Plainfield Road from Larkin Avenue in the west and to Arbor Lane in the east and along Larkin Avenue from the North Ridge Plaza entrance in the south to Plainfield Road in the north. The interconnect system is maintained by IDOT.

## Existing Traffic Volumes

In order to determine current traffic conditions within the study area, KLOA, Inc. conducted peak period traffic counts at the following intersections:

- Plainfield Road Theodore Street
- Plainfield Road with Larkin Avenue
- Plainfield Road with the existing site access drive
- Theodore Street with Knapp Drive
- Knapp Drive with Willow Circle Drive and the existing site access drive

The traffic counts were conducted on Thursday, September 5, 2024 during the weekday morning (7:00 A.M. to 9:00 A.M.) and weekday evening (4:00 P.M. to 6:00 P.M.) peak periods and on Saturday, September 7, 2024 during the Saturday midday (12:00 P.M. to 2:00 P.M.) peak period. The peak hours of traffic occurred from 7:30 A.M. to 8:30 A.M. during the weekday morning peak hour, from 4:00 P.M. to 5:00 P.M. during the weekday evening peak hour, and from 12:45 P.M. to 1:45 P.M. during the Saturday midday peak hour. The existing peak hour traffic volumes are illustrated in **Figure 4.**




QUIKTRIP CONVENIENCE STORE
CREST HILL, ILLINOIS

EXISTING TRAFFIC VOLUMES

KLOA
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Job No: 24-200 Figure: 4

## Crash Analysis

KLOA, Inc. obtained crash data[1] from IDOT for the most recent available five years (2019 to 2023) for the study area intersections. A review of the crash data revealed only one crash was reported at the intersection of Knapp Drive with Willow Circle Drive during the review period. Further, no fatalities were reported at any of the study area intersections during the review period. The crash data incidents are summarized by year and crash type in **Tables 1** through **3.**

Table 1
PLAINFIELD ROAD WITH THEODORE STREET – CRASH SUMMARY

| Year | Type of Crash Frequency | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | Angle | Head On | Object | Rear End | Sideswipe | Turning | Other | Total |
| 2019 | 0 | 0 | 1 | 7 | 1 | 1 | 0 | 10 |
| 2020 | 0 | 2 | 0 | 6 | 1 | 6 | 0 | 15 |
| 2021 | 1 | 0 | 0 | 2 | 0 | 1 | 0 | 4 |
| 2022 | 1 | 0 | 0 | 5 | 1 | 6 | 1 | 14 |
| 2023 | 0 | 0 | 0 | 6 | 1 | 4 | 0 | 11 |
| **Total** | **2** | **2** | **1** | **26** | **4** | **18** | **1** | **54** |
| **Average** | **<1.0** | **<1.0** | **<1.0** | **5.2** | **<1.0** | **3.6** | **<1.0** | **10.8** |

Table 2
PLAINFIELD ROAD WITH LARKIN AVENUE – CRASH SUMMARY

| Year | Type of Crash Frequency | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | Angle | Head On | Object | Rear End | Sideswipe | Turning | Other | Total |
| 2019 | 1 | 0 | 0 | 12 | 1 | 17 | 0 | 31 |
| 2020 | 3 | 0 | 0 | 9 | 1 | 18 | 0 | 31 |
| 2021 | 0 | 0 | 0 | 8 | 0 | 11 | 0 | 19 |
| 2022 | 3 | 0 | 0 | 4 | 4 | 4 | 0 | 15 |
| 2023 | 3 | 0 | 0 | 8 | 1 | 5 | 0 | 17 |
| **Total** | **10** | **0** | **0** | **41** | **7** | **55** | **0** | **113** |
| **Average** | **2.0** | **--** | **--** | **8.2** | **1.4** | **11.0** | **--** | **22.6** |

[1] IDOT DISCLAIMER: The motor vehicle crash data referenced herein was provided by the Illinois Department of Transportation. Any conclusions drawn from analysis of the aforementioned data are the sole responsibility of the data recipient(s).

Table 3
THEODORE STREET WITH KNAPP DRIVE – CRASH SUMMARY

| Year | Type of Crash Frequency | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | Angle | Head On | Object | Rear End | Sideswipe | Turning | Other | Total |
| 2019 | 0 | 0 | 0 | 1 | 0 | 4 | 0 | 5 |
| 2020 | 0 | 0 | 0 | 1 | 2 | 4 | 0 | 7 |
| 2021 | 1 | 0 | 0 | 2 | 2 | 4 | 0 | 9 |
| 2022 | 0 | 0 | 1 | 0 | 1 | 6 | 0 | 8 |
| 2023 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 2 |
| **Total** | **1** | **0** | **1** | **5** | **5** | **19** | **0** | **31** |
| **Average** | **<1.0** | **--** | **<1.0** | **1.0** | **1.0** | **3.8** | **--** | **6.2** |

# 3. Traffic Characteristics of the Proposed Development

In order to properly evaluate future traffic conditions in the surrounding area, it was necessary to determine the traffic characteristics of the proposed development, including the directional distribution and volumes of traffic that it will generate.

## Proposed Development Plan

As proposed, the site is proposed to be developed with a QuikTrip Convenience Store that is to contain the following:

- Sixteen (16) passenger vehicle fueling positions
- An approximately 5,312 square-foot convenience store

In addition, the north parcel of the site will be developed in the future with a retail use. For the purposes of this study, it was assumed that the parcel will contain an approximately 3,000 square-foot fast-food restaurant with a drive-through lane. It should be noted that a fast-food restaurant typically generates a higher volume of traffic than other retail uses that could occupy this site, and, as such, provides for a conservative analysis. A copy of the proposed site plan is included in the Appendix.

## Site Access

Access to the development site will be provided via the following two access drives:

- A full movement access drive on Plainfield Road located approximately 665 feet west of Theodore Street.
    - The access drive will provide one inbound lane and one outbound lane.
    - Outbound movements should be placed under stop sign control.
    - Inbound left-turn movements can be accommodated within the existing two-way left-turn lane median on Plainfield Road.
    - A continuous right-turn lane will be provided on Plainfield Road serving this access drive and the proposed right-in/right-out access drive.
    - This access drive will be part of a permanent access easement between the south parcel (convenience store site) and the north parcel (future commercial use).
    - The access drive is located as far west as practically possible within the site area.
- A right-in/right-out access drive on Plainfield Road located approximately 465 feet west of Theodore Street.
    - The access drive will provide one inbound lane and one outbound lane
    - Left-turn movements will be restricted via striping, signage, and channelization.
    - Outbound movements should be placed under stop sign control.
    - A continuous right-turn lane will be provided on Plainfield Road serving this access drive and the proposed right-in/right-out access drive.

- A full movement access drive on Knapp Drive located approximately 440 feet north of Theodore Street aligned opposite Willow Circle Drive.
    - The access drive will continue to provide one inbound lane and two outbound lanes striped for a shared left-turn/through lane and an exclusive right-turn lane.
    - Outbound movements will continue to be under stop sign control.

It should be noted that the proposed access system will replace the existing access system serving the site which consists of two full movement access drives on Plainfield Road and two full movement access drives on Knapp Drive.

## Directional Distribution

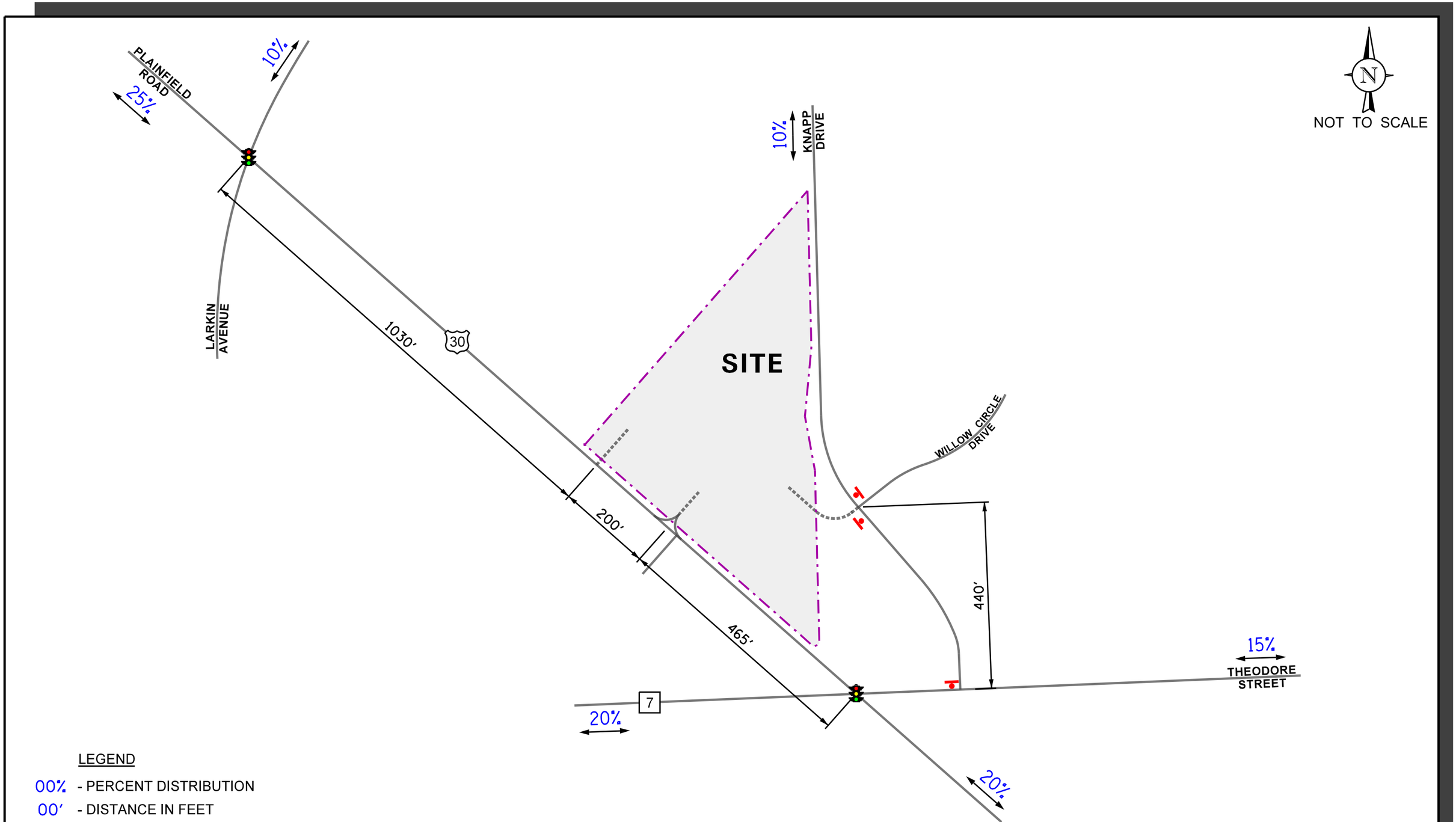
The directional distribution of future site-generated trips on the roadway system is a function of several variables, including the operational characteristics of the roadway system and the ease with which drivers can travel over various sections of the roadway system. This is particularly true for pass-by traffic. The directions from which patrons and employees of the proposed development will approach and depart the site are illustrated in **Figure 5.** Figure 5 also shows the distances between the existing and proposed access intersections.

## Peak Hour Traffic Volumes

The number of peak hour trips estimated to be generated by the proposed development was based on vehicle trip generation rates contained in *Trip Generation Manual*, 11th Edition, published by the Institute of Transportation Engineers (ITE). The "Convenience Store/Gas Station" (Land-Use Code 945) rate was used for the passenger vehicle fueling positions and convenience store and the "Fast-Food Restaurant with Drive-Through Window" (Land-Use Code 934) rate was used for the restaurant.

It is important to note that surveys conducted by ITE have shown that approximately 60 percent of trips made to gas stations, fuel centers, and convenience stores are diverted from the existing traffic on the roadway system as well as approximately 50 percent of trips made to fast-food restaurants with drive-throughs. This is particularly true during the weekday morning and weekday evening peak hours when traffic is diverted from the home-to-work and work-to-home trips. As such, the number of new trips to be generated by the development were reduced to account for pass-by traffic.

**Table 4** summarizes the trips projected to be generated by the proposed development during the peak hours.




LEGEND

00% - PERCENT DISTRIBUTION

00' - DISTANCE IN FEET

QUIKTRIP CONVENIENCE STORE
CREST HILL, ILLINOIS

DIRECTIONAL DISTRIBUTION

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Job No: 24-200 Figure: 5

Table 4
ESTIMATED PEAK HOUR VEHICLE TRIP GENERATION

| ITE Land Use Code | Type/Size | Weekday Morning Peak Hour | | | Weekday Evening Peak Hour | | | Saturday Midday Peak Hour | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | In | Out | Total | In | Out | Total | In | Out | Total |
| 945 | Convenience Store (16 positions, 5,312 s.f. Store) | 216 | 217 | 433 | 182 | 182 | 364 | 167 | 160 | 327 |
| *Pass-By Reduction (60%)* | | -130 | -130 | -260 | -109 | -109 | -218 | -98 | -98 | -196 |
| **New Convenience Store Trips** | | **86** | **87** | **173** | **73** | **73** | **146** | **69** | **62** | **131** |
| 934 | Fast-Food Restaurant (3,000 s.f) | 68 | 66 | 134 | 52 | 47 | 99 | 85 | 81 | 166 |
| *Pass-By Reduction (50%)* | | -34 | -34 | -68 | -25 | -25 | -50 | -42 | -42 | -84 |
| **New Restaurant Trips** | | **34** | **32** | **66** | **27** | **22** | **49** | **43** | **39** | **82** |
| Development New Trips | | 120 | 119 | 239 | 100 | 95 | 195 | 112 | 101 | 213 |
| Development Pass-by Trips | | 164 | 164 | 328 | 134 | 134 | 268 | 140 | 140 | 280 |
| **Total Development Trips** | | **284** | **283** | **567** | **234** | **229** | **463** | **252** | **241** | **493** |

# 4. Projected Traffic Conditions

The total projected traffic volumes include the existing traffic volumes, increase in background traffic due to growth, and the traffic estimated to be generated by the proposed development.

## Site Traffic Assignment

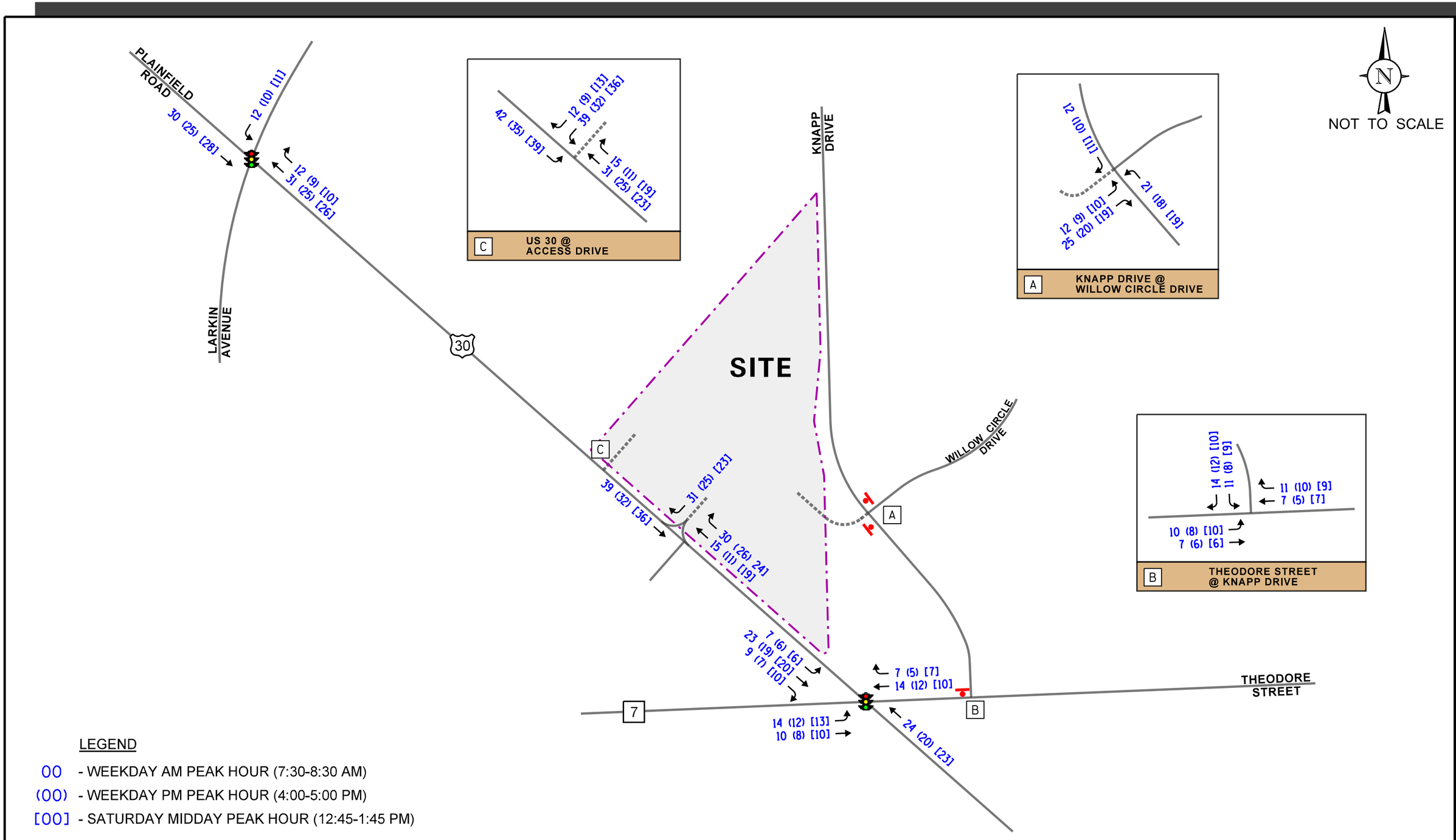
The estimated weekday morning and weekday evening traffic volumes that will be generated by the proposed development were assigned to the roadway system in accordance with the previously described directional distribution (Figure 5). **Figure 6** illustrates the traffic assignment of new vehicle trips and the pass-by traffic assignment is illustrated in **Figure 7**. To provide a conservative analysis of the site access drives, no traffic was assumed to use the cross access connection.

## Background (No-Build) Traffic Volumes

Under no-build and total projected conditions, the existing traffic volumes (Figure 4) were increased by a regional growth factor to account for the increase in existing traffic related to regional growth in the area (i.e., not attributable to any particular planned development). Based on AADT projections provided by the Chicago Metropolitan Agency for Planning (CMAP), the area roadways are projected to experience a compounded growth rate of approximately 0.6 percent per year. As such, a total background growth of 3.7 was added to project Year 2030 conditions. A copy of the CMAP projections letter is included in the Appendix. The Year 2030 no-build traffic volumes are illustrated in **Figure 8.**

## Total Projected Traffic Volumes

The total projected traffic volumes include the existing Year 2030 volumes (Figure 8) and the volume of traffic expected to be generated by the proposed development (Figures 6 and 7). The Year 2030 total projected traffic volumes are illustrated in **Figure 9.**




LEGEND

00 - WEEKDAY AM PEAK HOUR (7:30-8:30 AM)

(00) - WEEKDAY PM PEAK HOUR (4:00-5:00 PM)

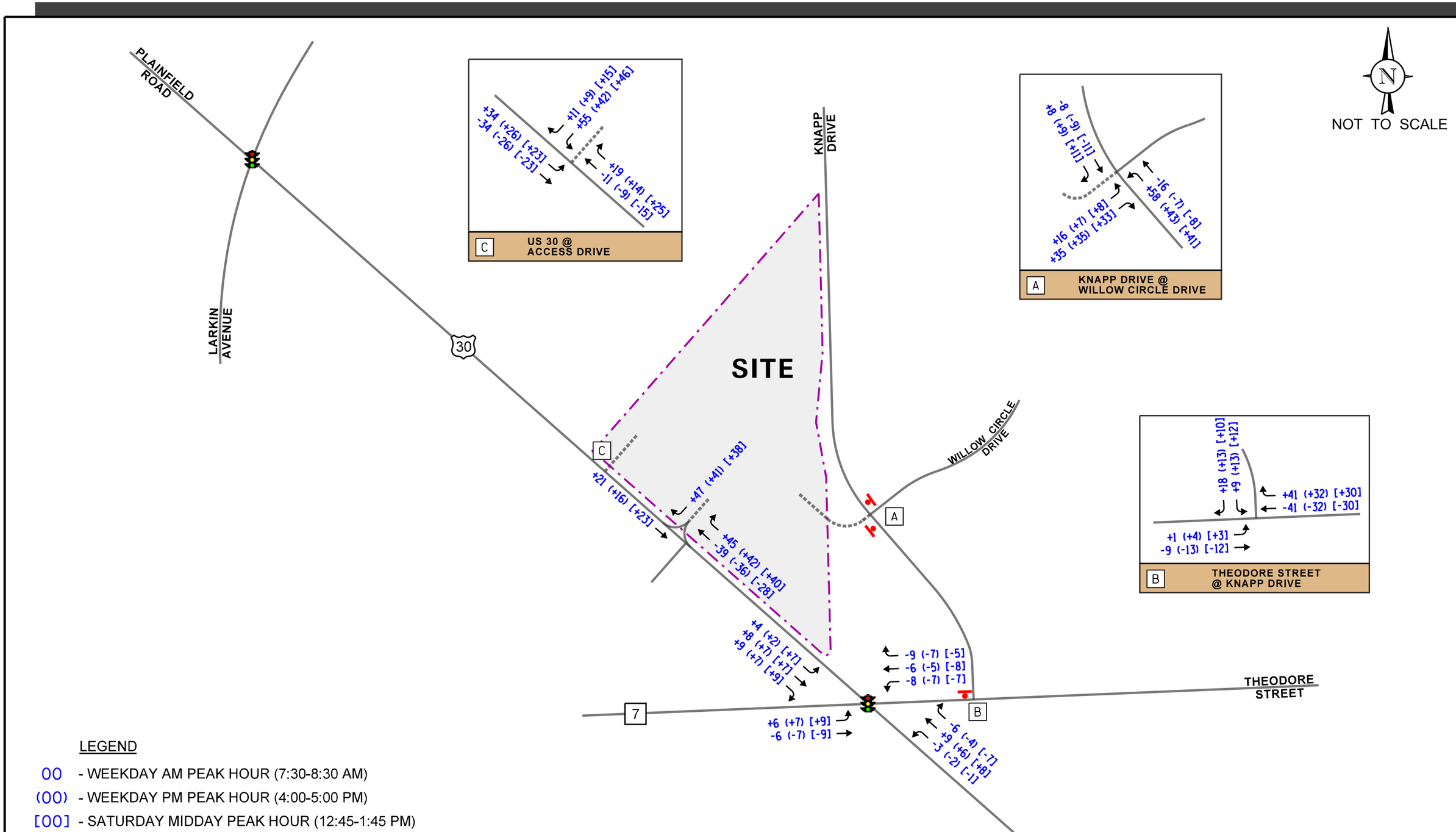
[00] - SATURDAY MIDDAY PEAK HOUR (12:45-1:45 PM)

QUIKTRIP CONVENIENCE STORE
CREST HILL, ILLINOIS

NEW SITE TRAFFIC VOLUMES

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Job No: 24-200 Figure: 6




LEGEND

00 - WEEKDAY AM PEAK HOUR (7:30-8:30 AM)

(00) - WEEKDAY PM PEAK HOUR (4:00-5:00 PM)

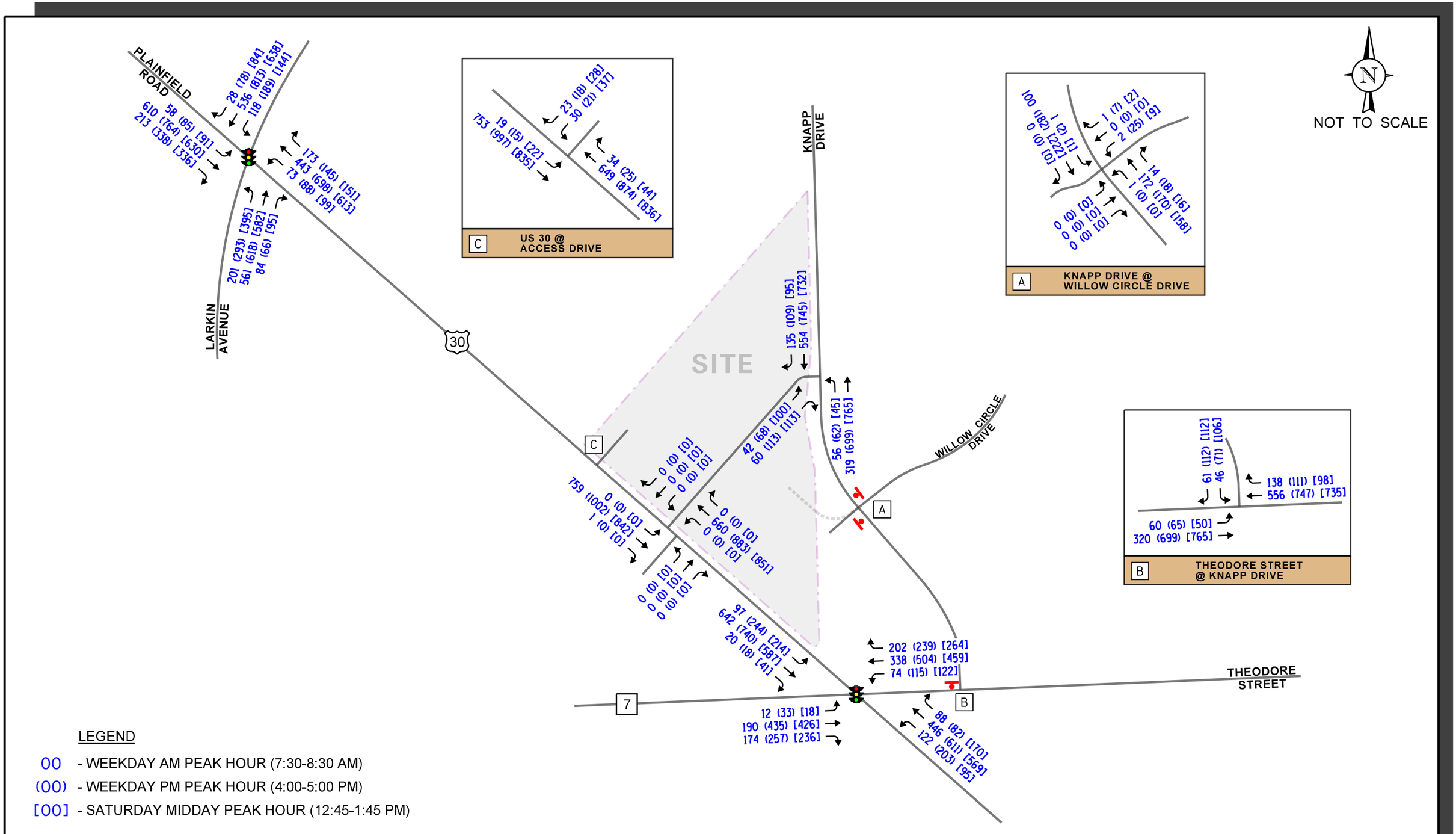
[00] - SATURDAY MIDDAY PEAK HOUR (12:45-1:45 PM)

QUIKTRIP CONVENIENCE STORE
CREST HILL, ILLINOIS

PASS-BY TRAFFIC VOLUMES

KLOA
Kenig,Lindgren,O'Hara,Aboona,Inc.

Job No: 24-200 Figure: 7




LEGEND

00 - WEEKDAY AM PEAK HOUR (7:30-8:30 AM)

(00) - WEEKDAY PM PEAK HOUR (4:00-5:00 PM)

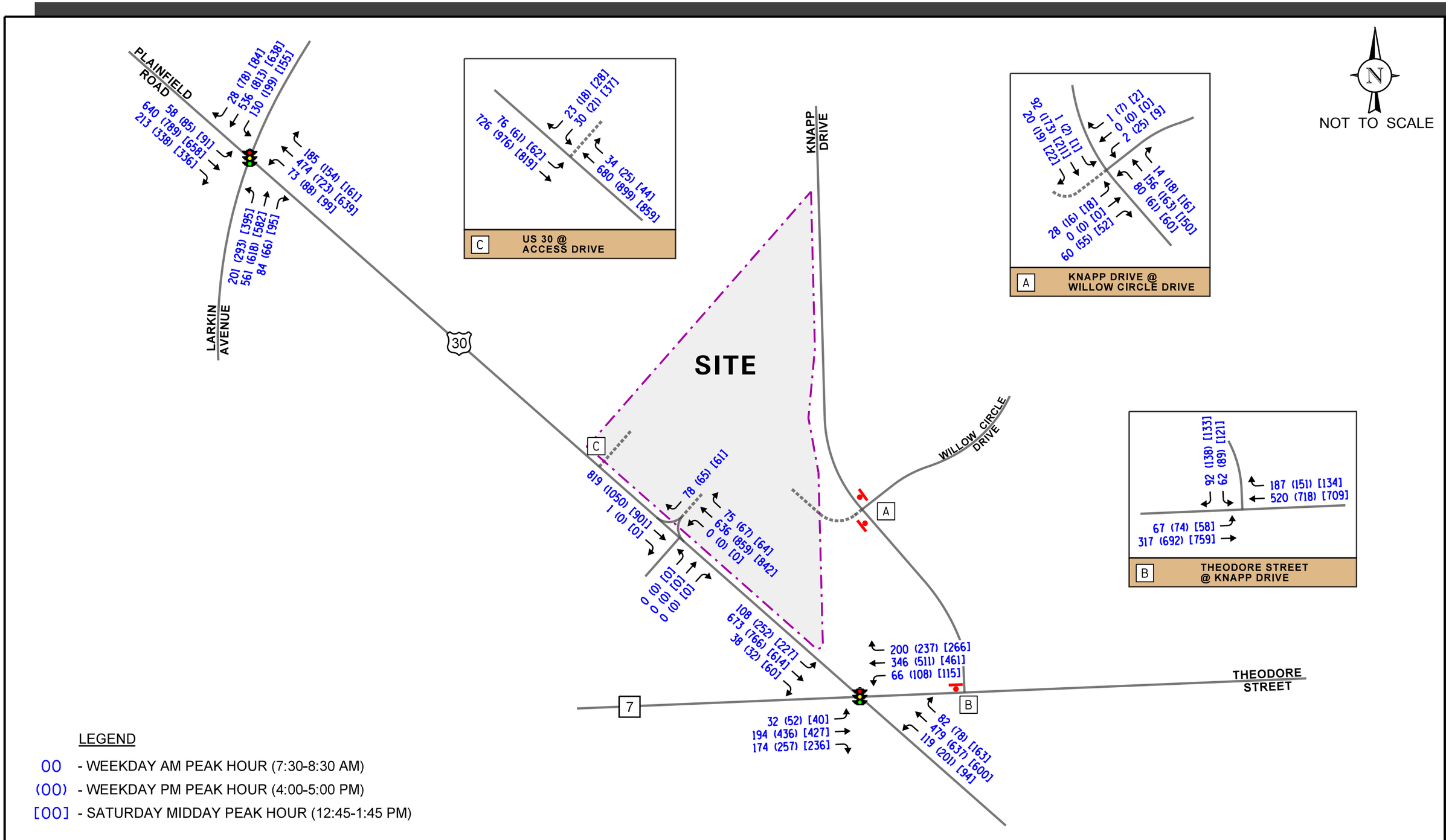
[00] - SATURDAY MIDDAY PEAK HOUR (12:45-1:45 PM)

QUIKTRIP CONVENIENCE STORE
CREST HILL, ILLINOIS

YEAR 2030 NO-BUILD TRAFFIC VOLUMES

KLOA
Kenig,Lindgren,O'Hara,Aboona,Inc.

Job No: 24-200 Figure: 8




LEGEND

00 - WEEKDAY AM PEAK HOUR (7:30-8:30 AM)

(00) - WEEKDAY PM PEAK HOUR (4:00-5:00 PM)

[00] - SATURDAY MIDDAY PEAK HOUR (12:45-1:45 PM)

QUIKTRIP CONVENIENCE STORE
CREST HILL, ILLINOIS

YEAR 2030 TOTAL TRAFFIC VOLUMES

KLOA
Kenig,Lindgren,O'Hara,Aboona,Inc.

Job No: 24-200 Figure: 9

# 5. Traffic Analysis and Recommendations

The following provides an evaluation conducted for the weekday morning, weekday evening, and Saturday midday peak hours. The analysis includes conducting capacity analyses to determine how well the roadway system and access drives are projected to operate and whether any roadway improvements or modifications are required.

## Traffic Analyses

Roadway and adjacent or nearby intersection analyses were performed for the weekday morning, weekday evening, and Saturday midday peak hours for the existing, no-build, and total projected traffic volumes.

The traffic analyses were performed using the methodologies outlined in the Transportation Research Board's *Highway Capacity Manual (HCM),* 6th Edition and analyzed using Synchro/SimTraffic 11 software. The analysis for the traffic signal-controlled intersections were performed using actual cycle lengths, phasings, and offsets to determine the average overall vehicle delay and levels of service.

The analyses for the unsignalized intersections determine the average control delay to vehicles at an intersection. Control delay is the elapsed time from a vehicle joining the queue at a stop sign (includes the time required to decelerate to a stop) until its departure from the stop sign and resumption of free flow speed. The methodology analyzes each intersection approach controlled by a stop sign and considers traffic volumes on all approaches and lane characteristics.

The ability of an intersection to accommodate traffic flow is expressed in terms of level of service, which is assigned a letter from A to F based on the average control delay experienced by vehicles passing through the intersection. The *Highway Capacity Manual* definitions for levels of service and the corresponding control delay for signalized intersections and unsignalized intersections are included in the Appendix of this report.

Summaries of the traffic analysis results showing the level of service and overall intersection delay (measured in seconds) for the existing, no-build, total projected conditions are presented in **Tables 5** through **9.** A discussion of each intersection follows. Summary sheets for the capacity analyses are included in the Appendix.

Table 5
CAPACITY ANALYSIS RESULTS – PLAINFIELD ROAD WITH THEODORE STREET– SIGNALIZED

| | Peak Hour | Eastbound (Theodore Street) | | Westbound (Theodore Street) | | Southeast-bound (Plainfield Road) | | Northwest-bound (Plainfield Road) | | Overall |
|---|---|---|---|---|---|---|---|---|---|---|
| | | L | T/R | L | T/R | L | T/R | L | T/R | |
| Existing Conditions | Weekday Morning | B 16.1 | C 27.4 | B 17.4 | C 24.8 | A 6.5 | C 22.3 | C 22.0 | C 31.9 | C 24.9 |
| | | C – 27.0 | | C - 23.9 | | C – 20.3 | | C - 30.1 | | |
| | Weekday Evening | B 19.3 | C 34.8 | C 22.5 | C 31.2 | D 41.8 | E 58.1 | C 31.9 | D 46.1 | D 41.1 |
| | | C - 34.1 | | C - 30.1 | | D - 42.7 | | D - 42.8 | | |
| | Saturday Midday | B 18.4 | C 35 | C 22.3 | C 29.1 | C 16.5 | C 21.9 | B 20 | D 41.9 | C 30.4 |
| | | C - 34.5 | | C - 28.1 | | C - 31.3 | | D - 39.4 | | |
| No-Build Conditions | Weekday Morning | B 15.9 | C 27.5 | B 17.4 | C 25.0 | A 6.8 | C 22.3 | C 22.9 | C 32.3 | C 25.1 |
| | | C - 27.2 | | C - 24.1 | | C – 20.3 | | C - 30.5 | | |
| | Weekday Evening | B 19.7 | D 36.3 | C 23.7 | C 32.4 | D 42.1 | E 58.4 | C 32.3 | D 46.1 | D 41.8 |
| | | D - 35.5 | | C - 31.2 | | D – 54.4 | | D - 43 | | |
| | Saturday Midday | B 18.4 | D 35.4 | C 22.6 | C 29.5 | C 18.1 | C 22.0 | C 20.3 | D 43.2 | C 31.0 |
| | | C - 34.9 | | C - 28.5 | | C – 21.0 | | D - 40.6 | | |
| Projected Conditions | Weekday Morning | B 16.6 | C 27.8 | B 17.4 | C 27.6 | B 10.3 | C 24.6 | C 23.2 | C 32.3 | C 26.5 |
| | | C - 26.9 | | C – 26.5 | | C – 22.7 | | C - 30.7 | | |
| | Weekday Evening | C 20.3 | D 36.1 | C 23.1 | C 34.6 | D 43.4 | E 58.6 | D 35.2 | D 47.6 | D 43.0 |
| | | D – 35.0 | | C – 33.2 | | D – 55.0 | | D - 44.9 | | |
| | Saturday Midday | B 19.3 | D 35.6 | C 22.5 | C 33.8 | B 20.1 | C 20.6 | C 20.6 | D 44.3 | C 32.0 |
| | | C - 34.7 | | C – 32.3 | | C – 20.4 | | D – 41.7 | | |

Letter denotes Level of Service L – Left Turn R – Right Turn
Delay is measured in seconds. T – Through

Table 6
CAPACITY ANALYSIS RESULTS – PLAINFIELD ROAD WITH LARKIN AVENUE– SIGNALIZED

| | Peak Hour | Northbound (Larkin Avenue) | | | Southbound (Larkin Avenue) | | | Southeast-bound (Plainfield Road) | | | Northwest-bound (Plainfield Road) | | | Overall |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | L | T | R | L | T | R | L | T | R | L | T | R | |
| Existing Conditions | Weekday Morning | E 63.7 | C 31.2 | C 25.7 | F 88.7 | C 30.5 | C 23.7 | C 20.1 | C 32.5 | C 20.6 | B 15.3 | C 25.9 | B 16.9 | C 32.6 |
| | | D - 38.4 | | | D - 40.3 | | | C - 28.8 | | | C – 22.5 | | | |
| | Weekday Evening | E 61.1 | C 31.5 | C 25.3 | F 119.1 | D 37 | C 28.8 | C 29.5 | D 45.4 | C 26.0 | C 24.0 | C 26.5 | B 14.8 | D 39.0 |
| | | D - 40 | | | D - 50.8 | | | D - 38.8 | | | C – 24.5 | | | |
| | Saturday Midday | E 59.1 | C 29.8 | C 25.8 | F 85.0 | D 36.6 | C 30.3 | C 25.4 | D 38.6 | C 21.6 | B 17.6 | C 30.2 | B 14.6 | D 35.7 |
| | | D - 40.3 | | | D - 44.1 | | | C - 32.1 | | | C – 26.0 | | | |
| No-Build Conditions | Weekday Morning | E 65.0 | C 31.1 | C 25.6 | F 91.3 | C 30.4 | C 23.5 | C 20.3 | C 33.4 | C 21.1 | B 15.6 | C 26.3 | B 17.0 | C 33.0 |
| | | D - 38.6 | | | D - 40.6 | | | C - 29.6 | | | C – 22.8 | | | |
| | Weekday Evening | E 61.1 | C 30.9 | C 25.1 | F 137.3 | D 37.1 | C 28.8 | C 30.7 | D 47.5 | C 26.7 | C 29.3 | C 28.4 | B 15.6 | D 40.6 |
| | | D - 39.5 | | | D - 54.1 | | | D - 40.3 | | | C – 26.5 | | | |
| | Saturday Midday | E 60.1 | C 29.7 | C 25.7 | F 87.6 | D 36.6 | C 30.2 | C 26.2 | D 39.7 | C 22.2 | C 18.2 | D 30.7 | C 14.8 | D 36.2 |
| | | D - 40.5 | | | D - 44.5 | | | C – 33.0 | | | C – 26.5 | | | |
| Projected Conditions | Weekday Morning | E 65.0 | C 31.1 | C 25.6 | F 98.2 | C 30.1 | C 23.5 | C 20.5 | C 34.2 | C 21.2 | B 17.5 | C 28.8 | B 17.4 | C 33.9 |
| | | D - 38.6 | | | D – 42.6 | | | C – 30.3 | | | C - 24.8 | | | |
| | Weekday Evening | E 61.1 | C 30.9 | C 25.1 | F 153.1 | D 37.1 | C 28.8 | C 31.2 | D 48.4 | C 26.7 | C 26.7 | C 31.9 | B 16.4 | D 42.4 |
| | | D - 39.5 | | | E – 57.7 | | | D – 41.1 | | | C – 29.5 | | | |
| | Saturday Midday | E 60.1 | C 29.8 | C 25.7 | F 94.7 | D 36.6 | C 30.2 | C 26.5 | D 40.3 | C 22.2 | C 21.9 | C 34.6 | B 16.0 | D 37.5 |
| | | D - 40.6 | | | D – 46.3 | | | C - 33.5 | | | C – 29.9 | | | |

Letter denotes Level of Service L – Left Turn R – Right Turn
Delay is measured in seconds. T – Through

Table 7
CAPACITY ANALYSIS RESULTS – UNSIGNALIZED – EXISTING CONDITIONS

| Intersection | Weekday Morning Peak Hour | | Weekday Evening Peak Hour | | Saturday Midday Peak Hour | |
|---|---|---|---|---|---|---|
| | LOS | Delay | LOS | Delay | LOS | Delay |
| **Theodore Street with Knapp Drive** | | | | | | |
| • Eastbound Left Turn | A | 9.3 | B | 10.0 | A | 9.7 |
| • Southbound Approach | B | 14.4 | C | 23.3 | D | 26.8 |
| **Knapp Drive with Willow Circle Drive and the Existing Site Access Drive** | | | | | | |
| • Eastbound Approach | -- | -- | -- | -- | -- | -- |
| • Westbound Approach | B | 10.3 | B | 11.2 | B | 11.5 |
| • Northbound Left Turn | A | 7.4 | -- | -- | -- | -- |
| • Southbound Left Turn | A | 7.6 | A | 7.6 | A | 7.6 |

LOS = Level of Service
Delay is measured in seconds.
1 – All-way stop control
2 – Two-way stop control

Table 8
CAPACITY ANALYSIS RESULTS – UNSIGNALIZED – NO BUILD CONDITIONS

| Intersection | Weekday Morning Peak Hour | | Weekday Evening Peak Hour | | Saturday Midday Peak Hour | |
|---|---|---|---|---|---|---|
| | LOS | Delay | LOS | Delay | LOS | Delay |
| **Theodore Street with Knapp Drive** | | | | | | |
| • Eastbound Left Turn | A | 9.3 | B | 10.2 | A | 9.9 |
| • Southbound Approach | B | 14.7 | C | 24.8 | D | 28.7 |
| **Knapp Drive with Willow Circle Drive and the Existing Site Access Drive** | | | | | | |
| • Eastbound Approach | -- | -- | -- | -- | -- | -- |
| • Westbound Approach | B | 10.3 | B | 11.2 | B | 11.5 |
| • Northbound Left Turn | A | 7.4 | -- | -- | -- | -- |
| • Southbound Left Turn | A | 7.6 | A | 7.6 | A | 7.6 |

LOS = Level of Service
Delay is measured in seconds.
1 – All-way stop control
2 – Two-way stop control

Table 9
CAPACITY ANALYSIS RESULTS – UNSIGNALIZED – NO BUILD CONDITIONS

| Intersection | Weekday Morning Peak Hour | | Weekday Evening Peak Hour | | Saturday Midday Peak Hour | |
|---|---|---|---|---|---|---|
| | LOS | Delay | LOS | Delay | LOS | Delay |
| **Theodore Street with Knapp Drive** | | | | | | |
| • Eastbound Left Turn | A | 9.5 | B | 10.4 | B | 10.0 |
| • Southbound Approach | C | 16.6 | D | 34.2 | E | 39.6 |
| **Plainfield Road with the West Site Access Drive (Full Movement)** | | | | | | |
| • Southbound Approach | A | 8.2 | A | 8.5 | A | 8.4 |
| • Eastbound Left-Turn | C | 15.0 | C | 18.0 | C | 22.7 |
| **Plainfield Road with the East Access Drive (Right-in/Right-out)** | | | | | | |
| • Southbound Approach | B | 11.4 | B | 12.5 | B | 12.3 |
| **Knapp Drive with Willow Circle Drive and the South Site Access Drive** | | | | | | |
| • Eastbound Approach | B | 10.5 | B | 10.5 | B | 11.0 |
| • Westbound Approach | B | 12.4 | B | 13.6 | B | 14.0 |
| • Northbound Left Turn | A | 7.6 | A | 9.6 | A | 7.9 |
| • Southbound Left Turn | A | 7.6 | A | 7.7 | A | 7.6 |

LOS = Level of Service
Delay is measured in seconds.
1 – All-way stop control
2 – Two-way stop control

## Discussion and Recommendations

The following summarizes how the intersections are projected to operate and identifies any roadway and traffic control improvements necessary to accommodate the site-generated traffic.

### *Plainfield Road with Theodore Street*

The results of the capacity analyses indicate that the intersection currently operates at an overall Level of Service (LOS) C during the weekday morning and Saturday midday peak hours and LOS D during the weekday evening peak hour. Further, all movements operate at LOS E or better during all three peak hours. Under Year 2030 no-build conditions, this intersection is projected to continue to operate at an overall LOS C during the weekday morning and Saturday midday peak hours and LOS D during the weekday evening peak hour.

Under Year 2030 total projected conditions, this intersection is projected to continue to operate at the same LOS during all three peak hours with increases in delay of less than two seconds over no-build conditions. Further, all movements are projected to continue to operate at LOS E or better.

Overall, the proposed development is projected to increase the volume of traffic traversing this intersection by approximately four percent or less. As such, the intersection has sufficient reserve capacity to accommodate the traffic to be generated by the development and no roadway improvements or traffic control modifications are required.

### *Plainfield Road with Larkin Avenue*

The results of the capacity analyses indicate that the intersection currently operates at an overall LOS C during the weekday morning peak hour and LOS D during the weekday evening and Saturday midday peak hours. Further, all movements operate at LOS D or better during all three peak hours with the exception of the northbound and southbound left-turn movements. This is the result of the long cycle length (110 to 130 seconds) and the protected only operations of these movements. Under Year 2030 no-build conditions, this intersection is projected to continue to operate at an overall LOS C during the weekday morning peak hour and LOS D during the weekday evening and Saturday midday peak hour.

Under Year 2030 total projected conditions, this intersection is projected to continue to operate at the same LOS during all three peak hours with increases in delay of less than two seconds over no-build conditions.

Overall, the proposed development is projected to increase the volume of traffic traversing this intersection by less than three percent. As such, the intersection has sufficient reserve capacity to accommodate the traffic to be generated by the development and no roadway improvements or traffic control modifications are required.

*Theodore Street with Knapp Drive*

The results of the capacity analyses indicate that turning movements from Knapp Drive operate at LOS B during the weekday morning peak hour, LOS C during the weekday evening peak hour, and LOS D during the Saturday midday peak hour. Under Year 2030 no-build conditions, turning movements from Knapp Drive are projected to operate at LOS C during the weekday morning peak hour and LOS D during the weekday evening and Saturday midday peak hours.

Under Year 2030 total projected conditions turning movements from Knapp Drive are projected to operate at LOS C during the weekday morning peak hour, LOS D during the weekday evening peak hour, and LOS E during the Saturday midday peak hour. The following should be noted:

- Westbound queues from the signalized intersection of Plainfield Road with Theodore Street extend to this intersection and are projected to continue to do so.
    - These queues were observed to clear this intersection with each green phase
    - SimTraffic Simulation of projected conditions indicate that queues will continue to clear the intersection with each green phase and the intersection will be blocked approximately 15 percent of the time or less.
    - This intersection is located between two signalized intersections on a coordinated system. These signals will create gaps in the traffic stream allowing vehicles to turn.
- Southbound vehicles will continue to be able to turn left onto Theodore Street from Knapp Drive
    - This movement is projected to operate at LOS E or better during all three peak hours with a volume to capacity (v/c) ratio of less than one.
    - As discussed above, gaps in the Theodore Street traffic will be available for vehicles to exit.
    - A two-way left-turn lane is provided on Theodore Street which outbound vehicles can utilize to perform a two-part left-turn.
- Eastbound vehicles will continue to be able to turn left onto Knapp Drive from Theodore Street.
    - This movement is projected to operate at LOS B or better during all three peak hours with a volume to capacity (v/c) ratio of less than one.
    - These vehicles can utilize the existing median while waiting to turn. Further, Theodore Street provides two eastbound lanes allowing eastbound traffic to bypass vehicles waiting to turn.

- Westbound left-turn 95th percentile queues at the intersection of Theodore Street and with Plainfield Road are not projected to exceed 100 feet and can be accommodated within the existing 125-foot turn lane and, as such, will not block this movement utilizing the median.

- The 95th percentile queue for vehicles waiting to turn onto Theodore Street is only one to two vehicles.

- The proposed development is projected to increase this volume by less than 10 vehicles during the peak hours. The primary entrance for the proposed development is on Plainfield Road and it is anticipated that a majority of traffic approaching from the north, south, or west will use this entrance.

As such, the intersection has sufficient reserve capacity to accommodate the traffic to be generated by the development and no roadway improvements or traffic control modifications are required.

*Plainfield Street with the West Site Access Drive (Full Movement)*

The results of the capacity analyses indicate that under Year 2030 total projected conditions turning movements from the access drive are projected to operate at LOS C during the weekday morning, weekday evening, and Saturday midday peak hours. The following should be noted:

- Outbound left-turning vehicles can utilize the two-way left-turn lane to perform a two-part left-turn turn maneuver.

- This intersection is located between two signalized intersections on a coordinated system. These signals will create gaps in the traffic stream allowing vehicles to turn. The location of this intersection is a key factor in its acceptable operation.

- Southeast-bound 95th percentile queues from the signalized intersection of Plainfield Road with Theodore Street are not projected to extend to this intersection.

- Vehicles turning into the site from Plainfield Road are able to queue within the existing two-way left-turn median on Plainfield Road. Southbound left-turn vehicles at the intersection of Plainfield Road with Theodore Street are projected to be accommodated within the existing turn lane and will not block this movement.

- All movements are projected to operate with a volume to capacity (v/c) ratio of less than one.

- SimTraffic Simulation of this intersection under projected conditions indicated the following:

    - Queues on Plainfield Road from the signalized intersections to the east and west will not block this access drive

- Outbound vehicles will experience some delay during peak periods but will generally be able to exit the site as the signals on Plainfield Road consistently create gaps in the traffic stream.

When the total projected traffic volumes are compared to the right-turn lane guidelines in Chapter 36 of IDOT's Bureau of Design and Environment (BDE) Manual, a right-turn lane on Plainfield Road will not be warranted serving this access drive.

As such, the intersection has sufficient reserve capacity to accommodate the traffic to be generated by the development and no roadway improvements or traffic control modifications are required.

*Plainfield Street with the East Site Access Drive (Right-in/Right-out)*

The results of the capacity analyses indicate that under Year 2030 total projected conditions turning movements from the access drive are projected to operate at LOS B during the weekday morning, weekday evening, and Saturday midday peak hours. The following should be noted:

- Southeast-bound queues from the signalized intersection of Plainfield Road with Theodore Street were observed to occasionally extend to this intersection during the weekday evening peak hour and are projected to continue to do so. However, these queues will not block right-turn movements and this access drive will be restricted to right-turn only movements.

- This intersection is located between two signalized intersections on a coordinated system. These signals will create gaps in the traffic stream allowing vehicles to turn.

- The restriction of this access drive will allow for future improvements by IDOT on Plainfield Road at its intersection with Theodore Street (such as southeast-bound dual left-turn lanes) to be provided without impacting this intersection.

As such, the intersection has sufficient reserve capacity to accommodate the traffic to be generated by the development and no roadway improvements or traffic control modifications are required.

*Knapp Drive with Willow Circle Drive and the Site Access Drive*

The results of the capacity analysis indicate that all critical movements at this intersection currently operates at LOS B or better during the weekday morning, weekday evening, and Saturday midday peak hours. Under no-build and total projected conditions, all critical movements are projected to continue to operate at LOS B or better during all three peak hours. As such, this intersection has sufficient reserve capacity to accommodate the traffic estimated to be generated by the proposed development and the access drive will adequately accommodate the traffic estimated to be generated by the proposed development.

# 6. Conclusion

Based on the preceding analyses and recommendations, the following conclusions have been made:

- The traffic projected to be generated by the proposed development will be reduced due to the volume of pass-by traffic.
- The signalized intersections of Plainfield Road with Theodore Street and Larkin Avenue have sufficient reserve capacity to accommodate site-generated traffic.
- The intersection of Theodore Street with Knapp Drive can accommodate site-generated traffic. Restriction of this intersection is not recommended.
- Access to the proposed development will be provided via a right-in/right-out access drive and a full movement access drive on Plainfield Road and a full movement access drive on Knapp Drive
    - Inbound left-turn movements at the full movement site access drive on Plainfield Road can be accommodated within the existing two-way left-turn median.
    - A continuous right-turn lane will be provided on Plainfield Road serving the site access drives.
    - The full movement access drive on Plainfield Road will be part of a permanent access easement between the south parcel (convenience store site) and the north parcel (future commercial use).
- The proposed access system will adequately accommodate the traffic estimated to be generated by the proposed development and will ensure that efficient and flexible access is provided.

# Appendix

Traffic Count Summary Sheets
Site Plan
CMAP 2050 Projections Letter
ITE Trip Generation Sheets
Level of Service Criteria Capacity
Analysis Summary Sheets

# Traffic Count Summary Sheets

Kenig Lindgren O'Hara Aboona, Inc.
9575 W. Higgins Rd., Suite 400

Rosemont, Illinois, United States 60018
(847)518-9990 abowen@kloainc.com

Count Name: Knapp Drive with Willow Circle Drive TMC
Site Code:
Start Date: 09/05/2024


# Turning Movement Data

| Start Time | Access Drive Eastbound | | | | | | Willow Circle Drive Westbound | | | | | | Knapp Street Northbound | | | | | | Knapp Street Southbound | | | | | | Int. Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | U-Turn | Left | Thru | Right | Peds | App. Total | U-Turn | Left | Thru | Right | Peds | App. Total | U-Turn | Left | Thru | Right | Peds | App. Total | U-Turn | Left | Thru | Right | Peds | App. Total | |
| 7:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 1 | 2 | 0 | 0 | 21 | 0 | 0 | 21 | 0 | 1 | 14 | 0 | 0 | 15 | 38 |
| 7:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 28 | 1 | 0 | 29 | 0 | 1 | 12 | 0 | 0 | 13 | 43 |
| 7:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 2 | 0 | 0 | 37 | 1 | 0 | 38 | 0 | 0 | 24 | 0 | 0 | 24 | 64 |
| 7:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 38 | 1 | 0 | 39 | 0 | 1 | 28 | 0 | 0 | 29 | 69 |
| Hourly Total | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 0 | 2 | 1 | 6 | 0 | 0 | 124 | 3 | 0 | 127 | 0 | 3 | 78 | 0 | 0 | 81 | 214 |
| 8:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 42 | 7 | 0 | 49 | 0 | 0 | 26 | 0 | 0 | 26 | 75 |
| 8:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 56 | 5 | 0 | 62 | 0 | 0 | 22 | 0 | 0 | 22 | 84 |
| 8:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 2 | 0 | 0 | 38 | 5 | 0 | 43 | 1 | 1 | 31 | 0 | 0 | 33 | 78 |
| 8:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 3 | 0 | 0 | 24 | 5 | 0 | 29 | 0 | 1 | 31 | 0 | 0 | 32 | 64 |
| Hourly Total | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 4 | 0 | 0 | 0 | 5 | 1 | 0 | 160 | 22 | 0 | 183 | 1 | 2 | 110 | 0 | 0 | 113 | 301 |
| *** BREAK *** | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 4:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 6 | 0 | 1 | 0 | 7 | 0 | 0 | 41 | 2 | 0 | 43 | 0 | 0 | 55 | 0 | 0 | 55 | 105 |
| 4:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 5 | 0 | 1 | 0 | 6 | 0 | 0 | 45 | 6 | 0 | 51 | 0 | 0 | 52 | 0 | 0 | 52 | 109 |
| 4:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 7 | 0 | 1 | 0 | 8 | 0 | 0 | 40 | 6 | 0 | 46 | 0 | 1 | 44 | 0 | 0 | 45 | 99 |
| 4:45 PM | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 7 | 0 | 4 | 0 | 11 | 0 | 0 | 44 | 4 | 0 | 48 | 0 | 1 | 31 | 0 | 0 | 32 | 91 |
| Hourly Total | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 25 | 0 | 7 | 0 | 32 | 0 | 0 | 170 | 18 | 0 | 188 | 0 | 2 | 182 | 0 | 0 | 184 | 404 |
| 5:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 0 | 2 | 0 | 6 | 0 | 0 | 49 | 5 | 0 | 54 | 0 | 0 | 45 | 0 | 0 | 45 | 105 |
| 5:15 PM | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 8 | 0 | 1 | 0 | 9 | 0 | 1 | 47 | 7 | 0 | 55 | 0 | 0 | 40 | 0 | 0 | 40 | 105 |
| 5:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 5 | 0 | 2 | 0 | 7 | 0 | 0 | 35 | 3 | 0 | 38 | 0 | 1 | 54 | 0 | 0 | 55 | 100 |
| 5:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 7 | 0 | 3 | 1 | 10 | 0 | 1 | 38 | 3 | 0 | 42 | 0 | 0 | 47 | 0 | 0 | 47 | 99 |
| Hourly Total | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 24 | 0 | 8 | 1 | 32 | 0 | 2 | 169 | 18 | 0 | 189 | 0 | 1 | 186 | 0 | 0 | 187 | 409 |
| *** BREAK *** | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 12:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 3 | 0 | 6 | 0 | 0 | 31 | 1 | 0 | 32 | 0 | 0 | 41 | 0 | 0 | 41 | 79 |
| 12:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 7 | 0 | 0 | 1 | 7 | 0 | 0 | 40 | 6 | 0 | 46 | 0 | 0 | 38 | 0 | 0 | 38 | 91 |
| 12:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 1 | 2 | 0 | 0 | 39 | 3 | 0 | 42 | 0 | 0 | 48 | 0 | 0 | 48 | 92 |
| 12:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 42 | 3 | 0 | 45 | 0 | 0 | 45 | 0 | 0 | 45 | 91 |
| Hourly Total | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 13 | 0 | 3 | 2 | 16 | 0 | 0 | 152 | 13 | 0 | 165 | 0 | 0 | 172 | 0 | 0 | 172 | 353 |
| 1:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 6 | 0 | 0 | 0 | 6 | 0 | 0 | 36 | 3 | 0 | 39 | 0 | 1 | 70 | 0 | 0 | 71 | 116 |
| 1:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 1 | 0 | 3 | 0 | 0 | 49 | 6 | 0 | 55 | 0 | 0 | 48 | 0 | 0 | 48 | 106 |
| 1:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 31 | 4 | 0 | 35 | 0 | 0 | 59 | 0 | 0 | 59 | 95 |
| 1:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 3 | 0 | 0 | 28 | 7 | 0 | 35 | 0 | 0 | 53 | 0 | 0 | 53 | 91 |
| Hourly Total | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 11 | 0 | 2 | 0 | 13 | 0 | 0 | 144 | 20 | 0 | 164 | 0 | 1 | 230 | 0 | 0 | 231 | 408 |
| Grand Total | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 81 | 0 | 22 | 4 | 104 | 1 | 2 | 919 | 94 | 0 | 1016 | 1 | 9 | 958 | 0 | 0 | 968 | 2089 |
| Approach % | 0.0 | 0.0 | 0.0 | 100.0 | - | - | 1.0 | 77.9 | 0.0 | 21.2 | - | - | 0.1 | 0.2 | 90.5 | 9.3 | - | - | 0.1 | 0.9 | 99.0 | 0.0 | - | - | - |
| Total % | 0.0 | 0.0 | 0.0 | 0.0 | - | 0.0 | 0.0 | 3.9 | 0.0 | 1.1 | - | 5.0 | 0.0 | 0.1 | 44.0 | 4.5 | - | 48.6 | 0.0 | 0.4 | 45.9 | 0.0 | - | 46.3 | - |

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lights | 0 | 0 | 0 | 1 | - | 1 | 1 | 79 | 0 | 21 | - | 101 | 1 | 2 | 905 | 93 | - | 1001 | 1 | 9 | 948 | 0 | - | 958 | 2061 |
| % Lights | - | - | - | 100.0 | - | 100.0 | 100.0 | 97.5 | - | 95.5 | - | 97.1 | 100.0 | 100.0 | 98.5 | 98.9 | - | 98.5 | 100.0 | 100.0 | 99.0 | - | - | 99.0 | 98.7 |
| Buses | 0 | 0 | 0 | 0 | - | 0 | 0 | 0 | 0 | 0 | - | 0 | 0 | 0 | 7 | 0 | - | 7 | 0 | 0 | 3 | 0 | - | 3 | 10 |
| % Buses | - | - | - | 0.0 | - | 0.0 | 0.0 | 0.0 | - | 0.0 | - | 0.0 | 0.0 | 0.0 | 0.8 | 0.0 | - | 0.7 | 0.0 | 0.0 | 0.3 | - | - | 0.3 | 0.5 |
| Single-Unit Trucks | 0 | 0 | 0 | 0 | - | 0 | 0 | 2 | 0 | 1 | - | 3 | 0 | 0 | 6 | 1 | - | 7 | 0 | 0 | 5 | 0 | - | 5 | 15 |
| % Single-Unit Trucks | - | - | - | 0.0 | - | 0.0 | 0.0 | 2.5 | - | 4.5 | - | 2.9 | 0.0 | 0.0 | 0.7 | 1.1 | - | 0.7 | 0.0 | 0.0 | 0.5 | - | - | 0.5 | 0.7 |
| Articulated Trucks | 0 | 0 | 0 | 0 | - | 0 | 0 | 0 | 0 | 0 | - | 0 | 0 | 0 | 0 | 0 | - | 0 | 0 | 0 | 2 | 0 | - | 2 | 2 |
| % Articulated Trucks | - | - | - | 0.0 | - | 0.0 | 0.0 | 0.0 | - | 0.0 | - | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | - | 0.0 | 0.0 | 0.0 | 0.2 | - | - | 0.2 | 0.1 |
| Bicycles on Road | 0 | 0 | 0 | 0 | - | 0 | 0 | 0 | 0 | 0 | - | 0 | 0 | 0 | 1 | 0 | - | 1 | 0 | 0 | 0 | 0 | - | 0 | 1 |
| % Bicycles on Road | - | - | - | 0.0 | - | 0.0 | 0.0 | 0.0 | - | 0.0 | - | 0.0 | 0.0 | 0.0 | 0.1 | 0.0 | - | 0.1 | 0.0 | 0.0 | 0.0 | - | - | 0.0 | 0.0 |
| Pedestrians | - | - | - | - | 1 | - | - | - | - | - | 4 | - | - | - | - | - | 0 | - | - | - | - | - | 0 | - | - |
| % Pedestrians | - | - | - | - | 100.0 | - | - | - | - | - | 100.0 | - | - | - | - | - | - | - | - | - | - | - | - | - | - |

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Rosemont, Illinois, United States 60018
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Count Name: Knapp Drive with Willow Circle Drive TMC
Site Code:
Start Date: 09/05/2024


# Turning Movement Peak Hour Data (7:30 AM)

| Start Time | Access Drive Eastbound | | | | | | Willow Circle Drive Westbound | | | | | | Knapp Street Northbound | | | | | | Knapp Street Southbound | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | U-Turn | Left | Thru | Right | Peds | App. Total | U-Turn | Left | Thru | Right | Peds | App. Total | U-Turn | Left | Thru | Right | Peds | App. Total | U-Turn | Left | Thru | Right | Peds | App. Total | Int. Total |
| 7:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 2 | 0 | 0 | 37 | 1 | 0 | 38 | 0 | 0 | 24 | 0 | 0 | 24 | 64 |
| 7:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 38 | 1 | 0 | 39 | 0 | 1 | 28 | 0 | 0 | 29 | 69 |
| 8:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 42 | 7 | 0 | 49 | 0 | 0 | 26 | 0 | 0 | 26 | 75 |
| 8:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 56 | 5 | 0 | 62 | 0 | 0 | 22 | 0 | 0 | 22 | 84 |
| Total | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 1 | 0 | 3 | 1 | 0 | 173 | 14 | 0 | 188 | 0 | 1 | 100 | 0 | 0 | 101 | 292 |
| Approach % | 0.0 | 0.0 | 0.0 | 0.0 | - | - | 0.0 | 66.7 | 0.0 | 33.3 | - | - | 0.5 | 0.0 | 92.0 | 7.4 | - | - | 0.0 | 1.0 | 99.0 | 0.0 | - | - | - |
| Total % | 0.0 | 0.0 | 0.0 | 0.0 | - | 0.0 | 0.0 | 0.7 | 0.0 | 0.3 | - | 1.0 | 0.3 | 0.0 | 59.2 | 4.8 | - | 64.4 | 0.0 | 0.3 | 34.2 | 0.0 | - | 34.6 | - |
| PHF | 0.000 | 0.000 | 0.000 | 0.000 | - | 0.000 | 0.000 | 0.500 | 0.000 | 0.250 | - | 0.375 | 0.250 | 0.000 | 0.772 | 0.500 | - | 0.758 | 0.000 | 0.250 | 0.893 | 0.000 | - | 0.871 | 0.869 |
| Lights | 0 | 0 | 0 | 0 | - | 0 | 0 | 2 | 0 | 1 | - | 3 | 1 | 0 | 166 | 13 | - | 180 | 0 | 1 | 99 | 0 | - | 100 | 283 |
| % Lights | - | - | - | - | - | - | - | 100.0 | - | 100.0 | - | 100.0 | 100.0 | - | 96.0 | 92.9 | - | 95.7 | - | 100.0 | 99.0 | - | - | 99.0 | 96.9 |
| Buses | 0 | 0 | 0 | 0 | - | 0 | 0 | 0 | 0 | 0 | - | 0 | 0 | 0 | 3 | 0 | - | 3 | 0 | 0 | 1 | 0 | - | 1 | 4 |
| % Buses | - | - | - | - | - | - | - | 0.0 | - | 0.0 | - | 0.0 | 0.0 | - | 1.7 | 0.0 | - | 1.6 | - | 0.0 | 1.0 | - | - | 1.0 | 1.4 |
| Single-Unit Trucks | 0 | 0 | 0 | 0 | - | 0 | 0 | 0 | 0 | 0 | - | 0 | 0 | 0 | 3 | 1 | - | 4 | 0 | 0 | 0 | 0 | - | 0 | 4 |
| % Single-Unit Trucks | - | - | - | - | - | - | - | 0.0 | - | 0.0 | - | 0.0 | 0.0 | - | 1.7 | 7.1 | - | 2.1 | - | 0.0 | 0.0 | - | - | 0.0 | 1.4 |
| Articulated Trucks | 0 | 0 | 0 | 0 | - | 0 | 0 | 0 | 0 | 0 | - | 0 | 0 | 0 | 0 | 0 | - | 0 | 0 | 0 | 0 | 0 | - | 0 | 0 |
| % Articulated Trucks | - | - | - | - | - | - | - | 0.0 | - | 0.0 | - | 0.0 | 0.0 | - | 0.0 | 0.0 | - | 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 | 1 | 0 | - | 1 | 0 | 0 | 0 | 0 | - | 0 | 1 |
| % Bicycles on Road | - | - | - | - | - | - | - | 0.0 | - | 0.0 | - | 0.0 | 0.0 | - | 0.6 | 0.0 | - | 0.5 | - | 0.0 | 0.0 | - | - | 0.0 | 0.3 |
| Pedestrians | - | - | - | - | 0 | - | - | - | - | - | 0 | - | - | - | - | - | 0 | - | - | - | - | - | 0 | - | - |
| % Pedestrians | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |

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Rosemont, Illinois, United States 60018
(847)518-9990 abowen@kloainc.com

Count Name: Knapp Drive with Willow Circle Drive TMC
Site Code:
Start Date: 09/05/2024


# Turning Movement Peak Hour Data (4:00 PM)

| Start Time | Access Drive Eastbound | | | | | | Willow Circle Drive Westbound | | | | | | Knapp Street Northbound | | | | | | Knapp Street Southbound | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | U-Turn | Left | Thru | Right | Peds | App. Total | U-Turn | Left | Thru | Right | Peds | App. Total | U-Turn | Left | Thru | Right | Peds | App. Total | U-Turn | Left | Thru | Right | Peds | App. Total | Int. Total |
| 4:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 6 | 0 | 1 | 0 | 7 | 0 | 0 | 41 | 2 | 0 | 43 | 0 | 0 | 55 | 0 | 0 | 55 | 105 |
| 4:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 5 | 0 | 1 | 0 | 6 | 0 | 0 | 45 | 6 | 0 | 51 | 0 | 0 | 52 | 0 | 0 | 52 | 109 |
| 4:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 7 | 0 | 1 | 0 | 8 | 0 | 0 | 40 | 6 | 0 | 46 | 0 | 1 | 44 | 0 | 0 | 45 | 99 |
| 4:45 PM | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 7 | 0 | 4 | 0 | 11 | 0 | 0 | 44 | 4 | 0 | 48 | 0 | 1 | 31 | 0 | 0 | 32 | 91 |
| Total | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 25 | 0 | 7 | 0 | 32 | 0 | 0 | 170 | 18 | 0 | 188 | 0 | 2 | 182 | 0 | 0 | 184 | 404 |
| Approach % | 0.0 | 0.0 | 0.0 | 0.0 | - | - | 0.0 | 78.1 | 0.0 | 21.9 | - | - | 0.0 | 0.0 | 90.4 | 9.6 | - | - | 0.0 | 1.1 | 98.9 | 0.0 | - | - | - |
| Total % | 0.0 | 0.0 | 0.0 | 0.0 | - | 0.0 | 0.0 | 6.2 | 0.0 | 1.7 | - | 7.9 | 0.0 | 0.0 | 42.1 | 4.5 | - | 46.5 | 0.0 | 0.5 | 45.0 | 0.0 | - | 45.5 | - |
| PHF | 0.000 | 0.000 | 0.000 | 0.000 | - | 0.000 | 0.000 | 0.893 | 0.000 | 0.438 | - | 0.727 | 0.000 | 0.000 | 0.944 | 0.750 | - | 0.922 | 0.000 | 0.500 | 0.827 | 0.000 | - | 0.836 | 0.927 |
| Lights | 0 | 0 | 0 | 0 | - | 0 | 0 | 25 | 0 | 7 | - | 32 | 0 | 0 | 169 | 18 | - | 187 | 0 | 2 | 180 | 0 | - | 182 | 401 |
| % Lights | - | - | - | - | - | - | - | 100.0 | - | 100.0 | - | 100.0 | - | - | 99.4 | 100.0 | - | 99.5 | - | 100.0 | 98.9 | - | - | 98.9 | 99.3 |
| Buses | 0 | 0 | 0 | 0 | - | 0 | 0 | 0 | 0 | 0 | - | 0 | 0 | 0 | 1 | 0 | - | 1 | 0 | 0 | 0 | 0 | - | 0 | 1 |
| % Buses | - | - | - | - | - | - | - | 0.0 | - | 0.0 | - | 0.0 | - | - | 0.6 | 0.0 | - | 0.5 | - | 0.0 | 0.0 | - | - | 0.0 | 0.2 |
| Single-Unit Trucks | 0 | 0 | 0 | 0 | - | 0 | 0 | 0 | 0 | 0 | - | 0 | 0 | 0 | 0 | 0 | - | 0 | 0 | 0 | 2 | 0 | - | 2 | 2 |
| % Single-Unit Trucks | - | - | - | - | - | - | - | 0.0 | - | 0.0 | - | 0.0 | - | - | 0.0 | 0.0 | - | 0.0 | - | 0.0 | 1.1 | - | - | 1.1 | 0.5 |
| Articulated Trucks | 0 | 0 | 0 | 0 | - | 0 | 0 | 0 | 0 | 0 | - | 0 | 0 | 0 | 0 | 0 | - | 0 | 0 | 0 | 0 | 0 | - | 0 | 0 |
| % Articulated Trucks | - | - | - | - | - | - | - | 0.0 | - | 0.0 | - | 0.0 | - | - | 0.0 | 0.0 | - | 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 | 0 | 0 | 0 | - | 0 | 0 |
| % Bicycles on Road | - | - | - | - | - | - | - | 0.0 | - | 0.0 | - | 0.0 | - | - | 0.0 | 0.0 | - | 0.0 | - | 0.0 | 0.0 | - | - | 0.0 | 0.0 |
| Pedestrians | - | - | - | - | 1 | - | - | - | - | - | 0 | - | - | - | - | - | 0 | - | - | - | - | - | 0 | - | - |
| % Pedestrians | - | - | - | - | 100.0 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |

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Count Name: Knapp Drive with Willow Circle Drive TMC
Site Code:
Start Date: 09/05/2024


# Turning Movement Peak Hour Data (12:45 PM)

| Start Time | Access Drive Eastbound | | | | | | Willow Circle Drive Westbound | | | | | | Knapp Street Northbound | | | | | | Knapp Street Southbound | | | | | | Int. Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | U-Turn | Left | Thru | Right | Peds | App. Total | U-Turn | Left | Thru | Right | Peds | App. Total | U-Turn | Left | Thru | Right | Peds | App. Total | U-Turn | Left | Thru | Right | Peds | App. Total | |
| 12:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 42 | 3 | 0 | 45 | 0 | 0 | 45 | 0 | 0 | 45 | 91 |
| 1:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 6 | 0 | 0 | 0 | 6 | 0 | 0 | 36 | 3 | 0 | 39 | 0 | 1 | 70 | 0 | 0 | 71 | 116 |
| 1:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 1 | 0 | 3 | 0 | 0 | 49 | 6 | 0 | 55 | 0 | 0 | 48 | 0 | 0 | 48 | 106 |
| 1:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 31 | 4 | 0 | 35 | 0 | 0 | 59 | 0 | 0 | 59 | 95 |
| Total | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 9 | 0 | 2 | 0 | 11 | 0 | 0 | 158 | 16 | 0 | 174 | 0 | 1 | 222 | 0 | 0 | 223 | 408 |
| Approach % | 0.0 | 0.0 | 0.0 | 0.0 | - | - | 0.0 | 81.8 | 0.0 | 18.2 | - | - | 0.0 | 0.0 | 90.8 | 9.2 | - | - | 0.0 | 0.4 | 99.6 | 0.0 | - | - | - |
| Total % | 0.0 | 0.0 | 0.0 | 0.0 | - | 0.0 | 0.0 | 2.2 | 0.0 | 0.5 | - | 2.7 | 0.0 | 0.0 | 38.7 | 3.9 | - | 42.6 | 0.0 | 0.2 | 54.4 | 0.0 | - | 54.7 | - |
| PHF | 0.000 | 0.000 | 0.000 | 0.000 | - | 0.000 | 0.000 | 0.375 | 0.000 | 0.500 | - | 0.458 | 0.000 | 0.000 | 0.806 | 0.667 | - | 0.791 | 0.000 | 0.250 | 0.793 | 0.000 | - | 0.785 | 0.879 |
| Lights | 0 | 0 | 0 | 0 | - | 0 | 0 | 9 | 0 | 2 | - | 11 | 0 | 0 | 158 | 16 | - | 174 | 0 | 1 | 221 | 0 | - | 222 | 407 |
| % Lights | - | - | - | - | - | - | - | 100.0 | - | 100.0 | - | 100.0 | - | - | 100.0 | 100.0 | - | 100.0 | - | 100.0 | 99.5 | - | - | 99.6 | 99.8 |
| Buses | 0 | 0 | 0 | 0 | - | 0 | 0 | 0 | 0 | 0 | - | 0 | 0 | 0 | 0 | 0 | - | 0 | 0 | 0 | 0 | 0 | - | 0 | 0 |
| % Buses | - | - | - | - | - | - | - | 0.0 | - | 0.0 | - | 0.0 | - | - | 0.0 | 0.0 | - | 0.0 | - | 0.0 | 0.0 | - | - | 0.0 | 0.0 |
| Single-Unit Trucks | 0 | 0 | 0 | 0 | - | 0 | 0 | 0 | 0 | 0 | - | 0 | 0 | 0 | 0 | 0 | - | 0 | 0 | 0 | 1 | 0 | - | 1 | 1 |
| % Single-Unit Trucks | - | - | - | - | - | - | - | 0.0 | - | 0.0 | - | 0.0 | - | - | 0.0 | 0.0 | - | 0.0 | - | 0.0 | 0.5 | - | - | 0.4 | 0.2 |
| Articulated Trucks | 0 | 0 | 0 | 0 | - | 0 | 0 | 0 | 0 | 0 | - | 0 | 0 | 0 | 0 | 0 | - | 0 | 0 | 0 | 0 | 0 | - | 0 | 0 |
| % Articulated Trucks | - | - | - | - | - | - | - | 0.0 | - | 0.0 | - | 0.0 | - | - | 0.0 | 0.0 | - | 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 | 0 | 0 | 0 | - | 0 | 0 |
| % Bicycles on Road | - | - | - | - | - | - | - | 0.0 | - | 0.0 | - | 0.0 | - | - | 0.0 | 0.0 | - | 0.0 | - | 0.0 | 0.0 | - | - | 0.0 | 0.0 |
| Pedestrians | - | - | - | - | 0 | - | - | - | - | - | 0 | - | - | - | - | - | 0 | - | - | - | - | - | 0 | - | - |
| % Pedestrians | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |

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Count Name: Plainfield Road with Access Drive (south) TMC
Site Code:
Start Date: 09/05/2024


# Turning Movement Data

| Start Time | Access Drive Eastbound | | | | | | Police Department Access Drive Westbound | | | | | | Plainfield Road Northbound | | | | | | Plainfield Road Southbound | | | | | | Int. Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | U-Turn | Left | Thru | Right | Peds | App. Total | U-Turn | Left | Thru | Right | Peds | App. Total | U-Turn | Left | Thru | Right | Peds | App. Total | U-Turn | Left | Thru | Right | Peds | App. Total | |
| 7:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 109 | 0 | 0 | 109 | 0 | 0 | 118 | 1 | 0 | 119 | 228 |
| 7:15 AM | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 144 | 0 | 0 | 144 | 0 | 0 | 174 | 0 | 0 | 174 | 319 |
| 7:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 171 | 0 | 0 | 171 | 0 | 0 | 201 | 0 | 0 | 201 | 372 |
| 7:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 179 | 0 | 0 | 179 | 0 | 0 | 197 | 0 | 0 | 197 | 376 |
| Hourly Total | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 603 | 0 | 0 | 603 | 0 | 0 | 690 | 1 | 0 | 691 | 1295 |
| 8:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 134 | 0 | 0 | 134 | 0 | 0 | 169 | 1 | 0 | 170 | 304 |
| 8:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 149 | 0 | 0 | 149 | 0 | 0 | 165 | 0 | 0 | 165 | 314 |
| 8:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 147 | 0 | 0 | 147 | 0 | 0 | 161 | 0 | 0 | 161 | 308 |
| 8:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 147 | 0 | 0 | 147 | 0 | 0 | 163 | 0 | 0 | 163 | 310 |
| Hourly Total | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 577 | 0 | 0 | 577 | 0 | 0 | 658 | 1 | 0 | 659 | 1236 |
| *** BREAK *** | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 4:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 214 | 0 | 0 | 214 | 0 | 0 | 272 | 0 | 0 | 272 | 486 |
| 4:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 194 | 0 | 0 | 194 | 0 | 0 | 245 | 0 | 0 | 245 | 439 |
| 4:30 PM | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 216 | 0 | 0 | 216 | 0 | 0 | 226 | 0 | 0 | 226 | 442 |
| 4:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 214 | 0 | 0 | 214 | 0 | 0 | 224 | 0 | 0 | 224 | 438 |
| Hourly Total | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 838 | 0 | 0 | 838 | 0 | 0 | 967 | 0 | 0 | 967 | 1805 |
| 5:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 182 | 0 | 0 | 182 | 0 | 0 | 228 | 0 | 0 | 228 | 410 |
| 5:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 202 | 0 | 0 | 202 | 0 | 0 | 196 | 0 | 0 | 196 | 398 |
| 5:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 184 | 0 | 0 | 184 | 0 | 0 | 211 | 0 | 0 | 211 | 395 |
| 5:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 203 | 0 | 0 | 203 | 0 | 0 | 226 | 0 | 0 | 226 | 429 |
| Hourly Total | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 771 | 0 | 0 | 771 | 0 | 0 | 861 | 0 | 0 | 861 | 1632 |
| *** BREAK *** | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 12:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 204 | 0 | 0 | 204 | 0 | 0 | 171 | 0 | 0 | 171 | 375 |
| 12:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 216 | 0 | 0 | 216 | 0 | 0 | 220 | 0 | 0 | 220 | 436 |
| 12:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 205 | 0 | 0 | 205 | 0 | 0 | 174 | 0 | 0 | 174 | 379 |
| 12:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 200 | 0 | 0 | 200 | 0 | 0 | 232 | 0 | 0 | 232 | 432 |
| Hourly Total | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 825 | 0 | 0 | 825 | 0 | 0 | 797 | 0 | 0 | 797 | 1622 |
| 1:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 209 | 0 | 0 | 209 | 0 | 0 | 193 | 0 | 0 | 193 | 402 |
| 1:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 224 | 0 | 0 | 224 | 0 | 0 | 213 | 0 | 0 | 213 | 437 |
| 1:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 188 | 0 | 0 | 188 | 0 | 0 | 174 | 0 | 0 | 174 | 362 |
| 1:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 204 | 0 | 0 | 204 | 0 | 0 | 208 | 0 | 0 | 208 | 412 |
| Hourly Total | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 825 | 0 | 0 | 825 | 0 | 0 | 788 | 0 | 0 | 788 | 1613 |
| Grand Total | 0 | 0 | 0 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 8 | 0 | 0 | 0 | 4439 | 0 | 0 | 4439 | 0 | 0 | 4761 | 2 | 0 | 4763 | 9203 |
| Approach % | 0.0 | 0.0 | 0.0 | 100.0 | - | - | 0.0 | 0.0 | 0.0 | 0.0 | - | - | 0.0 | 0.0 | 100.0 | 0.0 | - | - | 0.0 | 0.0 | 100.0 | 0.0 | - | - | - |
| Total % | 0.0 | 0.0 | 0.0 | 0.0 | - | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | - | 0.0 | 0.0 | 0.0 | 48.2 | 0.0 | - | 48.2 | 0.0 | 0.0 | 51.7 | 0.0 | - | 51.8 | - |

| | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lights | 0 | 0 | 0 | 1 | - | 1 | 0 | 0 | 0 | 0 | - | 0 | 0 | 0 | 4341 | 0 | - | 4341 | 0 | 0 | 4652 | 2 | - | 4654 | 8996 |
| % Lights | - | - | - | 100.0 | - | 100.0 | - | - | - | - | - | - | - | - | 97.8 | - | - | 97.8 | - | - | 97.7 | 100.0 | - | 97.7 | 97.8 |
| Buses | 0 | 0 | 0 | 0 | - | 0 | 0 | 0 | 0 | 0 | - | 0 | 0 | 0 | 19 | 0 | - | 19 | 0 | 0 | 29 | 0 | - | 29 | 48 |
| % Buses | - | - | - | 0.0 | - | 0.0 | - | - | - | - | - | - | - | - | 0.4 | - | - | 0.4 | - | - | 0.6 | 0.0 | - | 0.6 | 0.5 |
| Single-Unit Trucks | 0 | 0 | 0 | 0 | - | 0 | 0 | 0 | 0 | 0 | - | 0 | 0 | 0 | 54 | 0 | - | 54 | 0 | 0 | 56 | 0 | - | 56 | 110 |
| % Single-Unit Trucks | - | - | - | 0.0 | - | 0.0 | - | - | - | - | - | - | - | - | 1.2 | - | - | 1.2 | - | - | 1.2 | 0.0 | - | 1.2 | 1.2 |
| Articulated Trucks | 0 | 0 | 0 | 0 | - | 0 | 0 | 0 | 0 | 0 | - | 0 | 0 | 0 | 25 | 0 | - | 25 | 0 | 0 | 22 | 0 | - | 22 | 47 |
| % Articulated Trucks | - | - | - | 0.0 | - | 0.0 | - | - | - | - | - | - | - | - | 0.6 | - | - | 0.6 | - | - | 0.5 | 0.0 | - | 0.5 | 0.5 |
| Bicycles on Road | 0 | 0 | 0 | 0 | - | 0 | 0 | 0 | 0 | 0 | - | 0 | 0 | 0 | 0 | 0 | - | 0 | 0 | 0 | 2 | 0 | - | 2 | 2 |
| % Bicycles on Road | - | - | - | 0.0 | - | 0.0 | - | - | - | - | - | - | - | - | 0.0 | - | - | 0.0 | - | - | 0.0 | 0.0 | - | 0.0 | 0.0 |
| Pedestrians | - | - | - | - | 1 | - | - | - | - | - | 8 | - | - | - | - | - | 0 | - | - | - | - | - | 0 | - | - |
| % Pedestrians | - | - | - | - | 100.0 | - | - | - | - | - | 100.0 | - | - | - | - | - | - | - | - | - | - | - | - | - | - |

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9575 W. Higgins Rd., Suite 400

Rosemont, Illinois, United States 60018
(847)518-9990 abowen@kloainc.com

Count Name: Plainfield Road with Access Drive (south) TMC
Site Code:
Start Date: 09/05/2024


# Turning Movement Peak Hour Data (7:30 AM)

| Start Time | Access Drive Eastbound | | | | | | Police Department Access Drive Westbound | | | | | | Plainfield Road Northbound | | | | | | Plainfield Road Southbound | | | | | | Int. Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | U-Turn | Left | Thru | Right | Peds | App. Total | U-Turn | Left | Thru | Right | Peds | App. Total | U-Turn | Left | Thru | Right | Peds | App. Total | U-Turn | Left | Thru | Right | Peds | App. Total | |
| 7:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 171 | 0 | 0 | 171 | 0 | 0 | 201 | 0 | 0 | 201 | 372 |
| 7:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 179 | 0 | 0 | 179 | 0 | 0 | 197 | 0 | 0 | 197 | 376 |
| 8:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 134 | 0 | 0 | 134 | 0 | 0 | 169 | 1 | 0 | 170 | 304 |
| 8:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 149 | 0 | 0 | 149 | 0 | 0 | 165 | 0 | 0 | 165 | 314 |
| Total | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 633 | 0 | 0 | 633 | 0 | 0 | 732 | 1 | 0 | 733 | 1366 |
| Approach % | 0.0 | 0.0 | 0.0 | 0.0 | - | - | 0.0 | 0.0 | 0.0 | 0.0 | - | - | 0.0 | 0.0 | 100.0 | 0.0 | - | - | 0.0 | 0.0 | 99.9 | 0.1 | - | - | - |
| Total % | 0.0 | 0.0 | 0.0 | 0.0 | - | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | - | 0.0 | 0.0 | 0.0 | 46.3 | 0.0 | - | 46.3 | 0.0 | 0.0 | 53.6 | 0.1 | - | 53.7 | - |
| PHF | 0.000 | 0.000 | 0.000 | 0.000 | - | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | - | 0.000 | 0.000 | 0.000 | 0.884 | 0.000 | - | 0.884 | 0.000 | 0.000 | 0.910 | 0.250 | - | 0.912 | 0.908 |
| Lights | 0 | 0 | 0 | 0 | - | 0 | 0 | 0 | 0 | 0 | - | 0 | 0 | 0 | 604 | 0 | - | 604 | 0 | 0 | 705 | 1 | - | 706 | 1310 |
| % Lights | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 95.4 | - | - | 95.4 | - | - | 96.3 | 100.0 | - | 96.3 | 95.9 |
| Buses | 0 | 0 | 0 | 0 | - | 0 | 0 | 0 | 0 | 0 | - | 0 | 0 | 0 | 3 | 0 | - | 3 | 0 | 0 | 4 | 0 | - | 4 | 7 |
| % Buses | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 0.5 | - | - | 0.5 | - | - | 0.5 | 0.0 | - | 0.5 | 0.5 |
| Single-Unit Trucks | 0 | 0 | 0 | 0 | - | 0 | 0 | 0 | 0 | 0 | - | 0 | 0 | 0 | 23 | 0 | - | 23 | 0 | 0 | 17 | 0 | - | 17 | 40 |
| % Single-Unit Trucks | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 3.6 | - | - | 3.6 | - | - | 2.3 | 0.0 | - | 2.3 | 2.9 |
| Articulated Trucks | 0 | 0 | 0 | 0 | - | 0 | 0 | 0 | 0 | 0 | - | 0 | 0 | 0 | 3 | 0 | - | 3 | 0 | 0 | 6 | 0 | - | 6 | 9 |
| % Articulated Trucks | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 0.5 | - | - | 0.5 | - | - | 0.8 | 0.0 | - | 0.8 | 0.7 |
| Bicycles on Road | 0 | 0 | 0 | 0 | - | 0 | 0 | 0 | 0 | 0 | - | 0 | 0 | 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 |
| Pedestrians | - | - | - | - | 0 | - | - | - | - | - | 3 | - | - | - | - | - | 0 | - | - | - | - | - | 0 | - | - |
| % Pedestrians | - | - | - | - | - | - | - | - | - | - | 100.0 | - | - | - | - | - | - | - | - | - | - | - | - | - | - |

Kenig Lindgren O'Hara Aboona, Inc.
9575 W. Higgins Rd., Suite 400

Rosemont, Illinois, United States 60018
(847)518-9990 abowen@kloainc.com

Count Name: Plainfield Road with Access Drive (south) TMC
Site Code:
Start Date: 09/05/2024


# Turning Movement Peak Hour Data (4:00 PM)

| Start Time | Access Drive Eastbound | | | | | | Police Department Access Drive Westbound | | | | | | Plainfield Road Northbound | | | | | | Plainfield Road Southbound | | | | | | Int. Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | U-Turn | Left | Thru | Right | Peds | App. Total | U-Turn | Left | Thru | Right | Peds | App. Total | U-Turn | Left | Thru | Right | Peds | App. Total | U-Turn | Left | Thru | Right | Peds | App. Total | |
| 4:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 214 | 0 | 0 | 214 | 0 | 0 | 272 | 0 | 0 | 272 | 486 |
| 4:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 194 | 0 | 0 | 194 | 0 | 0 | 245 | 0 | 0 | 245 | 439 |
| 4:30 PM | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 216 | 0 | 0 | 216 | 0 | 0 | 226 | 0 | 0 | 226 | 442 |
| 4:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 214 | 0 | 0 | 214 | 0 | 0 | 224 | 0 | 0 | 224 | 438 |
| Total | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 838 | 0 | 0 | 838 | 0 | 0 | 967 | 0 | 0 | 967 | 1805 |
| Approach % | 0.0 | 0.0 | 0.0 | 0.0 | - | - | 0.0 | 0.0 | 0.0 | 0.0 | - | - | 0.0 | 0.0 | 100.0 | 0.0 | - | - | 0.0 | 0.0 | 100.0 | 0.0 | - | - | - |
| Total % | 0.0 | 0.0 | 0.0 | 0.0 | - | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | - | 0.0 | 0.0 | 0.0 | 46.4 | 0.0 | - | 46.4 | 0.0 | 0.0 | 53.6 | 0.0 | - | 53.6 | - |
| PHF | 0.000 | 0.000 | 0.000 | 0.000 | - | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | - | 0.000 | 0.000 | 0.000 | 0.970 | 0.000 | - | 0.970 | 0.000 | 0.000 | 0.889 | 0.000 | - | 0.889 | 0.928 |
| Lights | 0 | 0 | 0 | 0 | - | 0 | 0 | 0 | 0 | 0 | - | 0 | 0 | 0 | 819 | 0 | - | 819 | 0 | 0 | 947 | 0 | - | 947 | 1766 |
| % Lights | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 97.7 | - | - | 97.7 | - | - | 97.9 | - | - | 97.9 | 97.8 |
| Buses | 0 | 0 | 0 | 0 | - | 0 | 0 | 0 | 0 | 0 | - | 0 | 0 | 0 | 6 | 0 | - | 6 | 0 | 0 | 5 | 0 | - | 5 | 11 |
| % Buses | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 0.7 | - | - | 0.7 | - | - | 0.5 | - | - | 0.5 | 0.6 |
| Single-Unit Trucks | 0 | 0 | 0 | 0 | - | 0 | 0 | 0 | 0 | 0 | - | 0 | 0 | 0 | 3 | 0 | - | 3 | 0 | 0 | 7 | 0 | - | 7 | 10 |
| % Single-Unit Trucks | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 0.4 | - | - | 0.4 | - | - | 0.7 | - | - | 0.7 | 0.6 |
| Articulated Trucks | 0 | 0 | 0 | 0 | - | 0 | 0 | 0 | 0 | 0 | - | 0 | 0 | 0 | 10 | 0 | - | 10 | 0 | 0 | 7 | 0 | - | 7 | 17 |
| % Articulated Trucks | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 1.2 | - | - | 1.2 | - | - | 0.7 | - | - | 0.7 | 0.9 |
| Bicycles on Road | 0 | 0 | 0 | 0 | - | 0 | 0 | 0 | 0 | 0 | - | 0 | 0 | 0 | 0 | 0 | - | 0 | 0 | 0 | 1 | 0 | - | 1 | 1 |
| % Bicycles on Road | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 0.0 | - | - | 0.0 | - | - | 0.1 | - | - | 0.1 | 0.1 |
| Pedestrians | - | - | - | - | 1 | - | - | - | - | - | 0 | - | - | - | - | - | 0 | - | - | - | - | - | 0 | - | - |
| % Pedestrians | - | - | - | - | 100.0 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |

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Rosemont, Illinois, United States 60018
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Count Name: Plainfield Road with Access Drive (south) TMC
Site Code:
Start Date: 09/05/2024


# Turning Movement Peak Hour Data (12:45 PM)

| Start Time | Access Drive Eastbound | | | | | | Police Department Access Drive Westbound | | | | | | Plainfield Road Northbound | | | | | | Plainfield Road Southbound | | | | | | Int. Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | U-Turn | Left | Thru | Right | Peds | App. Total | U-Turn | Left | Thru | Right | Peds | App. Total | U-Turn | Left | Thru | Right | Peds | App. Total | U-Turn | Left | Thru | Right | Peds | App. Total | |
| 12:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 200 | 0 | 0 | 200 | 0 | 0 | 232 | 0 | 0 | 232 | 432 |
| 1:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 209 | 0 | 0 | 209 | 0 | 0 | 193 | 0 | 0 | 193 | 402 |
| 1:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 224 | 0 | 0 | 224 | 0 | 0 | 213 | 0 | 0 | 213 | 437 |
| 1:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 188 | 0 | 0 | 188 | 0 | 0 | 174 | 0 | 0 | 174 | 362 |
| Total | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 821 | 0 | 0 | 821 | 0 | 0 | 812 | 0 | 0 | 812 | 1633 |
| Approach % | 0.0 | 0.0 | 0.0 | 0.0 | - | - | 0.0 | 0.0 | 0.0 | 0.0 | - | - | 0.0 | 0.0 | 100.0 | 0.0 | - | - | 0.0 | 0.0 | 100.0 | 0.0 | - | - | - |
| Total % | 0.0 | 0.0 | 0.0 | 0.0 | - | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | - | 0.0 | 0.0 | 0.0 | 50.3 | 0.0 | - | 50.3 | 0.0 | 0.0 | 49.7 | 0.0 | - | 49.7 | - |
| PHF | 0.000 | 0.000 | 0.000 | 0.000 | - | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | - | 0.000 | 0.000 | 0.000 | 0.916 | 0.000 | - | 0.916 | 0.000 | 0.000 | 0.875 | 0.000 | - | 0.875 | 0.934 |
| Lights | 0 | 0 | 0 | 0 | - | 0 | 0 | 0 | 0 | 0 | - | 0 | 0 | 0 | 812 | 0 | - | 812 | 0 | 0 | 793 | 0 | - | 793 | 1605 |
| % Lights | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 98.9 | - | - | 98.9 | - | - | 97.7 | - | - | 97.7 | 98.3 |
| Buses | 0 | 0 | 0 | 0 | - | 0 | 0 | 0 | 0 | 0 | - | 0 | 0 | 0 | 1 | 0 | - | 1 | 0 | 0 | 4 | 0 | - | 4 | 5 |
| % Buses | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 0.1 | - | - | 0.1 | - | - | 0.5 | - | - | 0.5 | 0.3 |
| Single-Unit Trucks | 0 | 0 | 0 | 0 | - | 0 | 0 | 0 | 0 | 0 | - | 0 | 0 | 0 | 3 | 0 | - | 3 | 0 | 0 | 10 | 0 | - | 10 | 13 |
| % Single-Unit Trucks | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 0.4 | - | - | 0.4 | - | - | 1.2 | - | - | 1.2 | 0.8 |
| Articulated Trucks | 0 | 0 | 0 | 0 | - | 0 | 0 | 0 | 0 | 0 | - | 0 | 0 | 0 | 5 | 0 | - | 5 | 0 | 0 | 5 | 0 | - | 5 | 10 |
| % Articulated Trucks | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 0.6 | - | - | 0.6 | - | - | 0.6 | - | - | 0.6 | 0.6 |
| Bicycles on Road | 0 | 0 | 0 | 0 | - | 0 | 0 | 0 | 0 | 0 | - | 0 | 0 | 0 | 0 | 0 | - | 0 | 0 | 0 | 0 | 0 | - | 0 | 0 |
| % Bicycles on Road | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 0.0 | - | - | 0.0 | - | - | 0.0 | - | - | 0.0 | 0.0 |
| Pedestrians | - | - | - | - | 0 | - | - | - | - | - | 1 | - | - | - | - | - | 0 | - | - | - | - | - | 0 | - | - |
| % Pedestrians | - | - | - | - | - | - | - | - | - | - | 100.0 | - | - | - | - | - | - | - | - | - | - | - | - | - | - |

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Rosemont, Illinois, United States 60018
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Count Name: Plainfield Road with Larkin Avenue
TMC
Site Code:
Start Date: 09/05/2024


# Turning Movement Data

| Start Time | Larkin Avenue Eastbound | | | | | | Larkin Avenue Westbound | | | | | | Plainfield Road Northbound | | | | | | Plainfield Road Southbound | | | | | | Int. Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | U-Turn | Left | Thru | Right | Peds | App. Total | U-Turn | Left | Thru | Right | Peds | App. Total | U-Turn | Left | Thru | Right | Peds | App. Total | U-Turn | Left | Thru | Right | Peds | App. Total | |
| 7:00 AM | 0 | 12 | 83 | 34 | 0 | 129 | 0 | 11 | 102 | 52 | 0 | 165 | 0 | 25 | 92 | 5 | 0 | 122 | 0 | 26 | 111 | 8 | 0 | 145 | 561 |
| 7:15 AM | 0 | 16 | 97 | 32 | 0 | 145 | 0 | 11 | 141 | 51 | 0 | 203 | 0 | 30 | 134 | 1 | 0 | 165 | 0 | 39 | 116 | 14 | 0 | 169 | 682 |
| 7:30 AM | 0 | 16 | 82 | 53 | 0 | 151 | 0 | 11 | 166 | 57 | 0 | 234 | 0 | 24 | 148 | 5 | 0 | 177 | 1 | 37 | 160 | 23 | 0 | 221 | 783 |
| 7:45 AM | 0 | 22 | 123 | 52 | 0 | 197 | 0 | 18 | 149 | 61 | 0 | 228 | 0 | 29 | 144 | 11 | 0 | 184 | 0 | 59 | 143 | 22 | 0 | 224 | 833 |
| Hourly Total | 0 | 66 | 385 | 171 | 0 | 622 | 0 | 51 | 558 | 221 | 0 | 830 | 0 | 108 | 518 | 22 | 0 | 648 | 1 | 161 | 530 | 67 | 0 | 759 | 2859 |
| 8:00 AM | 0 | 14 | 103 | 29 | 0 | 146 | 0 | 13 | 149 | 53 | 0 | 215 | 0 | 31 | 117 | 7 | 0 | 155 | 0 | 43 | 116 | 18 | 0 | 177 | 693 |
| 8:15 AM | 0 | 18 | 119 | 33 | 0 | 170 | 0 | 14 | 124 | 34 | 0 | 172 | 0 | 30 | 108 | 4 | 0 | 142 | 0 | 54 | 122 | 18 | 0 | 194 | 678 |
| 8:30 AM | 0 | 19 | 89 | 26 | 0 | 134 | 0 | 15 | 134 | 44 | 0 | 193 | 0 | 30 | 118 | 15 | 0 | 163 | 0 | 38 | 128 | 20 | 0 | 186 | 676 |
| 8:45 AM | 0 | 20 | 103 | 27 | 0 | 150 | 0 | 19 | 131 | 73 | 0 | 223 | 0 | 22 | 154 | 5 | 1 | 181 | 0 | 51 | 131 | 20 | 0 | 202 | 756 |
| Hourly Total | 0 | 71 | 414 | 115 | 0 | 600 | 0 | 61 | 538 | 204 | 0 | 803 | 0 | 113 | 497 | 31 | 1 | 641 | 0 | 186 | 497 | 76 | 0 | 759 | 2803 |
| *** BREAK *** | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 4:00 PM | 0 | 18 | 168 | 40 | 0 | 226 | 0 | 19 | 202 | 101 | 0 | 322 | 0 | 50 | 195 | 16 | 0 | 261 | 0 | 69 | 133 | 14 | 0 | 216 | 1025 |
| 4:15 PM | 0 | 27 | 148 | 34 | 0 | 209 | 0 | 18 | 190 | 83 | 0 | 291 | 0 | 42 | 190 | 20 | 0 | 252 | 0 | 90 | 169 | 18 | 0 | 277 | 1029 |
| 4:30 PM | 0 | 18 | 165 | 34 | 0 | 217 | 0 | 24 | 164 | 74 | 0 | 262 | 0 | 46 | 197 | 19 | 0 | 262 | 0 | 69 | 159 | 16 | 0 | 244 | 985 |
| 4:45 PM | 0 | 22 | 192 | 32 | 0 | 246 | 0 | 21 | 181 | 68 | 0 | 270 | 0 | 44 | 202 | 20 | 0 | 266 | 0 | 55 | 135 | 16 | 0 | 206 | 988 |
| Hourly Total | 0 | 85 | 673 | 140 | 0 | 898 | 0 | 82 | 737 | 326 | 0 | 1145 | 0 | 182 | 784 | 75 | 0 | 1041 | 0 | 283 | 596 | 64 | 0 | 943 | 4027 |
| 5:00 PM | 0 | 17 | 143 | 44 | 0 | 204 | 0 | 19 | 160 | 72 | 0 | 251 | 0 | 50 | 190 | 18 | 0 | 258 | 2 | 89 | 168 | 10 | 1 | 269 | 982 |
| 5:15 PM | 0 | 16 | 165 | 42 | 0 | 223 | 0 | 21 | 148 | 74 | 0 | 243 | 0 | 45 | 168 | 13 | 0 | 226 | 0 | 69 | 163 | 16 | 0 | 248 | 940 |
| 5:30 PM | 0 | 23 | 133 | 26 | 0 | 182 | 0 | 16 | 158 | 65 | 0 | 239 | 0 | 38 | 188 | 26 | 0 | 252 | 1 | 93 | 159 | 19 | 0 | 272 | 945 |
| 5:45 PM | 1 | 28 | 137 | 28 | 0 | 194 | 0 | 18 | 171 | 85 | 0 | 274 | 0 | 34 | 153 | 16 | 0 | 203 | 1 | 71 | 144 | 21 | 0 | 237 | 908 |
| Hourly Total | 1 | 84 | 578 | 140 | 0 | 803 | 0 | 74 | 637 | 296 | 0 | 1007 | 0 | 167 | 699 | 73 | 0 | 939 | 4 | 322 | 634 | 66 | 1 | 1026 | 3775 |
| *** BREAK *** | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 12:00 PM | 0 | 22 | 113 | 41 | 0 | 176 | 0 | 24 | 119 | 79 | 0 | 222 | 0 | 31 | 132 | 23 | 0 | 186 | 0 | 105 | 144 | 23 | 0 | 272 | 856 |
| 12:15 PM | 0 | 22 | 136 | 40 | 0 | 198 | 0 | 19 | 167 | 101 | 0 | 287 | 0 | 19 | 144 | 11 | 0 | 174 | 0 | 108 | 145 | 27 | 0 | 280 | 939 |
| 12:30 PM | 0 | 21 | 181 | 26 | 0 | 228 | 0 | 23 | 139 | 90 | 0 | 252 | 0 | 40 | 136 | 18 | 0 | 194 | 0 | 100 | 135 | 21 | 0 | 256 | 930 |
| 12:45 PM | 0 | 17 | 134 | 47 | 0 | 198 | 0 | 24 | 158 | 90 | 0 | 272 | 0 | 37 | 141 | 19 | 0 | 197 | 0 | 92 | 148 | 20 | 0 | 260 | 927 |
| Hourly Total | 0 | 82 | 564 | 154 | 0 | 800 | 0 | 90 | 583 | 360 | 0 | 1033 | 0 | 127 | 553 | 71 | 0 | 751 | 0 | 405 | 572 | 91 | 0 | 1068 | 3652 |
| 1:00 PM | 0 | 26 | 164 | 36 | 0 | 226 | 0 | 14 | 154 | 78 | 0 | 246 | 0 | 33 | 146 | 18 | 0 | 197 | 0 | 97 | 121 | 17 | 0 | 235 | 904 |
| 1:15 PM | 0 | 29 | 135 | 29 | 1 | 193 | 0 | 23 | 151 | 99 | 0 | 273 | 0 | 33 | 160 | 22 | 0 | 215 | 0 | 89 | 130 | 31 | 0 | 250 | 931 |
| 1:30 PM | 0 | 23 | 159 | 34 | 0 | 216 | 0 | 27 | 145 | 57 | 0 | 229 | 0 | 36 | 168 | 22 | 0 | 226 | 0 | 103 | 162 | 24 | 0 | 289 | 960 |
| 1:45 PM | 0 | 23 | 148 | 36 | 0 | 207 | 0 | 18 | 147 | 83 | 0 | 248 | 0 | 26 | 141 | 22 | 0 | 189 | 0 | 91 | 143 | 22 | 0 | 256 | 900 |
| Hourly Total | 0 | 101 | 606 | 135 | 1 | 842 | 0 | 82 | 597 | 317 | 0 | 996 | 0 | 128 | 615 | 84 | 0 | 827 | 0 | 380 | 556 | 94 | 0 | 1030 | 3695 |
| Grand Total | 1 | 489 | 3220 | 855 | 1 | 4565 | 0 | 440 | 3650 | 1724 | 0 | 5814 | 0 | 825 | 3666 | 356 | 1 | 4847 | 5 | 1737 | 3385 | 458 | 1 | 5585 | 20811 |
| Approach % | 0.0 | 10.7 | 70.5 | 18.7 | - | - | 0.0 | 7.6 | 62.8 | 29.7 | - | - | 0.0 | 17.0 | 75.6 | 7.3 | - | - | 0.1 | 31.1 | 60.6 | 8.2 | - | - | - |
| Total % | 0.0 | 2.3 | 15.5 | 4.1 | - | 21.9 | 0.0 | 2.1 | 17.5 | 8.3 | - | 27.9 | 0.0 | 4.0 | 17.6 | 1.7 | - | 23.3 | 0.0 | 8.3 | 16.3 | 2.2 | - | 26.8 | - |

| | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lights | 1 | 488 | 3155 | 842 | - | 4486 | 0 | 426 | 3567 | 1689 | - | 5682 | 0 | 798 | 3497 | 344 | - | 4639 | 5 | 1711 | 3217 | 456 | - | 5389 | 20196 |
| % Lights | 100.0 | 99.8 | 98.0 | 98.5 | - | 98.3 | - | 96.8 | 97.7 | 98.0 | - | 97.7 | - | 96.7 | 95.4 | 96.6 | - | 95.7 | 100.0 | 98.5 | 95.0 | 99.6 | - | 96.5 | 97.0 |
| Buses | 0 | 0 | 13 | 4 | - | 17 | 0 | 3 | 24 | 2 | - | 29 | 0 | 3 | 15 | 2 | - | 20 | 0 | 4 | 28 | 0 | - | 32 | 98 |
| % Buses | 0.0 | 0.0 | 0.4 | 0.5 | - | 0.4 | - | 0.7 | 0.7 | 0.1 | - | 0.5 | - | 0.4 | 0.4 | 0.6 | - | 0.4 | 0.0 | 0.2 | 0.8 | 0.0 | - | 0.6 | 0.5 |
| Single-Unit Trucks | 0 | 1 | 30 | 7 | - | 38 | 0 | 7 | 44 | 29 | - | 80 | 0 | 16 | 77 | 7 | - | 100 | 0 | 16 | 71 | 1 | - | 88 | 306 |
| % Single-Unit Trucks | 0.0 | 0.2 | 0.9 | 0.8 | - | 0.8 | - | 1.6 | 1.2 | 1.7 | - | 1.4 | - | 1.9 | 2.1 | 2.0 | - | 2.1 | 0.0 | 0.9 | 2.1 | 0.2 | - | 1.6 | 1.5 |
| Articulated Trucks | 0 | 0 | 21 | 2 | - | 23 | 0 | 4 | 15 | 4 | - | 23 | 0 | 8 | 76 | 2 | - | 86 | 0 | 6 | 69 | 1 | - | 76 | 208 |
| % Articulated Trucks | 0.0 | 0.0 | 0.7 | 0.2 | - | 0.5 | - | 0.9 | 0.4 | 0.2 | - | 0.4 | - | 1.0 | 2.1 | 0.6 | - | 1.8 | 0.0 | 0.3 | 2.0 | 0.2 | - | 1.4 | 1.0 |
| Bicycles on Road | 0 | 0 | 1 | 0 | - | 1 | 0 | 0 | 0 | 0 | - | 0 | 0 | 0 | 1 | 1 | - | 2 | 0 | 0 | 0 | 0 | - | 0 | 3 |
| % Bicycles on Road | 0.0 | 0.0 | 0.0 | 0.0 | - | 0.0 | - | 0.0 | 0.0 | 0.0 | - | 0.0 | - | 0.0 | 0.0 | 0.3 | - | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | - | 0.0 | 0.0 |
| Pedestrians | - | - | - | - | 1 | - | - | - | - | - | 0 | - | - | - | - | - | 1 | - | - | - | - | - | 1 | - | - |
| % Pedestrians | - | - | - | - | 100.0 | - | - | - | - | - | - | - | - | - | - | - | 100.0 | - | - | - | - | - | 100.0 | - | - |

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Count Name: Plainfield Road with Larkin Avenue
TMC
Site Code:
Start Date: 09/05/2024


# Turning Movement Peak Hour Data (7:30 AM)

| Start Time | Larkin Avenue Eastbound | | | | | | Larkin Avenue Westbound | | | | | | Plainfield Road Northbound | | | | | | Plainfield Road Southbound | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | U-Turn | Left | Thru | Right | Peds | App. Total | U-Turn | Left | Thru | Right | Peds | App. Total | U-Turn | Left | Thru | Right | Peds | App. Total | U-Turn | Left | Thru | Right | Peds | App. Total | Int. Total |
| 7:30 AM | 0 | 16 | 82 | 53 | 0 | 151 | 0 | 11 | 166 | 57 | 0 | 234 | 0 | 24 | 148 | 5 | 0 | 177 | 1 | 37 | 160 | 23 | 0 | 221 | 783 |
| 7:45 AM | 0 | 22 | 123 | 52 | 0 | 197 | 0 | 18 | 149 | 61 | 0 | 228 | 0 | 29 | 144 | 11 | 0 | 184 | 0 | 59 | 143 | 22 | 0 | 224 | 833 |
| 8:00 AM | 0 | 14 | 103 | 29 | 0 | 146 | 0 | 13 | 149 | 53 | 0 | 215 | 0 | 31 | 117 | 7 | 0 | 155 | 0 | 43 | 116 | 18 | 0 | 177 | 693 |
| 8:15 AM | 0 | 18 | 119 | 33 | 0 | 170 | 0 | 14 | 124 | 34 | 0 | 172 | 0 | 30 | 108 | 4 | 0 | 142 | 0 | 54 | 122 | 18 | 0 | 194 | 678 |
| Total | 0 | 70 | 427 | 167 | 0 | 664 | 0 | 56 | 588 | 205 | 0 | 849 | 0 | 114 | 517 | 27 | 0 | 658 | 1 | 193 | 541 | 81 | 0 | 816 | 2987 |
| Approach % | 0.0 | 10.5 | 64.3 | 25.2 | - | - | 0.0 | 6.6 | 69.3 | 24.1 | - | - | 0.0 | 17.3 | 78.6 | 4.1 | - | - | 0.1 | 23.7 | 66.3 | 9.9 | - | - | - |
| Total % | 0.0 | 2.3 | 14.3 | 5.6 | - | 22.2 | 0.0 | 1.9 | 19.7 | 6.9 | - | 28.4 | 0.0 | 3.8 | 17.3 | 0.9 | - | 22.0 | 0.0 | 6.5 | 18.1 | 2.7 | - | 27.3 | - |
| PHF | 0.000 | 0.795 | 0.868 | 0.788 | - | 0.843 | 0.000 | 0.778 | 0.886 | 0.840 | - | 0.907 | 0.000 | 0.919 | 0.873 | 0.614 | - | 0.894 | 0.250 | 0.818 | 0.845 | 0.880 | - | 0.911 | 0.896 |
| Lights | 0 | 70 | 413 | 165 | - | 648 | 0 | 51 | 568 | 199 | - | 818 | 0 | 109 | 485 | 24 | - | 618 | 1 | 188 | 496 | 80 | - | 765 | 2849 |
| % Lights | - | 100.0 | 96.7 | 98.8 | - | 97.6 | - | 91.1 | 96.6 | 97.1 | - | 96.3 | - | 95.6 | 93.8 | 88.9 | - | 93.9 | 100.0 | 97.4 | 91.7 | 98.8 | - | 93.8 | 95.4 |
| Buses | 0 | 0 | 3 | 1 | - | 4 | 0 | 2 | 4 | 1 | - | 7 | 0 | 0 | 4 | 1 | - | 5 | 0 | 1 | 5 | 0 | - | 6 | 22 |
| % Buses | - | 0.0 | 0.7 | 0.6 | - | 0.6 | - | 3.6 | 0.7 | 0.5 | - | 0.8 | - | 0.0 | 0.8 | 3.7 | - | 0.8 | 0.0 | 0.5 | 0.9 | 0.0 | - | 0.7 | 0.7 |
| Single-Unit Trucks | 0 | 0 | 7 | 1 | - | 8 | 0 | 2 | 14 | 5 | - | 21 | 0 | 3 | 16 | 2 | - | 21 | 0 | 3 | 24 | 1 | - | 28 | 78 |
| % Single-Unit Trucks | - | 0.0 | 1.6 | 0.6 | - | 1.2 | - | 3.6 | 2.4 | 2.4 | - | 2.5 | - | 2.6 | 3.1 | 7.4 | - | 3.2 | 0.0 | 1.6 | 4.4 | 1.2 | - | 3.4 | 2.6 |
| Articulated Trucks | 0 | 0 | 4 | 0 | - | 4 | 0 | 1 | 2 | 0 | - | 3 | 0 | 2 | 12 | 0 | - | 14 | 0 | 1 | 16 | 0 | - | 17 | 38 |
| % Articulated Trucks | - | 0.0 | 0.9 | 0.0 | - | 0.6 | - | 1.8 | 0.3 | 0.0 | - | 0.4 | - | 1.8 | 2.3 | 0.0 | - | 2.1 | 0.0 | 0.5 | 3.0 | 0.0 | - | 2.1 | 1.3 |
| Bicycles on Road | 0 | 0 | 0 | 0 | - | 0 | 0 | 0 | 0 | 0 | - | 0 | 0 | 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 | - | 0.0 | 0.0 | 0.0 | - | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | - | 0.0 | 0.0 |
| Pedestrians | - | - | - | - | 0 | - | - | - | - | - | 0 | - | - | - | - | - | 0 | - | - | - | - | - | 0 | - | - |
| % Pedestrians | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |

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Count Name: Plainfield Road with Larkin Avenue
TMC
Site Code:
Start Date: 09/05/2024


# Turning Movement Peak Hour Data (4:00 PM)

| Start Time | Larkin Avenue Eastbound | | | | | | Larkin Avenue Westbound | | | | | | Plainfield Road Northbound | | | | | | Plainfield Road Southbound | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | U-Turn | Left | Thru | Right | Peds | App. Total | U-Turn | Left | Thru | Right | Peds | App. Total | U-Turn | Left | Thru | Right | Peds | App. Total | U-Turn | Left | Thru | Right | Peds | App. Total | Int. Total |
| 4:00 PM | 0 | 18 | 168 | 40 | 0 | 226 | 0 | 19 | 202 | 101 | 0 | 322 | 0 | 50 | 195 | 16 | 0 | 261 | 0 | 69 | 133 | 14 | 0 | 216 | 1025 |
| 4:15 PM | 0 | 27 | 148 | 34 | 0 | 209 | 0 | 18 | 190 | 83 | 0 | 291 | 0 | 42 | 190 | 20 | 0 | 252 | 0 | 90 | 169 | 18 | 0 | 277 | 1029 |
| 4:30 PM | 0 | 18 | 165 | 34 | 0 | 217 | 0 | 24 | 164 | 74 | 0 | 262 | 0 | 46 | 197 | 19 | 0 | 262 | 0 | 69 | 159 | 16 | 0 | 244 | 985 |
| 4:45 PM | 0 | 22 | 192 | 32 | 0 | 246 | 0 | 21 | 181 | 68 | 0 | 270 | 0 | 44 | 202 | 20 | 0 | 266 | 0 | 55 | 135 | 16 | 0 | 206 | 988 |
| Total | 0 | 85 | 673 | 140 | 0 | 898 | 0 | 82 | 737 | 326 | 0 | 1145 | 0 | 182 | 784 | 75 | 0 | 1041 | 0 | 283 | 596 | 64 | 0 | 943 | 4027 |
| Approach % | 0.0 | 9.5 | 74.9 | 15.6 | - | - | 0.0 | 7.2 | 64.4 | 28.5 | - | - | 0.0 | 17.5 | 75.3 | 7.2 | - | - | 0.0 | 30.0 | 63.2 | 6.8 | - | - | - |
| Total % | 0.0 | 2.1 | 16.7 | 3.5 | - | 22.3 | 0.0 | 2.0 | 18.3 | 8.1 | - | 28.4 | 0.0 | 4.5 | 19.5 | 1.9 | - | 25.9 | 0.0 | 7.0 | 14.8 | 1.6 | - | 23.4 | - |
| PHF | 0.000 | 0.787 | 0.876 | 0.875 | - | 0.913 | 0.000 | 0.854 | 0.912 | 0.807 | - | 0.889 | 0.000 | 0.910 | 0.970 | 0.938 | - | 0.978 | 0.000 | 0.786 | 0.882 | 0.889 | - | 0.851 | 0.978 |
| Lights | 0 | 85 | 659 | 137 | - | 881 | 0 | 80 | 721 | 322 | - | 1123 | 0 | 175 | 747 | 74 | - | 996 | 0 | 281 | 565 | 64 | - | 910 | 3910 |
| % Lights | - | 100.0 | 97.9 | 97.9 | - | 98.1 | - | 97.6 | 97.8 | 98.8 | - | 98.1 | - | 96.2 | 95.3 | 98.7 | - | 95.7 | - | 99.3 | 94.8 | 100.0 | - | 96.5 | 97.1 |
| Buses | 0 | 0 | 5 | 2 | - | 7 | 0 | 0 | 4 | 0 | - | 4 | 0 | 1 | 4 | 1 | - | 6 | 0 | 0 | 15 | 0 | - | 15 | 32 |
| % Buses | - | 0.0 | 0.7 | 1.4 | - | 0.8 | - | 0.0 | 0.5 | 0.0 | - | 0.3 | - | 0.5 | 0.5 | 1.3 | - | 0.6 | - | 0.0 | 2.5 | 0.0 | - | 1.6 | 0.8 |
| Single-Unit Trucks | 0 | 0 | 4 | 0 | - | 4 | 0 | 1 | 7 | 4 | - | 12 | 0 | 4 | 13 | 0 | - | 17 | 0 | 2 | 6 | 0 | - | 8 | 41 |
| % Single-Unit Trucks | - | 0.0 | 0.6 | 0.0 | - | 0.4 | - | 1.2 | 0.9 | 1.2 | - | 1.0 | - | 2.2 | 1.7 | 0.0 | - | 1.6 | - | 0.7 | 1.0 | 0.0 | - | 0.8 | 1.0 |
| Articulated Trucks | 0 | 0 | 5 | 1 | - | 6 | 0 | 1 | 5 | 0 | - | 6 | 0 | 2 | 20 | 0 | - | 22 | 0 | 0 | 10 | 0 | - | 10 | 44 |
| % Articulated Trucks | - | 0.0 | 0.7 | 0.7 | - | 0.7 | - | 1.2 | 0.7 | 0.0 | - | 0.5 | - | 1.1 | 2.6 | 0.0 | - | 2.1 | - | 0.0 | 1.7 | 0.0 | - | 1.1 | 1.1 |
| Bicycles on Road | 0 | 0 | 0 | 0 | - | 0 | 0 | 0 | 0 | 0 | - | 0 | 0 | 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 | - | 0.0 | 0.0 | 0.0 | - | 0.0 | - | 0.0 | 0.0 | 0.0 | - | 0.0 | 0.0 |
| Pedestrians | - | - | - | - | 0 | - | - | - | - | - | 0 | - | - | - | - | - | 0 | - | - | - | - | - | 0 | - | - |
| % Pedestrians | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |

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Count Name: Plainfield Road with Larkin Avenue
TMC
Site Code:
Start Date: 09/05/2024


# Turning Movement Peak Hour Data (12:45 PM)

| Start Time | Larkin Avenue Eastbound | | | | | | Larkin Avenue Westbound | | | | | | Plainfield Road Northbound | | | | | | Plainfield Road Southbound | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | U-Turn | Left | Thru | Right | Peds | App. Total | U-Turn | Left | Thru | Right | Peds | App. Total | U-Turn | Left | Thru | Right | Peds | App. Total | U-Turn | Left | Thru | Right | Peds | App. Total | Int. Total |
| 12:45 PM | 0 | 17 | 134 | 47 | 0 | 198 | 0 | 24 | 158 | 90 | 0 | 272 | 0 | 37 | 141 | 19 | 0 | 197 | 0 | 92 | 148 | 20 | 0 | 260 | 927 |
| 1:00 PM | 0 | 26 | 164 | 36 | 0 | 226 | 0 | 14 | 154 | 78 | 0 | 246 | 0 | 33 | 146 | 18 | 0 | 197 | 0 | 97 | 121 | 17 | 0 | 235 | 904 |
| 1:15 PM | 0 | 29 | 135 | 29 | 1 | 193 | 0 | 23 | 151 | 99 | 0 | 273 | 0 | 33 | 160 | 22 | 0 | 215 | 0 | 89 | 130 | 31 | 0 | 250 | 931 |
| 1:30 PM | 0 | 23 | 159 | 34 | 0 | 216 | 0 | 27 | 145 | 57 | 0 | 229 | 0 | 36 | 168 | 22 | 0 | 226 | 0 | 103 | 162 | 24 | 0 | 289 | 960 |
| Total | 0 | 95 | 592 | 146 | 1 | 833 | 0 | 88 | 608 | 324 | 0 | 1020 | 0 | 139 | 615 | 81 | 0 | 835 | 0 | 381 | 561 | 92 | 0 | 1034 | 3722 |
| Approach % | 0.0 | 11.4 | 71.1 | 17.5 | - | - | 0.0 | 8.6 | 59.6 | 31.8 | - | - | 0.0 | 16.6 | 73.7 | 9.7 | - | - | 0.0 | 36.8 | 54.3 | 8.9 | - | - | - |
| Total % | 0.0 | 2.6 | 15.9 | 3.9 | - | 22.4 | 0.0 | 2.4 | 16.3 | 8.7 | - | 27.4 | 0.0 | 3.7 | 16.5 | 2.2 | - | 22.4 | 0.0 | 10.2 | 15.1 | 2.5 | - | 27.8 | - |
| PHF | 0.000 | 0.819 | 0.902 | 0.777 | - | 0.921 | 0.000 | 0.815 | 0.962 | 0.818 | - | 0.934 | 0.000 | 0.939 | 0.915 | 0.920 | - | 0.924 | 0.000 | 0.925 | 0.866 | 0.742 | - | 0.894 | 0.969 |
| Lights | 0 | 95 | 585 | 143 | - | 823 | 0 | 87 | 594 | 323 | - | 1004 | 0 | 137 | 591 | 80 | - | 808 | 0 | 376 | 553 | 91 | - | 1020 | 3655 |
| % Lights | - | 100.0 | 98.8 | 97.9 | - | 98.8 | - | 98.9 | 97.7 | 99.7 | - | 98.4 | - | 98.6 | 96.1 | 98.8 | - | 96.8 | - | 98.7 | 98.6 | 98.9 | - | 98.6 | 98.2 |
| Buses | 0 | 0 | 0 | 0 | - | 0 | 0 | 0 | 4 | 0 | - | 4 | 0 | 0 | 0 | 0 | - | 0 | 0 | 0 | 1 | 0 | - | 1 | 5 |
| % Buses | - | 0.0 | 0.0 | 0.0 | - | 0.0 | - | 0.0 | 0.7 | 0.0 | - | 0.4 | - | 0.0 | 0.0 | 0.0 | - | 0.0 | - | 0.0 | 0.2 | 0.0 | - | 0.1 | 0.1 |
| Single-Unit Trucks | 0 | 0 | 2 | 2 | - | 4 | 0 | 1 | 9 | 1 | - | 11 | 0 | 0 | 19 | 1 | - | 20 | 0 | 4 | 4 | 0 | - | 8 | 43 |
| % Single-Unit Trucks | - | 0.0 | 0.3 | 1.4 | - | 0.5 | - | 1.1 | 1.5 | 0.3 | - | 1.1 | - | 0.0 | 3.1 | 1.2 | - | 2.4 | - | 1.0 | 0.7 | 0.0 | - | 0.8 | 1.2 |
| Articulated Trucks | 0 | 0 | 4 | 1 | - | 5 | 0 | 0 | 1 | 0 | - | 1 | 0 | 2 | 5 | 0 | - | 7 | 0 | 1 | 3 | 1 | - | 5 | 18 |
| % Articulated Trucks | - | 0.0 | 0.7 | 0.7 | - | 0.6 | - | 0.0 | 0.2 | 0.0 | - | 0.1 | - | 1.4 | 0.8 | 0.0 | - | 0.8 | - | 0.3 | 0.5 | 1.1 | - | 0.5 | 0.5 |
| Bicycles on Road | 0 | 0 | 1 | 0 | - | 1 | 0 | 0 | 0 | 0 | - | 0 | 0 | 0 | 0 | 0 | - | 0 | 0 | 0 | 0 | 0 | - | 0 | 1 |
| % Bicycles on Road | - | 0.0 | 0.2 | 0.0 | - | 0.1 | - | 0.0 | 0.0 | 0.0 | - | 0.0 | - | 0.0 | 0.0 | 0.0 | - | 0.0 | - | 0.0 | 0.0 | 0.0 | - | 0.0 | 0.0 |
| Pedestrians | - | - | - | - | 1 | - | - | - | - | - | 0 | - | - | - | - | - | 0 | - | - | - | - | - | 0 | - | - |
| % Pedestrians | - | - | - | - | 100.0 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |

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Count Name: Theodore Street with Knapp Street
TMC
Site Code:
Start Date: 09/05/2024


# Turning Movement Data

| Start Time | Theodore Street Eastbound | | | | | | Theodore Street Westbound | | | | | | Access Drive Northbound | | | | | | Knapp Street Southbound | | | | | | Int. Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | U-Turn | Left | Thru | Right | Peds | App. Total | U-Turn | Left | Thru | Right | Peds | App. Total | U-Turn | Left | Thru | Right | Peds | App. Total | U-Turn | Left | Thru | Right | Peds | App. Total | |
| 7:00 AM | 0 | 8 | 82 | 1 | 0 | 91 | 0 | 0 | 102 | 11 | 1 | 113 | 0 | 1 | 0 | 0 | 2 | 1 | 0 | 6 | 0 | 10 | 0 | 16 | 221 |
| 7:15 AM | 0 | 6 | 72 | 1 | 0 | 79 | 0 | 0 | 126 | 25 | 0 | 151 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 7 | 0 | 6 | 0 | 13 | 243 |
| 7:30 AM | 0 | 12 | 67 | 0 | 0 | 79 | 0 | 0 | 133 | 30 | 0 | 163 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 10 | 0 | 18 | 0 | 28 | 270 |
| 7:45 AM | 0 | 16 | 85 | 0 | 1 | 101 | 0 | 1 | 144 | 22 | 0 | 167 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 16 | 0 | 13 | 0 | 29 | 297 |
| Hourly Total | 0 | 42 | 306 | 2 | 1 | 350 | 0 | 1 | 505 | 88 | 1 | 594 | 0 | 1 | 0 | 0 | 3 | 1 | 0 | 39 | 0 | 47 | 0 | 86 | 1031 |
| 8:00 AM | 0 | 16 | 68 | 0 | 0 | 84 | 0 | 0 | 128 | 33 | 0 | 161 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 9 | 0 | 14 | 0 | 23 | 269 |
| 8:15 AM | 0 | 13 | 83 | 2 | 0 | 98 | 1 | 0 | 123 | 50 | 0 | 174 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 7 | 0 | 15 | 1 | 22 | 295 |
| 8:30 AM | 0 | 15 | 77 | 0 | 0 | 92 | 0 | 0 | 98 | 21 | 0 | 119 | 0 | 1 | 0 | 1 | 1 | 2 | 0 | 16 | 0 | 16 | 0 | 32 | 245 |
| 8:45 AM | 0 | 8 | 66 | 3 | 0 | 77 | 0 | 0 | 126 | 24 | 0 | 150 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 17 | 2 | 14 | 0 | 33 | 260 |
| Hourly Total | 0 | 52 | 294 | 5 | 0 | 351 | 1 | 0 | 475 | 128 | 0 | 604 | 0 | 3 | 0 | 1 | 1 | 4 | 0 | 49 | 2 | 59 | 1 | 110 | 1069 |
| *** BREAK *** | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 4:00 PM | 0 | 13 | 170 | 3 | 0 | 186 | 0 | 0 | 178 | 30 | 0 | 208 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 21 | 0 | 31 | 1 | 52 | 447 |
| 4:15 PM | 0 | 20 | 193 | 1 | 0 | 214 | 0 | 1 | 171 | 20 | 0 | 192 | 0 | 1 | 1 | 0 | 1 | 2 | 0 | 16 | 0 | 31 | 0 | 47 | 455 |
| 4:30 PM | 0 | 15 | 143 | 0 | 0 | 158 | 0 | 0 | 168 | 31 | 0 | 199 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 17 | 0 | 30 | 0 | 47 | 405 |
| 4:45 PM | 0 | 14 | 158 | 3 | 0 | 175 | 0 | 0 | 171 | 28 | 0 | 199 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 14 | 0 | 21 | 1 | 35 | 410 |
| Hourly Total | 0 | 62 | 664 | 7 | 0 | 733 | 0 | 1 | 688 | 109 | 0 | 798 | 0 | 3 | 1 | 1 | 1 | 5 | 0 | 68 | 0 | 113 | 2 | 181 | 1717 |
| 5:00 PM | 0 | 14 | 197 | 1 | 0 | 212 | 0 | 1 | 167 | 30 | 0 | 198 | 0 | 3 | 2 | 4 | 0 | 9 | 0 | 16 | 0 | 30 | 1 | 46 | 465 |
| 5:15 PM | 0 | 13 | 160 | 2 | 0 | 175 | 0 | 0 | 195 | 31 | 0 | 226 | 0 | 1 | 1 | 1 | 0 | 3 | 0 | 25 | 0 | 21 | 1 | 46 | 450 |
| 5:30 PM | 1 | 12 | 174 | 0 | 0 | 187 | 0 | 1 | 152 | 24 | 1 | 177 | 0 | 1 | 0 | 0 | 1 | 1 | 0 | 31 | 0 | 27 | 0 | 58 | 423 |
| 5:45 PM | 0 | 12 | 159 | 0 | 0 | 171 | 0 | 0 | 172 | 27 | 0 | 199 | 0 | 2 | 0 | 0 | 0 | 2 | 0 | 21 | 0 | 27 | 0 | 48 | 420 |
| Hourly Total | 1 | 51 | 690 | 3 | 0 | 745 | 0 | 2 | 686 | 112 | 1 | 800 | 0 | 7 | 3 | 5 | 1 | 15 | 0 | 93 | 0 | 105 | 2 | 198 | 1758 |
| *** BREAK *** | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 12:00 PM | 0 | 13 | 151 | 3 | 0 | 167 | 0 | 0 | 161 | 21 | 0 | 182 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 17 | 0 | 20 | 0 | 37 | 387 |
| 12:15 PM | 0 | 16 | 151 | 1 | 1 | 168 | 0 | 0 | 154 | 28 | 0 | 182 | 0 | 2 | 0 | 0 | 1 | 2 | 0 | 15 | 0 | 22 | 0 | 37 | 389 |
| 12:30 PM | 0 | 11 | 155 | 3 | 0 | 169 | 0 | 0 | 160 | 19 | 0 | 179 | 0 | 0 | 0 | 2 | 3 | 2 | 0 | 18 | 0 | 22 | 0 | 40 | 390 |
| 12:45 PM | 0 | 10 | 159 | 1 | 0 | 170 | 0 | 1 | 165 | 31 | 0 | 197 | 0 | 5 | 0 | 2 | 0 | 7 | 0 | 21 | 1 | 28 | 0 | 50 | 424 |
| Hourly Total | 0 | 50 | 616 | 8 | 1 | 674 | 0 | 1 | 640 | 99 | 0 | 740 | 0 | 7 | 0 | 5 | 4 | 12 | 0 | 71 | 1 | 92 | 0 | 164 | 1590 |
| 1:00 PM | 0 | 9 | 172 | 1 | 0 | 182 | 0 | 0 | 162 | 18 | 0 | 180 | 0 | 3 | 1 | 0 | 0 | 4 | 0 | 25 | 0 | 37 | 1 | 62 | 428 |
| 1:15 PM | 0 | 14 | 168 | 1 | 0 | 183 | 0 | 0 | 183 | 34 | 0 | 217 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 25 | 0 | 20 | 0 | 45 | 446 |
| 1:30 PM | 0 | 12 | 163 | 2 | 0 | 177 | 0 | 0 | 173 | 12 | 0 | 185 | 0 | 2 | 0 | 0 | 0 | 2 | 0 | 28 | 0 | 28 | 0 | 56 | 420 |
| 1:45 PM | 0 | 18 | 172 | 1 | 0 | 191 | 0 | 0 | 154 | 14 | 0 | 168 | 0 | 1 | 1 | 1 | 0 | 3 | 0 | 20 | 0 | 23 | 2 | 43 | 405 |
| Hourly Total | 0 | 53 | 675 | 5 | 0 | 733 | 0 | 0 | 672 | 78 | 0 | 750 | 0 | 6 | 2 | 2 | 0 | 10 | 0 | 98 | 0 | 108 | 3 | 206 | 1699 |
| Grand Total | 1 | 310 | 3245 | 30 | 2 | 3586 | 1 | 5 | 3666 | 614 | 2 | 4286 | 0 | 27 | 6 | 14 | 10 | 47 | 0 | 418 | 3 | 524 | 8 | 945 | 8864 |
| Approach % | 0.0 | 8.6 | 90.5 | 0.8 | - | - | 0.0 | 0.1 | 85.5 | 14.3 | - | - | 0.0 | 57.4 | 12.8 | 29.8 | - | - | 0.0 | 44.2 | 0.3 | 55.4 | - | - | - |
| Total % | 0.0 | 3.5 | 36.6 | 0.3 | - | 40.5 | 0.0 | 0.1 | 41.4 | 6.9 | - | 48.4 | 0.0 | 0.3 | 0.1 | 0.2 | - | 0.5 | 0.0 | 4.7 | 0.0 | 5.9 | - | 10.7 | - |

| | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lights | 1 | 307 | 3176 | 29 | - | 3513 | 1 | 4 | 3576 | 600 | - | 4181 | 0 | 27 | 6 | 14 | - | 47 | 0 | 414 | 3 | 519 | - | 936 | 8677 |
| % Lights | 100.0 | 99.0 | 97.9 | 96.7 | - | 98.0 | 100.0 | 80.0 | 97.5 | 97.7 | - | 97.6 | - | 100.0 | 100.0 | 100.0 | - | 100.0 | - | 99.0 | 100.0 | 99.0 | - | 99.0 | 97.9 |
| Buses | 0 | 1 | 23 | 0 | - | 24 | 0 | 0 | 26 | 6 | - | 32 | 0 | 0 | 0 | 0 | - | 0 | 0 | 1 | 0 | 1 | - | 2 | 58 |
| % Buses | 0.0 | 0.3 | 0.7 | 0.0 | - | 0.7 | 0.0 | 0.0 | 0.7 | 1.0 | - | 0.7 | - | 0.0 | 0.0 | 0.0 | - | 0.0 | - | 0.2 | 0.0 | 0.2 | - | 0.2 | 0.7 |
| Single-Unit Trucks | 0 | 1 | 29 | 1 | - | 31 | 0 | 0 | 31 | 7 | - | 38 | 0 | 0 | 0 | 0 | - | 0 | 0 | 2 | 0 | 4 | - | 6 | 75 |
| % Single-Unit Trucks | 0.0 | 0.3 | 0.9 | 3.3 | - | 0.9 | 0.0 | 0.0 | 0.8 | 1.1 | - | 0.9 | - | 0.0 | 0.0 | 0.0 | - | 0.0 | - | 0.5 | 0.0 | 0.8 | - | 0.6 | 0.8 |
| Articulated Trucks | 0 | 0 | 17 | 0 | - | 17 | 0 | 0 | 33 | 1 | - | 34 | 0 | 0 | 0 | 0 | - | 0 | 0 | 1 | 0 | 0 | - | 1 | 52 |
| % Articulated Trucks | 0.0 | 0.0 | 0.5 | 0.0 | - | 0.5 | 0.0 | 0.0 | 0.9 | 0.2 | - | 0.8 | - | 0.0 | 0.0 | 0.0 | - | 0.0 | - | 0.2 | 0.0 | 0.0 | - | 0.1 | 0.6 |
| Bicycles on Road | 0 | 1 | 0 | 0 | - | 1 | 0 | 1 | 0 | 0 | - | 1 | 0 | 0 | 0 | 0 | - | 0 | 0 | 0 | 0 | 0 | - | 0 | 2 |
| % Bicycles on Road | 0.0 | 0.3 | 0.0 | 0.0 | - | 0.0 | 0.0 | 20.0 | 0.0 | 0.0 | - | 0.0 | - | 0.0 | 0.0 | 0.0 | - | 0.0 | - | 0.0 | 0.0 | 0.0 | - | 0.0 | 0.0 |
| Pedestrians | - | - | - | - | 2 | - | - | - | - | - | 2 | - | - | - | - | - | 10 | - | - | - | - | - | 8 | - | - |
| % Pedestrians | - | - | - | - | 100.0 | - | - | - | - | - | 100.0 | - | - | - | - | - | 100.0 | - | - | - | - | - | 100.0 | - | - |

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Count Name: Theodore Street with Knapp Street
TMC
Site Code:
Start Date: 09/05/2024


# Turning Movement Peak Hour Data (7:30 AM)

| Start Time | Theodore Street Eastbound | | | | | | Theodore Street Westbound | | | | | | Access Drive Northbound | | | | | | Knapp Street Southbound | | | | | | Int. Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | U-Turn | Left | Thru | Right | Peds | App. Total | U-Turn | Left | Thru | Right | Peds | App. Total | U-Turn | Left | Thru | Right | Peds | App. Total | U-Turn | Left | Thru | Right | Peds | App. Total | |
| 7:30 AM | 0 | 12 | 67 | 0 | 0 | 79 | 0 | 0 | 133 | 30 | 0 | 163 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 10 | 0 | 18 | 0 | 28 | 270 |
| 7:45 AM | 0 | 16 | 85 | 0 | 1 | 101 | 0 | 1 | 144 | 22 | 0 | 167 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 16 | 0 | 13 | 0 | 29 | 297 |
| 8:00 AM | 0 | 16 | 68 | 0 | 0 | 84 | 0 | 0 | 128 | 33 | 0 | 161 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 9 | 0 | 14 | 0 | 23 | 269 |
| 8:15 AM | 0 | 13 | 83 | 2 | 0 | 98 | 1 | 0 | 123 | 50 | 0 | 174 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 7 | 0 | 15 | 1 | 22 | 295 |
| Total | 0 | 57 | 303 | 2 | 1 | 362 | 1 | 1 | 528 | 135 | 0 | 665 | 0 | 2 | 0 | 0 | 1 | 2 | 0 | 42 | 0 | 60 | 1 | 102 | 1131 |
| Approach % | 0.0 | 15.7 | 83.7 | 0.6 | - | - | 0.2 | 0.2 | 79.4 | 20.3 | - | - | 0.0 | 100.0 | 0.0 | 0.0 | - | - | 0.0 | 41.2 | 0.0 | 58.8 | - | - | - |
| Total % | 0.0 | 5.0 | 26.8 | 0.2 | - | 32.0 | 0.1 | 0.1 | 46.7 | 11.9 | - | 58.8 | 0.0 | 0.2 | 0.0 | 0.0 | - | 0.2 | 0.0 | 3.7 | 0.0 | 5.3 | - | 9.0 | - |
| PHF | 0.000 | 0.891 | 0.891 | 0.250 | - | 0.896 | 0.250 | 0.250 | 0.917 | 0.675 | - | 0.955 | 0.000 | 0.500 | 0.000 | 0.000 | - | 0.500 | 0.000 | 0.656 | 0.000 | 0.833 | - | 0.879 | 0.952 |
| Lights | 0 | 56 | 288 | 2 | - | 346 | 1 | 1 | 508 | 128 | - | 638 | 0 | 2 | 0 | 0 | - | 2 | 0 | 41 | 0 | 60 | - | 101 | 1087 |
| % Lights | - | 98.2 | 95.0 | 100.0 | - | 95.6 | 100.0 | 100.0 | 96.2 | 94.8 | - | 95.9 | - | 100.0 | - | - | - | 100.0 | - | 97.6 | - | 100.0 | - | 99.0 | 96.1 |
| Buses | 0 | 0 | 4 | 0 | - | 4 | 0 | 0 | 9 | 3 | - | 12 | 0 | 0 | 0 | 0 | - | 0 | 0 | 1 | 0 | 0 | - | 1 | 17 |
| % Buses | - | 0.0 | 1.3 | 0.0 | - | 1.1 | 0.0 | 0.0 | 1.7 | 2.2 | - | 1.8 | - | 0.0 | - | - | - | 0.0 | - | 2.4 | - | 0.0 | - | 1.0 | 1.5 |
| Single-Unit Trucks | 0 | 0 | 5 | 0 | - | 5 | 0 | 0 | 5 | 4 | - | 9 | 0 | 0 | 0 | 0 | - | 0 | 0 | 0 | 0 | 0 | - | 0 | 14 |
| % Single-Unit Trucks | - | 0.0 | 1.7 | 0.0 | - | 1.4 | 0.0 | 0.0 | 0.9 | 3.0 | - | 1.4 | - | 0.0 | - | - | - | 0.0 | - | 0.0 | - | 0.0 | - | 0.0 | 1.2 |
| Articulated Trucks | 0 | 0 | 6 | 0 | - | 6 | 0 | 0 | 6 | 0 | - | 6 | 0 | 0 | 0 | 0 | - | 0 | 0 | 0 | 0 | 0 | - | 0 | 12 |
| % Articulated Trucks | - | 0.0 | 2.0 | 0.0 | - | 1.7 | 0.0 | 0.0 | 1.1 | 0.0 | - | 0.9 | - | 0.0 | - | - | - | 0.0 | - | 0.0 | - | 0.0 | - | 0.0 | 1.1 |
| Bicycles on Road | 0 | 1 | 0 | 0 | - | 1 | 0 | 0 | 0 | 0 | - | 0 | 0 | 0 | 0 | 0 | - | 0 | 0 | 0 | 0 | 0 | - | 0 | 1 |
| % Bicycles on Road | - | 1.8 | 0.0 | 0.0 | - | 0.3 | 0.0 | 0.0 | 0.0 | 0.0 | - | 0.0 | - | 0.0 | - | - | - | 0.0 | - | 0.0 | - | 0.0 | - | 0.0 | 0.1 |
| Pedestrians | - | - | - | - | 1 | - | - | - | - | - | 0 | - | - | - | - | - | 1 | - | - | - | - | - | 1 | - | - |
| % Pedestrians | - | - | - | - | 100.0 | - | - | - | - | - | - | - | - | - | - | - | 100.0 | - | - | - | - | - | 100.0 | - | - |

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9575 W. Higgins Rd., Suite 400

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Count Name: Theodore Street with Knapp Street
TMC
Site Code:
Start Date: 09/05/2024


# Turning Movement Peak Hour Data (4:00 PM)

| Start Time | Theodore Street Eastbound | | | | | | Theodore Street Westbound | | | | | | Access Drive Northbound | | | | | | Knapp Street Southbound | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | U-Turn | Left | Thru | Right | Peds | App. Total | U-Turn | Left | Thru | Right | Peds | App. Total | U-Turn | Left | Thru | Right | Peds | App. Total | U-Turn | Left | Thru | Right | Peds | App. Total | Int. Total |
| 4:00 PM | 0 | 13 | 170 | 3 | 0 | 186 | 0 | 0 | 178 | 30 | 0 | 208 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 21 | 0 | 31 | 1 | 52 | 447 |
| 4:15 PM | 0 | 20 | 193 | 1 | 0 | 214 | 0 | 1 | 171 | 20 | 0 | 192 | 0 | 1 | 1 | 0 | 1 | 2 | 0 | 16 | 0 | 31 | 0 | 47 | 455 |
| 4:30 PM | 0 | 15 | 143 | 0 | 0 | 158 | 0 | 0 | 168 | 31 | 0 | 199 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 17 | 0 | 30 | 0 | 47 | 405 |
| 4:45 PM | 0 | 14 | 158 | 3 | 0 | 175 | 0 | 0 | 171 | 28 | 0 | 199 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 14 | 0 | 21 | 1 | 35 | 410 |
| Total | 0 | 62 | 664 | 7 | 0 | 733 | 0 | 1 | 688 | 109 | 0 | 798 | 0 | 3 | 1 | 1 | 1 | 5 | 0 | 68 | 0 | 113 | 2 | 181 | 1717 |
| Approach % | 0.0 | 8.5 | 90.6 | 1.0 | - | - | 0.0 | 0.1 | 86.2 | 13.7 | - | - | 0.0 | 60.0 | 20.0 | 20.0 | - | - | 0.0 | 37.6 | 0.0 | 62.4 | - | - | - |
| Total % | 0.0 | 3.6 | 38.7 | 0.4 | - | 42.7 | 0.0 | 0.1 | 40.1 | 6.3 | - | 46.5 | 0.0 | 0.2 | 0.1 | 0.1 | - | 0.3 | 0.0 | 4.0 | 0.0 | 6.6 | - | 10.5 | - |
| PHF | 0.000 | 0.775 | 0.860 | 0.583 | - | 0.856 | 0.000 | 0.250 | 0.966 | 0.879 | - | 0.959 | 0.000 | 0.750 | 0.250 | 0.250 | - | 0.625 | 0.000 | 0.810 | 0.000 | 0.911 | - | 0.870 | 0.943 |
| Lights | 0 | 62 | 645 | 7 | - | 714 | 0 | 1 | 673 | 108 | - | 782 | 0 | 3 | 1 | 1 | - | 5 | 0 | 67 | 0 | 112 | - | 179 | 1680 |
| % Lights | - | 100.0 | 97.1 | 100.0 | - | 97.4 | - | 100.0 | 97.8 | 99.1 | - | 98.0 | - | 100.0 | 100.0 | 100.0 | - | 100.0 | - | 98.5 | - | 99.1 | - | 98.9 | 97.8 |
| Buses | 0 | 0 | 9 | 0 | - | 9 | 0 | 0 | 4 | 1 | - | 5 | 0 | 0 | 0 | 0 | - | 0 | 0 | 0 | 0 | 0 | - | 0 | 14 |
| % Buses | - | 0.0 | 1.4 | 0.0 | - | 1.2 | - | 0.0 | 0.6 | 0.9 | - | 0.6 | - | 0.0 | 0.0 | 0.0 | - | 0.0 | - | 0.0 | - | 0.0 | - | 0.0 | 0.8 |
| Single-Unit Trucks | 0 | 0 | 7 | 0 | - | 7 | 0 | 0 | 5 | 0 | - | 5 | 0 | 0 | 0 | 0 | - | 0 | 0 | 1 | 0 | 1 | - | 2 | 14 |
| % Single-Unit Trucks | - | 0.0 | 1.1 | 0.0 | - | 1.0 | - | 0.0 | 0.7 | 0.0 | - | 0.6 | - | 0.0 | 0.0 | 0.0 | - | 0.0 | - | 1.5 | - | 0.9 | - | 1.1 | 0.8 |
| Articulated Trucks | 0 | 0 | 3 | 0 | - | 3 | 0 | 0 | 6 | 0 | - | 6 | 0 | 0 | 0 | 0 | - | 0 | 0 | 0 | 0 | 0 | - | 0 | 9 |
| % Articulated Trucks | - | 0.0 | 0.5 | 0.0 | - | 0.4 | - | 0.0 | 0.9 | 0.0 | - | 0.8 | - | 0.0 | 0.0 | 0.0 | - | 0.0 | - | 0.0 | - | 0.0 | - | 0.0 | 0.5 |
| Bicycles on Road | 0 | 0 | 0 | 0 | - | 0 | 0 | 0 | 0 | 0 | - | 0 | 0 | 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 | - | 0.0 | 0.0 | 0.0 | - | 0.0 | - | 0.0 | - | 0.0 | - | 0.0 | 0.0 |
| Pedestrians | - | - | - | - | 0 | - | - | - | - | - | 0 | - | - | - | - | - | 1 | - | - | - | - | - | 2 | - | - |
| % Pedestrians | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 100.0 | - | - | - | - | - | 100.0 | - | - |

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Count Name: Theodore Street with Knapp Street
TMC
Site Code:
Start Date: 09/05/2024


# Turning Movement Peak Hour Data (12:45 PM)

| Start Time | Theodore Street Eastbound | | | | | | Theodore Street Westbound | | | | | | Access Drive Northbound | | | | | | Knapp Street Southbound | | | | | | Int. Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | U-Turn | Left | Thru | Right | Peds | App. Total | U-Turn | Left | Thru | Right | Peds | App. Total | U-Turn | Left | Thru | Right | Peds | App. Total | U-Turn | Left | Thru | Right | Peds | App. Total | |
| 12:45 PM | 0 | 10 | 159 | 1 | 0 | 170 | 0 | 1 | 165 | 31 | 0 | 197 | 0 | 5 | 0 | 2 | 0 | 7 | 0 | 21 | 1 | 28 | 0 | 50 | 424 |
| 1:00 PM | 0 | 9 | 172 | 1 | 0 | 182 | 0 | 0 | 162 | 18 | 0 | 180 | 0 | 3 | 1 | 0 | 0 | 4 | 0 | 25 | 0 | 37 | 1 | 62 | 428 |
| 1:15 PM | 0 | 14 | 168 | 1 | 0 | 183 | 0 | 0 | 183 | 34 | 0 | 217 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 25 | 0 | 20 | 0 | 45 | 446 |
| 1:30 PM | 0 | 12 | 163 | 2 | 0 | 177 | 0 | 0 | 173 | 12 | 0 | 185 | 0 | 2 | 0 | 0 | 0 | 2 | 0 | 28 | 0 | 28 | 0 | 56 | 420 |
| Total | 0 | 45 | 662 | 5 | 0 | 712 | 0 | 1 | 683 | 95 | 0 | 779 | 0 | 10 | 1 | 3 | 0 | 14 | 0 | 99 | 1 | 113 | 1 | 213 | 1718 |
| Approach % | 0.0 | 6.3 | 93.0 | 0.7 | - | - | 0.0 | 0.1 | 87.7 | 12.2 | - | - | 0.0 | 71.4 | 7.1 | 21.4 | - | - | 0.0 | 46.5 | 0.5 | 53.1 | - | - | - |
| Total % | 0.0 | 2.6 | 38.5 | 0.3 | - | 41.4 | 0.0 | 0.1 | 39.8 | 5.5 | - | 45.3 | 0.0 | 0.6 | 0.1 | 0.2 | - | 0.8 | 0.0 | 5.8 | 0.1 | 6.6 | - | 12.4 | - |
| PHF | 0.000 | 0.804 | 0.962 | 0.625 | - | 0.973 | 0.000 | 0.250 | 0.933 | 0.699 | - | 0.897 | 0.000 | 0.500 | 0.250 | 0.375 | - | 0.500 | 0.000 | 0.884 | 0.250 | 0.764 | - | 0.859 | 0.963 |
| Lights | 0 | 45 | 654 | 5 | - | 704 | 0 | 1 | 670 | 95 | - | 766 | 0 | 10 | 1 | 3 | - | 14 | 0 | 99 | 1 | 112 | - | 212 | 1696 |
| % Lights | - | 100.0 | 98.8 | 100.0 | - | 98.9 | - | 100.0 | 98.1 | 100.0 | - | 98.3 | - | 100.0 | 100.0 | 100.0 | - | 100.0 | - | 100.0 | 100.0 | 99.1 | - | 99.5 | 98.7 |
| Buses | 0 | 0 | 1 | 0 | - | 1 | 0 | 0 | 1 | 0 | - | 1 | 0 | 0 | 0 | 0 | - | 0 | 0 | 0 | 0 | 0 | - | 0 | 2 |
| % Buses | - | 0.0 | 0.2 | 0.0 | - | 0.1 | - | 0.0 | 0.1 | 0.0 | - | 0.1 | - | 0.0 | 0.0 | 0.0 | - | 0.0 | - | 0.0 | 0.0 | 0.0 | - | 0.0 | 0.1 |
| Single-Unit Trucks | 0 | 0 | 4 | 0 | - | 4 | 0 | 0 | 5 | 0 | - | 5 | 0 | 0 | 0 | 0 | - | 0 | 0 | 0 | 0 | 1 | - | 1 | 10 |
| % Single-Unit Trucks | - | 0.0 | 0.6 | 0.0 | - | 0.6 | - | 0.0 | 0.7 | 0.0 | - | 0.6 | - | 0.0 | 0.0 | 0.0 | - | 0.0 | - | 0.0 | 0.0 | 0.9 | - | 0.5 | 0.6 |
| Articulated Trucks | 0 | 0 | 3 | 0 | - | 3 | 0 | 0 | 7 | 0 | - | 7 | 0 | 0 | 0 | 0 | - | 0 | 0 | 0 | 0 | 0 | - | 0 | 10 |
| % Articulated Trucks | - | 0.0 | 0.5 | 0.0 | - | 0.4 | - | 0.0 | 1.0 | 0.0 | - | 0.9 | - | 0.0 | 0.0 | 0.0 | - | 0.0 | - | 0.0 | 0.0 | 0.0 | - | 0.0 | 0.6 |
| Bicycles on Road | 0 | 0 | 0 | 0 | - | 0 | 0 | 0 | 0 | 0 | - | 0 | 0 | 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 | - | 0.0 | 0.0 | 0.0 | - | 0.0 | - | 0.0 | 0.0 | 0.0 | - | 0.0 | 0.0 |
| Pedestrians | - | - | - | - | 0 | - | - | - | - | - | 0 | - | - | - | - | - | 0 | - | - | - | - | - | 1 | - | - |
| % Pedestrians | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 100.0 | - | - |

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Rosemont, Illinois, United States 60018
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Count Name: Theodore Street with Plainfield Road TMC
Site Code:
Start Date: 09/05/2024


# Turning Movement Data

| Start Time | Theodore Street Eastbound | | | | | | Theodore Street Westbound | | | | | | Plainfield Road Northbound | | | | | | Plainfield Road Southbound | | | | | | Int. Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | U-Turn | Left | Thru | Right | Peds | App. Total | U-Turn | Left | Thru | Right | Peds | App. Total | U-Turn | Left | Thru | Right | Peds | App. Total | U-Turn | Left | Thru | Right | Peds | App. Total | |
| 7:00 AM | 0 | 2 | 51 | 29 | 0 | 82 | 0 | 19 | 60 | 33 | 0 | 112 | 0 | 9 | 84 | 11 | 2 | 104 | 0 | 20 | 99 | 3 | 0 | 122 | 420 |
| 7:15 AM | 0 | 2 | 43 | 36 | 0 | 81 | 0 | 14 | 74 | 51 | 0 | 139 | 0 | 17 | 92 | 12 | 1 | 121 | 0 | 21 | 153 | 6 | 0 | 180 | 521 |
| 7:30 AM | 0 | 3 | 44 | 59 | 0 | 106 | 0 | 18 | 95 | 47 | 0 | 160 | 0 | 28 | 127 | 22 | 0 | 177 | 0 | 18 | 172 | 5 | 0 | 195 | 638 |
| 7:45 AM | 0 | 6 | 43 | 46 | 0 | 95 | 0 | 20 | 85 | 48 | 1 | 153 | 0 | 41 | 125 | 24 | 0 | 190 | 0 | 26 | 160 | 7 | 0 | 193 | 631 |
| Hourly Total | 0 | 13 | 181 | 170 | 0 | 364 | 0 | 71 | 314 | 179 | 1 | 564 | 0 | 95 | 428 | 69 | 3 | 592 | 0 | 85 | 584 | 21 | 0 | 690 | 2210 |
| 8:00 AM | 0 | 2 | 43 | 37 | 0 | 82 | 0 | 17 | 70 | 53 | 0 | 140 | 0 | 28 | 81 | 18 | 0 | 127 | 0 | 23 | 145 | 3 | 0 | 171 | 520 |
| 8:15 AM | 0 | 1 | 53 | 26 | 0 | 80 | 0 | 16 | 76 | 47 | 0 | 139 | 0 | 21 | 97 | 21 | 0 | 139 | 0 | 27 | 141 | 4 | 1 | 172 | 530 |
| 8:30 AM | 0 | 1 | 51 | 34 | 0 | 86 | 0 | 12 | 62 | 35 | 0 | 109 | 1 | 23 | 108 | 20 | 1 | 152 | 0 | 21 | 137 | 5 | 0 | 163 | 510 |
| 8:45 AM | 0 | 2 | 44 | 37 | 0 | 83 | 0 | 18 | 92 | 43 | 1 | 153 | 0 | 29 | 102 | 17 | 0 | 148 | 0 | 27 | 134 | 4 | 0 | 165 | 549 |
| Hourly Total | 0 | 6 | 191 | 134 | 0 | 331 | 0 | 63 | 300 | 178 | 1 | 541 | 1 | 101 | 388 | 76 | 1 | 566 | 0 | 98 | 557 | 16 | 1 | 671 | 2109 |
| *** BREAK *** | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 4:00 PM | 0 | 5 | 87 | 62 | 0 | 154 | 0 | 23 | 128 | 71 | 0 | 222 | 0 | 40 | 143 | 22 | 0 | 205 | 0 | 69 | 192 | 7 | 0 | 268 | 849 |
| 4:15 PM | 0 | 4 | 123 | 70 | 0 | 197 | 0 | 38 | 122 | 50 | 0 | 210 | 0 | 41 | 145 | 21 | 1 | 207 | 0 | 63 | 171 | 3 | 0 | 237 | 851 |
| 4:30 PM | 0 | 17 | 91 | 66 | 0 | 174 | 0 | 34 | 111 | 51 | 0 | 196 | 0 | 61 | 142 | 16 | 0 | 219 | 0 | 47 | 169 | 3 | 1 | 219 | 808 |
| 4:45 PM | 0 | 6 | 95 | 50 | 0 | 151 | 0 | 16 | 125 | 58 | 0 | 199 | 0 | 54 | 159 | 20 | 0 | 233 | 0 | 56 | 177 | 4 | 0 | 237 | 820 |
| Hourly Total | 0 | 32 | 396 | 248 | 0 | 676 | 0 | 111 | 486 | 230 | 0 | 827 | 0 | 196 | 589 | 79 | 1 | 864 | 0 | 235 | 709 | 17 | 1 | 961 | 3328 |
| 5:00 PM | 0 | 3 | 127 | 41 | 0 | 171 | 0 | 28 | 118 | 51 | 0 | 197 | 0 | 61 | 123 | 25 | 0 | 209 | 0 | 60 | 150 | 4 | 0 | 214 | 791 |
| 5:15 PM | 0 | 6 | 112 | 50 | 0 | 168 | 0 | 14 | 130 | 73 | 0 | 217 | 0 | 36 | 144 | 20 | 0 | 200 | 0 | 50 | 145 | 6 | 0 | 201 | 786 |
| 5:30 PM | 0 | 3 | 96 | 58 | 0 | 157 | 0 | 19 | 106 | 48 | 0 | 173 | 0 | 43 | 108 | 13 | 1 | 164 | 0 | 67 | 151 | 7 | 1 | 225 | 719 |
| 5:45 PM | 0 | 5 | 106 | 40 | 0 | 151 | 0 | 24 | 135 | 71 | 0 | 230 | 0 | 39 | 138 | 23 | 0 | 200 | 0 | 55 | 158 | 4 | 0 | 217 | 798 |
| Hourly Total | 0 | 17 | 441 | 189 | 0 | 647 | 0 | 85 | 489 | 243 | 0 | 817 | 0 | 179 | 513 | 81 | 1 | 773 | 0 | 232 | 604 | 21 | 1 | 857 | 3094 |
| Grand Total | 0 | 68 | 1209 | 741 | 0 | 2018 | 0 | 330 | 1589 | 830 | 2 | 2749 | 1 | 571 | 1918 | 305 | 6 | 2795 | 0 | 650 | 2454 | 75 | 3 | 3179 | 10741 |
| Approach % | 0.0 | 3.4 | 59.9 | 36.7 | - | - | 0.0 | 12.0 | 57.8 | 30.2 | - | - | 0.0 | 20.4 | 68.6 | 10.9 | - | - | 0.0 | 20.4 | 77.2 | 2.4 | - | - | - |
| Total % | 0.0 | 0.6 | 11.3 | 6.9 | - | 18.8 | 0.0 | 3.1 | 14.8 | 7.7 | - | 25.6 | 0.0 | 5.3 | 17.9 | 2.8 | - | 26.0 | 0.0 | 6.1 | 22.8 | 0.7 | - | 29.6 | - |
| Lights | 0 | 68 | 1175 | 731 | - | 1974 | 0 | 316 | 1550 | 808 | - | 2674 | 1 | 562 | 1880 | 300 | - | 2743 | 0 | 630 | 2400 | 72 | - | 3102 | 10493 |
| % Lights | - | 100.0 | 97.2 | 98.7 | - | 97.8 | - | 95.8 | 97.5 | 97.3 | - | 97.3 | 100.0 | 98.4 | 98.0 | 98.4 | - | 98.1 | - | 96.9 | 97.8 | 96.0 | - | 97.6 | 97.7 |
| Buses | 0 | 0 | 10 | 9 | - | 19 | 0 | 8 | 12 | 5 | - | 25 | 0 | 5 | 15 | 4 | - | 24 | 0 | 10 | 14 | 0 | - | 24 | 92 |
| % Buses | - | 0.0 | 0.8 | 1.2 | - | 0.9 | - | 2.4 | 0.8 | 0.6 | - | 0.9 | 0.0 | 0.9 | 0.8 | 1.3 | - | 0.9 | - | 1.5 | 0.6 | 0.0 | - | 0.8 | 0.9 |
| Single-Unit Trucks | 0 | 0 | 14 | 1 | - | 15 | 0 | 4 | 15 | 9 | - | 28 | 0 | 3 | 15 | 0 | - | 18 | 0 | 6 | 30 | 3 | - | 39 | 100 |
| % Single-Unit Trucks | - | 0.0 | 1.2 | 0.1 | - | 0.7 | - | 1.2 | 0.9 | 1.1 | - | 1.0 | 0.0 | 0.5 | 0.8 | 0.0 | - | 0.6 | - | 0.9 | 1.2 | 4.0 | - | 1.2 | 0.9 |
| Articulated Trucks | 0 | 0 | 10 | 0 | - | 10 | 0 | 2 | 12 | 8 | - | 22 | 0 | 1 | 8 | 1 | - | 10 | 0 | 4 | 10 | 0 | - | 14 | 56 |
| % Articulated Trucks | - | 0.0 | 0.8 | 0.0 | - | 0.5 | - | 0.6 | 0.8 | 1.0 | - | 0.8 | 0.0 | 0.2 | 0.4 | 0.3 | - | 0.4 | - | 0.6 | 0.4 | 0.0 | - | 0.4 | 0.5 |
| Bicycles on Road | 0 | 0 | 0 | 0 | - | 0 | 0 | 0 | 0 | 0 | - | 0 | 0 | 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 | 0.0 | 0.0 | 0.0 | 0.0 | - | 0.0 | - | 0.0 | 0.0 | 0.0 | - | 0.0 | 0.0 |
| Pedestrians | - | - | - | - | 0 | - | - | - | - | - | 2 | - | - | - | - | - | 6 | - | - | - | - | - | - | 3 | - | - |
| % Pedestrians | - | - | - | - | - | - | - | - | - | - | 100.0 | - | - | - | - | - | 100.0 | - | - | - | - | - | - | 100.0 | - | - |

Kenig Lindgren O'Hara Aboona, Inc.
9575 W. Higgins Rd., Suite 400

Rosemont, Illinois, United States 60018
(847)518-9990 abowen@kloainc.com

Count Name: Theodore Street with Plainfield Road TMC
Site Code:
Start Date: 09/05/2024


# Turning Movement Peak Hour Data (7:30 AM)

| Start Time | Theodore Street Eastbound | | | | | | Theodore Street Westbound | | | | | | Plainfield Road Northbound | | | | | | Plainfield Road Southbound | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | U-Turn | Left | Thru | Right | Peds | App. Total | U-Turn | Left | Thru | Right | Peds | App. Total | U-Turn | Left | Thru | Right | Peds | App. Total | U-Turn | Left | Thru | Right | Peds | App. Total | Int. Total |
| 7:30 AM | 0 | 3 | 44 | 59 | 0 | 106 | 0 | 18 | 95 | 47 | 0 | 160 | 0 | 28 | 127 | 22 | 0 | 177 | 0 | 18 | 172 | 5 | 0 | 195 | 638 |
| 7:45 AM | 0 | 6 | 43 | 46 | 0 | 95 | 0 | 20 | 85 | 48 | 1 | 153 | 0 | 41 | 125 | 24 | 0 | 190 | 0 | 26 | 160 | 7 | 0 | 193 | 631 |
| 8:00 AM | 0 | 2 | 43 | 37 | 0 | 82 | 0 | 17 | 70 | 53 | 0 | 140 | 0 | 28 | 81 | 18 | 0 | 127 | 0 | 23 | 145 | 3 | 0 | 171 | 520 |
| 8:15 AM | 0 | 1 | 53 | 26 | 0 | 80 | 0 | 16 | 76 | 47 | 0 | 139 | 0 | 21 | 97 | 21 | 0 | 139 | 0 | 27 | 141 | 4 | 1 | 172 | 530 |
| Total | 0 | 12 | 183 | 168 | 0 | 363 | 0 | 71 | 326 | 195 | 1 | 592 | 0 | 118 | 430 | 85 | 0 | 633 | 0 | 94 | 618 | 19 | 1 | 731 | 2319 |
| Approach % | 0.0 | 3.3 | 50.4 | 46.3 | - | - | 0.0 | 12.0 | 55.1 | 32.9 | - | - | 0.0 | 18.6 | 67.9 | 13.4 | - | - | 0.0 | 12.9 | 84.5 | 2.6 | - | - | - |
| Total % | 0.0 | 0.5 | 7.9 | 7.2 | - | 15.7 | 0.0 | 3.1 | 14.1 | 8.4 | - | 25.5 | 0.0 | 5.1 | 18.5 | 3.7 | - | 27.3 | 0.0 | 4.1 | 26.6 | 0.8 | - | 31.5 | - |
| PHF | 0.000 | 0.500 | 0.863 | 0.712 | - | 0.856 | 0.000 | 0.888 | 0.858 | 0.920 | - | 0.925 | 0.000 | 0.720 | 0.846 | 0.885 | - | 0.833 | 0.000 | 0.870 | 0.898 | 0.679 | - | 0.937 | 0.909 |
| Lights | 0 | 12 | 176 | 164 | - | 352 | 0 | 65 | 317 | 189 | - | 571 | 0 | 115 | 418 | 85 | - | 618 | 0 | 90 | 601 | 19 | - | 710 | 2251 |
| % Lights | - | 100.0 | 96.2 | 97.6 | - | 97.0 | - | 91.5 | 97.2 | 96.9 | - | 96.5 | - | 97.5 | 97.2 | 100.0 | - | 97.6 | - | 95.7 | 97.2 | 100.0 | - | 97.1 | 97.1 |
| Buses | 0 | 0 | 2 | 4 | - | 6 | 0 | 3 | 4 | 3 | - | 10 | 0 | 1 | 3 | 0 | - | 4 | 0 | 2 | 3 | 0 | - | 5 | 25 |
| % Buses | - | 0.0 | 1.1 | 2.4 | - | 1.7 | - | 4.2 | 1.2 | 1.5 | - | 1.7 | - | 0.8 | 0.7 | 0.0 | - | 0.6 | - | 2.1 | 0.5 | 0.0 | - | 0.7 | 1.1 |
| Single-Unit Trucks | 0 | 0 | 2 | 0 | - | 2 | 0 | 1 | 2 | 2 | - | 5 | 0 | 2 | 6 | 0 | - | 8 | 0 | 0 | 12 | 0 | - | 12 | 27 |
| % Single-Unit Trucks | - | 0.0 | 1.1 | 0.0 | - | 0.6 | - | 1.4 | 0.6 | 1.0 | - | 0.8 | - | 1.7 | 1.4 | 0.0 | - | 1.3 | - | 0.0 | 1.9 | 0.0 | - | 1.6 | 1.2 |
| Articulated Trucks | 0 | 0 | 3 | 0 | - | 3 | 0 | 2 | 3 | 1 | - | 6 | 0 | 0 | 3 | 0 | - | 3 | 0 | 2 | 2 | 0 | - | 4 | 16 |
| % Articulated Trucks | - | 0.0 | 1.6 | 0.0 | - | 0.8 | - | 2.8 | 0.9 | 0.5 | - | 1.0 | - | 0.0 | 0.7 | 0.0 | - | 0.5 | - | 2.1 | 0.3 | 0.0 | - | 0.5 | 0.7 |
| Bicycles on Road | 0 | 0 | 0 | 0 | - | 0 | 0 | 0 | 0 | 0 | - | 0 | 0 | 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 | - | 0.0 | 0.0 | 0.0 | - | 0.0 | - | 0.0 | 0.0 | 0.0 | - | 0.0 | 0.0 |
| Pedestrians | - | - | - | - | 0 | - | - | - | - | - | 1 | - | - | - | - | - | 0 | - | - | - | - | - | 1 | - | - |
| % Pedestrians | - | - | - | - | - | - | - | - | - | - | 100.0 | - | - | - | - | - | - | - | - | - | - | - | 100.0 | - | - |

Kenig Lindgren O'Hara Aboona, Inc.
9575 W. Higgins Rd., Suite 400

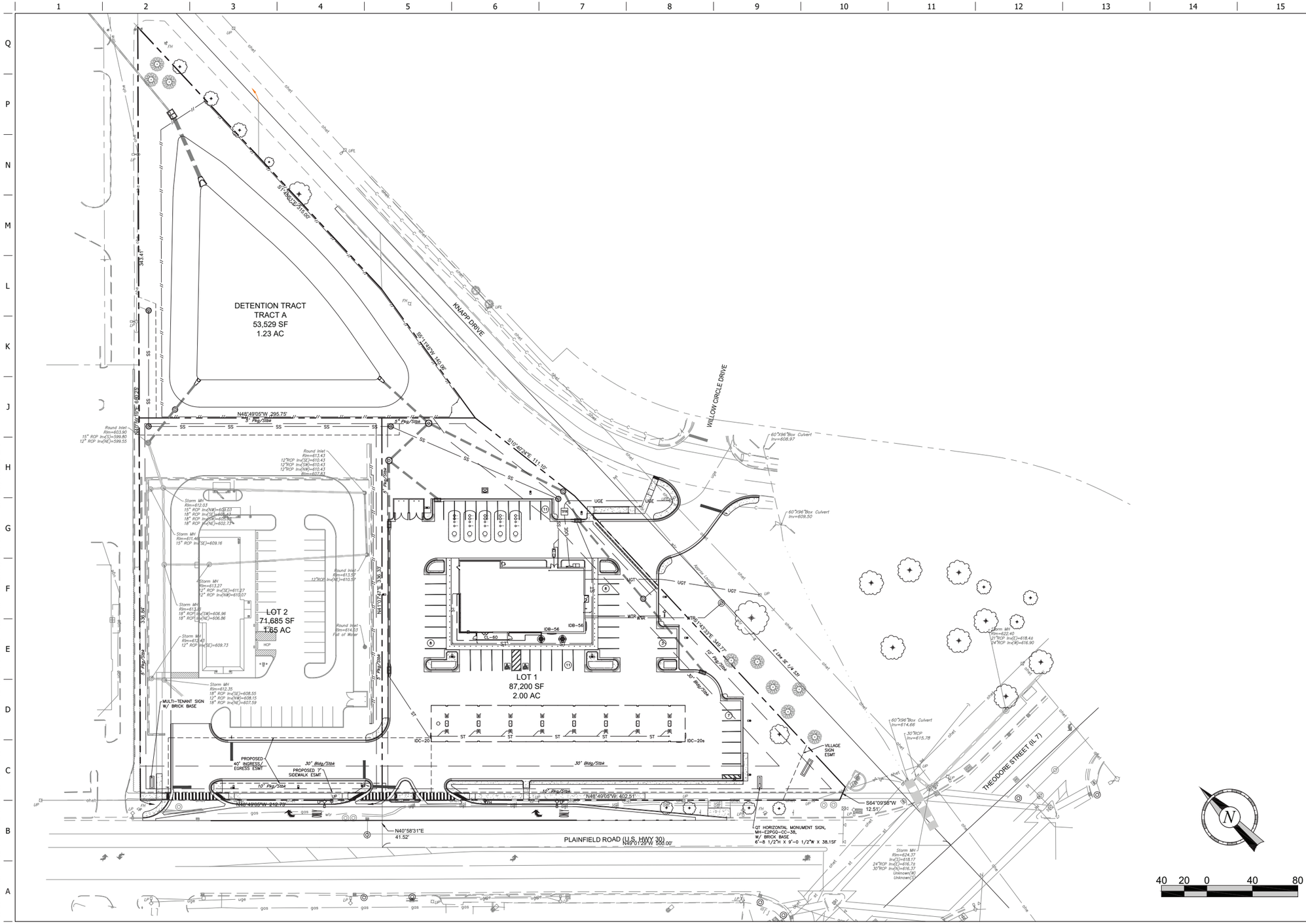
Rosemont, Illinois, United States 60018
(847)518-9990 abowen@kloainc.com

Count Name: Theodore Street with Plainfield Road TMC
Site Code:
Start Date: 09/05/2024


# Turning Movement Peak Hour Data (4:00 PM)

| Start Time | Theodore Street Eastbound | | | | | | Theodore Street Westbound | | | | | | Plainfield Road Northbound | | | | | | Plainfield Road Southbound | | | | | | Int. Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | U-Turn | Left | Thru | Right | Peds | App. Total | U-Turn | Left | Thru | Right | Peds | App. Total | U-Turn | Left | Thru | Right | Peds | App. Total | U-Turn | Left | Thru | Right | Peds | App. Total | |
| 4:00 PM | 0 | 5 | 87 | 62 | 0 | 154 | 0 | 23 | 128 | 71 | 0 | 222 | 0 | 40 | 143 | 22 | 0 | 205 | 0 | 69 | 192 | 7 | 0 | 268 | 849 |
| 4:15 PM | 0 | 4 | 123 | 70 | 0 | 197 | 0 | 38 | 122 | 50 | 0 | 210 | 0 | 41 | 145 | 21 | 1 | 207 | 0 | 63 | 171 | 3 | 0 | 237 | 851 |
| 4:30 PM | 0 | 17 | 91 | 66 | 0 | 174 | 0 | 34 | 111 | 51 | 0 | 196 | 0 | 61 | 142 | 16 | 0 | 219 | 0 | 47 | 169 | 3 | 1 | 219 | 808 |
| 4:45 PM | 0 | 6 | 95 | 50 | 0 | 151 | 0 | 16 | 125 | 58 | 0 | 199 | 0 | 54 | 159 | 20 | 0 | 233 | 0 | 56 | 177 | 4 | 0 | 237 | 820 |
| Total | 0 | 32 | 396 | 248 | 0 | 676 | 0 | 111 | 486 | 230 | 0 | 827 | 0 | 196 | 589 | 79 | 1 | 864 | 0 | 235 | 709 | 17 | 1 | 961 | 3328 |
| Approach % | 0.0 | 4.7 | 58.6 | 36.7 | - | - | 0.0 | 13.4 | 58.8 | 27.8 | - | - | 0.0 | 22.7 | 68.2 | 9.1 | - | - | 0.0 | 24.5 | 73.8 | 1.8 | - | - | - |
| Total % | 0.0 | 1.0 | 11.9 | 7.5 | - | 20.3 | 0.0 | 3.3 | 14.6 | 6.9 | - | 24.8 | 0.0 | 5.9 | 17.7 | 2.4 | - | 26.0 | 0.0 | 7.1 | 21.3 | 0.5 | - | 28.9 | - |
| PHF | 0.000 | 0.471 | 0.805 | 0.886 | - | 0.858 | 0.000 | 0.730 | 0.949 | 0.810 | - | 0.931 | 0.000 | 0.803 | 0.926 | 0.898 | - | 0.927 | 0.000 | 0.851 | 0.923 | 0.607 | - | 0.896 | 0.978 |
| Lights | 0 | 32 | 387 | 246 | - | 665 | 0 | 107 | 480 | 225 | - | 812 | 0 | 193 | 577 | 78 | - | 848 | 0 | 228 | 697 | 16 | - | 941 | 3266 |
| % Lights | - | 100.0 | 97.7 | 99.2 | - | 98.4 | - | 96.4 | 98.8 | 97.8 | - | 98.2 | - | 98.5 | 98.0 | 98.7 | - | 98.1 | - | 97.0 | 98.3 | 94.1 | - | 97.9 | 98.1 |
| Buses | 0 | 0 | 4 | 2 | - | 6 | 0 | 1 | 3 | 0 | - | 4 | 0 | 3 | 5 | 1 | - | 9 | 0 | 3 | 2 | 0 | - | 5 | 24 |
| % Buses | - | 0.0 | 1.0 | 0.8 | - | 0.9 | - | 0.9 | 0.6 | 0.0 | - | 0.5 | - | 1.5 | 0.8 | 1.3 | - | 1.0 | - | 1.3 | 0.3 | 0.0 | - | 0.5 | 0.7 |
| Single-Unit Trucks | 0 | 0 | 3 | 0 | - | 3 | 0 | 3 | 1 | 1 | - | 5 | 0 | 0 | 4 | 0 | - | 4 | 0 | 2 | 6 | 1 | - | 9 | 21 |
| % Single-Unit Trucks | - | 0.0 | 0.8 | 0.0 | - | 0.4 | - | 2.7 | 0.2 | 0.4 | - | 0.6 | - | 0.0 | 0.7 | 0.0 | - | 0.5 | - | 0.9 | 0.8 | 5.9 | - | 0.9 | 0.6 |
| Articulated Trucks | 0 | 0 | 2 | 0 | - | 2 | 0 | 0 | 2 | 4 | - | 6 | 0 | 0 | 3 | 0 | - | 3 | 0 | 2 | 4 | 0 | - | 6 | 17 |
| % Articulated Trucks | - | 0.0 | 0.5 | 0.0 | - | 0.3 | - | 0.0 | 0.4 | 1.7 | - | 0.7 | - | 0.0 | 0.5 | 0.0 | - | 0.3 | - | 0.9 | 0.6 | 0.0 | - | 0.6 | 0.5 |
| Bicycles on Road | 0 | 0 | 0 | 0 | - | 0 | 0 | 0 | 0 | 0 | - | 0 | 0 | 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 | - | 0.0 | 0.0 | 0.0 | - | 0.0 | - | 0.0 | 0.0 | 0.0 | - | 0.0 | 0.0 |
| Pedestrians | - | - | - | - | 0 | - | - | - | - | - | 0 | - | - | - | - | - | 1 | - | - | - | - | - | 1 | - | - |
| % Pedestrians | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 100.0 | - | - | - | - | - | 100.0 | - | - |

# Site Plan




FILE LOCATION:C:\Civil 3D Projects\QT4452 Crest Hill, IL\84-4452 Civil.dwg TAB NAME:Overall Site USER:dkhol SAVED:1/9/2026 2:18 PM PLOTTED:1/9/2026 2:19 PM

DARLA K. HOLMAN
062-072191
ILLINOIS
1/9/26

PROJECT NO.:84-4452


Midwest Design Group
Kansas City
PO Box 860015
Shawnee, KS 66286-0015
P 913.248.9385


# QuikTrip No. 4452

1610 PLAINFIELD ROAD
CREST HILL, WILL COUNTY, ILLINOIS 60403


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| | |
|---|---|
| PROTOTYPE: | P-122 |
| DIVISION: | 84 |
| VERSION: | 001 |
| DESIGNED BY: | DKH |
| DRAWN BY: | CSH |
| REVIEWED BY: | CJC |

| REV | DATE | DESCRIPTION |
|---|---|---|
| | | ORIGINAL ISSUE DATE: 01/09/2026 |

SHEET TITLE:
OVERALL SITE PLAN

SHEET NUMBER:
C100

# CMAP 2050 Projections Letter

Chicago Metropolitan Agency for Planning

433 West Van Buren Street, Suite 450
Chicago, IL 60607
cmap.illinois.gov | 312-454-0400

August 13, 2024

Ryan May
Project Coordinator
Kenig, Lindgren, O'Hara and Aboona, Inc.
9575 West Higgins Road
Suite 400
Rosemont, IL 60018

***Subject: Plainfield Road @ Larkin Avenue and @ Theodore Street***
IDOT

Dear Ms. May:

In response to a request made on your behalf and dated August 9, 2024, we have developed year 2050 average daily traffic (ADT) projections for the subject location.

| ROAD SEGMENT | Current ADT (2023) | Year 2050 ADT |
|---|---|---|
| Larkin Ave E of Plainfield Rd | 21,100 | 26,100 |
| Larkin Ave W of Plainfield Rd | 24,800 | 30,700 |
| Plainfield Rd, @ Larkin Ave | 19,900 | 23,000 |
| Theodore St east of Plainfield Rd | 15,600 | 18,000 |
| Theodore St wast of Plainfield Rd | 12,600 | 14,500 |

Traffic projections are developed using existing ADT data provided in the request letter and the results from the June 2024 CMAP Travel Demand Analysis. The regional travel model uses CMAP 2050 socioeconomic projections and assumes the implementation of the ON TO 2050 Comprehensive Regional Plan for the Northeastern Illinois area. The provision of this data in support of your request does not constitute a CMAP endorsement of the proposed development or any subsequent developments.

If you have any questions, please call me at (312) 386-8806 or email me at jrodriguez@cmap.illinois.gov

Jose Rodriguez, PTP, AICP
Senior Planner, Research & Analysis

cc: Rios (IDOT)
\2024_TrafficForecasts\CrestHill\wi-33-24\wi-33-24.docx

# ITE Trip Generation Sheets

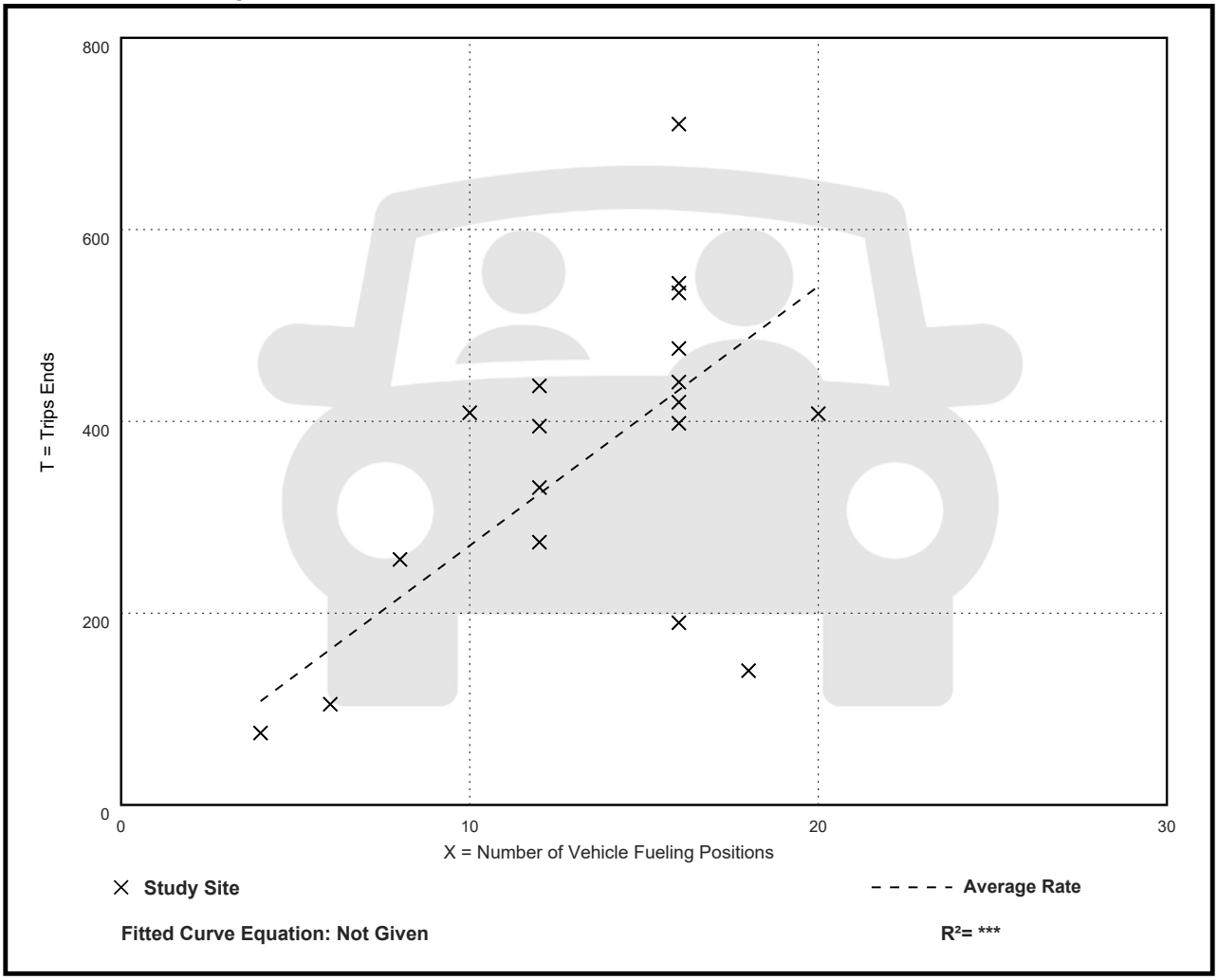
# Convenience Store/Gas Station - GFA (4-5.5k) (945)

**Vehicle Trip Ends vs: Vehicle Fueling Positions**
**On a: Weekday,**
**Peak Hour of Adjacent Street Traffic,**
**One Hour Between 7 and 9 a.m.**
**Setting/Location: General Urban/Suburban**
Number of Studies: 18
Avg. Num. of Vehicle Fueling Positions: 13
Directional Distribution: 50% entering, 50% exiting

## Vehicle Trip Generation per Vehicle Fueling Position

| Average Rate | Range of Rates | Standard Deviation |
|---|---|---|
| 27.04 | 7.78 - 44.38 | 9.88 |

## Data Plot and Equation



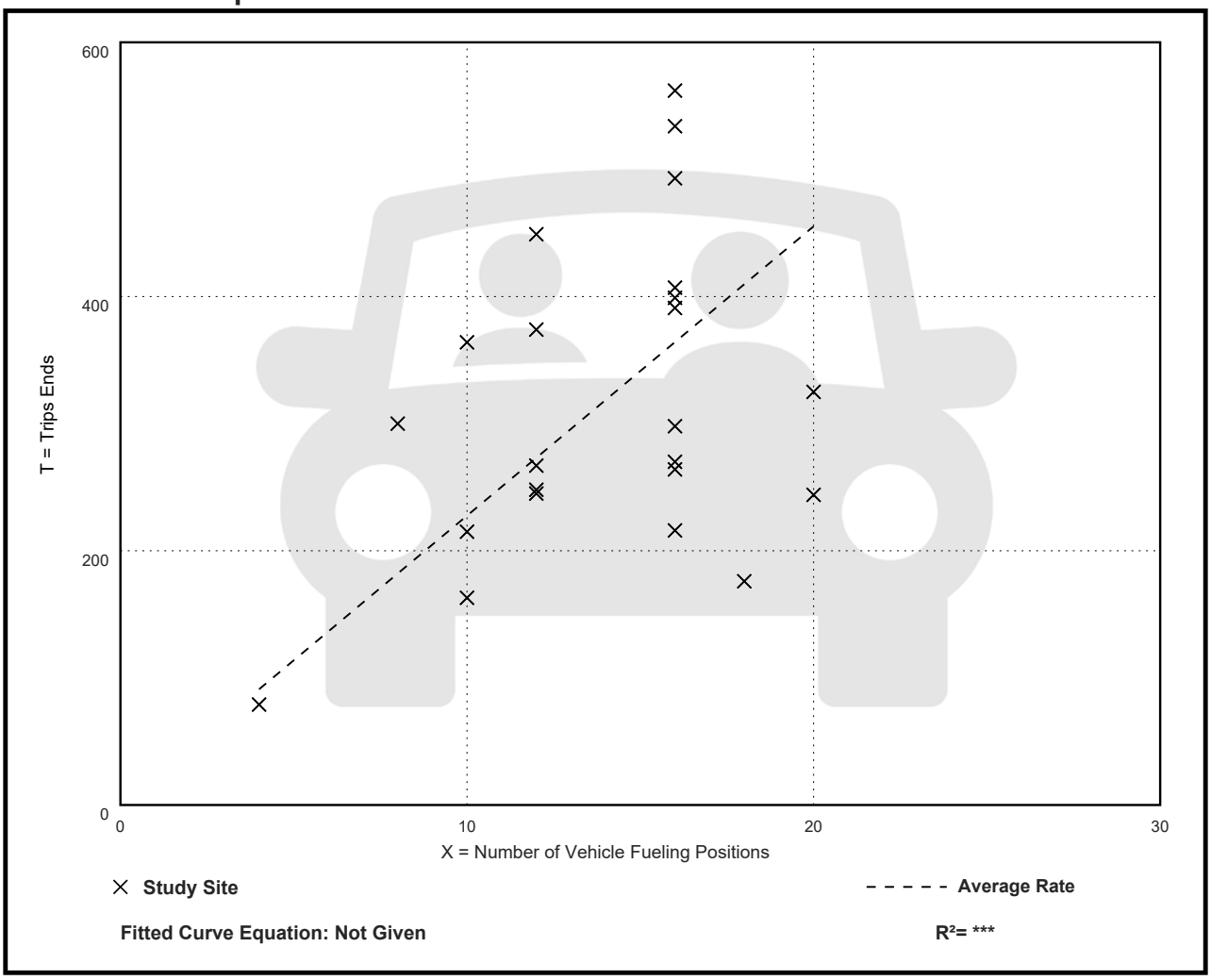
# Convenience Store/Gas Station - GFA (4-5.5k) (945)

**Vehicle Trip Ends vs: Vehicle Fueling Positions**
**On a: Weekday,**
**Peak Hour of Adjacent Street Traffic,**
**One Hour Between 4 and 6 p.m.**
**Setting/Location: General Urban/Suburban**
Number of Studies: 23
Avg. Num. of Vehicle Fueling Positions: 14
Directional Distribution: 50% entering, 50% exiting

## Vehicle Trip Generation per Vehicle Fueling Position

| Average Rate | Range of Rates | Standard Deviation |
|---|---|---|
| 22.76 | 9.78 - 37.50 | 8.49 |

## Data Plot and Equation



# Convenience Store/Gas Station - GFA (4-5.5k) (945)

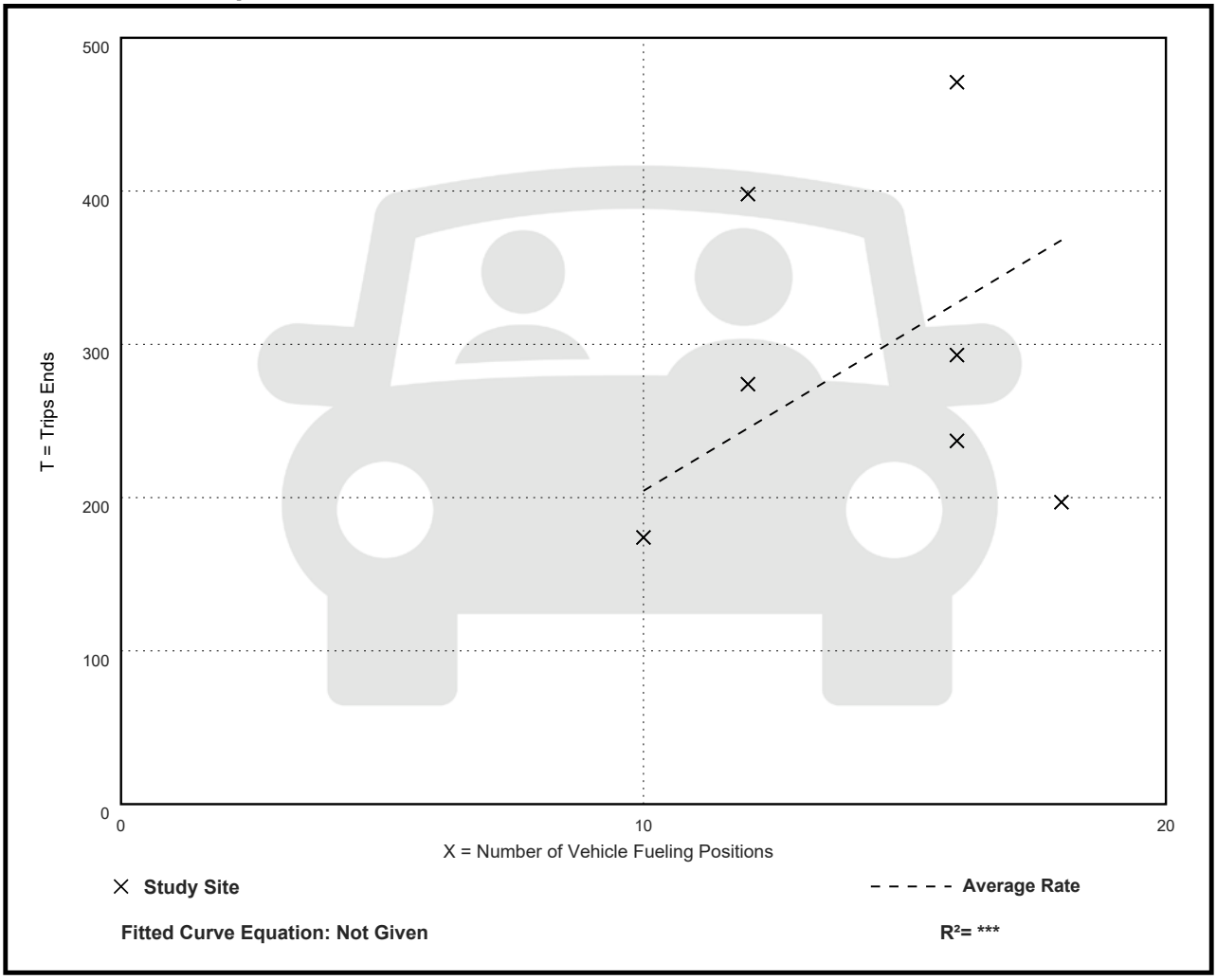
**Vehicle Trip Ends vs: Vehicle Fueling Positions**
**On a: Saturday, Peak Hour of Generator**

**Setting/Location: General Urban/Suburban**
Number of Studies: 7
Avg. Num. of Vehicle Fueling Positions: 14
Directional Distribution: 51% entering, 49% exiting

## Vehicle Trip Generation per Vehicle Fueling Position

| Average Rate | Range of Rates | Standard Deviation |
|---|---|---|
| 20.44 | 10.94 - 33.17 | 8.08 |

## Data Plot and Equation



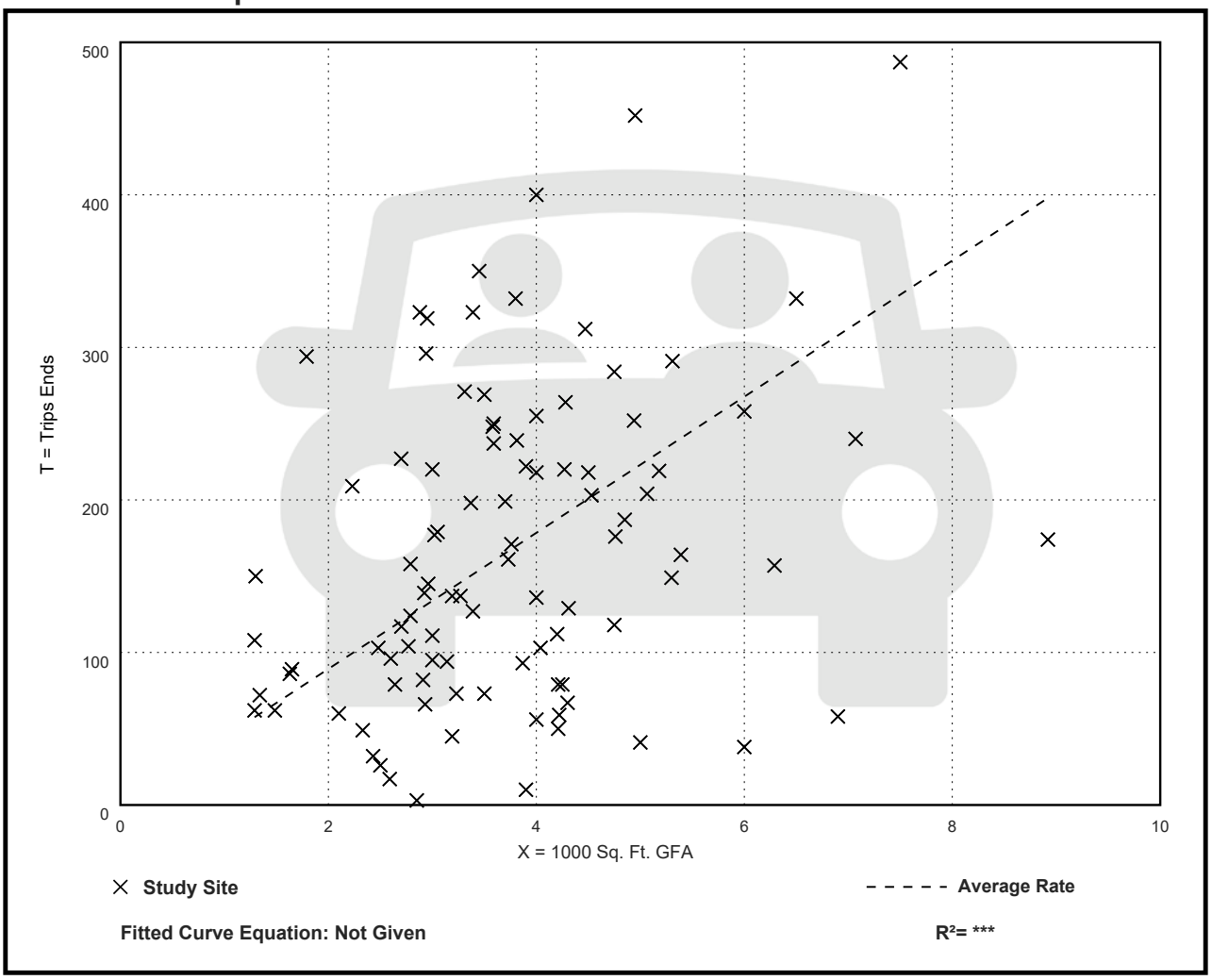
# Fast-Food Restaurant with Drive-Through Window (934)

**Vehicle Trip Ends vs: 1000 Sq. Ft. GFA**
**On a: Weekday,**
**Peak Hour of Adjacent Street Traffic,**
**One Hour Between 7 and 9 a.m.**
**Setting/Location: General Urban/Suburban**
Number of Studies: 96
Avg. 1000 Sq. Ft. GFA: 4
Directional Distribution: 51% entering, 49% exiting

## Vehicle Trip Generation per 1000 Sq. Ft. GFA

| Average Rate | Range of Rates | Standard Deviation |
|---|---|---|
| 44.61 | 1.05 - 164.25 | 27.14 |

## Data Plot and Equation



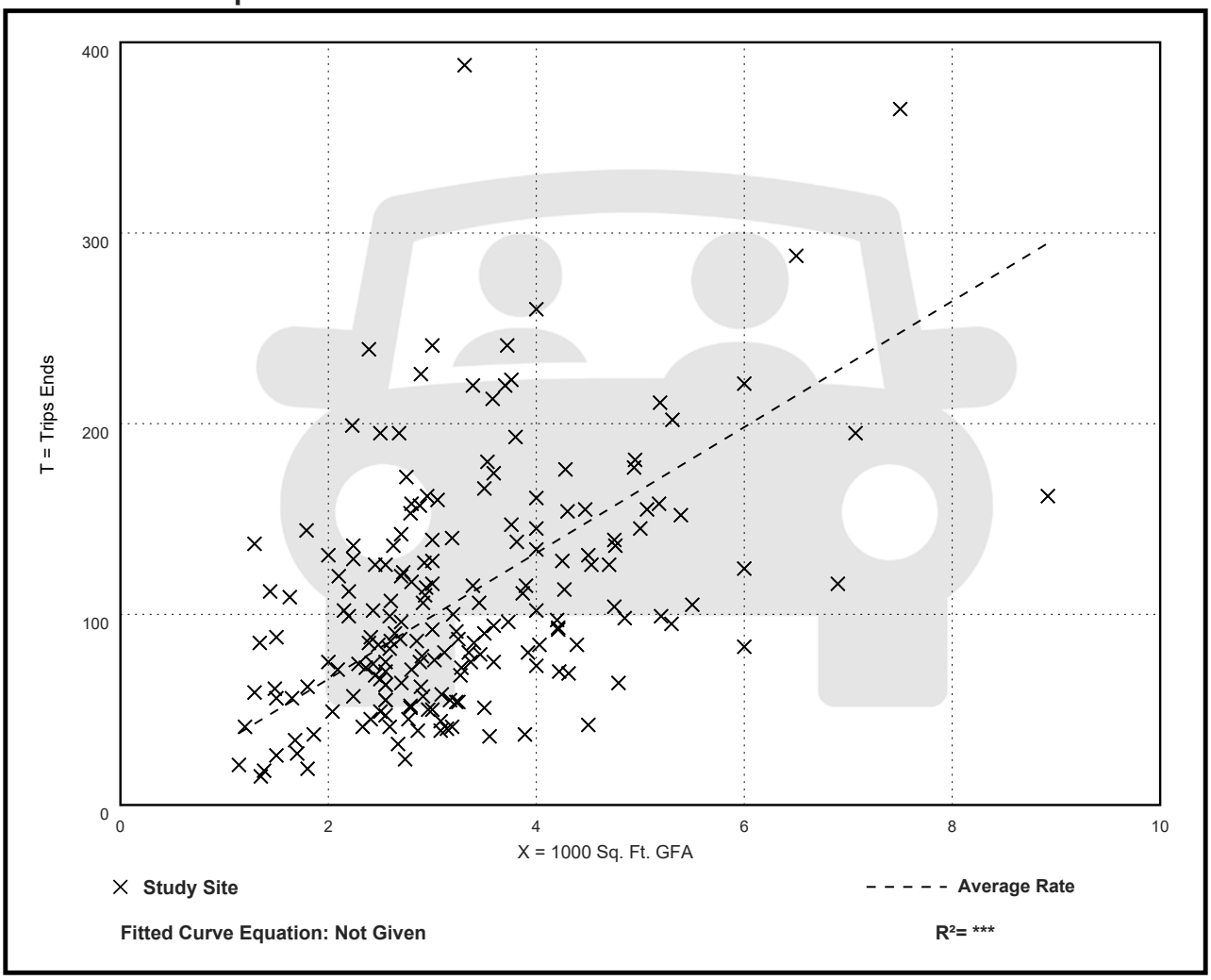
# Fast-Food Restaurant with Drive-Through Window (934)

**Vehicle Trip Ends vs: 1000 Sq. Ft. GFA**
**On a: Weekday,**
**Peak Hour of Adjacent Street Traffic,**
**One Hour Between 4 and 6 p.m.**
**Setting/Location: General Urban/Suburban**
Number of Studies: 190
Avg. 1000 Sq. Ft. GFA: 3
Directional Distribution: 52% entering, 48% exiting

## Vehicle Trip Generation per 1000 Sq. Ft. GFA

| Average Rate | Range of Rates | Standard Deviation |
|---|---|---|
| 33.03 | 8.77 - 117.22 | 17.59 |

## Data Plot and Equation



# Fast-Food Restaurant with Drive-Through Window (934)

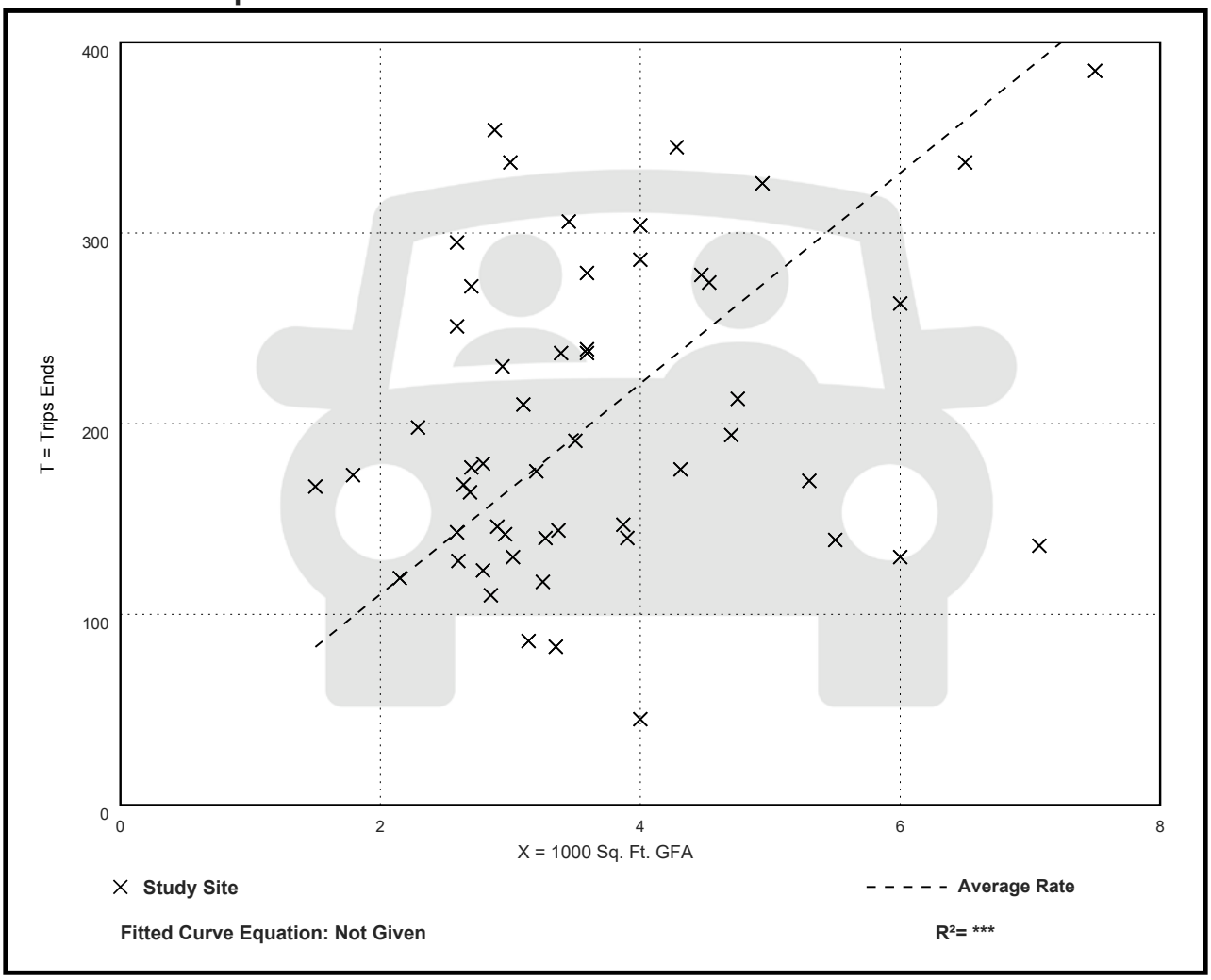
**Vehicle Trip Ends vs: 1000 Sq. Ft. GFA**
**On a: Saturday, Peak Hour of Generator**

**Setting/Location: General Urban/Suburban**
Number of Studies: 53
Avg. 1000 Sq. Ft. GFA: 4
Directional Distribution: 51% entering, 49% exiting

## Vehicle Trip Generation per 1000 Sq. Ft. GFA

| Average Rate | Range of Rates | Standard Deviation |
|---|---|---|
| 55.25 | 11.25 - 122.92 | 24.62 |

## Data Plot and Equation



# Level of Service Criteria

LEVEL OF SERVICE CRITERIA

| Signalized Intersections | | |
|---|---|---|
| Level of Service | Interpretation | Average Control Delay (seconds per vehicle) |
| A | Favorable progression. Most vehicles arrive during the green indication and travel through the intersection without stopping. | ≤10 |
| B | Good progression, with more vehicles stopping than for Level of Service A. | >10 - 20 |
| C | Individual cycle failures (i.e., one or more queued vehicles are not able to depart as a result of insufficient capacity during the cycle) may begin to appear. Number of vehicles stopping is significant, although many vehicles still pass through the intersection without stopping. | >20 - 35 |
| D | The volume-to-capacity ratio is high and either progression is ineffective or the cycle length is too long. Many vehicles stop and individual cycle failures are noticeable. | >35 - 55 |
| E | Progression is unfavorable. The volume-to-capacity ratio is high and the cycle length is long. Individual cycle failures are frequent. | >55 - 80 |
| F | The volume-to-capacity ratio is very high, progression is very poor, and the cycle length is long. Most cycles fail to clear the queue. | >80.0 |

| Unsignalized Intersections | |
|---|---|
| Level of Service | Average Total Delay (SEC/VEH) |
| A | 0 - 10 |
| B | > 10 - 15 |
| C | > 15 - 25 |
| D | > 25 - 35 |
| E | > 35 - 50 |
| F | > 50 |

Source: *Highway Capacity Manual*, 6th Edition.

# Capacity Analysis Summary Sheets

Existing Weekday Morning Peak Hour

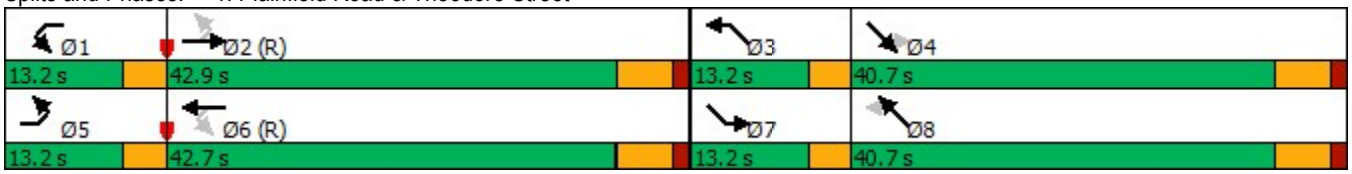
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | SEL | SET | SER | NWL | NWT | NWR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 12 | 183 | 168 | 71 | 326 | 195 | 94 | 619 | 19 | 118 | 430 | 85 |
| Future Volume (vph) | 12 | 183 | 168 | 71 | 326 | 195 | 94 | 619 | 19 | 118 | 430 | 85 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Width (ft) | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 |
| Grade (%) | | 0% | | | 0% | | | 0% | | | 0% | |
| Storage Length (ft) | 180 | | 0 | 125 | | 0 | 310 | | 0 | 270 | | 0 |
| Storage Lanes | 1 | | 0 | 1 | | 0 | 1 | | 0 | 1 | | 0 |
| Taper Length (ft) | 115 | | | 115 | | | 220 | | | 150 | | |
| Lane Util. Factor | 1.00 | 0.95 | 0.95 | 1.00 | 0.95 | 0.95 | 1.00 | 0.95 | 0.95 | 1.00 | 0.95 | 0.95 |
| Ped Bike Factor | | | | | | | | | | | | |
| Frt | | 0.928 | | | 0.944 | | | 0.996 | | | 0.975 | |
| Flt Protected | 0.950 | | | 0.950 | | | 0.950 | | | 0.950 | | |
| Satd. Flow (prot) | 1805 | 3251 | 0 | 1671 | 3309 | 0 | 1736 | 3494 | 0 | 1752 | 3434 | 0 |
| Flt Permitted | 0.405 | | | 0.445 | | | 0.336 | | | 0.238 | | |
| Satd. Flow (perm) | 770 | 3251 | 0 | 783 | 3309 | 0 | 614 | 3494 | 0 | 439 | 3434 | 0 |
| Right Turn on Red | | | No | | | No | | | No | | | No |
| Satd. Flow (RTOR) | | | | | | | | | | | | |
| Link Speed (mph) | | 35 | | | 35 | | | 35 | | | 35 | |
| Link Distance (ft) | | 933 | | | 319 | | | 463 | | | 1681 | |
| Travel Time (s) | | 18.2 | | | 6.2 | | | 9.0 | | | 32.7 | |
| Confl. Peds. (#/hr) | | | | | | | | | | | | |
| Confl. Bikes (#/hr) | | | | | | | | | | | | |
| Peak Hour Factor | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 |
| Growth Factor | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% |
| Heavy Vehicles (%) | 0% | 4% | 2% | 8% | 3% | 3% | 4% | 3% | 0% | 3% | 3% | 0% |
| Bus Blockages (#/hr) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Parking (#/hr) | | | | | | | | | | | | |
| Mid-Block Traffic (%) | | 0% | | | 0% | | | 0% | | | 0% | |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 13 | 386 | 0 | 78 | 572 | 0 | 103 | 701 | 0 | 130 | 566 | 0 |
| Turn Type | pm+pt | NA | | pm+pt | NA | | pm+pt | NA | | pm+pt | NA | |
| Protected Phases | 5 | 2 | | 1 | 6 | | 7 | 4 | | 3 | 8 | |
| Permitted Phases | 2 | | | 6 | | | 4 | | | 8 | | |
| Detector Phase | 5 | 2 | | 1 | 6 | | 7 | 4 | | 3 | 8 | |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 3.0 | 15.0 | | 3.0 | 15.0 | | 3.0 | 15.0 | | 3.0 | 15.0 | |
| Minimum Split (s) | 6.5 | 21.0 | | 6.5 | 21.0 | | 6.5 | 21.0 | | 6.5 | 21.0 | |
| Total Split (s) | 13.2 | 42.9 | | 13.2 | 42.7 | | 13.2 | 40.7 | | 13.2 | 40.7 | |
| Total Split (%) | 12.0% | 39.0% | | 12.0% | 38.8% | | 12.0% | 37.0% | | 12.0% | 37.0% | |
| Yellow Time (s) | 3.5 | 4.5 | | 3.5 | 4.5 | | 3.5 | 4.5 | | 3.5 | 4.5 | |
| All-Red Time (s) | 0.0 | 1.5 | | 0.0 | 1.5 | | 0.0 | 1.5 | | 0.0 | 1.5 | |
| Lost Time Adjust (s) | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Total Lost Time (s) | 3.5 | 6.0 | | 3.5 | 6.0 | | 3.5 | 6.0 | | 3.5 | 6.0 | |
| Lead/Lag | Lead | Lag | | Lead | Lag | | Lead | Lag | | Lead | Lag | |
| Lead-Lag Optimize? | Yes | Yes | | Yes | Yes | | Yes | Yes | | Yes | Yes | |
| Recall Mode | None | C-Min | | None | C-Min | | None | None | | None | None | |
| Act Effct Green (s) | 47.8 | 40.4 | | 52.5 | 46.2 | | 46.4 | 35.2 | | 47.3 | 35.7 | |
| Actuated g/C Ratio | 0.43 | 0.37 | | 0.48 | 0.42 | | 0.42 | 0.32 | | 0.43 | 0.32 | |

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | SEL | SET | SER | NWL | NWT | NWR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| v/c Ratio | 0.03 | 0.32 | | 0.18 | 0.41 | | 0.30 | 0.63 | | 0.44 | 0.51 | |
| Control Delay | 16.1 | 27.4 | | 17.4 | 24.8 | | 6.5 | 22.3 | | 22.0 | 31.9 | |
| Queue Delay | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Total Delay | 16.1 | 27.4 | | 17.4 | 24.8 | | 6.5 | 22.3 | | 22.0 | 31.9 | |
| LOS | B | C | | B | C | | A | C | | C | C | |
| Approach Delay | | 27.0 | | | 23.9 | | | 20.3 | | | 30.1 | |
| Approach LOS | | C | | | C | | | C | | | C | |
| Queue Length 50th (ft) | 5 | 113 | | 32 | 148 | | 3 | 220 | | 48 | 157 | |
| Queue Length 95th (ft) | 15 | 150 | | 57 | 214 | | m8 | 287 | | 90 | 227 | |
| Internal Link Dist (ft) | | 853 | | | 239 | | | 383 | | | 1601 | |
| Turn Bay Length (ft) | 180 | | | 125 | | | 310 | | | 270 | | |
| Base Capacity (vph) | 445 | 1216 | | 452 | 1389 | | 364 | 1145 | | 308 | 1135 | |
| Starvation Cap Reductn | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | |
| Spillback Cap Reductn | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | |
| Storage Cap Reductn | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | |
| Reduced v/c Ratio | 0.03 | 0.32 | | 0.17 | 0.41 | | 0.28 | 0.61 | | 0.42 | 0.50 | |

Intersection Summary

Area Type: Other
Cycle Length: 110
Actuated Cycle Length: 110
Offset: 11 (10%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green
Natural Cycle: 55
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.63
Intersection Signal Delay: 24.9 Intersection LOS: C
Intersection Capacity Utilization 59.5% ICU Level of Service B
Analysis Period (min) 15
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 1: Plainfield Road & Theodore Street



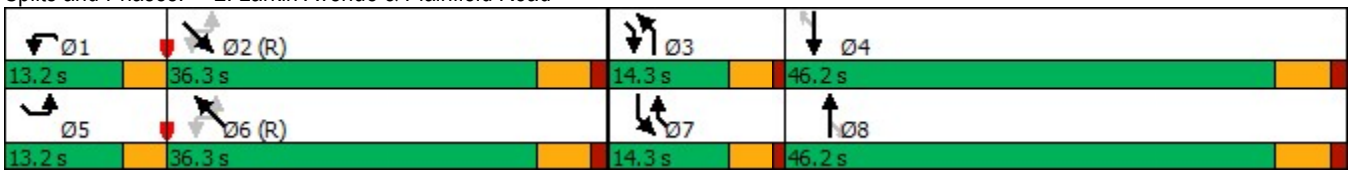
| Lane Group | NBL | NBT | NBR | SBL | SBT | SBR | SEL | SET | SER | NWL | NWT | NWR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 194 | 541 | 81 | 114 | 517 | 27 | 56 | 588 | 205 | 70 | 427 | 167 |
| Future Volume (vph) | 194 | 541 | 81 | 114 | 517 | 27 | 56 | 588 | 205 | 70 | 427 | 167 |
| Ideal Flow (vphpl) | 1900 | 2000 | 1900 | 1900 | 2000 | 1900 | 1900 | 2000 | 1900 | 1900 | 2000 | 1900 |
| Lane Width (ft) | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 |
| Grade (%) | | 0% | | | 0% | | | 0% | | | 0% | |
| Storage Length (ft) | 190 | | 150 | 200 | | 200 | 215 | | 285 | 155 | | 165 |
| Storage Lanes | 2 | | 1 | 1 | | 1 | 1 | | 1 | 1 | | 1 |
| Taper Length (ft) | 220 | | | 175 | | | 250 | | | 110 | | |
| Lane Util. Factor | 0.97 | 0.95 | 1.00 | 1.00 | 0.95 | 1.00 | 1.00 | 0.95 | 1.00 | 1.00 | 0.95 | 1.00 |
| Ped Bike Factor | | | | | | | | | | | | |
| Frt | | | 0.850 | | | 0.850 | | | 0.850 | | | 0.850 |
| Flt Protected | 0.950 | | | 0.950 | | | 0.950 | | | 0.950 | | |
| Satd. Flow (prot) | 3400 | 3519 | 1599 | 1736 | 3585 | 1455 | 1656 | 3689 | 1568 | 1805 | 3689 | 1599 |
| Flt Permitted | 0.950 | | | 0.950 | | | 0.411 | | | 0.282 | | |
| Satd. Flow (perm) | 3400 | 3519 | 1599 | 1736 | 3585 | 1455 | 716 | 3689 | 1568 | 536 | 3689 | 1599 |
| Right Turn on Red | | | No | | | No | | | No | | | No |
| Satd. Flow (RTOR) | | | | | | | | | | | | |
| Link Speed (mph) | | 35 | | | 35 | | | 40 | | | 35 | |
| Link Distance (ft) | | 853 | | | 840 | | | 808 | | | 1222 | |
| Travel Time (s) | | 16.6 | | | 16.4 | | | 13.8 | | | 23.8 | |
| Confl. Peds. (#/hr) | | | | | | | | | | | | |
| Confl. Bikes (#/hr) | | | | | | | | | | | | |
| Peak Hour Factor | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 |
| Growth Factor | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% |
| Heavy Vehicles (%) | 3% | 8% | 1% | 4% | 6% | 11% | 9% | 3% | 3% | 0% | 3% | 1% |
| Bus Blockages (#/hr) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Parking (#/hr) | | | | | | | | | | | | |
| Mid-Block Traffic (%) | | 0% | | | 0% | | | 0% | | | 0% | |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 216 | 601 | 90 | 127 | 574 | 30 | 62 | 653 | 228 | 78 | 474 | 186 |
| Turn Type | Prot | NA | Perm | Prot | NA | Perm | pm+pt | NA | pm+ov | pm+pt | NA | pm+ov |
| Protected Phases | 3 | 8 | | 7 | 4 | | 5 | 2 | 3 | 1 | 6 | 7 |
| Permitted Phases | | | 8 | | | 4 | 2 | | 2 | 6 | | 6 |
| Detector Phase | 3 | 8 | 8 | 7 | 4 | 4 | 5 | 2 | 3 | 1 | 6 | 7 |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 3.0 | 15.0 | 15.0 | 3.0 | 15.0 | 15.0 | 3.0 | 15.0 | 3.0 | 3.0 | 15.0 | 3.0 |
| Minimum Split (s) | 7.5 | 21.0 | 21.0 | 7.5 | 21.0 | 21.0 | 6.5 | 21.0 | 7.5 | 6.5 | 21.0 | 7.5 |
| Total Split (s) | 14.3 | 46.2 | 46.2 | 14.3 | 46.2 | 46.2 | 13.2 | 36.3 | 14.3 | 13.2 | 36.3 | 14.3 |
| Total Split (%) | 13.0% | 42.0% | 42.0% | 13.0% | 42.0% | 42.0% | 12.0% | 33.0% | 13.0% | 12.0% | 33.0% | 13.0% |
| Yellow Time (s) | 3.5 | 4.5 | 4.5 | 3.5 | 4.5 | 4.5 | 3.5 | 4.5 | 3.5 | 3.5 | 4.5 | 3.5 |
| All-Red Time (s) | 1.0 | 1.5 | 1.5 | 1.0 | 1.5 | 1.5 | 0.0 | 1.5 | 1.0 | 0.0 | 1.5 | 1.0 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Lost Time (s) | 4.5 | 6.0 | 6.0 | 4.5 | 6.0 | 6.0 | 3.5 | 6.0 | 4.5 | 3.5 | 6.0 | 4.5 |
| Lead/Lag | Lead | Lag | Lag | Lead | Lag | Lag | Lead | Lag | Lead | Lead | Lag | Lead |
| Lead-Lag Optimize? | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Recall Mode | None | None | None | None | None | None | None | C-Min | None | None | C-Min | None |
| Act Effct Green (s) | 9.6 | 36.0 | 36.0 | 9.7 | 36.1 | 36.1 | 47.3 | 38.1 | 53.7 | 47.7 | 38.3 | 54.0 |
| Actuated g/C Ratio | 0.09 | 0.33 | 0.33 | 0.09 | 0.33 | 0.33 | 0.43 | 0.35 | 0.49 | 0.43 | 0.35 | 0.49 |

| Lane Group | NBL | NBT | NBR | SBL | SBT | SBR | SEL | SET | SER | NWL | NWT | NWR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| v/c Ratio | 0.73 | 0.52 | 0.17 | 0.83 | 0.49 | 0.06 | 0.17 | 0.51 | 0.30 | 0.24 | 0.37 | 0.24 |
| Control Delay | 63.7 | 31.2 | 25.7 | 88.7 | 30.5 | 23.7 | 20.1 | 32.5 | 20.6 | 15.3 | 25.9 | 16.9 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 63.7 | 31.2 | 25.7 | 88.7 | 30.5 | 23.7 | 20.1 | 32.5 | 20.6 | 15.3 | 25.9 | 16.9 |
| LOS | E | C | C | F | C | C | C | C | C | B | C | B |
| Approach Delay | | 38.4 | | | 40.3 | | | 28.8 | | | 22.5 | |
| Approach LOS | | D | | | D | | | C | | | C | |
| Queue Length 50th (ft) | 77 | 171 | 43 | 90 | 161 | 14 | 26 | 207 | 104 | 36 | 137 | 94 |
| Queue Length 95th (ft) | #127 | 222 | 79 | #195 | 210 | 35 | 53 | 276 | 170 | 62 | 223 | 157 |
| Internal Link Dist (ft) | | 773 | | | 760 | | | 728 | | | 1142 | |
| Turn Bay Length (ft) | 190 | | 150 | 200 | | 200 | 215 | | 285 | 155 | | 165 |
| Base Capacity (vph) | 302 | 1286 | 584 | 154 | 1310 | 531 | 397 | 1277 | 768 | 348 | 1284 | 786 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.72 | 0.47 | 0.15 | 0.82 | 0.44 | 0.06 | 0.16 | 0.51 | 0.30 | 0.22 | 0.37 | 0.24 |

**Intersection Summary**

Area Type: Other
Cycle Length: 110
Actuated Cycle Length: 110
Offset: 16.5 (15%), Referenced to phase 2:SETL and 6:NWTL, Start of Green
Natural Cycle: 60
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.83
Intersection Signal Delay: 32.6 Intersection LOS: C
Intersection Capacity Utilization 56.9% ICU Level of Service B
Analysis Period (min) 15
# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 2: Larkin Avenue & Plainfield Road



| Intersection | |
|---|---|
| Int Delay, s/veh | 1.8 |

| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 56 | 306 | 532 | 135 | 42 | 60 |
| Future Vol, veh/h | 56 | 306 | 532 | 135 | 42 | 60 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | - | - | 0 | - |
| Veh in Median Storage, # | - | 0 | 0 | - | 1 | - |
| Grade, % | - | 0 | 0 | - | 0 | - |
| Peak Hour Factor | 95 | 95 | 95 | 95 | 95 | 95 |
| Heavy Vehicles, % | 0 | 5 | 4 | 5 | 2 | 0 |
| Mvmt Flow | 59 | 322 | 560 | 142 | 44 | 63 |

| Major/Minor | Major1 | | Major2 | | Minor2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 702 | 0 | - | 0 | 910 | 351 |
| Stage 1 | - | - | - | - | 631 | - |
| Stage 2 | - | - | - | - | 279 | - |
| Critical Hdwy | 4.1 | - | - | - | 6.84 | 6.9 |
| Critical Hdwy Stg 1 | - | - | - | - | 5.84 | - |
| Critical Hdwy Stg 2 | - | - | - | - | 5.84 | - |
| Follow-up Hdwy | 2.2 | - | - | - | 3.52 | 3.3 |
| Pot Cap-1 Maneuver | 905 | - | - | - | 274 | 651 |
| Stage 1 | - | - | - | - | 492 | - |
| Stage 2 | - | - | - | - | 743 | - |
| Platoon blocked, % | | - | - | - | | |
| Mov Cap-1 Maneuver | 905 | - | - | - | 252 | 651 |
| Mov Cap-2 Maneuver | - | - | - | - | 360 | - |
| Stage 1 | - | - | - | - | 453 | - |
| Stage 2 | - | - | - | - | 743 | - |

| Approach | EB | WB | SB |
|---|---|---|---|
| HCM Control Delay, s | 1.7 | 0 | 14.4 |
| HCM LOS | | | B |

| Minor Lane/Major Mvmt | EBL | EBT | WBT | WBR | SBLn1 |
|---|---|---|---|---|---|
| Capacity (veh/h) | 905 | - | - | - | 488 |
| HCM Lane V/C Ratio | 0.065 | - | - | - | 0.22 |
| HCM Control Delay (s) | 9.3 | 0.3 | - | - | 14.4 |
| HCM Lane LOS | A | A | - | - | B |
| HCM 95th %tile Q(veh) | 0.2 | - | - | - | 0.8 |

| Intersection | |
|---|---|
| Int Delay, s/veh | 0 |

| Movement | SEL | SET | SER | NWL | NWT | NWR | NEL | NET | NER | SWL | SWT | SWR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Vol, veh/h | 0 | 732 | 1 | 0 | 637 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Future Vol, veh/h | 0 | 732 | 1 | 0 | 637 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Free | Free | Stop | Stop | Stop | Stop | Stop | Stop |
| RT Channelized | - | - | None | - | - | None | - | - | None | - | - | None |
| Storage Length | 10 | - | - | - | - | - | - | - | - | - | - | - |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 91 | 91 | 91 | 91 | 91 | 91 | 91 | 91 | 91 | 91 | 91 | 91 |
| Heavy Vehicles, % | 0 | 4 | 0 | 0 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mvmt Flow | 0 | 804 | 1 | 0 | 700 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

| Major/Minor | Major1 | | | Major2 | | | Minor1 | | | Minor2 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Conflicting Flow All | 700 | 0 | 0 | 805 | 0 | 0 | 1155 | 1505 | 403 | 1102 | 1505 | 350 |
| Stage 1 | - | - | - | - | - | - | 805 | 805 | - | 700 | 700 | - |
| Stage 2 | - | - | - | - | - | - | 350 | 700 | - | 402 | 805 | - |
| Critical Hdwy | 4.1 | - | - | 4.1 | - | - | 7.5 | 6.5 | 6.9 | 7.5 | 6.5 | 6.9 |
| Critical Hdwy Stg 1 | - | - | - | - | - | - | 6.5 | 5.5 | - | 6.5 | 5.5 | - |
| Critical Hdwy Stg 2 | - | - | - | - | - | - | 6.5 | 5.5 | - | 6.5 | 5.5 | - |
| Follow-up Hdwy | 2.2 | - | - | 2.2 | - | - | 3.5 | 4 | 3.3 | 3.5 | 4 | 3.3 |
| Pot Cap-1 Maneuver | 906 | - | - | 828 | - | - | 154 | 122 | 603 | 169 | 122 | 652 |
| Stage 1 | - | - | - | - | - | - | 347 | 398 | - | 401 | 444 | - |
| Stage 2 | - | - | - | - | - | - | 645 | 444 | - | 601 | 398 | - |
| Platoon blocked, % | | - | - | | - | - | | | | | | |
| Mov Cap-1 Maneuver | 906 | - | - | 828 | - | - | 154 | 122 | 603 | 169 | 122 | 652 |
| Mov Cap-2 Maneuver | - | - | - | - | - | - | 154 | 122 | - | 169 | 122 | - |
| Stage 1 | - | - | - | - | - | - | 347 | 398 | - | 401 | 444 | - |
| Stage 2 | - | - | - | - | - | - | 645 | 444 | - | 601 | 398 | - |

| Approach | SE | NW | NE | SW |
|---|---|---|---|---|
| HCM Control Delay, s | 0 | 0 | 0 | 0 |
| HCM LOS | | | A | A |

| Minor Lane/Major Mvmt | NELn1 | NWL | NWT | NWR | SEL | SET | SERSWLn1 | | |
|---|---|---|---|---|---|---|---|---|---|
| Capacity (veh/h) | - | 828 | - | - | 906 | - | - | - | |
| HCM Lane V/C Ratio | - | - | - | - | - | - | - | - | |
| HCM Control Delay (s) | 0 | 0 | - | - | 0 | - | - | 0 | |
| HCM Lane LOS | A | A | - | - | A | - | - | A | |
| HCM 95th %tile Q(veh) | - | 0 | - | - | 0 | - | - | - | |

| Intersection | |
|---|---|
| Int Delay, s/veh | 0.1 |

| Movement | SEL | SET | SER | NWL | NWT | NWR | NEL | NET | NER | SWL | SWT | SWR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Vol, veh/h | 1 | 100 | 0 | 1 | 172 | 14 | 0 | 0 | 0 | 2 | 0 | 1 |
| Future Vol, veh/h | 1 | 100 | 0 | 1 | 172 | 14 | 0 | 0 | 0 | 2 | 0 | 1 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Free | Free | Stop | Stop | Stop | Stop | Stop | Stop |
| RT Channelized | - | - | None | - | - | None | - | - | None | - | - | None |
| Storage Length | - | - | - | - | - | - | - | - | 0 | - | - | - |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 87 | 87 | 87 | 87 | 87 | 87 | 87 | 87 | 87 | 87 | 87 | 87 |
| Heavy Vehicles, % | 0 | 3 | 7 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mvmt Flow | 1 | 115 | 0 | 1 | 198 | 16 | 0 | 0 | 0 | 2 | 0 | 1 |

| Major/Minor | Major1 | | | Major2 | | | Minor1 | | | Minor2 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Conflicting Flow All | 214 | 0 | 0 | 115 | 0 | 0 | 326 | 333 | 115 | 325 | 325 | 206 |
| Stage 1 | - | - | - | - | - | - | 117 | 117 | - | 208 | 208 | - |
| Stage 2 | - | - | - | - | - | - | 209 | 216 | - | 117 | 117 | - |
| Critical Hdwy | 4.1 | - | - | 4.1 | - | - | 7.1 | 6.5 | 6.2 | 7.1 | 6.5 | 6.2 |
| Critical Hdwy Stg 1 | - | - | - | - | - | - | 6.1 | 5.5 | - | 6.1 | 5.5 | - |
| Critical Hdwy Stg 2 | - | - | - | - | - | - | 6.1 | 5.5 | - | 6.1 | 5.5 | - |
| Follow-up Hdwy | 2.2 | - | - | 2.2 | - | - | 3.5 | 4 | 3.3 | 3.5 | 4 | 3.3 |
| Pot Cap-1 Maneuver | 1368 | - | - | 1487 | - | - | 631 | 590 | 943 | 632 | 596 | 840 |
| Stage 1 | - | - | - | - | - | - | 892 | 803 | - | 799 | 734 | - |
| Stage 2 | - | - | - | - | - | - | 798 | 728 | - | 892 | 803 | - |
| Platoon blocked, % | | - | - | | - | - | | | | | | |
| Mov Cap-1 Maneuver | 1368 | - | - | 1487 | - | - | 629 | 589 | 943 | 631 | 595 | 840 |
| Mov Cap-2 Maneuver | - | - | - | - | - | - | 629 | 589 | - | 631 | 595 | - |
| Stage 1 | - | - | - | - | - | - | 891 | 802 | - | 798 | 733 | - |
| Stage 2 | - | - | - | - | - | - | 796 | 727 | - | 891 | 802 | - |

| Approach | SE | NW | NE | SW |
|---|---|---|---|---|
| HCM Control Delay, s | 0.1 | 0 | 0 | 10.3 |
| HCM LOS | | | A | B |

| Minor Lane/Major Mvmt | NELn1 | NELn2 | NWL | NWT | NWR | SEL | SET | SERSWLn1 |
|---|---|---|---|---|---|---|---|---|
| Capacity (veh/h) | - | - | 1487 | - | - | 1368 | - | - 688 |
| HCM Lane V/C Ratio | - | - | 0.001 | - | - | 0.001 | - | - 0.005 |
| HCM Control Delay (s) | 0 | 0 | 7.4 | 0 | - | 7.6 | 0 | - 10.3 |
| HCM Lane LOS | A | A | A | A | - | A | A | - B |
| HCM 95th %tile Q(veh) | - | - | 0 | - | - | 0 | - | - 0 |

# Capacity Analysis Summary Sheets

Existing Weekday Evening Peak Hour

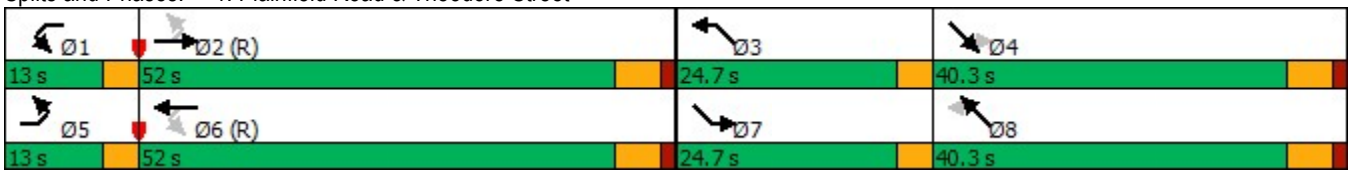
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | SEL | SET | SER | NWL | NWT | NWR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 32 | 419 | 248 | 111 | 486 | 230 | 235 | 714 | 17 | 196 | 589 | 79 |
| Future Volume (vph) | 32 | 419 | 248 | 111 | 486 | 230 | 235 | 714 | 17 | 196 | 589 | 79 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Width (ft) | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 |
| Grade (%) | | 0% | | | 0% | | | 0% | | | 0% | |
| Storage Length (ft) | 180 | | 0 | 125 | | 0 | 310 | | 0 | 270 | | 0 |
| Storage Lanes | 1 | | 0 | 1 | | 0 | 1 | | 0 | 1 | | 0 |
| Taper Length (ft) | 115 | | | 115 | | | 220 | | | 150 | | |
| Lane Util. Factor | 1.00 | 0.95 | 0.95 | 1.00 | 0.95 | 0.95 | 1.00 | 0.95 | 0.95 | 1.00 | 0.95 | 0.95 |
| Ped Bike Factor | | | | | | | | | | | | |
| Frt | | 0.944 | | | 0.952 | | | 0.997 | | | 0.982 | |
| Flt Protected | 0.950 | | | 0.950 | | | 0.950 | | | 0.950 | | |
| Satd. Flow (prot) | 1805 | 3321 | 0 | 1719 | 3369 | 0 | 1736 | 3525 | 0 | 1752 | 3442 | 0 |
| Flt Permitted | 0.293 | | | 0.259 | | | 0.202 | | | 0.191 | | |
| Satd. Flow (perm) | 557 | 3321 | 0 | 469 | 3369 | 0 | 369 | 3525 | 0 | 352 | 3442 | 0 |
| Right Turn on Red | | | No | | | No | | | No | | | No |
| Satd. Flow (RTOR) | | | | | | | | | | | | |
| Link Speed (mph) | | 35 | | | 35 | | | 35 | | | 35 | |
| Link Distance (ft) | | 933 | | | 319 | | | 463 | | | 1681 | |
| Travel Time (s) | | 18.2 | | | 6.2 | | | 9.0 | | | 32.7 | |
| Confl. Peds. (#/hr) | | | | | | | | | | | | |
| Confl. Bikes (#/hr) | | | | | | | | | | | | |
| Peak Hour Factor | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 |
| Growth Factor | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% |
| Heavy Vehicles (%) | 0% | 3% | 2% | 5% | 2% | 2% | 4% | 2% | 6% | 3% | 3% | 3% |
| Bus Blockages (#/hr) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Parking (#/hr) | | | | | | | | | | | | |
| Mid-Block Traffic (%) | | 0% | | | 0% | | | 0% | | | 0% | |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 33 | 681 | 0 | 113 | 731 | 0 | 240 | 746 | 0 | 200 | 682 | 0 |
| Turn Type | pm+pt | NA | | pm+pt | NA | | pm+pt | NA | | pm+pt | NA | |
| Protected Phases | 5 | 2 | | 1 | 6 | | 7 | 4 | | 3 | 8 | |
| Permitted Phases | 2 | | | 6 | | | 4 | | | 8 | | |
| Detector Phase | 5 | 2 | | 1 | 6 | | 7 | 4 | | 3 | 8 | |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 3.0 | 15.0 | | 3.0 | 15.0 | | 3.0 | 15.0 | | 3.0 | 15.0 | |
| Minimum Split (s) | 6.5 | 21.0 | | 6.5 | 21.0 | | 6.5 | 21.0 | | 6.5 | 21.0 | |
| Total Split (s) | 13.0 | 52.0 | | 13.0 | 52.0 | | 24.7 | 40.3 | | 24.7 | 40.3 | |
| Total Split (%) | 10.0% | 40.0% | | 10.0% | 40.0% | | 19.0% | 31.0% | | 19.0% | 31.0% | |
| Yellow Time (s) | 3.5 | 4.5 | | 3.5 | 4.5 | | 3.5 | 4.5 | | 3.5 | 4.5 | |
| All-Red Time (s) | 0.0 | 1.5 | | 0.0 | 1.5 | | 0.0 | 1.5 | | 0.0 | 1.5 | |
| Lost Time Adjust (s) | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Total Lost Time (s) | 3.5 | 6.0 | | 3.5 | 6.0 | | 3.5 | 6.0 | | 3.5 | 6.0 | |
| Lead/Lag | Lead | Lag | | Lead | Lag | | Lead | Lag | | Lead | Lag | |
| Lead-Lag Optimize? | Yes | Yes | | Yes | Yes | | Yes | Yes | | Yes | Yes | |
| Recall Mode | None | C-Min | | None | C-Min | | None | None | | None | None | |
| Act Effct Green (s) | 57.9 | 48.6 | | 62.5 | 54.3 | | 57.8 | 38.7 | | 54.4 | 37.0 | |
| Actuated g/C Ratio | 0.45 | 0.37 | | 0.48 | 0.42 | | 0.44 | 0.30 | | 0.42 | 0.28 | |

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | SEL | SET | SER | NWL | NWT | NWR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| v/c Ratio | 0.11 | 0.55 | | 0.36 | 0.52 | | 0.71 | 0.71 | | 0.65 | 0.70 | |
| Control Delay | 19.3 | 34.8 | | 22.5 | 31.2 | | 41.8 | 58.1 | | 31.9 | 46.1 | |
| Queue Delay | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Total Delay | 19.3 | 34.8 | | 22.5 | 31.2 | | 41.8 | 58.1 | | 31.9 | 46.1 | |
| LOS | B | C | | C | C | | D | E | | C | D | |
| Approach Delay | | 34.1 | | | 30.1 | | | 54.1 | | | 42.8 | |
| Approach LOS | | C | | | C | | | D | | | D | |
| Queue Length 50th (ft) | 15 | 244 | | 53 | 256 | | 201 | 350 | | 98 | 263 | |
| Queue Length 95th (ft) | 34 | 308 | | 90 | 328 | | m279 | m407 | | 151 | 351 | |
| Internal Link Dist (ft) | | 853 | | | 239 | | | 383 | | | 1601 | |
| Turn Bay Length (ft) | 180 | | | 125 | | | 310 | | | 270 | | |
| Base Capacity (vph) | 350 | 1240 | | 316 | 1408 | | 390 | 1050 | | 386 | 980 | |
| Starvation Cap Reductn | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | |
| Spillback Cap Reductn | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | |
| Storage Cap Reductn | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | |
| Reduced v/c Ratio | 0.09 | 0.55 | | 0.36 | 0.52 | | 0.62 | 0.71 | | 0.52 | 0.70 | |

**Intersection Summary**

Area Type: Other
Cycle Length: 130
Actuated Cycle Length: 130
Offset: 33.8 (26%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green
Natural Cycle: 55
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.71
Intersection Signal Delay: 41.1 Intersection LOS: D
Intersection Capacity Utilization 74.2% ICU Level of Service D
Analysis Period (min) 15
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 1: Plainfield Road & Theodore Street



| Lane Group | NBL | NBT | NBR | SBL | SBT | SBR | SEL | SET | SER | NWL | NWT | NWR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 283 | 596 | 64 | 182 | 784 | 75 | 82 | 737 | 326 | 85 | 673 | 140 |
| Future Volume (vph) | 283 | 596 | 64 | 182 | 784 | 75 | 82 | 737 | 326 | 85 | 673 | 140 |
| Ideal Flow (vphpl) | 1900 | 2000 | 1900 | 1900 | 2000 | 1900 | 1900 | 2000 | 1900 | 1900 | 2000 | 1900 |
| Lane Width (ft) | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 |
| Grade (%) | | 0% | | | 0% | | | 0% | | | 0% | |
| Storage Length (ft) | 190 | | 150 | 200 | | 200 | 215 | | 285 | 155 | | 165 |
| Storage Lanes | 2 | | 1 | 1 | | 1 | 1 | | 1 | 1 | | 1 |
| Taper Length (ft) | 220 | | | 175 | | | 250 | | | 110 | | |
| Lane Util. Factor | 0.97 | 0.95 | 1.00 | 1.00 | 0.95 | 1.00 | 1.00 | 0.95 | 1.00 | 1.00 | 0.95 | 1.00 |
| Ped Bike Factor | | | | | | | | | | | | |
| Frt | | | 0.850 | | | 0.850 | | | 0.850 | | | 0.850 |
| Flt Protected | 0.950 | | | 0.950 | | | 0.950 | | | 0.950 | | |
| Satd. Flow (prot) | 3467 | 3519 | 1615 | 1736 | 3619 | 1568 | 1770 | 3689 | 1599 | 1805 | 3689 | 1553 |
| Flt Permitted | 0.950 | | | 0.950 | | | 0.219 | | | 0.179 | | |
| Satd. Flow (perm) | 3467 | 3519 | 1615 | 1736 | 3619 | 1568 | 408 | 3689 | 1599 | 340 | 3689 | 1553 |
| Right Turn on Red | | | No | | | No | | | No | | | No |
| Satd. Flow (RTOR) | | | | | | | | | | | | |
| Link Speed (mph) | | 35 | | | 35 | | | 40 | | | 35 | |
| Link Distance (ft) | | 853 | | | 840 | | | 808 | | | 1222 | |
| Travel Time (s) | | 16.6 | | | 16.4 | | | 13.8 | | | 23.8 | |
| Confl. Peds. (#/hr) | | | | | | | | | | | | |
| Confl. Bikes (#/hr) | | | | | | | | | | | | |
| Peak Hour Factor | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 |
| Growth Factor | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% |
| Heavy Vehicles (%) | 1% | 8% | 0% | 4% | 5% | 3% | 2% | 3% | 1% | 0% | 3% | 4% |
| Bus Blockages (#/hr) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Parking (#/hr) | | | | | | | | | | | | |
| Mid-Block Traffic (%) | | 0% | | | 0% | | | 0% | | | 0% | |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 289 | 608 | 65 | 186 | 800 | 77 | 84 | 752 | 333 | 87 | 687 | 143 |
| Turn Type | Prot | NA | Perm | Prot | NA | Perm | pm+pt | NA | pm+ov | pm+pt | NA | pm+ov |
| Protected Phases | 3 | 8 | | 7 | 4 | | 5 | 2 | 3 | 1 | 6 | 7 |
| Permitted Phases | | | 8 | | | 4 | 2 | | 2 | 6 | | 6 |
| Detector Phase | 3 | 8 | 8 | 7 | 4 | 4 | 5 | 2 | 3 | 1 | 6 | 7 |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 3.0 | 15.0 | 15.0 | 3.0 | 15.0 | 15.0 | 3.0 | 15.0 | 3.0 | 3.0 | 15.0 | 3.0 |
| Minimum Split (s) | 7.5 | 21.0 | 21.0 | 7.5 | 21.0 | 21.0 | 6.5 | 21.0 | 7.5 | 6.5 | 21.0 | 7.5 |
| Total Split (s) | 27.3 | 58.5 | 58.5 | 18.2 | 49.4 | 49.4 | 13.0 | 40.3 | 27.3 | 13.0 | 40.3 | 18.2 |
| Total Split (%) | 21.0% | 45.0% | 45.0% | 14.0% | 38.0% | 38.0% | 10.0% | 31.0% | 21.0% | 10.0% | 31.0% | 14.0% |
| Yellow Time (s) | 3.5 | 4.5 | 4.5 | 3.5 | 4.5 | 4.5 | 3.5 | 4.5 | 3.5 | 3.5 | 4.5 | 3.5 |
| All-Red Time (s) | 1.0 | 1.5 | 1.5 | 1.0 | 1.5 | 1.5 | 0.0 | 1.5 | 1.0 | 0.0 | 1.5 | 1.0 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Lost Time (s) | 4.5 | 6.0 | 6.0 | 4.5 | 6.0 | 6.0 | 3.5 | 6.0 | 4.5 | 3.5 | 6.0 | 4.5 |
| Lead/Lag | Lead | Lag | Lag | Lead | Lag | Lag | Lead | Lag | Lead | Lead | Lag | Lead |
| Lead-Lag Optimize? | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Recall Mode | None | None | None | None | None | None | None | C-Min | None | None | C-Min | None |
| Act Effct Green (s) | 16.5 | 48.6 | 48.6 | 14.2 | 46.3 | 46.3 | 49.7 | 38.6 | 61.1 | 49.7 | 38.6 | 58.9 |
| Actuated g/C Ratio | 0.13 | 0.37 | 0.37 | 0.11 | 0.36 | 0.36 | 0.38 | 0.30 | 0.47 | 0.38 | 0.30 | 0.45 |

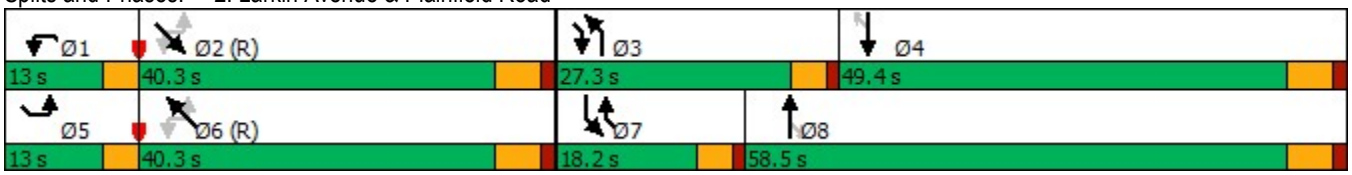
| Lane Group | NBL | NBT | NBR | SBL | SBT | SBR | SEL | SET | SER | NWL | NWT | NWR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| v/c Ratio | 0.66 | 0.46 | 0.11 | 0.98 | 0.62 | 0.14 | 0.34 | 0.69 | 0.44 | 0.38 | 0.63 | 0.20 |
| Control Delay | 61.1 | 31.5 | 25.3 | 119.1 | 37.0 | 28.8 | 29.5 | 45.4 | 26.0 | 24.0 | 26.5 | 14.8 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 61.1 | 31.5 | 25.3 | 119.1 | 37.0 | 28.8 | 29.5 | 45.4 | 26.0 | 24.0 | 26.5 | 14.8 |
| LOS | E | C | C | F | D | C | C | D | C | C | C | B |
| Approach Delay | | 40.0 | | | 50.8 | | | 38.8 | | | 24.5 | |
| Approach LOS | | D | | | D | | | D | | | C | |
| Queue Length 50th (ft) | 121 | 192 | 34 | ~163 | 277 | 42 | 45 | 310 | 197 | 27 | 138 | 39 |
| Queue Length 95th (ft) | 162 | 244 | 66 | #320 | 367 | 83 | 83 | 384 | 265 | m49 | 168 | m58 |
| Internal Link Dist (ft) | | 773 | | | 760 | | | 728 | | | 1142 | |
| Turn Bay Length (ft) | 190 | | 150 | 200 | | 200 | 215 | | 285 | 155 | | 165 |
| Base Capacity (vph) | 608 | 1421 | 652 | 189 | 1311 | 568 | 258 | 1095 | 829 | 239 | 1096 | 703 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.48 | 0.43 | 0.10 | 0.98 | 0.61 | 0.14 | 0.33 | 0.69 | 0.40 | 0.36 | 0.63 | 0.20 |

Intersection Summary

Area Type: Other
Cycle Length: 130
Actuated Cycle Length: 130
Offset: 6.5 (5%), Referenced to phase 2:SETL and 6:NWTL, Start of Green
Natural Cycle: 60
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.98
Intersection Signal Delay: 39.0 Intersection LOS: D
Intersection Capacity Utilization 69.8% ICU Level of Service C
Analysis Period (min) 15

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 2: Larkin Avenue & Plainfield Road



| Intersection | |
|---|---|
| Int Delay, s/veh | 3 |

| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 62 | 671 | 714 | 109 | 68 | 113 |
| Future Vol, veh/h | 62 | 671 | 714 | 109 | 68 | 113 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | - | - | 0 | - |
| Veh in Median Storage, # | - | 0 | 0 | - | 1 | - |
| Grade, % | - | 0 | 0 | - | 0 | - |
| Peak Hour Factor | 94 | 94 | 94 | 94 | 94 | 94 |
| Heavy Vehicles, % | 0 | 4 | 3 | 2 | 1 | 1 |
| Mvmt Flow | 66 | 714 | 760 | 116 | 72 | 120 |

| Major/Minor | Major1 | | Major2 | | Minor2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 876 | 0 | - | 0 | 1307 | 438 |
| Stage 1 | - | - | - | - | 818 | - |
| Stage 2 | - | - | - | - | 489 | - |
| Critical Hdwy | 4.1 | - | - | - | 6.82 | 6.92 |
| Critical Hdwy Stg 1 | - | - | - | - | 5.82 | - |
| Critical Hdwy Stg 2 | - | - | - | - | 5.82 | - |
| Follow-up Hdwy | 2.2 | - | - | - | 3.51 | 3.31 |
| Pot Cap-1 Maneuver | 779 | - | - | - | 153 | 569 |
| Stage 1 | - | - | - | - | 397 | - |
| Stage 2 | - | - | - | - | 585 | - |
| Platoon blocked, % | | - | - | - | | |
| Mov Cap-1 Maneuver | 779 | - | - | - | 132 | 569 |
| Mov Cap-2 Maneuver | - | - | - | - | 251 | - |
| Stage 1 | - | - | - | - | 341 | - |
| Stage 2 | - | - | - | - | 585 | - |

| Approach | EB | WB | SB |
|---|---|---|---|
| HCM Control Delay, s | 1.4 | 0 | 23.3 |
| HCM LOS | | | C |

| Minor Lane/Major Mvmt | EBL | EBT | WBT | WBR | SBLn1 |
|---|---|---|---|---|---|
| Capacity (veh/h) | 779 | - | - | - | 386 |
| HCM Lane V/C Ratio | 0.085 | - | - | - | 0.499 |
| HCM Control Delay (s) | 10 | 0.6 | - | - | 23.3 |
| HCM Lane LOS | B | A | - | - | C |
| HCM 95th %tile Q(veh) | 0.3 | - | - | - | 2.7 |

| Intersection | |
|---|---|
| Int Delay, s/veh | 2.2 |

| Movement | SEL | SET | SER | NWL | NWT | NWR | NEL | NET | NER | SWL | SWT | SWR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Vol, veh/h | 0 | 966 | 0 | 0 | 851 | 0 | 0 | 0 | 0 | 50 | 0 | 0 |
| Future Vol, veh/h | 0 | 966 | 0 | 0 | 851 | 0 | 0 | 0 | 0 | 50 | 0 | 0 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Free | Free | Stop | Stop | Stop | Stop | Stop | Stop |
| RT Channelized | - | - | None | - | - | None | - | - | None | - | - | None |
| Storage Length | 10 | - | - | - | - | - | - | - | - | - | - | - |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 93 | 93 | 93 | 93 | 93 | 93 | 93 | 93 | 93 | 93 | 93 | 93 |
| Heavy Vehicles, % | 0 | 2 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mvmt Flow | 0 | 1039 | 0 | 0 | 915 | 0 | 0 | 0 | 0 | 54 | 0 | 0 |

| Major/Minor | Major1 | | | Major2 | | | Minor1 | | | Minor2 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Conflicting Flow All | 915 | 0 | 0 | 1039 | 0 | 0 | 1497 | 1954 | 520 | 1435 | 1954 | 458 |
| Stage 1 | - | - | - | - | - | - | 1039 | 1039 | - | 915 | 915 | - |
| Stage 2 | - | - | - | - | - | - | 458 | 915 | - | 520 | 1039 | - |
| Critical Hdwy | 4.1 | - | - | 4.1 | - | - | 7.5 | 6.5 | 6.9 | 7.5 | 6.5 | 6.9 |
| Critical Hdwy Stg 1 | - | - | - | - | - | - | 6.5 | 5.5 | - | 6.5 | 5.5 | - |
| Critical Hdwy Stg 2 | - | - | - | - | - | - | 6.5 | 5.5 | - | 6.5 | 5.5 | - |
| Follow-up Hdwy | 2.2 | - | - | 2.2 | - | - | 3.5 | 4 | 3.3 | 3.5 | 4 | 3.3 |
| Pot Cap-1 Maneuver | 754 | - | - | 677 | - | - | 86 | 65 | 506 | 96 | 65 | 555 |
| Stage 1 | - | - | - | - | - | - | 250 | 310 | - | 298 | 354 | - |
| Stage 2 | - | - | - | - | - | - | 557 | 354 | - | 512 | 310 | - |
| Platoon blocked, % | | - | - | | - | - | | | | | | |
| Mov Cap-1 Maneuver | 754 | - | - | 677 | - | - | 86 | 65 | 506 | 96 | 65 | 555 |
| Mov Cap-2 Maneuver | - | - | - | - | - | - | 86 | 65 | - | 96 | 65 | - |
| Stage 1 | - | - | - | - | - | - | 250 | 310 | - | 298 | 354 | - |
| Stage 2 | - | - | - | - | - | - | 557 | 354 | - | 512 | 310 | - |

| Approach | SE | NW | NE | SW |
|---|---|---|---|---|
| HCM Control Delay, s | 0 | 0 | 0 | 82.3 |
| HCM LOS | | | A | F |

| Minor Lane/Major Mvmt | NELn1 | NWL | NWT | NWR | SEL | SET | SER | SWLn1 |
|---|---|---|---|---|---|---|---|---|
| Capacity (veh/h) | - | 677 | - | - | 754 | - | - | 96 |
| HCM Lane V/C Ratio | - | - | - | - | - | - | - | 0.56 |
| HCM Control Delay (s) | 0 | 0 | - | - | 0 | - | - | 82.3 |
| HCM Lane LOS | A | A | - | - | A | - | - | F |
| HCM 95th %tile Q(veh) | - | 0 | - | - | 0 | - | - | 2.6 |

| Intersection | |
|---|---|
| Int Delay, s/veh | 0.9 |

| Movement | SEL | SET | SER | NWL | NWT | NWR | NEL | NET | NER | SWL | SWT | SWR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | ⇕ | | | ⇕ | | | ⇃ | ↱ | | ⇕ | |
| Traffic Vol, veh/h | 2 | 182 | 0 | 0 | 170 | 18 | 0 | 0 | 0 | 25 | 0 | 7 |
| Future Vol, veh/h | 2 | 182 | 0 | 0 | 170 | 18 | 0 | 0 | 0 | 25 | 0 | 7 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Free | Free | Stop | Stop | Stop | Stop | Stop | Stop |
| RT Channelized | - | - | None | - | - | None | - | - | None | - | - | None |
| Storage Length | - | - | - | - | - | - | - | - | 0 | - | - | - |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 93 | 93 | 93 | 93 | 93 | 93 | 93 | 93 | 93 | 93 | 93 | 93 |
| Heavy Vehicles, % | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mvmt Flow | 2 | 196 | 0 | 0 | 183 | 19 | 0 | 0 | 0 | 27 | 0 | 8 |

| Major/Minor | Major1 | | | Major2 | | | Minor1 | | | Minor2 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Conflicting Flow All | 202 | 0 | 0 | 196 | 0 | 0 | 397 | 402 | 196 | 393 | 393 | 193 |
| Stage 1 | - | - | - | - | - | - | 200 | 200 | - | 193 | 193 | - |
| Stage 2 | - | - | - | - | - | - | 197 | 202 | - | 200 | 200 | - |
| Critical Hdwy | 4.1 | - | - | 4.1 | - | - | 7.1 | 6.5 | 6.2 | 7.1 | 6.5 | 6.2 |
| Critical Hdwy Stg 1 | - | - | - | - | - | - | 6.1 | 5.5 | - | 6.1 | 5.5 | - |
| Critical Hdwy Stg 2 | - | - | - | - | - | - | 6.1 | 5.5 | - | 6.1 | 5.5 | - |
| Follow-up Hdwy | 2.2 | - | - | 2.2 | - | - | 3.5 | 4 | 3.3 | 3.5 | 4 | 3.3 |
| Pot Cap-1 Maneuver | 1382 | - | - | 1389 | - | - | 567 | 540 | 850 | 570 | 546 | 854 |
| Stage 1 | - | - | - | - | - | - | 806 | 739 | - | 813 | 745 | - |
| Stage 2 | - | - | - | - | - | - | 809 | 738 | - | 806 | 739 | - |
| Platoon blocked, % | | - | - | | - | - | | | | | | |
| Mov Cap-1 Maneuver | 1382 | - | - | 1389 | - | - | 561 | 539 | 850 | 569 | 545 | 854 |
| Mov Cap-2 Maneuver | - | - | - | - | - | - | 561 | 539 | - | 569 | 545 | - |
| Stage 1 | - | - | - | - | - | - | 804 | 738 | - | 811 | 745 | - |
| Stage 2 | - | - | - | - | - | - | 802 | 738 | - | 804 | 738 | - |

| Approach | SE | NW | NE | SW |
|---|---|---|---|---|
| HCM Control Delay, s | 0.1 | 0 | 0 | 11.2 |
| HCM LOS | | | A | B |

| Minor Lane/Major Mvmt | NELn1 | NELn2 | NWL | NWT | NWR | SEL | SET | SER | SWLn1 |
|---|---|---|---|---|---|---|---|---|---|
| Capacity (veh/h) | - | - | 1389 | - | - | 1382 | - | - | 614 |
| HCM Lane V/C Ratio | - | - | - | - | - | 0.002 | - | - | 0.056 |
| HCM Control Delay (s) | 0 | 0 | 0 | - | - | 7.6 | 0 | - | 11.2 |
| HCM Lane LOS | A | A | A | - | - | A | A | - | B |
| HCM 95th %tile Q(veh) | - | - | 0 | - | - | 0 | - | - | 0.2 |

# Capacity Analysis Summary Sheets

Existing Saturday Midday Peak Hour

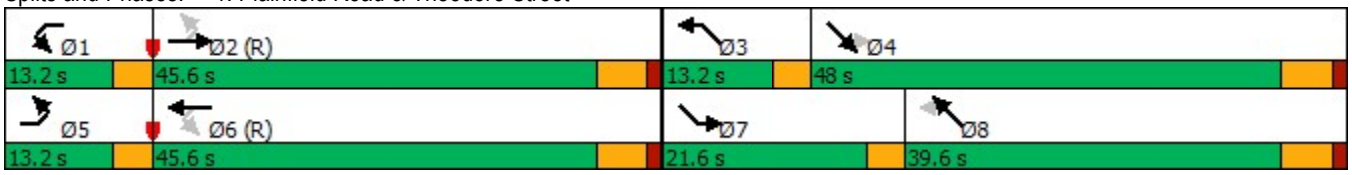
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | SEL | SET | SER | NWL | NWT | NWR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 17 | 411 | 228 | 118 | 443 | 255 | 206 | 566 | 40 | 92 | 549 | 164 |
| Future Volume (vph) | 17 | 411 | 228 | 118 | 443 | 255 | 206 | 566 | 40 | 92 | 549 | 164 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Width (ft) | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 |
| Grade (%) | | 0% | | | 0% | | | 0% | | | 0% | |
| Storage Length (ft) | 180 | | 0 | 125 | | 0 | 310 | | 0 | 270 | | 0 |
| Storage Lanes | 1 | | 0 | 1 | | 0 | 1 | | 0 | 1 | | 0 |
| Taper Length (ft) | 115 | | | 115 | | | 220 | | | 150 | | |
| Lane Util. Factor | 1.00 | 0.95 | 0.95 | 1.00 | 0.95 | 0.95 | 1.00 | 0.95 | 0.95 | 1.00 | 0.95 | 0.95 |
| Ped Bike Factor | | | | | | | | | | | | |
| Frt | | 0.947 | | | 0.945 | | | 0.990 | | | 0.966 | |
| Flt Protected | 0.950 | | | 0.950 | | | 0.950 | | | 0.950 | | |
| Satd. Flow (prot) | 1805 | 3363 | 0 | 1787 | 3353 | 0 | 1787 | 3476 | 0 | 1787 | 3437 | 0 |
| Flt Permitted | 0.314 | | | 0.255 | | | 0.181 | | | 0.353 | | |
| Satd. Flow (perm) | 597 | 3363 | 0 | 480 | 3353 | 0 | 340 | 3476 | 0 | 664 | 3437 | 0 |
| Right Turn on Red | | | No | | | No | | | No | | | No |
| Satd. Flow (RTOR) | | | | | | | | | | | | |
| Link Speed (mph) | | 35 | | | 35 | | | 35 | | | 35 | |
| Link Distance (ft) | | 933 | | | 319 | | | 463 | | | 1681 | |
| Travel Time (s) | | 18.2 | | | 6.2 | | | 9.0 | | | 32.7 | |
| Confl. Peds. (#/hr) | | | | | | | | | | | | |
| Confl. Bikes (#/hr) | | | | | | | | | | | | |
| 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 |
| Growth Factor | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% |
| Heavy Vehicles (%) | 0% | 2% | 1% | 1% | 1% | 3% | 1% | 3% | 0% | 1% | 1% | 3% |
| Bus Blockages (#/hr) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Parking (#/hr) | | | | | | | | | | | | |
| Mid-Block Traffic (%) | | 0% | | | 0% | | | 0% | | | 0% | |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 18 | 659 | 0 | 122 | 720 | 0 | 212 | 625 | 0 | 95 | 735 | 0 |
| Turn Type | pm+pt | NA | | pm+pt | NA | | pm+pt | NA | | pm+pt | NA | |
| Protected Phases | 5 | 2 | | 1 | 6 | | 7 | 4 | | 3 | 8 | |
| Permitted Phases | 2 | | | 6 | | | 4 | | | 8 | | |
| Detector Phase | 5 | 2 | | 1 | 6 | | 7 | 4 | | 3 | 8 | |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 3.0 | 15.0 | | 3.0 | 15.0 | | 3.0 | 15.0 | | 3.0 | 15.0 | |
| Minimum Split (s) | 6.5 | 21.0 | | 6.5 | 21.0 | | 6.5 | 21.0 | | 6.5 | 21.0 | |
| Total Split (s) | 13.2 | 45.6 | | 13.2 | 45.6 | | 21.6 | 48.0 | | 13.2 | 39.6 | |
| Total Split (%) | 11.0% | 38.0% | | 11.0% | 38.0% | | 18.0% | 40.0% | | 11.0% | 33.0% | |
| Yellow Time (s) | 3.5 | 4.5 | | 3.5 | 4.5 | | 3.5 | 4.5 | | 3.5 | 4.5 | |
| All-Red Time (s) | 0.0 | 1.5 | | 0.0 | 1.5 | | 0.0 | 1.5 | | 0.0 | 1.5 | |
| Lost Time Adjust (s) | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Total Lost Time (s) | 3.5 | 6.0 | | 3.5 | 6.0 | | 3.5 | 6.0 | | 3.5 | 6.0 | |
| Lead/Lag | Lead | Lag | | Lead | Lag | | Lead | Lag | | Lead | Lag | |
| Lead-Lag Optimize? | Yes | Yes | | Yes | Yes | | Yes | Yes | | Yes | Yes | |
| Recall Mode | None | C-Min | | None | C-Min | | None | None | | None | None | |
| Act Effct Green (s) | 50.1 | 41.4 | | 56.1 | 49.7 | | 56.6 | 42.1 | | 47.2 | 36.2 | |
| Actuated g/C Ratio | 0.42 | 0.34 | | 0.47 | 0.41 | | 0.47 | 0.35 | | 0.39 | 0.30 | |

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | SEL | SET | SER | NWL | NWT | NWR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| v/c Ratio | 0.06 | 0.57 | | 0.38 | 0.52 | | 0.63 | 0.51 | | 0.28 | 0.71 | |
| Control Delay | 18.4 | 35.0 | | 22.3 | 29.1 | | 16.5 | 21.9 | | 20.0 | 41.9 | |
| Queue Delay | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Total Delay | 18.4 | 35.0 | | 22.3 | 29.1 | | 16.5 | 21.9 | | 20.0 | 41.9 | |
| LOS | B | C | | C | C | | B | C | | B | D | |
| Approach Delay | | 34.5 | | | 28.1 | | | 20.5 | | | 39.4 | |
| Approach LOS | | C | | | C | | | C | | | D | |
| Queue Length 50th (ft) | 7 | 223 | | 53 | 205 | | 100 | 207 | | 39 | 262 | |
| Queue Length 95th (ft) | 21 | 285 | | 92 | 306 | | m130 | 273 | | 71 | 348 | |
| Internal Link Dist (ft) | | 853 | | | 239 | | | 383 | | | 1601 | |
| Turn Bay Length (ft) | 180 | | | 125 | | | 310 | | | 270 | | |
| Base Capacity (vph) | 364 | 1163 | | 329 | 1389 | | 378 | 1241 | | 358 | 1036 | |
| Starvation Cap Reductn | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | |
| Spillback Cap Reductn | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | |
| Storage Cap Reductn | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | |
| Reduced v/c Ratio | 0.05 | 0.57 | | 0.37 | 0.52 | | 0.56 | 0.50 | | 0.27 | 0.71 | |

**Intersection Summary**

Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 7.2 (6%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green
Natural Cycle: 55
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.71
Intersection Signal Delay: 30.4 Intersection LOS: C
Intersection Capacity Utilization 73.7% ICU Level of Service D
Analysis Period (min) 15
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 1: Plainfield Road & Theodore Street



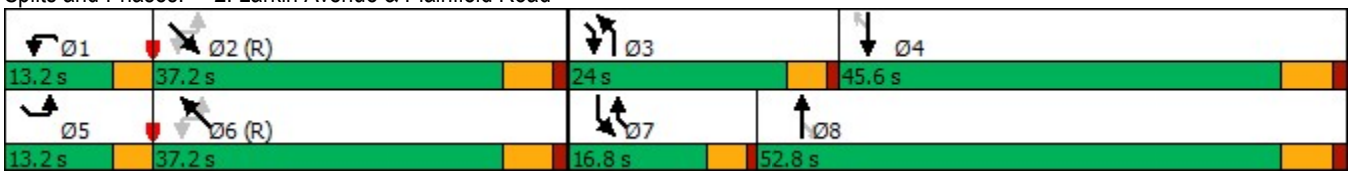
| Lane Group | NBL | NBT | NBR | SBL | SBT | SBR | SEL | SET | SER | NWL | NWT | NWR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 381 | 561 | 92 | 139 | 615 | 81 | 88 | 608 | 324 | 95 | 591 | 146 |
| Future Volume (vph) | 381 | 561 | 92 | 139 | 615 | 81 | 88 | 608 | 324 | 95 | 591 | 146 |
| Ideal Flow (vphpl) | 1900 | 2000 | 1900 | 1900 | 2000 | 1900 | 1900 | 2000 | 1900 | 1900 | 2000 | 1900 |
| Lane Width (ft) | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 |
| Grade (%) | | 0% | | | 0% | | | 0% | | | 0% | |
| Storage Length (ft) | 190 | | 150 | 200 | | 200 | 215 | | 285 | 155 | | 165 |
| Storage Lanes | 2 | | 1 | 1 | | 1 | 1 | | 1 | 1 | | 1 |
| Taper Length (ft) | 220 | | | 175 | | | 250 | | | 110 | | |
| Lane Util. Factor | 0.97 | 0.95 | 1.00 | 1.00 | 0.95 | 1.00 | 1.00 | 0.95 | 1.00 | 1.00 | 0.95 | 1.00 |
| Ped Bike Factor | | | | | | | | | | | | |
| Frt | | | 0.850 | | | 0.850 | | | 0.850 | | | 0.850 |
| Flt Protected | 0.950 | | | 0.950 | | | 0.950 | | | 0.950 | | |
| Satd. Flow (prot) | 3467 | 3762 | 1599 | 1787 | 3654 | 1599 | 1787 | 3725 | 1615 | 1805 | 3762 | 1583 |
| Flt Permitted | 0.950 | | | 0.950 | | | 0.284 | | | 0.269 | | |
| Satd. Flow (perm) | 3467 | 3762 | 1599 | 1787 | 3654 | 1599 | 534 | 3725 | 1615 | 511 | 3762 | 1583 |
| Right Turn on Red | | | No | | | No | | | No | | | No |
| Satd. Flow (RTOR) | | | | | | | | | | | | |
| Link Speed (mph) | | 35 | | | 35 | | | 40 | | | 35 | |
| Link Distance (ft) | | 853 | | | 840 | | | 808 | | | 1222 | |
| Travel Time (s) | | 16.6 | | | 16.4 | | | 13.8 | | | 23.8 | |
| Confl. Peds. (#/hr) | | | | | | | | | | | | |
| Confl. Bikes (#/hr) | | | | | | | | | | | | |
| 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 |
| Growth Factor | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% |
| Heavy Vehicles (%) | 1% | 1% | 1% | 1% | 4% | 1% | 1% | 2% | 0% | 0% | 1% | 2% |
| Bus Blockages (#/hr) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Parking (#/hr) | | | | | | | | | | | | |
| Mid-Block Traffic (%) | | 0% | | | 0% | | | 0% | | | 0% | |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 393 | 578 | 95 | 143 | 634 | 84 | 91 | 627 | 334 | 98 | 609 | 151 |
| Turn Type | Prot | NA | Perm | Prot | NA | Perm | pm+pt | NA | pm+ov | pm+pt | NA | pm+ov |
| Protected Phases | 3 | 8 | | 7 | 4 | | 5 | 2 | 3 | 1 | 6 | 7 |
| Permitted Phases | | | 8 | | | 4 | 2 | | 2 | 6 | | 6 |
| Detector Phase | 3 | 8 | 8 | 7 | 4 | 4 | 5 | 2 | 3 | 1 | 6 | 7 |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 3.0 | 15.0 | 15.0 | 3.0 | 15.0 | 15.0 | 3.0 | 15.0 | 3.0 | 3.0 | 15.0 | 3.0 |
| Minimum Split (s) | 7.5 | 21.0 | 21.0 | 7.5 | 21.0 | 21.0 | 6.5 | 21.0 | 7.5 | 6.5 | 21.0 | 7.5 |
| Total Split (s) | 24.0 | 52.8 | 52.8 | 16.8 | 45.6 | 45.6 | 13.2 | 37.2 | 24.0 | 13.2 | 37.2 | 16.8 |
| Total Split (%) | 20.0% | 44.0% | 44.0% | 14.0% | 38.0% | 38.0% | 11.0% | 31.0% | 20.0% | 11.0% | 31.0% | 14.0% |
| Yellow Time (s) | 3.5 | 4.5 | 4.5 | 3.5 | 4.5 | 4.5 | 3.5 | 4.5 | 3.5 | 3.5 | 4.5 | 3.5 |
| All-Red Time (s) | 1.0 | 1.5 | 1.5 | 1.0 | 1.5 | 1.5 | 0.0 | 1.5 | 1.0 | 0.0 | 1.5 | 1.0 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Lost Time (s) | 4.5 | 6.0 | 6.0 | 4.5 | 6.0 | 6.0 | 3.5 | 6.0 | 4.5 | 3.5 | 6.0 | 4.5 |
| Lead/Lag | Lead | Lag | Lag | Lead | Lag | Lag | Lead | Lag | Lead | Lead | Lag | Lead |
| Lead-Lag Optimize? | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Recall Mode | None | None | None | None | None | None | None | C-Min | None | None | C-Min | None |
| Act Effct Green (s) | 17.9 | 42.8 | 42.8 | 11.9 | 36.8 | 36.8 | 47.6 | 36.6 | 60.4 | 47.9 | 36.7 | 54.6 |
| Actuated g/C Ratio | 0.15 | 0.36 | 0.36 | 0.10 | 0.31 | 0.31 | 0.40 | 0.30 | 0.50 | 0.40 | 0.31 | 0.46 |

| Lane Group | NBL | NBT | NBR | SBL | SBT | SBR | SEL | SET | SER | NWL | NWT | NWR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| v/c Ratio | 0.76 | 0.43 | 0.17 | 0.81 | 0.57 | 0.17 | 0.30 | 0.55 | 0.41 | 0.33 | 0.53 | 0.21 |
| Control Delay | 59.1 | 29.8 | 25.8 | 85.0 | 36.6 | 30.3 | 25.4 | 38.6 | 21.6 | 17.6 | 30.2 | 14.6 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 59.1 | 29.8 | 25.8 | 85.0 | 36.6 | 30.3 | 25.4 | 38.6 | 21.6 | 17.6 | 30.2 | 14.6 |
| LOS | E | C | C | F | D | C | C | D | C | B | C | B |
| Approach Delay | | 40.3 | | | 44.1 | | | 32.1 | | | 26.0 | |
| Approach LOS | | D | | | D | | | C | | | C | |
| Queue Length 50th (ft) | 150 | 167 | 47 | 110 | 208 | 46 | 45 | 227 | 167 | 27 | 221 | 83 |
| Queue Length 95th (ft) | 204 | 217 | 86 | #217 | 267 | 86 | 81 | 293 | 247 | m48 | 320 | m119 |
| Internal Link Dist (ft) | | 773 | | | 760 | | | 728 | | | 1142 | |
| Turn Bay Length (ft) | 190 | | 150 | 200 | | 200 | 215 | | 285 | 155 | | 165 |
| Base Capacity (vph) | 563 | 1467 | 623 | 183 | 1205 | 527 | 318 | 1134 | 835 | 312 | 1150 | 725 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.70 | 0.39 | 0.15 | 0.78 | 0.53 | 0.16 | 0.29 | 0.55 | 0.40 | 0.31 | 0.53 | 0.21 |

Intersection Summary

Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 7.2 (6%), Referenced to phase 2:SETL and 6:NWTL, Start of Green
Natural Cycle: 60
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.81
Intersection Signal Delay: 35.7 Intersection LOS: D
Intersection Capacity Utilization 65.3% ICU Level of Service C
Analysis Period (min) 15
# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 2: Larkin Avenue & Plainfield Road



| Intersection | |
|---|---|
| Int Delay, s/veh | 3.6 |

| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 45 | 736 | 703 | 95 | 100 | 113 |
| Future Vol, veh/h | 45 | 736 | 703 | 95 | 100 | 113 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | - | - | 0 | - |
| Veh in Median Storage, # | - | 0 | 0 | - | 1 | - |
| Grade, % | - | 0 | 0 | - | 0 | - |
| Peak Hour Factor | 96 | 96 | 96 | 96 | 96 | 96 |
| Heavy Vehicles, % | 0 | 1 | 2 | 0 | 0 | 1 |
| Mvmt Flow | 47 | 767 | 732 | 99 | 104 | 118 |

| Major/Minor | Major1 | | Major2 | | Minor2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 831 | 0 | - | 0 | 1260 | 416 |
| Stage 1 | - | - | - | - | 782 | - |
| Stage 2 | - | - | - | - | 478 | - |
| Critical Hdwy | 4.1 | - | - | - | 6.8 | 6.92 |
| Critical Hdwy Stg 1 | - | - | - | - | 5.8 | - |
| Critical Hdwy Stg 2 | - | - | - | - | 5.8 | - |
| Follow-up Hdwy | 2.2 | - | - | - | 3.5 | 3.31 |
| Pot Cap-1 Maneuver | 810 | - | - | - | 165 | 588 |
| Stage 1 | - | - | - | - | 417 | - |
| Stage 2 | - | - | - | - | 595 | - |
| Platoon blocked, % | | - | - | - | | |
| Mov Cap-1 Maneuver | 810 | - | - | - | 148 | 588 |
| Mov Cap-2 Maneuver | - | - | - | - | 273 | - |
| Stage 1 | - | - | - | - | 375 | - |
| Stage 2 | - | - | - | - | 595 | - |

| Approach | EB | WB | SB |
|---|---|---|---|
| HCM Control Delay, s | 0.9 | 0 | 26.8 |
| HCM LOS | | | D |

| Minor Lane/Major Mvmt | EBL | EBT | WBT | WBR | SBLn1 |
|---|---|---|---|---|---|
| Capacity (veh/h) | 810 | - | - | - | 381 |
| HCM Lane V/C Ratio | 0.058 | - | - | - | 0.582 |
| HCM Control Delay (s) | 9.7 | 0.4 | - | - | 26.8 |
| HCM Lane LOS | A | A | - | - | D |
| HCM 95th %tile Q(veh) | 0.2 | - | - | - | 3.5 |

| Intersection | |
|---|---|
| Int Delay, s/veh | 0 |

| Movement | SEL | SET | SER | NWL | NWT | NWR | NEL | NET | NER | SWL | SWT | SWR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Vol, veh/h | 0 | 812 | 0 | 0 | 821 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Future Vol, veh/h | 0 | 812 | 0 | 0 | 821 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Free | Free | Stop | Stop | Stop | Stop | Stop | Stop |
| RT Channelized | - | - | None | - | - | None | - | - | None | - | - | None |
| Storage Length | 10 | - | - | - | - | - | - | - | - | - | - | - |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 93 | 93 | 93 | 93 | 93 | 93 | 93 | 93 | 93 | 93 | 93 | 93 |
| Heavy Vehicles, % | 0 | 2 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mvmt Flow | 0 | 873 | 0 | 0 | 883 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

| Major/Minor | Major1 | | | Major2 | | | Minor1 | | | Minor2 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Conflicting Flow All | 883 | 0 | 0 | 873 | 0 | 0 | 1315 | 1756 | 437 | 1320 | 1756 | 442 |
| Stage 1 | - | - | - | - | - | - | 873 | 873 | - | 883 | 883 | - |
| Stage 2 | - | - | - | - | - | - | 442 | 883 | - | 437 | 873 | - |
| Critical Hdwy | 4.1 | - | - | 4.1 | - | - | 7.5 | 6.5 | 6.9 | 7.5 | 6.5 | 6.9 |
| Critical Hdwy Stg 1 | - | - | - | - | - | - | 6.5 | 5.5 | - | 6.5 | 5.5 | - |
| Critical Hdwy Stg 2 | - | - | - | - | - | - | 6.5 | 5.5 | - | 6.5 | 5.5 | - |
| Follow-up Hdwy | 2.2 | - | - | 2.2 | - | - | 3.5 | 4 | 3.3 | 3.5 | 4 | 3.3 |
| Pot Cap-1 Maneuver | 775 | - | - | 781 | - | - | 118 | 86 | 573 | 117 | 86 | 569 |
| Stage 1 | - | - | - | - | - | - | 316 | 370 | - | 311 | 367 | - |
| Stage 2 | - | - | - | - | - | - | 570 | 367 | - | 574 | 370 | - |
| Platoon blocked, % | | - | - | | - | - | | | | | | |
| Mov Cap-1 Maneuver | 775 | - | - | 781 | - | - | 118 | 86 | 573 | 117 | 86 | 569 |
| Mov Cap-2 Maneuver | - | - | - | - | - | - | 118 | 86 | - | 117 | 86 | - |
| Stage 1 | - | - | - | - | - | - | 316 | 370 | - | 311 | 367 | - |
| Stage 2 | - | - | - | - | - | - | 570 | 367 | - | 574 | 370 | - |

| Approach | SE | NW | NE | SW |
|---|---|---|---|---|
| HCM Control Delay, s | 0 | 0 | 0 | 0 |
| HCM LOS | | | A | A |

| Minor Lane/Major Mvmt | NELn1 | NWL | NWT | NWR | SEL | SET | SERSWLn1 |
|---|---|---|---|---|---|---|---|
| Capacity (veh/h) | - | 781 | - | - | 775 | - | - - |
| HCM Lane V/C Ratio | - | - | - | - | - | - | - - |
| HCM Control Delay (s) | 0 | 0 | - | - | 0 | - | - 0 |
| HCM Lane LOS | A | A | - | - | A | - | - A |
| HCM 95th %tile Q(veh) | - | 0 | - | - | 0 | - | - - |

| Intersection | |
|---|---|
| Int Delay, s/veh | 0.3 |

| Movement | SEL | SET | SER | NWL | NWT | NWR | NEL | NET | NER | SWL | SWT | SWR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | ↕ | | | ↕ | | | ↰ | ↱ | | ↕ | |
| Traffic Vol, veh/h | 1 | 222 | 0 | 0 | 158 | 16 | 0 | 0 | 0 | 9 | 0 | 2 |
| Future Vol, veh/h | 1 | 222 | 0 | 0 | 158 | 16 | 0 | 0 | 0 | 9 | 0 | 2 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Free | Free | Stop | Stop | Stop | Stop | Stop | Stop |
| RT Channelized | - | - | None | - | - | None | - | - | None | - | - | None |
| Storage Length | - | - | - | - | - | - | - | - | 0 | - | - | - |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 88 | 88 | 88 | 88 | 88 | 88 | 88 | 88 | 88 | 88 | 88 | 88 |
| Heavy Vehicles, % | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mvmt Flow | 1 | 252 | 0 | 0 | 180 | 18 | 0 | 0 | 0 | 10 | 0 | 2 |

| Major/Minor | Major1 | | | Major2 | | | Minor1 | | | Minor2 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Conflicting Flow All | 198 | 0 | 0 | 252 | 0 | 0 | 444 | 452 | 252 | 443 | 443 | 189 |
| Stage 1 | - | - | - | - | - | - | 254 | 254 | - | 189 | 189 | - |
| Stage 2 | - | - | - | - | - | - | 190 | 198 | - | 254 | 254 | - |
| Critical Hdwy | 4.1 | - | - | 4.1 | - | - | 7.1 | 6.5 | 6.2 | 7.1 | 6.5 | 6.2 |
| Critical Hdwy Stg 1 | - | - | - | - | - | - | 6.1 | 5.5 | - | 6.1 | 5.5 | - |
| Critical Hdwy Stg 2 | - | - | - | - | - | - | 6.1 | 5.5 | - | 6.1 | 5.5 | - |
| Follow-up Hdwy | 2.2 | - | - | 2.2 | - | - | 3.5 | 4 | 3.3 | 3.5 | 4 | 3.3 |
| Pot Cap-1 Maneuver | 1387 | - | - | 1325 | - | - | 528 | 506 | 792 | 528 | 512 | 858 |
| Stage 1 | - | - | - | - | - | - | 755 | 701 | - | 817 | 748 | - |
| Stage 2 | - | - | - | - | - | - | 816 | 741 | - | 755 | 701 | - |
| Platoon blocked, % | | - | - | | - | - | | | | | | |
| Mov Cap-1 Maneuver | 1387 | - | - | 1325 | - | - | 526 | 505 | 792 | 527 | 511 | 858 |
| Mov Cap-2 Maneuver | - | - | - | - | - | - | 526 | 505 | - | 527 | 511 | - |
| Stage 1 | - | - | - | - | - | - | 754 | 700 | - | 816 | 748 | - |
| Stage 2 | - | - | - | - | - | - | 814 | 741 | - | 754 | 700 | - |

| Approach | SE | NW | NE | SW |
|---|---|---|---|---|
| HCM Control Delay, s | 0 | 0 | 0 | 11.5 |
| HCM LOS | | | A | B |

| Minor Lane/Major Mvmt | NELn1 | NELn2 | NWL | NWT | NWR | SEL | SET | SER | SWLn1 |
|---|---|---|---|---|---|---|---|---|---|
| Capacity (veh/h) | - | - | 1325 | - | - | 1387 | - | - | 567 |
| HCM Lane V/C Ratio | - | - | - | - | - | 0.001 | - | - | 0.022 |
| HCM Control Delay (s) | 0 | 0 | 0 | - | - | 7.6 | 0 | - | 11.5 |
| HCM Lane LOS | A | A | A | - | - | A | A | - | B |
| HCM 95th %tile Q(veh) | - | - | 0 | - | - | 0 | - | - | 0.1 |

# Capacity Analysis Summary Sheets

Year 2030 No-Build Weekday Morning Peak Hour

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | SEL | SET | SER | NWL | NWT | NWR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 12 | 190 | 174 | 74 | 338 | 202 | 97 | 642 | 20 | 122 | 446 | 88 |
| Future Volume (vph) | 12 | 190 | 174 | 74 | 338 | 202 | 97 | 642 | 20 | 122 | 446 | 88 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Width (ft) | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 |
| Grade (%) | | 0% | | | 0% | | | 0% | | | 0% | |
| Storage Length (ft) | 180 | | 0 | 125 | | 0 | 310 | | 0 | 270 | | 0 |
| Storage Lanes | 1 | | 0 | 1 | | 0 | 1 | | 0 | 1 | | 0 |
| Taper Length (ft) | 115 | | | 115 | | | 220 | | | 150 | | |
| Lane Util. Factor | 1.00 | 0.95 | 0.95 | 1.00 | 0.95 | 0.95 | 1.00 | 0.95 | 0.95 | 1.00 | 0.95 | 0.95 |
| Ped Bike Factor | | | | | | | | | | | | |
| Frt | | 0.928 | | | 0.944 | | | 0.995 | | | 0.975 | |
| Flt Protected | 0.950 | | | 0.950 | | | 0.950 | | | 0.950 | | |
| Satd. Flow (prot) | 1805 | 3251 | 0 | 1671 | 3309 | 0 | 1736 | 3490 | 0 | 1752 | 3434 | 0 |
| Flt Permitted | 0.391 | | | 0.435 | | | 0.322 | | | 0.222 | | |
| Satd. Flow (perm) | 743 | 3251 | 0 | 765 | 3309 | 0 | 588 | 3490 | 0 | 410 | 3434 | 0 |
| Right Turn on Red | | | No | | | No | | | No | | | No |
| Satd. Flow (RTOR) | | | | | | | | | | | | |
| Link Speed (mph) | | 35 | | | 35 | | | 35 | | | 35 | |
| Link Distance (ft) | | 933 | | | 319 | | | 463 | | | 1681 | |
| Travel Time (s) | | 18.2 | | | 6.2 | | | 9.0 | | | 32.7 | |
| Confl. Peds. (#/hr) | | | | | | | | | | | | |
| Confl. Bikes (#/hr) | | | | | | | | | | | | |
| Peak Hour Factor | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 |
| Growth Factor | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% |
| Heavy Vehicles (%) | 0% | 4% | 2% | 8% | 3% | 3% | 4% | 3% | 0% | 3% | 3% | 0% |
| Bus Blockages (#/hr) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Parking (#/hr) | | | | | | | | | | | | |
| Mid-Block Traffic (%) | | 0% | | | 0% | | | 0% | | | 0% | |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 13 | 400 | 0 | 81 | 593 | 0 | 107 | 727 | 0 | 134 | 587 | 0 |
| Turn Type | pm+pt | NA | | pm+pt | NA | | pm+pt | NA | | pm+pt | NA | |
| Protected Phases | 5 | 2 | | 1 | 6 | | 7 | 4 | | 3 | 8 | |
| Permitted Phases | 2 | | | 6 | | | 4 | | | 8 | | |
| Detector Phase | 5 | 2 | | 1 | 6 | | 7 | 4 | | 3 | 8 | |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 3.0 | 15.0 | | 3.0 | 15.0 | | 3.0 | 15.0 | | 3.0 | 15.0 | |
| Minimum Split (s) | 6.5 | 21.0 | | 6.5 | 21.0 | | 6.5 | 21.0 | | 6.5 | 21.0 | |
| Total Split (s) | 13.2 | 42.9 | | 13.2 | 42.7 | | 13.2 | 40.7 | | 13.2 | 40.7 | |
| Total Split (%) | 12.0% | 39.0% | | 12.0% | 38.8% | | 12.0% | 37.0% | | 12.0% | 37.0% | |
| Yellow Time (s) | 3.5 | 4.5 | | 3.5 | 4.5 | | 3.5 | 4.5 | | 3.5 | 4.5 | |
| All-Red Time (s) | 0.0 | 1.5 | | 0.0 | 1.5 | | 0.0 | 1.5 | | 0.0 | 1.5 | |
| Lost Time Adjust (s) | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Total Lost Time (s) | 3.5 | 6.0 | | 3.5 | 6.0 | | 3.5 | 6.0 | | 3.5 | 6.0 | |
| Lead/Lag | Lead | Lag | | Lead | Lag | | Lead | Lag | | Lead | Lag | |
| Lead-Lag Optimize? | Yes | Yes | | Yes | Yes | | Yes | Yes | | Yes | Yes | |
| Recall Mode | None | C-Min | | None | C-Min | | None | None | | None | None | |
| Act Effct Green (s) | 47.6 | 40.3 | | 52.4 | 46.1 | | 46.4 | 35.3 | | 47.4 | 35.8 | |
| Actuated g/C Ratio | 0.43 | 0.37 | | 0.48 | 0.42 | | 0.42 | 0.32 | | 0.43 | 0.33 | |

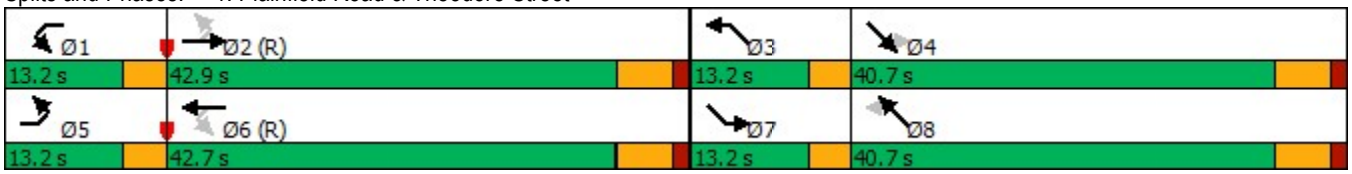
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | SEL | SET | SER | NWL | NWT | NWR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| v/c Ratio | 0.03 | 0.34 | | 0.19 | 0.43 | | 0.32 | 0.65 | | 0.47 | 0.53 | |
| Control Delay | 15.9 | 27.5 | | 17.4 | 25.0 | | 6.8 | 22.3 | | 22.9 | 32.3 | |
| Queue Delay | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Total Delay | 15.9 | 27.5 | | 17.4 | 25.0 | | 6.8 | 22.3 | | 22.9 | 32.3 | |
| LOS | B | C | | B | C | | A | C | | C | C | |
| Approach Delay | | 27.2 | | | 24.1 | | | 20.3 | | | 30.5 | |
| Approach LOS | | C | | | C | | | C | | | C | |
| Queue Length 50th (ft) | 5 | 116 | | 33 | 152 | | 3 | 234 | | 50 | 168 | |
| Queue Length 95th (ft) | 15 | 154 | | 58 | 223 | | m8 | m296 | | 93 | 236 | |
| Internal Link Dist (ft) | | 853 | | | 239 | | | 383 | | | 1601 | |
| Turn Bay Length (ft) | 180 | | | 125 | | | 310 | | | 270 | | |
| Base Capacity (vph) | 435 | 1205 | | 445 | 1387 | | 355 | 1142 | | 298 | 1134 | |
| Starvation Cap Reductn | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | |
| Spillback Cap Reductn | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | |
| Storage Cap Reductn | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | |
| Reduced v/c Ratio | 0.03 | 0.33 | | 0.18 | 0.43 | | 0.30 | 0.64 | | 0.45 | 0.52 | |

**Intersection Summary**

Area Type: Other
Cycle Length: 110
Actuated Cycle Length: 110
Offset: 11 (10%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green
Natural Cycle: 55
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.65
Intersection Signal Delay: 25.1 Intersection LOS: C
Intersection Capacity Utilization 61.0% ICU Level of Service B
Analysis Period (min) 15

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 1: Plainfield Road & Theodore Street



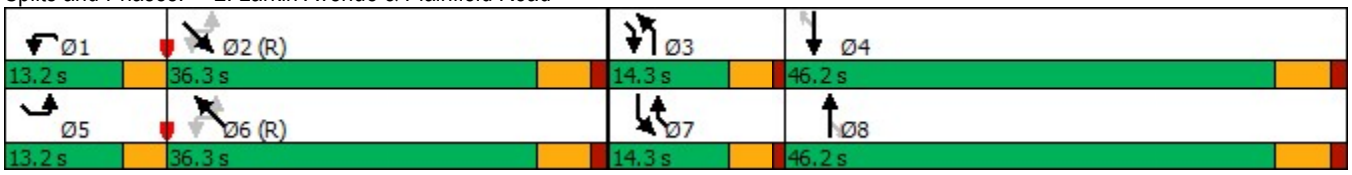
| Lane Group | NBL | NBT | NBR | SBL | SBT | SBR | SEL | SET | SER | NWL | NWT | NWR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 201 | 561 | 84 | 118 | 536 | 28 | 58 | 610 | 213 | 73 | 443 | 173 |
| Future Volume (vph) | 201 | 561 | 84 | 118 | 536 | 28 | 58 | 610 | 213 | 73 | 443 | 173 |
| Ideal Flow (vphpl) | 1900 | 2000 | 1900 | 1900 | 2000 | 1900 | 1900 | 2000 | 1900 | 1900 | 2000 | 1900 |
| Lane Width (ft) | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 |
| Grade (%) | | 0% | | | 0% | | | 0% | | | 0% | |
| Storage Length (ft) | 190 | | 150 | 200 | | 200 | 215 | | 285 | 155 | | 165 |
| Storage Lanes | 2 | | 1 | 1 | | 1 | 1 | | 1 | 1 | | 1 |
| Taper Length (ft) | 220 | | | 175 | | | 250 | | | 110 | | |
| Lane Util. Factor | 0.97 | 0.95 | 1.00 | 1.00 | 0.95 | 1.00 | 1.00 | 0.95 | 1.00 | 1.00 | 0.95 | 1.00 |
| Ped Bike Factor | | | | | | | | | | | | |
| Frt | | | 0.850 | | | 0.850 | | | 0.850 | | | 0.850 |
| Flt Protected | 0.950 | | | 0.950 | | | 0.950 | | | 0.950 | | |
| Satd. Flow (prot) | 3400 | 3519 | 1599 | 1736 | 3585 | 1455 | 1656 | 3689 | 1568 | 1805 | 3689 | 1599 |
| Flt Permitted | 0.950 | | | 0.950 | | | 0.396 | | | 0.262 | | |
| Satd. Flow (perm) | 3400 | 3519 | 1599 | 1736 | 3585 | 1455 | 690 | 3689 | 1568 | 498 | 3689 | 1599 |
| Right Turn on Red | | | No | | | No | | | No | | | No |
| Satd. Flow (RTOR) | | | | | | | | | | | | |
| Link Speed (mph) | | 35 | | | 35 | | | 40 | | | 35 | |
| Link Distance (ft) | | 853 | | | 840 | | | 808 | | | 1222 | |
| Travel Time (s) | | 16.6 | | | 16.4 | | | 13.8 | | | 23.8 | |
| Confl. Peds. (#/hr) | | | | | | | | | | | | |
| Confl. Bikes (#/hr) | | | | | | | | | | | | |
| Peak Hour Factor | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 |
| Growth Factor | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% |
| Heavy Vehicles (%) | 3% | 8% | 1% | 4% | 6% | 11% | 9% | 3% | 3% | 0% | 3% | 1% |
| Bus Blockages (#/hr) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Parking (#/hr) | | | | | | | | | | | | |
| Mid-Block Traffic (%) | | 0% | | | 0% | | | 0% | | | 0% | |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 223 | 623 | 93 | 131 | 596 | 31 | 64 | 678 | 237 | 81 | 492 | 192 |
| Turn Type | Prot | NA | Perm | Prot | NA | Perm | pm+pt | NA | pm+ov | pm+pt | NA | pm+ov |
| Protected Phases | 3 | 8 | | 7 | 4 | | 5 | 2 | 3 | 1 | 6 | 7 |
| Permitted Phases | | | 8 | | | 4 | 2 | | 2 | 6 | | 6 |
| Detector Phase | 3 | 8 | 8 | 7 | 4 | 4 | 5 | 2 | 3 | 1 | 6 | 7 |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 3.0 | 15.0 | 15.0 | 3.0 | 15.0 | 15.0 | 3.0 | 15.0 | 3.0 | 3.0 | 15.0 | 3.0 |
| Minimum Split (s) | 7.5 | 21.0 | 21.0 | 7.5 | 21.0 | 21.0 | 6.5 | 21.0 | 7.5 | 6.5 | 21.0 | 7.5 |
| Total Split (s) | 14.3 | 46.2 | 46.2 | 14.3 | 46.2 | 46.2 | 13.2 | 36.3 | 14.3 | 13.2 | 36.3 | 14.3 |
| Total Split (%) | 13.0% | 42.0% | 42.0% | 13.0% | 42.0% | 42.0% | 12.0% | 33.0% | 13.0% | 12.0% | 33.0% | 13.0% |
| Yellow Time (s) | 3.5 | 4.5 | 4.5 | 3.5 | 4.5 | 4.5 | 3.5 | 4.5 | 3.5 | 3.5 | 4.5 | 3.5 |
| All-Red Time (s) | 1.0 | 1.5 | 1.5 | 1.0 | 1.5 | 1.5 | 0.0 | 1.5 | 1.0 | 0.0 | 1.5 | 1.0 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Lost Time (s) | 4.5 | 6.0 | 6.0 | 4.5 | 6.0 | 6.0 | 3.5 | 6.0 | 4.5 | 3.5 | 6.0 | 4.5 |
| Lead/Lag | Lead | Lag | Lag | Lead | Lag | Lag | Lead | Lag | Lead | Lead | Lag | Lead |
| Lead-Lag Optimize? | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Recall Mode | None | None | None | None | None | None | None | C-Min | None | None | C-Min | None |
| Act Effct Green (s) | 9.7 | 36.5 | 36.5 | 9.8 | 36.6 | 36.6 | 46.6 | 37.4 | 53.1 | 47.1 | 37.6 | 53.5 |
| Actuated g/C Ratio | 0.09 | 0.33 | 0.33 | 0.09 | 0.33 | 0.33 | 0.42 | 0.34 | 0.48 | 0.43 | 0.34 | 0.49 |

| Lane Group | NBL | NBT | NBR | SBL | SBT | SBR | SEL | SET | SER | NWL | NWT | NWR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| v/c Ratio | 0.75 | 0.53 | 0.18 | 0.85 | 0.50 | 0.06 | 0.18 | 0.54 | 0.31 | 0.26 | 0.39 | 0.25 |
| Control Delay | 65.0 | 31.1 | 25.6 | 91.3 | 30.4 | 23.5 | 20.3 | 33.4 | 21.1 | 15.6 | 26.3 | 17.0 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 65.0 | 31.1 | 25.6 | 91.3 | 30.4 | 23.5 | 20.3 | 33.4 | 21.1 | 15.6 | 26.3 | 17.0 |
| LOS | E | C | C | F | C | C | C | C | C | B | C | B |
| Approach Delay | | 38.6 | | | 40.6 | | | 29.6 | | | 22.8 | |
| Approach LOS | | D | | | D | | | C | | | C | |
| Queue Length 50th (ft) | 80 | 176 | 44 | 93 | 166 | 14 | 27 | 220 | 110 | 37 | 145 | 99 |
| Queue Length 95th (ft) | #134 | 230 | 82 | #203 | 218 | 35 | 55 | 288 | 177 | 64 | 231 | 161 |
| Internal Link Dist (ft) | | 773 | | | 760 | | | 728 | | | 1142 | |
| Turn Bay Length (ft) | 190 | | 150 | 200 | | 200 | 215 | | 285 | 155 | | 165 |
| Base Capacity (vph) | 302 | 1286 | 584 | 154 | 1310 | 531 | 383 | 1253 | 757 | 331 | 1262 | 777 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.74 | 0.48 | 0.16 | 0.85 | 0.45 | 0.06 | 0.17 | 0.54 | 0.31 | 0.24 | 0.39 | 0.25 |

**Intersection Summary**

Area Type: Other
Cycle Length: 110
Actuated Cycle Length: 110
Offset: 16.5 (15%), Referenced to phase 2:SETL and 6:NWTL, Start of Green
Natural Cycle: 60
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.85
Intersection Signal Delay: 33.0 Intersection LOS: C
Intersection Capacity Utilization 58.4% ICU Level of Service B
Analysis Period (min) 15
# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 2: Larkin Avenue & Plainfield Road



| Intersection | |
|---|---|
| Int Delay, s/veh | 1.8 |

| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 56 | 319 | 554 | 135 | 42 | 60 |
| Future Vol, veh/h | 56 | 319 | 554 | 135 | 42 | 60 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | - | - | 0 | - |
| Veh in Median Storage, # | - | 0 | 0 | - | 1 | - |
| Grade, % | - | 0 | 0 | - | 0 | - |
| Peak Hour Factor | 95 | 95 | 95 | 95 | 95 | 95 |
| Heavy Vehicles, % | 0 | 5 | 4 | 5 | 2 | 0 |
| Mvmt Flow | 59 | 336 | 583 | 142 | 44 | 63 |

| Major/Minor | Major1 | | Major2 | | Minor2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 725 | 0 | - | 0 | 940 | 363 |
| Stage 1 | - | - | - | - | 654 | - |
| Stage 2 | - | - | - | - | 286 | - |
| Critical Hdwy | 4.1 | - | - | - | 6.84 | 6.9 |
| Critical Hdwy Stg 1 | - | - | - | - | 5.84 | - |
| Critical Hdwy Stg 2 | - | - | - | - | 5.84 | - |
| Follow-up Hdwy | 2.2 | - | - | - | 3.52 | 3.3 |
| Pot Cap-1 Maneuver | 887 | - | - | - | 262 | 640 |
| Stage 1 | - | - | - | - | 479 | - |
| Stage 2 | - | - | - | - | 737 | - |
| Platoon blocked, % | | - | - | - | | |
| Mov Cap-1 Maneuver | 887 | - | - | - | 241 | 640 |
| Mov Cap-2 Maneuver | - | - | - | - | 350 | - |
| Stage 1 | - | - | - | - | 440 | - |
| Stage 2 | - | - | - | - | 737 | - |

| Approach | EB | WB | SB |
|---|---|---|---|
| HCM Control Delay, s | 1.7 | 0 | 14.7 |
| HCM LOS | | | B |

| Minor Lane/Major Mvmt | EBL | EBT | WBT | WBR | SBLn1 |
|---|---|---|---|---|---|
| Capacity (veh/h) | 887 | - | - | - | 477 |
| HCM Lane V/C Ratio | 0.066 | - | - | - | 0.225 |
| HCM Control Delay (s) | 9.3 | 0.3 | - | - | 14.7 |
| HCM Lane LOS | A | A | - | - | B |
| HCM 95th %tile Q(veh) | 0.2 | - | - | - | 0.9 |

| Intersection | |
|---|---|
| Int Delay, s/veh | 6.7 |

| Movement | SEL | SET | SER | NWL | NWT | NWR | NEL | NET | NER | SWL | SWT | SWR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Vol, veh/h | 0 | 759 | 1 | 0 | 660 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Future Vol, veh/h | 0 | 759 | 1 | 0 | 660 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Stop | Stop | Stop | Stop | Free | Free | Free | Free | Free | Free |
| RT Channelized | - | - | None | - | - | None | - | - | None | - | - | None |
| Storage Length | 10 | - | - | - | - | - | - | - | - | - | - | - |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 91 | 91 | 91 | 91 | 91 | 91 | 91 | 91 | 91 | 91 | 91 | 91 |
| Heavy Vehicles, % | 0 | 4 | 0 | 0 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mvmt Flow | 0 | 834 | 1 | 0 | 725 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

| Major/Minor | Minor2 | | | Minor1 | | | Major1 | | | Major2 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Conflicting Flow All | 364 | 1 | 1 | 419 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| Stage 1 | 1 | 1 | - | 0 | 0 | - | - | - | - | - | - | - |
| Stage 2 | 363 | 0 | - | 419 | 1 | - | - | - | - | - | - | - |
| Critical Hdwy | 7.1 | 6.54 | 6.2 | 7.1 | 6.55 | 6.2 | 4.1 | - | - | 4.1 | - | - |
| Critical Hdwy Stg 1 | 6.1 | 5.54 | - | 6.1 | 5.55 | - | - | - | - | - | - | - |
| Critical Hdwy Stg 2 | 6.1 | 5.54 | - | 6.1 | 5.55 | - | - | - | - | - | - | - |
| Follow-up Hdwy | 3.5 | 4.036 | 3.3 | 3.5 | 4.045 | 3.3 | 2.2 | - | - | 2.2 | - | - |
| Pot Cap-1 Maneuver | 596 | 891 | 1090 | 548 | 889 | - | 1635 | - | - | - | - | - |
| Stage 1 | 1027 | 891 | - | - | - | - | - | - | - | - | - | - |
| Stage 2 | 660 | - | - | 616 | 889 | - | - | - | - | - | - | - |
| Platoon blocked, % | | | | | | | | - | - | | - | - |
| Mov Cap-1 Maneuver | - | 891 | 1090 | 94 | 889 | - | 1635 | - | - | - | - | - |
| Mov Cap-2 Maneuver | - | 891 | - | 94 | 889 | - | - | - | - | - | - | - |
| Stage 1 | 1027 | 891 | - | - | - | - | - | - | - | - | - | - |
| Stage 2 | 660 | - | - | 39 | 889 | - | - | - | - | - | - | - |

| Approach | SE | NW | NE | SW |
|---|---|---|---|---|
| HCM Control Delay, s | 12.6 | | 0 | 0 |
| HCM LOS | B | - | | |

| Minor Lane/Major Mvmt | NEL | NET | NER | NWLn1 | NWLn2 | SELn1 | SELn2 | SELn3 | SWL | SWT | SWR |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Capacity (veh/h) | 1635 | - | - | 889 | - | - | 891 | 891 | - | - | - |
| HCM Lane V/C Ratio | - | - | - | 0.408 | - | - | 0.468 | 0.469 | - | - | - |
| HCM Control Delay (s) | 0 | - | - | 11.8 | - | 0 | 12.5 | 12.6 | 0 | - | - |
| HCM Lane LOS | A | - | - | B | - | A | B | B | A | - | - |
| HCM 95th %tile Q(veh) | 0 | - | - | 2 | - | - | 2.5 | 2.5 | - | - | - |

| Intersection | |
|---|---|
| Int Delay, s/veh | 0.1 |

| Movement | SEL | SET | SER | NWL | NWT | NWR | NEL | NET | NER | SWL | SWT | SWR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Vol, veh/h | 1 | 100 | 0 | 1 | 172 | 14 | 0 | 0 | 0 | 2 | 0 | 1 |
| Future Vol, veh/h | 1 | 100 | 0 | 1 | 172 | 14 | 0 | 0 | 0 | 2 | 0 | 1 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Free | Free | Stop | Stop | Stop | Stop | Stop | Stop |
| RT Channelized | - | - | None | - | - | None | - | - | None | - | - | None |
| Storage Length | - | - | - | - | - | - | - | - | 0 | - | - | - |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 87 | 87 | 87 | 87 | 87 | 87 | 87 | 87 | 87 | 87 | 87 | 87 |
| Heavy Vehicles, % | 0 | 3 | 7 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mvmt Flow | 1 | 115 | 0 | 1 | 198 | 16 | 0 | 0 | 0 | 2 | 0 | 1 |

| Major/Minor | Major1 | | | Major2 | | | Minor1 | | | Minor2 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Conflicting Flow All | 214 | 0 | 0 | 115 | 0 | 0 | 326 | 333 | 115 | 325 | 325 | 206 |
| Stage 1 | - | - | - | - | - | - | 117 | 117 | - | 208 | 208 | - |
| Stage 2 | - | - | - | - | - | - | 209 | 216 | - | 117 | 117 | - |
| Critical Hdwy | 4.1 | - | - | 4.1 | - | - | 7.1 | 6.5 | 6.2 | 7.1 | 6.5 | 6.2 |
| Critical Hdwy Stg 1 | - | - | - | - | - | - | 6.1 | 5.5 | - | 6.1 | 5.5 | - |
| Critical Hdwy Stg 2 | - | - | - | - | - | - | 6.1 | 5.5 | - | 6.1 | 5.5 | - |
| Follow-up Hdwy | 2.2 | - | - | 2.2 | - | - | 3.5 | 4 | 3.3 | 3.5 | 4 | 3.3 |
| Pot Cap-1 Maneuver | 1368 | - | - | 1487 | - | - | 631 | 590 | 943 | 632 | 596 | 840 |
| Stage 1 | - | - | - | - | - | - | 892 | 803 | - | 799 | 734 | - |
| Stage 2 | - | - | - | - | - | - | 798 | 728 | - | 892 | 803 | - |
| Platoon blocked, % | | - | - | | - | - | | | | | | |
| Mov Cap-1 Maneuver | 1368 | - | - | 1487 | - | - | 629 | 589 | 943 | 631 | 595 | 840 |
| Mov Cap-2 Maneuver | - | - | - | - | - | - | 629 | 589 | - | 631 | 595 | - |
| Stage 1 | - | - | - | - | - | - | 891 | 802 | - | 798 | 733 | - |
| Stage 2 | - | - | - | - | - | - | 796 | 727 | - | 891 | 802 | - |

| Approach | SE | NW | NE | SW |
|---|---|---|---|---|
| HCM Control Delay, s | 0.1 | 0 | 0 | 10.3 |
| HCM LOS | | | A | B |

| Minor Lane/Major Mvmt | NELn1 | NELn2 | NWL | NWT | NWR | SEL | SET | SER | SWLn1 |
|---|---|---|---|---|---|---|---|---|---|
| Capacity (veh/h) | - | - | 1487 | - | - | 1368 | - | - | 688 |
| HCM Lane V/C Ratio | - | - | 0.001 | - | - | 0.001 | - | - | 0.005 |
| HCM Control Delay (s) | 0 | 0 | 7.4 | 0 | - | 7.6 | 0 | - | 10.3 |
| HCM Lane LOS | A | A | A | A | - | A | A | - | B |
| HCM 95th %tile Q(veh) | - | - | 0 | - | - | 0 | - | - | 0 |

# Capacity Analysis Summary Sheets

Year 2030 No-Build Weekday Evening Peak Hour

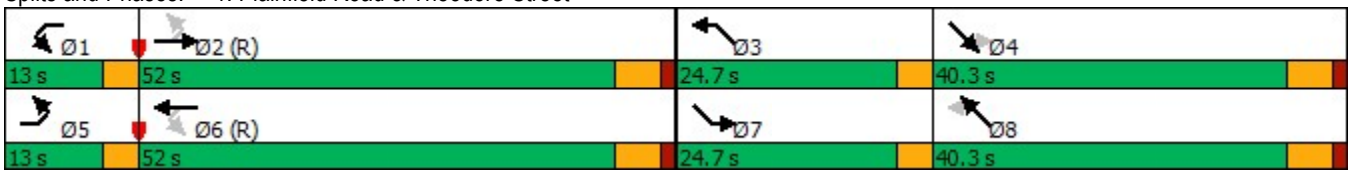
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | SEL | SET | SER | NWL | NWT | NWR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 33 | 435 | 257 | 115 | 504 | 239 | 244 | 740 | 18 | 203 | 611 | 82 |
| Future Volume (vph) | 33 | 435 | 257 | 115 | 504 | 239 | 244 | 740 | 18 | 203 | 611 | 82 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Width (ft) | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 |
| Grade (%) | | 0% | | | 0% | | | 0% | | | 0% | |
| Storage Length (ft) | 180 | | 0 | 125 | | 0 | 310 | | 0 | 270 | | 0 |
| Storage Lanes | 1 | | 0 | 1 | | 0 | 1 | | 0 | 1 | | 0 |
| Taper Length (ft) | 115 | | | 115 | | | 220 | | | 150 | | |
| Lane Util. Factor | 1.00 | 0.95 | 0.95 | 1.00 | 0.95 | 0.95 | 1.00 | 0.95 | 0.95 | 1.00 | 0.95 | 0.95 |
| Ped Bike Factor | | | | | | | | | | | | |
| Frt | | 0.944 | | | 0.952 | | | 0.997 | | | 0.982 | |
| Flt Protected | 0.950 | | | 0.950 | | | 0.950 | | | 0.950 | | |
| Satd. Flow (prot) | 1805 | 3321 | 0 | 1719 | 3369 | 0 | 1736 | 3525 | 0 | 1752 | 3442 | 0 |
| Flt Permitted | 0.274 | | | 0.240 | | | 0.193 | | | 0.179 | | |
| Satd. Flow (perm) | 521 | 3321 | 0 | 434 | 3369 | 0 | 353 | 3525 | 0 | 330 | 3442 | 0 |
| Right Turn on Red | | | No | | | No | | | No | | | No |
| Satd. Flow (RTOR) | | | | | | | | | | | | |
| Link Speed (mph) | | 35 | | | 35 | | | 35 | | | 35 | |
| Link Distance (ft) | | 933 | | | 319 | | | 463 | | | 1681 | |
| Travel Time (s) | | 18.2 | | | 6.2 | | | 9.0 | | | 32.7 | |
| Confl. Peds. (#/hr) | | | | | | | | | | | | |
| Confl. Bikes (#/hr) | | | | | | | | | | | | |
| Peak Hour Factor | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 |
| Growth Factor | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% |
| Heavy Vehicles (%) | 0% | 3% | 2% | 5% | 2% | 2% | 4% | 2% | 6% | 3% | 3% | 3% |
| Bus Blockages (#/hr) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Parking (#/hr) | | | | | | | | | | | | |
| Mid-Block Traffic (%) | | 0% | | | 0% | | | 0% | | | 0% | |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 34 | 706 | 0 | 117 | 758 | 0 | 249 | 773 | 0 | 207 | 707 | 0 |
| Turn Type | pm+pt | NA | | pm+pt | NA | | pm+pt | NA | | pm+pt | NA | |
| Protected Phases | 5 | 2 | | 1 | 6 | | 7 | 4 | | 3 | 8 | |
| Permitted Phases | 2 | | | 6 | | | 4 | | | 8 | | |
| Detector Phase | 5 | 2 | | 1 | 6 | | 7 | 4 | | 3 | 8 | |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 3.0 | 15.0 | | 3.0 | 15.0 | | 3.0 | 15.0 | | 3.0 | 15.0 | |
| Minimum Split (s) | 6.5 | 21.0 | | 6.5 | 21.0 | | 6.5 | 21.0 | | 6.5 | 21.0 | |
| Total Split (s) | 13.0 | 52.0 | | 13.0 | 52.0 | | 24.7 | 40.3 | | 24.7 | 40.3 | |
| Total Split (%) | 10.0% | 40.0% | | 10.0% | 40.0% | | 19.0% | 31.0% | | 19.0% | 31.0% | |
| Yellow Time (s) | 3.5 | 4.5 | | 3.5 | 4.5 | | 3.5 | 4.5 | | 3.5 | 4.5 | |
| All-Red Time (s) | 0.0 | 1.5 | | 0.0 | 1.5 | | 0.0 | 1.5 | | 0.0 | 1.5 | |
| Lost Time Adjust (s) | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Total Lost Time (s) | 3.5 | 6.0 | | 3.5 | 6.0 | | 3.5 | 6.0 | | 3.5 | 6.0 | |
| Lead/Lag | Lead | Lag | | Lead | Lag | | Lead | Lag | | Lead | Lag | |
| Lead-Lag Optimize? | Yes | Yes | | Yes | Yes | | Yes | Yes | | Yes | Yes | |
| Recall Mode | None | C-Min | | None | C-Min | | None | None | | None | None | |
| Act Effct Green (s) | 56.7 | 47.4 | | 61.4 | 53.2 | | 58.6 | 39.3 | | 55.7 | 37.8 | |
| Actuated g/C Ratio | 0.44 | 0.36 | | 0.47 | 0.41 | | 0.45 | 0.30 | | 0.43 | 0.29 | |

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | SEL | SET | SER | NWL | NWT | NWR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| v/c Ratio | 0.12 | 0.58 | | 0.40 | 0.55 | | 0.74 | 0.73 | | 0.67 | 0.71 | |
| Control Delay | 19.7 | 36.3 | | 23.7 | 32.4 | | 42.1 | 58.4 | | 32.3 | 46.1 | |
| Queue Delay | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Total Delay | 19.7 | 36.3 | | 23.7 | 32.4 | | 42.1 | 58.4 | | 32.3 | 46.1 | |
| LOS | B | D | | C | C | | D | E | | C | D | |
| Approach Delay | | 35.5 | | | 31.2 | | | 54.4 | | | 43.0 | |
| Approach LOS | | D | | | C | | | D | | | D | |
| Queue Length 50th (ft) | 15 | 255 | | 55 | 269 | | 209 | 363 | | 102 | 277 | |
| Queue Length 95th (ft) | 34 | 321 | | 93 | 342 | | m279 | m415 | | 157 | 366 | |
| Internal Link Dist (ft) | | 853 | | | 239 | | | 383 | | | 1601 | |
| Turn Bay Length (ft) | 180 | | | 125 | | | 310 | | | 270 | | |
| Base Capacity (vph) | 332 | 1227 | | 298 | 1379 | | 388 | 1064 | | 383 | 1000 | |
| Starvation Cap Reductn | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | |
| Spillback Cap Reductn | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | |
| Storage Cap Reductn | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | |
| Reduced v/c Ratio | 0.10 | 0.58 | | 0.39 | 0.55 | | 0.64 | 0.73 | | 0.54 | 0.71 | |

**Intersection Summary**

Area Type: Other
Cycle Length: 130
Actuated Cycle Length: 130
Offset: 33.8 (26%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green
Natural Cycle: 60
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.74
Intersection Signal Delay: 41.8 Intersection LOS: D
Intersection Capacity Utilization 76.3% ICU Level of Service D
Analysis Period (min) 15
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 1: Plainfield Road & Theodore Street



| Lane Group | NBL | NBT | NBR | SBL | SBT | SBR | SEL | SET | SER | NWL | NWT | NWR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 293 | 618 | 66 | 189 | 813 | 78 | 85 | 764 | 338 | 88 | 698 | 145 |
| Future Volume (vph) | 293 | 618 | 66 | 189 | 813 | 78 | 85 | 764 | 338 | 88 | 698 | 145 |
| Ideal Flow (vphpl) | 1900 | 2000 | 1900 | 1900 | 2000 | 1900 | 1900 | 2000 | 1900 | 1900 | 2000 | 1900 |
| Lane Width (ft) | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 |
| Grade (%) | | 0% | | | 0% | | | 0% | | | 0% | |
| Storage Length (ft) | 190 | | 150 | 200 | | 200 | 215 | | 285 | 155 | | 165 |
| Storage Lanes | 2 | | 1 | 1 | | 1 | 1 | | 1 | 1 | | 1 |
| Taper Length (ft) | 220 | | | 175 | | | 250 | | | 110 | | |
| Lane Util. Factor | 0.97 | 0.95 | 1.00 | 1.00 | 0.95 | 1.00 | 1.00 | 0.95 | 1.00 | 1.00 | 0.95 | 1.00 |
| Ped Bike Factor | | | | | | | | | | | | |
| Frt | | | 0.850 | | | 0.850 | | | 0.850 | | | 0.850 |
| Flt Protected | 0.950 | | | 0.950 | | | 0.950 | | | 0.950 | | |
| Satd. Flow (prot) | 3467 | 3519 | 1615 | 1736 | 3619 | 1568 | 1770 | 3689 | 1599 | 1805 | 3689 | 1553 |
| Flt Permitted | 0.950 | | | 0.950 | | | 0.196 | | | 0.153 | | |
| Satd. Flow (perm) | 3467 | 3519 | 1615 | 1736 | 3619 | 1568 | 365 | 3689 | 1599 | 291 | 3689 | 1553 |
| Right Turn on Red | | | No | | | No | | | No | | | No |
| Satd. Flow (RTOR) | | | | | | | | | | | | |
| Link Speed (mph) | | 35 | | | 35 | | | 40 | | | 35 | |
| Link Distance (ft) | | 853 | | | 840 | | | 808 | | | 1222 | |
| Travel Time (s) | | 16.6 | | | 16.4 | | | 13.8 | | | 23.8 | |
| Confl. Peds. (#/hr) | | | | | | | | | | | | |
| Confl. Bikes (#/hr) | | | | | | | | | | | | |
| Peak Hour Factor | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 |
| Growth Factor | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% |
| Heavy Vehicles (%) | 1% | 8% | 0% | 4% | 5% | 3% | 2% | 3% | 1% | 0% | 3% | 4% |
| Bus Blockages (#/hr) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Parking (#/hr) | | | | | | | | | | | | |
| Mid-Block Traffic (%) | | 0% | | | 0% | | | 0% | | | 0% | |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 299 | 631 | 67 | 193 | 830 | 80 | 87 | 780 | 345 | 90 | 712 | 148 |
| Turn Type | Prot | NA | Perm | Prot | NA | Perm | pm+pt | NA | pm+ov | pm+pt | NA | pm+ov |
| Protected Phases | 3 | 8 | | 7 | 4 | | 5 | 2 | 3 | 1 | 6 | 7 |
| Permitted Phases | | | 8 | | | 4 | 2 | | 2 | 6 | | 6 |
| Detector Phase | 3 | 8 | 8 | 7 | 4 | 4 | 5 | 2 | 3 | 1 | 6 | 7 |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 3.0 | 15.0 | 15.0 | 3.0 | 15.0 | 15.0 | 3.0 | 15.0 | 3.0 | 3.0 | 15.0 | 3.0 |
| Minimum Split (s) | 7.5 | 21.0 | 21.0 | 7.5 | 21.0 | 21.0 | 6.5 | 21.0 | 7.5 | 6.5 | 21.0 | 7.5 |
| Total Split (s) | 27.3 | 58.5 | 58.5 | 18.2 | 49.4 | 49.4 | 13.0 | 40.3 | 27.3 | 13.0 | 40.3 | 18.2 |
| Total Split (%) | 21.0% | 45.0% | 45.0% | 14.0% | 38.0% | 38.0% | 10.0% | 31.0% | 21.0% | 10.0% | 31.0% | 14.0% |
| Yellow Time (s) | 3.5 | 4.5 | 4.5 | 3.5 | 4.5 | 4.5 | 3.5 | 4.5 | 3.5 | 3.5 | 4.5 | 3.5 |
| All-Red Time (s) | 1.0 | 1.5 | 1.5 | 1.0 | 1.5 | 1.5 | 0.0 | 1.5 | 1.0 | 0.0 | 1.5 | 1.0 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Lost Time (s) | 4.5 | 6.0 | 6.0 | 4.5 | 6.0 | 6.0 | 3.5 | 6.0 | 4.5 | 3.5 | 6.0 | 4.5 |
| Lead/Lag | Lead | Lag | Lag | Lead | Lag | Lag | Lead | Lag | Lead | Lead | Lag | Lead |
| Lead-Lag Optimize? | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Recall Mode | None | None | None | None | None | None | None | C-Min | None | None | C-Min | None |
| Act Effct Green (s) | 16.8 | 50.0 | 50.0 | 13.7 | 47.0 | 47.0 | 48.7 | 37.6 | 60.4 | 48.7 | 37.6 | 57.3 |
| Actuated g/C Ratio | 0.13 | 0.38 | 0.38 | 0.11 | 0.36 | 0.36 | 0.37 | 0.29 | 0.46 | 0.37 | 0.29 | 0.44 |

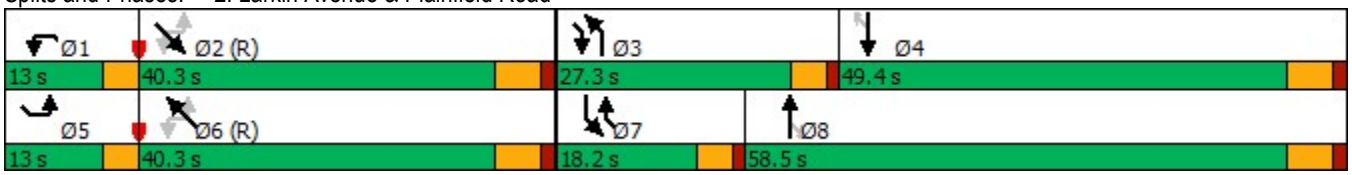
| Lane Group | NBL | NBT | NBR | SBL | SBT | SBR | SEL | SET | SER | NWL | NWT | NWR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| v/c Ratio | 0.67 | 0.47 | 0.11 | 1.05 | 0.64 | 0.14 | 0.38 | 0.73 | 0.46 | 0.43 | 0.67 | 0.22 |
| Control Delay | 61.1 | 30.9 | 25.1 | 137.3 | 37.1 | 28.8 | 30.7 | 47.5 | 26.7 | 29.3 | 28.4 | 15.6 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 61.1 | 30.9 | 25.1 | 137.3 | 37.1 | 28.8 | 30.7 | 47.5 | 26.7 | 29.3 | 28.4 | 15.6 |
| LOS | E | C | C | F | D | C | C | D | C | C | C | B |
| Approach Delay | | 39.5 | | | 54.1 | | | 40.3 | | | 26.5 | |
| Approach LOS | | D | | | D | | | D | | | C | |
| Queue Length 50th (ft) | 125 | 201 | 35 | ~178 | 292 | 44 | 47 | 324 | 205 | 28 | 140 | 40 |
| Queue Length 95th (ft) | 167 | 254 | 67 | #334 | 385 | 85 | 85 | 401 | 274 | m63 | 195 | m59 |
| Internal Link Dist (ft) | | 773 | | | 760 | | | 728 | | | 1142 | |
| Turn Bay Length (ft) | 190 | | 150 | 200 | | 200 | 215 | | 285 | 155 | | 165 |
| Base Capacity (vph) | 608 | 1421 | 652 | 183 | 1315 | 570 | 241 | 1065 | 816 | 221 | 1066 | 685 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.49 | 0.44 | 0.10 | 1.05 | 0.63 | 0.14 | 0.36 | 0.73 | 0.42 | 0.41 | 0.67 | 0.22 |

Intersection Summary

Area Type: Other
Cycle Length: 130
Actuated Cycle Length: 130
Offset: 6.5 (5%), Referenced to phase 2:SETL and 6:NWTL, Start of Green
Natural Cycle: 65
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.05
Intersection Signal Delay: 40.6 Intersection LOS: D
Intersection Capacity Utilization 71.7% ICU Level of Service C
Analysis Period (min) 15

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 2: Larkin Avenue & Plainfield Road



| Intersection | |
|---|---|
| Int Delay, s/veh | 3.1 |

| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 62 | 699 | 745 | 109 | 68 | 113 |
| Future Vol, veh/h | 62 | 699 | 745 | 109 | 68 | 113 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | - | - | 0 | - |
| Veh in Median Storage, # | - | 0 | 0 | - | 1 | - |
| Grade, % | - | 0 | 0 | - | 0 | - |
| Peak Hour Factor | 94 | 94 | 94 | 94 | 94 | 94 |
| Heavy Vehicles, % | 0 | 4 | 3 | 2 | 1 | 1 |
| Mvmt Flow | 66 | 744 | 793 | 116 | 72 | 120 |

| Major/Minor | Major1 | | Major2 | | Minor2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 909 | 0 | - | 0 | 1355 | 455 |
| Stage 1 | - | - | - | - | 851 | - |
| Stage 2 | - | - | - | - | 504 | - |
| Critical Hdwy | 4.1 | - | - | - | 6.82 | 6.92 |
| Critical Hdwy Stg 1 | - | - | - | - | 5.82 | - |
| Critical Hdwy Stg 2 | - | - | - | - | 5.82 | - |
| Follow-up Hdwy | 2.2 | - | - | - | 3.51 | 3.31 |
| Pot Cap-1 Maneuver | 757 | - | - | - | 142 | 555 |
| Stage 1 | - | - | - | - | 381 | - |
| Stage 2 | - | - | - | - | 575 | - |
| Platoon blocked, % | | - | - | - | | |
| Mov Cap-1 Maneuver | 757 | - | - | - | 121 | 555 |
| Mov Cap-2 Maneuver | - | - | - | - | 238 | - |
| Stage 1 | - | - | - | - | 324 | - |
| Stage 2 | - | - | - | - | 575 | - |

| Approach | EB | WB | SB |
|---|---|---|---|
| HCM Control Delay, s | 1.4 | 0 | 24.8 |
| HCM LOS | | | C |

| Minor Lane/Major Mvmt | EBL | EBT | WBT | WBR | SBLn1 |
|---|---|---|---|---|---|
| Capacity (veh/h) | 757 | - | - | - | 370 |
| HCM Lane V/C Ratio | 0.087 | - | - | - | 0.52 |
| HCM Control Delay (s) | 10.2 | 0.6 | - | - | 24.8 |
| HCM Lane LOS | B | A | - | - | C |
| HCM 95th %tile Q(veh) | 0.3 | - | - | - | 2.9 |

| Intersection | |
|---|---|
| Int Delay, s/veh | 0 |

| Movement | SEL | SET | SER | NWL | NWT | NWR | NEL | NET | NER | SWL | SWT | SWR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Vol, veh/h | 0 | 1002 | 0 | 0 | 883 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Future Vol, veh/h | 0 | 1002 | 0 | 0 | 883 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Free | Free | Stop | Stop | Stop | Stop | Stop | Stop |
| RT Channelized | - | - | None | - | - | None | - | - | None | - | - | None |
| Storage Length | 10 | - | - | - | - | - | - | - | - | - | - | - |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 93 | 93 | 93 | 93 | 93 | 93 | 93 | 93 | 93 | 93 | 93 | 93 |
| Heavy Vehicles, % | 0 | 2 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mvmt Flow | 0 | 1077 | 0 | 0 | 949 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

| Major/Minor | Major1 | | | Major2 | | | Minor1 | | | Minor2 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Conflicting Flow All | 949 | 0 | 0 | 1077 | 0 | 0 | 1552 | 2026 | 539 | 1488 | 2026 | 475 |
| Stage 1 | - | - | - | - | - | - | 1077 | 1077 | - | 949 | 949 | - |
| Stage 2 | - | - | - | - | - | - | 475 | 949 | - | 539 | 1077 | - |
| Critical Hdwy | 4.1 | - | - | 4.1 | - | - | 7.5 | 6.5 | 6.9 | 7.5 | 6.5 | 6.9 |
| Critical Hdwy Stg 1 | - | - | - | - | - | - | 6.5 | 5.5 | - | 6.5 | 5.5 | - |
| Critical Hdwy Stg 2 | - | - | - | - | - | - | 6.5 | 5.5 | - | 6.5 | 5.5 | - |
| Follow-up Hdwy | 2.2 | - | - | 2.2 | - | - | 3.5 | 4 | 3.3 | 3.5 | 4 | 3.3 |
| Pot Cap-1 Maneuver | 732 | - | - | 655 | - | - | 79 | 58 | 492 | 88 | 58 | 541 |
| Stage 1 | - | - | - | - | - | - | 237 | 298 | - | 284 | 342 | - |
| Stage 2 | - | - | - | - | - | - | 545 | 342 | - | 499 | 298 | - |
| Platoon blocked, % | | - | - | | - | - | | | | | | |
| Mov Cap-1 Maneuver | 732 | - | - | 655 | - | - | 79 | 58 | 492 | 88 | 58 | 541 |
| Mov Cap-2 Maneuver | - | - | - | - | - | - | 79 | 58 | - | 88 | 58 | - |
| Stage 1 | - | - | - | - | - | - | 237 | 298 | - | 284 | 342 | - |
| Stage 2 | - | - | - | - | - | - | 545 | 342 | - | 499 | 298 | - |

| Approach | SE | NW | NE | SW |
|---|---|---|---|---|
| HCM Control Delay, s | 0 | 0 | 0 | 0 |
| HCM LOS | | | A | A |

| Minor Lane/Major Mvmt | NELn1 | NWL | NWT | NWR | SEL | SET | SERSWLn1 |
|---|---|---|---|---|---|---|---|
| Capacity (veh/h) | - | 655 | - | - | 732 | - | - - |
| HCM Lane V/C Ratio | - | - | - | - | - | - | - - |
| HCM Control Delay (s) | 0 | 0 | - | - | 0 | - | - 0 |
| HCM Lane LOS | A | A | - | - | A | - | - A |
| HCM 95th %tile Q(veh) | - | 0 | - | - | 0 | - | - - |

| Intersection | |
|---|---|
| Int Delay, s/veh | 0.9 |

| Movement | SEL | SET | SER | NWL | NWT | NWR | NEL | NET | NER | SWL | SWT | SWR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | ⇕ | | | ⇕ | | | ⇃ | ↱ | | ⇕ | |
| Traffic Vol, veh/h | 2 | 182 | 0 | 0 | 170 | 18 | 0 | 0 | 0 | 25 | 0 | 7 |
| Future Vol, veh/h | 2 | 182 | 0 | 0 | 170 | 18 | 0 | 0 | 0 | 25 | 0 | 7 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Free | Free | Stop | Stop | Stop | Stop | Stop | Stop |
| RT Channelized | - | - | None | - | - | None | - | - | None | - | - | None |
| Storage Length | - | - | - | - | - | - | - | - | 0 | - | - | - |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 93 | 93 | 93 | 93 | 93 | 93 | 93 | 93 | 93 | 93 | 93 | 93 |
| Heavy Vehicles, % | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mvmt Flow | 2 | 196 | 0 | 0 | 183 | 19 | 0 | 0 | 0 | 27 | 0 | 8 |

| Major/Minor | Major1 | | | Major2 | | | Minor1 | | | Minor2 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Conflicting Flow All | 202 | 0 | 0 | 196 | 0 | 0 | 397 | 402 | 196 | 393 | 393 | 193 |
| Stage 1 | - | - | - | - | - | - | 200 | 200 | - | 193 | 193 | - |
| Stage 2 | - | - | - | - | - | - | 197 | 202 | - | 200 | 200 | - |
| Critical Hdwy | 4.1 | - | - | 4.1 | - | - | 7.1 | 6.5 | 6.2 | 7.1 | 6.5 | 6.2 |
| Critical Hdwy Stg 1 | - | - | - | - | - | - | 6.1 | 5.5 | - | 6.1 | 5.5 | - |
| Critical Hdwy Stg 2 | - | - | - | - | - | - | 6.1 | 5.5 | - | 6.1 | 5.5 | - |
| Follow-up Hdwy | 2.2 | - | - | 2.2 | - | - | 3.5 | 4 | 3.3 | 3.5 | 4 | 3.3 |
| Pot Cap-1 Maneuver | 1382 | - | - | 1389 | - | - | 567 | 540 | 850 | 570 | 546 | 854 |
| Stage 1 | - | - | - | - | - | - | 806 | 739 | - | 813 | 745 | - |
| Stage 2 | - | - | - | - | - | - | 809 | 738 | - | 806 | 739 | - |
| Platoon blocked, % | | - | - | | - | - | | | | | | |
| Mov Cap-1 Maneuver | 1382 | - | - | 1389 | - | - | 561 | 539 | 850 | 569 | 545 | 854 |
| Mov Cap-2 Maneuver | - | - | - | - | - | - | 561 | 539 | - | 569 | 545 | - |
| Stage 1 | - | - | - | - | - | - | 804 | 738 | - | 811 | 745 | - |
| Stage 2 | - | - | - | - | - | - | 802 | 738 | - | 804 | 738 | - |

| Approach | SE | NW | NE | SW |
|---|---|---|---|---|
| HCM Control Delay, s | 0.1 | 0 | 0 | 11.2 |
| HCM LOS | | | A | B |

| Minor Lane/Major Mvmt | NELn1 | NELn2 | NWL | NWT | NWR | SEL | SET | SER | SWLn1 |
|---|---|---|---|---|---|---|---|---|---|
| Capacity (veh/h) | - | - | 1389 | - | - | 1382 | - | - | 614 |
| HCM Lane V/C Ratio | - | - | - | - | - | 0.002 | - | - | 0.056 |
| HCM Control Delay (s) | 0 | 0 | 0 | - | - | 7.6 | 0 | - | 11.2 |
| HCM Lane LOS | A | A | A | - | - | A | A | - | B |
| HCM 95th %tile Q(veh) | - | - | 0 | - | - | 0 | - | - | 0.2 |

# Capacity Analysis Summary Sheets

Year 2030 No-Build Saturday Midday Peak Hour

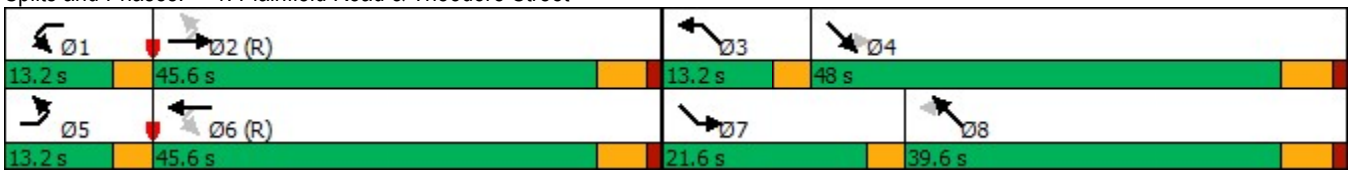
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | SEL | SET | SER | NWL | NWT | NWR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 18 | 426 | 236 | 122 | 459 | 264 | 214 | 587 | 41 | 95 | 569 | 170 |
| Future Volume (vph) | 18 | 426 | 236 | 122 | 459 | 264 | 214 | 587 | 41 | 95 | 569 | 170 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Width (ft) | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 |
| Grade (%) | | 0% | | | 0% | | | 0% | | | 0% | |
| Storage Length (ft) | 180 | | 0 | 125 | | 0 | 310 | | 0 | 270 | | 0 |
| Storage Lanes | 1 | | 0 | 1 | | 0 | 1 | | 0 | 1 | | 0 |
| Taper Length (ft) | 115 | | | 115 | | | 220 | | | 150 | | |
| Lane Util. Factor | 1.00 | 0.95 | 0.95 | 1.00 | 0.95 | 0.95 | 1.00 | 0.95 | 0.95 | 1.00 | 0.95 | 0.95 |
| Ped Bike Factor | | | | | | | | | | | | |
| Frt | | 0.947 | | | 0.945 | | | 0.990 | | | 0.966 | |
| Flt Protected | 0.950 | | | 0.950 | | | 0.950 | | | 0.950 | | |
| Satd. Flow (prot) | 1805 | 3363 | 0 | 1787 | 3353 | 0 | 1787 | 3476 | 0 | 1787 | 3437 | 0 |
| Flt Permitted | 0.297 | | | 0.243 | | | 0.165 | | | 0.337 | | |
| Satd. Flow (perm) | 564 | 3363 | 0 | 457 | 3353 | 0 | 310 | 3476 | 0 | 634 | 3437 | 0 |
| Right Turn on Red | | | No | | | No | | | No | | | No |
| Satd. Flow (RTOR) | | | | | | | | | | | | |
| Link Speed (mph) | | 35 | | | 35 | | | 35 | | | 35 | |
| Link Distance (ft) | | 933 | | | 319 | | | 463 | | | 1681 | |
| Travel Time (s) | | 18.2 | | | 6.2 | | | 9.0 | | | 32.7 | |
| Confl. Peds. (#/hr) | | | | | | | | | | | | |
| Confl. Bikes (#/hr) | | | | | | | | | | | | |
| 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 |
| Growth Factor | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% |
| Heavy Vehicles (%) | 0% | 2% | 1% | 1% | 1% | 3% | 1% | 3% | 0% | 1% | 1% | 3% |
| Bus Blockages (#/hr) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Parking (#/hr) | | | | | | | | | | | | |
| Mid-Block Traffic (%) | | 0% | | | 0% | | | 0% | | | 0% | |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 19 | 682 | 0 | 126 | 745 | 0 | 221 | 647 | 0 | 98 | 762 | 0 |
| Turn Type | pm+pt | NA | | pm+pt | NA | | pm+pt | NA | | pm+pt | NA | |
| Protected Phases | 5 | 2 | | 1 | 6 | | 7 | 4 | | 3 | 8 | |
| Permitted Phases | 2 | | | 6 | | | 4 | | | 8 | | |
| Detector Phase | 5 | 2 | | 1 | 6 | | 7 | 4 | | 3 | 8 | |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 3.0 | 15.0 | | 3.0 | 15.0 | | 3.0 | 15.0 | | 3.0 | 15.0 | |
| Minimum Split (s) | 6.5 | 21.0 | | 6.5 | 21.0 | | 6.5 | 21.0 | | 6.5 | 21.0 | |
| Total Split (s) | 13.2 | 45.6 | | 13.2 | 45.6 | | 21.6 | 48.0 | | 13.2 | 39.6 | |
| Total Split (%) | 11.0% | 38.0% | | 11.0% | 38.0% | | 18.0% | 40.0% | | 11.0% | 33.0% | |
| Yellow Time (s) | 3.5 | 4.5 | | 3.5 | 4.5 | | 3.5 | 4.5 | | 3.5 | 4.5 | |
| All-Red Time (s) | 0.0 | 1.5 | | 0.0 | 1.5 | | 0.0 | 1.5 | | 0.0 | 1.5 | |
| Lost Time Adjust (s) | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Total Lost Time (s) | 3.5 | 6.0 | | 3.5 | 6.0 | | 3.5 | 6.0 | | 3.5 | 6.0 | |
| Lead/Lag | Lead | Lag | | Lead | Lag | | Lead | Lag | | Lead | Lag | |
| Lead-Lag Optimize? | Yes | Yes | | Yes | Yes | | Yes | Yes | | Yes | Yes | |
| Recall Mode | None | C-Min | | None | C-Min | | None | None | | None | None | |
| Act Effct Green (s) | 50.0 | 41.3 | | 56.0 | 49.6 | | 56.7 | 42.1 | | 47.1 | 36.0 | |
| Actuated g/C Ratio | 0.42 | 0.34 | | 0.47 | 0.41 | | 0.47 | 0.35 | | 0.39 | 0.30 | |

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | SEL | SET | SER | NWL | NWT | NWR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| v/c Ratio | 0.06 | 0.59 | | 0.40 | 0.54 | | 0.68 | 0.53 | | 0.30 | 0.74 | |
| Control Delay | 18.4 | 35.4 | | 22.6 | 29.5 | | 18.1 | 22.0 | | 20.3 | 43.2 | |
| Queue Delay | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Total Delay | 18.4 | 35.4 | | 22.6 | 29.5 | | 18.1 | 22.0 | | 20.3 | 43.2 | |
| LOS | B | D | | C | C | | B | C | | C | D | |
| Approach Delay | | 34.9 | | | 28.5 | | | 21.0 | | | 40.6 | |
| Approach LOS | | C | | | C | | | C | | | D | |
| Queue Length 50th (ft) | 8 | 232 | | 55 | 214 | | 101 | 214 | | 41 | 275 | |
| Queue Length 95th (ft) | 22 | 297 | | 94 | 320 | | m131 | 286 | | 73 | 363 | |
| Internal Link Dist (ft) | | 853 | | | 239 | | | 383 | | | 1601 | |
| Turn Bay Length (ft) | 180 | | | 125 | | | 310 | | | 270 | | |
| Base Capacity (vph) | 351 | 1156 | | 320 | 1387 | | 368 | 1229 | | 348 | 1030 | |
| Starvation Cap Reductn | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | |
| Spillback Cap Reductn | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | |
| Storage Cap Reductn | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | |
| Reduced v/c Ratio | 0.05 | 0.59 | | 0.39 | 0.54 | | 0.60 | 0.53 | | 0.28 | 0.74 | |

**Intersection Summary**

Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 7.2 (6%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green
Natural Cycle: 60
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.74
Intersection Signal Delay: 31.0 Intersection LOS: C
Intersection Capacity Utilization 75.8% ICU Level of Service D
Analysis Period (min) 15
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 1: Plainfield Road & Theodore Street



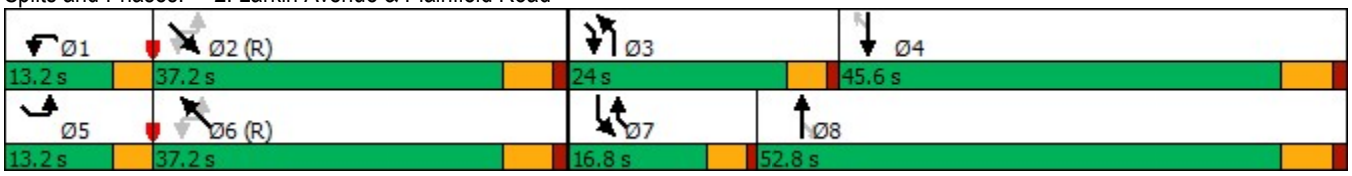
| Lane Group | NBL | NBT | NBR | SBL | SBT | SBR | SEL | SET | SER | NWL | NWT | NWR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 395 | 582 | 95 | 144 | 638 | 84 | 91 | 630 | 336 | 99 | 613 | 151 |
| Future Volume (vph) | 395 | 582 | 95 | 144 | 638 | 84 | 91 | 630 | 336 | 99 | 613 | 151 |
| Ideal Flow (vphpl) | 1900 | 2000 | 1900 | 1900 | 2000 | 1900 | 1900 | 2000 | 1900 | 1900 | 2000 | 1900 |
| Lane Width (ft) | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 |
| Grade (%) | | 0% | | | 0% | | | 0% | | | 0% | |
| Storage Length (ft) | 190 | | 150 | 200 | | 200 | 215 | | 285 | 155 | | 165 |
| Storage Lanes | 2 | | 1 | 1 | | 1 | 1 | | 1 | 1 | | 1 |
| Taper Length (ft) | 220 | | | 175 | | | 250 | | | 110 | | |
| Lane Util. Factor | 0.97 | 0.95 | 1.00 | 1.00 | 0.95 | 1.00 | 1.00 | 0.95 | 1.00 | 1.00 | 0.95 | 1.00 |
| Ped Bike Factor | | | | | | | | | | | | |
| Frt | | | 0.850 | | | 0.850 | | | 0.850 | | | 0.850 |
| Flt Protected | 0.950 | | | 0.950 | | | 0.950 | | | 0.950 | | |
| Satd. Flow (prot) | 3467 | 3762 | 1599 | 1787 | 3654 | 1599 | 1787 | 3725 | 1615 | 1805 | 3762 | 1583 |
| Flt Permitted | 0.950 | | | 0.950 | | | 0.262 | | | 0.249 | | |
| Satd. Flow (perm) | 3467 | 3762 | 1599 | 1787 | 3654 | 1599 | 493 | 3725 | 1615 | 473 | 3762 | 1583 |
| Right Turn on Red | | | No | | | No | | | No | | | No |
| Satd. Flow (RTOR) | | | | | | | | | | | | |
| Link Speed (mph) | | 35 | | | 35 | | | 40 | | | 35 | |
| Link Distance (ft) | | 853 | | | 840 | | | 808 | | | 1222 | |
| Travel Time (s) | | 16.6 | | | 16.4 | | | 13.8 | | | 23.8 | |
| Confl. Peds. (#/hr) | | | | | | | | | | | | |
| Confl. Bikes (#/hr) | | | | | | | | | | | | |
| 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 |
| Growth Factor | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% |
| Heavy Vehicles (%) | 1% | 1% | 1% | 1% | 4% | 1% | 1% | 2% | 0% | 0% | 1% | 2% |
| Bus Blockages (#/hr) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Parking (#/hr) | | | | | | | | | | | | |
| Mid-Block Traffic (%) | | 0% | | | 0% | | | 0% | | | 0% | |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 407 | 600 | 98 | 148 | 658 | 87 | 94 | 649 | 346 | 102 | 632 | 156 |
| Turn Type | Prot | NA | Perm | Prot | NA | Perm | pm+pt | NA | pm+ov | pm+pt | NA | pm+ov |
| Protected Phases | 3 | 8 | | 7 | 4 | | 5 | 2 | 3 | 1 | 6 | 7 |
| Permitted Phases | | | 8 | | | 4 | 2 | | 2 | 6 | | 6 |
| Detector Phase | 3 | 8 | 8 | 7 | 4 | 4 | 5 | 2 | 3 | 1 | 6 | 7 |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 3.0 | 15.0 | 15.0 | 3.0 | 15.0 | 15.0 | 3.0 | 15.0 | 3.0 | 3.0 | 15.0 | 3.0 |
| Minimum Split (s) | 7.5 | 21.0 | 21.0 | 7.5 | 21.0 | 21.0 | 6.5 | 21.0 | 7.5 | 6.5 | 21.0 | 7.5 |
| Total Split (s) | 24.0 | 52.8 | 52.8 | 16.8 | 45.6 | 45.6 | 13.2 | 37.2 | 24.0 | 13.2 | 37.2 | 16.8 |
| Total Split (%) | 20.0% | 44.0% | 44.0% | 14.0% | 38.0% | 38.0% | 11.0% | 31.0% | 20.0% | 11.0% | 31.0% | 14.0% |
| Yellow Time (s) | 3.5 | 4.5 | 4.5 | 3.5 | 4.5 | 4.5 | 3.5 | 4.5 | 3.5 | 3.5 | 4.5 | 3.5 |
| All-Red Time (s) | 1.0 | 1.5 | 1.5 | 1.0 | 1.5 | 1.5 | 0.0 | 1.5 | 1.0 | 0.0 | 1.5 | 1.0 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Lost Time (s) | 4.5 | 6.0 | 6.0 | 4.5 | 6.0 | 6.0 | 3.5 | 6.0 | 4.5 | 3.5 | 6.0 | 4.5 |
| Lead/Lag | Lead | Lag | Lag | Lead | Lag | Lag | Lead | Lag | Lead | Lead | Lag | Lead |
| Lead-Lag Optimize? | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Recall Mode | None | None | None | None | None | None | None | C-Min | None | None | C-Min | None |
| Act Effct Green (s) | 18.0 | 43.5 | 43.5 | 12.0 | 37.4 | 37.4 | 46.9 | 35.8 | 59.8 | 47.2 | 35.9 | 53.9 |
| Actuated g/C Ratio | 0.15 | 0.36 | 0.36 | 0.10 | 0.31 | 0.31 | 0.39 | 0.30 | 0.50 | 0.39 | 0.30 | 0.45 |

| Lane Group | NBL | NBT | NBR | SBL | SBT | SBR | SEL | SET | SER | NWL | NWT | NWR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| v/c Ratio | 0.78 | 0.44 | 0.17 | 0.83 | 0.58 | 0.17 | 0.33 | 0.58 | 0.43 | 0.36 | 0.56 | 0.22 |
| Control Delay | 60.1 | 29.7 | 25.7 | 87.6 | 36.6 | 30.2 | 26.2 | 39.7 | 22.2 | 18.2 | 30.7 | 14.8 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 60.1 | 29.7 | 25.7 | 87.6 | 36.6 | 30.2 | 26.2 | 39.7 | 22.2 | 18.2 | 30.7 | 14.8 |
| LOS | E | C | C | F | D | C | C | D | C | B | C | B |
| Approach Delay | | 40.5 | | | 44.5 | | | 33.0 | | | 26.5 | |
| Approach LOS | | D | | | D | | | C | | | C | |
| Queue Length 50th (ft) | 156 | 175 | 49 | 114 | 218 | 48 | 46 | 237 | 175 | 27 | 232 | 86 |
| Queue Length 95th (ft) | 211 | 225 | 88 | #226 | 278 | 88 | 84 | 304 | 258 | m49 | 331 | m117 |
| Internal Link Dist (ft) | | 773 | | | 760 | | | 728 | | | 1142 | |
| Turn Bay Length (ft) | 190 | | 150 | 200 | | 200 | 215 | | 285 | 155 | | 165 |
| Base Capacity (vph) | 563 | 1467 | 623 | 183 | 1205 | 527 | 301 | 1110 | 824 | 297 | 1125 | 714 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.72 | 0.41 | 0.16 | 0.81 | 0.55 | 0.17 | 0.31 | 0.58 | 0.42 | 0.34 | 0.56 | 0.22 |

Intersection Summary

Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 7.2 (6%), Referenced to phase 2:SETL and 6:NWTL, Start of Green
Natural Cycle: 60
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.83
Intersection Signal Delay: 36.2 Intersection LOS: D
Intersection Capacity Utilization 67.1% ICU Level of Service C
Analysis Period (min) 15
# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 2: Larkin Avenue & Plainfield Road



| Intersection | |
|---|---|
| Int Delay, s/veh | 3.7 |

| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 45 | 765 | 732 | 95 | 100 | 113 |
| Future Vol, veh/h | 45 | 765 | 732 | 95 | 100 | 113 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | - | - | 0 | - |
| Veh in Median Storage, # | - | 0 | 0 | - | 1 | - |
| Grade, % | - | 0 | 0 | - | 0 | - |
| Peak Hour Factor | 96 | 96 | 96 | 96 | 96 | 96 |
| Heavy Vehicles, % | 0 | 1 | 2 | 0 | 0 | 1 |
| Mvmt Flow | 47 | 797 | 763 | 99 | 104 | 118 |

| Major/Minor | Major1 | | Major2 | | Minor2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 862 | 0 | - | 0 | 1306 | 431 |
| Stage 1 | - | - | - | - | 813 | - |
| Stage 2 | - | - | - | - | 493 | - |
| Critical Hdwy | 4.1 | - | - | - | 6.8 | 6.92 |
| Critical Hdwy Stg 1 | - | - | - | - | 5.8 | - |
| Critical Hdwy Stg 2 | - | - | - | - | 5.8 | - |
| Follow-up Hdwy | 2.2 | - | - | - | 3.5 | 3.31 |
| Pot Cap-1 Maneuver | 789 | - | - | - | 154 | 575 |
| Stage 1 | - | - | - | - | 402 | - |
| Stage 2 | - | - | - | - | 585 | - |
| Platoon blocked, % | | - | - | - | | |
| Mov Cap-1 Maneuver | 789 | - | - | - | 138 | 575 |
| Mov Cap-2 Maneuver | - | - | - | - | 261 | - |
| Stage 1 | - | - | - | - | 359 | - |
| Stage 2 | - | - | - | - | 585 | - |

| Approach | EB | WB | SB |
|---|---|---|---|
| HCM Control Delay, s | 1 | 0 | 28.7 |
| HCM LOS | | | D |

| Minor Lane/Major Mvmt | EBL | EBT | WBT | WBR | SBLn1 |
|---|---|---|---|---|---|
| Capacity (veh/h) | 789 | - | - | - | 367 |
| HCM Lane V/C Ratio | 0.059 | - | - | - | 0.605 |
| HCM Control Delay (s) | 9.9 | 0.5 | - | - | 28.7 |
| HCM Lane LOS | A | A | - | - | D |
| HCM 95th %tile Q(veh) | 0.2 | - | - | - | 3.8 |

| Intersection | |
|---|---|
| Int Delay, s/veh | 0 |

| Movement | SEL | SET | SER | NWL | NWT | NWR | NEL | NET | NER | SWL | SWT | SWR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Vol, veh/h | 0 | 842 | 0 | 0 | 851 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Future Vol, veh/h | 0 | 842 | 0 | 0 | 851 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Free | Free | Stop | Stop | Stop | Stop | Stop | Stop |
| RT Channelized | - | - | None | - | - | None | - | - | None | - | - | None |
| Storage Length | 10 | - | - | - | - | - | - | - | - | - | - | - |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 93 | 93 | 93 | 93 | 93 | 93 | 93 | 93 | 93 | 93 | 93 | 93 |
| Heavy Vehicles, % | 0 | 2 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mvmt Flow | 0 | 905 | 0 | 0 | 915 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

| Major/Minor | Major1 | | | Major2 | | | Minor1 | | | Minor2 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Conflicting Flow All | 915 | 0 | 0 | 905 | 0 | 0 | 1363 | 1820 | 453 | 1368 | 1820 | 458 |
| Stage 1 | - | - | - | - | - | - | 905 | 905 | - | 915 | 915 | - |
| Stage 2 | - | - | - | - | - | - | 458 | 915 | - | 453 | 905 | - |
| Critical Hdwy | 4.1 | - | - | 4.1 | - | - | 7.5 | 6.5 | 6.9 | 7.5 | 6.5 | 6.9 |
| Critical Hdwy Stg 1 | - | - | - | - | - | - | 6.5 | 5.5 | - | 6.5 | 5.5 | - |
| Critical Hdwy Stg 2 | - | - | - | - | - | - | 6.5 | 5.5 | - | 6.5 | 5.5 | - |
| Follow-up Hdwy | 2.2 | - | - | 2.2 | - | - | 3.5 | 4 | 3.3 | 3.5 | 4 | 3.3 |
| Pot Cap-1 Maneuver | 754 | - | - | 760 | - | - | 109 | 78 | 559 | 108 | 78 | 555 |
| Stage 1 | - | - | - | - | - | - | 302 | 358 | - | 298 | 354 | - |
| Stage 2 | - | - | - | - | - | - | 557 | 354 | - | 561 | 358 | - |
| Platoon blocked, % | | - | - | | - | - | | | | | | |
| Mov Cap-1 Maneuver | 754 | - | - | 760 | - | - | 109 | 78 | 559 | 108 | 78 | 555 |
| Mov Cap-2 Maneuver | - | - | - | - | - | - | 109 | 78 | - | 108 | 78 | - |
| Stage 1 | - | - | - | - | - | - | 302 | 358 | - | 298 | 354 | - |
| Stage 2 | - | - | - | - | - | - | 557 | 354 | - | 561 | 358 | - |

| Approach | SE | NW | NE | SW |
|---|---|---|---|---|
| HCM Control Delay, s | 0 | 0 | 0 | 0 |
| HCM LOS | | | A | A |

| Minor Lane/Major Mvmt | NELn1 | NWL | NWT | NWR | SEL | SET | SERSWLn1 | | |
|---|---|---|---|---|---|---|---|---|---|
| Capacity (veh/h) | - | 760 | - | - | 754 | - | - | - | |
| HCM Lane V/C Ratio | - | - | - | - | - | - | - | - | |
| HCM Control Delay (s) | 0 | 0 | - | - | 0 | - | - | 0 | |
| HCM Lane LOS | A | A | - | - | A | - | - | A | |
| HCM 95th %tile Q(veh) | - | 0 | - | - | 0 | - | - | - | |

| Intersection | |
|---|---|
| Int Delay, s/veh | 0.3 |

| Movement | SEL | SET | SER | NWL | NWT | NWR | NEL | NET | NER | SWL | SWT | SWR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | ↕ | | | ↕ | | | ↰ | ↱ | | ↕ | |
| Traffic Vol, veh/h | 1 | 222 | 0 | 0 | 158 | 16 | 0 | 0 | 0 | 9 | 0 | 2 |
| Future Vol, veh/h | 1 | 222 | 0 | 0 | 158 | 16 | 0 | 0 | 0 | 9 | 0 | 2 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Free | Free | Stop | Stop | Stop | Stop | Stop | Stop |
| RT Channelized | - | - | None | - | - | None | - | - | None | - | - | None |
| Storage Length | - | - | - | - | - | - | - | - | 0 | - | - | - |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 88 | 88 | 88 | 88 | 88 | 88 | 88 | 88 | 88 | 88 | 88 | 88 |
| Heavy Vehicles, % | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mvmt Flow | 1 | 252 | 0 | 0 | 180 | 18 | 0 | 0 | 0 | 10 | 0 | 2 |

| Major/Minor | Major1 | | | Major2 | | | Minor1 | | | Minor2 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Conflicting Flow All | 198 | 0 | 0 | 252 | 0 | 0 | 444 | 452 | 252 | 443 | 443 | 189 |
| Stage 1 | - | - | - | - | - | - | 254 | 254 | - | 189 | 189 | - |
| Stage 2 | - | - | - | - | - | - | 190 | 198 | - | 254 | 254 | - |
| Critical Hdwy | 4.1 | - | - | 4.1 | - | - | 7.1 | 6.5 | 6.2 | 7.1 | 6.5 | 6.2 |
| Critical Hdwy Stg 1 | - | - | - | - | - | - | 6.1 | 5.5 | - | 6.1 | 5.5 | - |
| Critical Hdwy Stg 2 | - | - | - | - | - | - | 6.1 | 5.5 | - | 6.1 | 5.5 | - |
| Follow-up Hdwy | 2.2 | - | - | 2.2 | - | - | 3.5 | 4 | 3.3 | 3.5 | 4 | 3.3 |
| Pot Cap-1 Maneuver | 1387 | - | - | 1325 | - | - | 528 | 506 | 792 | 528 | 512 | 858 |
| Stage 1 | - | - | - | - | - | - | 755 | 701 | - | 817 | 748 | - |
| Stage 2 | - | - | - | - | - | - | 816 | 741 | - | 755 | 701 | - |
| Platoon blocked, % | | - | - | | - | - | | | | | | |
| Mov Cap-1 Maneuver | 1387 | - | - | 1325 | - | - | 526 | 505 | 792 | 527 | 511 | 858 |
| Mov Cap-2 Maneuver | - | - | - | - | - | - | 526 | 505 | - | 527 | 511 | - |
| Stage 1 | - | - | - | - | - | - | 754 | 700 | - | 816 | 748 | - |
| Stage 2 | - | - | - | - | - | - | 814 | 741 | - | 754 | 700 | - |

| Approach | SE | NW | NE | SW |
|---|---|---|---|---|
| HCM Control Delay, s | 0 | 0 | 0 | 11.5 |
| HCM LOS | | | A | B |

| Minor Lane/Major Mvmt | NELn1 | NELn2 | NWL | NWT | NWR | SEL | SET | SER | SWLn1 |
|---|---|---|---|---|---|---|---|---|---|
| Capacity (veh/h) | - | - | 1325 | - | - | 1387 | - | - | 567 |
| HCM Lane V/C Ratio | - | - | - | - | - | 0.001 | - | - | 0.022 |
| HCM Control Delay (s) | 0 | 0 | 0 | - | - | 7.6 | 0 | - | 11.5 |
| HCM Lane LOS | A | A | A | - | - | A | A | - | B |
| HCM 95th %tile Q(veh) | - | - | 0 | - | - | 0 | - | - | 0.1 |

# Capacity Analysis Summary Sheets

Year 2030 Total Projected Weekday Morning Peak Hour

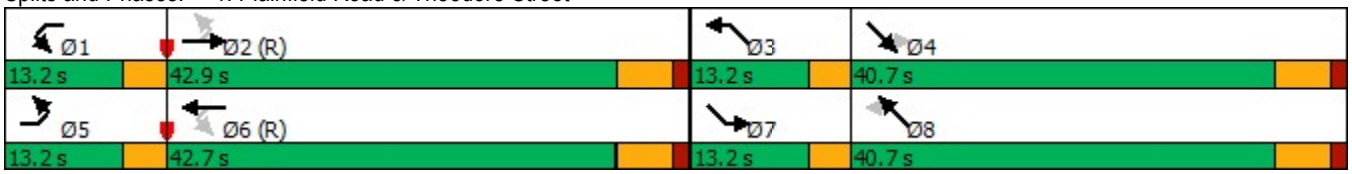
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | SEL | SET | SER | NWL | NWT | NWR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 32 | 194 | 174 | 66 | 346 | 200 | 108 | 673 | 38 | 119 | 479 | 82 |
| Future Volume (vph) | 32 | 194 | 174 | 66 | 346 | 200 | 108 | 673 | 38 | 119 | 479 | 82 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Width (ft) | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 |
| Grade (%) | | 0% | | | 0% | | | 0% | | | 0% | |
| Storage Length (ft) | 180 | | 0 | 125 | | 0 | 310 | | 0 | 270 | | 0 |
| Storage Lanes | 1 | | 0 | 1 | | 0 | 1 | | 0 | 1 | | 0 |
| Taper Length (ft) | 115 | | | 115 | | | 220 | | | 150 | | |
| Lane Util. Factor | 1.00 | 0.95 | 0.95 | 1.00 | 0.95 | 0.95 | 1.00 | 0.95 | 0.95 | 1.00 | 0.95 | 0.95 |
| Ped Bike Factor | | | | | | | | | | | | |
| Frt | | 0.929 | | | 0.945 | | | 0.992 | | | 0.978 | |
| Flt Protected | 0.950 | | | 0.950 | | | 0.950 | | | 0.950 | | |
| Satd. Flow (prot) | 1805 | 3254 | 0 | 1671 | 3312 | 0 | 1736 | 3482 | 0 | 1752 | 3442 | 0 |
| Flt Permitted | 0.358 | | | 0.441 | | | 0.303 | | | 0.199 | | |
| Satd. Flow (perm) | 680 | 3254 | 0 | 776 | 3312 | 0 | 554 | 3482 | 0 | 367 | 3442 | 0 |
| Right Turn on Red | | | No | | | No | | | No | | | No |
| Satd. Flow (RTOR) | | | | | | | | | | | | |
| Link Speed (mph) | | 35 | | | 35 | | | 35 | | | 35 | |
| Link Distance (ft) | | 933 | | | 319 | | | 234 | | | 1681 | |
| Travel Time (s) | | 18.2 | | | 6.2 | | | 4.6 | | | 32.7 | |
| Confl. Peds. (#/hr) | | | | | | | | | | | | |
| Confl. Bikes (#/hr) | | | | | | | | | | | | |
| Peak Hour Factor | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 |
| Growth Factor | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% |
| Heavy Vehicles (%) | 0% | 4% | 2% | 8% | 3% | 3% | 4% | 3% | 0% | 3% | 3% | 0% |
| Bus Blockages (#/hr) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Parking (#/hr) | | | | | | | | | | | | |
| Mid-Block Traffic (%) | | 0% | | | 0% | | | 0% | | | 0% | |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 35 | 404 | 0 | 73 | 600 | 0 | 119 | 782 | 0 | 131 | 616 | 0 |
| Turn Type | pm+pt | NA | | pm+pt | NA | | pm+pt | NA | | pm+pt | NA | |
| Protected Phases | 5 | 2 | | 1 | 6 | | 7 | 4 | | 3 | 8 | |
| Permitted Phases | 2 | | | 6 | | | 4 | | | 8 | | |
| Detector Phase | 5 | 2 | | 1 | 6 | | 7 | 4 | | 3 | 8 | |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 3.0 | 15.0 | | 3.0 | 15.0 | | 3.0 | 15.0 | | 3.0 | 15.0 | |
| Minimum Split (s) | 6.5 | 21.0 | | 6.5 | 21.0 | | 6.5 | 21.0 | | 6.5 | 21.0 | |
| Total Split (s) | 13.2 | 42.9 | | 13.2 | 42.7 | | 13.2 | 40.7 | | 13.2 | 40.7 | |
| Total Split (%) | 12.0% | 39.0% | | 12.0% | 38.8% | | 12.0% | 37.0% | | 12.0% | 37.0% | |
| Yellow Time (s) | 3.5 | 4.5 | | 3.5 | 4.5 | | 3.5 | 4.5 | | 3.5 | 4.5 | |
| All-Red Time (s) | 0.0 | 1.5 | | 0.0 | 1.5 | | 0.0 | 1.5 | | 0.0 | 1.5 | |
| Lost Time Adjust (s) | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Total Lost Time (s) | 3.5 | 6.0 | | 3.5 | 6.0 | | 3.5 | 6.0 | | 3.5 | 6.0 | |
| Lead/Lag | Lead | Lag | | Lead | Lag | | Lead | Lag | | Lead | Lag | |
| Lead-Lag Optimize? | Yes | Yes | | Yes | Yes | | Yes | Yes | | Yes | Yes | |
| Recall Mode | None | C-Min | | None | C-Min | | None | None | | None | None | |
| Act Effct Green (s) | 47.7 | 39.6 | | 50.6 | 42.8 | | 47.6 | 36.2 | | 48.0 | 36.4 | |
| Actuated g/C Ratio | 0.43 | 0.36 | | 0.46 | 0.39 | | 0.43 | 0.33 | | 0.44 | 0.33 | |

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | SEL | SET | SER | NWL | NWT | NWR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| v/c Ratio | 0.10 | 0.35 | | 0.17 | 0.47 | | 0.36 | 0.68 | | 0.48 | 0.54 | |
| Control Delay | 16.6 | 27.8 | | 17.4 | 27.6 | | 10.3 | 24.6 | | 23.2 | 32.3 | |
| Queue Delay | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Total Delay | 16.6 | 27.8 | | 17.4 | 27.6 | | 10.3 | 24.6 | | 23.2 | 32.3 | |
| LOS | B | C | | B | C | | B | C | | C | C | |
| Approach Delay | | 26.9 | | | 26.5 | | | 22.7 | | | 30.7 | |
| Approach LOS | | C | | | C | | | C | | | C | |
| Queue Length 50th (ft) | 13 | 112 | | 28 | 174 | | 13 | 261 | | 51 | 186 | |
| Queue Length 95th (ft) | 31 | 156 | | 54 | 231 | | m22 | m319 | | 91 | 249 | |
| Internal Link Dist (ft) | | 853 | | | 239 | | | 154 | | | 1601 | |
| Turn Bay Length (ft) | 180 | | | 125 | | | 310 | | | 270 | | |
| Base Capacity (vph) | 407 | 1193 | | 439 | 1287 | | 348 | 1150 | | 285 | 1142 | |
| Starvation Cap Reductn | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | |
| Spillback Cap Reductn | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | |
| Storage Cap Reductn | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | |
| Reduced v/c Ratio | 0.09 | 0.34 | | 0.17 | 0.47 | | 0.34 | 0.68 | | 0.46 | 0.54 | |

**Intersection Summary**

Area Type: Other
Cycle Length: 110
Actuated Cycle Length: 110
Offset: 11 (10%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green
Natural Cycle: 55
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.68
Intersection Signal Delay: 26.5 Intersection LOS: C
Intersection Capacity Utilization 62.4% ICU Level of Service B
Analysis Period (min) 15
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 1: Plainfield Road & Theodore Street



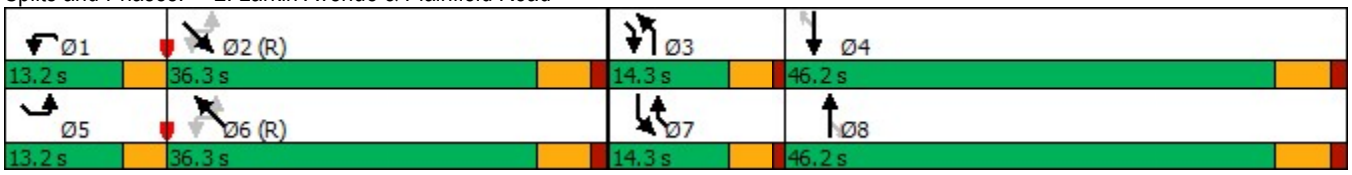
| Lane Group | NBL | NBT | NBR | SBL | SBT | SBR | SEL | SET | SER | NWL | NWT | NWR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 201 | 561 | 84 | 130 | 536 | 28 | 58 | 640 | 213 | 73 | 474 | 185 |
| Future Volume (vph) | 201 | 561 | 84 | 130 | 536 | 28 | 58 | 640 | 213 | 73 | 474 | 185 |
| Ideal Flow (vphpl) | 1900 | 2000 | 1900 | 1900 | 2000 | 1900 | 1900 | 2000 | 1900 | 1900 | 2000 | 1900 |
| Lane Width (ft) | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 |
| Grade (%) | | 0% | | | 0% | | | 0% | | | 0% | |
| Storage Length (ft) | 190 | | 150 | 200 | | 200 | 215 | | 285 | 155 | | 165 |
| Storage Lanes | 2 | | 1 | 1 | | 1 | 1 | | 1 | 1 | | 1 |
| Taper Length (ft) | 220 | | | 175 | | | 250 | | | 110 | | |
| Lane Util. Factor | 0.97 | 0.95 | 1.00 | 1.00 | 0.95 | 1.00 | 1.00 | 0.95 | 1.00 | 1.00 | 0.95 | 1.00 |
| Ped Bike Factor | | | | | | | | | | | | |
| Frt | | | 0.850 | | | 0.850 | | | 0.850 | | | 0.850 |
| Flt Protected | 0.950 | | | 0.950 | | | 0.950 | | | 0.950 | | |
| Satd. Flow (prot) | 3400 | 3519 | 1599 | 1736 | 3585 | 1455 | 1656 | 3689 | 1568 | 1805 | 3689 | 1599 |
| Flt Permitted | 0.950 | | | 0.950 | | | 0.367 | | | 0.239 | | |
| Satd. Flow (perm) | 3400 | 3519 | 1599 | 1736 | 3585 | 1455 | 640 | 3689 | 1568 | 454 | 3689 | 1599 |
| Right Turn on Red | | | No | | | No | | | No | | | No |
| Satd. Flow (RTOR) | | | | | | | | | | | | |
| Link Speed (mph) | | 35 | | | 35 | | | 40 | | | 35 | |
| Link Distance (ft) | | 853 | | | 840 | | | 808 | | | 1023 | |
| Travel Time (s) | | 16.6 | | | 16.4 | | | 13.8 | | | 19.9 | |
| Confl. Peds. (#/hr) | | | | | | | | | | | | |
| Confl. Bikes (#/hr) | | | | | | | | | | | | |
| Peak Hour Factor | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 |
| Growth Factor | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% |
| Heavy Vehicles (%) | 3% | 8% | 1% | 4% | 6% | 11% | 9% | 3% | 3% | 0% | 3% | 1% |
| Bus Blockages (#/hr) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Parking (#/hr) | | | | | | | | | | | | |
| Mid-Block Traffic (%) | | 0% | | | 0% | | | 0% | | | 0% | |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 223 | 623 | 93 | 144 | 596 | 31 | 64 | 711 | 237 | 81 | 527 | 206 |
| Turn Type | Prot | NA | Perm | Prot | NA | Perm | pm+pt | NA | pm+ov | pm+pt | NA | pm+ov |
| Protected Phases | 3 | 8 | | 7 | 4 | | 5 | 2 | 3 | 1 | 6 | 7 |
| Permitted Phases | | | 8 | | | 4 | 2 | | 2 | 6 | | 6 |
| Detector Phase | 3 | 8 | 8 | 7 | 4 | 4 | 5 | 2 | 3 | 1 | 6 | 7 |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 3.0 | 15.0 | 15.0 | 3.0 | 15.0 | 15.0 | 3.0 | 15.0 | 3.0 | 3.0 | 15.0 | 3.0 |
| Minimum Split (s) | 7.5 | 21.0 | 21.0 | 7.5 | 21.0 | 21.0 | 6.5 | 21.0 | 7.5 | 6.5 | 21.0 | 7.5 |
| Total Split (s) | 14.3 | 46.2 | 46.2 | 14.3 | 46.2 | 46.2 | 13.2 | 36.3 | 14.3 | 13.2 | 36.3 | 14.3 |
| Total Split (%) | 13.0% | 42.0% | 42.0% | 13.0% | 42.0% | 42.0% | 12.0% | 33.0% | 13.0% | 12.0% | 33.0% | 13.0% |
| Yellow Time (s) | 3.5 | 4.5 | 4.5 | 3.5 | 4.5 | 4.5 | 3.5 | 4.5 | 3.5 | 3.5 | 4.5 | 3.5 |
| All-Red Time (s) | 1.0 | 1.5 | 1.5 | 1.0 | 1.5 | 1.5 | 0.0 | 1.5 | 1.0 | 0.0 | 1.5 | 1.0 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Lost Time (s) | 4.5 | 6.0 | 6.0 | 4.5 | 6.0 | 6.0 | 3.5 | 6.0 | 4.5 | 3.5 | 6.0 | 4.5 |
| Lead/Lag | Lead | Lag | Lag | Lead | Lag | Lag | Lead | Lag | Lead | Lead | Lag | Lead |
| Lead-Lag Optimize? | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Recall Mode | None | None | None | None | None | None | None | C-Min | None | None | C-Min | None |
| Act Effct Green (s) | 9.7 | 36.5 | 36.5 | 10.2 | 37.1 | 37.1 | 46.2 | 36.9 | 52.6 | 46.7 | 37.2 | 53.5 |
| Actuated g/C Ratio | 0.09 | 0.33 | 0.33 | 0.09 | 0.34 | 0.34 | 0.42 | 0.34 | 0.48 | 0.42 | 0.34 | 0.49 |

| Lane Group | NBL | NBT | NBR | SBL | SBT | SBR | SEL | SET | SER | NWL | NWT | NWR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| v/c Ratio | 0.75 | 0.53 | 0.18 | 0.89 | 0.49 | 0.06 | 0.19 | 0.57 | 0.32 | 0.28 | 0.42 | 0.27 |
| Control Delay | 65.0 | 31.1 | 25.6 | 98.2 | 30.1 | 23.5 | 20.5 | 34.2 | 21.2 | 17.5 | 28.8 | 17.4 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 65.0 | 31.1 | 25.6 | 98.2 | 30.1 | 23.5 | 20.5 | 34.2 | 21.2 | 17.5 | 28.8 | 17.4 |
| LOS | E | C | C | F | C | C | C | C | C | B | C | B |
| Approach Delay | | 38.6 | | | 42.6 | | | 30.3 | | | 24.8 | |
| Approach LOS | | D | | | D | | | C | | | C | |
| Queue Length 50th (ft) | 80 | 176 | 44 | 103 | 166 | 14 | 27 | 233 | 110 | 34 | 181 | 105 |
| Queue Length 95th (ft) | #134 | 230 | 82 | #226 | 218 | 35 | 55 | 304 | 177 | 61 | 244 | 172 |
| Internal Link Dist (ft) | | 773 | | | 760 | | | 728 | | | 943 | |
| Turn Bay Length (ft) | 190 | | 150 | 200 | | 200 | 215 | | 285 | 155 | | 165 |
| Base Capacity (vph) | 302 | 1286 | 584 | 161 | 1310 | 531 | 364 | 1238 | 751 | 315 | 1248 | 777 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.74 | 0.48 | 0.16 | 0.89 | 0.45 | 0.06 | 0.18 | 0.57 | 0.32 | 0.26 | 0.42 | 0.27 |

**Intersection Summary**

Area Type: Other
Cycle Length: 110
Actuated Cycle Length: 110
Offset: 16.5 (15%), Referenced to phase 2:SETL and 6:NWTL, Start of Green
Natural Cycle: 60
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.89
Intersection Signal Delay: 33.9 Intersection LOS: C
Intersection Capacity Utilization 59.9% ICU Level of Service B
Analysis Period (min) 15
# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 2: Larkin Avenue & Plainfield Road



| Intersection | |
|---|---|
| Int Delay, s/veh | 2.6 |

| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 67 | 317 | 520 | 186 | 62 | 92 |
| Future Vol, veh/h | 67 | 317 | 520 | 186 | 62 | 92 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | - | - | 0 | - |
| Veh in Median Storage, # | - | 0 | 0 | - | 1 | - |
| Grade, % | - | 0 | 0 | - | 0 | - |
| Peak Hour Factor | 95 | 95 | 95 | 95 | 95 | 95 |
| Heavy Vehicles, % | 0 | 5 | 4 | 5 | 2 | 0 |
| Mvmt Flow | 71 | 334 | 547 | 196 | 65 | 97 |

| Major/Minor | Major1 | | Major2 | | Minor2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 743 | 0 | - | 0 | 954 | 372 |
| Stage 1 | - | - | - | - | 645 | - |
| Stage 2 | - | - | - | - | 309 | - |
| Critical Hdwy | 4.1 | - | - | - | 6.84 | 6.9 |
| Critical Hdwy Stg 1 | - | - | - | - | 5.84 | - |
| Critical Hdwy Stg 2 | - | - | - | - | 5.84 | - |
| Follow-up Hdwy | 2.2 | - | - | - | 3.52 | 3.3 |
| Pot Cap-1 Maneuver | 873 | - | - | - | 257 | 631 |
| Stage 1 | - | - | - | - | 484 | - |
| Stage 2 | - | - | - | - | 718 | - |
| Platoon blocked, % | | - | - | - | | |
| Mov Cap-1 Maneuver | 873 | - | - | - | 231 | 631 |
| Mov Cap-2 Maneuver | - | - | - | - | 343 | - |
| Stage 1 | - | - | - | - | 436 | - |
| Stage 2 | - | - | - | - | 718 | - |

| Approach | EB | WB | SB |
|---|---|---|---|
| HCM Ctrl Dly, s/v | 1.9 | 0 | 16.6 |
| HCM LOS | | | C |

| Minor Lane/Major Mvmt | EBL | EBT | WBT | WBR | SBLn1 |
|---|---|---|---|---|---|
| Capacity (veh/h) | 873 | - | - | - | 472 |
| HCM Lane V/C Ratio | 0.081 | - | - | - | 0.343 |
| HCM Ctrl Dly (s/v) | 9.5 | 0.3 | - | - | 16.6 |
| HCM Lane LOS | A | A | - | - | C |
| HCM 95th %tile Q (veh) | 0.3 | - | - | - | 1.5 |

| Intersection | |
|---|---|
| Int Delay, s/veh | 0.6 |

| Movement | SEL | SET | SER | NWL | NWT | NWR | NEL | NET | NER | SWL | SWT | SWR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Vol, veh/h | 0 | 819 | 1 | 0 | 636 | 75 | 0 | 0 | 0 | 0 | 0 | 78 |
| Future Vol, veh/h | 0 | 819 | 1 | 0 | 636 | 75 | 0 | 0 | 0 | 0 | 0 | 78 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Free | Free | Stop | Stop | Stop | Stop | Stop | Stop |
| RT Channelized | - | - | None | - | - | Free | - | - | None | - | - | Stop |
| Storage Length | - | - | - | - | - | 115 | - | - | - | - | - | 0 |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 91 | 91 | 91 | 91 | 91 | 91 | 91 | 91 | 91 | 91 | 91 | 91 |
| Heavy Vehicles, % | 0 | 4 | 0 | 0 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mvmt Flow | 0 | 900 | 1 | 0 | 699 | 82 | 0 | 0 | 0 | 0 | 0 | 86 |

| Major/Minor | Major1 | | | Major2 | | | Minor1 | | | Minor2 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Conflicting Flow All | - | 0 | 0 | 901 | 0 | 0 | 1251 | 1600 | 451 | - | - | 350 |
| Stage 1 | - | - | - | - | - | - | 901 | 901 | - | - | - | - |
| Stage 2 | - | - | - | - | - | - | 350 | 699 | - | - | - | - |
| Critical Hdwy | - | - | - | 4.1 | - | - | 7.5 | 6.5 | 6.9 | - | - | 6.9 |
| Critical Hdwy Stg 1 | - | - | - | - | - | - | 6.5 | 5.5 | - | - | - | - |
| Critical Hdwy Stg 2 | - | - | - | - | - | - | 6.5 | 5.5 | - | - | - | - |
| Follow-up Hdwy | - | - | - | 2.2 | - | - | 3.5 | 4 | 3.3 | - | - | 3.3 |
| Pot Cap-1 Maneuver | 0 | - | - | 763 | - | 0 | 131 | 107 | 561 | 0 | 0 | 652 |
| Stage 1 | 0 | - | - | - | - | 0 | 303 | 360 | - | 0 | 0 | - |
| Stage 2 | 0 | - | - | - | - | 0 | 645 | 445 | - | 0 | 0 | - |
| Platoon blocked, % | | - | - | | - | | | | | | | |
| Mov Cap-1 Maneuver | - | - | - | 763 | - | - | 114 | 107 | 561 | - | - | 652 |
| Mov Cap-2 Maneuver | - | - | - | - | - | - | 114 | 107 | - | - | - | - |
| Stage 1 | - | - | - | - | - | - | 303 | 360 | - | - | - | - |
| Stage 2 | - | - | - | - | - | - | 560 | 445 | - | - | - | - |

| Approach | SE | NW | NE | SW |
|---|---|---|---|---|
| HCM Ctrl Dly, s/v | 0 | 0 | 0 | 11.4 |
| HCM LOS | | | A | B |

| Minor Lane/Major Mvmt | NELn1 | NWL | NWT | SET | SER | SWLn1 |
|---|---|---|---|---|---|---|
| Capacity (veh/h) | - | 763 | - | - | - | 652 |
| HCM Lane V/C Ratio | - | - | - | - | - | 0.131 |
| HCM Ctrl Dly (s/v) | 0 | 0 | - | - | - | 11.4 |
| HCM Lane LOS | A | A | - | - | - | B |
| HCM 95th %tile Q (veh) | - | 0 | - | - | - | 0.5 |

| Intersection | |
|---|---|
| Int Delay, s/veh | 3.4 |

| Movement | SEL | SET | SER | NWL | NWT | NWR | NEL | NET | NER | SWL | SWT | SWR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Vol, veh/h | 1 | 94 | 20 | 79 | 159 | 14 | 28 | 0 | 60 | 2 | 0 | 1 |
| Future Vol, veh/h | 1 | 94 | 20 | 79 | 159 | 14 | 28 | 0 | 60 | 2 | 0 | 1 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Free | Free | Stop | Stop | Stop | Stop | Stop | Stop |
| RT Channelized | - | - | None | - | - | None | - | - | None | - | - | None |
| Storage Length | - | - | - | - | - | - | - | - | 0 | - | - | - |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 87 | 87 | 87 | 87 | 87 | 87 | 87 | 87 | 87 | 87 | 87 | 87 |
| Heavy Vehicles, % | 0 | 3 | 7 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mvmt Flow | 1 | 108 | 23 | 91 | 183 | 16 | 32 | 0 | 69 | 2 | 0 | 1 |

| Major/Minor | Major1 | | | Major2 | | | Minor1 | | | Minor2 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Conflicting Flow All | 199 | 0 | 0 | 131 | 0 | 0 | 496 | 503 | 120 | 529 | 506 | 191 |
| Stage 1 | - | - | - | - | - | - | 122 | 122 | - | 373 | 373 | - |
| Stage 2 | - | - | - | - | - | - | 374 | 381 | - | 156 | 133 | - |
| Critical Hdwy | 4.1 | - | - | 4.1 | - | - | 7.1 | 6.5 | 6.2 | 7.1 | 6.5 | 6.2 |
| Critical Hdwy Stg 1 | - | - | - | - | - | - | 6.1 | 5.5 | - | 6.1 | 5.5 | - |
| Critical Hdwy Stg 2 | - | - | - | - | - | - | 6.1 | 5.5 | - | 6.1 | 5.5 | - |
| Follow-up Hdwy | 2.2 | - | - | 2.2 | - | - | 3.5 | 4 | 3.3 | 3.5 | 4 | 3.3 |
| Pot Cap-1 Maneuver | 1385 | - | - | 1467 | - | - | 487 | 474 | 937 | 463 | 472 | 856 |
| Stage 1 | - | - | - | - | - | - | 887 | 799 | - | 652 | 622 | - |
| Stage 2 | - | - | - | - | - | - | 651 | 617 | - | 851 | 790 | - |
| Platoon blocked, % | | - | - | | - | - | | | | | | |
| Mov Cap-1 Maneuver | 1385 | - | - | 1467 | - | - | 460 | 440 | 937 | 406 | 438 | 856 |
| Mov Cap-2 Maneuver | - | - | - | - | - | - | 460 | 440 | - | 406 | 438 | - |
| Stage 1 | - | - | - | - | - | - | 886 | 798 | - | 651 | 578 | - |
| Stage 2 | - | - | - | - | - | - | 605 | 574 | - | 788 | 789 | - |

| Approach | SE | NW | NE | SW |
|---|---|---|---|---|
| HCM Ctrl Dly, s/v | 0.1 | 2.4 | 10.5 | 12.4 |
| HCM LOS | | | B | B |

| Minor Lane/Major Mvmt | NELn1 | NELn2 | NWL | NWT | NWR | SEL | SET | SER | SWLn1 |
|---|---|---|---|---|---|---|---|---|---|
| Capacity (veh/h) | 460 | 937 | 1467 | - | - | 1385 | - | - | 492 |
| HCM Lane V/C Ratio | 0.07 | 0.074 | 0.062 | - | - | 0.001 | - | - | 0.007 |
| HCM Ctrl Dly (s/v) | 13.4 | 9.1 | 7.6 | 0 | - | 7.6 | 0 | - | 12.4 |
| HCM Lane LOS | B | A | A | A | - | A | A | - | B |
| HCM 95th %tile Q (veh) | 0.2 | 0.2 | 0.2 | - | - | 0 | - | - | 0 |

| Intersection | |
|---|---|
| Int Delay, s/veh | 4.8 |

| Movement | SEL | SET | NWT | NWR | SWL | SWR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 76 | 726 | 680 | 34 | 94 | 23 |
| Future Vol, veh/h | 76 | 726 | 680 | 34 | 94 | 23 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | 50 | - | - | 0 | 0 | - |
| Veh in Median Storage, # | - | 0 | 0 | - | 0 | - |
| Grade, % | - | 0 | 0 | - | 0 | - |
| Peak Hour Factor | 95 | 95 | 95 | 95 | 95 | 95 |
| Heavy Vehicles, % | 0 | 4 | 5 | 0 | 0 | 0 |
| Mvmt Flow | 80 | 764 | 716 | 36 | 99 | 24 |

| Major/Minor | Major1 | | Major2 | | Minor2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 752 | 0 | - | 0 | 1258 | 358 |
| Stage 1 | - | - | - | - | 716 | - |
| Stage 2 | - | - | - | - | 542 | - |
| Critical Hdwy | 4.1 | - | - | - | 6.8 | 6.9 |
| Critical Hdwy Stg 1 | - | - | - | - | 5.8 | - |
| Critical Hdwy Stg 2 | - | - | - | - | 5.8 | - |
| Follow-up Hdwy | 2.2 | - | - | - | 3.5 | 3.3 |
| Pot Cap-1 Maneuver | 867 | - | - | - | 166 | 644 |
| Stage 1 | - | - | - | - | 450 | - |
| Stage 2 | - | - | - | - | 553 | - |
| Platoon blocked, % | | | - | - | - | |
| Mov Cap-1 Maneuver | 867 | - | - | - | 151 | 644 |
| Mov Cap-2 Maneuver | - | - | - | - | 151 | - |
| Stage 1 | - | - | - | - | 409 | - |
| Stage 2 | - | - | - | - | 553 | - |

| Approach | SE | NW | SW |
|---|---|---|---|
| HCM Ctrl Dly, s/v | 0.9 | 0 | 61.3 |
| HCM LOS | | | F |

| Minor Lane/Major Mvmt | NWT | NWR | SEL | SET | SWLn1 |
|---|---|---|---|---|---|
| Capacity (veh/h) | - | - | 867 | - | 178 |
| HCM Lane V/C Ratio | - | - | 0.092 | - | 0.692 |
| HCM Ctrl Dly (s/v) | - | - | 9.6 | - | 61.3 |
| HCM Lane LOS | - | - | A | - | F |
| HCM 95th %tile Q (veh) | - | - | 0.3 | - | 4.2 |

# Capacity Analysis Summary Sheets

Year 2030 Total Projected Weekday Evening Peak Hour

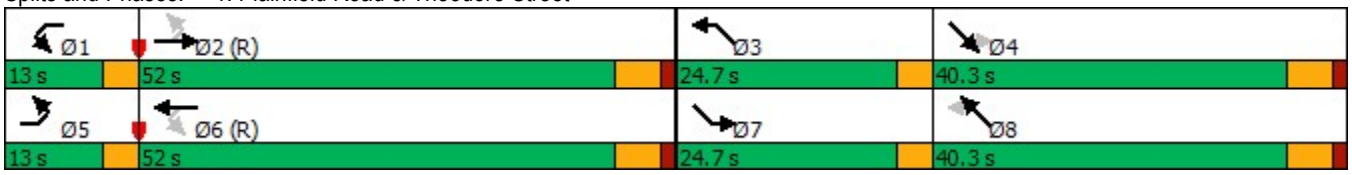
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | SEL | SET | SER | NWL | NWT | NWR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 52 | 436 | 257 | 108 | 511 | 237 | 252 | 766 | 32 | 201 | 637 | 78 |
| Future Volume (vph) | 52 | 436 | 257 | 108 | 511 | 237 | 252 | 766 | 32 | 201 | 637 | 78 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Width (ft) | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 |
| Grade (%) | | 0% | | | 0% | | | 0% | | | 0% | |
| Storage Length (ft) | 180 | | 0 | 125 | | 0 | 310 | | 0 | 270 | | 0 |
| Storage Lanes | 1 | | 0 | 1 | | 0 | 1 | | 0 | 1 | | 0 |
| Taper Length (ft) | 115 | | | 115 | | | 220 | | | 150 | | |
| Lane Util. Factor | 1.00 | 0.95 | 0.95 | 1.00 | 0.95 | 0.95 | 1.00 | 0.95 | 0.95 | 1.00 | 0.95 | 0.95 |
| Ped Bike Factor | | | | | | | | | | | | |
| Frt | | 0.944 | | | 0.952 | | | 0.994 | | | 0.984 | |
| Flt Protected | 0.950 | | | 0.950 | | | 0.950 | | | 0.950 | | |
| Satd. Flow (prot) | 1805 | 3321 | 0 | 1719 | 3369 | 0 | 1736 | 3512 | 0 | 1752 | 3449 | 0 |
| Flt Permitted | 0.251 | | | 0.244 | | | 0.174 | | | 0.155 | | |
| Satd. Flow (perm) | 477 | 3321 | 0 | 442 | 3369 | 0 | 318 | 3512 | 0 | 286 | 3449 | 0 |
| Right Turn on Red | | | No | | | No | | | No | | | No |
| Satd. Flow (RTOR) | | | | | | | | | | | | |
| Link Speed (mph) | | 35 | | | 35 | | | 35 | | | 35 | |
| Link Distance (ft) | | 933 | | | 319 | | | 234 | | | 1681 | |
| Travel Time (s) | | 18.2 | | | 6.2 | | | 4.6 | | | 32.7 | |
| Confl. Peds. (#/hr) | | | | | | | | | | | | |
| Confl. Bikes (#/hr) | | | | | | | | | | | | |
| Peak Hour Factor | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 |
| Growth Factor | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% |
| Heavy Vehicles (%) | 0% | 3% | 2% | 5% | 2% | 2% | 4% | 2% | 6% | 3% | 3% | 3% |
| Bus Blockages (#/hr) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Parking (#/hr) | | | | | | | | | | | | |
| Mid-Block Traffic (%) | | 0% | | | 0% | | | 0% | | | 0% | |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 53 | 707 | 0 | 110 | 763 | 0 | 257 | 815 | 0 | 205 | 730 | 0 |
| Turn Type | pm+pt | NA | | pm+pt | NA | | pm+pt | NA | | pm+pt | NA | |
| Protected Phases | 5 | 2 | | 1 | 6 | | 7 | 4 | | 3 | 8 | |
| Permitted Phases | 2 | | | 6 | | | 4 | | | 8 | | |
| Detector Phase | 5 | 2 | | 1 | 6 | | 7 | 4 | | 3 | 8 | |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 3.0 | 15.0 | | 3.0 | 15.0 | | 3.0 | 15.0 | | 3.0 | 15.0 | |
| Minimum Split (s) | 6.5 | 21.0 | | 6.5 | 21.0 | | 6.5 | 21.0 | | 6.5 | 21.0 | |
| Total Split (s) | 13.0 | 52.0 | | 13.0 | 52.0 | | 24.7 | 40.3 | | 24.7 | 40.3 | |
| Total Split (%) | 10.0% | 40.0% | | 10.0% | 40.0% | | 19.0% | 31.0% | | 19.0% | 31.0% | |
| Yellow Time (s) | 3.5 | 4.5 | | 3.5 | 4.5 | | 3.5 | 4.5 | | 3.5 | 4.5 | |
| All-Red Time (s) | 0.0 | 1.5 | | 0.0 | 1.5 | | 0.0 | 1.5 | | 0.0 | 1.5 | |
| Lost Time Adjust (s) | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Total Lost Time (s) | 3.5 | 6.0 | | 3.5 | 6.0 | | 3.5 | 6.0 | | 3.5 | 6.0 | |
| Lead/Lag | Lead | Lag | | Lead | Lag | | Lead | Lag | | Lead | Lag | |
| Lead-Lag Optimize? | Yes | Yes | | Yes | Yes | | Yes | Yes | | Yes | Yes | |
| Recall Mode | None | C-Min | | None | C-Min | | None | None | | None | None | |
| Act Effct Green (s) | 57.4 | 47.4 | | 60.5 | 50.6 | | 59.1 | 39.2 | | 55.4 | 37.4 | |
| Actuated g/C Ratio | 0.44 | 0.36 | | 0.47 | 0.39 | | 0.45 | 0.30 | | 0.43 | 0.29 | |

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | SEL | SET | SER | NWL | NWT | NWR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| v/c Ratio | 0.18 | 0.58 | | 0.38 | 0.58 | | 0.77 | 0.77 | | 0.69 | 0.74 | |
| Control Delay | 20.3 | 36.1 | | 23.1 | 34.6 | | 43.4 | 58.6 | | 35.2 | 47.6 | |
| Queue Delay | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Total Delay | 20.3 | 36.1 | | 23.1 | 34.6 | | 43.4 | 58.6 | | 35.2 | 47.6 | |
| LOS | C | D | | C | C | | D | E | | D | D | |
| Approach Delay | | 35.0 | | | 33.2 | | | 55.0 | | | 44.9 | |
| Approach LOS | | D | | | C | | | D | | | D | |
| Queue Length 50th (ft) | 24 | 256 | | 51 | 274 | | 210 | 380 | | 101 | 290 | |
| Queue Length 95th (ft) | 48 | 322 | | 88 | 351 | | m274 | m433 | | 166 | 380 | |
| Internal Link Dist (ft) | | 853 | | | 239 | | | 154 | | | 1601 | |
| Turn Bay Length (ft) | 180 | | | 125 | | | 310 | | | 270 | | |
| Base Capacity (vph) | 314 | 1213 | | 299 | 1310 | | 377 | 1058 | | 369 | 991 | |
| Starvation Cap Reductn | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | |
| Spillback Cap Reductn | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | |
| Storage Cap Reductn | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | |
| Reduced v/c Ratio | 0.17 | 0.58 | | 0.37 | 0.58 | | 0.68 | 0.77 | | 0.56 | 0.74 | |

**Intersection Summary**

Area Type: Other
Cycle Length: 130
Actuated Cycle Length: 130
Offset: 33.8 (26%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green
Natural Cycle: 60
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.77
Intersection Signal Delay: 43.0 Intersection LOS: D
Intersection Capacity Utilization 77.0% ICU Level of Service D
Analysis Period (min) 15
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 1: Plainfield Road & Theodore Street



| Lane Group | NBL | NBT | NBR | SBL | SBT | SBR | SEL | SET | SER | NWL | NWT | NWR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 293 | 618 | 66 | 199 | 813 | 78 | 85 | 789 | 338 | 88 | 723 | 154 |
| Future Volume (vph) | 293 | 618 | 66 | 199 | 813 | 78 | 85 | 789 | 338 | 88 | 723 | 154 |
| Ideal Flow (vphpl) | 1900 | 2000 | 1900 | 1900 | 2000 | 1900 | 1900 | 2000 | 1900 | 1900 | 2000 | 1900 |
| Lane Width (ft) | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 |
| Grade (%) | | 0% | | | 0% | | | 0% | | | 0% | |
| Storage Length (ft) | 190 | | 150 | 200 | | 200 | 215 | | 285 | 155 | | 165 |
| Storage Lanes | 2 | | 1 | 1 | | 1 | 1 | | 1 | 1 | | 1 |
| Taper Length (ft) | 220 | | | 175 | | | 250 | | | 110 | | |
| Lane Util. Factor | 0.97 | 0.95 | 1.00 | 1.00 | 0.95 | 1.00 | 1.00 | 0.95 | 1.00 | 1.00 | 0.95 | 1.00 |
| Ped Bike Factor | | | | | | | | | | | | |
| Frt | | | 0.850 | | | 0.850 | | | 0.850 | | | 0.850 |
| Flt Protected | 0.950 | | | 0.950 | | | 0.950 | | | 0.950 | | |
| Satd. Flow (prot) | 3467 | 3519 | 1615 | 1736 | 3619 | 1568 | 1770 | 3689 | 1599 | 1805 | 3689 | 1553 |
| Flt Permitted | 0.950 | | | 0.950 | | | 0.180 | | | 0.139 | | |
| Satd. Flow (perm) | 3467 | 3519 | 1615 | 1736 | 3619 | 1568 | 335 | 3689 | 1599 | 264 | 3689 | 1553 |
| Right Turn on Red | | | No | | | No | | | No | | | No |
| Satd. Flow (RTOR) | | | | | | | | | | | | |
| Link Speed (mph) | | 35 | | | 35 | | | 40 | | | 35 | |
| Link Distance (ft) | | 853 | | | 840 | | | 808 | | | 1023 | |
| Travel Time (s) | | 16.6 | | | 16.4 | | | 13.8 | | | 19.9 | |
| Confl. Peds. (#/hr) | | | | | | | | | | | | |
| Confl. Bikes (#/hr) | | | | | | | | | | | | |
| Peak Hour Factor | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 |
| Growth Factor | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% |
| Heavy Vehicles (%) | 1% | 8% | 0% | 4% | 5% | 3% | 2% | 3% | 1% | 0% | 3% | 4% |
| Bus Blockages (#/hr) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Parking (#/hr) | | | | | | | | | | | | |
| Mid-Block Traffic (%) | | 0% | | | 0% | | | 0% | | | 0% | |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 299 | 631 | 67 | 203 | 830 | 80 | 87 | 805 | 345 | 90 | 738 | 157 |
| Turn Type | Prot | NA | Perm | Prot | NA | Perm | pm+pt | NA | pm+ov | pm+pt | NA | pm+ov |
| Protected Phases | 3 | 8 | | 7 | 4 | | 5 | 2 | 3 | 1 | 6 | 7 |
| Permitted Phases | | | 8 | | | 4 | 2 | | 2 | 6 | | 6 |
| Detector Phase | 3 | 8 | 8 | 7 | 4 | 4 | 5 | 2 | 3 | 1 | 6 | 7 |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 3.0 | 15.0 | 15.0 | 3.0 | 15.0 | 15.0 | 3.0 | 15.0 | 3.0 | 3.0 | 15.0 | 3.0 |
| Minimum Split (s) | 7.5 | 21.0 | 21.0 | 7.5 | 21.0 | 21.0 | 6.5 | 21.0 | 7.5 | 6.5 | 21.0 | 7.5 |
| Total Split (s) | 27.3 | 58.5 | 58.5 | 18.2 | 49.4 | 49.4 | 13.0 | 40.3 | 27.3 | 13.0 | 40.3 | 18.2 |
| Total Split (%) | 21.0% | 45.0% | 45.0% | 14.0% | 38.0% | 38.0% | 10.0% | 31.0% | 21.0% | 10.0% | 31.0% | 14.0% |
| Yellow Time (s) | 3.5 | 4.5 | 4.5 | 3.5 | 4.5 | 4.5 | 3.5 | 4.5 | 3.5 | 3.5 | 4.5 | 3.5 |
| All-Red Time (s) | 1.0 | 1.5 | 1.5 | 1.0 | 1.5 | 1.5 | 0.0 | 1.5 | 1.0 | 0.0 | 1.5 | 1.0 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Lost Time (s) | 4.5 | 6.0 | 6.0 | 4.5 | 6.0 | 6.0 | 3.5 | 6.0 | 4.5 | 3.5 | 6.0 | 4.5 |
| Lead/Lag | Lead | Lag | Lag | Lead | Lag | Lag | Lead | Lag | Lead | Lead | Lag | Lead |
| Lead-Lag Optimize? | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Recall Mode | None | None | None | None | None | None | None | C-Min | None | None | C-Min | None |
| Act Effct Green (s) | 16.8 | 50.1 | 50.1 | 13.7 | 47.0 | 47.0 | 48.7 | 37.6 | 60.4 | 48.7 | 37.6 | 57.3 |
| Actuated g/C Ratio | 0.13 | 0.39 | 0.39 | 0.11 | 0.36 | 0.36 | 0.37 | 0.29 | 0.46 | 0.37 | 0.29 | 0.44 |

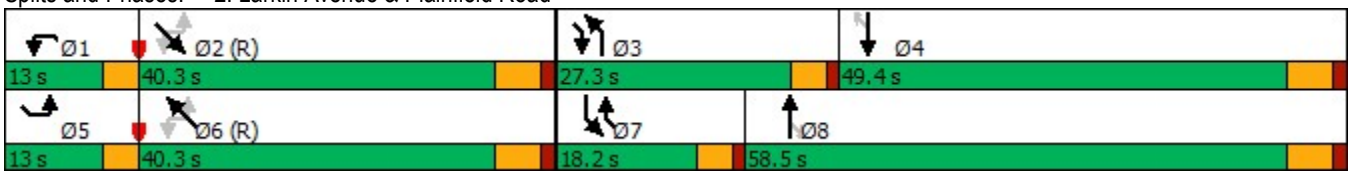
| Lane Group | NBL | NBT | NBR | SBL | SBT | SBR | SEL | SET | SER | NWL | NWT | NWR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| v/c Ratio | 0.67 | 0.47 | 0.11 | 1.12 | 0.64 | 0.14 | 0.39 | 0.76 | 0.46 | 0.45 | 0.69 | 0.23 |
| Control Delay | 61.1 | 30.9 | 25.1 | 153.1 | 37.1 | 28.8 | 31.2 | 48.4 | 26.7 | 31.9 | 32.0 | 16.4 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 61.1 | 30.9 | 25.1 | 153.1 | 37.1 | 28.8 | 31.2 | 48.4 | 26.7 | 31.9 | 32.0 | 16.4 |
| LOS | E | C | C | F | D | C | C | D | C | C | C | B |
| Approach Delay | | 39.5 | | | 57.7 | | | 41.1 | | | 29.5 | |
| Approach LOS | | D | | | E | | | D | | | C | |
| Queue Length 50th (ft) | 125 | 201 | 35 | ~195 | 292 | 44 | 47 | 337 | 205 | 31 | 166 | 46 |
| Queue Length 95th (ft) | 167 | 254 | 67 | #353 | 385 | 85 | 85 | 417 | 274 | m67 | 254 | m66 |
| Internal Link Dist (ft) | | 773 | | | 760 | | | 728 | | | 943 | |
| Turn Bay Length (ft) | 190 | | 150 | 200 | | 200 | 215 | | 285 | 155 | | 165 |
| Base Capacity (vph) | 608 | 1421 | 652 | 182 | 1315 | 570 | 232 | 1065 | 816 | 213 | 1066 | 684 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.49 | 0.44 | 0.10 | 1.12 | 0.63 | 0.14 | 0.38 | 0.76 | 0.42 | 0.42 | 0.69 | 0.23 |

Intersection Summary

Area Type: Other
Cycle Length: 130
Actuated Cycle Length: 130
Offset: 6.5 (5%), Referenced to phase 2:SETL and 6:NWTL, Start of Green
Natural Cycle: 65
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.12
Intersection Signal Delay: 42.4 Intersection LOS: D
Intersection Capacity Utilization 72.4% ICU Level of Service C
Analysis Period (min) 15

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 2: Larkin Avenue & Plainfield Road



| Intersection | |
|---|---|
| Int Delay, s/veh | 4.9 |

| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 74 | 692 | 718 | 151 | 89 | 138 |
| Future Vol, veh/h | 74 | 692 | 718 | 151 | 89 | 138 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | - | - | 0 | - |
| Veh in Median Storage, # | - | 0 | 0 | - | 1 | - |
| Grade, % | - | 0 | 0 | - | 0 | - |
| Peak Hour Factor | 94 | 94 | 94 | 94 | 94 | 94 |
| Heavy Vehicles, % | 0 | 4 | 3 | 2 | 1 | 1 |
| Mvmt Flow | 79 | 736 | 764 | 161 | 95 | 147 |

| Major/Minor | Major1 | | Major2 | | Minor2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 925 | 0 | - | 0 | 1371 | 463 |
| Stage 1 | - | - | - | - | 845 | - |
| Stage 2 | - | - | - | - | 526 | - |
| Critical Hdwy | 4.1 | - | - | - | 6.82 | 6.92 |
| Critical Hdwy Stg 1 | - | - | - | - | 5.82 | - |
| Critical Hdwy Stg 2 | - | - | - | - | 5.82 | - |
| Follow-up Hdwy | 2.2 | - | - | - | 3.51 | 3.31 |
| Pot Cap-1 Maneuver | 747 | - | - | - | 138 | 548 |
| Stage 1 | - | - | - | - | 384 | - |
| Stage 2 | - | - | - | - | 560 | - |
| Platoon blocked, % | | - | - | - | | |
| Mov Cap-1 Maneuver | 747 | - | - | - | 113 | 548 |
| Mov Cap-2 Maneuver | - | - | - | - | 230 | - |
| Stage 1 | - | - | - | - | 315 | - |
| Stage 2 | - | - | - | - | 560 | - |

| Approach | EB | WB | SB |
|---|---|---|---|
| HCM Ctrl Dly, s/v | 1.7 | 0 | 34.2 |
| HCM LOS | | | D |

| Minor Lane/Major Mvmt | EBL | EBT | WBT | WBR | SBLn1 |
|---|---|---|---|---|---|
| Capacity (veh/h) | 747 | - | - | - | 355 |
| HCM Lane V/C Ratio | 0.105 | - | - | - | 0.68 |
| HCM Ctrl Dly (s/v) | 10.4 | 0.8 | - | - | 34.2 |
| HCM Lane LOS | B | A | - | - | D |
| HCM 95th %tile Q (veh) | 0.4 | - | - | - | 4.8 |

| Intersection | |
|---|---|
| Int Delay, s/veh | 0.4 |

| Movement | SEL | SET | SER | NWL | NWT | NWR | NEL | NET | NER | SWL | SWT | SWR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Vol, veh/h | 0 | 1050 | 0 | 0 | 858 | 68 | 0 | 0 | 0 | 0 | 0 | 66 |
| Future Vol, veh/h | 0 | 1050 | 0 | 0 | 858 | 68 | 0 | 0 | 0 | 0 | 0 | 66 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Free | Free | Stop | Stop | Stop | Stop | Stop | Stop |
| RT Channelized | - | - | None | - | - | Free | - | - | None | - | - | Stop |
| Storage Length | - | - | - | - | - | 115 | - | - | - | - | - | 0 |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 93 | 93 | 93 | 93 | 93 | 93 | 93 | 93 | 93 | 93 | 93 | 93 |
| Heavy Vehicles, % | 0 | 2 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mvmt Flow | 0 | 1129 | 0 | 0 | 923 | 73 | 0 | 0 | 0 | 0 | 0 | 71 |

| Major/Minor | Major1 | | | Major2 | | | Minor1 | | | Minor2 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Conflicting Flow All | - | 0 | 0 | 1129 | 0 | 0 | 1591 | 2052 | 565 | - | - | 462 |
| Stage 1 | - | - | - | - | - | - | 1129 | 1129 | - | - | - | - |
| Stage 2 | - | - | - | - | - | - | 462 | 923 | - | - | - | - |
| Critical Hdwy | - | - | - | 4.1 | - | - | 7.5 | 6.5 | 6.9 | - | - | 6.9 |
| Critical Hdwy Stg 1 | - | - | - | - | - | - | 6.5 | 5.5 | - | - | - | - |
| Critical Hdwy Stg 2 | - | - | - | - | - | - | 6.5 | 5.5 | - | - | - | - |
| Follow-up Hdwy | - | - | - | 2.2 | - | - | 3.5 | 4 | 3.3 | - | - | 3.3 |
| Pot Cap-1 Maneuver | 0 | - | - | 626 | - | 0 | 73 | 56 | 473 | 0 | 0 | 552 |
| Stage 1 | 0 | - | - | - | - | 0 | 221 | 281 | - | 0 | 0 | - |
| Stage 2 | 0 | - | - | - | - | 0 | 554 | 351 | - | 0 | 0 | - |
| Platoon blocked, % | | - | - | | - | | | | | | | |
| Mov Cap-1 Maneuver | - | - | - | 626 | - | - | 64 | 56 | 473 | - | - | 552 |
| Mov Cap-2 Maneuver | - | - | - | - | - | - | 64 | 56 | - | - | - | - |
| Stage 1 | - | - | - | - | - | - | 221 | 281 | - | - | - | - |
| Stage 2 | - | - | - | - | - | - | 483 | 351 | - | - | - | - |

| Approach | SE | NW | NE | SW |
|---|---|---|---|---|
| HCM Ctrl Dly, s/v | 0 | 0 | 0 | 12.5 |
| HCM LOS | | | A | B |

| Minor Lane/Major Mvmt | NELn1 | NWL | NWT | SET | SER | SWLn1 |
|---|---|---|---|---|---|---|
| Capacity (veh/h) | - | 626 | - | - | - | 552 |
| HCM Lane V/C Ratio | - | - | - | - | - | 0.129 |
| HCM Ctrl Dly (s/v) | 0 | 0 | - | - | - | 12.5 |
| HCM Lane LOS | A | A | - | - | - | B |
| HCM 95th %tile Q (veh) | - | 0 | - | - | - | 0.4 |

| Intersection | |
|---|---|
| Int Delay, s/veh | 3.1 |

| Movement | SEL | SET | SER | NWL | NWT | NWR | NEL | NET | NER | SWL | SWT | SWR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | ↕ | | | ↕ | | | ↰ | ↱ | | ↕ | |
| Traffic Vol, veh/h | 2 | 173 | 19 | 61 | 163 | 18 | 16 | 0 | 55 | 25 | 0 | 7 |
| Future Vol, veh/h | 2 | 173 | 19 | 61 | 163 | 18 | 16 | 0 | 55 | 25 | 0 | 7 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Free | Free | Stop | Stop | Stop | Stop | Stop | Stop |
| RT Channelized | - | - | None | - | - | None | - | - | None | - | - | None |
| Storage Length | - | - | - | - | - | - | - | - | 0 | - | - | - |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 93 | 93 | 93 | 93 | 93 | 93 | 93 | 93 | 93 | 93 | 93 | 93 |
| Heavy Vehicles, % | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mvmt Flow | 2 | 186 | 20 | 66 | 175 | 19 | 17 | 0 | 59 | 27 | 0 | 8 |

| Major/Minor | Major1 | | | Major2 | | | Minor1 | | | Minor2 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Conflicting Flow All | 194 | 0 | 0 | 206 | 0 | 0 | 521 | 526 | 196 | 547 | 527 | 185 |
| Stage 1 | - | - | - | - | - | - | 200 | 200 | - | 317 | 317 | - |
| Stage 2 | - | - | - | - | - | - | 321 | 326 | - | 230 | 210 | - |
| Critical Hdwy | 4.1 | - | - | 4.1 | - | - | 7.1 | 6.5 | 6.2 | 7.1 | 6.5 | 6.2 |
| Critical Hdwy Stg 1 | - | - | - | - | - | - | 6.1 | 5.5 | - | 6.1 | 5.5 | - |
| Critical Hdwy Stg 2 | - | - | - | - | - | - | 6.1 | 5.5 | - | 6.1 | 5.5 | - |
| Follow-up Hdwy | 2.2 | - | - | 2.2 | - | - | 3.5 | 4 | 3.3 | 3.5 | 4 | 3.3 |
| Pot Cap-1 Maneuver | 1391 | - | - | 1377 | - | - | 469 | 460 | 850 | 451 | 459 | 862 |
| Stage 1 | - | - | - | - | - | - | 806 | 739 | - | 698 | 658 | - |
| Stage 2 | - | - | - | - | - | - | 695 | 652 | - | 777 | 732 | - |
| Platoon blocked, % | | - | - | | - | - | | | | | | |
| Mov Cap-1 Maneuver | 1391 | - | - | 1377 | - | - | 445 | 434 | 850 | 402 | 433 | 862 |
| Mov Cap-2 Maneuver | - | - | - | - | - | - | 445 | 434 | - | 402 | 433 | - |
| Stage 1 | - | - | - | - | - | - | 804 | 738 | - | 697 | 622 | - |
| Stage 2 | - | - | - | - | - | - | 652 | 617 | - | 721 | 731 | - |

| Approach | SE | NW | NE | SW |
|---|---|---|---|---|
| HCM Ctrl Dly, s/v | 0.1 | 2 | 10.5 | 13.6 |
| HCM LOS | | | B | B |

| Minor Lane/Major Mvmt | NELn1 | NELn2 | NWL | NWT | NWR | SEL | SET | SER | SWLn1 |
|---|---|---|---|---|---|---|---|---|---|
| Capacity (veh/h) | 445 | 850 | 1377 | - | - | 1391 | - | - | 455 |
| HCM Lane V/C Ratio | 0.039 | 0.07 | 0.048 | - | - | 0.002 | - | - | 0.076 |
| HCM Ctrl Dly (s/v) | 13.4 | 9.6 | 7.7 | 0 | - | 7.6 | 0 | - | 13.6 |
| HCM Lane LOS | B | A | A | A | - | A | A | - | B |
| HCM 95th %tile Q (veh) | 0.1 | 0.2 | 0.2 | - | - | 0 | - | - | 0.2 |

| Intersection | |
|---|---|
| Int Delay, s/veh | 6 |

| Movement | SEL | SET | NWT | NWR | SWL | SWR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 61 | 976 | 899 | 25 | 74 | 18 |
| Future Vol, veh/h | 61 | 976 | 899 | 25 | 74 | 18 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | 50 | - | - | 0 | 0 | - |
| Veh in Median Storage, # | - | 0 | 0 | - | 0 | - |
| Grade, % | - | 0 | 0 | - | 0 | - |
| Peak Hour Factor | 95 | 95 | 95 | 95 | 95 | 95 |
| Heavy Vehicles, % | 0 | 2 | 3 | 0 | 0 | 0 |
| Mvmt Flow | 64 | 1027 | 946 | 26 | 78 | 19 |

| Major/Minor | Major1 | | Major2 | | Minor2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 972 | 0 | - | 0 | 1588 | 473 |
| Stage 1 | - | - | - | - | 946 | - |
| Stage 2 | - | - | - | - | 642 | - |
| Critical Hdwy | 4.1 | - | - | - | 6.8 | 6.9 |
| Critical Hdwy Stg 1 | - | - | - | - | 5.8 | - |
| Critical Hdwy Stg 2 | - | - | - | - | 5.8 | - |
| Follow-up Hdwy | 2.2 | - | - | - | 3.5 | 3.3 |
| Pot Cap-1 Maneuver | 717 | - | - | - | 101 | 543 |
| Stage 1 | - | - | - | - | 343 | - |
| Stage 2 | - | - | - | - | 492 | - |
| Platoon blocked, % | | | - | - | - | |
| Mov Cap-1 Maneuver | 717 | - | - | - | 92 | 543 |
| Mov Cap-2 Maneuver | - | - | - | - | 92 | - |
| Stage 1 | - | - | - | - | 312 | - |
| Stage 2 | - | - | - | - | 492 | - |

| Approach | SE | NW | SW |
|---|---|---|---|
| HCM Ctrl Dly, s/v | 0.6 | 0 | 127.8 |
| HCM LOS | | | F |

| Minor Lane/Major Mvmt | NWT | NWR | SEL | SET | SWLn1 |
|---|---|---|---|---|---|
| Capacity (veh/h) | - | - | 717 | - | 110 |
| HCM Lane V/C Ratio | - | - | 0.09 | - | 0.88 |
| HCM Ctrl Dly (s/v) | - | - | 10.5 | - | 127.8 |
| HCM Lane LOS | - | - | B | - | F |
| HCM 95th %tile Q (veh) | - | - | 0.3 | - | 5.3 |

# Capacity Analysis Summary Sheets

Year 2030 Total Projected Saturday Midday Peak Hour

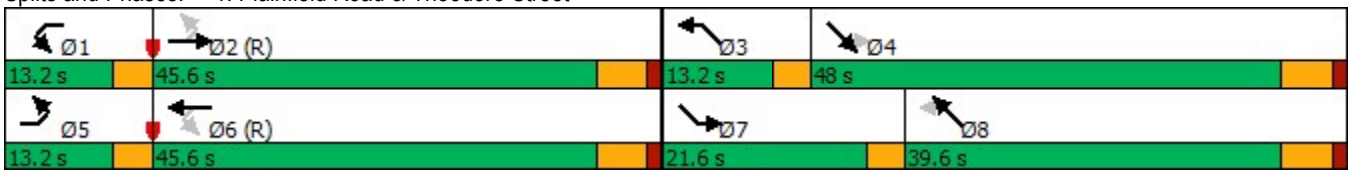
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | SEL | SET | SER | NWL | NWT | NWR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 40 | 427 | 236 | 115 | 461 | 266 | 227 | 614 | 60 | 94 | 600 | 163 |
| Future Volume (vph) | 40 | 427 | 236 | 115 | 461 | 266 | 227 | 614 | 60 | 94 | 600 | 163 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Width (ft) | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 |
| Grade (%) | | 0% | | | 0% | | | 0% | | | 0% | |
| Storage Length (ft) | 180 | | 0 | 125 | | 0 | 310 | | 0 | 270 | | 0 |
| Storage Lanes | 1 | | 0 | 1 | | 0 | 1 | | 0 | 1 | | 0 |
| Taper Length (ft) | 115 | | | 115 | | | 220 | | | 150 | | |
| Lane Util. Factor | 1.00 | 0.95 | 0.95 | 1.00 | 0.95 | 0.95 | 1.00 | 0.95 | 0.95 | 1.00 | 0.95 | 0.95 |
| Ped Bike Factor | | | | | | | | | | | | |
| Frt | | 0.947 | | | 0.945 | | | 0.987 | | | 0.968 | |
| Flt Protected | 0.950 | | | 0.950 | | | 0.950 | | | 0.950 | | |
| Satd. Flow (prot) | 1805 | 3363 | 0 | 1787 | 3353 | 0 | 1787 | 3468 | 0 | 1787 | 3445 | 0 |
| Flt Permitted | 0.258 | | | 0.242 | | | 0.151 | | | 0.309 | | |
| Satd. Flow (perm) | 490 | 3363 | 0 | 455 | 3353 | 0 | 284 | 3468 | 0 | 581 | 3445 | 0 |
| Right Turn on Red | | | No | | | No | | | No | | | No |
| Satd. Flow (RTOR) | | | | | | | | | | | | |
| Link Speed (mph) | | 35 | | | 35 | | | 35 | | | 35 | |
| Link Distance (ft) | | 933 | | | 319 | | | 234 | | | 1681 | |
| Travel Time (s) | | 18.2 | | | 6.2 | | | 4.6 | | | 32.7 | |
| Confl. Peds. (#/hr) | | | | | | | | | | | | |
| Confl. Bikes (#/hr) | | | | | | | | | | | | |
| 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 |
| Growth Factor | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% |
| Heavy Vehicles (%) | 0% | 2% | 1% | 1% | 1% | 3% | 1% | 3% | 0% | 1% | 1% | 3% |
| Bus Blockages (#/hr) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Parking (#/hr) | | | | | | | | | | | | |
| Mid-Block Traffic (%) | | 0% | | | 0% | | | 0% | | | 0% | |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 41 | 683 | 0 | 119 | 749 | 0 | 234 | 695 | 0 | 97 | 787 | 0 |
| Turn Type | pm+pt | NA | | pm+pt | NA | | pm+pt | NA | | pm+pt | NA | |
| Protected Phases | 5 | 2 | | 1 | 6 | | 7 | 4 | | 3 | 8 | |
| Permitted Phases | 2 | | | 6 | | | 4 | | | 8 | | |
| Detector Phase | 5 | 2 | | 1 | 6 | | 7 | 4 | | 3 | 8 | |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 3.0 | 15.0 | | 3.0 | 15.0 | | 3.0 | 15.0 | | 3.0 | 15.0 | |
| Minimum Split (s) | 6.5 | 21.0 | | 6.5 | 21.0 | | 6.5 | 21.0 | | 6.5 | 21.0 | |
| Total Split (s) | 13.2 | 45.6 | | 13.2 | 45.6 | | 21.6 | 48.0 | | 13.2 | 39.6 | |
| Total Split (%) | 11.0% | 38.0% | | 11.0% | 38.0% | | 18.0% | 40.0% | | 11.0% | 33.0% | |
| Yellow Time (s) | 3.5 | 4.5 | | 3.5 | 4.5 | | 3.5 | 4.5 | | 3.5 | 4.5 | |
| All-Red Time (s) | 0.0 | 1.5 | | 0.0 | 1.5 | | 0.0 | 1.5 | | 0.0 | 1.5 | |
| Lost Time Adjust (s) | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Total Lost Time (s) | 3.5 | 6.0 | | 3.5 | 6.0 | | 3.5 | 6.0 | | 3.5 | 6.0 | |
| Lead/Lag | Lead | Lag | | Lead | Lag | | Lead | Lag | | Lead | Lag | |
| Lead-Lag Optimize? | Yes | Yes | | Yes | Yes | | Yes | Yes | | Yes | Yes | |
| Recall Mode | None | C-Min | | None | C-Min | | None | None | | None | None | |
| Act Effct Green (s) | 50.5 | 41.0 | | 54.8 | 44.7 | | 57.1 | 42.5 | | 47.0 | 35.9 | |
| Actuated g/C Ratio | 0.42 | 0.34 | | 0.46 | 0.37 | | 0.48 | 0.35 | | 0.39 | 0.30 | |

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | SEL | SET | SER | NWL | NWT | NWR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| v/c Ratio | 0.14 | 0.59 | | 0.39 | 0.60 | | 0.72 | 0.57 | | 0.31 | 0.76 | |
| Control Delay | 19.3 | 35.6 | | 22.5 | 33.8 | | 20.1 | 20.6 | | 20.6 | 44.3 | |
| Queue Delay | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Total Delay | 19.3 | 35.6 | | 22.5 | 33.8 | | 20.1 | 20.6 | | 20.6 | 44.3 | |
| LOS | B | D | | C | C | | C | C | | C | D | |
| Approach Delay | | 34.7 | | | 32.3 | | | 20.4 | | | 41.7 | |
| Approach LOS | | C | | | C | | | C | | | D | |
| Queue Length 50th (ft) | 17 | 233 | | 52 | 252 | | 58 | 230 | | 40 | 287 | |
| Queue Length 95th (ft) | 38 | 297 | | 89 | 327 | | m100 | m282 | | 72 | 377 | |
| Internal Link Dist (ft) | | 853 | | | 239 | | | 154 | | | 1601 | |
| Turn Bay Length (ft) | 180 | | | 125 | | | 310 | | | 270 | | |
| Base Capacity (vph) | 323 | 1148 | | 316 | 1249 | | 361 | 1228 | | 330 | 1031 | |
| Starvation Cap Reductn | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | |
| Spillback Cap Reductn | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | |
| Storage Cap Reductn | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | |
| Reduced v/c Ratio | 0.13 | 0.59 | | 0.38 | 0.60 | | 0.65 | 0.57 | | 0.29 | 0.76 | |

**Intersection Summary**

Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 7.2 (6%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green
Natural Cycle: 60
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.76
Intersection Signal Delay: 32.0 Intersection LOS: C
Intersection Capacity Utilization 76.8% ICU Level of Service D
Analysis Period (min) 15
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 1: Plainfield Road & Theodore Street



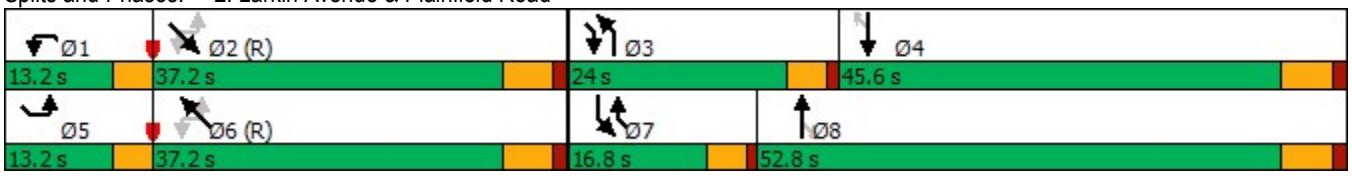
| Lane Group | NBL | NBT | NBR | SBL | SBT | SBR | SEL | SET | SER | NWL | NWT | NWR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 395 | 582 | 95 | 155 | 638 | 84 | 91 | 658 | 336 | 99 | 639 | 161 |
| Future Volume (vph) | 395 | 582 | 95 | 155 | 638 | 84 | 91 | 658 | 336 | 99 | 639 | 161 |
| Ideal Flow (vphpl) | 1900 | 2000 | 1900 | 1900 | 2000 | 1900 | 1900 | 2000 | 1900 | 1900 | 2000 | 1900 |
| Lane Width (ft) | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 |
| Grade (%) | | 0% | | | 0% | | | 0% | | | 0% | |
| Storage Length (ft) | 190 | | 150 | 200 | | 200 | 215 | | 285 | 155 | | 165 |
| Storage Lanes | 2 | | 1 | 1 | | 1 | 1 | | 1 | 1 | | 1 |
| Taper Length (ft) | 220 | | | 175 | | | 250 | | | 110 | | |
| Lane Util. Factor | 0.97 | 0.95 | 1.00 | 1.00 | 0.95 | 1.00 | 1.00 | 0.95 | 1.00 | 1.00 | 0.95 | 1.00 |
| Ped Bike Factor | | | | | | | | | | | | |
| Frt | | | 0.850 | | | 0.850 | | | 0.850 | | | 0.850 |
| Flt Protected | 0.950 | | | 0.950 | | | 0.950 | | | 0.950 | | |
| Satd. Flow (prot) | 3467 | 3762 | 1599 | 1787 | 3654 | 1599 | 1787 | 3725 | 1615 | 1805 | 3762 | 1583 |
| Flt Permitted | 0.950 | | | 0.950 | | | 0.245 | | | 0.230 | | |
| Satd. Flow (perm) | 3467 | 3762 | 1599 | 1787 | 3654 | 1599 | 461 | 3725 | 1615 | 437 | 3762 | 1583 |
| Right Turn on Red | | | No | | | No | | | No | | | No |
| Satd. Flow (RTOR) | | | | | | | | | | | | |
| Link Speed (mph) | | 35 | | | 35 | | | 40 | | | 35 | |
| Link Distance (ft) | | 853 | | | 840 | | | 808 | | | 1023 | |
| Travel Time (s) | | 16.6 | | | 16.4 | | | 13.8 | | | 19.9 | |
| Confl. Peds. (#/hr) | | | | | | | | | | | | |
| Confl. Bikes (#/hr) | | | | | | | | | | | | |
| 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 |
| Growth Factor | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% |
| Heavy Vehicles (%) | 1% | 1% | 1% | 1% | 4% | 1% | 1% | 2% | 0% | 0% | 1% | 2% |
| Bus Blockages (#/hr) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Parking (#/hr) | | | | | | | | | | | | |
| Mid-Block Traffic (%) | | 0% | | | 0% | | | 0% | | | 0% | |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 407 | 600 | 98 | 160 | 658 | 87 | 94 | 678 | 346 | 102 | 659 | 166 |
| Turn Type | Prot | NA | Perm | Prot | NA | Perm | pm+pt | NA | pm+ov | pm+pt | NA | pm+ov |
| Protected Phases | 3 | 8 | | 7 | 4 | | 5 | 2 | 3 | 1 | 6 | 7 |
| Permitted Phases | | | 8 | | | 4 | 2 | | 2 | 6 | | 6 |
| Detector Phase | 3 | 8 | 8 | 7 | 4 | 4 | 5 | 2 | 3 | 1 | 6 | 7 |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 3.0 | 15.0 | 15.0 | 3.0 | 15.0 | 15.0 | 3.0 | 15.0 | 3.0 | 3.0 | 15.0 | 3.0 |
| Minimum Split (s) | 7.5 | 21.0 | 21.0 | 7.5 | 21.0 | 21.0 | 6.5 | 21.0 | 7.5 | 6.5 | 21.0 | 7.5 |
| Total Split (s) | 24.0 | 52.8 | 52.8 | 16.8 | 45.6 | 45.6 | 13.2 | 37.2 | 24.0 | 13.2 | 37.2 | 16.8 |
| Total Split (%) | 20.0% | 44.0% | 44.0% | 14.0% | 38.0% | 38.0% | 11.0% | 31.0% | 20.0% | 11.0% | 31.0% | 14.0% |
| Yellow Time (s) | 3.5 | 4.5 | 4.5 | 3.5 | 4.5 | 4.5 | 3.5 | 4.5 | 3.5 | 3.5 | 4.5 | 3.5 |
| All-Red Time (s) | 1.0 | 1.5 | 1.5 | 1.0 | 1.5 | 1.5 | 0.0 | 1.5 | 1.0 | 0.0 | 1.5 | 1.0 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Lost Time (s) | 4.5 | 6.0 | 6.0 | 4.5 | 6.0 | 6.0 | 3.5 | 6.0 | 4.5 | 3.5 | 6.0 | 4.5 |
| Lead/Lag | Lead | Lag | Lag | Lead | Lag | Lag | Lead | Lag | Lead | Lead | Lag | Lead |
| Lead-Lag Optimize? | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Recall Mode | None | None | None | None | None | None | None | C-Min | None | None | C-Min | None |
| Act Effct Green (s) | 18.0 | 43.2 | 43.2 | 12.2 | 37.4 | 37.4 | 46.9 | 35.8 | 59.8 | 47.2 | 35.9 | 54.1 |
| Actuated g/C Ratio | 0.15 | 0.36 | 0.36 | 0.10 | 0.31 | 0.31 | 0.39 | 0.30 | 0.50 | 0.39 | 0.30 | 0.45 |

| Lane Group | NBL | NBT | NBR | SBL | SBT | SBR | SEL | SET | SER | NWL | NWT | NWR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| v/c Ratio | 0.78 | 0.44 | 0.17 | 0.88 | 0.58 | 0.17 | 0.34 | 0.61 | 0.43 | 0.38 | 0.59 | 0.23 |
| Control Delay | 60.1 | 29.8 | 25.7 | 94.7 | 36.6 | 30.2 | 26.5 | 40.3 | 22.2 | 21.9 | 34.6 | 16.0 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 60.1 | 29.8 | 25.7 | 94.7 | 36.6 | 30.2 | 26.5 | 40.3 | 22.2 | 21.9 | 34.6 | 16.0 |
| LOS | E | C | C | F | D | C | C | D | C | C | C | B |
| Approach Delay | | 40.6 | | | 46.3 | | | 33.5 | | | 29.9 | |
| Approach LOS | | D | | | D | | | C | | | C | |
| Queue Length 50th (ft) | 156 | 175 | 49 | 124 | 218 | 48 | 46 | 251 | 175 | 38 | 275 | 94 |
| Queue Length 95th (ft) | 211 | 225 | 88 | #251 | 278 | 88 | 84 | 319 | 258 | m50 | 337 | m123 |
| Internal Link Dist (ft) | | 773 | | | 760 | | | 728 | | | 943 | |
| Turn Bay Length (ft) | 190 | | 150 | 200 | | 200 | 215 | | 285 | 155 | | 165 |
| Base Capacity (vph) | 563 | 1467 | 623 | 183 | 1205 | 527 | 291 | 1110 | 824 | 285 | 1125 | 714 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.72 | 0.41 | 0.16 | 0.87 | 0.55 | 0.17 | 0.32 | 0.61 | 0.42 | 0.36 | 0.59 | 0.23 |

Intersection Summary

Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 7.2 (6%), Referenced to phase 2:SETL and 6:NWTL, Start of Green
Natural Cycle: 60
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.88
Intersection Signal Delay: 37.5 Intersection LOS: D
Intersection Capacity Utilization 67.9% ICU Level of Service C
Analysis Period (min) 15
# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 2: Larkin Avenue & Plainfield Road



| Intersection | |
|---|---|
| Int Delay, s/veh | 5.8 |

| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 58 | 759 | 709 | 134 | 121 | 133 |
| Future Vol, veh/h | 58 | 759 | 709 | 134 | 121 | 133 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | - | - | 0 | - |
| Veh in Median Storage, # | - | 0 | 0 | - | 1 | - |
| Grade, % | - | 0 | 0 | - | 0 | - |
| Peak Hour Factor | 96 | 96 | 96 | 96 | 96 | 96 |
| Heavy Vehicles, % | 0 | 1 | 2 | 0 | 0 | 1 |
| Mvmt Flow | 60 | 791 | 739 | 140 | 126 | 139 |

| Major/Minor | Major1 | | Major2 | | Minor2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 879 | 0 | - | 0 | 1325 | 440 |
| Stage 1 | - | - | - | - | 809 | - |
| Stage 2 | - | - | - | - | 516 | - |
| Critical Hdwy | 4.1 | - | - | - | 6.8 | 6.92 |
| Critical Hdwy Stg 1 | - | - | - | - | 5.8 | - |
| Critical Hdwy Stg 2 | - | - | - | - | 5.8 | - |
| Follow-up Hdwy | 2.2 | - | - | - | 3.5 | 3.31 |
| Pot Cap-1 Maneuver | 777 | - | - | - | 150 | 568 |
| Stage 1 | - | - | - | - | 403 | - |
| Stage 2 | - | - | - | - | 570 | - |
| Platoon blocked, % | | - | - | - | | |
| Mov Cap-1 Maneuver | 777 | - | - | - | 129 | 568 |
| Mov Cap-2 Maneuver | - | - | - | - | 251 | - |
| Stage 1 | - | - | - | - | 347 | - |
| Stage 2 | - | - | - | - | 570 | - |

| Approach | EB | WB | SB |
|---|---|---|---|
| HCM Ctrl Dly, s/v | 1.3 | 0 | 39.6 |
| HCM LOS | | | E |

| Minor Lane/Major Mvmt | EBL | EBT | WBT | WBR | SBLn1 |
|---|---|---|---|---|---|
| Capacity (veh/h) | 777 | - | - | - | 355 |
| HCM Lane V/C Ratio | 0.078 | - | - | - | 0.745 |
| HCM Ctrl Dly (s/v) | 10 | 0.6 | - | - | 39.6 |
| HCM Lane LOS | B | A | - | - | E |
| HCM 95th %tile Q (veh) | 0.3 | - | - | - | 5.8 |

| Intersection | |
|---|---|
| Int Delay, s/veh | 0.4 |

| Movement | SEL | SET | SER | NWL | NWT | NWR | NEL | NET | NER | SWL | SWT | SWR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Vol, veh/h | 0 | 901 | 0 | 0 | 842 | 64 | 0 | 0 | 0 | 0 | 0 | 61 |
| Future Vol, veh/h | 0 | 901 | 0 | 0 | 842 | 64 | 0 | 0 | 0 | 0 | 0 | 61 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Free | Free | Stop | Stop | Stop | Stop | Stop | Stop |
| RT Channelized | - | - | None | - | - | Free | - | - | None | - | - | Stop |
| Storage Length | - | - | - | - | - | 115 | - | - | - | - | - | 0 |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 93 | 93 | 93 | 93 | 93 | 93 | 93 | 93 | 93 | 93 | 93 | 93 |
| Heavy Vehicles, % | 0 | 2 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mvmt Flow | 0 | 969 | 0 | 0 | 905 | 69 | 0 | 0 | 0 | 0 | 0 | 66 |

| Major/Minor | Major1 | | | Major2 | | | Minor1 | | | Minor2 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Conflicting Flow All | - | 0 | 0 | 969 | 0 | 0 | 1422 | 1874 | 485 | - | - | 453 |
| Stage 1 | - | - | - | - | - | - | 969 | 969 | - | - | - | - |
| Stage 2 | - | - | - | - | - | - | 453 | 905 | - | - | - | - |
| Critical Hdwy | - | - | - | 4.1 | - | - | 7.5 | 6.5 | 6.9 | - | - | 6.9 |
| Critical Hdwy Stg 1 | - | - | - | - | - | - | 6.5 | 5.5 | - | - | - | - |
| Critical Hdwy Stg 2 | - | - | - | - | - | - | 6.5 | 5.5 | - | - | - | - |
| Follow-up Hdwy | - | - | - | 2.2 | - | - | 3.5 | 4 | 3.3 | - | - | 3.3 |
| Pot Cap-1 Maneuver | 0 | - | - | 719 | - | 0 | 98 | 73 | 533 | 0 | 0 | 559 |
| Stage 1 | 0 | - | - | - | - | 0 | 276 | 334 | - | 0 | 0 | - |
| Stage 2 | 0 | - | - | - | - | 0 | 561 | 358 | - | 0 | 0 | - |
| Platoon blocked, % | | - | - | | - | | | | | | | |
| Mov Cap-1 Maneuver | - | - | - | 719 | - | - | 87 | 73 | 533 | - | - | 559 |
| Mov Cap-2 Maneuver | - | - | - | - | - | - | 87 | 73 | - | - | - | - |
| Stage 1 | - | - | - | - | - | - | 276 | 334 | - | - | - | - |
| Stage 2 | - | - | - | - | - | - | 495 | 358 | - | - | - | - |

| Approach | SE | NW | NE | SW |
|---|---|---|---|---|
| HCM Ctrl Dly, s/v | 0 | 0 | 0 | 12.3 |
| HCM LOS | | | A | B |

| Minor Lane/Major Mvmt | NELn1 | NWL | NWT | SET | SERSWLn1 |
|---|---|---|---|---|---|
| Capacity (veh/h) | - | 719 | - | - | - 559 |
| HCM Lane V/C Ratio | - | - | - | - | - 0.117 |
| HCM Ctrl Dly (s/v) | 0 | 0 | - | - | - 12.3 |
| HCM Lane LOS | A | A | - | - | - B |
| HCM 95th %tile Q (veh) | - | 0 | - | - | - 0.4 |

| Intersection | |
|---|---|
| Int Delay, s/veh | 2.6 |

| Movement | SEL | SET | SER | NWL | NWT | NWR | NEL | NET | NER | SWL | SWT | SWR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | ↕ | | | ↕ | | | ↰ | ↱ | | ↕ | |
| Traffic Vol, veh/h | 1 | 211 | 22 | 60 | 150 | 16 | 18 | 0 | 52 | 9 | 0 | 2 |
| Future Vol, veh/h | 1 | 211 | 22 | 60 | 150 | 16 | 18 | 0 | 52 | 9 | 0 | 2 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Free | Free | Stop | Stop | Stop | Stop | Stop | Stop |
| RT Channelized | - | - | None | - | - | None | - | - | None | - | - | None |
| Storage Length | - | - | - | - | - | - | - | - | 0 | - | - | - |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 88 | 88 | 88 | 88 | 88 | 88 | 88 | 88 | 88 | 88 | 88 | 88 |
| Heavy Vehicles, % | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mvmt Flow | 1 | 240 | 25 | 68 | 170 | 18 | 20 | 0 | 59 | 10 | 0 | 2 |

| Major/Minor | Major1 | | | Major2 | | | Minor1 | | | Minor2 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Conflicting Flow All | 188 | 0 | 0 | 265 | 0 | 0 | 571 | 579 | 253 | 599 | 582 | 179 |
| Stage 1 | - | - | - | - | - | - | 255 | 255 | - | 315 | 315 | - |
| Stage 2 | - | - | - | - | - | - | 316 | 324 | - | 284 | 267 | - |
| Critical Hdwy | 4.1 | - | - | 4.1 | - | - | 7.1 | 6.5 | 6.2 | 7.1 | 6.5 | 6.2 |
| Critical Hdwy Stg 1 | - | - | - | - | - | - | 6.1 | 5.5 | - | 6.1 | 5.5 | - |
| Critical Hdwy Stg 2 | - | - | - | - | - | - | 6.1 | 5.5 | - | 6.1 | 5.5 | - |
| Follow-up Hdwy | 2.2 | - | - | 2.2 | - | - | 3.5 | 4 | 3.3 | 3.5 | 4 | 3.3 |
| Pot Cap-1 Maneuver | 1398 | - | - | 1311 | - | - | 435 | 429 | 791 | 416 | 427 | 869 |
| Stage 1 | - | - | - | - | - | - | 754 | 700 | - | 700 | 659 | - |
| Stage 2 | - | - | - | - | - | - | 699 | 653 | - | 727 | 692 | - |
| Platoon blocked, % | | - | - | | - | - | | | | | | |
| Mov Cap-1 Maneuver | 1398 | - | - | 1311 | - | - | 414 | 404 | 791 | 368 | 402 | 869 |
| Mov Cap-2 Maneuver | - | - | - | - | - | - | 414 | 404 | - | 368 | 402 | - |
| Stage 1 | - | - | - | - | - | - | 753 | 699 | - | 699 | 621 | - |
| Stage 2 | - | - | - | - | - | - | 657 | 615 | - | 672 | 691 | - |

| Approach | SE | NW | NE | SW |
|---|---|---|---|---|
| HCM Ctrl Dly, s/v | 0 | 2.1 | 11 | 14 |
| HCM LOS | | | B | B |

| Minor Lane/Major Mvmt | NELn1 | NELn2 | NWL | NWT | NWR | SEL | SET | SER | SWLn1 |
|---|---|---|---|---|---|---|---|---|---|
| Capacity (veh/h) | 414 | 791 | 1311 | - | - | 1398 | - | - | 411 |
| HCM Lane V/C Ratio | 0.049 | 0.075 | 0.052 | - | - | 0.001 | - | - | 0.03 |
| HCM Ctrl Dly (s/v) | 14.1 | 9.9 | 7.9 | 0 | - | 7.6 | 0 | - | 14 |
| HCM Lane LOS | B | A | A | A | - | A | A | - | B |
| HCM 95th %tile Q (veh) | 0.2 | 0.2 | 0.2 | - | - | 0 | - | - | 0.1 |

| Intersection | |
|---|---|
| Int Delay, s/veh | 6.2 |

| Movement | SEL | SET | NWT | NWR | SWL | SWR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 62 | 819 | 859 | 44 | 82 | 28 |
| Future Vol, veh/h | 62 | 819 | 859 | 44 | 82 | 28 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | 50 | - | - | 0 | 0 | - |
| Veh in Median Storage, # | - | 0 | 0 | - | 0 | - |
| Grade, % | - | 0 | 0 | - | 0 | - |
| Peak Hour Factor | 95 | 95 | 95 | 95 | 95 | 95 |
| Heavy Vehicles, % | 0 | 2 | 3 | 0 | 0 | 0 |
| Mvmt Flow | 65 | 862 | 904 | 46 | 86 | 29 |

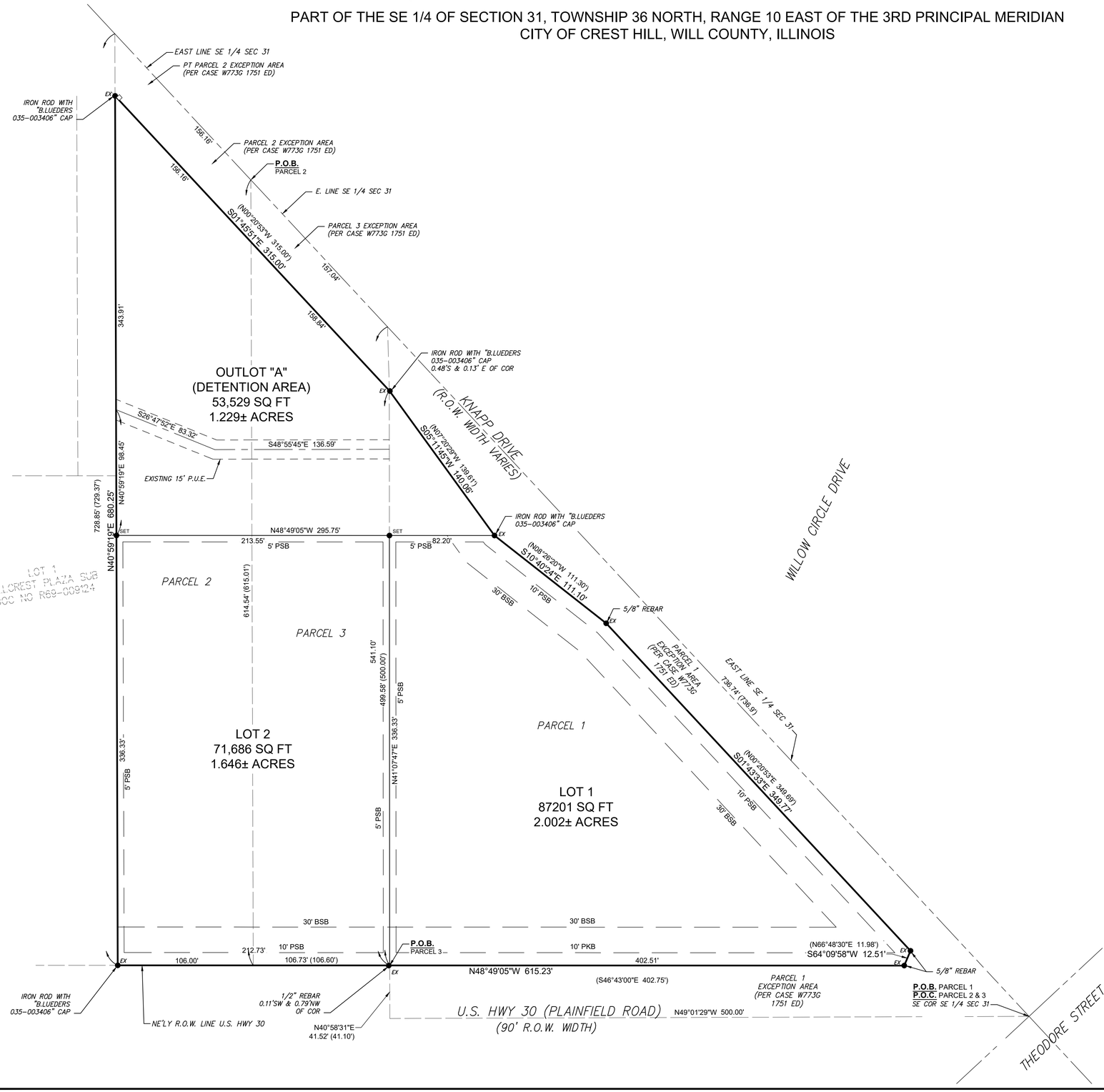
| Major/Minor | Major1 | | Major2 | | Minor2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 950 | 0 | - | 0 | 1465 | 452 |
| Stage 1 | - | - | - | - | 904 | - |
| Stage 2 | - | - | - | - | 561 | - |
| Critical Hdwy | 4.1 | - | - | - | 6.8 | 6.9 |
| Critical Hdwy Stg 1 | - | - | - | - | 5.8 | - |
| Critical Hdwy Stg 2 | - | - | - | - | 5.8 | - |
| Follow-up Hdwy | 2.2 | - | - | - | 3.5 | 3.3 |
| Pot Cap-1 Maneuver | 731 | - | - | - | 121 | 560 |
| Stage 1 | - | - | - | - | 360 | - |
| Stage 2 | - | - | - | - | 540 | - |
| Platoon blocked, % | | | - | - | - | |
| Mov Cap-1 Maneuver | 731 | - | - | - | 110 | 560 |
| Mov Cap-2 Maneuver | - | - | - | - | 110 | - |
| Stage 1 | - | - | - | - | 328 | - |
| Stage 2 | - | - | - | - | 540 | - |

| Approach | SE | NW | SW |
|---|---|---|---|
| HCM Ctrl Dly, s/v | 0.7 | 0 | 100.5 |
| HCM LOS | | | F |

| Minor Lane/Major Mvmt | NWT | NWR | SEL | SETSWLn1 | |
|---|---|---|---|---|---|
| Capacity (veh/h) | - | - | 731 | - | 138 |
| HCM Lane V/C Ratio | - | - | 0.089 | - | 0.839 |
| HCM Ctrl Dly (s/v) | - | - | 10.4 | - | 100.5 |
| HCM Lane LOS | - | - | B | - | F |
| HCM 95th %tile Q (veh) | - | - | 0.3 | - | 5.3 |

# FINAL PLAT
# QUIKTRIP NO. 4452 SUBDIVISION

PART OF THE SE 1/4 OF SECTION 31, TOWNSHIP 36 NORTH, RANGE 10 EAST OF THE 3RD PRINCIPAL MERIDIAN
CITY OF CREST HILL, WILL COUNTY, ILLINOIS

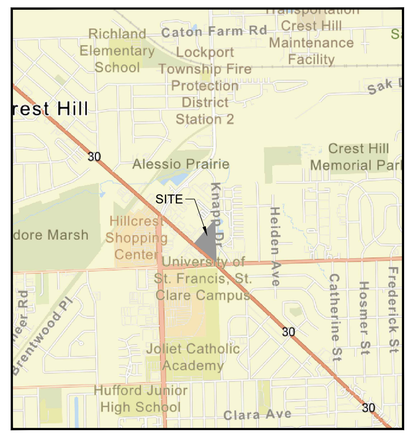



0 20 40 80
SCALE: 1"=40'
U.S. SURVEY FEET

BASIS OF BEARINGS IS ILLINOIS STATE PLANE COORDINATE SYSTEM, EAST ZONE, NAD 83, 2011 ADJUSTMENT (GEOID18 CONUS)

## LEGEND

| | |
|---|---|
| SET ● | SET 5/8" REBAR WITH PLASTIC CAP STAMPED "FARNSWORTH GROUP" |
| EX ● | EXISTING IRON ROD FOUND |
| PSB | PUBLIC UTILITY SETBACK |
| BSB | BUILDING SETBACK |




**Location Map**
Not to Scale


Farnsworth GROUP
2211 WEST BRADLEY AVENUE
CHAMPAIGN, ILLINOIS 61821
(217) 352-7408 / info@f-w.com

www.f-w.com
Engineers | Architects | Surveyors | Scientists


ISSUE:

| # | DATE: | DESCRIPTION: |
|---|---|---|

PROJECT:

| | |
|---|---|
| DATE: | 12/19/2024 |
| DESIGNED: | KJS |
| DRAWN: | PDM |
| REVIEWED: | #### |
| FIELD BOOK NO.: | BMI 3410 63 |

SHEET TITLE:

**FINAL PLAT**

DRAFT

SHEET NUMBER:

**1**
OF 3

PROJECT NO.: 0241200.00

[ pmorss ] J:\2024\0241200.00 - QuikTrip Crest Hill IL #4452\Survey\07_Drawings\SV_Final Plat - 0241200.00.dwg [ 12/20/2023 10:05 AM ]

# FINAL PLAT
# QUIKTRIP NO. 4452 SUBDIVISION

PART OF THE SE 1/4 OF SECTION 31, TOWNSHIP 36 NORTH, RANGE 10 EAST OF THE 3RD PRINCIPAL MERIDIAN
CITY OF CREST HILL, WILL COUNTY, ILLINOIS

STATE OF ILLINOIS )
)SS
COUNTY OF WILL )

THE UNDERSIGNED, _____, AS TITLEHOLDER TO THE PROPERTY AS DESCRIBED HEREON, IN THE CITY OF CREST HILL, ILLINOIS, DOES HEREBY CERTIFY THAT AS SUCH TITLEHOLDER IT HAS CAUSED SAID PROPERTY TO BE SURVEYED AND SUBDIVIDED AS SHOWN HEREON.

ALSO, THIS IS TO CERTIFY THAT THE PROPERTY DESCRIBED HEREIN, TO THE BEST OF THE TITLEHOLDER'S KNOWLEDGE AND BELIEF, LIES WITHIN THE BOUNDARIES OF:

RICHLAND SCHOOL DISTRICT 88A
LOCKPORT TOWNSHIP HIGH SCHOOL DISTRICT 202
JOLIET JUNIOR COLLEGE COMMUNITY COLLEGE DISTRICT 525

DATED THIS _____ DAY OF _____ 2026.

BY: _____
_____

ATTEST: _____
_____

STATE OF ILLINOIS )
)SS
COUNTY OF WILL )

I, _____ A NOTARY PUBLIC IN AND FOR SAID COUNTY IN THE STATE AFORESAID DO I, HEREBY CERTIFY THAT

_____, OF _____, ILLINOIS PERSONALLY KNOWN TO ME TO BE THE SAME PERSONS WHOSE NAMES ARE SUBSCRIBED TO THE FOREGOING INSTRUMENT AS MAYOR AND CITY CLERK RESPECTIVELY, APPEARED BEFORE ME THIS DAY IN PERSON AND ACKNOWLEDGED THAT THEY SIGNED AND DELIVERED THE SAID INSTRUMENT AS THEIR OWN FREE AND VOLUNTARY ACT AND AS THE FREE AND VOLUNTARY ACT OF SAID CITY, FOR THE USES AND PURPOSES THEREIN SET FORTH; AND THAT THE SAID CITY CLERK DID ALSO THEN AND THERE ACKNOWLEDGE THAT THEY, AS CUSTODIAN OF THE CORPORATE SEAL OF SAID CITY, DID AFFIX SAID SEAL OF SAID CITY TO THE SAID INSTRUMENT AS THEIR OWN FREE AND VOLUNTARY ACT, AND AS THE FREE AND VOLUNTARY ACT OF SAID CITY, FOR THE USES AND PURPOSES THEREIN SET FORTH.

GIVEN UNDER MY HAND AND SEAL THIS _____ DAY OF _____ , 2026.

_____
NOTARY PUBLIC

## EASEMENT PROVISIONS

AN EASEMENT FOR SERVING THE SUBDIVISION AND OTHER PROPERTY WITH ELECTRIC AND COMMUNICATIONS SERVICE IS HEREBY RESERVED FOR AND GRANTED TO:

*COMMONWEALTH EDISON COMPANY, A.T. & T., APPLICABLE CABLE TELEVISION COMPANY, GRANTEES*

THEIR RESPECTIVE SUCCESSORS AND ASSIGNS, JOINTLY AND SEVERALLY, TO INSTALL, OPERATE, MAINTAIN AND REMOVE, FROM TIME TO TIME, FACILITIES USED IN CONNECTION WITH OVERHEAD AND UNDERGROUND TRANSMISSION AND DISTRIBUTION OF ELECTRICITY AND SOUNDS AND SIGNALS IN, OVER, UNDER, ACROSS, ALONG AND UPON THE SURFACE OF THE PROPERTY SHOWN WITHIN THE DOTTED LINES ON THE PLAT AND MARKED "EASEMENT", THE PROPERTY DESIGNATED IN THE DECLARATION OF CONDOMINIUM AND/OR ON THIS PLAT AS "COMMON ELEMENTS", AND THE PROPERTY DESIGNATED ON THE PLAT AS A "COMMON AREA OR AREAS", AND THE PROPERTY DESIGNATED ON THE PLAT FOR STREETS AND ALLEYS, WHETHER PUBLIC OR PRIVATE, TOGETHER WITH THE RIGHT TO INSTALL REQUIRED SERVICE CONNECTIONS OVER OR UNDER THE SURFACE OF EACH LOT AND COMMON AREA OR AREAS TO SERVE IMPROVEMENTS THEREON, OR ON ADJACENT LOTS, AND COMMON AREA OR AREAS, THE RIGHT TO CUT, TRIM OR REMOVE TREES, BUSHES AND ROOTS AS MAY BE REASONABLY REQUIRED INCIDENT TO THE RIGHTS HEREIN GIVEN, AND THE RIGHT TO ENTER UPON THE SUBDIVIDED PROPERTY FOR ALL SUCH PURPOSES. OBSTRUCTIONS SHALL NOT BE PLACED OVER GRANTEES' FACILITIES OR IN, UPON OR OVER THE PROPERTY WITHIN THE DOTTED LINES MARKED "EASEMENT" WITHOUT THE PRIOR WRITTEN CONSENT OF GRANTEES. AFTER INSTALLATION OF ANY SUCH FACILITIES, THE GRADE OF THE SUBDIVIDED PROPERTY SHALL NOT BE ALTERED IN A MANNER SO AS TO INTERFERE WITH THE PROPER OPERATION AND MAINTENANCE THEREOF.

THE TERM "COMMON ELEMENTS" SHALL HAVE THE MEANING SET FORTH FOR SUCH TERM IN THE "CONDOMINIUM PROPERTY ACT", CHAPTER 765 ILCS 605/2(E), AS AMENDED FROM TIME TO TIME.

THE TERM "COMMON AREA OR AREAS" IS DEFINED AS A LOT, PARCEL OR AREA OF REAL PROPERTY, THE BENEFICIAL USE AND ENJOYMENT OF WHICH IS RESERVED IN WHOLE AS AN APPURTENANCE TO THE SEPARATELY OWNED LOTS, PARCELS OR AREAS WITHIN THE PLANNED DEVELOPMENT, EVEN THOUGH SUCH BE OTHERWISE DESIGNATED ON THE PLAT BY OTHER TERMS SUCH AS, "OUTLOTS", "COMMON ELEMENTS", "OPEN SPACE", "OPEN AREA", COMMON GROUND", "PARKING AND COMMON AREA". THE TERMS "COMMON AREA OR AREAS" AND "COMMON ELEMENTS" INCLUDES REAL PROPERTY SURFACED WITH INTERIOR DRIVEWAYS AND WALKWAYS, BUT EXCLUDES REAL PROPERTY PHYSICALLY OCCUPIED BY A BUILDING, SERVICE BUSINESS DISTRICT OR STRUCTURES SUCH AS A POOL OR RETENTION POND, OR MECHANICAL EQUIPMENT. RELOCATION OF FACILITIES WILL BE DONE BY GRANTEES AT COST OF GRANTOR/LOT OWNER, UPON WRITTEN REQUEST.

AN EASEMENT IS HEREBY RESERVED FOR AND GRANTED TO NORTHERN ILLINOIS GAS COMPANY, ITS SUCCESSORS AND ASSIGNS ("NI-GAS") TO INSTALL, OPERATE, MAINTAIN, REPAIR AND REMOVE, FACILITIES USED IN CONNECTION WITH THE TRANSMISSION AND DISTRIBUTION OF NATURAL GAS IN, OVER, UNDER, ACROSS, ALONG AND UPON THE SURFACE OF THE PROPERTY SHOWN ON THIS PLAT MARKED "EASEMENT", COMMON AREA OR AREAS", AND STREETS AND ALLEYS, WETHER PUBLIC OR PRIVATE, AND THE PROPERTY DESIGNATED IN THE DECLARATION OF CONDOMINIUM AND/OR ON THIS PLAT AS "COMMON ELEMENTS" TOGETHER WITH THE RIGHT TO INSTALL REQUIRED SERVICE CONNECTIONS OVER OR UNDER THE SURFACE OF EACH LOT AND COMMON AREA OR AREAS TO SERVE IMPROVEMENTS THEREON, OR ON ADJACENT LOTS, AND COMMON AREA OR AREAS, AND TO SERVE OTHER PROPERTY. ADJACENT OR OTHERWISE, AND THE RIGHT TO REMOVE OBSTRUCTIONS, INCLUDING BUT NOT LIMITED TO, TREES, BUSHES, ROOTS AND FENCES, AS MAY BE REASONABLY REQUIRED INCIDENT TO THE RIGHTS HEREIN GIVEN, AN THE RIGHT TO ENTER UPON THE PROPERTY FOR ALL SUCH PURPOSES. OBSTRUCTIONS SHALL NOT BE PLACED OVER NI-GAS FACILITIES OR IN, UPON OR OVER THE PROPERTY IDENTIFIED ON THIS PLAT FOR UTILITY PURPOSES WITHOUT THE PRIOR WRITTEN CONSENT OF NI-GAS. AFTER INSTALLATION OF ANY SUCH FACILITIES, THE GRADE OF THE PROPERTY SHALL NOT BE ALTERED IN A MANNER SO AS TO INTERFERE WITH THE PROPER OPERATION AND MAINTENANCE THEREOF. THE TERM ""COMMON ELEMENTS" SHALL HAVE THAT MEANING SET FORTH FOR SUCH TERM IN SECTION 605/2(E) OF THE "CONDOMINIUM PROPERTY ACT" (ILLINOIS COMPILED STATUTES, CH. 765, SEC. 605/2(E)), AS AMENDED FROM TIME TO TIME. THE TERM "COMMON AREA OR AREAS" IS DEFINED AS A LOT, PARCEL OR AREA OF REAL PROPERTY, INCLUDING REAL PROPERTY SURFACED WITH INTERIOR DRIVEWAYS AND WALKWAYS, THE BENEFICIAL USE AND ENJOYMENT OF WHICH IS RESERVED IN WHOLE AS AN APPURTENANCE TO THE SEPARATELY OWNED LOTS, PARCELS OR AREAS WITHIN THE PROPERTY, EVEN THOUGH SUCH AREAS MAY BE DESIGNATED ON THIS PLAT BY OTHER TERMS.

## DETENTION EASEMENTS PROVISIONS

ALL EASEMENTS INDICATED AS DETENTION EASEMENTS ARE RESERVED FOR AND GRANTED TO THE CITY OF CREST HILL AND ITS SUCCESSOR'S AND ASSIGN'S ON A NON-EXCLUSIVE BASIS NO BUILDINGS SHALL BE PLACED ON SAID EASEMENT BUT THE SAME MAY BE USED FOR OTHER PURPOSES THAT DO NOT ADVERSELY AFFECT THE STORAGE/FREE FLOW OR STORMWATER THE OWNER OF DETENTION EASEMENT IN THIS SUBDIVISION AND ANY SUBSEQUENT PURCHASER (FUTURE OWNER) SHALL BE RESPONSIBLE FOR MAINTAINING SUCH STORMWATER MANAGEMENT FACILITY AND SHALL NOT DESTROY OR MODIFY GRADES OR SLOPES WITHOUT FIRST HAVING RECEIVED WRITTEN APPROVAL FROM THE CITY OF CREST HILL.

IN THE EVENT THE OWNER OF DETENTION EASEMENT IN THIS SUBDIVISION OR ANY SUBSEQUENT PURCHASER (FUTURE OWNER) FAILS TO MAINTAIN ANY SUCH EASEMENT/STORMWATER MANAGEMENT FACILITY, THE CITY OF CREST HILL, ILLINOIS SHALL UPON THIRTY (30) DAYS WRITTEN NOTICE TO THE OWNER OUTLINING THE NATURE AND DEFECT OF THE OWNERS DEFAULT AND THAT THE OWNER SHALL NOT HAVE CURED SAID DEFAULT SHALL RESERVE THE RIGHT TO PERFORM OR HAVE PERFORMED ON ITS BEHALF, ANY MAINTENANCE WORK UPON THE DETENTION EASEMENT REASONABLY NECESSARY TO INSURE ADEQUATE STORM WATER STORAGE FREE/FLOW OF WATER, EROSION CONTROL AND TURF MAINTENANCE TO ELIMINATE STAGNANT WATER WITHIN THE DETENTION AREA AND PROVIDED FUTURE THAT IN THE EVENT THAT THE CITY OF CREST HILL ELECTS TO PERFORM OR CAUSES TO PERFORM ANY SUCH WORK IT SHALL PROVIDE THE OWNERS WITH PROPER INSURANCE CERTIFICATES OF ALL SUBCONTRACTORS WORKING ON THE EASEMENT PREMISES CO-INSURING THE OWNER FOR THE WORK TO BE PERFORMED.

IN THE EVENT THE CITY OF CREST HILL, ILLINOIS SHALL BE REQUIRED TO PERFORM OR HAVE PERFORMED ON IT'S BEHALF ANY MAINTENANCE WORK TO OR UPON ANY SUCH FACILITY OR EASEMENT AREA THE COST TOGETHER WITH AN ADDITIONAL SUM OF TEN (10) PERCENT OF SAID COST SHALL BE ASSESSED TO THE OWNER OF DETENTION EASEMENTS IN THIS SUBDIVISION, IT'S SUCCESSOR'S AND ASSIGNS AND SHALL CONSTITUTE ALIEN AGAINST THE PROPERTY WHICH MAY BE ENFORCED BY ANY ACTION BROUGHT BY OR ON BEHALF OF THE CITY OF CREST HILL.

## PUBLIC UTILITY AND DRAINAGE EASEMENT PROVISIONS

ALL EASEMENTS INDICATED AS PUBLIC UTILITY AND/OR DRAINAGE AND UTILITY EASEMENTS ON THIS PLAT ARE RESERVED FOR AND GRANTED TO THE CITY OF CREST HILL AND ALSO AS A NON-EXCLUSIVE EASEMENT TO THOSE PUBLIC UTILITY COMPANIES OPERATING UNDER FRANCHISE FROM THE CITY OF CREST HILL INCLUDING, BUT NOT LIMITED TO, AT&T/SBC/AMERITECH COMPANY, NICOR GAS COMPANY, COMMONWEALTH EDISON COMPANY AND THEIR SUCCESSORS AND ASSIGNS (COLLECTIVELY GRANTEE) FOR THE PERPETUAL RIGHT, PRIVILEGE AND AUTHORITY TO CONSTRUCT, RECONSTRUCT, REPAIR, INSPECT, MAINTAIN AND OPERATE "THE PUBLIC UTILITY TOGETHER WITH ANY AND ALL NECESSARY MANHOLES, CATCH BASINS, CONNECTIONS, APPLIANCES AND OTHER STRUCTURES AND APPURTENANCES AS MAY BE DEEMED NECESSARY BY SAID CITY OF CREST HILL, UPON, ALONG, UNDER AND THROUGH SAID INDICATED EASEMENT, TOGETHER WITH RIGHT OF ACCESS ACROSS THE PROPERTY FOR NECESSARY MEN AND EQUIPMENT TO DO ANY OF THE ABOVE WORK. THE RIGHT IS ALSO GRANTED TO CUT DOWN, TRIM OR REMOVE ANY TREES, SHRUBS OR OTHER PLANTS ON THE EASEMENT THAT INTERFERE WITH THE OPERATION OF THE PUBLIC UTILITY. THE GRANTEE OR GRANTEES PERFORMING OR CAUSING TO BE PERFORMED ANY OF SAID WORK SHALL BE RESPONSIBLE AT IT'S OR THEIR EXPENSE, TO BACKFILL ALL AREAS WITH APPROVED MATERIALS BUT SHALL NOT BE LIABLE TO RESTORE ANY PAVEMENT, CURB AND GUTTER, SIDEWALKS OR LANDSCAPING DISTURBED DURING MAINTENANCE, THE GRANTOR SHALL BE RESPONSIBLE FOR THE FULL AND COMPLETE RESTORATION OF THE EASEMENT PREMISES. NO PERMANENT BUILDINGS SHALL BE PLACED ON SAID EASEMENT, BUT SAME MAY BE USED FOR ASPHALT AND IMPROVEMENTS NORMALLY FOUND IN A PARKING LOT SUCH AS LIGHT FIXTURES AND SIGNS, GARDENS, SHRUBS, LANDSCAPING AND OTHER PURPOSES THAT DO NOT THEN OR LATER INTERFERE WITH THE AFORESAID USES OR RIGHTS, ELEVATIONS OR GRADES SHALL NOT BE CHANGED WITHIN THE EASEMENT PREMISES WITHOUT THE WRITTEN APPROVAL OF THE CITY OF CREST HILL.

## MUNICIPAL UTILITY AND DRAINAGE EASEMENTS (M.U.E.)

A PERPETUAL NON-EXCLUSIVE EASEMENT APPURTENANT IS HEREBY RESERVED FOR AND GRANTED TO THE CITY OF CREST HILL AND THEIR RESPECTIVE SUCCESSORS AND ASSIGNS, OVER, UPON, ACROSS, THROUGH AND UNDER THOSE PORTIONS OF THE PROPERTY DESIGNATED AS MUNICIPAL UTILITY AND/OR DRAINAGE EASEMENT (M.U.E.) ON THIS PLAT FOR THE PURPOSE OF INSTALLING, LAYING, CONSTRUCTING, OPERATING, MAINTAINING, REPAIRING, RENEWING AND REPLACING WATER MAINS, SANITARY SEWER LINES, FORCE MAIN LINES, STORM SEWER LINES, IRRIGATION LINES, PIPES, STREET LIGHTS, DITCHES, SWALES AND APPURTENANCES, POLES, WIRES, CABLES, CONDUIT, MANHOLES, PEDESTALS AND OTHER FACILITIES USED IN CONNECTION WITH UNDERGROUND TRANSMISSION AND DISTRIBUTION OF MUNICIPAL UTILITY SERVICES AND DRAINAGE OF STORMWATER, TOGETHER WITH ALL APPURTENANT STRUCTURES, INCLUDING, BUT NOT LIMITED TO, WET WELLS, LIFT STATIONS, FIRE HYDRANTS, VALVE VAULTS, STREET LIGHTING EQUIPMENT AND ANY AND ALL OTHER FIXTURES AND EQUIPMENT REQUIRED FOR THE PURPOSE OF SERVICE THE PROPERTY WITH WATER SERVICE, SANITARY SEWER SERVICE, STORM WATER MANAGEMENT, IRRIGATIONS, STREET LIGHTING AND OTHER MUNICIPAL SERVICES, ALL INSTALLATION OF MUNICIPAL UTILITIES SHALL BE UNDERGROUND OR ON THE SURFACE BUT NOT OVERHEAD.

NO OBSTRUCTIONS SHALL BE PLACED IN THE M.U.E. AREAS, BUT THE M.U.E. AREAS MAY BE USED FOR FENCES, GARDENS, SHRUBS, LANDSCAPING AND SUCH OTHER PURPOSES THAT DO NOT, AND WILL NOT IN THE FUTURE, INTERFERE UNREASONABLY WITH THE EASEMENT RIGHTS HEREIN GRANTED.

## BLANKET UTILITY AND DRAINAGE EASEMENT PROVISIONS

A BLANKET EASEMENT FOR UTILITIES AND DRAINAGE IS HEREBY RESERVED FOR AND GRANTED TO THE CITY OF CREST HILL, ILLINOIS, AND TO THOSE PUBLIC UTILITY COMPANIES OPERATING UNDER FRANCHISE FROM THE CITY OF CREST HILL, ILLINOIS, INCLUDING, BUT NOT LIMITED TO COMMONWEALTH EDISON COMPANY, A.T. & T., APPLICABLE CABLE TELEVISION COMPANIES, NORTHERN ILLINOIS GAS COMPANY AND THEIR SUCCESSORS AND ASSIGNS, OVER LOTS 1 AND 2 AS SHOWN HEREON, FOR THE PERPETUAL RIGHT, PRIVILEGE, AND AUTHORITY TO CONSTRUCT, RECONSTRUCT, REPAIR, INSPECT, MAINTAIN, AND OPERATE VARIOUS UTILITY TRANSMISSION AND DISTRIBUTION SYSTEMS AND INCLUDING WATERMAINS AND SERVICES, STORM WATER DETENTION, STORM AND/OR SANITARY SEWER MAINS AND SERVICES, STREET LIGHTS AND WIRING TOGETHER WITH ANY AND ALL NECESSARY MANHOLES, CATCH BASINS, CONNECTIONS, APPLIANCES, AND OTHER STRUCTURES AND APPURTENANCES AS MAY BE DEEMED NECESSARY BY SAID CITY, OVER, UPON ALONG, UNDER, AND THROUGH SAID INDICATED BLANKET EASEMENT, TOGETHER WITH RIGHT OF ACCESS ACROSS THE PROPERTY FOR NECESSARY MEN AND EQUIPMENT TO DO ANY OF THE ABOVE WORK. THE RIGHT IS ALSO GRANTED TO CUT DOWN, TRIM, OR REMOVE ANY TREES, SHRUBS, OR OTHER PLANTS ON THE BLANKET EASEMENT THAT INTERFERE WITH THE SAME OPERATION OF THE SEWERS OR OTHER UTILITIES. NO PERMANENT STRUCTURES SHALL BE PLACED ON SAID BLANKET EASEMENT, BUT SAME MAY BE USED FOR GARDENS, SHRUBS, LANDSCAPING, AND OTHER PURPOSES THAT DO NOT THEN OR LATER INTERFERE WITH THE AFORESAID USES OR RIGHTS. WHERE THE EASEMENT IS USED FOR BOTH SEWER AND OTHER UTILITIES, THE OTHER UTILITY INSTALLATION SHALL BE SUBJECT TO THE ORDINANCES OF THE CITY OF CREST HILL.

## STORM SEWER, DRAINAGE, AND STORMWATER MANAGEMENT EASEMENT PROVISIONS

A PERPETUAL, NON-EXCLUSIVE EASEMENT IS HEREBY RESERVED FOR AND GRANTED TO THE CITY OF CREST HILL, ILLINOIS, WITHIN THE AREAS SHOWN ON THE HEREON PLAT BY DASHED LINES AND MARKED "STORM SEWER EASEMENT HEREBY GRANTED" AND/OR "DRAINAGE & STORMWATER MANAGEMENT EASEMENT HEREBY GRANTED" OR OTHER SIMILAR DESCRIPTION TO INSTALL, CONSTRUCT, RENEW, OPERATE, MAINTAIN, RELOCATE, AND EXTEND STORM SEWERS AND OTHER APPURTENANCES AND EQUIPMENT REQUIRED FOR THE PURPOSE OF SERVING THE SUBJECT PROPERTY, SUBDIVISION AND ADJACENT PROPERTY, SUBJECT TO ALL COVENANTS, CONDITIONS, EASEMENTS AND RESTRICTIONS OF RECORD, INCLUDING, WITHOUT LIMITATION, THAT CERTAIN PIPELINE EASEMENT DESCRIBED BY DOCUMENTS 775308 AND 775310 AND DEPICTED BY DOCUMENTS 795125 AND R1966-016525 (COLLECTIVELY, "PIPELINE EASEMENT"). GRANTEE HEREBY AGREES TO INSTALL, CONSTRUCT, RENEW, OPERATE, MAINTAIN, RELOCATE, EXTEND AND OTHERWISE COMPLETE ALL WORK TO THE STORM SEWER AND ALL APPURTENANCES AND EQUIPMENT RELATED THERETO IN SUCH A MANNER THAT COMPLIES WITH ALL TERMS, CONDITIONS AND RESTRICTIONS SET FORTH IN THE PIPELINE EASEMENT AND GRANTEE FURTHER AGREES NOT TO INTERFERE WITH THE RIGHTS GRANTED UNDER THE PIPELINE EASEMENT. GRANTEE HEREBY AGREES TO INDEMNIFY, DEFEND AND HOLD HARMLESS GRANTOR, ITS SUCCESSORS AND/OR ASSIGNS, FROM ANY AND ALL CLAIMS, DAMAGES, LOSSES, LIABILITIES, COSTS AND EXPENSES (INCLUDING, COURT COSTS AND ATTORNEYS' FEES) ARISING OUT OF OR OTHERWISE RELATING TO THE INSTALLATION, CONSTRUCTION, RENEWAL, OPERATION, MAINTENANCE, RELOCATION, AND EXTENSION OF THE STORM SEWER AND ALL APPURTENANCES AND EQUIPMENT RELATED THERETO, EXCEPT TO THE EXTENT SUCH CLAIMS ARISE AS A RESULT OF GRANTOR'S NEGLIGENCE. THE RIGHT IS GRANTED TO CUT, TRIM, OR REMOVE TREES, BUSHES, AND FENCES AS MAY BE REASONABLY REQUIRED INCIDENT TO THE RIGHTS HEREIN GIVEN, AND THE RIGHT TO ENTER UPON SAID PROPERTY FOR ALL SUCH PURPOSES STATED HEREIN, NO PERMANENT BUILDINGS SHALL BE PLACED ON SAID EASEMENTS; HOWEVER, THE SAME MAY BE USED FOR GARDENS, SHRUBS, LANDSCAPING, PARKING IMPROVEMENTS, DRIVEWAYS, WALKWAYS, AND OTHER PURPOSES THAT DO NOT THEN OR LATER INTERFERE WITH THE AFORESAID USES OR THE RIGHTS HEREIN GRANTED.

STATE OF ILLINOIS )
)SS
COUNTY OF PEORIA )

WE, FARNSWORTH GROUP, INC., ILLINOIS PROFESSIONAL DESIGN FIRM NUMBER 184-001856, DO HEREBY CERTIFY THAT A LAND SURVEY HAS BEEN MADE UNDER OUR DIRECTION OF THE FOLLOWING DESCRIBED PROPERTY:

PARCEL 1:

THAT PART OF THE SOUTHEAST QUARTER OF SECTION 31, IN TOWNSHIP 36 NORTH, AND IN RANGE 10 EAST OF THE THIRD PRINCIPAL MERIDIAN, IN LOCKPORT TOWNSHIP, WILL COUNTY, ILLINOIS, AS HEREINAFTER DESCRIBED: BEGINNING AT THE SOUTHEAST CORNER OF SAID SECTION 31; THENCE NORTHWESTERLY ALONG A LINE PARALLEL WITH THE CENTER LINE OF THE RIGHT OF WAY OF U.S. HIGHWAY ROUTE NO. 30, 500.00 FEET; THENCE NORTHEASTERLY ALONG A LINE THAT IS A RIGHT ANGLE TO THE AFORESAID CENTER LINE OF SAID RIGHT OF WAY OF SAID HIGHWAY, 541.1 FEET, TO THE EAST LINE OF SAID SECTION 31; THENCE SOUTH ALONG THE EAST LINE OF SAID SECTION 31, 736.9 FEET TO THE POINT OF BEGINNING, EXCEPTING THEREFROM THE RIGHT OF WAY OF U.S. HIGHWAY ROUTE NO. 30 (PLAINFIELD ROAD) AND WEBER ROAD WHICH INCLUDES THAT PART TAKEN AS PARCEL NO. 0138, CONDEMNED IN CASE NO. W73G1751ED, IN WILL COUNTY, ILLINOIS.

PARCEL 2:

THAT PART OF THE SOUTHEAST 1/4 OF SECTION 31, TOWNSHIP 36 NORTH, RANGE 10, EAST OF THE THIRD PRINCIPAL MERIDIAN, DESCRIBED AS FOLLOWS: COMMENCING AT THE SOUTHEAST CORNER OF THE SAID SOUTHEAST 1/4; THENCE NORTHWESTERLY ALONG A LINE PARALLEL WITH THE CENTER LINE OF UNITED STATES HIGHWAY ROUTE NUMBER 30, 500.00 FEET; THENCE NORTHEASTERLY ALONG A LINE FORMING A RIGHT ANGLE WITH THE LAST DESCRIBED LINE 541.10 FEET TO THE EAST LINE OF THE SAID SOUTHEAST 1/4; THENCE NORTH ALONG THE SAID EAST LINE OF THE SOUTHEAST 1/4, 157.04 FEET TO THE POINT OF BEGINNING; THENCE CONTINUE ALONG THE SAID EAST LINE OF THE SOUTHEAST 1/4, 156.16 FEET; THENCE SOUTHWESTERLY ALONG A LINE FORMING AN ANGLE OF 137 DEGREES 15 MINUTES TO THE LEFT WITH THE PROLONGATION OF THE LAST DESCRIBED LINE, 729.37 FEET TO THE NORTHEASTERLY RIGHT OF WAY LINE OF UNITED STATES HIGHWAY ROUTE NUMBER 30; THENCE SOUTHEASTERLY ALONG THE SAID NORTHEASTERLY RIGHT OF WAY LINE OF UNITED STATES HIGHWAY ROUTE NUMBER 30, 106.00 FEET; THENCE NORTHEASTERLY 615.01 FEET TO THE POINT OF BEGINNING, EXCEPTING THEREFROM THE RIGHT OF WAY OF WEBER ROAD WHICH INCLUDES THAT PART TAKEN AS PARCEL NUMBER 0138 CONDEMNED IN CASE NUMBER W73G1751ED, IN WILL COUNTY, ILLINOIS.

PARCEL 3:

THAT PART OF THE SOUTHEAST 1/4 OF SECTION 31, IN TOWNSHIP 36 NORTH, RANGE 10 EAST OF THE THIRD PRINCIPAL MERIDIAN, LOCKPORT TOWNSHIP, WILL COUNTY, ILLINOIS DESCRIBED AS FOLLOWS: COMMENCING AT THE SOUTHEAST CORNER OF THE SAID SOUTHEAST 1/4; THENCE NORTHWESTERLY ALONG A LINE PARALLEL WITH THE CENTER LINE OF U.S. HIGHWAY ROUTE NUMBER 30, 500.00 FEET; THENCE NORTHEASTERLY ALONG A LINE FORMING A RIGHT ANGLE WITH THE LAST DESCRIBED LINE 41.10 FEET TO THE POINT OF BEGINNING, SAID POINT BEING ON THE NORTHEASTERLY RIGHT OF WAY LINE OF U.S. HIGHWAY ROUTE NUMBER 30; THENCE CONTINUE NORTHEASTERLY ALONG THE PROLONGATION OF THE LAST DESCRIBED LINE 500.00 FEET TO THE EAST LINE OF THE SAID SOUTHEAST 1/4; THENCE NORTH ALONG THE SAID EAST LINE OF THE SOUTHEAST 1/4 157.04 FEET; THENCE SOUTHWESTERLY ALONG A LINE FORMING AN ANGLE OF 137 DEGREES 15 MINUTES TO THE LEFT WITH THE PROLONGATION OF THE LAST DESCRIBED LINE, 615.01 FEET TO THE SAID NORTHEASTERLY RIGHT OF WAY LINE OF U.S. HIGHWAY ROUTE NUMBER 30; THENCE SOUTHEASTERLY ALONG THE SAID NORTHEASTERLY RIGHT OF WAY LINE OF U.S. HIGHWAY ROUTE NUMBER 30, 106.60 FEET TO THE POINT OF BEGINNING, EXCEPTING THEREFROM THE RIGHT OF WAY OF WEBER ROAD WHICH INCLUDES THAT PART TAKEN AS PARCEL NUMBER 0138 CONDEMNED IN CASE NUMBER W773G 1751 ED, IN WILL COUNTY, ILLINOIS.

WE HAVE SURVEYED SAID PROPERTY INTO TWO LOTS AND ONE OUTLOT OF WHICH ARE REPRESENTED ON THE PLAT HEREON DRAWN. DISTANCES ARE SHOWN IN FEET AND DECIMAL PARTS THEREOF AND ANGULAR BEARINGS ARE SHOWN IN DEGREES, MINUTES, AND SECONDS.

WE FURTHER STATE THAT SAID PROPERTY FALLS WITHIN THE CORPORATE LIMITS OF THE CITY OF CREST HILL, WILL COUNTY, ILLINOIS AND THAT BASED ON EXAMINATION OF THE NATIONAL FLOOD INSURANCE PROGRAM, FLOOD INSURANCE RATE MAP, COMMUNITY PANEL NUMBER 17089C0070H, WITH AN EFFECTIVE DATE OF AUGUST 03, 2009, NO PART OF SAID PROPERTY IS SITUATED WITHIN A FLOOD HAZARD AREA.

WE HEREBY DESIGNATE _____ TO SUBMIT THIS PLAT, IN THE ORIGINAL VERSION AS DATED AND SIGNED BELOW FOR RECORDING ON OUR BEHALF.

ALL EXTERIOR AND INTERIOR CORNERS HAVE BEEN SET PER 765 ILCS 205/1.

DATED AT PEORIA, ILLINOIS, THIS _____ DAY OF _____ , 2026.

FARNSWORTH GROUP, INC.
100 WALNUT STREET SUITE 200
PEORIA, IL 61602

BY: DRAFT
_____
KENNETH J SILVERTHORN
ILLINOIS PROFESSIONAL LAND SURVEYOR NO. 3413
ksilverthorn@f-w.com www.f-w.com
PHONE: 309-689-9888

KENNETH J. SILVERTHORN
3413
PROFESSIONAL LAND SURVEYOR
STATE OF ILLINOIS
PEORIA, ILLINOIS

DATE: _____
EXP. DATE: 11-30-2026
DESIGN FIRM REGISTRATION NO. 184-001856


Farnsworth GROUP
2211 WEST BRADLEY AVENUE
CHAMPAIGN, ILLINOIS 61821
(217) 352-7408 / info@f-w.com
www.f-w.com
Engineers | Architects | Surveyors | Scientists


ISSUE:

| # | DATE: | DESCRIPTION: |
|---|---|---|

PROJECT:

| | |
|---|---|
| DATE: | 12/19/2024 |
| DESIGNED: | KJS |
| DRAWN: | PDM |
| REVIEWED: | #### |
| FIELD BOOK NO.: | BMI 3410 63 |

SHEET TITLE:

**FINAL PLAT**

DRAFT

SHEET NUMBER:

**2**
OF 3

PROJECT NO.: 0241200.00


[ pmarcus ] J:\2024\0241200.00 - QuikTrip Crest Hill IL #4452\Survey\07_Drawings\01_Final Plat - 0241200.00.dwg | 12/20/2025 10:05 AM |

# FINAL PLAT
# QUIKTRIP NO. 4452 SUBDIVISION

PART OF THE SE 1/4 OF SECTION 31, TOWNSHIP 36 NORTH, RANGE 10 EAST OF THE 3RD PRINCIPAL MERIDIAN
CITY OF CREST HILL, WILL COUNTY, ILLINOIS

STATE OF ILLINOIS )
) SS
COUNTY OF WILL )

_____ DOES HEREBY STATE THAT TO THE BEST OF OUR KNOWLEDGE AND BELIEF THE DRAINAGE OF SURFACE WATERS WILL NOT BE CHANGED BY THE CONSTRUCTION OF SUCH SUBDIVISION OR ANY PART THEREOF OR THAT IF SUCH SURFACE WATER DRAINAGE WILL CHANGE, ADEQUATE PROVISION HAS BEEN MADE FOR THE COLLECTION AND DIVERSION OF SUCH SURFACE WATERS INTO PUBLIC AREAS OR DRAINS WHICH THE SUBDIVIDER HAS A RIGHT TO USE AND THAT SUCH SURFACE WATERS WILL NOT BE DEPOSITED ON THE PROPERTY OF ADJOINING LAND OWNERS IN SUCH CONCENTRATIONS AS MAY CAUSE DAMAGE TO THE ADJOINING PROPERTY BECAUSE OF THE CONSTRUCTION OF THE SUBDIVISION.

DATED AT _____, THIS ____, DAY OF _____2026.

_____
ENGINEER

STATE OF ILLINOIS )
)SS
COUNTY OF WILL )

THIS IS TO CERTIFY THAT I FIND NO DELINQUENT OR UNPAID CURRENT TAXES OR SPECIAL ASSESSMENTS AGAINST ANY OF THE REAL ESTATE INCLUDED IN THIS PLAT OF SUBDIVISION.

DATED THIS ____ DAY OF _____, 2026.

_____
WILL COUNTY CLERK

STATE OF ILLINOIS )
)SS
COUNTY OF WILL )

I, _____, DIRECTOR OF THE TAX MAPPING AND PLATTING OFFICE DO HEREBY CERTIFY THAT I HAVE CHECKED THE PROPERTY DESCRIPTION ON THIS PLAT AGAINST AVAILABLE COUNTY RECORDS AND FIND SAID DESCRIPTION TO BE TRUE AND CORRECT, THE PROPERTY HEREIN DESCRIBED IS LOCATED ON MAP PAGE # 07-06B-W AND IDENTIFIED AS PERMANENT REAL ESTATE TAX INDEX NUMBERS (P.I.N.) 11-04-31-405-006-0000, 11-04-31-405-051-0000, AND 11-04-31-405-050-0000.

DATED THIS ____ DAY OF _____, 2026.

_____
DIRECTOR

STATE OF ILLINOIS )
)SS
COUNTY OF WILL )

THIS INSTRUMENT NO. _____ WAS FILED FOR RECORD IN THE RECORDER'S OFFICE OF WILL COUNTY, ILLINOIS, ON THE _____ DAY OF _____, 2026, AT _____ O'CLOCK _M.

_____
WILL COUNTY RECORDER

STATE OF ILLINOIS )
)SS
COUNTY OF WILL )

APPROVED BY THE CITY OF CREST HILL PLANNING COMMISSION AT A MEETING HELD ON THE ___ DAY OF _____, 2026.

_____
CHAIRPERSON

_____
SECRETARY

STATE OF ILLINOIS )
)SS
COUNTY OF WILL )

APPROVED BY THE CITY COUNCIL OF THE CITY OF CREST HILL AT A MEETING HELD ON DAY OF __ DAY OF _____, 2026.

_____
MAYOR

_____
CITY CLERK

THIS PLAT HAS BEEN APPROVED BY THE ILLINOIS DEPARTMENT OF TRANSPORTATION WITH RESPECT TO ROADWAY ACCESS PURSUANT OF §2 OF "AN ACT TO REVISE THE LAW IN RELATION TO PLATS," AS AMENDED. A PLAN THAT MEETS THE REQUIREMENTS CONTAINED IN THE DEPARTMENT'S "POLICY ON PERMITS FOR ACCESS DRIVEWAYS TO STATE HIGHWAYS" WILL, BE REQUIRED BY THE DEPARTMENT.

DATED: _____

_____, P.E.
REGION _____ ENGINEER

Farnsworth
GROUP
2211 WEST BRADLEY AVENUE
CHAMPAIGN, ILLINOIS 61821
(217) 352-7408 / info@f-w.com

www.f-w.com
Engineers | Architects | Surveyors | Scientists

ISSUE:

| # | DATE: | DESCRIPTION: |
|---|---|---|

PROJECT:

| | |
|---|---|
| DATE: | 12/19/2024 |
| DESIGNED: | KJS |
| DRAWN: | PDM |
| REVIEWED: | #### |
| FIELD BOOK NO.: | BMI 3410 63 |

SHEET TITLE:

**FINAL PLAT**

DRAFT

SHEET NUMBER:

**3**
OF 3

PROJECT NO.: 0241200.00

[ pmoreas | z:\2024\0241200.00 - QuikTrip Crest Hill IL #4452\Survey\07_Drawings\3V_Final Plat - 0241200.00.dwg | 12/10/2025 10:05 AM ]

PRELIMINARY

# STORMWATER DRAINAGE REPORT

**for**

## *QuikTrip Store #4452*

***1610 Plainfield Road***
***Crest Hill, Will County, Illinois 60403***

***Prepared For:***
***QuikTrip Corporation***
***5725 Foxridge Drive***
***Mission, Kansas 66202***

***Prepared By:***
***Midwest Design Group***
***P.O. Box 860015***
***Shawnee, Kansas 66286-0015***
***913.248.9385***

**ENGINEER'S CERTIFICATION**
**Stormwater Drainage Report**
**QuikTrip Store #4452**

1610 Plainfield Road
Crest Hill, Will County, Illinois 60403

I Hereby Certify that this Engineering Document was prepared by me, or under my direct supervision, and that I am a duly Registered Professional Engineer under the laws of the State of Illinois.

Jonathon Smith

Jonathon Smith, P.E.
Project Manager
IL Registration No. 062-073894

January 9, 2026
Date




Seal

**REPORT PURPOSE**

This stormwater drainage report has been prepared to detail the stormwater drainage design for the QuikTrip Store #4452 facility to be located at the north corner of the intersection of Plainfield Road and Theodore Street in Crest Hill, Will County, Illinois. This study will confirm that the proposed development will comply with the design parameters set forth by the Crest Hill Stormwater Drainage and Detention Ordinance.

**PROJECT SUMMARY**

QuikTrip Corporation is proposing to build a new convenience store with fuel offerings in the north corner of the intersection of Plainfield Road and Theodore Street. The development will include a convenience store, auto fuel canopy, parking stalls, and associated sidewalk and curb and gutter. The store will be oriented to face Plainfield Road (southwest) with an auto fuel canopy southwest of the store. The new QuikTrip facility will constructed on a parcel of land located in the Southeast ¼ of Section 31, Township 36 North, Range 10 East of the Third Principal Meridian in Crest Hill, Will County, Illinois. The land will be split into Lot 1 (87,201 sf), Lot 2 (71,685 sf), and Tract A (53,529 sf). The new QuikTrip project will be constructed on Lot 1 and a detention facility will be constructed on Tract A that will serve both Lots 1 and 2. The entire property will contain 212,415 s.f. (4.876 acres). The Overall Site Plan (C010) and Site Plan (C100) have been included in the Appendix of this report for reference.

## WATERSHED

This property lies within the Des Plaines River Watershed. The detention facility will outlet north using the existing control structure's outlet pipe, which outlets to a ditch along Knapp Drive which drains to an outlet point under Larkin Avenue to the Rock Run located along the west side of Larkin Avenue. Ultimately, runoff drains to the Des Plaines River. Refer to FEMA and USGS map in the Appendix.

## FLOODPLAIN CERTIFICATE

According to the National Flood Insurance Program (NFIP) Flood Insurance Rate Map (FIRM) Panel No. 17197C0161G, effective February 15, 2019, as published by the Federal Emergency Management Agency, the subject property lies mostly within Flood Zone "X", areas determined to be "outside the 0.2% annual chance floodplain". It appears a minimal portion of the south corner of the property is within Zone AE, but no grading or improvements are proposed in this area.




Map taken from FIRM Panel Number 17197C0161G, dated February 15, 2019.

## SITE SOIL CHARACTERISTICS

This property contains the following soil classifications:

- 149A – Brenton Silt Loam, 0-2% slopes, HSG B/D
- 223C2 – Varna Silt Loam, 4-6% slopes, HSG C
- 223D2 – Varna Silt Loam, 6-12% slopes, HSG C
- 329A – Will silty clay loam, 0-2% slopes, HSG B/D

The USDA/NRCS soil survey can be found in the Appendix.




Map taken from USDA/NRCS Soil Survey

## WETLANDS

Per the U.S. Fish and Wildlife Service National Wetland Inventory (NWI) map, there are no wetlands present within the property. Refer to the Appendix for the NWI map.

## METHODOLOGY

The proposed drainage characteristics of the site were evaluated and analyzed based on the Crest Hill Stormwater Drainage and Detention Ordinance criteria. Hydrologic calculations were performed and detention requirements were determined using the Autodesk Hydraflow Hydrographs program (SCS Method). Runoff curve numbers of 80 for proposed pervious areas and 98 for impervious areas were used. Illinois State Water Survey (ISWS) Bulletin 75 rainfall data was used with Huff 3rd Quartile distribution for a 24-hour storm event.

## EXISTING DEVELOPMENT

The existing property is currently partially developed with a commercial development (Crest Hill Public Works) within Lot 1 and part of Tract A. Lot 2 was previously rough graded and storm sewer was installed for a pad site but was never fully developed. Tract A was also previously partially developed as a pad site and an existing detention facility was constructed. It appears Lot 2 and Tract A drain to the existing detention facility but it does not appear that the Crest Hill Public Works building development drains to the existing detention facility. The property is bordered on the east by Knapp Drive, on the northwest by an adjacent commercial property, on the southwest by Plainfield Road, and on the south by Theodore Street.

In the existing conditions, the site generally drains from southwest to northeast either into the detention facility or into Knapp Drive. It appears the southern corner of the site drains directly into Rock Run. The rest of the site drains either directly into Knapp Drive, which appears to have drainage swales adjacent to the property, or through the detention facility which then outlets north and it is assumed it ultimately drains to Rock Run.

The existing site contains approximately 75,122 sf of impervious areas (35.4%), 1,746 sf of gravel area (0.8%), and 135,547 sf of pervious areas (63.8%). A pre-development runoff coefficient and Curve Number was calculated for all drainage areas using the NRCS Soils Report and TR-55 runoff coefficient tables. The pre-development composite runoff coefficient and Curve Number (CN) is 0.52 and 86.5, accordingly. The associated calculations are included in the Appendix. Refer to the Pre-Developed Drainage Map in the Appendix (Pending final report).

## PROPOSED DEVELOPMENT

The proposed development will be graded to generally maintain existing drainage patterns. Stormwater runoff from the QuikTrip development will be captured and conveyed in private storm sewers to the detention facility within Tract A. The private storm sewer has been designed to convey the 100-year design storm. The proposed detention facility will have a control structure to reduce peak runoff from the proposed improvements. The proposed control structure will utilize the existing outlet pipe from the existing control structure.

For this preliminary report, simplified drainage areas were used for analysis purposes. Drainage area “Detained” is the estimated area that will be detained in full build out condition (when Lots 1 and 2 are fully developed). A Curve Number (CN) value of 95 was assumed based on the TR-55 Manual, using a cover type of Urban Districts, Commercial and Businesses and Hydrologic Soil Group (HSG) D. It is preliminarily estimated that 12% of the total site area will not be

captured and will be uncontrolled runoff (Drainage area "Uncontrolled"). A CN Value of 85 was assumed for the uncontrolled area.

It is estimated the full build out condition will contain 172,665 sf of impervious areas (81.3%) and 39,750 sf of pervious areas (18.7%). This is an increase of 95,797 square feet in impervious area from existing conditions. A post-development runoff coefficient and Curve Number was calculated for all drainage areas using the NRCS Soils Report and TR.-55 runoff coefficient tables. The post-development composite runoff coefficient and Curve Number (CN) is 0.79 and 94.6, accordingly. The proposed storm sewer system, detention facilities, and associated calculations are included in the Appendix. Refer to the Post-Developed Drainage Map in the Appendix (Pending final report).

## DETENTION REQUIREMENTS

Per the Crest Hill Stormwater Drainage and Detention Ordinance, "*The peak discharge from events less than or equal to the two-year event shall not be greater than 0.04 cfs per acre of property drained. The peak 100-year discharge shall not be greater than 0.15 cfs per acres of property drained.*"

The total property drained is 4.876 acres, which results in allowable release rates for the 2-year and 100-year storm events of 0.195 cfs and 0.731 cfs, accordingly. Peak discharges from the facility will be controlled through a control structure with an internal weir wall and multi-stage orifices. Additional detention information and design calculations can be found in the Appendix.

## DOWNSTREAM DRAINAGE IMPACTS

The proposed stormwater detention facilities will control peak runoff so that there will be no adverse impacts to downstream drainage facilities.

## STORMWATER TREATMENT

QuikTrip will install SNOUT water quality units upstream of the detention facility and in the detention outlet structure. Bio-skirts will be added to the SNOUT units for oil absorption. Information on these water quality units can be found in the Appendix.

## FLOOD STUDY

The QuikTrip Store No. 4452 improvements will be within Zone "X" on the property, as shown in the Floodplain Certificate section. This development is not expected to incur damages as a result of flooding.

## U.S. ARMY CORPS OF ENGINEERS RQUIREMENTS

The QuikTrip Store No. 4452 project will not disturb jurisdictional waters or wetlands of the U.S.

## CONCLUSION

The QuikTrip Store No. 4452 development will comply with the design parameters set forth by the Crest Hill Stormwater Drainage and Detention Ordinance. The existing detention pond provides approximately 75,213 cubic-feet of detention volume (at elevation 603.00). The existing detention pond will be removed and replaced with a new detention facility that will provide 153,030 cubic-feet of volume (at elevation 603.00). The required detention volume, based on the CN assumptions described in the *Proposed Development* section, will be approximately 106,476 cubic-feet and will be provided at pond elevation 601.72. A stormwater detention facility has been designed to control the peak stormwater runoff from Lots 1 and 2 and Tract A (see table below for release rate summary). A private stormwater drainage system will convey runoff to the stormwater detention facility. Best Management Practices will be implemented to help improve water quality. No adverse effects are expected on adjacent properties or downstream drainage systems after the proposed improvements are completed.

Allowable Release Rates vs Post-Developed Release Rates Summary

| Storm Event | Allowable Release Rate (cfs) | Post-Developed Peak Release Rate (cfs) |
|---|---|---|
| 2-year | 0.195 | 0.179 |
| 100-year | 0.731 | 0.686 |

# *QuikTrip Store #4452*

***1610 Plainfield Road***
***Crest Hill, Will County, Illinois 60403***

# APPENDIX

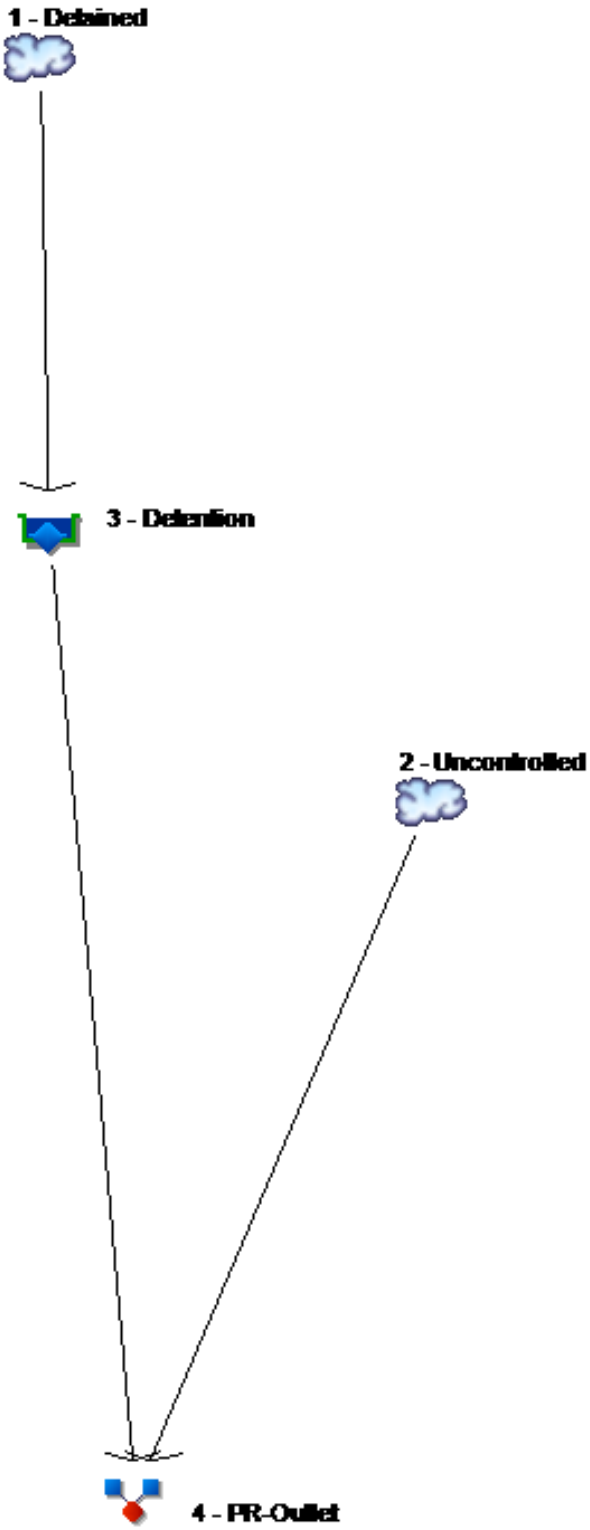
Midwest Design Group

# *QuikTrip Store #4452*

## AutoDesk Hydraflow Hydrographs Results

# Watershed Model Schematic





# Hydraflow Rainfall Report



Precip. file name: \\DESKTOP-HIMC8GB\Documents\IL Northeast Precip (Bulletin 75-HUFF) Depths.pcp

| Storm Distribution | Rainfall Precipitation Table (in) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 1-yr | 2-yr | 3-yr | 5-yr | 10-yr | 25-yr | 50-yr | 100-yr |
| SCS 24-hour | 0.00 | 0.00 | 0.00 | 3.30 | 0.00 | 5.77 | 5.83 | 0.00 |
| SCS 6-Hr | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 4.33 | 0.00 |
| Huff-1st | 0.00 | 0.00 | 0.00 | 2.75 | 0.00 | 5.38 | 6.50 | 0.00 |
| Huff-2nd | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Huff-3rd | 0.00 | 3.34 | 0.00 | 0.00 | 5.15 | 0.00 | 0.00 | 8.57 |
| Huff-4th | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Huff-Indy | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Custom | 0.00 | 0.00 | 0.00 | 2.80 | 0.00 | 5.25 | 6.00 | 0.00 |

# Pond Report



## Pond No. 3 - Detention

### Pond Data

**Contours -**User-defined contour areas. Conic method used for volume calculation. Begining Elevation = 596.00 ft

### Stage / Storage Table

| Stage (ft) | Elevation (ft) | Contour area (sqft) | Incr. Storage (cuft) | Total storage (cuft) |
|---|---|---|---|---|
| 0.00 | 596.00 | 00 | 0 | 0 |
| 1.00 | 597.00 | 10,000 | 3,333 | 3,333 |
| 2.00 | 598.00 | 15,000 | 12,415 | 15,748 |
| 3.00 | 599.00 | 20,000 | 17,438 | 33,186 |
| 4.00 | 600.00 | 25,000 | 22,451 | 55,637 |
| 5.00 | 601.00 | 30,000 | 27,459 | 83,097 |
| 6.00 | 602.00 | 35,000 | 32,465 | 115,561 |
| 7.00 | 603.00 | 40,000 | 37,468 | 153,030 |

### Culvert / Orifice Structures

| | [A] | [B] | [C] | [PrfRsr] |
|---|---|---|---|---|
| **Rise (in)** | = 0.75 | 2.25 | 0.00 | 0.00 |
| **Span (in)** | = 0.75 | 2.25 | 0.00 | 0.00 |
| **No. Barrels** | = 1 | 1 | 0 | 0 |
| **Invert El. (ft)** | = 596.00 | 599.00 | 0.00 | 0.00 |
| **Length (ft)** | = 0.00 | 0.00 | 0.00 | 0.00 |
| **Slope (%)** | = 0.00 | 0.00 | 0.00 | n/a |
| **N-Value** | = .013 | .013 | .013 | n/a |
| **Orifice Coeff.** | = 0.60 | 0.60 | 0.60 | 0.60 |
| **Multi-Stage** | = n/a | No | No | No |

### Weir Structures

| | [A] | [B] | [C] | [D] |
|---|---|---|---|---|
| **Crest Len (ft)** | = 0.00 | 0.00 | 0.00 | 0.00 |
| **Crest El. (ft)** | = 0.00 | 0.00 | 0.00 | 0.00 |
| **Weir Coeff.** | = 3.33 | 3.33 | 3.33 | 3.33 |
| **Weir Type** | = --- | --- | --- | --- |
| **Multi-Stage** | = No | No | No | No |

**Exfil.(in/hr)** = 0.000 (by Wet area)

**TW Elev. (ft)** = 0.00

Note: Culvert/Orifice outflows are analyzed under inlet (ic) and outlet (oc) control. Weir risers checked for orifice conditions (ic) and submergence (s).

### Stage / Storage / Discharge Table

| Stage ft | Storage cuft | Elevation ft | Clv A cfs | Clv B cfs | Clv C cfs | PrfRsr cfs | Wr A cfs | Wr B cfs | Wr C cfs | Wr D cfs | Exfil cfs | User cfs | Total cfs |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 0.00 | 0 | 596.00 | 0.00 | 0.00 | --- | --- | --- | --- | --- | --- | --- | --- | 0.000 |
| 1.00 | 3,333 | 597.00 | 0.01 ic | 0.00 | --- | --- | --- | --- | --- | --- | --- | --- | 0.015 |
| 2.00 | 15,748 | 598.00 | 0.02 ic | 0.00 | --- | --- | --- | --- | --- | --- | --- | --- | 0.021 |
| 3.00 | 33,186 | 599.00 | 0.03 ic | 0.00 | --- | --- | --- | --- | --- | --- | --- | --- | 0.025 |
| 4.00 | 55,637 | 600.00 | 0.03 ic | 0.13 ic | --- | --- | --- | --- | --- | --- | --- | --- | 0.156 |
| 5.00 | 83,097 | 601.00 | 0.03 ic | 0.18 ic | --- | --- | --- | --- | --- | --- | --- | --- | 0.216 |
| 6.00 | 115,561 | 602.00 | 0.04 ic | 0.23 ic | --- | --- | --- | --- | --- | --- | --- | --- | 0.263 |
| 7.00 | 153,030 | 603.00 | 0.04 ic | 0.26 ic | --- | --- | --- | --- | --- | --- | --- | --- | 0.302 |

# Pond Report

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2023 — Wednesday, 02 / 26 / 2025

## Pond No. 3 - Detention

### Pond Data

**Contours -**User-defined contour areas. Conic method used for volume calculation. Begining Elevation = 596.00 ft

### Stage / Storage Table

| Stage (ft) | Elevation (ft) | Contour area (sqft) | Incr. Storage (cuft) | Total storage (cuft) |
|---|---|---|---|---|
| 0.00 | 596.00 | 00 | 0 | 0 |
| 1.00 | 597.00 | 10,000 | 3,333 | 3,333 |
| 2.00 | 598.00 | 15,000 | 12,415 | 15,748 |
| 3.00 | 599.00 | 20,000 | 17,438 | 33,186 |
| 4.00 | 600.00 | 25,000 | 22,451 | 55,637 |
| 5.00 | 601.00 | 30,000 | 27,459 | 83,097 |
| 6.00 | 602.00 | 35,000 | 32,465 | 115,561 |
| 7.00 | 603.00 | 40,000 | 37,468 | 153,030 |

### Culvert / Orifice Structures

| | [A] | [B] | [C] | [PrfRsr] |
|---|---|---|---|---|
| **Rise (in)** | = 0.75 | 2.25 | 0.00 | 0.00 |
| **Span (in)** | = 0.75 | 2.25 | 0.00 | 0.00 |
| **No. Barrels** | = 1 | 1 | 0 | 0 |
| **Invert El. (ft)** | = 596.00 | 599.00 | 0.00 | 0.00 |
| **Length (ft)** | = 0.00 | 0.00 | 0.00 | 0.00 |
| **Slope (%)** | = 0.00 | 0.00 | 0.00 | n/a |
| **N-Value** | = .013 | .013 | .013 | n/a |
| **Orifice Coeff.** | = 0.60 | 0.60 | 0.60 | 0.60 |
| **Multi-Stage** | = n/a | No | No | No |

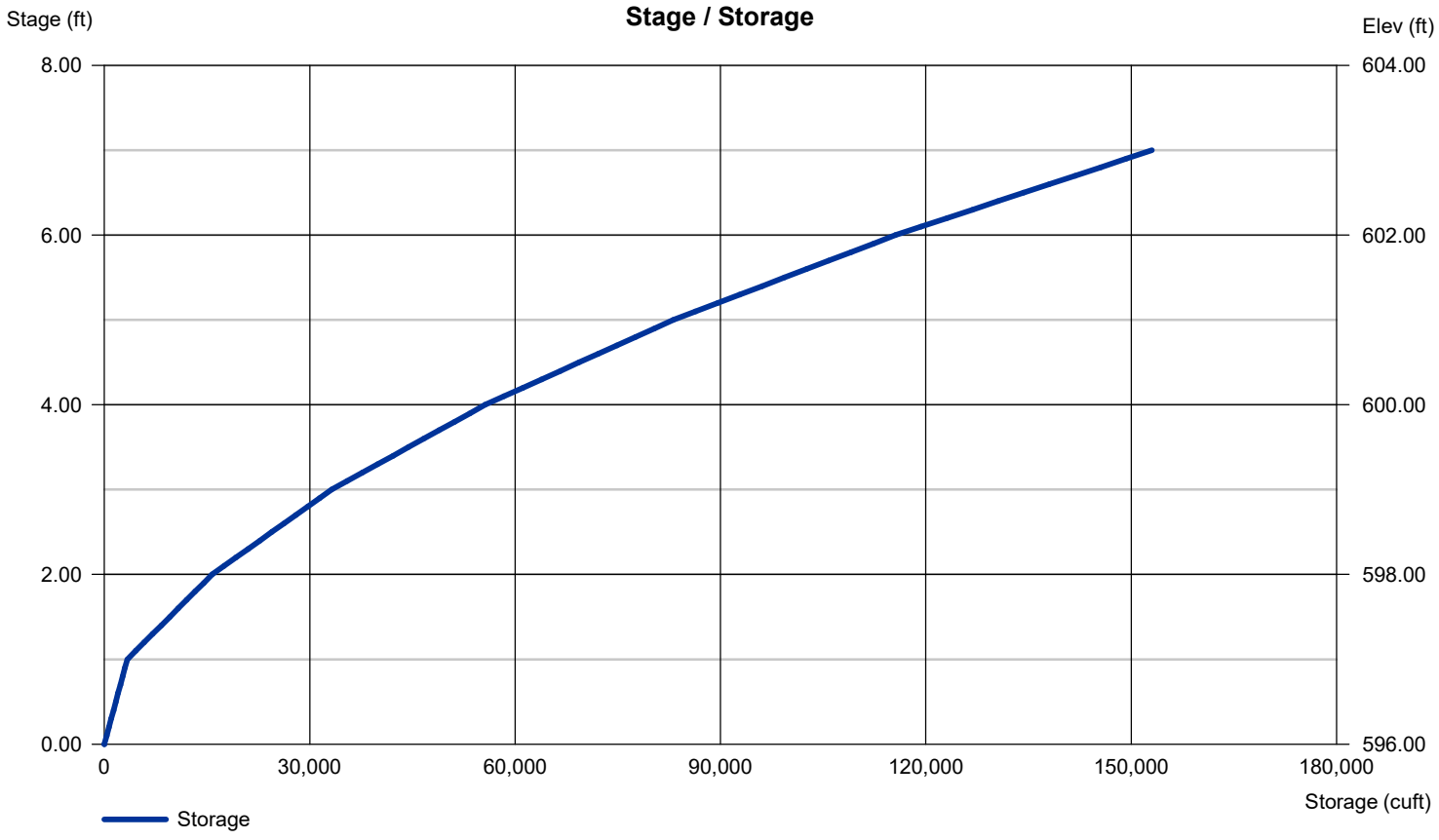
### Weir Structures

| | [A] | [B] | [C] | [D] |
|---|---|---|---|---|
| **Crest Len (ft)** | = 0.00 | 0.00 | 0.00 | 0.00 |
| **Crest El. (ft)** | = 0.00 | 0.00 | 0.00 | 0.00 |
| **Weir Coeff.** | = 3.33 | 3.33 | 3.33 | 3.33 |
| **Weir Type** | = --- | --- | --- | --- |
| **Multi-Stage** | = No | No | No | No |

**Exfil.(in/hr)** = 0.000 (by Wet area)

**TW Elev. (ft)** = 0.00

Note: Culvert/Orifice outflows are analyzed under inlet (ic) and outlet (oc) control. Weir risers checked for orifice conditions (ic) and submergence (s).



# Pond Report

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2023 — Wednesday, 02 / 26 / 2025

## Pond No. 3 - Detention

### Pond Data

**Contours -**User-defined contour areas. Conic method used for volume calculation. Begining Elevation = 596.00 ft

### Stage / Storage Table

| Stage (ft) | Elevation (ft) | Contour area (sqft) | Incr. Storage (cuft) | Total storage (cuft) |
|---|---|---|---|---|
| 0.00 | 596.00 | 00 | 0 | 0 |
| 1.00 | 597.00 | 10,000 | 3,333 | 3,333 |
| 2.00 | 598.00 | 15,000 | 12,415 | 15,748 |
| 3.00 | 599.00 | 20,000 | 17,438 | 33,186 |
| 4.00 | 600.00 | 25,000 | 22,451 | 55,637 |
| 5.00 | 601.00 | 30,000 | 27,459 | 83,097 |
| 6.00 | 602.00 | 35,000 | 32,465 | 115,561 |
| 7.00 | 603.00 | 40,000 | 37,468 | 153,030 |

### Culvert / Orifice Structures

| | [A] | [B] | [C] | [PrfRsr] |
|---|---|---|---|---|
| **Rise (in)** | = 0.75 | 2.25 | 0.00 | 0.00 |
| **Span (in)** | = 0.75 | 2.25 | 0.00 | 0.00 |
| **No. Barrels** | = 1 | 1 | 0 | 0 |
| **Invert El. (ft)** | = 596.00 | 599.00 | 0.00 | 0.00 |
| **Length (ft)** | = 0.00 | 0.00 | 0.00 | 0.00 |
| **Slope (%)** | = 0.00 | 0.00 | 0.00 | n/a |
| **N-Value** | = .013 | .013 | .013 | n/a |
| **Orifice Coeff.** | = 0.60 | 0.60 | 0.60 | 0.60 |
| **Multi-Stage** | = n/a | No | No | No |

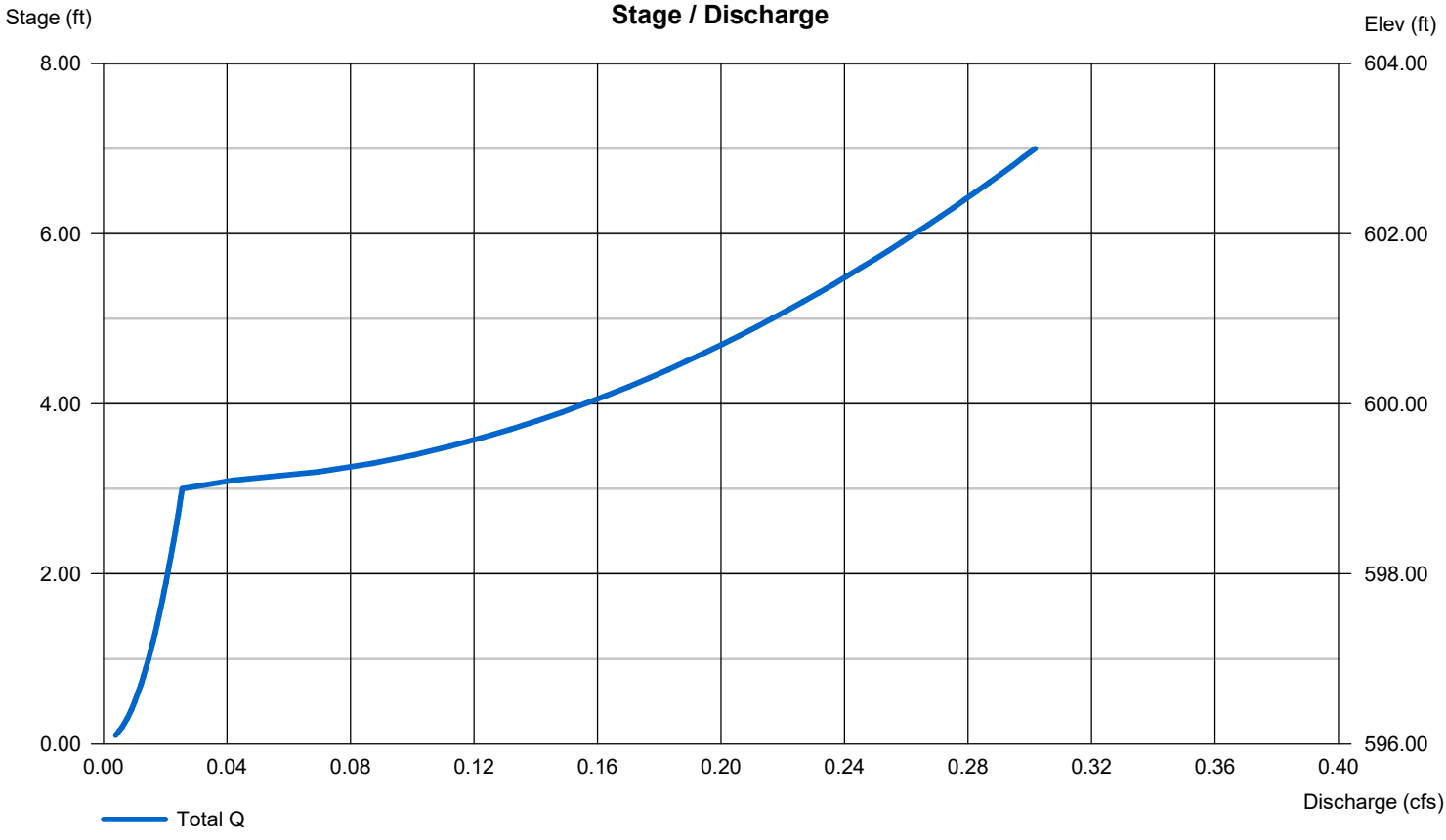
### Weir Structures

| | [A] | [B] | [C] | [D] |
|---|---|---|---|---|
| **Crest Len (ft)** | = 0.00 | 0.00 | 0.00 | 0.00 |
| **Crest El. (ft)** | = 0.00 | 0.00 | 0.00 | 0.00 |
| **Weir Coeff.** | = 3.33 | 3.33 | 3.33 | 3.33 |
| **Weir Type** | = --- | --- | --- | --- |
| **Multi-Stage** | = No | No | No | No |

**Exfil.(in/hr)** = 0.000 (by Wet area)

**TW Elev. (ft)** = 0.00

Note: Culvert/Orifice outflows are analyzed under inlet (ic) and outlet (oc) control. Weir risers checked for orifice conditions (ic) and submergence (s).



# Hydrograph Report

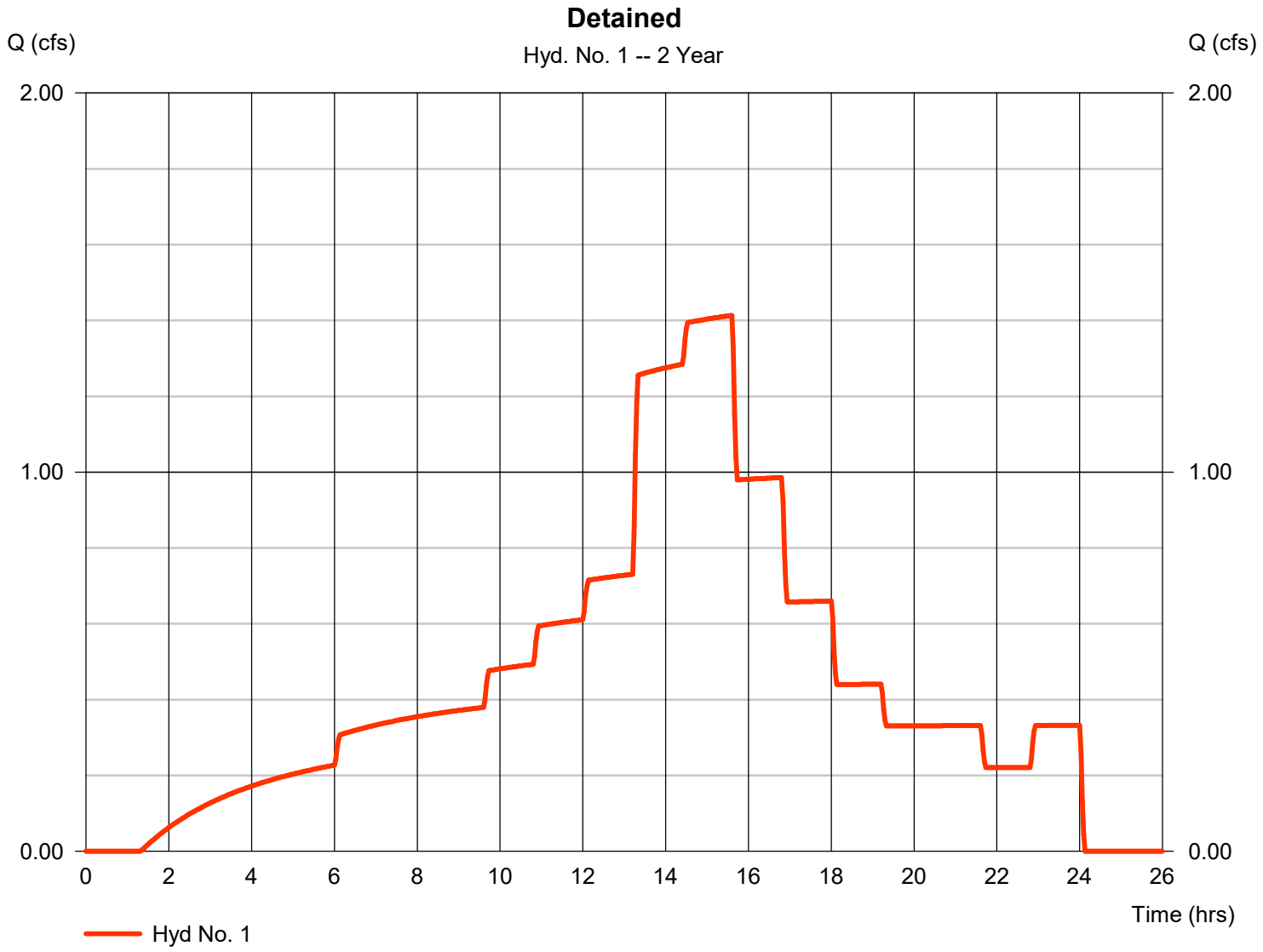


## Hyd. No. 1

Detained

| | | | | | |
|---|---|---|---|---|---|
| Hydrograph type | = | SCS Runoff | Peak discharge | = | 1.413 cfs |
| Storm frequency | = | 2 yrs | Time to peak | = | 15.60 hrs |
| Time interval | = | 2 min | Hyd. volume | = | 40,626 cuft |
| Drainage area | = | 4.291 ac | Curve number | = | 95* |
| Basin Slope | = | 0.0 % | Hydraulic length | = | 0 ft |
| Tc method | = | User | Time of conc. (Tc) | = | 5.00 min |
| Total precip. | = | 3.34 in | Distribution | = | Huff-3rd |
| Storm duration | = | 24.00 hrs | Shape factor | = | 484 |

* Composite (Area/CN) = [(1.550 x 98) + (0.560 x 80)] / 4.291



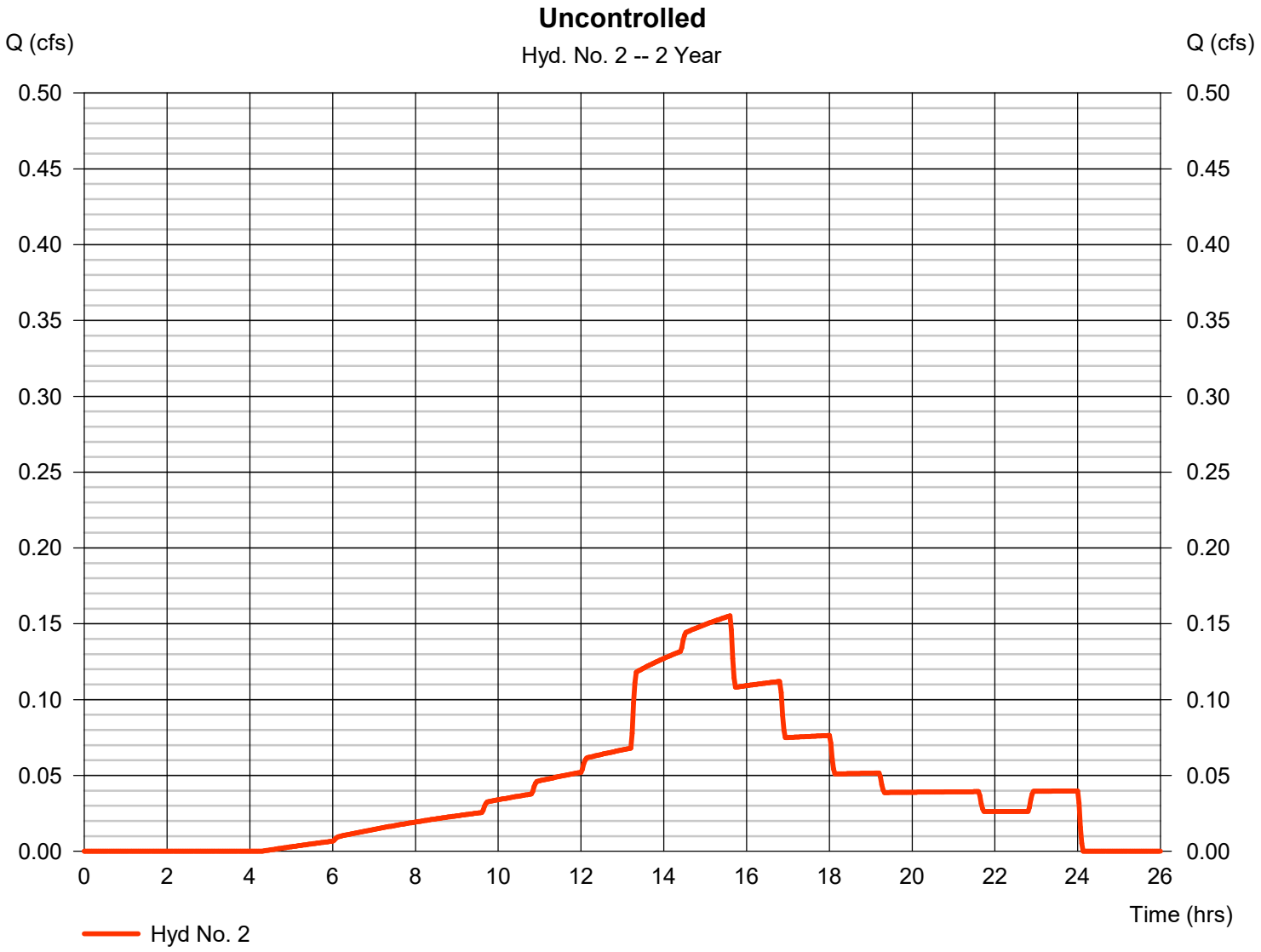
# Hydrograph Report



## Hyd. No. 2

Uncontrolled

| | | | | | |
|---|---|---|---|---|---|
| Hydrograph type | = | SCS Runoff | Peak discharge | = | 0.155 cfs |
| Storm frequency | = | 2 yrs | Time to peak | = | 15.60 hrs |
| Time interval | = | 2 min | Hyd. volume | = | 3,738 cuft |
| Drainage area | = | 0.585 ac | Curve number | = | 85 |
| Basin Slope | = | 0.0 % | Hydraulic length | = | 0 ft |
| Tc method | = | User | Time of conc. (Tc) | = | 5.00 min |
| Total precip. | = | 3.34 in | Distribution | = | Huff-3rd |
| Storm duration | = | 24.00 hrs | Shape factor | = | 484 |



# Hydrograph Report

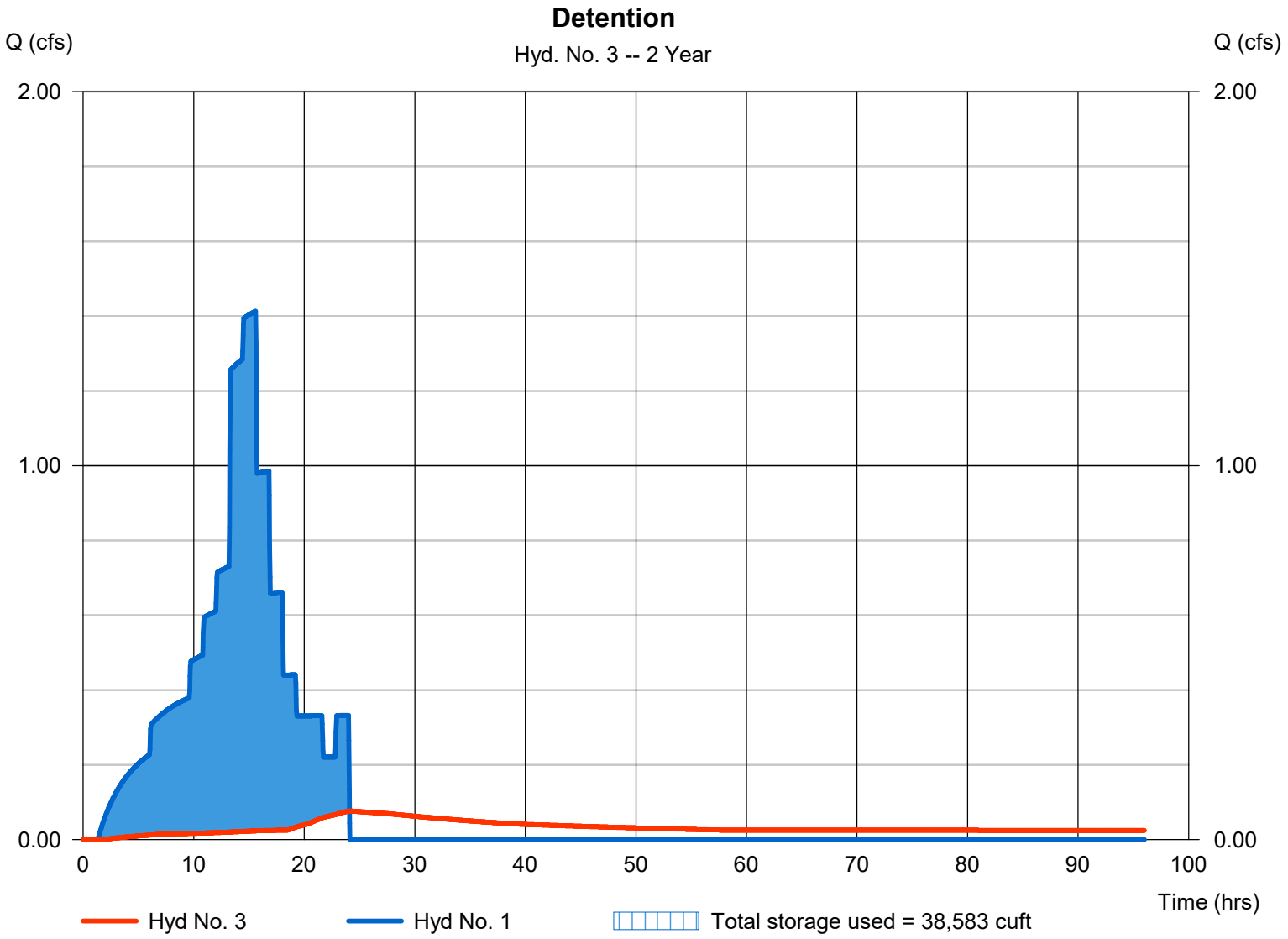


## Hyd. No. 3

Detention

| | | | | | |
|---|---|---|---|---|---|
| Hydrograph type | = | Reservoir | Peak discharge | = | 0.077 cfs |
| Storm frequency | = | 2 yrs | Time to peak | = | 24.10 hrs |
| Time interval | = | 2 min | Hyd. volume | = | 10,878 cuft |
| Inflow hyd. No. | = | 1 - Detained | Max. Elevation | = | 599.24 ft |
| Reservoir name | = | Detention | Max. Storage | = | 38,583 cuft |

Storage Indication method used.



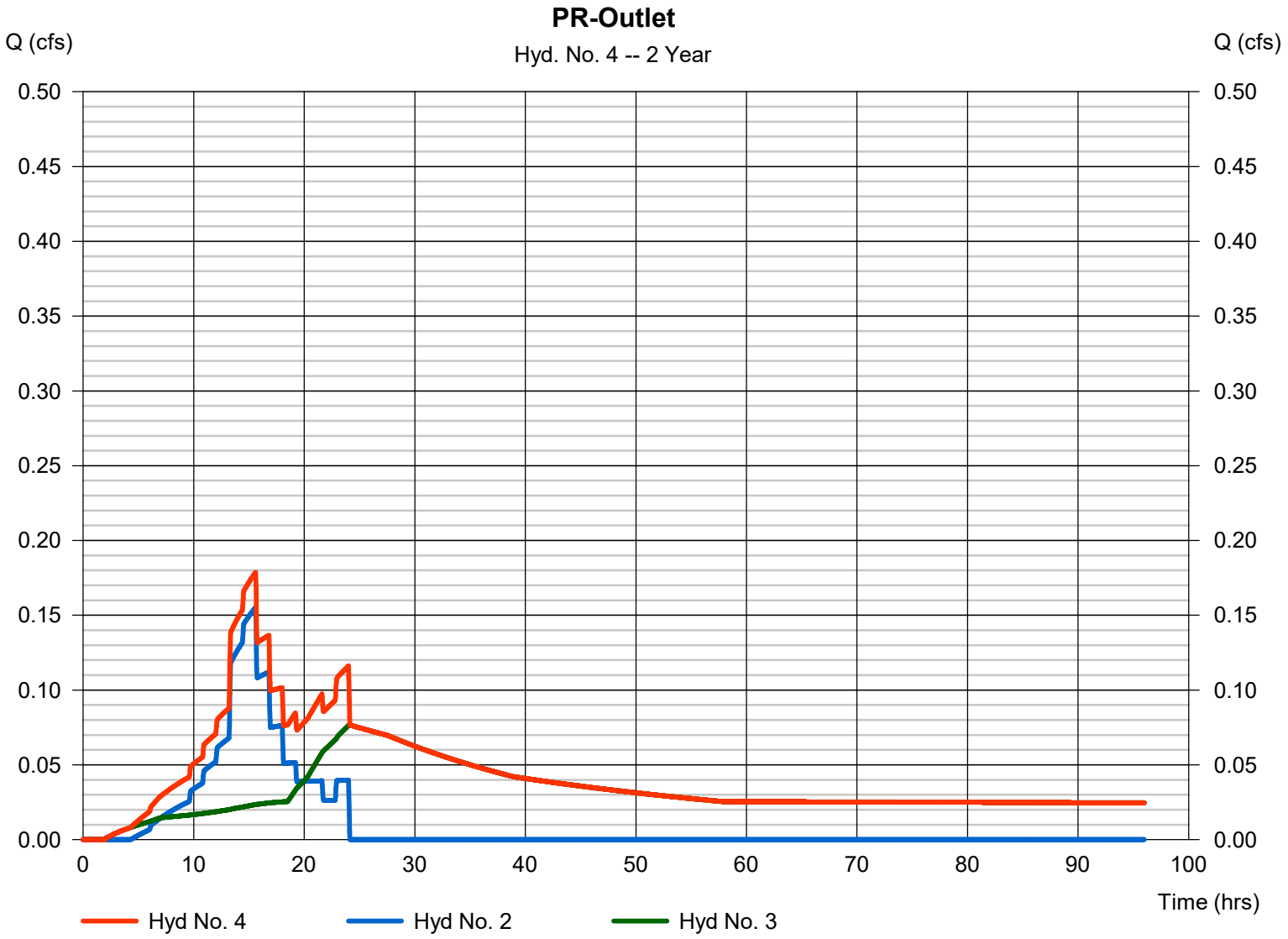
# Hydrograph Report



## Hyd. No. 4

PR-Outlet

| | | | | | |
|---|---|---|---|---|---|
| Hydrograph type | = | Combine | Peak discharge | = | 0.179 cfs |
| Storm frequency | = | 2 yrs | Time to peak | = | 15.60 hrs |
| Time interval | = | 2 min | Hyd. volume | = | 14,617 cuft |
| Inflow hyds. | = | 2, 3 | Contrib. drain. area | = | 0.585 ac |



# Hydrograph Report

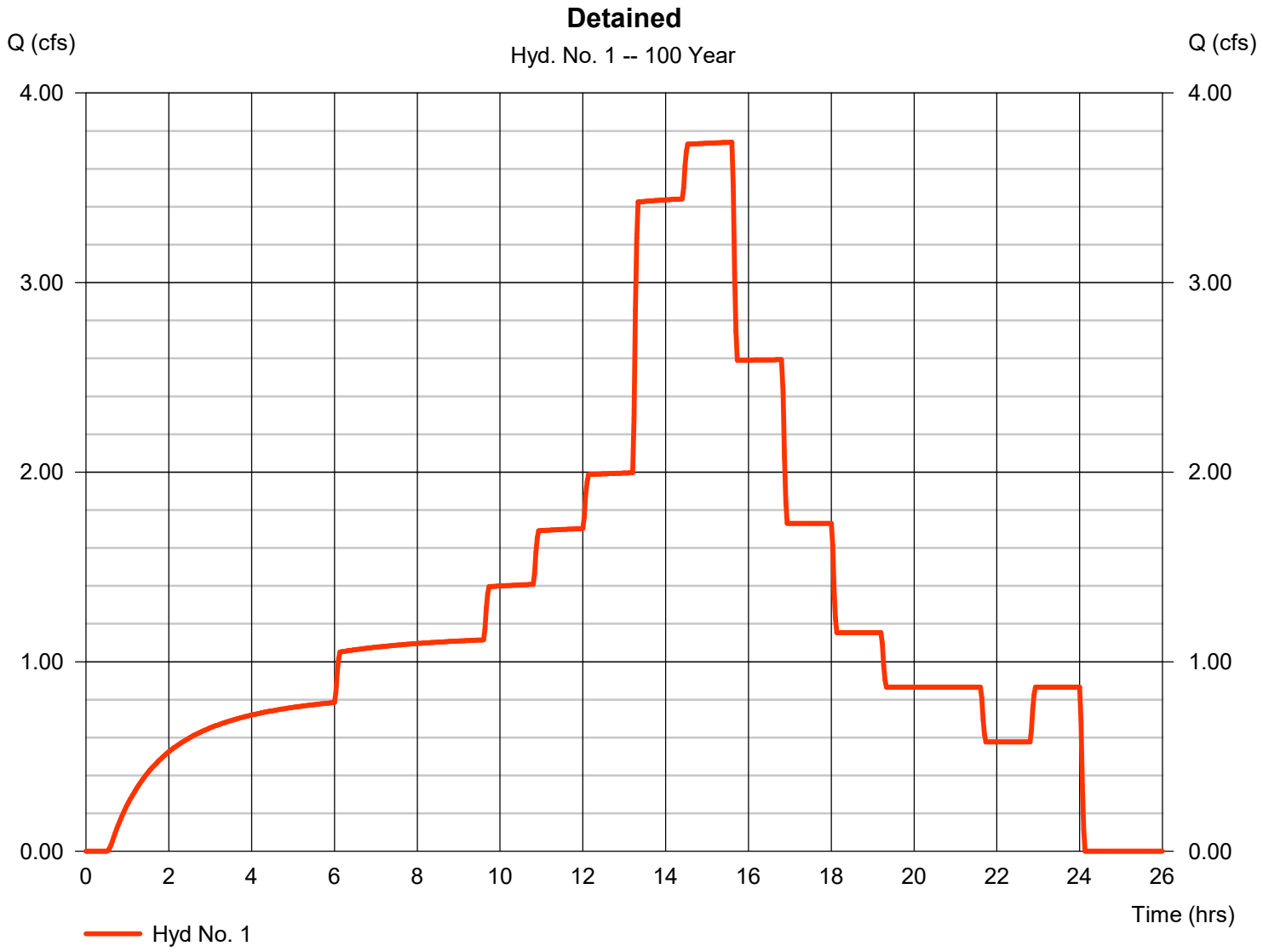


## Hyd. No. 1

Detained

| | | | | | |
|---|---|---|---|---|---|
| Hydrograph type | = | SCS Runoff | Peak discharge | = | 3.740 cfs |
| Storm frequency | = | 100 yrs | Time to peak | = | 15.60 hrs |
| Time interval | = | 2 min | Hyd. volume | = | 116,373 cuft |
| Drainage area | = | 4.291 ac | Curve number | = | 95* |
| Basin Slope | = | 0.0 % | Hydraulic length | = | 0 ft |
| Tc method | = | User | Time of conc. (Tc) | = | 5.00 min |
| Total precip. | = | 8.57 in | Distribution | = | Huff-3rd |
| Storm duration | = | 24.00 hrs | Shape factor | = | 484 |

* Composite (Area/CN) = [(1.550 x 98) + (0.560 x 80)] / 4.291



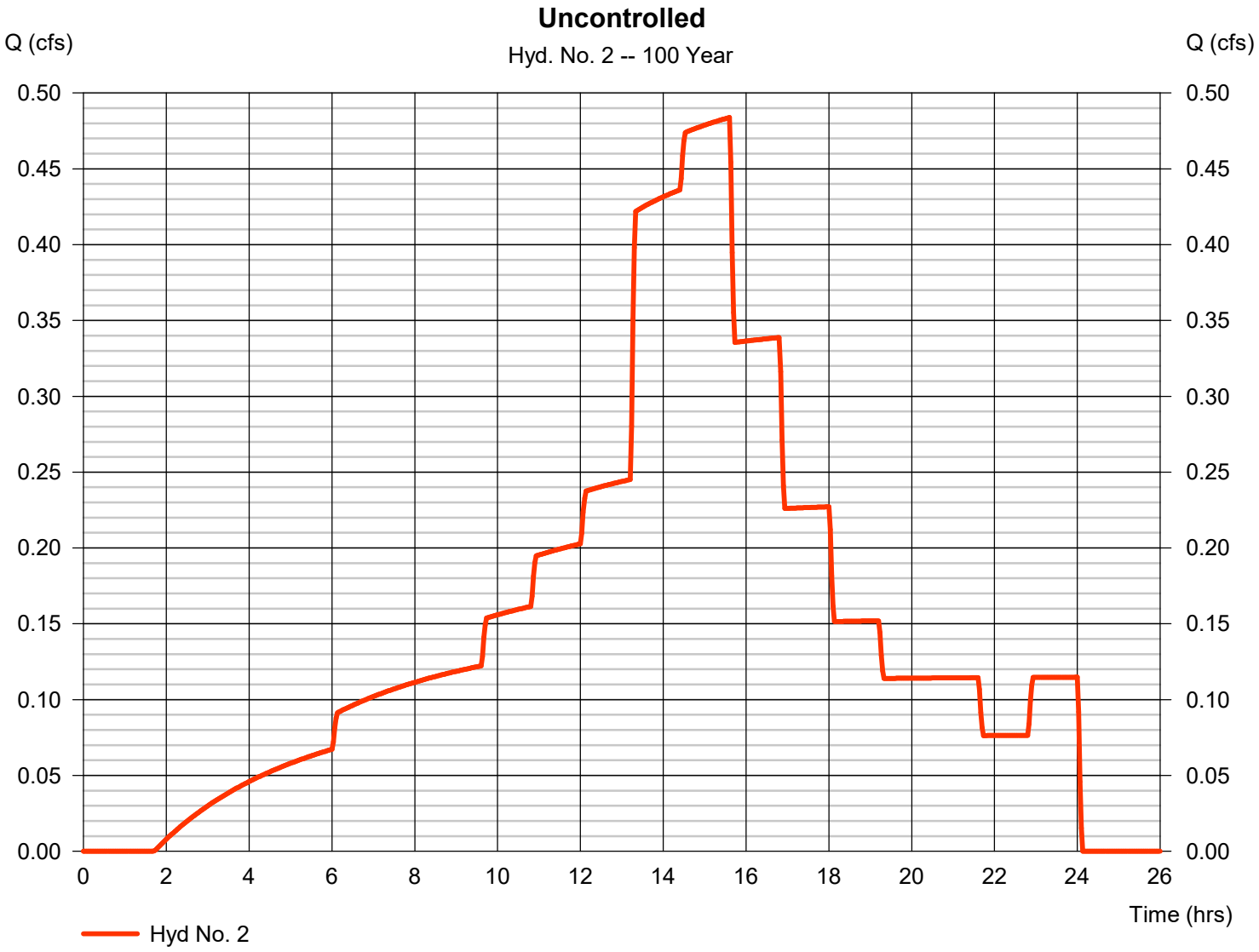
# Hydrograph Report



## Hyd. No. 2

Uncontrolled

| | | | |
|---|---|---|---|
| Hydrograph type | = SCS Runoff | Peak discharge | = 0.484 cfs |
| Storm frequency | = 100 yrs | Time to peak | = 15.60 hrs |
| Time interval | = 2 min | Hyd. volume | = 13,467 cuft |
| Drainage area | = 0.585 ac | Curve number | = 85 |
| Basin Slope | = 0.0 % | Hydraulic length | = 0 ft |
| Tc method | = User | Time of conc. (Tc) | = 5.00 min |
| Total precip. | = 8.57 in | Distribution | = Huff-3rd |
| Storm duration | = 24.00 hrs | Shape factor | = 484 |



# Hydrograph Report

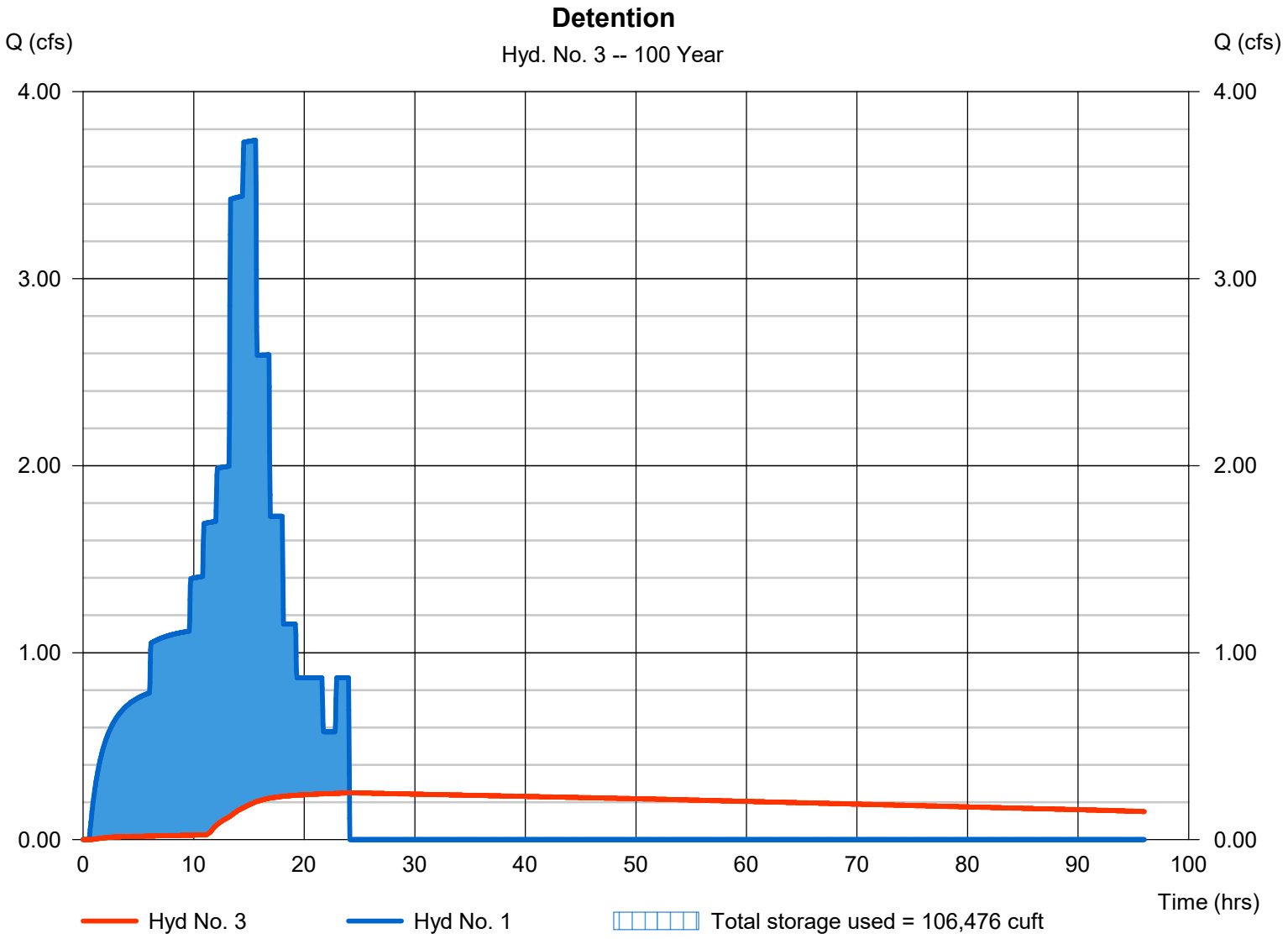


## Hyd. No. 3

Detention

| | | | | | |
|---|---|---|---|---|---|
| Hydrograph type | = | Reservoir | Peak discharge | = | 0.251 cfs |
| Storm frequency | = | 100 yrs | Time to peak | = | 24.07 hrs |
| Time interval | = | 2 min | Hyd. volume | = | 62,483 cuft |
| Inflow hyd. No. | = | 1 - Detained | Max. Elevation | = | 601.72 ft |
| Reservoir name | = | Detention | Max. Storage | = | 106,476 cuft |

Storage Indication method used.



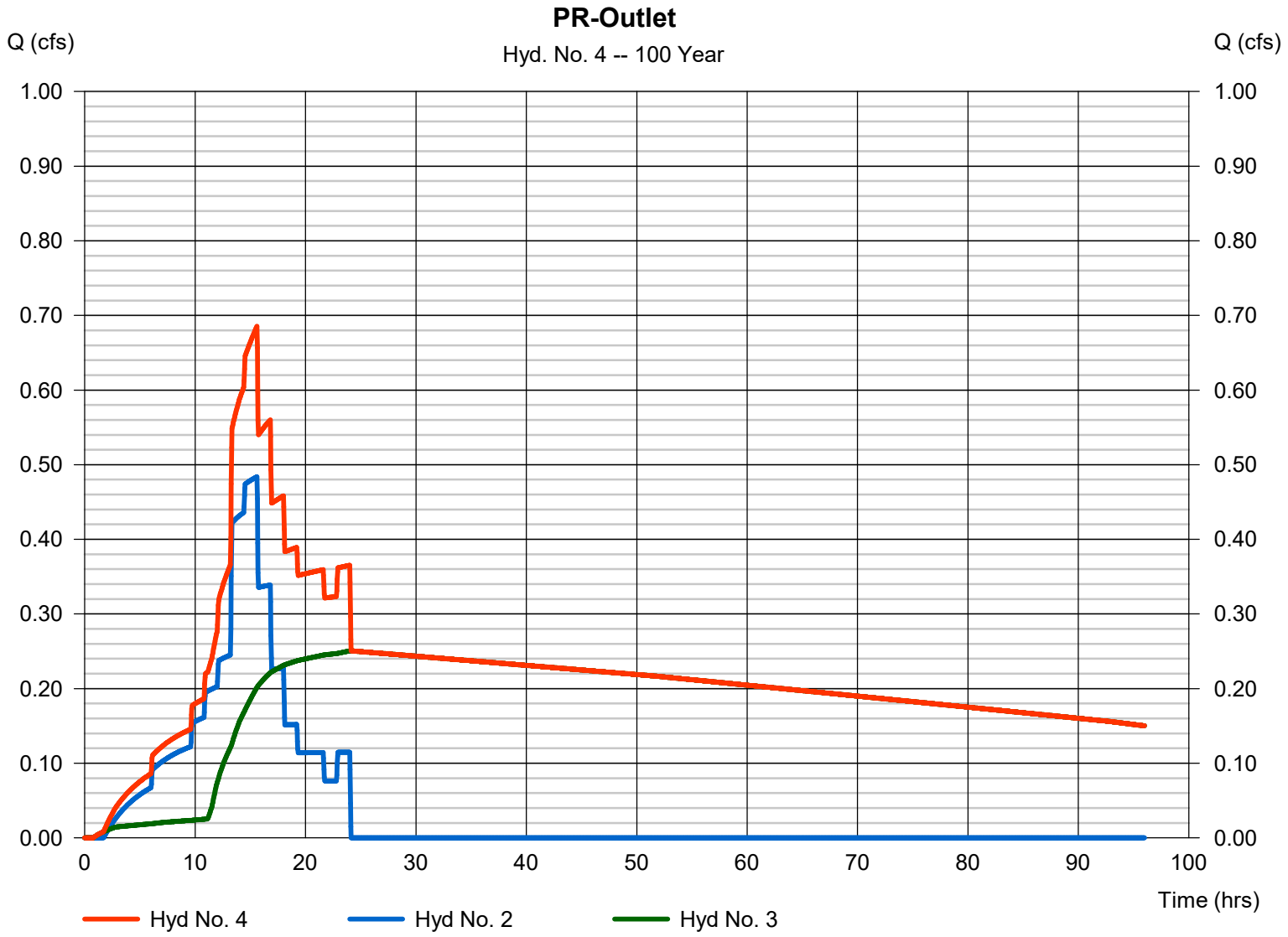
# Hydrograph Report



## Hyd. No. 4

PR-Outlet

| | | | |
|---|---|---|---|
| Hydrograph type | = Combine | Peak discharge | = 0.686 cfs |
| Storm frequency | = 100 yrs | Time to peak | = 15.60 hrs |
| Time interval | = 2 min | Hyd. volume | = 75,950 cuft |
| Inflow hyds. | = 2, 3 | Contrib. drain. area | = 0.585 ac |



Midwest Design Group

# *QuikTrip Store #4452*

- **NRCS Soils Report**
- **NWI Wetland Map**
- **USGS Maps**
- **FEMA Maps**

Hydrologic Soil Group—Will County, Illinois
(QT4452 Spring Hill)




Map Scale: 1:1,700 if printed on A portrait (8.5" x 11") sheet.

N

Meters: 0 25 50 100 150

Feet: 0 50 100 200 300

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 16N WGS84

## MAP LEGEND

**Area of Interest (AOI)**

- Area of Interest (AOI)

**Soils**

**Soil Rating Polygons**

- A
- A/D
- B
- B/D
- C
- C/D
- D
- Not rated or not available

**Soil Rating Lines**

- A
- A/D
- B
- B/D
- C
- C/D
- D
- Not rated or not available

**Soil Rating Points**

- A
- A/D
- B
- B/D
- C
- C/D
- D
- Not rated or not available

**Water Features**

- Streams and Canals

**Transportation**

- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

**Background**

- Aerial Photography

## MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:12,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Will County, Illinois
Survey Area Data: Version 19, Aug 21, 2024

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Jul 7, 2020—Oct 13, 2020

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

# Hydrologic Soil Group

| Map unit symbol | Map unit name | Rating | Acres in AOI | Percent of AOI |
|---|---|---|---|---|
| 149A | Brenton silt loam, 0 to 2 percent slopes | B/D | 0.6 | 10.9% |
| 223C2 | Varna silt loam, 4 to 6 percent slopes, eroded | C | 1.0 | 18.1% |
| 223D2 | Varna silt loam, 6 to 12 percent slopes, eroded | C | 3.6 | 64.2% |
| 329A | Will silty clay loam, 0 to 2 percent slopes | B/D | 0.4 | 6.8% |
| **Totals for Area of Interest** | | | **5.6** | **100.0%** |

## Description

Hydrologic soil groups are based on estimates of runoff potential. Soils are assigned to one of four groups according to the rate of water infiltration when the soils are not protected by vegetation, are thoroughly wet, and receive precipitation from long-duration storms.

The soils in the United States are assigned to four groups (A, B, C, and D) and three dual classes (A/D, B/D, and C/D). The groups are defined as follows:

Group A. Soils having a high infiltration rate (low runoff potential) when thoroughly wet. These consist mainly of deep, well drained to excessively drained sands or gravelly sands. These soils have a high rate of water transmission.

Group B. Soils having a moderate infiltration rate when thoroughly wet. These consist chiefly of moderately deep or deep, moderately well drained or well drained soils that have moderately fine texture to moderately coarse texture. These soils have a moderate rate of water transmission.

Group C. Soils having a slow infiltration rate when thoroughly wet. These consist chiefly of soils having a layer that impedes the downward movement of water or soils of moderately fine texture or fine texture. These soils have a slow rate of water transmission.

Group D. Soils having a very slow infiltration rate (high runoff potential) when thoroughly wet. These consist chiefly of clays that have a high shrink-swell potential, soils that have a high water table, soils that have a claypan or clay layer at or near the surface, and soils that are shallow over nearly impervious material. These soils have a very slow rate of water transmission.

If a soil is assigned to a dual hydrologic group (A/D, B/D, or C/D), the first letter is for drained areas and the second is for undrained areas. Only the soils that in their natural condition are in group D are assigned to dual classes.

## Rating Options

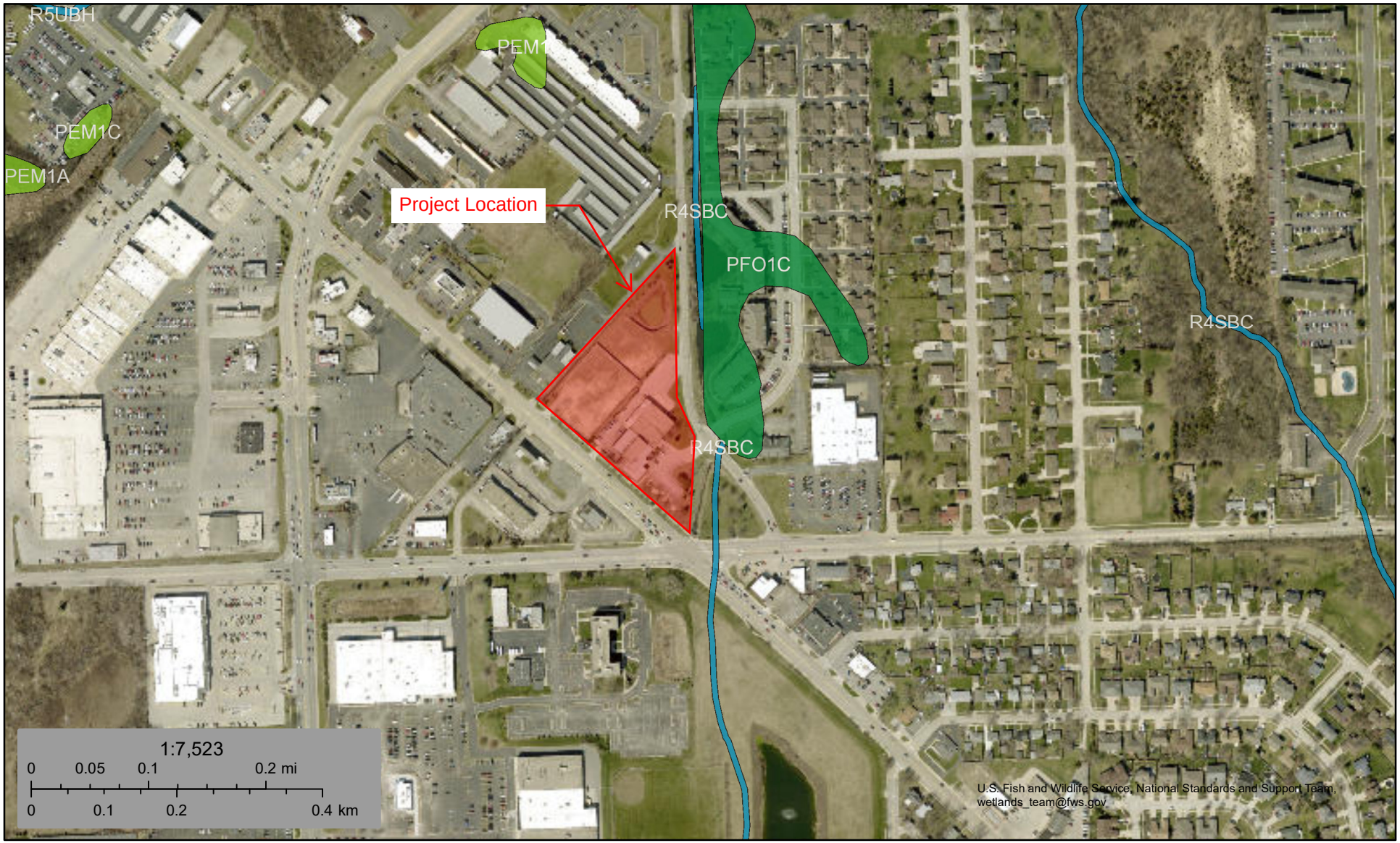
*Aggregation Method:* Dominant Condition

*Component Percent Cutoff: None Specified*

*Tie-break Rule:* Higher

U.S. Fish and Wildlife Service
National Wetlands Inventory

# QT4452 Crest Hill




February 25, 2025

**Wetlands**

- Estuarine and Marine Deepwater
- Estuarine and Marine Wetland
- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Freshwater Pond
- Lake
- Other
- Riverine

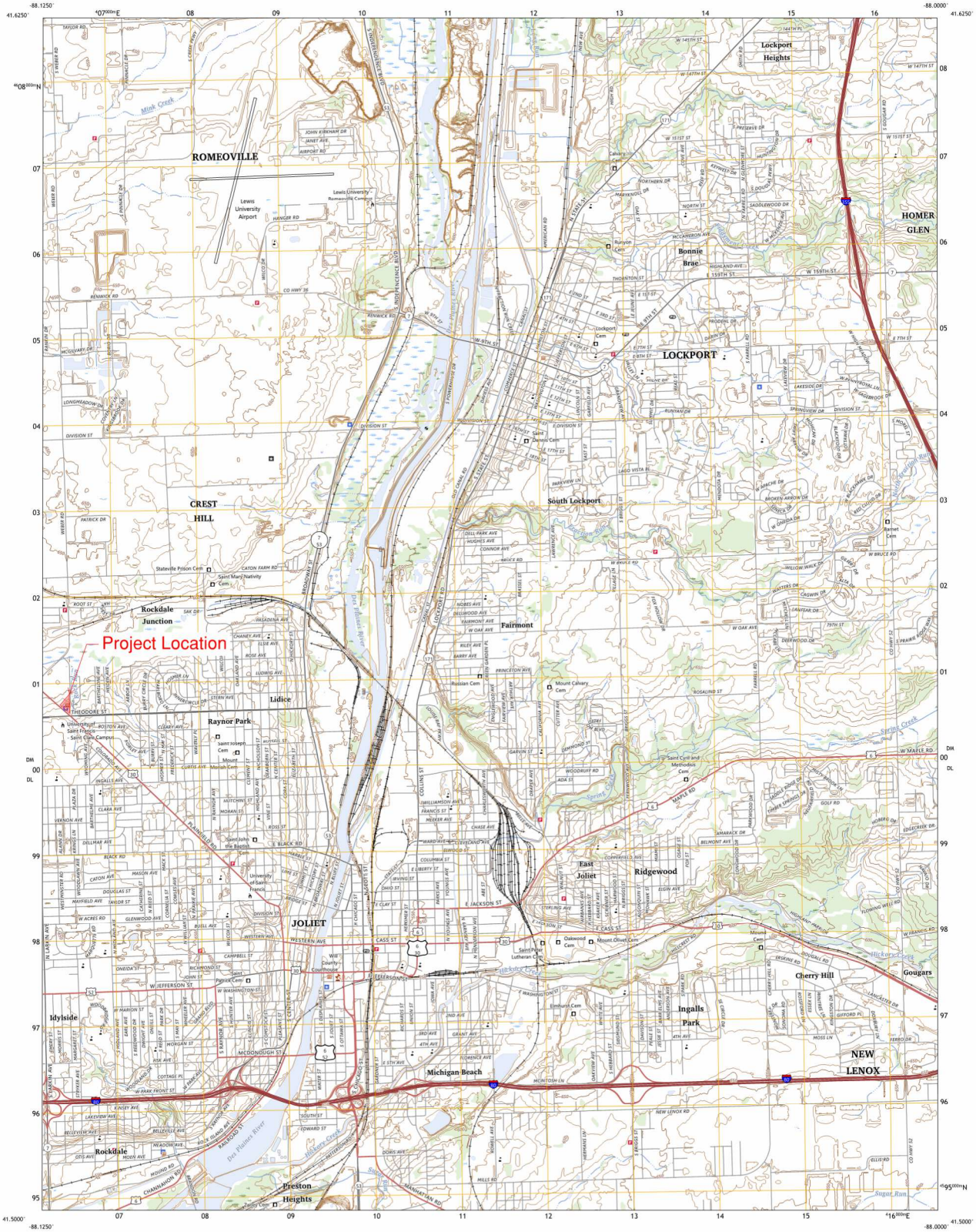
This map is for general reference only. The US Fish and Wildlife Service is not responsible for the accuracy or currentness of the base data shown on this map. All wetlands related data should be used in accordance with the layer metadata found on the Wetlands Mapper web site.

USGS science for a changing world

U.S. DEPARTMENT OF THE INTERIOR
U.S. GEOLOGICAL SURVEY

The National Map US Topo

# JOLIET QUADRANGLE
ILLINOIS - WILL COUNTY
7.5-MINUTE SERIES




**Produced by the United States Geological Survey**

North American Datum of 1983 (NAD83)
World Geodetic System of 1984 (WGS84). Projection and
1 000-meter grid:Universal Transverse Mercator, Zone 16T
This map is not a legal document. Boundaries may be generalized for this map scale, Private lands within government reservations may not be shown. Obtain permission before entering private lands.

Imagery.....NAIP, August 2019 - August 2019
Roads.....U.S. Census Bureau, 2017
Names.....GNIS, 1980 - 2023
Hydrography.....National Hydrography Dataset, 2002 - 2022
Contours.....National Elevation Dataset, 2016
Boundaries.....Multiple sources; see metadata file 2021 - 2022
Public Land Survey System.....BLM, 2020
Wetlands.....FWS National Wetlands Inventory Not Available

UTM GRID AND 2023 MAGNETIC NORTH DECLINATION AT CENTER OF SHEET

SCALE 1:24 000

KILOMETERS 0 0.5 1 2
METERS 1000 500 0 1000 2000
MILES 0 0.5 1
FEET 1000 0 1000 2000 3000 4000 5000 6000 7000 8000 9000 10000

CONTOUR INTERVAL 10 FEET
NORTH AMERICAN VERTICAL DATUM OF 1988

This map was produced to conform with the National Geospatial Program US Topo Product Standard.

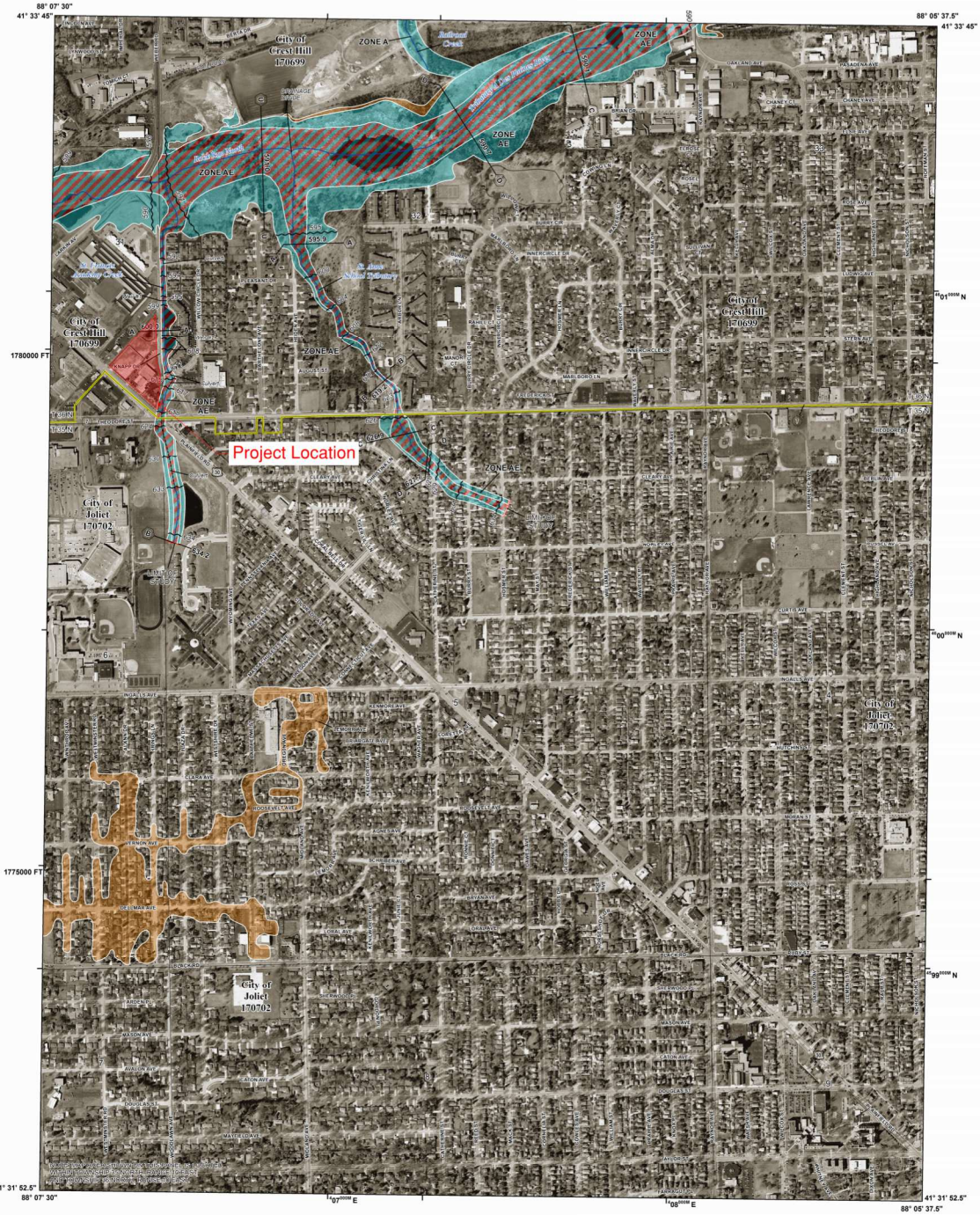
ILLINOIS
QUADRANGLE LOCATION

ADJOINING QUADRANGLES
1 Normantown
2 Romeoville
3 Sag Bridge
4 Plainfield
5 Mokena
6 Channahon
7 Elwood
8 Manhattan

ROAD CLASSIFICATION
Expressway
Secondary Hwy
Ramp
Local Connector
Local Road
4WD
Interstate Route
US Route
State Route

JOLIET, IL
2024

NSN
NGA REF NO. USGS24K22745




## FLOOD HAZARD INFORMATION

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT

THE INFORMATION DEPICTED ON THIS MAP AND SUPPORTING DOCUMENTATION ARE ALSO AVAILABLE IN DIGITAL FORMAT AT HTTP://MSC.FEMA.GOV

| | | |
|---|---|---|
| SPECIAL FLOOD HAZARD AREAS | | Without Base Flood Elevation (BFE) *Zone A, V, A99* |
| | | With BFE or Depth *Zone AE, AO, AH, VE, AR* |
| | | Regulatory Floodway |
| OTHER AREAS OF FLOOD HAZARD | | 0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile *Zone X* |
| | | Future Conditions 1% Annual Chance Flood Hazard *Zone X* |
| | | Area with Reduced Flood Risk due to Levee See Notes *Zone X* |
| | | Area with Flood Risk due to Levee *Zone D* |
| OTHER AREAS | NO SCREEN | Area of Minimal Flood Hazard *Zone X* |
| | | Area of Undetermined Flood Hazard *Zone D* |
| GENERAL STRUCTURES | | Channel, Culvert, or Storm Sewer |
| | | Dam, Jetty, or Weir |
| | | Levee, Dike or Floodwall |
| | A 718.7 717.5 | Cross Sections with 1% Annual Chance Water Surface Elevation (BFE) |
| | 12 | Coastal Transect |
| | | Coastal Transect Baseline |
| | | Profile Baseline |
| | | Hydrographic Feature |
| | 512 | Base Flood Elevation Line (BFE) |
| OTHER FEATURES | | Limit of Study |
| | | Jurisdiction Boundary |

## NOTES TO USERS

For information and questions about this Flood Insurance Rate Map (FIRM), available products associated with this FIRM, including historic versions, the current map date for each FIRM panel, how to order products, or the National Flood Insurance Program (NFIP) in general, please call the FEMA Map Information eXchange at 1-877-FEMA-MAP (1-877-336-2627) or visit the FEMA Flood Map Service Center website at http://msc.fema.gov. Available products may include previously issued Letters of Map Change, a Flood Insurance Study Report, and/or digital versions of this map. Many of these products can be ordered or obtained directly from the website.

Communities annexing land on adjacent FIRM panels must obtain a current copy of the adjacent panel as well as the current FIRM Index. These may be ordered directly from the Flood Map Service Center at the number listed above.

For community and countywide map dates refer to the Flood Insurance Study report for this jurisdiction.

To determine if flood insurance is available in this community, contact your insurance agent or call the National Flood Insurance Program at 1-800-638-6620.

Base map information shown on this FIRM was provided in digital format by Will County, Illinois. This information was derived from digital orthoimagery at a spatial resolution of 4 inches where available and 9 inches otherwise, from aerial photography dated 2013.

ILLINOIS
Illinois State Water Survey
PRAIRIE RESEARCH INSTITUTE

## SCALE

N

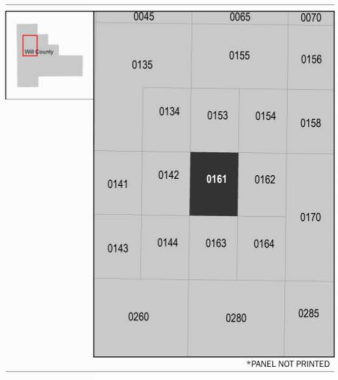
Map Projection:
Universal Transverse Mercator Zone 16N; North American Datum 1983;
Western Hemisphere; Vertical Datum: NAVD88

1 inch = 500 feet 1:6,000

0 500 1,000 2,000 feet

0 125 250 500 meters

## PANEL LOCATOR




*PANEL NOT PRINTED

FEMA
National Flood Insurance Program

NATIONAL FLOOD INSURANCE PROGRAM
FLOOD INSURANCE RATE MAP

WILL COUNTY, ILLINOIS
and Incorporated Areas

PANEL 161 OF 585

FEMA

Panel Contains:

| COMMUNITY | NUMBER | PANEL | SUFFIX |
|---|---|---|---|
| CREST HILL, CITY OF | 170699 | 0161 | G |
| JOLIET, CITY OF | 170702 | 0161 | G |

VERSION NUMBER
2.3.3.3

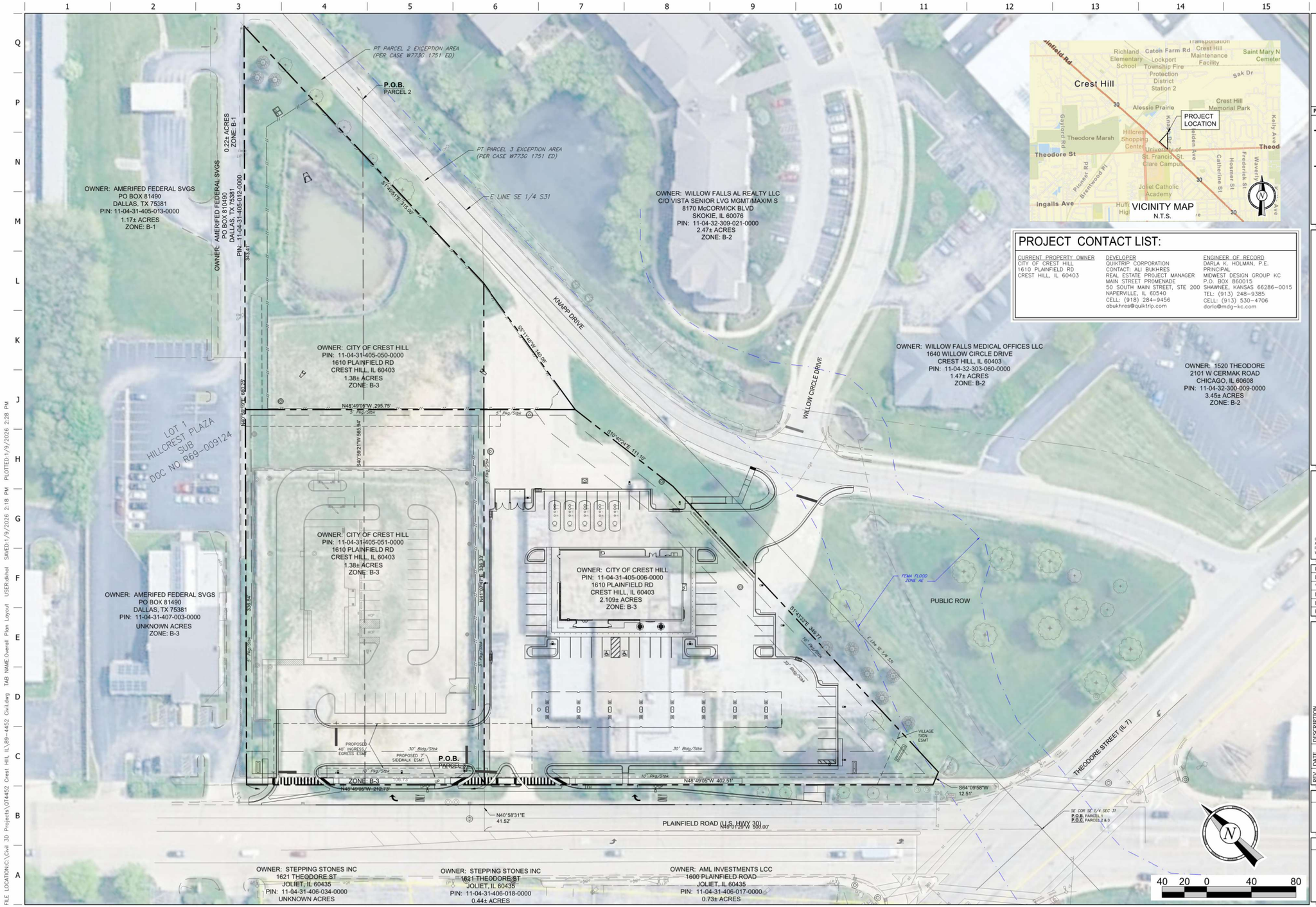
MAP NUMBER
17197C0161G

MAP REVISED
FEBRUARY 15, 2019

Midwest Design Group

# *QuikTrip Store #4452*

# Plan Sheets




## PROJECT CONTACT LIST:

| CURRENT PROPERTY OWNER | DEVELOPER | ENGINEER OF RECORD |
|---|---|---|
| CITY OF CREST HILL<br>1610 PLAINFIELD RD<br>CREST HILL, IL 60403 | QUIKTRIP CORPORATION<br>CONTACT: ALI BUKHRES<br>REAL ESTATE PROJECT MANAGER<br>MAIN STREET PROMENADE<br>50 SOUTH MAIN STREET, STE 200<br>NAPERVILLE, IL 60540<br>CELL: (918) 284-9456<br>abukhres@quiktrip.com | DARLA K. HOLMAN, P.E.<br>PRINCIPAL<br>MIDWEST DESIGN GROUP KC<br>P.O. BOX 860015<br>SHAWNEE, KANSAS 66286-0015<br>TEL: (913) 248-9385<br>CELL: (913) 530-4706<br>darla@mdg-kc.com |

DARLA K. HOLMAN
062-072191
ILLINOIS
1/9/26

PROJECT NO.:84-4452


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Kansas City
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Shawnee, KS 66286-0015
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# QuikTrip No. 4452

1610 PLAINFIELD ROAD
CREST HILL, WILL COUNTY, ILLINOIS 60403


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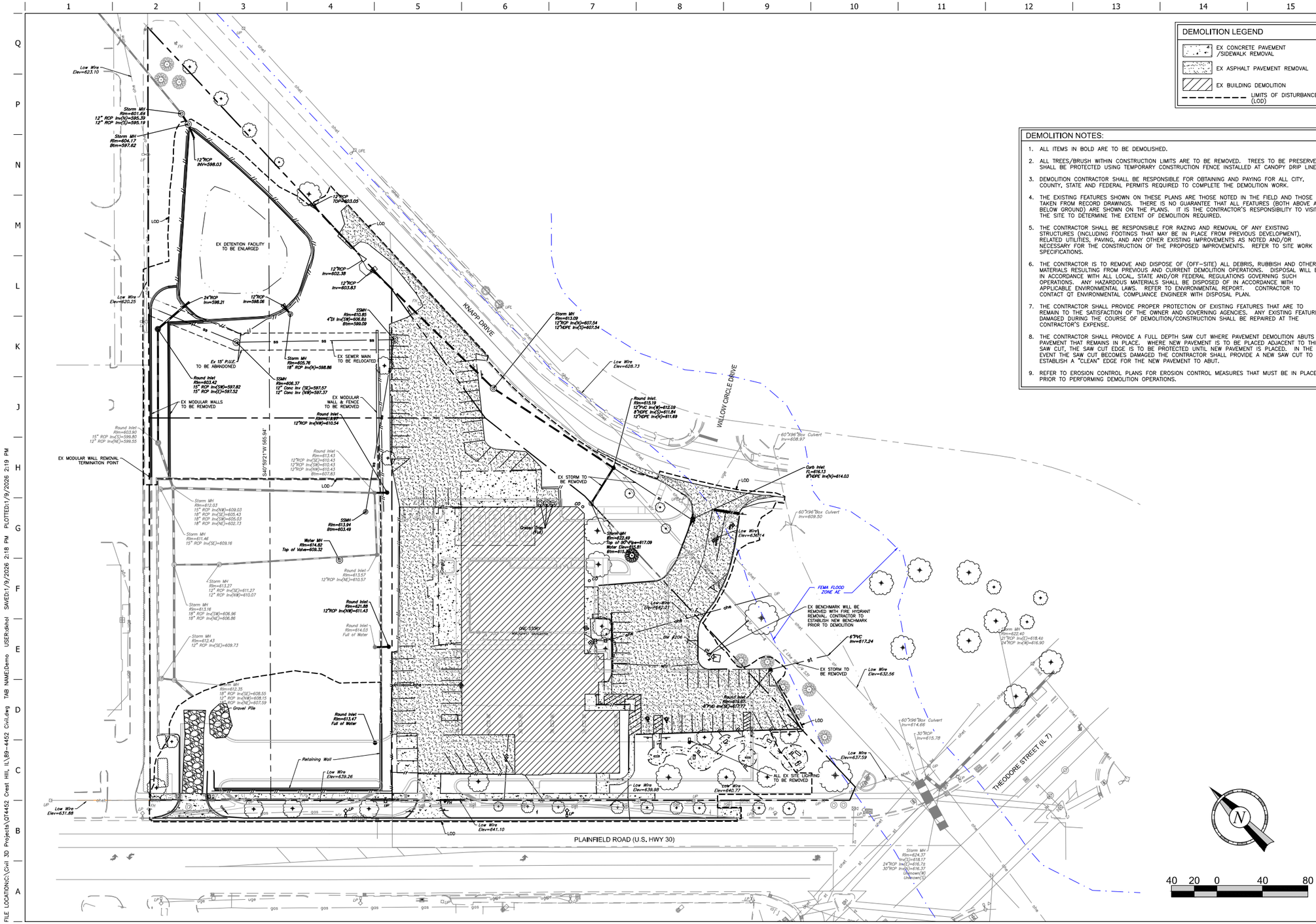

| | |
|---|---|
| PROTOTYPE: | P-122 |
| DIVISION: | 84 |
| VERSION: | 001 |
| DESIGNED BY: | DKH |
| DRAWN BY: | CSH |
| REVIEWED BY: | CJC |

| REV | DATE | DESCRIPTION |
|---|---|---|
| | | ORIGINAL ISSUE DATE: 01/09/2026 |

SHEET TITLE:
OVERALL DEVELOPMENT PLAN

SHEET NUMBER:
C010


FILE LOCATION:C:\Civil 3D Projects\QT4452 Crest Hill, IL\89-4452 Civil.dwg TAB NAME:Overall Plan Layout USER:dkholi SAVED:1/9/2026 2:18 PM PLOTTED:1/9/2026 2:28 PM




## DEMOLITION LEGEND

- EX CONCRETE PAVEMENT /SIDEWALK REMOVAL
- EX ASPHALT PAVEMENT REMOVAL
- EX BUILDING DEMOLITION
- LIMITS OF DISTURBANCE (LOD)

## DEMOLITION NOTES:

1. ALL ITEMS IN BOLD ARE TO BE DEMOLISHED.
2. ALL TREES/BRUSH WITHIN CONSTRUCTION LIMITS ARE TO BE REMOVED. TREES TO BE PRESERVED SHALL BE PROTECTED USING TEMPORARY CONSTRUCTION FENCE INSTALLED AT CANOPY DRIP LINE.
3. DEMOLITION CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING AND PAYING FOR ALL CITY, COUNTY, STATE AND FEDERAL PERMITS REQUIRED TO COMPLETE THE DEMOLITION WORK.
4. THE EXISTING FEATURES SHOWN ON THESE PLANS ARE THOSE NOTED IN THE FIELD AND THOSE TAKEN FROM RECORD DRAWINGS. THERE IS NO GUARANTEE THAT ALL FEATURES (BOTH ABOVE AND BELOW GROUND) ARE SHOWN ON THE PLANS. IT IS THE CONTRACTOR'S RESPONSIBILITY TO VISIT THE SITE TO DETERMINE THE EXTENT OF DEMOLITION REQUIRED.
5. THE CONTRACTOR SHALL BE RESPONSIBLE FOR RAZING AND REMOVAL OF ANY EXISTING STRUCTURES (INCLUDING FOOTINGS THAT MAY BE IN PLACE FROM PREVIOUS DEVELOPMENT), RELATED UTILITIES, PAVING, AND ANY OTHER EXISTING IMPROVEMENTS AS NOTED AND/OR NECESSARY FOR THE CONSTRUCTION OF THE PROPOSED IMPROVEMENTS. REFER TO SITE WORK SPECIFICATIONS.
6. THE CONTRACTOR IS TO REMOVE AND DISPOSE OF (OFF-SITE) ALL DEBRIS, RUBBISH AND OTHER MATERIALS RESULTING FROM PREVIOUS AND CURRENT DEMOLITION OPERATIONS. DISPOSAL WILL BE IN ACCORDANCE WITH ALL LOCAL, STATE AND/OR FEDERAL REGULATIONS GOVERNING SUCH OPERATIONS. ANY HAZARDOUS MATERIALS SHALL BE DISPOSED OF IN ACCORDANCE WITH APPLICABLE ENVIRONMENTAL LAWS. REFER TO ENVIRONMENTAL REPORT. CONTRACTOR TO CONTACT QT ENVIRONMENTAL COMPLIANCE ENGINEER WITH DISPOSAL PLAN.
7. THE CONTRACTOR SHALL PROVIDE PROPER PROTECTION OF EXISTING FEATURES THAT ARE TO REMAIN TO THE SATISFACTION OF THE OWNER AND GOVERNING AGENCIES. ANY EXISTING FEATURES DAMAGED DURING THE COURSE OF DEMOLITION/CONSTRUCTION SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE.
8. THE CONTRACTOR SHALL PROVIDE A FULL DEPTH SAW CUT WHERE PAVEMENT DEMOLITION ABUTS PAVEMENT THAT REMAINS IN PLACE. WHERE NEW PAVEMENT IS TO BE PLACED ADJACENT TO THIS SAW CUT, THE SAW CUT EDGE IS TO BE PROTECTED UNTIL NEW PAVEMENT IS PLACED. IN THE EVENT THE SAW CUT BECOMES DAMAGED THE CONTRACTOR SHALL PROVIDE A NEW SAW CUT TO ESTABLISH A "CLEAN" EDGE FOR THE NEW PAVEMENT TO ABUT.
9. REFER TO EROSION CONTROL PLANS FOR EROSION CONTROL MEASURES THAT MUST BE IN PLACE PRIOR TO PERFORMING DEMOLITION OPERATIONS.


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# QuikTrip No. 4452

1610 PLAINFIELD ROAD
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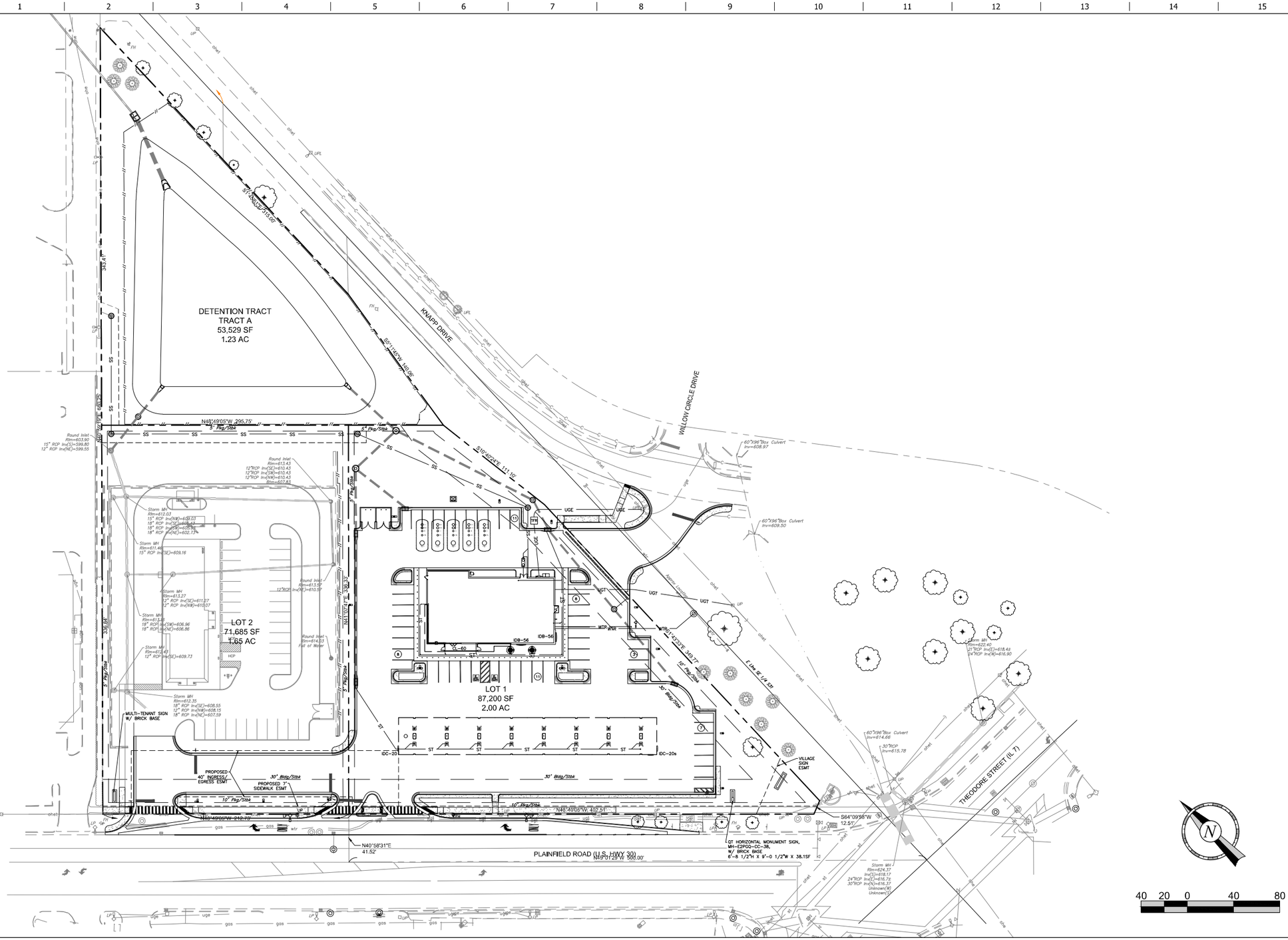

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|---|---|
| PROTOTYPE: | P-122 |
| DIVISION: | 84 |
| VERSION: | 001 |
| DESIGNED BY: | DKH |
| DRAWN BY: | CSH |
| REVIEWED BY: | CJC |

| REV | DATE | DESCRIPTION |
|---|---|---|
| | | ORIGINAL ISSUE DATE: 01/09/2026 |

SHEET TITLE:
DEMOLITION PLAN

SHEET NUMBER:
C030


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# QuikTrip No. 4452

1610 PLAINFIELD ROAD
CREST HILL, WILL COUNTY, ILLINOIS 60403

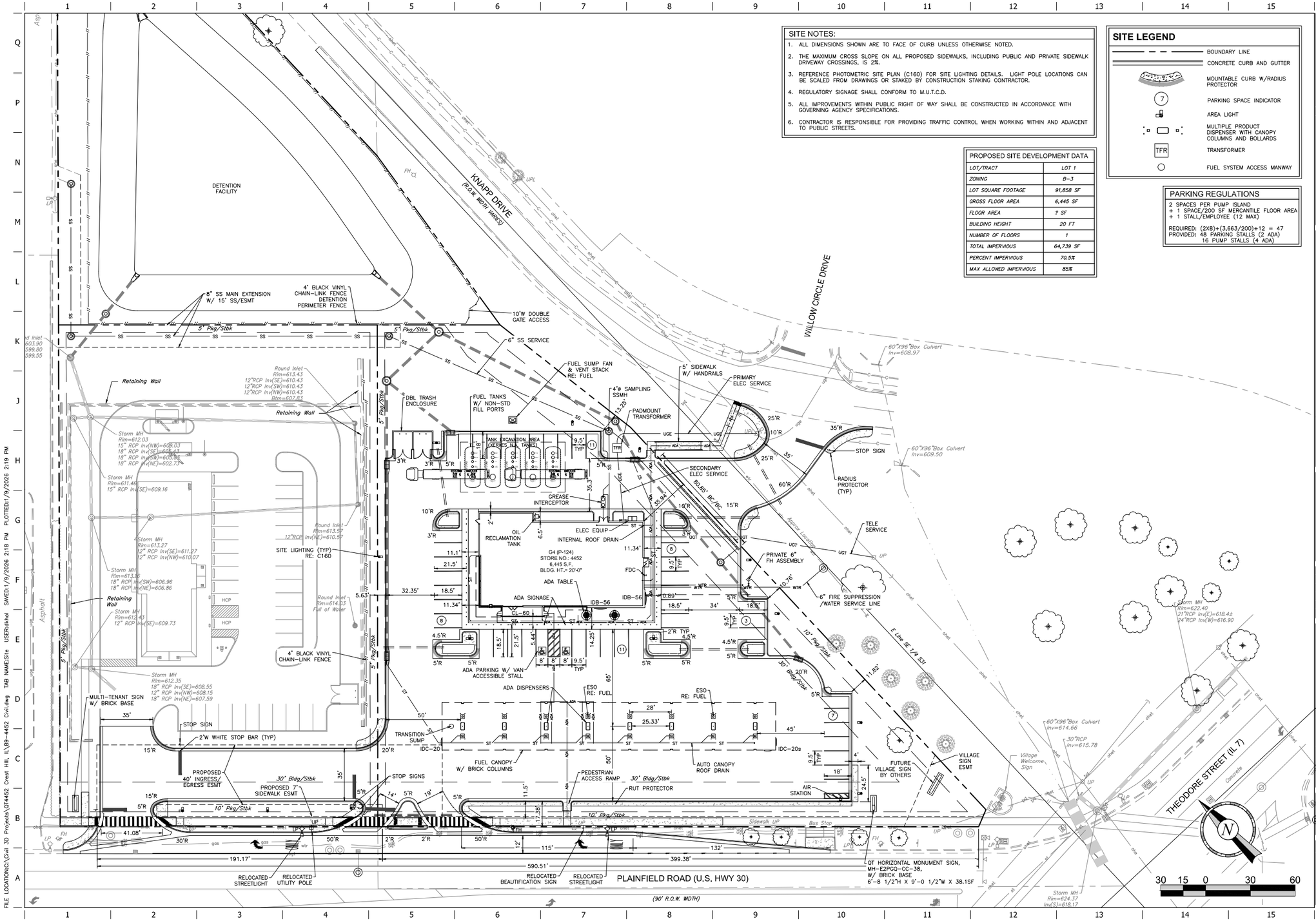

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| DRAWN BY: | CSH |
| REVIEWED BY: | CJC |

| REV | DATE | DESCRIPTION |
|---|---|---|
| | | ORIGINAL ISSUE DATE: 01/09/2026 |

SHEET TITLE:
OVERALL SITE PLAN

SHEET NUMBER:
C100




## SITE NOTES:

1. ALL DIMENSIONS SHOWN ARE TO FACE OF CURB UNLESS OTHERWISE NOTED.
2. THE MAXIMUM CROSS SLOPE ON ALL PROPOSED SIDEWALKS, INCLUDING PUBLIC AND PRIVATE SIDEWALK DRIVEWAY CROSSINGS, IS 2%.
3. REFERENCE PHOTOMETRIC SITE PLAN (C160) FOR SITE LIGHTING DETAILS. LIGHT POLE LOCATIONS CAN BE SCALED FROM DRAWINGS OR STAKED BY CONSTRUCTION STAKING CONTRACTOR.
4. REGULATORY SIGNAGE SHALL CONFORM TO M.U.T.C.D.
5. ALL IMPROVEMENTS WITHIN PUBLIC RIGHT OF WAY SHALL BE CONSTRUCTED IN ACCORDANCE WITH GOVERNING AGENCY SPECIFICATIONS.
6. CONTRACTOR IS RESPONSIBLE FOR PROVIDING TRAFFIC CONTROL WHEN WORKING WITHIN AND ADJACENT TO PUBLIC STREETS.

## SITE LEGEND

- BOUNDARY LINE
- CONCRETE CURB AND GUTTER
- MOUNTABLE CURB W/RADIUS PROTECTOR
- (7) PARKING SPACE INDICATOR
- AREA LIGHT
- MULTIPLE PRODUCT DISPENSER WITH CANOPY COLUMNS AND BOLLARDS
- TFR TRANSFORMER
- FUEL SYSTEM ACCESS MANWAY

## PROPOSED SITE DEVELOPMENT DATA

| | |
|---|---|
| LOT/TRACT | LOT 1 |
| ZONING | B-3 |
| LOT SQUARE FOOTAGE | 91,858 SF |
| GROSS FLOOR AREA | 6,445 SF |
| FLOOR AREA | ? SF |
| BUILDING HEIGHT | 20 FT |
| NUMBER OF FLOORS | 1 |
| TOTAL IMPERVIOUS | 64,739 SF |
| PERCENT IMPERVIOUS | 70.5% |
| MAX ALLOWED IMPERVIOUS | 85% |

## PARKING REGULATIONS

2 SPACES PER PUMP ISLAND
+ 1 SPACE/200 SF MERCANTILE FLOOR AREA
+ 1 STALL/EMPLOYEE (12 MAX)

REQUIRED: (2X8)+(3,663/200)+12 = 47
PROVIDED: 48 PARKING STALLS (2 ADA)
16 PUMP STALLS (4 ADA)


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# QuikTrip No. 4452

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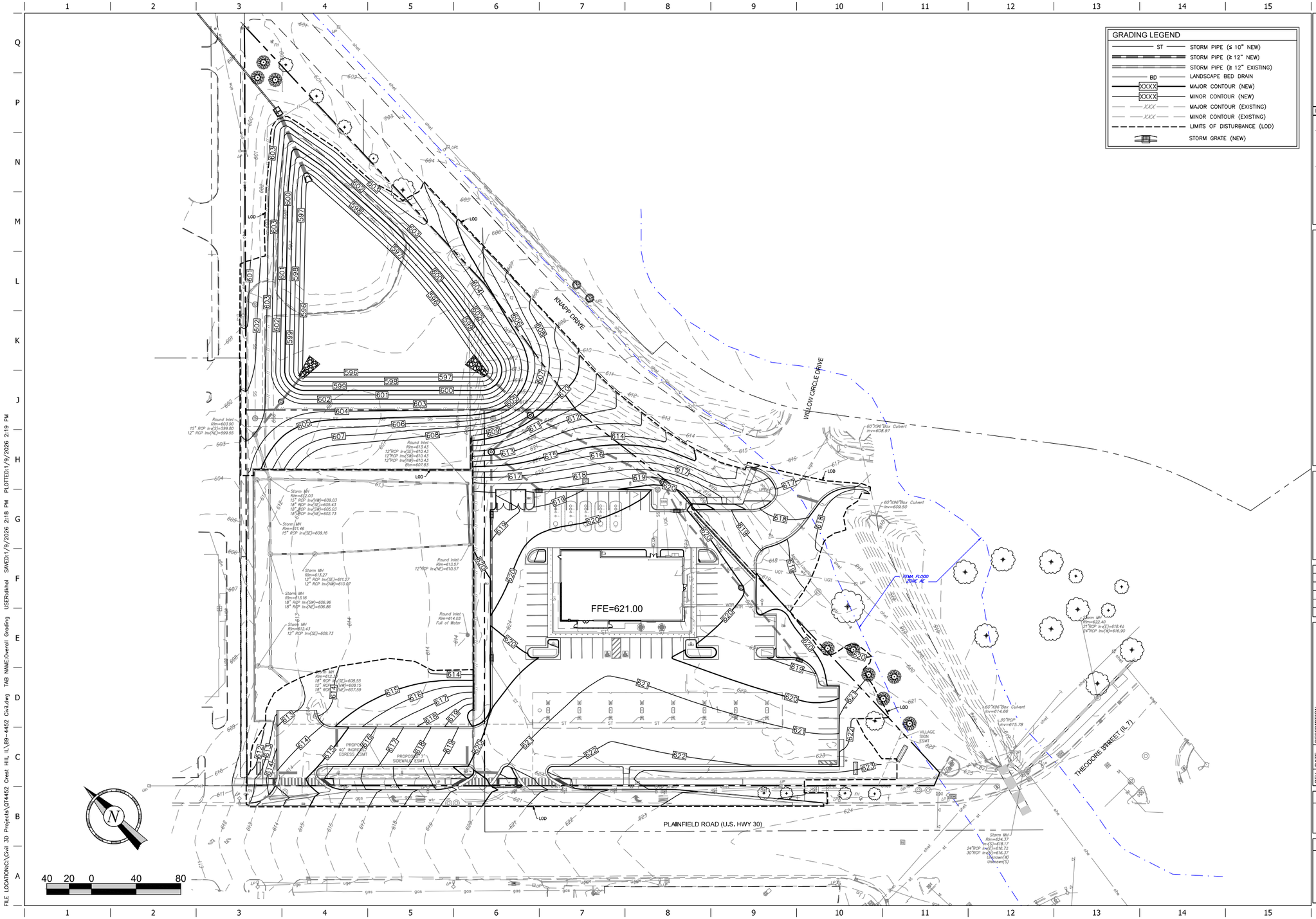

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| PROTOTYPE: | P-122 |
| DIVISION: | 84 |
| VERSION: | 001 |
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| REVIEWED BY: | CJC |

| REV | DATE | DESCRIPTION |
|---|---|---|
| | | ORIGINAL ISSUE DATE: 01/09/2026 |

SHEET TITLE:
SITE PLAN

SHEET NUMBER:
C101


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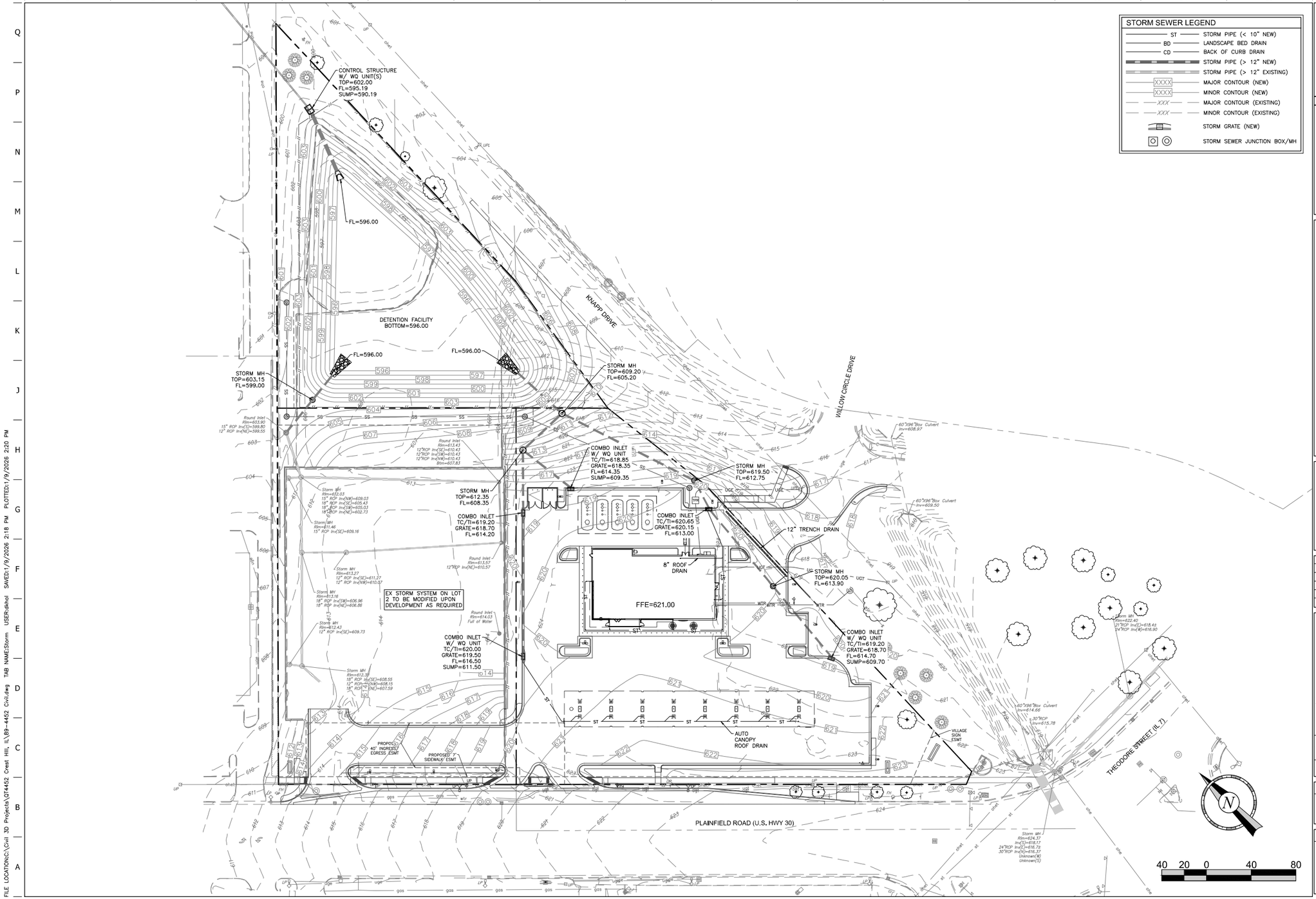

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| PROTOTYPE: | P-122 |
| DIVISION: | 84 |
| VERSION: | 001 |
| DESIGNED BY: | DKH |
| DRAWN BY: | CSH |
| REVIEWED BY: | CJC |

| REV | DATE | DESCRIPTION |
|---|---|---|
| | | ORIGINAL ISSUE DATE: 01/09/2026 |

SHEET TITLE:
OVERALL GRADING PLAN

SHEET NUMBER:
C110


FILE LOCATION:C:\Civil 3D Projects\QT4452 Crest Hill, IL\89-4452 Civil.dwg TAB NAME:Overall Grading USER:dkholl SAVED:1/9/2026 2:18 PM PLOTTED:1/9/2026 2:19 PM




STORM SEWER LEGEND

| | |
|---|---|
| ST | STORM PIPE (< 10" NEW) |
| BD | LANDSCAPE BED DRAIN |
| CD | BACK OF CURB DRAIN |
| | STORM PIPE (> 12" NEW) |
| | STORM PIPE (> 12" EXISTING) |
| XXXX | MAJOR CONTOUR (NEW) |
| XXXX | MINOR CONTOUR (NEW) |
| XXX | MAJOR CONTOUR (EXISTING) |
| XXX | MINOR CONTOUR (EXISTING) |
| | STORM GRATE (NEW) |
| | STORM SEWER JUNCTION BOX/MH |


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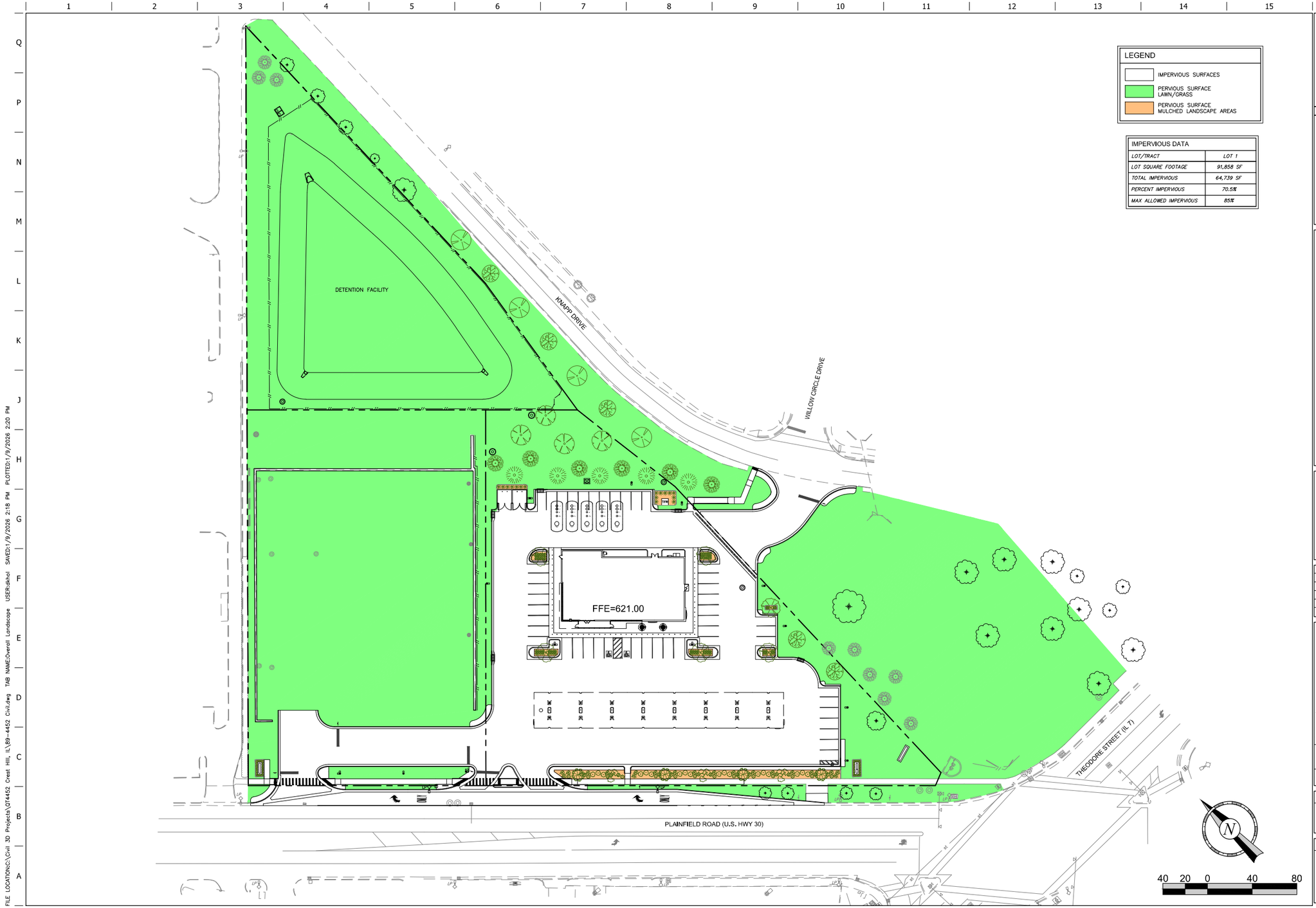

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|---|---|
| PROTOTYPE: | P-122 |
| DIVISION: | 84 |
| VERSION: | 001 |
| DESIGNED BY: | DKH |
| DRAWN BY: | CSH |
| REVIEWED BY: | CJC |

| REV | DATE | DESCRIPTION |
|---|---|---|
| | | ORIGINAL ISSUE DATE: 01/09/2026 |

SHEET TITLE:
STORM SEWER PLAN

SHEET NUMBER:
C120


FILE LOCATION:C:\Civil 3D Projects\QT4452 Crest Hill, IL\84-4452 Civil.dwg TAB NAME:Storm USER:rdahol SAVED:1/9/2026 2:18 PM PLOTTED:1/9/2026 2:20 PM




LEGEND

- IMPERVIOUS SURFACES
- PERVIOUS SURFACE LAWN/GRASS
- PERVIOUS SURFACE MULCHED LANDSCAPE AREAS

| IMPERVIOUS DATA | |
|---|---|
| LOT/TRACT | LOT 1 |
| LOT SQUARE FOOTAGE | 91,858 SF |
| TOTAL IMPERVIOUS | 64,739 SF |
| PERCENT IMPERVIOUS | 70.5% |
| MAX ALLOWED IMPERVIOUS | 85% |

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ILLINOIS
1/9/26

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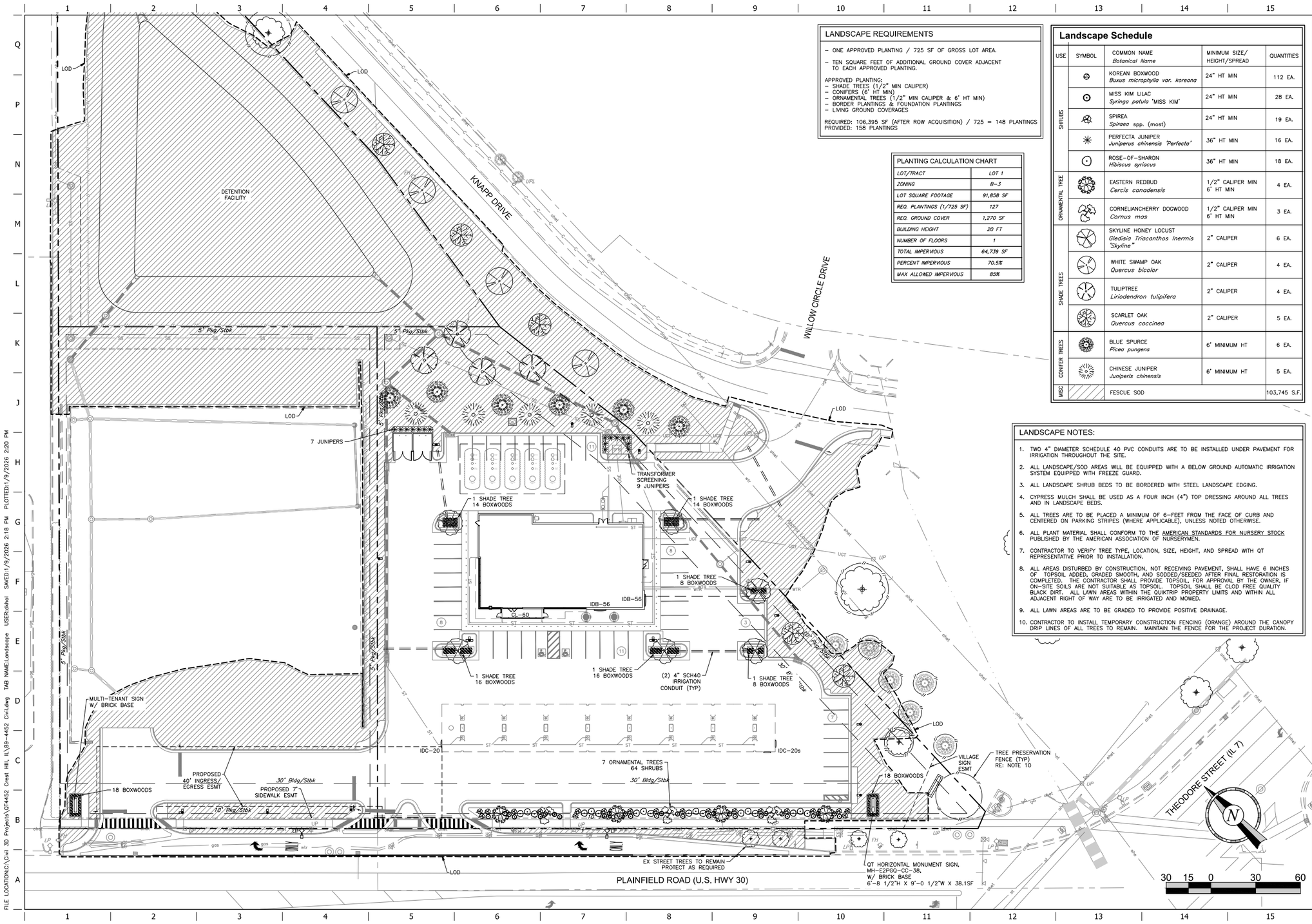

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|---|---|
| PROTOTYPE: | P-122 |
| DIVISION: | 84 |
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| DESIGNED BY: | DKH |
| DRAWN BY: | CSH |
| REVIEWED BY: | CJC |

| REV | DATE | DESCRIPTION |
|---|---|---|
| | | ORIGINAL ISSUE DATE: 01/09/2026 |

SHEET TITLE:
OVERALL LANDSCAPE IMPERVIOUS SURFACE PLAN

SHEET NUMBER:
L100


FILE LOCATION=C:\Civil 3D Projects\QT4452 Crest Hill, IL\84-4452 Civil.dwg TAB NAME=Overall Landscape USER=dkhol SAVED=1/9/2026 2:18 PM PLOTTED=1/9/2026 2:20 PM




## LANDSCAPE REQUIREMENTS

- ONE APPROVED PLANTING / 725 SF OF GROSS LOT AREA.
- TEN SQUARE FEET OF ADDITIONAL GROUND COVER ADJACENT TO EACH APPROVED PLANTING.

APPROVED PLANTING:
- SHADE TREES (1/2" MIN CALIPER)
- CONIFERS (6' HT MIN)
- ORNAMENTAL TREES (1/2" MIN CALIPER & 6' HT MIN)
- BORDER PLANTINGS & FOUNDATION PLANTINGS
- LIVING GROUND COVERAGES

REQUIRED: 106,395 SF (AFTER ROW ACQUISITION) / 725 = 148 PLANTINGS
PROVIDED: 158 PLANTINGS

| PLANTING CALCULATION CHART | |
|---|---|
| *LOT/TRACT* | *LOT 1* |
| *ZONING* | *B-3* |
| *LOT SQUARE FOOTAGE* | *91,858 SF* |
| *REQ. PLANTINGS (1/725 SF)* | *127* |
| *REQ. GROUND COVER* | *1,270 SF* |
| *BUILDING HEIGHT* | *20 FT* |
| *NUMBER OF FLOORS* | *1* |
| *TOTAL IMPERVIOUS* | *64,739 SF* |
| *PERCENT IMPERVIOUS* | *70.5%* |
| *MAX ALLOWED IMPERVIOUS* | *85%* |

## Landscape Schedule

| USE | SYMBOL | COMMON NAME *Botanical Name* | MINIMUM SIZE/ HEIGHT/SPREAD | QUANTITIES |
|---|---|---|---|---|
| SHRUBS | | KOREAN BOXWOOD *Buxus microphylla var. koreana* | 24" HT MIN | 112 EA. |
| | | MISS KIM LILAC *Syringa patula 'MISS KIM'* | 24" HT MIN | 28 EA. |
| | | SPIREA *Spiraea spp. (most)* | 24" HT MIN | 19 EA. |
| | | PERFECTA JUNIPER *Juniperus chinensis 'Perfecta'* | 36" HT MIN | 16 EA. |
| | | ROSE-OF-SHARON *Hibiscus syriacus* | 36" HT MIN | 18 EA. |
| ORNAMENTAL TREE | | EASTERN REDBUD *Cercis canadensis* | 1/2" CALIPER MIN 6' HT MIN | 4 EA. |
| | | CORNELIANCHERRY DOGWOOD *Cornus mas* | 1/2" CALIPER MIN 6' HT MIN | 3 EA. |
| SHADE TREES | | SKYLINE HONEY LOCUST *Gleditsia Triacanthos Inermis "Skyline"* | 2" CALIPER | 6 EA. |
| | | WHITE SWAMP OAK *Quercus bicolor* | 2" CALIPER | 4 EA. |
| | | TULIPTREE *Liriodendron tulipifera* | 2" CALIPER | 4 EA. |
| | | SCARLET OAK *Quercus coccinea* | 2" CALIPER | 5 EA. |
| CONIFER TREES | | BLUE SPURCE *Picea pungens* | 6' MINIMUM HT | 6 EA. |
| | | CHINESE JUNIPER *Juniperis chinensis* | 6' MINIMUM HT | 5 EA. |
| MISC | | FESCUE SOD | | 103,745 S.F. |

## LANDSCAPE NOTES:

1. TWO 4" DIAMETER SCHEDULE 40 PVC CONDUITS ARE TO BE INSTALLED UNDER PAVEMENT FOR IRRIGATION THROUGHOUT THE SITE.
2. ALL LANDSCAPE/SOD AREAS WILL BE EQUIPPED WITH A BELOW GROUND AUTOMATIC IRRIGATION SYSTEM EQUIPPED WITH FREEZE GUARD.
3. ALL LANDSCAPE SHRUB BEDS TO BE BORDERED WITH STEEL LANDSCAPE EDGING.
4. CYPRESS MULCH SHALL BE USED AS A FOUR INCH (4") TOP DRESSING AROUND ALL TREES AND IN LANDSCAPE BEDS.
5. ALL TREES ARE TO BE PLACED A MINIMUM OF 6-FEET FROM THE FACE OF CURB AND CENTERED ON PARKING STRIPES (WHERE APPLICABLE), UNLESS NOTED OTHERWISE.
6. ALL PLANT MATERIAL SHALL CONFORM TO THE AMERICAN STANDARDS FOR NURSERY STOCK PUBLISHED BY THE AMERICAN ASSOCIATION OF NURSERYMEN.
7. CONTRACTOR TO VERIFY TREE TYPE, LOCATION, SIZE, HEIGHT, AND SPREAD WITH QT REPRESENTATIVE PRIOR TO INSTALLATION.
8. ALL AREAS DISTURBED BY CONSTRUCTION, NOT RECEIVING PAVEMENT, SHALL HAVE 6 INCHES OF TOPSOIL ADDED, GRADED SMOOTH, AND SODDED/SEEDED AFTER FINAL RESTORATION IS COMPLETED. THE CONTRACTOR SHALL PROVIDE TOPSOIL, FOR APPROVAL BY THE OWNER, IF ON-SITE SOILS ARE NOT SUITABLE AS TOPSOIL. TOPSOIL SHALL BE CLOD FREE QUALITY BLACK DIRT. ALL LAWN AREAS WITHIN THE QUIKTRIP PROPERTY LIMITS AND WITHIN ALL ADJACENT RIGHT OF WAY ARE TO BE IRRIGATED AND MOWED.
9. ALL LAWN AREAS ARE TO BE GRADED TO PROVIDE POSITIVE DRAINAGE.
10. CONTRACTOR TO INSTALL TEMPORARY CONSTRUCTION FENCING (ORANGE) AROUND THE CANOPY DRIP LINES OF ALL TREES TO REMAIN. MAINTAIN THE FENCE FOR THE PROJECT DURATION.

DARLA K. HOLMAN 062-072191 ILLINOIS REGISTERED LANDSCAPE ARCHITECT
1/9/26

PROJECT NO.: 84-4452


Midwest Design Group
Kansas City
PO Box 860015
Shawnee, KS 66286-0015
P 913.248.9385


# QuikTrip No. 4452

1610 PLAINFIELD ROAD
CREST HILL, WILL COUNTY, ILLINOIS 60403


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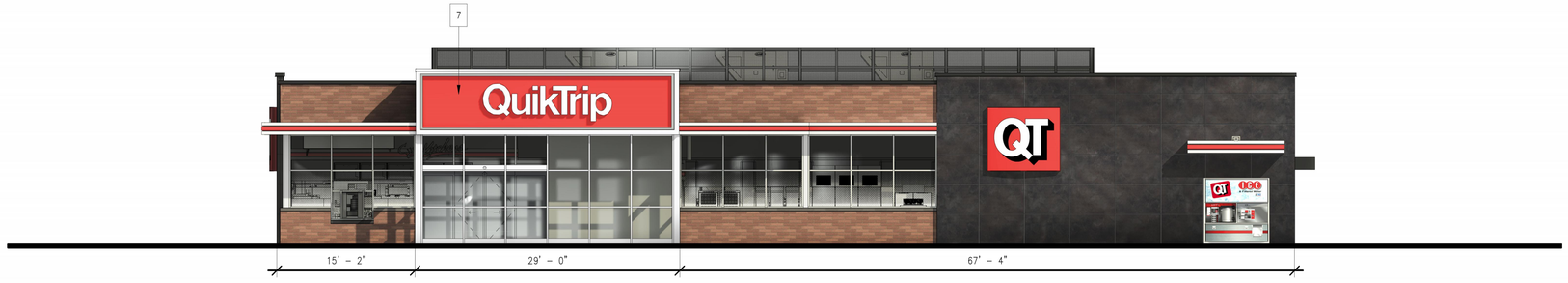

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| PROTOTYPE: | P-122 |
| DIVISION: | 84 |
| VERSION: | 001 |
| DESIGNED BY: | DKH |
| DRAWN BY: | CSH |
| REVIEWED BY: | CJC |

| REV | DATE | DESCRIPTION |
|---|---|---|
| | | ORIGINAL ISSUE DATE: 01/09/2026 |

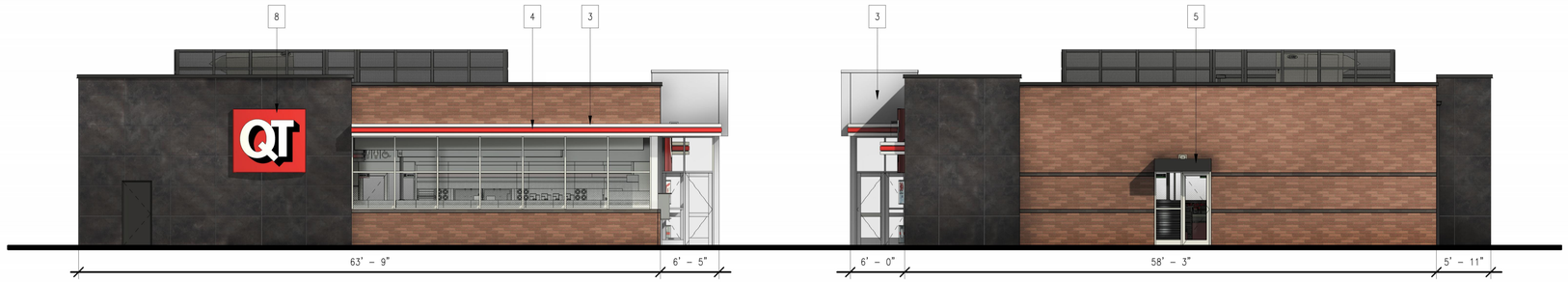
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LANDSCAPE PLAN

SHEET NUMBER:
L101


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FRONT ELEVATION 1/8" : 1'-0"




LEFT ELEVATION 1/8" : 1'-0"




RIGHT ELEVATION 1/8" : 1'-0"




REAR ELEVATION 1/8" : 1'-0"

FINISH SCHEDULE

| # | FINISH | MANUFACTURER | SPECIFICATION |
|---|---|---|---|
| 1 | BRONZESTONE | INTERSTATE BRICK | ATLAS STRUCTURAL BRICK |
| 2 | MIDNIGHT | INTERSTATE BRICK | ATLAS STRUCTURAL BRICK |
| 3 | BRUSHED ALUMINUM | REYNOBOND | FASCIA |
| 4 | RED POLYCARBONATE | ALLEN INDUSTRIES | ILLUMINATED BAND |
| 5 | QT BROWN | LANE | METAL/PAINT |
| 6 | BLACK | ALL COURT FABRICS | POLYPRO MESH |
| 7 | CL-60R | ALLEN INDUSTRIES | SIGNAGE |
| 8 | IDB-56 | ALLEN INDUSTRIES | ILLUMINATED SIGNAGE |
| 9 | OSSIDO NERO | CROSSVILLE | EXTERIOR TILE |

QuikTrip

| | |
|---|---|
| PROTOTYPE | |
| ISSUE DATE | 02/04/25 |
| DRAWN BY | JTC |
| PHASE | |

DOCUMENT TYPE

SCHEMATIC

STORE TYPE

G4

SUB TYPE

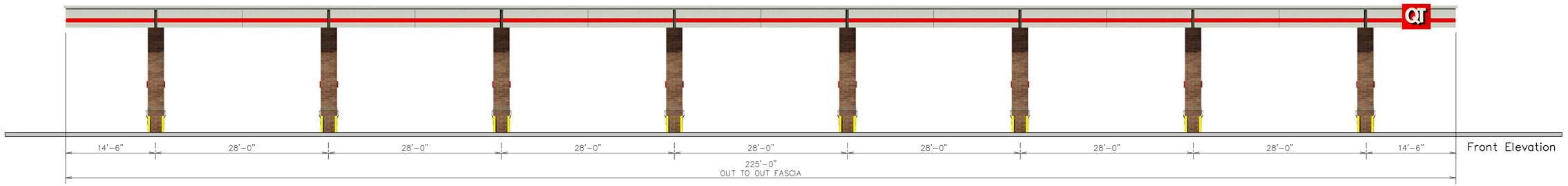
# BUILDING ELEVATIONS

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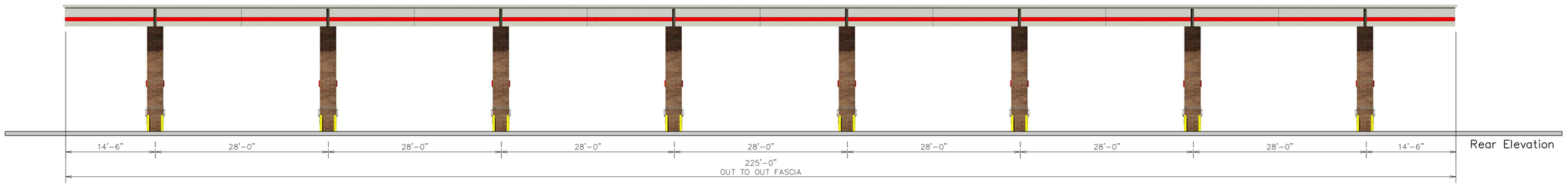
BUILDING ELEVATIONS

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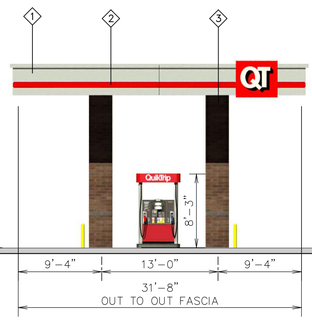
BE001



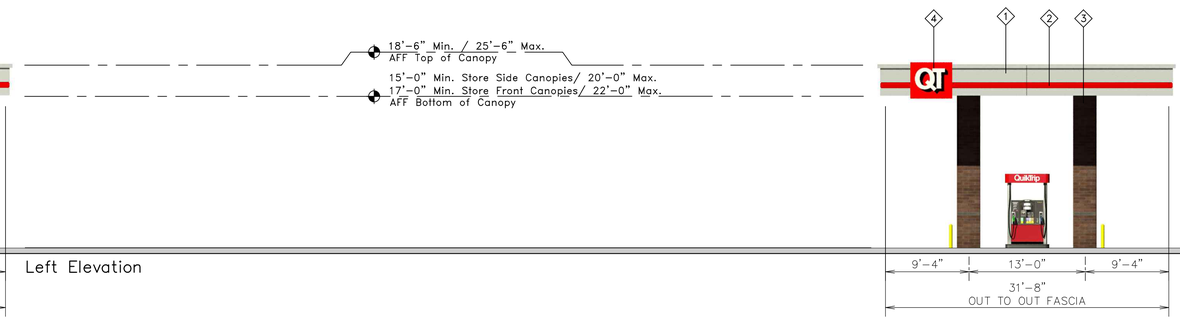

Front Elevation




Rear Elevation




Left Elevation







Right Elevation

QuikTrip.
4705 South 129th East Ave.
Tulsa, OK 74134-7008
P.O. Box 3475
Tulsa, OK 74101-3475
(918) 615-7700

| Store # | | Address: | City, State: |
|---|---|---|---|
| 4452 | G4 Vertical 8 Gas Canopy | 1610 Plainfield Rd | Crest Hill, IL |

| Serial # | Scale: | Issue Date: | Drawn By: | Rev/Notes: |
|---|---|---|---|---|
| 84-4452-G4-GV08 | 1/8"=1'-0" | 12.22.25 | JK | |

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| # | FINISH | MANUFACTURER | SPECIFICATION |
|---|---|---|---|
| 1 | BRUSHED ALUMINUM | REYNOBOND | CANOPY |
| 2 | RED POLYCARBONATE | ALLEN INDUSTRIES | ILLUMINATED BAND |
| 3 | BRONZESTONE | INTERSTATE BRICK | ATLAS STRUCTURAL BRICK |
| 4 | IDC-20 | ALLEN INDUSTRIES | ILLUMINATED SIGNAGE |

# A1 ROUGH DIMENSION FLOOR PLAN

1/4" = 1'-0"

NORTH

FLOOR AREA: 3663 SF =
TOTAL BUILDING AREA: 6445 SF

LOCATION OF FUTURE DRIVE-THROUGH WINDOW

KITCHEN 103
CHECKSTAND 102
SALES FLOOR 100
VESTIBULE 101
COOLER 105
FREEZER 104
BACK WORKROOM 106
ELECTRICAL 107
I.T. 108
RESTROOM ALCOVE 109
UNISEX RR 110
UNISEX RR 111
UNISEX RR 112
UNISEX RR 113
UNISEX RR 114
UNISEX RR 115
UNISEX RR 116
UNISEX RR 117
FRONT WORKROOM 118
COOLER 119
PLUMBING 120

OUTSIDE EDGE OF STRUCTURAL INSULATED PANEL TO INSIDE FACE OF STRUCTURAL INSULATED PANEL

INSIDE FACE OF STRUCTURAL INSULATED PANEL TO INSIDE FACE OF STRUCTURAL INSULATED PANEL

OUTSIDE EDGE TO OUTSIDE EDGE OF STRUCTURAL INSULATED PANEL

OUTSIDE EDGE OF STRUCTURAL INSULATED PANEL TO INSIDE FACE OF STRUCTURAL INSULATED PANEL

SIGNATURE DATE: 12/17/2025


LICKEL ARCHITECTURE

16200 MIDLAND DRIVE
SHAWNEE, KS 66217
(P) 913.389.7888


# QuikTrip No. 4452

1610 PLAINFIELD ROAD
CREST HILL, ILLINOIS


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| PROTOTYPE | P124.00 |
| DIVISION | CHICAGO |
| VERSION | G4 |
| DATE | 11/05/2025 |

| REV | DATE | DESCRIPTION |
|---|---|---|

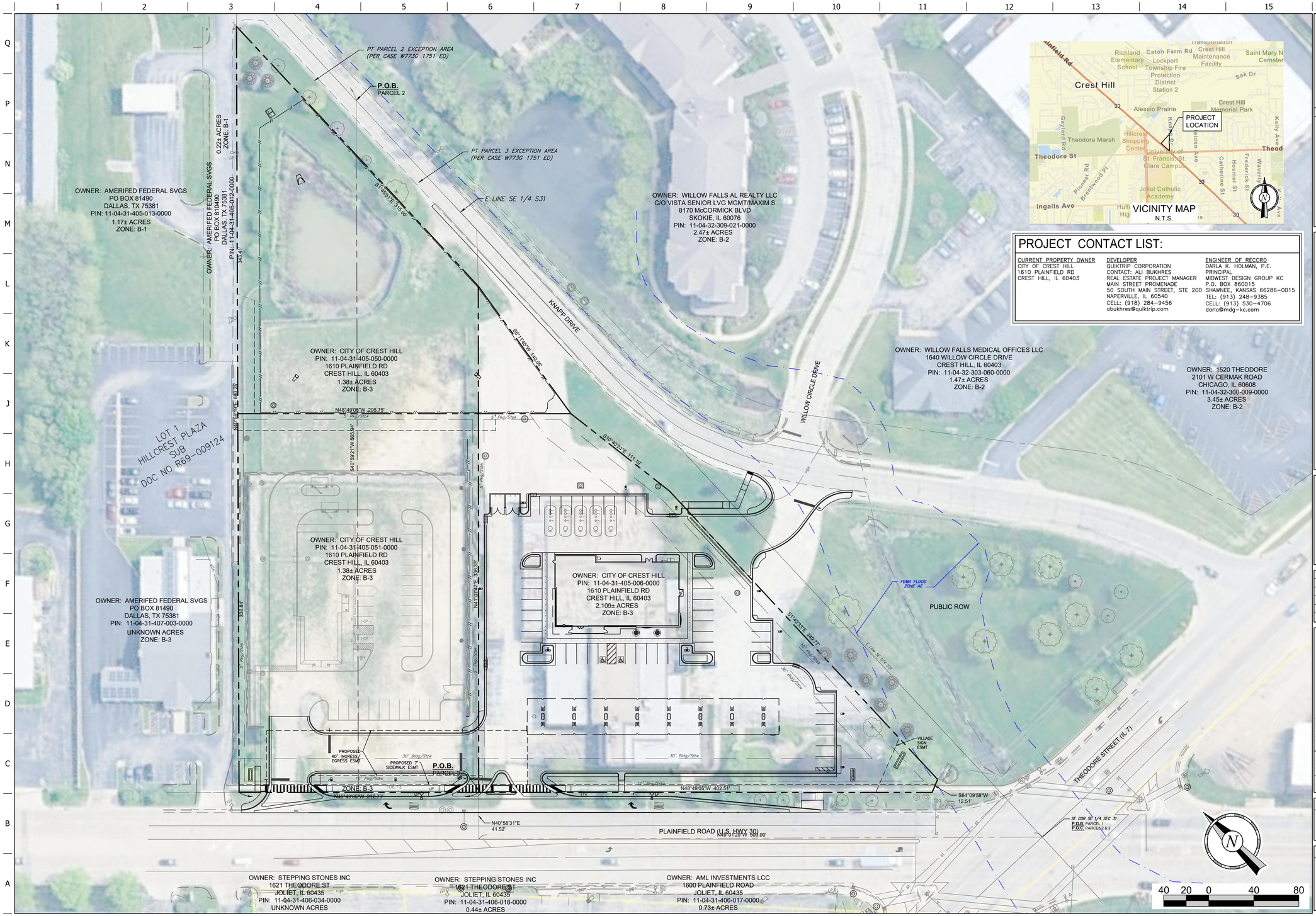
ORIGINAL ISSUE DATE: 12/17/2025

SHEET TITLE:

ROUGH DIMENSION FLOOR PLAN

SHEET NUMBER:

A110




| PROJECT CONTACT LIST: | | |
|---|---|---|
| CURRENT PROPERTY OWNER<br>CITY OF CREST HILL<br>1610 PLAINFIELD RD<br>CREST HILL, IL 60403 | DEVELOPER<br>QUIKTRIP CORPORATION<br>CONTACT: ALI BUKHRES<br>REAL ESTATE PROJECT MANAGER<br>MAIN STREET PROMENADE<br>50 SOUTH MAIN STREET, STE 200<br>NAPERVILLE, IL 60540<br>CELL: (918) 284-9456<br>abukhres@quiktrip.com | ENGINEER OF RECORD<br>DARLA K. HOLMAN, P.E.<br>PRINCIPAL<br>MIDWEST DESIGN GROUP KC<br>P.O. BOX 860015<br>SHAWNEE, KANSAS 66286-0015<br>TEL: (913) 248-9385<br>CELL: (913) 530-4706<br>darla@mdg-kc.com |

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DARLA K. HOLMAN
062-072191
PROFESSIONAL ENGINEER
STATE OF ILLINOIS
1/9/26

PROJECT NO.: 84-4452

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Kansas City
PO Box 860015
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# QuikTrip No. 4452

1610 PLAINFIELD ROAD
CREST HILL, WILL COUNTY, ILLINOIS 60403

| PROTOTYPE: P-122 |
|---|
| DIVISION: 84 |
| VERSION: 001 |
| DESIGNED BY: DKH |
| DRAWN BY: CSH |
| REVIEWED BY: CJC |

| REV | DATE | DESCRIPTION |
|---|---|---|
| | | ORIGINAL ISSUE DATE: 01/09/2026 |

SHEET TITLE:
OVERALL DEVELOPMENT PLAN

SHEET NUMBER:
C010

FILE LOCATION:C:\Civil 3D Projects\QT4452 Crest Hill, IL\89-4452 Civil.dwg TAB NAME:Overall Plan Layout USER:dkhol SAVED:1/9/2026 2:18 PM PLOTTED:1/9/2026 2:28 PM

## DEMOLITION LEGEND

- EX CONCRETE PAVEMENT /SIDEWALK REMOVAL
- EX ASPHALT PAVEMENT REMOVAL
- EX BUILDING DEMOLITION
- LIMITS OF DISTURBANCE (LOD)

## DEMOLITION NOTES:

1. ALL ITEMS IN BOLD ARE TO BE DEMOLISHED.
2. ALL TREES/BRUSH WITHIN CONSTRUCTION LIMITS ARE TO BE REMOVED. TREES TO BE PRESERVED SHALL BE PROTECTED USING TEMPORARY CONSTRUCTION FENCE INSTALLED AT CANOPY DRIP LINE.
3. DEMOLITION CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING AND PAYING FOR ALL CITY, COUNTY, STATE AND FEDERAL PERMITS REQUIRED TO COMPLETE THE DEMOLITION WORK.
4. THE EXISTING FEATURES SHOWN ON THESE PLANS ARE THOSE NOTED IN THE FIELD AND THOSE TAKEN FROM RECORD DRAWINGS. THERE IS NO GUARANTEE THAT ALL FEATURES (BOTH ABOVE AND BELOW GROUND) ARE SHOWN ON THE PLANS. IT IS THE CONTRACTOR'S RESPONSIBILITY TO VISIT THE SITE TO DETERMINE THE EXTENT OF DEMOLITION REQUIRED.
5. THE CONTRACTOR SHALL BE RESPONSIBLE FOR RAZING AND REMOVAL OF ANY EXISTING STRUCTURES (INCLUDING FOOTINGS THAT MAY BE IN PLACE FROM PREVIOUS DEVELOPMENT), RELATED UTILITIES, PAVING, AND ANY OTHER EXISTING IMPROVEMENTS AS NOTED AND/OR NECESSARY FOR THE CONSTRUCTION OF THE PROPOSED IMPROVEMENTS. REFER TO SITE WORK SPECIFICATIONS.
6. THE CONTRACTOR IS TO REMOVE AND DISPOSE OF (OFF-SITE) ALL DEBRIS, RUBBISH AND OTHER MATERIALS RESULTING FROM PREVIOUS AND CURRENT DEMOLITION OPERATIONS. DISPOSAL WILL BE IN ACCORDANCE WITH ALL LOCAL, STATE AND/OR FEDERAL REGULATIONS GOVERNING SUCH OPERATIONS. ANY HAZARDOUS MATERIALS SHALL BE DISPOSED OF IN ACCORDANCE WITH APPLICABLE ENVIRONMENTAL LAWS. REFER TO ENVIRONMENTAL REPORT. CONTRACTOR TO CONTACT QT ENVIRONMENTAL COMPLIANCE ENGINEER WITH DISPOSAL PLAN.
7. THE CONTRACTOR SHALL PROVIDE PROPER PROTECTION OF EXISTING FEATURES THAT ARE TO REMAIN TO THE SATISFACTION OF THE OWNER AND GOVERNING AGENCIES. ANY EXISTING FEATURES DAMAGED DURING THE COURSE OF DEMOLITION/CONSTRUCTION SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE.
8. THE CONTRACTOR SHALL PROVIDE A FULL DEPTH SAW CUT WHERE PAVEMENT DEMOLITION ABUTS PAVEMENT THAT REMAINS IN PLACE. WHERE NEW PAVEMENT IS TO BE PLACED ADJACENT TO THIS SAW CUT, THE SAW CUT EDGE IS TO BE PROTECTED UNTIL NEW PAVEMENT IS PLACED. IN THE EVENT THE SAW CUT BECOMES DAMAGED THE CONTRACTOR SHALL PROVIDE A NEW SAW CUT TO ESTABLISH A "CLEAN" EDGE FOR THE NEW PAVEMENT TO ABUT.
9. REFER TO EROSION CONTROL PLANS FOR EROSION CONTROL MEASURES THAT MUST BE IN PLACE PRIOR TO PERFORMING DEMOLITION OPERATIONS.

PROFESSIONAL ENGINEER
DARLA K. HOLMAN
062-072191
OF ILLINOIS
1/9/26

PROJECT NO.: 84-4452


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# QuikTrip No. 4452

1610 PLAINFIELD ROAD
CREST HILL, WILL COUNTY, ILLINOIS 60403


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| DIVISION: | 84 |
| VERSION: | 001 |
| DESIGNED BY: | DKH |
| DRAWN BY: | CSH |
| REVIEWED BY: | CJC |

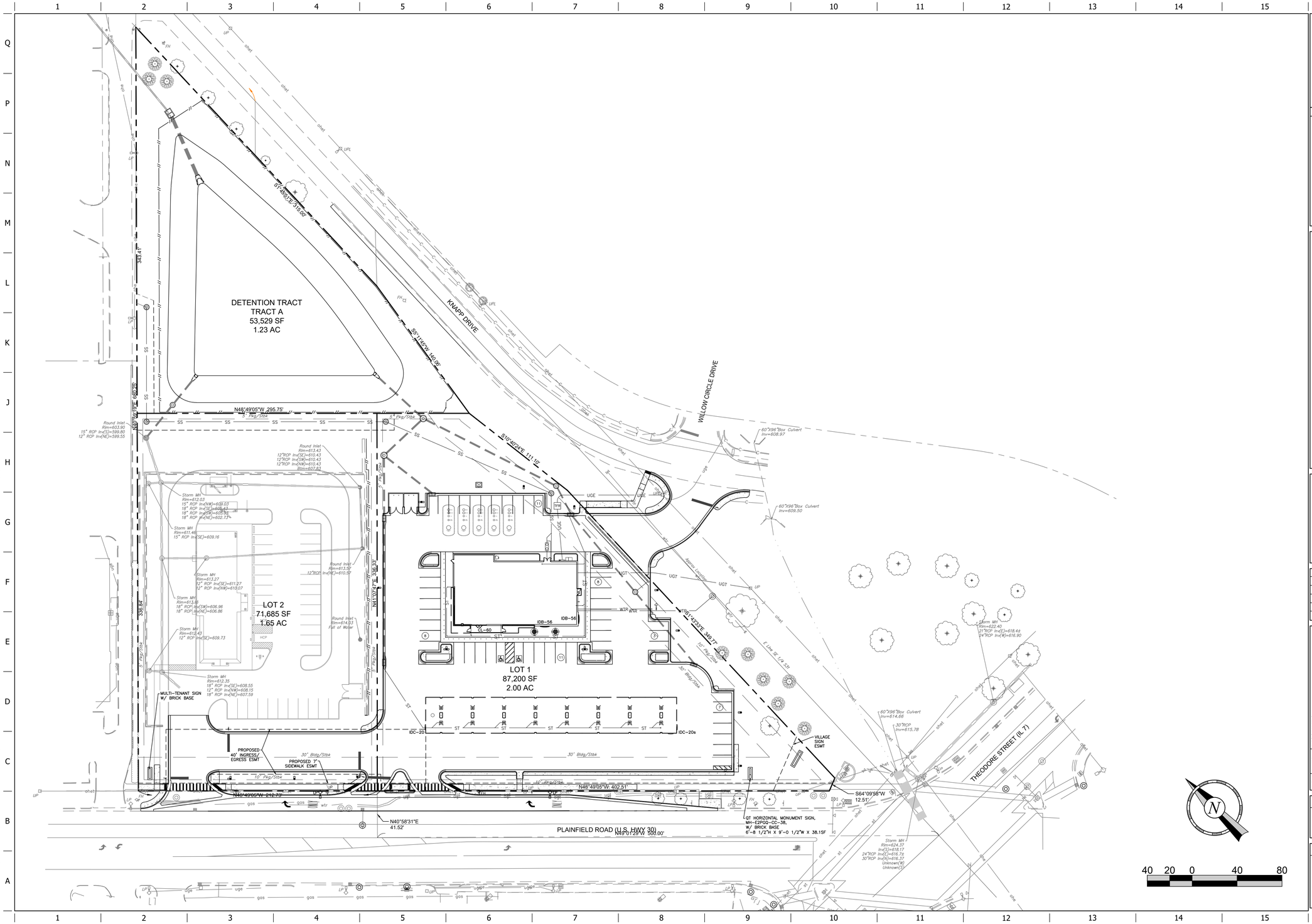
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ORIGINAL ISSUE DATE: 01/09/2026

SHEET TITLE:
DEMOLITION PLAN

SHEET NUMBER:
C030


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PROFESSIONAL ENGINEER
DARLA K. HOLMAN
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1/9/26

PROJECT NO.: 84-4452


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# QuikTrip No. 4452

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| VERSION: | 001 |
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| DRAWN BY: | CSH |
| REVIEWED BY: | CJC |

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ORIGINAL ISSUE DATE: 01/09/2026

SHEET TITLE:
OVERALL SITE PLAN

SHEET NUMBER:
C100


FILE LOCATION:C:\Civil 3D Projects\GT4452 Crest Hill, IL\89-4452 Civil.dwg TAB NAME:Overall Site USER:dkhol SAVED:1/9/2026 2:18 PM PLOTTED:1/9/2026 2:19 PM

## SITE NOTES:

1. ALL DIMENSIONS SHOWN ARE TO FACE OF CURB UNLESS OTHERWISE NOTED.
2. THE MAXIMUM CROSS SLOPE ON ALL PROPOSED SIDEWALKS, INCLUDING PUBLIC AND PRIVATE SIDEWALK DRIVEWAY CROSSINGS, IS 2%.
3. REFERENCE PHOTOMETRIC SITE PLAN (C160) FOR SITE LIGHTING DETAILS. LIGHT POLE LOCATIONS CAN BE SCALED FROM DRAWINGS OR STAKED BY CONSTRUCTION STAKING CONTRACTOR.
4. REGULATORY SIGNAGE SHALL CONFORM TO M.U.T.C.D.
5. ALL IMPROVEMENTS WITHIN PUBLIC RIGHT OF WAY SHALL BE CONSTRUCTED IN ACCORDANCE WITH GOVERNING AGENCY SPECIFICATIONS.
6. CONTRACTOR IS RESPONSIBLE FOR PROVIDING TRAFFIC CONTROL WHEN WORKING WITHIN AND ADJACENT TO PUBLIC STREETS.

## SITE LEGEND

- BOUNDARY LINE
- CONCRETE CURB AND GUTTER
- MOUNTABLE CURB W/RADIUS PROTECTOR
- (7) PARKING SPACE INDICATOR
- AREA LIGHT
- MULTIPLE PRODUCT DISPENSER WITH CANOPY COLUMNS AND BOLLARDS
- TFR TRANSFORMER
- FUEL SYSTEM ACCESS MANWAY

## PROPOSED SITE DEVELOPMENT DATA

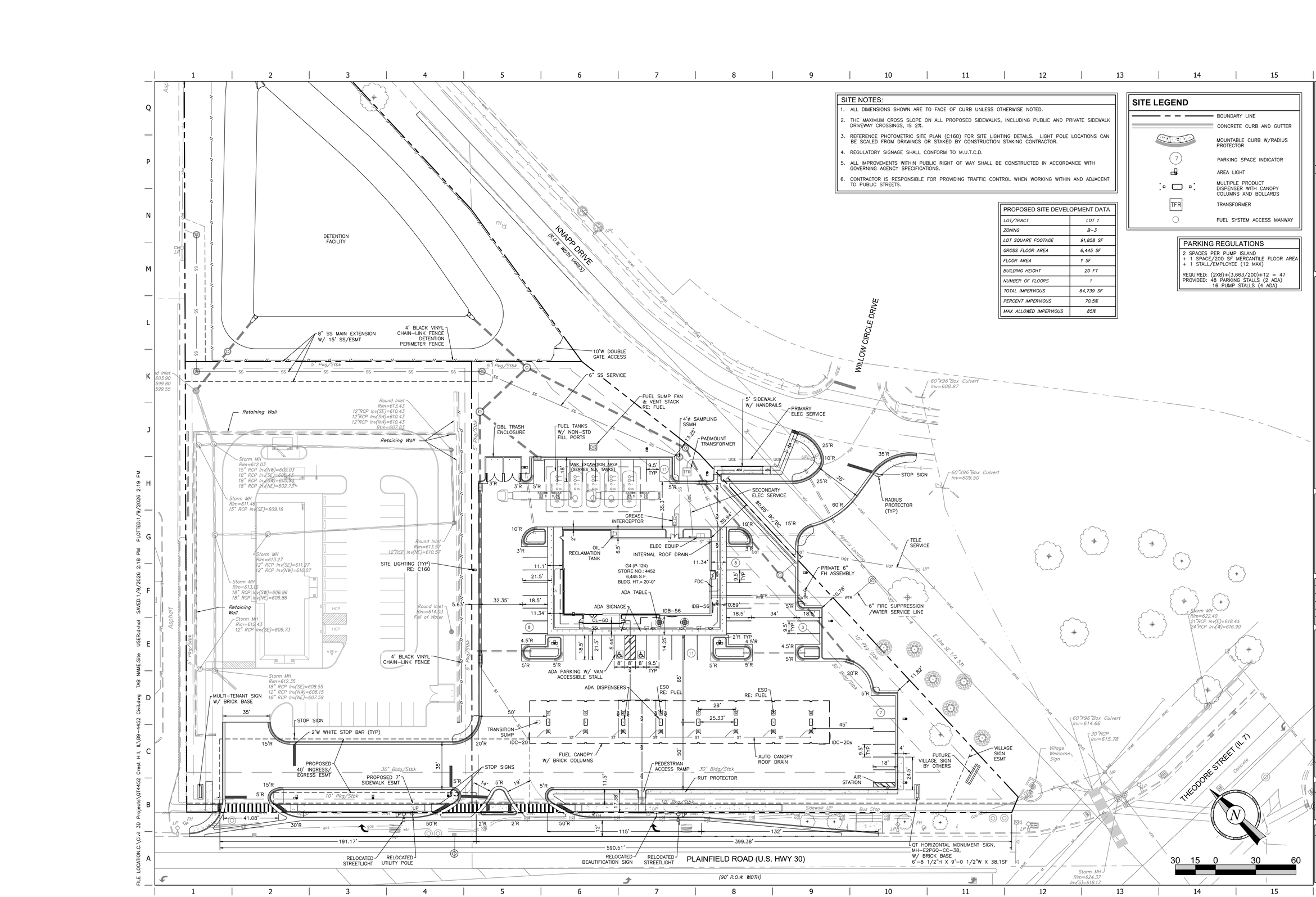
| | |
|---|---|
| LOT/TRACT | LOT 1 |
| ZONING | B-3 |
| LOT SQUARE FOOTAGE | 91,858 SF |
| GROSS FLOOR AREA | 6,445 SF |
| FLOOR AREA | ? SF |
| BUILDING HEIGHT | 20 FT |
| NUMBER OF FLOORS | 1 |
| TOTAL IMPERVIOUS | 64,739 SF |
| PERCENT IMPERVIOUS | 70.5% |
| MAX ALLOWED IMPERVIOUS | 85% |

## PARKING REGULATIONS

2 SPACES PER PUMP ISLAND
+ 1 SPACE/200 SF MERCANTILE FLOOR AREA
+ 1 STALL/EMPLOYEE (12 MAX)

REQUIRED: (2X8)+(3,663/200)+12 = 47
PROVIDED: 48 PARKING STALLS (2 ADA)
16 PUMP STALLS (4 ADA)

DETENTION FACILITY
KNAPP DRIVE (R.O.W. WIDTH VARIES)
WILLOW CIRCLE DRIVE
8" SS MAIN EXTENSION W/ 15' SS/ESMT
4' BLACK VINYL CHAIN-LINK FENCE DETENTION PERIMETER FENCE
10'W DOUBLE GATE ACCESS
6" SS SERVICE
FUEL SUMP FAN & VENT STACK RE: FUEL
5' SIDEWALK W/ HANDRAILS
PRIMARY ELEC SERVICE
4'ø SAMPLING SSMH
PADMOUNT TRANSFORMER
DBL TRASH ENCLOSURE
FUEL TANKS W/ NON-STD FILL PORTS
TANK EXCAVATION AREA (DEPTHS N.A. TANKS)
SECONDARY ELEC SERVICE
GREASE INTERCEPTOR
OIL RECLAMATION TANK
ELEC EQUIP
INTERNAL ROOF DRAIN
G4 (P-124) STORE NO.: 4452 6,445 S.F. BLDG. HT.= 20'-0"
FDC
ADA TABLE
ADA SIGNAGE
IDB-56
CL-60
ADA PARKING W/ VAN ACCESSIBLE STALL
ADA DISPENSERS
ESO RE: FUEL
FUEL CANOPY W/ BRICK COLUMNS
TRANSITION SUMP IDC-20
IDC-20s
AUTO CANOPY ROOF DRAIN
PEDESTRIAN ACCESS RAMP
RUT PROTECTOR
AIR STATION
FUTURE VILLAGE SIGN BY OTHERS
VILLAGE SIGN ESMT
RADIUS PROTECTOR (TYP)
STOP SIGN
TELE SERVICE
PRIVATE 6" FH ASSEMBLY
6" FIRE SUPPRESSION /WATER SERVICE LINE
SITE LIGHTING (TYP) RE: C160
4' BLACK VINYL CHAIN-LINK FENCE
MULTI-TENANT SIGN W/ BRICK BASE
2'W WHITE STOP BAR (TYP)
PROPOSED 40' INGRESS/ EGRESS ESMT
PROPOSED 7' SIDEWALK ESMT
STOP SIGNS
RELOCATED STREETLIGHT
RELOCATED UTILITY POLE
RELOCATED BEAUTIFICATION SIGN
RELOCATED STREETLIGHT
QT HORIZONTAL MONUMENT SIGN, MH-E2PGQ-CC-38, W/ BRICK BASE 6'-8 1/2"H X 9'-0 1/2"W X 38.1SF
PLAINFIELD ROAD (U.S. HWY 30)
(90' R.O.W. WIDTH)
THEODORE STREET (IL 7)
Retaining Wall
Round Inlet Rim=613.43 12"RCP Inv(SE)=610.43 12"RCP Inv(SW)=610.43 12"RCP Inv(NW)=610.43 Btm=607.83
Storm MH Rim=612.03 15" RCP Inv(NW)=609.03 18" RCP Inv(SE)=608.43 18" RCP Inv(SW)=608.03 18" RCP Inv(NE)=602.73±
Storm MH Rim=611.46 15" RCP Inv(SE)=609.16
Storm MH Rim=613.27 12" RCP Inv(SE)=611.27 12" RCP Inv(NW)=610.07
Storm MH Rim=613.16 18" RCP Inv(SW)=606.96 18" RCP Inv(NE)=606.86
Storm MH Rim=612.43 12" RCP Inv(SE)=609.73
Storm MH Rim=612.35 18" RCP Inv(SE)=608.55 12" RCP Inv(NW)=608.15 18" RCP Inv(NE)=607.59
Round Inlet Rim=613.57 12"RCP Inv(NE)=610.57
Round Inlet Rim=614.03 Full of Water
60"X96"Box Culvert Inv=608.97
60"X96"Box Culvert Inv=609.50
60"X96"Box Culvert Inv=614.66
30"RCP Inv=615.78
Storm MH Rim=624.37 Inv(S)=618.17
Storm MH Rim=622.40 21"RCP Inv(E)=618.4± 24"RCP Inv(W)=616.90
Asphalt
Concrete
Sidewalk
Bus Stop
Village Welcome Sign
Inlet Inv=603.90 Inv=599.80 Inv=599.55




DARLA K. HOLMAN
062-072191
PROFESSIONAL ENGINEER
OF ILLINOIS
1/9/26

Midwest Design Group
Kansas City
PO Box 860015
Shawnee, KS 66286-0015
P 913.248.9385


PROJECT NO.: 84-4452

# QuikTrip No. 4452

1610 PLAINFIELD ROAD
CREST HILL, WILL COUNTY, ILLINOIS 60403


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| DIVISION: | 84 |
| VERSION: | 001 |
| DESIGNED BY: | DKH |
| DRAWN BY: | CSH |
| REVIEWED BY: | CJC |

| REV | DATE | DESCRIPTION |
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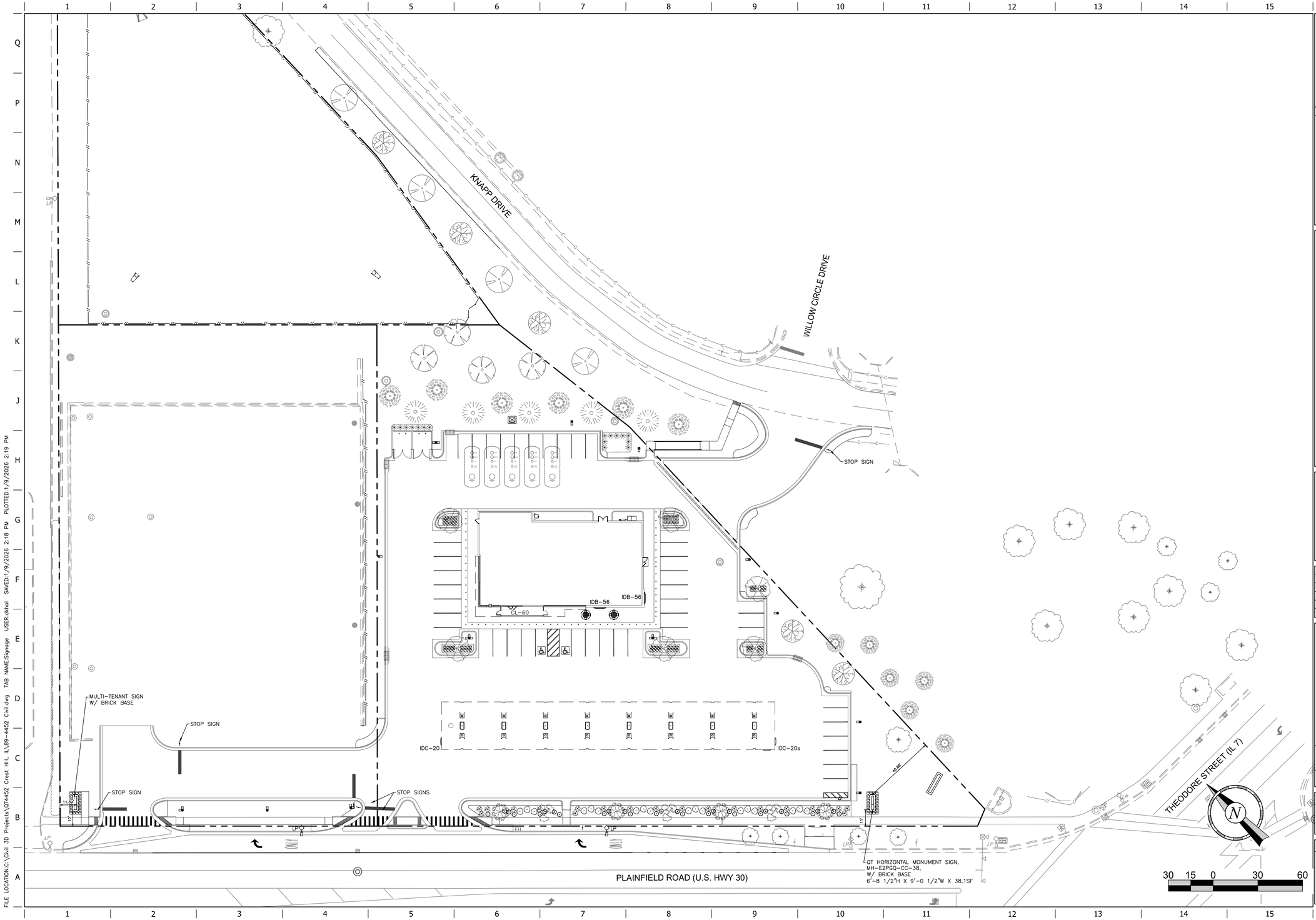
ORIGINAL ISSUE DATE: 01/09/2026

SHEET TITLE: SITE PLAN

SHEET NUMBER: C101

30 15 0 30 60


FILE LOCATION:C:\Civil 3D Projects\QT4452 Crest Hill, IL\89-4452 Civil.dwg TAB NAME:Site USER:dkholl SAVED:1/9/2026 2:18 PM PLOTTED:1/9/2026 2:19 PM




FILE LOCATION:C:\Civil 3D Projects\QT4452 Crest Hill, IL\89-4452 Civil.dwg TAB NAME:Signage USER:dkhol SAVED:1/9/2026 2:18 PM PLOTTED:1/9/2026 2:19 PM

DARLA K. HOLMAN
062-072191
PROFESSIONAL ENGINEER
OF ILLINOIS
1/9/26

PROJECT NO.:84-4452


Midwest Design Group
Kansas City

PO Box 860015
Shawnee, KS 66286-0015
P 913.248.9385


# QuikTrip No. 4452

1610 PLAINFIELD ROAD
CREST HILL, WILL COUNTY, ILLINOIS 60403


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| PROTOTYPE: | P-122 |
| DIVISION: | 84 |
| VERSION: | 001 |
| DESIGNED BY: | DKH |
| DRAWN BY: | CSH |
| REVIEWED BY: | CJC |

| REV | DATE | DESCRIPTION |
|---|---|---|

ORIGINAL ISSUE DATE: 01/09/2026

SHEET TITLE:

SIGNAGE PLAN

SHEET NUMBER:

C102

KNAPP DRIVE

WILLOW CIRCLE DRIVE

PLAINFIELD ROAD (U.S. HWY 30)

WB-50 - Intermediate Semi-Trailer

WB-50 - Intermediate Semi-Trailer

WB-50 - Intermediate Semi-Trailer

30 15 0 30 60

N

DARLA K. HOLMAN
062-072191
PROFESSIONAL ENGINEER
OF ILLINOIS
1/9/26

PROJECT NO.: 84-4452


Midwest Design Group
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| | | ORIGINAL ISSUE DATE: 01/09/2026 |

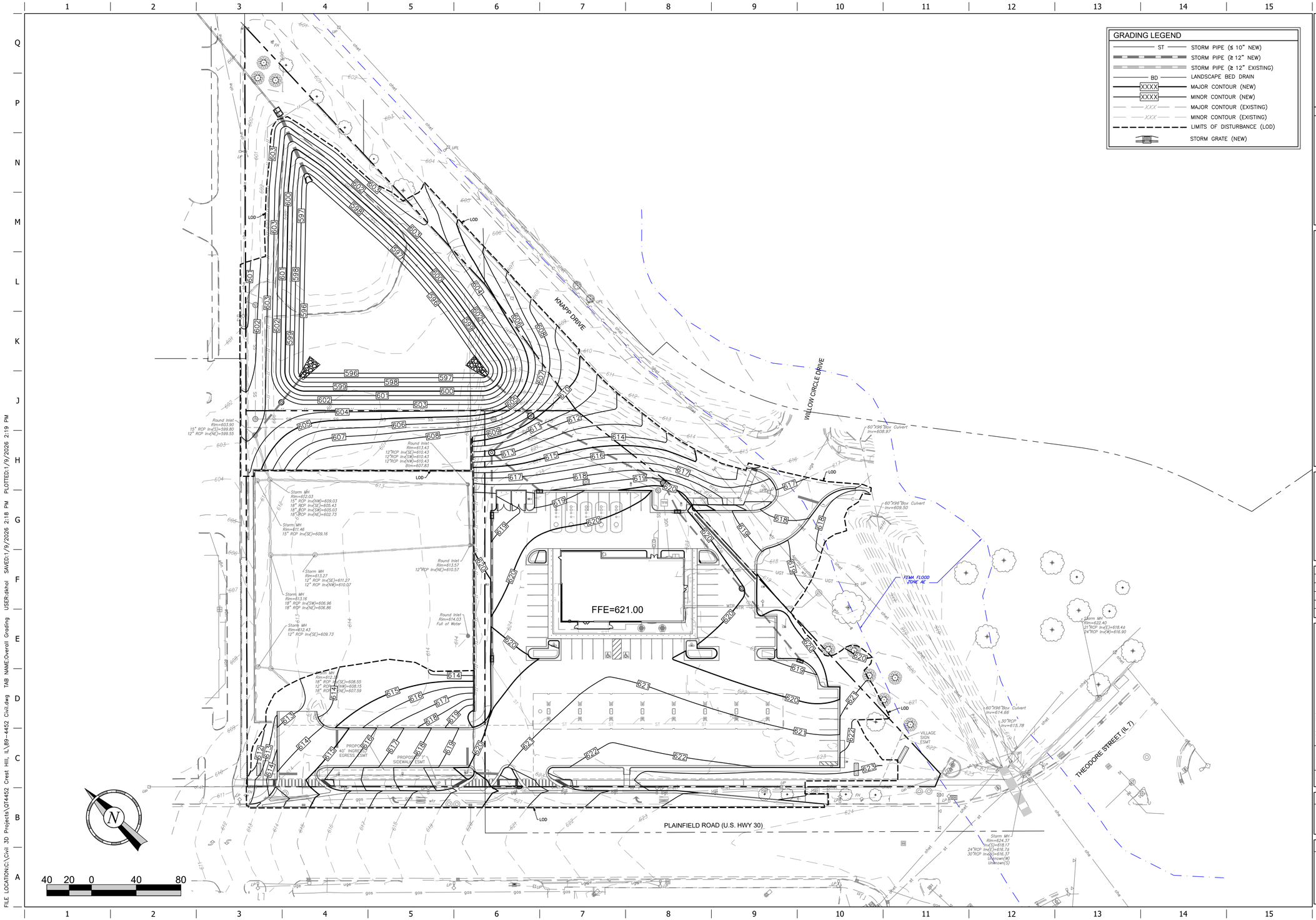
SHEET TITLE:

VEHICLE TRACKING (DELIVERY TRUCKS)

SHEET NUMBER:

C103


FILE LOCATION:C:\Civil 3D Projects\QT4452 Crest Hill, IL\89-4452 Civil.dwg TAB NAME:Vehicle Tracking USER:dkhol SAVED:1/9/2026 2:18 PM PLOTTED:1/9/2026 2:19 PM





PROFESSIONAL ENGINEER
DARLA K. HOLMAN
062-072191
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1/9/26

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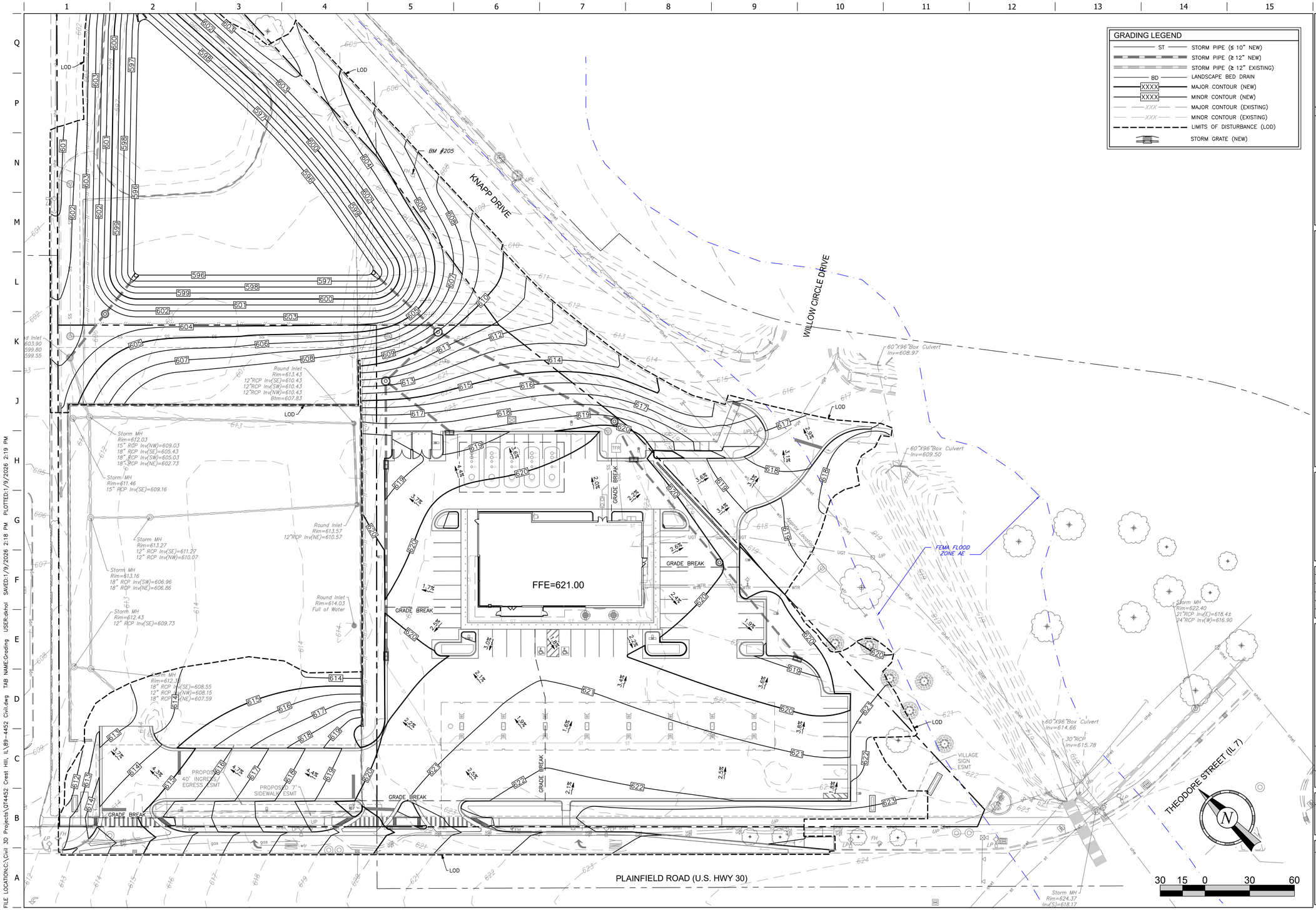

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| DIVISION: | 84 |
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| REVIEWED BY: | CJC |

| REV | DATE | DESCRIPTION |
|---|---|---|
| | | ORIGINAL ISSUE DATE: 01/09/2026 |

SHEET TITLE:
OVERALL GRADING PLAN

SHEET NUMBER:
C110


FILE LOCATION:C:\Civil 3D Projects\QT4452 Crest Hill, IL\89--4452 Civil.dwg TAB NAME:Overall Grading USER:dkhol SAVED:1/9/2026 2:18 PM PLOTTED:1/9/2026 2:19 PM




DARLA K. HOLMAN 062-072191 PROFESSIONAL ENGINEER OF ILLINOIS
1/9/26

PROJECT NO.: 84-4452


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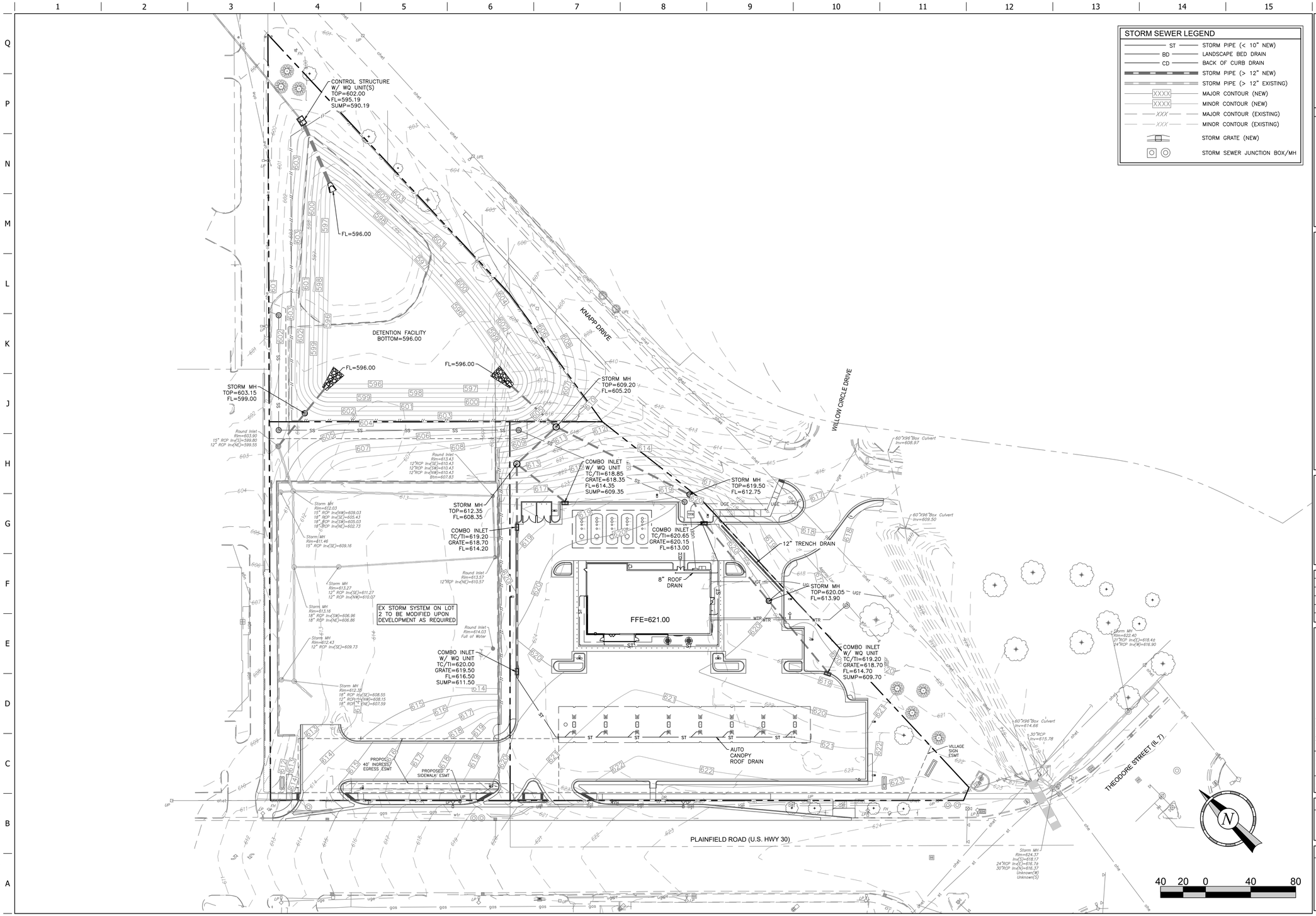

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| PROTOTYPE: | P-122 |
| DIVISION: | 84 |
| VERSION: | 001 |
| DESIGNED BY: | DKH |
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| REV | DATE | DESCRIPTION |
|---|---|---|
| | | ORIGINAL ISSUE DATE: 01/09/2026 |

SHEET TITLE:
GRADING PLAN

SHEET NUMBER:
C111


FILE LOCATION:C:\Civil 3D Projects\GT4452 Crest Hill, IL\89--4452 Civil.dwg TAB NAME:Grading USER:dkhol SAVED:1/9/2026 2:18 PM PLOTTED:1/9/2026 2:19 PM





DARLA K. HOLMAN
062-072191
PROFESSIONAL ENGINEER
OF ILLINOIS
1/9/26

PROJECT NO.: 84-4452

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# QuikTrip No. 4452

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| REV | DATE | DESCRIPTION |
|---|---|---|
| | | |

ORIGINAL ISSUE DATE: 01/09/2026

SHEET TITLE:
STORM SEWER PLAN

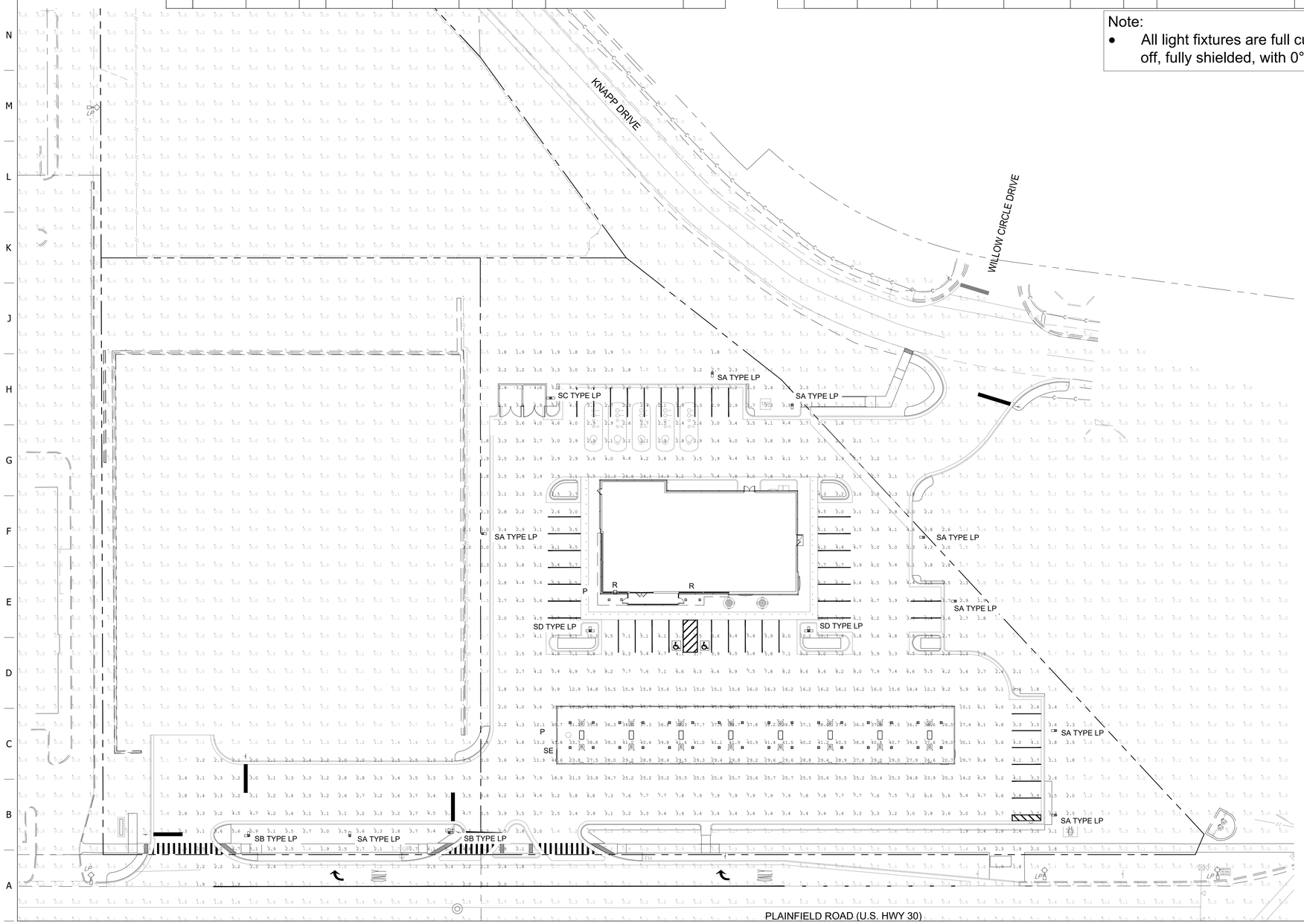
SHEET NUMBER:
C120

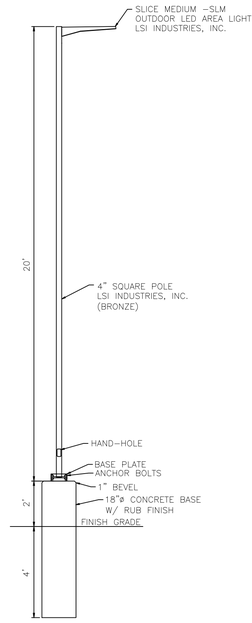

FILE LOCATION:C:\Civil 3D Projects\QT4452 Crest Hill, IL\89-4452 Civil.dwg TAB NAME:Storm USER:dkhol SAVED:1/9/2026 2:18 PM PLOTTED:1/9/2026 2:20 PM

| LUMINAIRE SCHEDULE | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | SYMBOL | LABEL | QTY | ARRANGEMENT | MOUNTING HEIGHT | LUMENS PER LAMP | LLF | DESCRIPTION | TOTAL WATTS |
| | | SA | 08 | SINGLE | 22' | 12,591 | 0.90 | SLM-LED-12L-SIL-FT-40-70-CRI | 93.1 |
| | | SB | 02 | 2 @ 90° | 22' | 12,591 | 0.90 | SLM-LED-12L-SIL-FT-40-70-CRI | 93.1 |
| | | SC | 01 | 2 @ 180° | 22' | 12,591 | 0.90 | SLM-LED-12L-SIL-FT-40-70-CRI | 93.1 |
| | | SD | 02 | 3 @ 90° | 22' | 12,591 | 0.90 | SLM-LED-12L-SIL-FT-40-70-CRI | 93.1 |

| LUMINAIRE SCHEDULE | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | SYMBOL | LABEL | QTY | ARRANGEMENT | MOUNTING HEIGHT | LUMENS PER LAMP | LLF | DESCRIPTION | TOTAL WATTS |
| | | SE | 32 | SINGLE | 15' TO 19' | 12,793 | 0.90 | SCV-LED-13L-SC-40 (WHITE) | 83.6 |
| | | R | 04 | SINGLE | 10' TO 12' | 6,041 | 0.90 | XSPS-S-LED-VHO-NW-DFL | 48.7 |
| | | DL | 862LF | VARIES | 16' TO 18' | 447.5/FT | 0.90 | ARCH-LED-BW-MULTI | 10/FT |
| | | SV | 00 | N/A | 22' | N/A | N/A | LOW VOLTAGE POLE | N/A |

Note:
- All light fixtures are full cut off, fully shielded, with 0° tilt.




AUTO SIDE LIGHT STANDARD
NOT TO SCALE




30 15 0 30 60

PROJECT NO.:84-4452

CRUX
TECHNOLOGY + SECURITY SOLUTIONS
800.685.6440
www.cruxsolutions.com

# QuikTrip No. 4452

1610 PLAINFIELD ROAD
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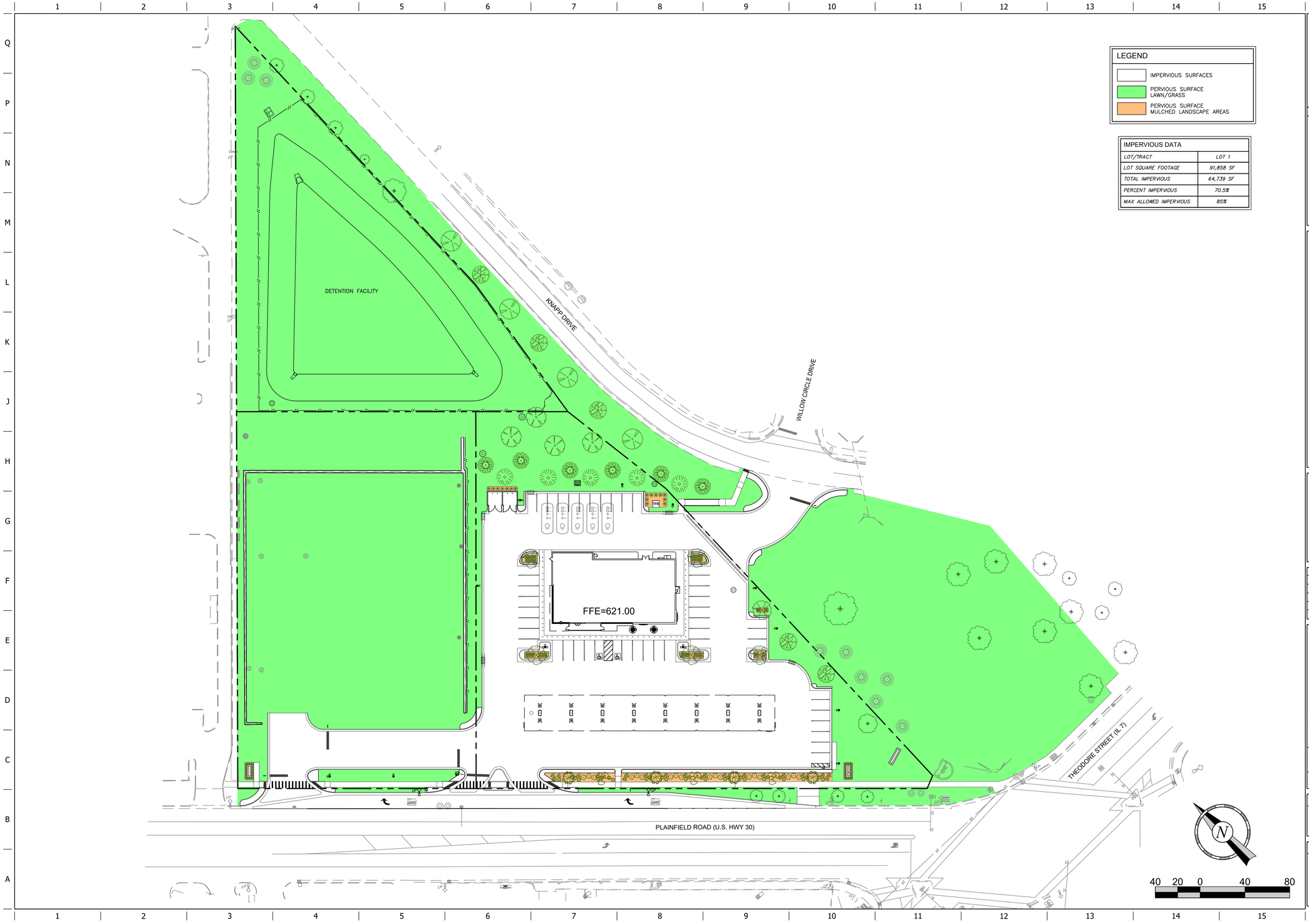
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| PROTOTYPE: | P-122 |
| DIVISION: | 84 |
| VERSION: | 001 |
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| DRAWN BY: | CSH |
| REVIEWED BY: | CJC |

| REV | DATE | DESCRIPTION |
|---|---|---|
| | | ORIGINAL ISSUE DATE: 01/09/2026 |

SHEET TITLE:
PHOTOMETRIC SITE PLAN

SHEET NUMBER:
C160

FILE LOCATION:C:\Civil 3D Projects\QT4452 Crest Hill, IL\84-4452 Photometric.dwg TAB NAME:Photometric USER:dkhol SAVED:1/6/2026 11:27 AM PLOTTED:1/9/2026 2:20 PM




LEGEND

- IMPERVIOUS SURFACES
- PERVIOUS SURFACE LAWN/GRASS
- PERVIOUS SURFACE MULCHED LANDSCAPE AREAS

| IMPERVIOUS DATA | |
|---|---|
| LOT/TRACT | LOT 1 |
| LOT SQUARE FOOTAGE | 91,858 SF |
| TOTAL IMPERVIOUS | 64,739 SF |
| PERCENT IMPERVIOUS | 70.5% |
| MAX ALLOWED IMPERVIOUS | 85% |

PROFESSIONAL ENGINEER
DARLA K. HOLMAN
062-072191
OF ILLINOIS
1/9/26

PROJECT NO.: 84-4452


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Kansas City
PO Box 860015
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# QuikTrip No. 4452

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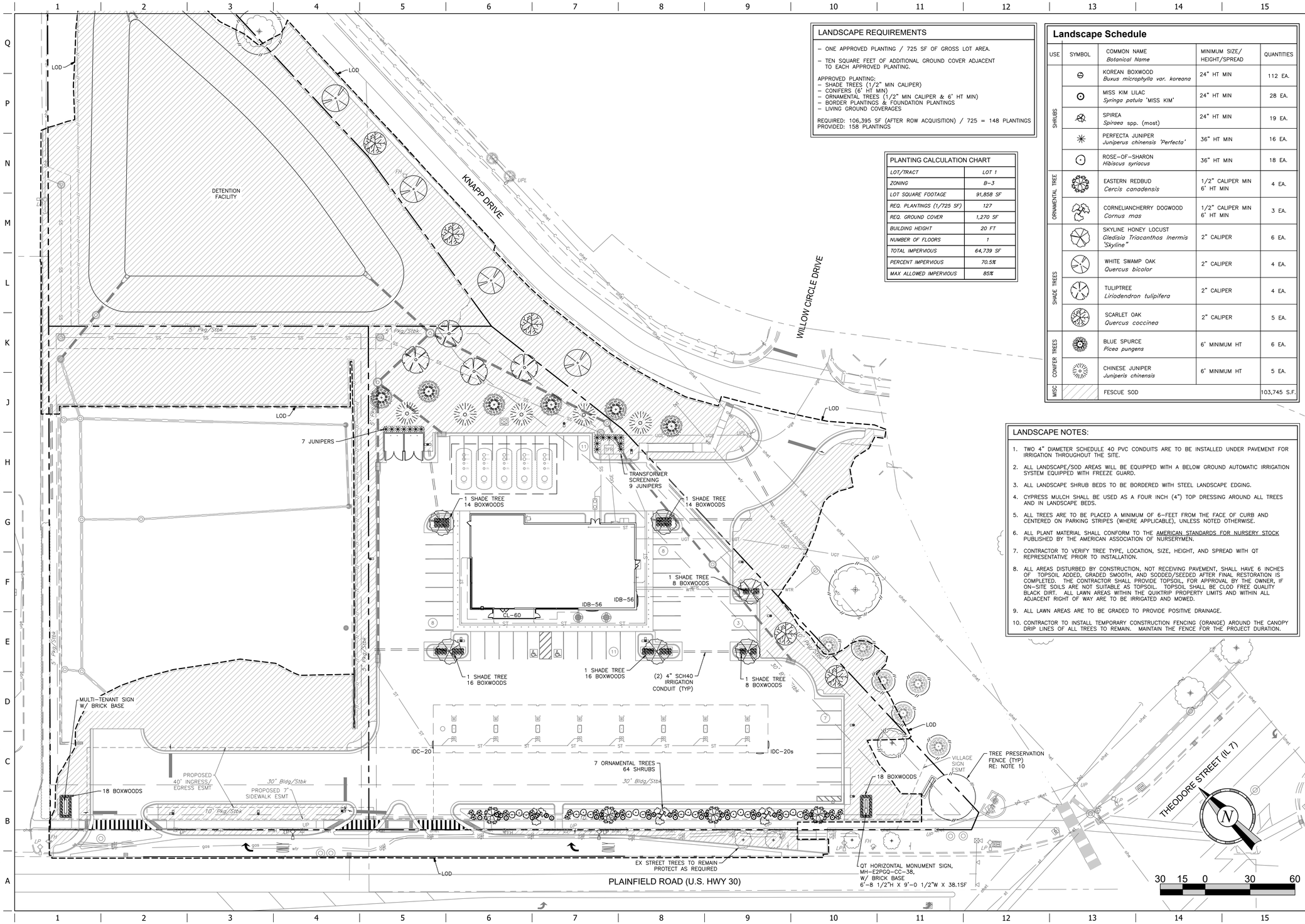
| REV | DATE | DESCRIPTION |
|---|---|---|
| | | |

ORIGINAL ISSUE DATE: 01/09/2026

SHEET TITLE:
OVERALL LANDSCAPE IMPERVIOUS SURFACE PLAN

SHEET NUMBER:
L100


FILE LOCATION:C:\Civil 3D Projects\QT4452 Crest Hill, IL\84-4452 Civil.dwg TAB NAME:Overall Landscape USER:dkhol SAVED:1/9/2026 2:18 PM PLOTTED:1/9/2026 2:20 PM




## LANDSCAPE REQUIREMENTS

- ONE APPROVED PLANTING / 725 SF OF GROSS LOT AREA.
- TEN SQUARE FEET OF ADDITIONAL GROUND COVER ADJACENT TO EACH APPROVED PLANTING.

APPROVED PLANTING:
- SHADE TREES (1/2" MIN CALIPER)
- CONIFERS (6' HT MIN)
- ORNAMENTAL TREES (1/2" MIN CALIPER & 6' HT MIN)
- BORDER PLANTINGS & FOUNDATION PLANTINGS
- LIVING GROUND COVERAGES

REQUIRED: 106,395 SF (AFTER ROW ACQUISITION) / 725 = 148 PLANTINGS
PROVIDED: 158 PLANTINGS

## PLANTING CALCULATION CHART

| | |
|---|---|
| LOT/TRACT | LOT 1 |
| ZONING | B-3 |
| LOT SQUARE FOOTAGE | 91,858 SF |
| REQ. PLANTINGS (1/725 SF) | 127 |
| REQ. GROUND COVER | 1,270 SF |
| BUILDING HEIGHT | 20 FT |
| NUMBER OF FLOORS | 1 |
| TOTAL IMPERVIOUS | 64,739 SF |
| PERCENT IMPERVIOUS | 70.5% |
| MAX ALLOWED IMPERVIOUS | 85% |

## Landscape Schedule

| USE | SYMBOL | COMMON NAME / *Botanical Name* | MINIMUM SIZE/ HEIGHT/SPREAD | QUANTITIES |
|---|---|---|---|---|
| SHRUBS | | KOREAN BOXWOOD *Buxus microphylla var. koreana* | 24" HT MIN | 112 EA. |
| | | MISS KIM LILAC *Syringa patula* 'MISS KIM' | 24" HT MIN | 28 EA. |
| | | SPIREA *Spiraea* spp. (most) | 24" HT MIN | 19 EA. |
| | | PERFECTA JUNIPER *Juniperus chinensis 'Perfecta'* | 36" HT MIN | 16 EA. |
| | | ROSE-OF-SHARON *Hibiscus syriacus* | 36" HT MIN | 18 EA. |
| ORNAMENTAL TREE | | EASTERN REDBUD *Cercis canadensis* | 1/2" CALIPER MIN 6' HT MIN | 4 EA. |
| | | CORNELIANCHERRY DOGWOOD *Cornus mas* | 1/2" CALIPER MIN 6' HT MIN | 3 EA. |
| SHADE TREES | | SKYLINE HONEY LOCUST *Gledisia Triacanthos Inermis 'Skyline"* | 2" CALIPER | 6 EA. |
| | | WHITE SWAMP OAK *Quercus bicolor* | 2" CALIPER | 4 EA. |
| | | TULIPTREE *Liriodendron tulipifera* | 2" CALIPER | 4 EA. |
| | | SCARLET OAK *Quercus coccinea* | 2" CALIPER | 5 EA. |
| CONIFER TREES | | BLUE SPURCE *Picea pungens* | 6' MINIMUM HT | 6 EA. |
| | | CHINESE JUNIPER *Juniperis chinensis* | 6' MINIMUM HT | 5 EA. |
| MISC | | FESCUE SOD | | 103,745 S.F. |

## LANDSCAPE NOTES:

1. TWO 4" DIAMETER SCHEDULE 40 PVC CONDUITS ARE TO BE INSTALLED UNDER PAVEMENT FOR IRRIGATION THROUGHOUT THE SITE.
2. ALL LANDSCAPE/SOD AREAS WILL BE EQUIPPED WITH A BELOW GROUND AUTOMATIC IRRIGATION SYSTEM EQUIPPED WITH FREEZE GUARD.
3. ALL LANDSCAPE SHRUB BEDS TO BE BORDERED WITH STEEL LANDSCAPE EDGING.
4. CYPRESS MULCH SHALL BE USED AS A FOUR INCH (4") TOP DRESSING AROUND ALL TREES AND IN LANDSCAPE BEDS.
5. ALL TREES ARE TO BE PLACED A MINIMUM OF 6-FEET FROM THE FACE OF CURB AND CENTERED ON PARKING STRIPES (WHERE APPLICABLE), UNLESS NOTED OTHERWISE.
6. ALL PLANT MATERIAL SHALL CONFORM TO THE AMERICAN STANDARDS FOR NURSERY STOCK PUBLISHED BY THE AMERICAN ASSOCIATION OF NURSERYMEN.
7. CONTRACTOR TO VERIFY TREE TYPE, LOCATION, SIZE, HEIGHT, AND SPREAD WITH QT REPRESENTAITVE PRIOR TO INSTALLATION.
8. ALL AREAS DISTURBED BY CONSTRUCTION, NOT RECEIVING PAVEMENT, SHALL HAVE 6 INCHES OF TOPSOIL ADDED, GRADED SMOOTH, AND SODDED/SEEDED AFTER FINAL RESTORATION IS COMPLETED. THE CONTRACTOR SHALL PROVIDE TOPSOIL, FOR APPROVAL BY THE OWNER, IF ON-SITE SOILS ARE NOT SUITABLE AS TOPSOIL. TOPSOIL SHALL BE CLOD FREE QUALITY BLACK DIRT. ALL LAWN AREAS WITHIN THE QUIKTRIP PROPERTY LIMITS AND WITHIN ALL ADJACENT RIGHT OF WAY ARE TO BE IRRIGATED AND MOWED.
9. ALL LAWN AREAS ARE TO BE GRADED TO PROVIDE POSITIVE DRAINAGE.
10. CONTRACTOR TO INSTALL TEMPORARY CONSTRUCTION FENCING (ORANGE) AROUND THE CANOPY DRIP LINES OF ALL TREES TO REMAIN. MAINTAIN THE FENCE FOR THE PROJECT DURATION.

Professional Engineer
DARLA K. HOLMAN
062-072191
OF ILLINOIS
1/9/26

PROJECT NO.:84-4452


MDG
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Shawnee, KS 66286-0015
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# QuikTrip No. 4452

1610 PLAINFIELD ROAD
CREST HILL, WILL COUNTY, ILLINOIS 60403

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| REV | DATE | DESCRIPTION |
|---|---|---|

ORIGINAL ISSUE DATE: 01/09/2026

SHEET TITLE:
LANDSCAPE PLAN

SHEET NUMBER:
L101

FILE LOCATION:C:\Civil 3D Projects\QT4452 Crest Hill, IL\89-4452 Civil.dwg TAB NAME:Landscape USER:dkhol SAVED:1/9/2026 2:18 PM PLOTTED:1/9/2026 2:20 PM

PIERCE AERIAL HD LADDER 105' ALUM BODY

| Parameters: | |
|---|---|
| Inside Cramp Angle: | 45° |
| Axle Track: | 82.92" |
| Wheel Offset: | 4.68" |
| Tread Width: | 16.3" |
| Chassis Overhang: | 68.99" |
| Additional Bumper Depth: | 19" |
| Front Overhang: | 87.99" |
| Wheelbase: | 246" |
| Overall Length: | 498" |
| **Calculated Turning Radii:** | |
| Inside Turn: | 19' - 5" |
| Curb to Curb: | 35' - 4" |
| Wall to Wall: | 39' - 10" |

KNAPP DRIVE

WILLOW CIRCLE DRIVE

PLAINFIELD ROAD (U.S. HWY 30)

Hypnpak Aerial HD Ladder

30 15 0 30 60


DARLA K. HOLMAN
062-072191
LICENSED PROFESSIONAL ENGINEER OF ILLINOIS

PROJECT NO.:84-4452

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|---|---|---|
| | | ORIGINAL ISSUE DATE: 01/16/2026 |

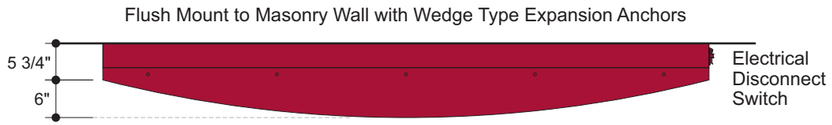
SHEET TITLE:

VEHICLE TRACKING (AERIAL HD LADDER TRUCK)

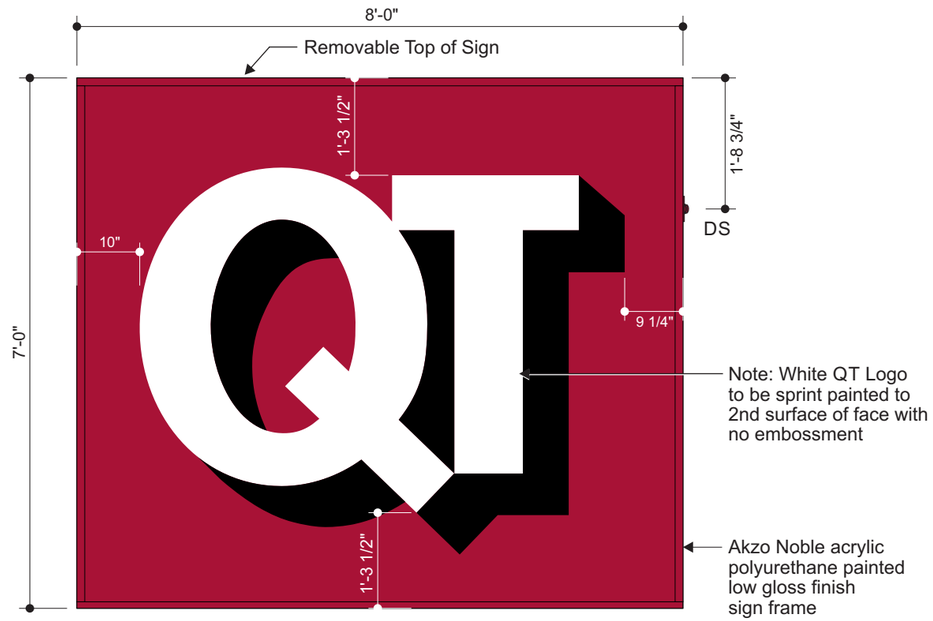
SHEET NUMBER:

EXHIBIT


FILE LOCATION:C:\Civil 3D Projects\QT4452 Crest Hill, IL\89-4452 Civil.dwg TAB NAME:Vehicle Tracking Fire USER:dkhol SAVED:2/4/2026 3:12 PM PLOTTED:2/4/2026 3:17 PM




**Top View**




**Front View**
Scale: 1/2" = 1'-0"




**Side View**

# IDB-56
# 56 SF Building ID Sign

- Flat Bowed Face Panel and 1 1/4" Wide Face Retainers
- 56 Square Feet Sign Area

**APPROVED**

3/6/25

## Color Specifications

All Paint Finishes to be Akzo Nobel

- Opaque Silver
- Translucent White
- Black - Low Gloss
- Matte White (Interior of Sign)
- Match 3M Cardinal Red #3630-53

Regarding Fabrication Fit & Finish of All QT Signs:

- Visible fabrication seams and welded joints are to be sanded smooth, filled and finished to QT specifications.
- Any visible fasteners are to be countersunk and have painted heads.
- Face retainers must fit flush and have even, minimal seams.
- Any variation from this directive must be brought to the attention of the QT Quality Control Manager without delay.

Allen Industries — FILE NUMBER: E212503 | Listed MET E212503 | Electric Sign Complies with UL48

THIS SIGN IS INTENDED TO BE INSTALLED IN ACCORDANCE WITH THE REQUIREMENTS OF **ARTICLE 600 OF THE NATIONAL ELECTRICAL CODE** AND/OR OTHER APPLICABLE LOCAL CODES. THIS INCLUDES PROPER GROUNDING AND BONDING OF THE SIGN.

GROUNDED ELECTRICAL CONNECTIONS

**Item #QT-IDB-56**

## Project Information

Client
**QuikTrip**

Location
**Various**

File
**QT Gen4_IDB-56_102**

| Sales | Design | Project Manager |
|---|---|---|
| **House** | **CT** | **James Gentry** |

## Date / Description

| | | |
|---|---|---|
| 01/20/25 | | Issue Date |
| 01/21/25 | 1 | Internal correction |
| 03/05/25 | 2 | Dimensioned J-box |
| | 3 | |
| | 4 | |
| | 5 | |
| | 6 | |
| | 7 | |
| | 8 | |
| | 9 | |

## Notes

## Client Review Status

Allen Industries, Inc. requires that an "☑ **Approved**" drawing be obtained from the client prior to any production release or production release revision.

☐ **Approved** ☐ **Approved as Noted** ☐ **Revise & Resubmit**

Name

Title Date

## Declaration

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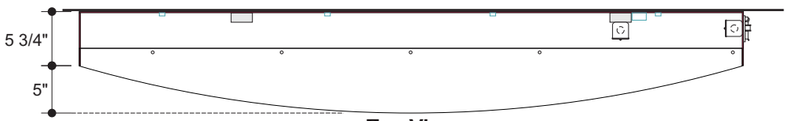
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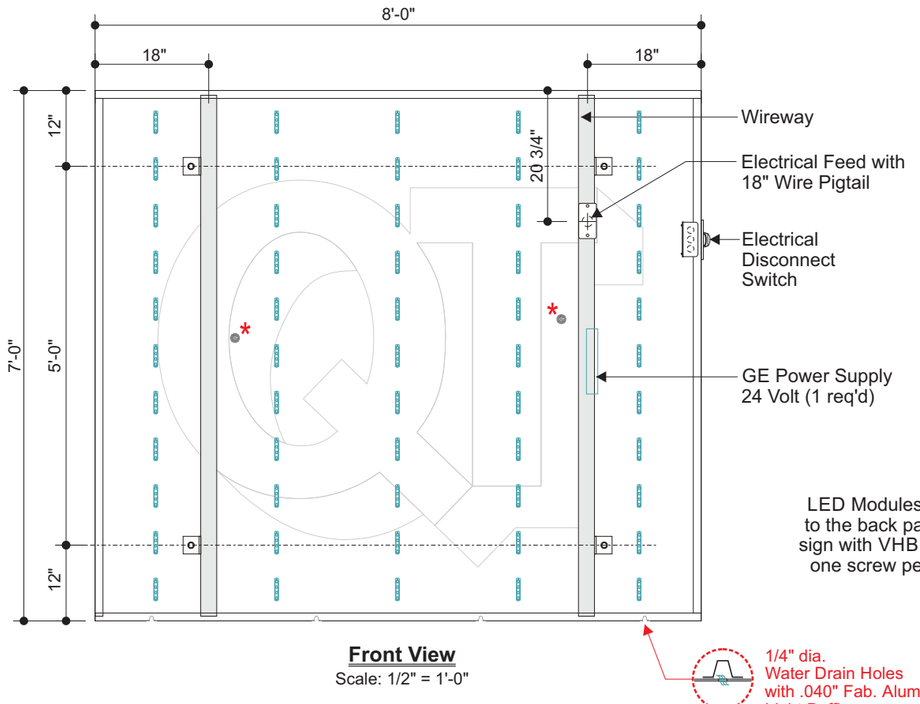
## LED Specification

E

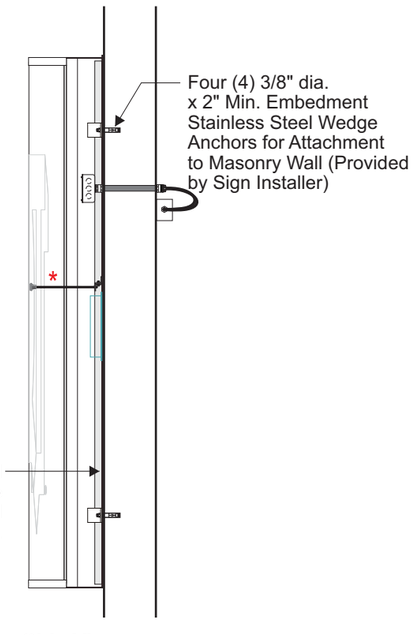
55 ea. GEPMH2471-W1X
1 ea. GEPS24-100U-GLX
Total Electrical Amp Load = 1.1 Amps
One (1) 120 Volt - 20 Amp
Circuit Breaker Required for Sign




**Top View**

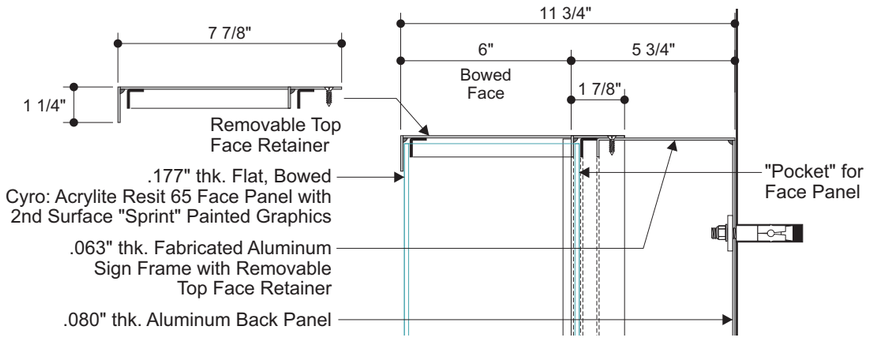



**Front View**
Scale: 1/2" = 1'-0"




**Side View**

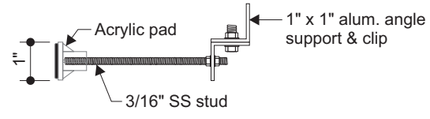
# Construction Details




**Side Section View**
Scale: 3/16" = 1"




**Top View**




*** Face Support Bumpers**
Scale: NTS

1" dia. perforated acrylic pad with applied black silicone adhesive cushion and 3/16" dia. SS stud, attached to vertical rails

Acrylic face bumpers to be installed in the Black drop shadow area of the QT Logo.

Regarding Fabrication Fit & Finish of All QT Signs:

- Visible fabrication seams and welded joints are to be sanded smooth, filled and finished to QT specifications.
- Any visible fasteners are to be countersunk and have painted heads.
- Face retainers must fit flush and have even, minimal seams.
- Any variation from this directive must be brought to the attention of the QT Quality Control Manager without delay.

Allen Industries
FILE NUMBER: E212503
Listed MET E212503
Electric Sign Complies with UL48
GROUNDED ELECTRICAL CONNECTIONS
THIS SIGN IS INTENDED TO BE INSTALLED IN ACCORDANCE WITH THE REQUIREMENTS OF ARTICLE 600 OF THE NATIONAL ELECTRICAL CODE AND/OR OTHER APPLICABLE LOCAL CODES. THIS INCLUDES PROPER GROUNDING AND BONDING OF THE SIGN.

**Item #QT-IDB-56**

## Project Information

Client
**QuikTrip**

Location
**Various**

File
**QT Gen4_IDB-56_102**

| Sales | Design | Project Manager |
|---|---|---|
| **House** | **CT** | **James Gentry** |

## Date / Description

| | | |
|---|---|---|
| 01/20/25 | | Issue Date |
| 01/21/25 | 1 | Internal correction |
| 03/05/25 | 2 | Dimensioned J-box |
| | 3 | |
| | 4 | |
| | 5 | |
| | 6 | |
| | 7 | |
| | 8 | |
| | 9 | |

## Notes

## Client Review Status

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☐ Approved ☐ Approved as Noted ☐ Revise & Resubmit

Name

Title Date

## Declaration

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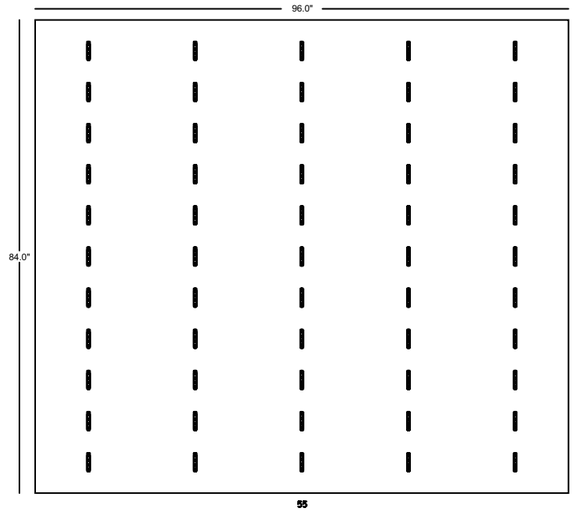
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# Illumination Detail




Tetra®
**Tech Support**
1-888-694-3533
tetradrawings@gecurrent.com


Current




| Illumination | Depth | Power Supplies | Qty | Module Name | CCT | Qty | Ordering Length |
|---|---|---|---|---|---|---|---|
| Face Lit | 11.000 in | GEPS24-100U-GLX | 1 ea | GEPMH2471-W1X | 7100K | 55 ea | 39.286 feet |

| Height | Width | Total Circuit Amps (120 VAC) | Max Load Per PS | Total Module Watts |
|---|---|---|---|---|
| 85.0 in | 96.0 in | 1.100 | 64.00 | 71.50 watts |

| Date | Job ID |
|---|---|
| January 20, 2025 | |

**THE GRAPHICS ABOVE ARE FOR REFERENCE ONLY and should not be used for commercial quotation or bid without validation. The material estimates for Tetra® LED Systems are based upon our engineering standards and information provided pertaining to font, letter height, can depth, face material, and any special instructions provided by the customer. Missing information will cause delays in delivery of estimates as well as affect product selection, quantities, application, and illumination. LED MODULE PLACEMENT AND QUANTITY IS AN APPROXIMATION ONLY. The sign manufacturer must verify module placement and quantity to ensure even illumination. Final material quantities for estimation purposes and construction are the responsibility of the sign OEM. All signs should be tested as complete units (including correct Tetra® power supply) before installation for acceptable color, illumination, intensity, & functionality. For detailed information refer to the applicable Tetra® product found under Signage; https://www.led.com/applications/led-signage-lighting**

QT

**Item #QT-IDB-56**

## Project Information

Client
**QuikTrip**

Location
**Various**

File
**QT Gen4_IDB-56_102**

| Sales | Design | Project Manager |
|---|---|---|
| **House** | **CT** | **James Gentry** |

## Date / Description

| | | |
|---|---|---|
| 01/20/25 | | Issue Date |
| 01/21/25 | 1 | Internal correction |
| 03/05/25 | 2 | Dimensioned J-box |
| | 3 | |
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## Notes

## Client Review Status

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☐ Approved ☐ Approved as Noted ☐ Revise & Resubmit

Name

Title Date

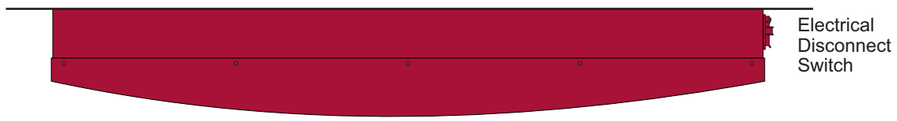
## Declaration


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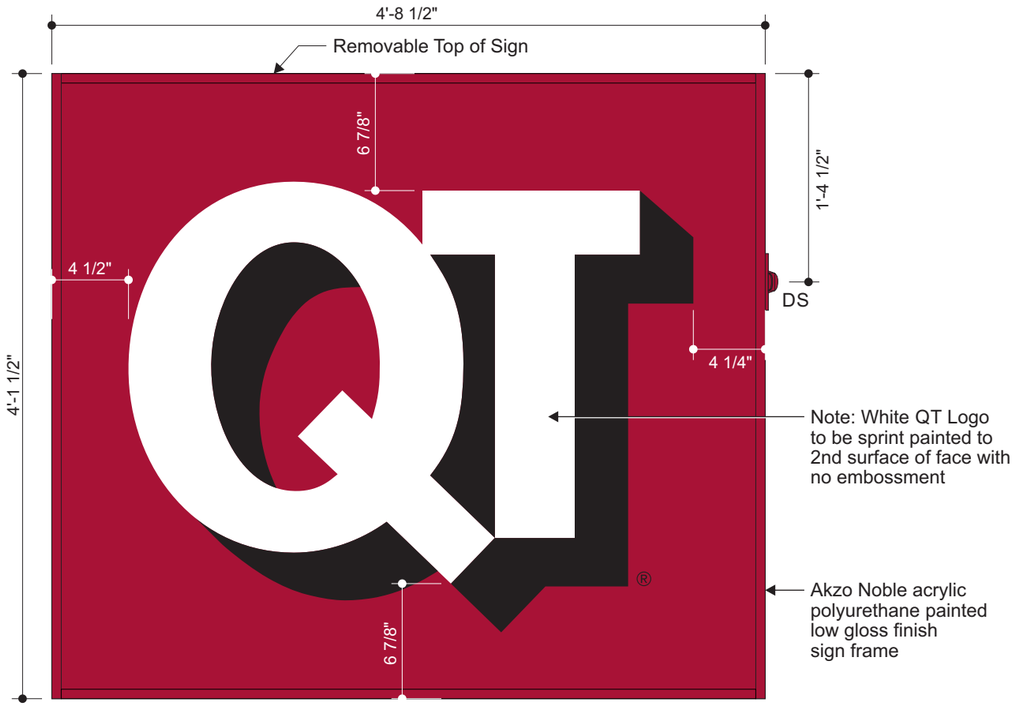


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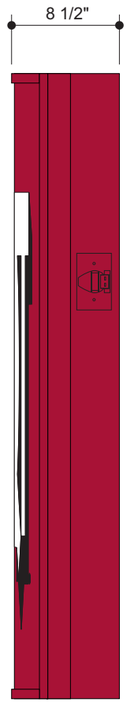



Removable Top of Sign for Access to Sign Panel, LED Modules and Attachment Hardware

**Top View**




**Front View**
Scale: 1" = 1'-0"




**Side View**

# IDC-20
# 20 SF Building ID Sign

- Flat Bowed Face Panel and 3/4" Wide Face Retainers
- 19.42 Square Feet Sign Area

## Color Specifications

All Paint Finishes to be Akzo Nobel

- Opaque Silver
- Translucent White
- Black - Low Gloss
- Matte White (Interior of Sign)
- Match 3M Cardinal Red #3632-53
- Match PMS 349C

Regarding Fabrication Fit & Finish of All QT Signs:

- Visible fabrication seams and welded joints are to be sanded smooth, filled and finished to QT specifications.
- Any visible fasteners are to be countersunk and have painted heads.
- Face retainers must fit flush and have even, minimal seams.
- Any variation from this directive must be brought to the attention of the QT Quality Control Manager without delay.

Allen Industries
FILE NUMBER: E212503

Listed Electric Sign Complies with UL48
CSA C22.2 No.207
AI1 017510
E212503

GROUNDED ELECTRICAL CONNECTIONS

THIS SIGN IS INTENDED TO BE INSTALLED IN ACCORDANCE WITH THE REQUIREMENTS OF **ARTICLE 600 OF THE NATIONAL ELECTRICAL CODE** AND/OR OTHER APPLICABLE LOCAL CODES. THIS INCLUDES PROPER GROUNDING AND BONDING OF THE SIGN.

**Item #QT-IDC-20**

## Project Information

Client
**QuikTrip**

Location
**Various**

File
**QT-IDC-20_100**

| Sales | Design | Project Manager |
|---|---|---|
| **House** | **CT** | **James Gentry** |

## Date / Description

| Date | | Initial |
|---|---|---|
| 04/08/20 | Issue Date | |
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## Notes

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Name

Title Date

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# Construction Details

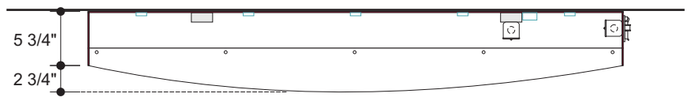
## LED Specification

**E**

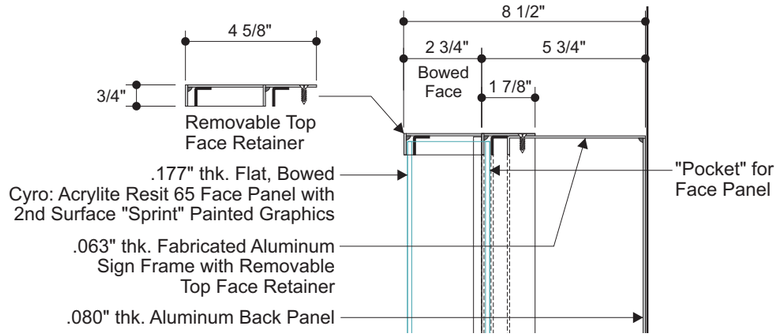
20 ea. GESS2471-2
1 ea. GEPS24-100U-NA
Total Electrical Amp Load = 1.1 Amps
One (1) 120 Volt - 20 Amp
Circuit Breaker Required for Sign



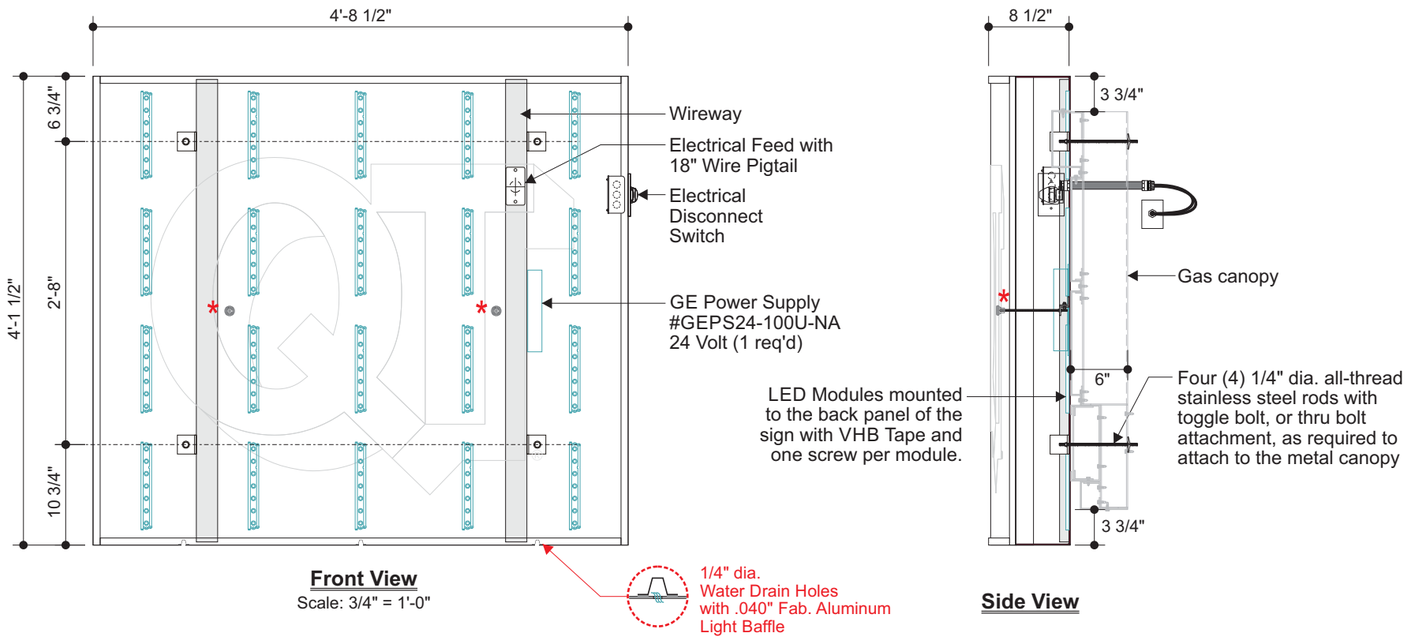
**LED DETAIL**
**#GESS2471-2** 24 VOLT SINGLE SIDED
LED Internal Illumination powered by
GE Power Supply **#GEPS24-100U-NA**
120-277 VAC 50/60 HZ
Input Current 1.1 Amp
Output Current 4.0 Amps Single Output
Note: 36 Module Max. Load per Power Supply




**Top View**




**Side Section View**
Scale: 3/16" = 1"



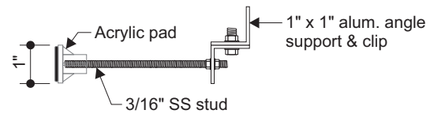

**Front View**
Scale: 3/4" = 1'-0"




**Side View**




**Top View**




*** Face Support Bumpers**
Scale: NTS

1" dia. perforated acrylic pad with applied black silicone adhesive cushion and 3/16" dia. SS stud, attached to vertical rails

Acrylic face bumpers to be installed in the Black drop shadow area of the QT Logo.

Regarding Fabrication Fit & Finish of All QT Signs:

- Visible fabrication seams and welded joints are to be sanded smooth, filled and finished to QT specifications.
- Any visible fasteners are to be countersunk and have painted heads.
- Face retainers must fit flush and have even, minimal seams.
- Any variation from this directive must be brought to the attention of the QT Quality Control Manager without delay.

Allen Industries
FILE NUMBER: E212503
Listed Electric Sign Complies with UL48 CSA C22.2 No.207
E212503 AI1 017510
THIS SIGN IS INTENDED TO BE INSTALLED IN ACCORDANCE WITH THE REQUIREMENTS OF **ARTICLE 600 OF THE NATIONAL ELECTRICAL CODE** AND/OR OTHER APPLICABLE LOCAL CODES. THIS INCLUDES PROPER GROUNDING AND BONDING OF THE SIGN.
GROUNDED ELECTRICAL CONNECTIONS

**Item #QT-IDC-20**

## Project Information

Client
**QuikTrip**

Location
**Various**

File
**QT-IDC-20_100**

| Sales | Design | Project Manager |
|---|---|---|
| **House** | **CT** | **James Gentry** |

## Date / Description

04/08/20 Issue Date Initial

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## Notes

## Client Review Status

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☐ **Approved** ☐ **Approved as Noted** ☐ **Revise & Resubmit**

Name

Title Date

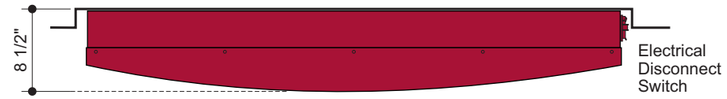
## Declaration

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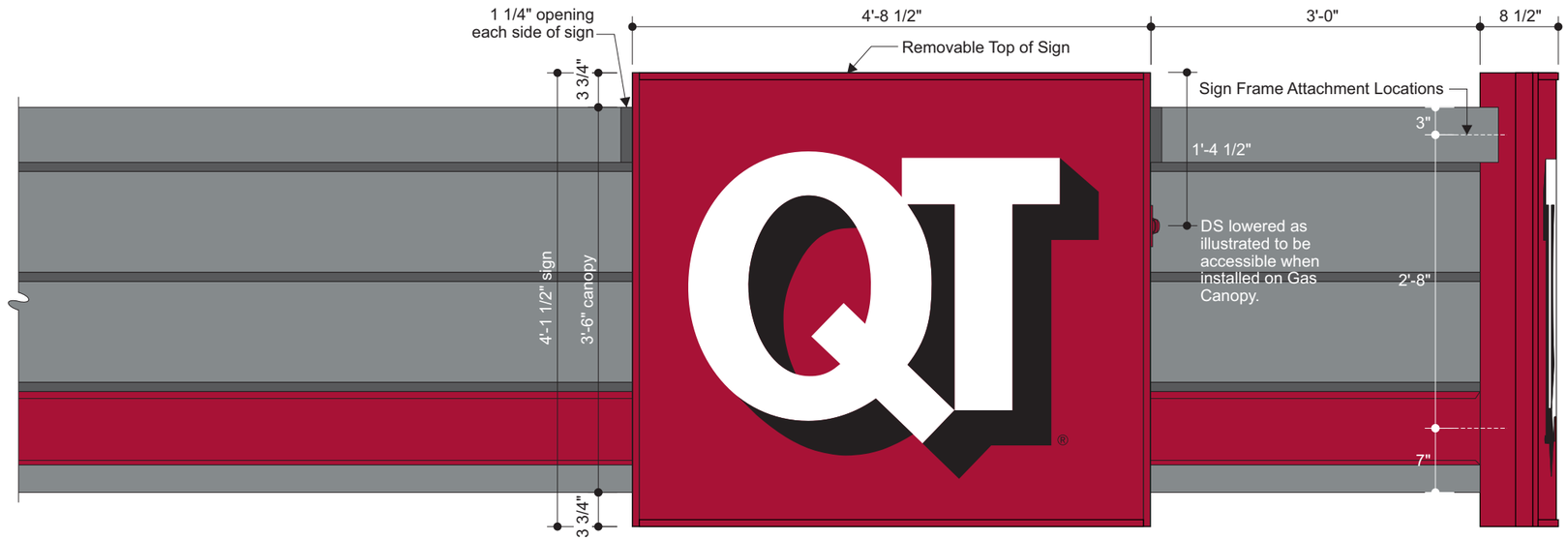
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# Installation Detail




**Top View**




**Gas Canopy Elevation**
Scale: 3/4" = 1'-0"

**Side Elevation**

Regarding Fabrication Fit & Finish of All QT Signs:

- Visible fabrication seams and welded joints are to be sanded smooth, filled and finished to QT specifications.
- Any visible fasteners are to be countersunk and have painted heads.
- Face retainers must fit flush and have even, minimal seams.
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Allen Industries — FILE NUMBER: E212503

Listed Electric Sign Complies with UL48
CSA C22.2 No.207
AI1 017510
E212503

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GROUNDED ELECTRICAL CONNECTIONS

**Item #QT-IDC-20**

## Project Information

Client
**QuikTrip**

Location
**Various**

File
**QT-IDC-20_100**

| Sales | Design | Project Manager |
|---|---|---|
| **House** | **CT** | **James Gentry** |

## Date / Description

04/08/20 Issue Date Initial

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## Notes

## Client Review Status

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☐ **Approved** ☐ **Approved as Noted** ☐ **Revise & Resubmit**

Name

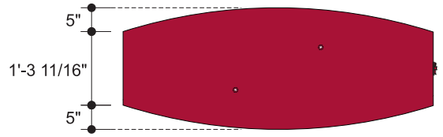
Title Date

## Declaration

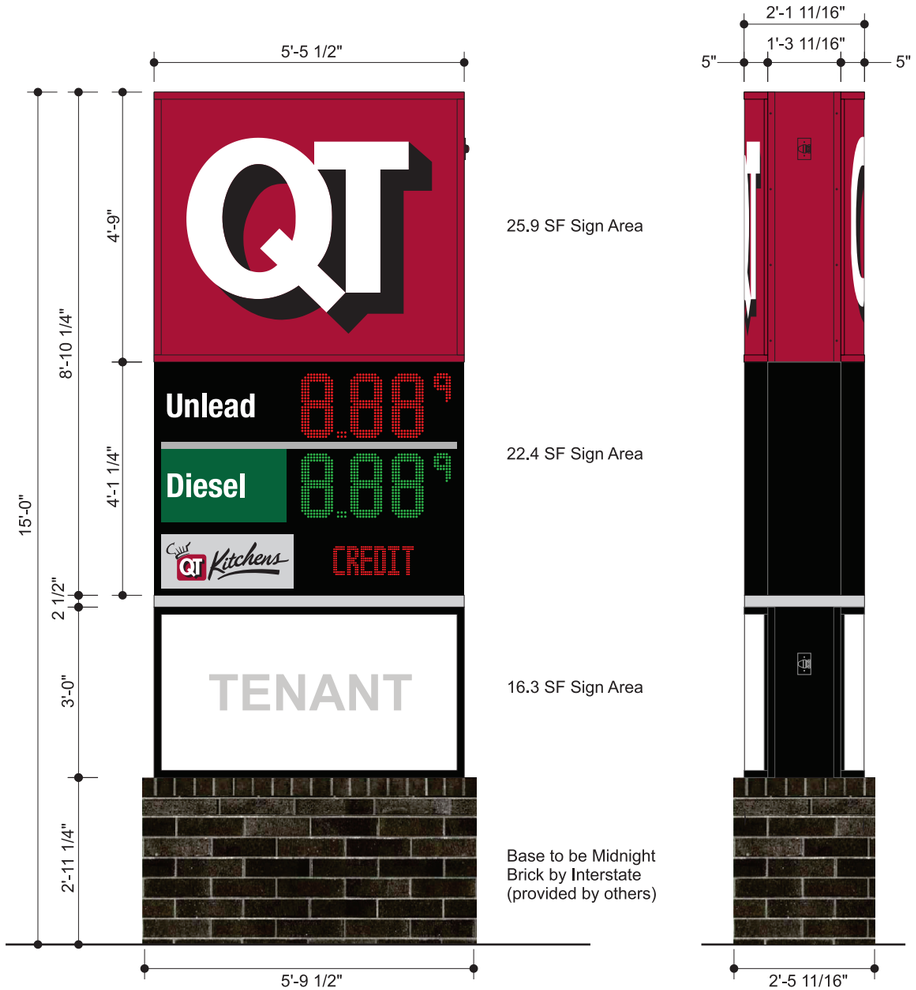
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**Top View**




**Front Elevation**
Scale: 3/8" = 1'-0"




**Side Elevation**
Scale: 3/8" = 1'-0"

# MV-E2PQ-CC-65-BB
# 12'-0" Vertical Monument Sign

- Two (2) Product LED Gas Price Sign with Cash & Credit
- 64.6 Square Feet Sign Area
- Midnight Brick by Interstate base provided by others

**Notes:**
1.) Engineering provided by QT.
2.) Steel supports provided by sign installer.

## Color Specifications

All Paint Finishes to be Akzo Nobel

- Opaque Silver
- Translucent White
- Black - Low Gloss
- Matte White (Interior of Sign)
- Match 3M Cardinal Red #3630-53
- Match PMS 349C

Regarding Fabrication Fit & Finish of All QT Signs:

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- Face retainers must fit flush and have even, minimal seams.
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Allen Industries — FILE NUMBER: E212503
Listed MET E212503 — Electric Sign Complies with UL48, CSA C22.2 No.207
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GROUNDED ELECTRICAL CONNECTIONS

**Item #QT-MV-E2PQ-CC-65-BB**

## Project Information

Client
**QuikTrip**

Location
**Store 4452**

File
**QT-MV-E2PQ-CC-65-BB_4452_100**

| Sales | Design | Project Manager |
|---|---|---|
| House | CT | James Gentry |

## Date / Description

01/08/26 Issue Date

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## Notes

-

## Client Review Status

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☐ Approved ☐ Approved as Noted ☐ Revise & Resubmit

Name

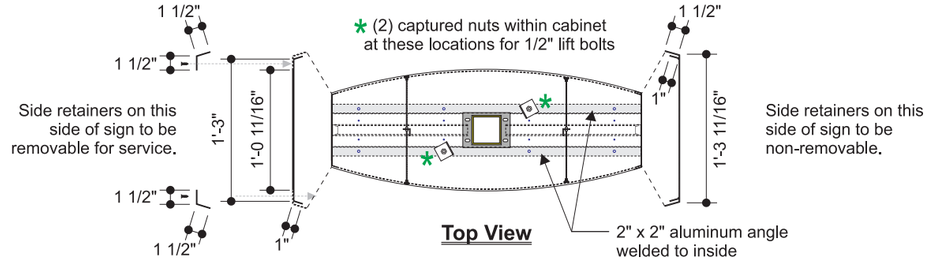
Title Date

## Declaration

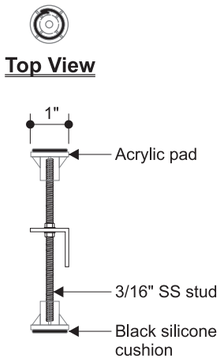
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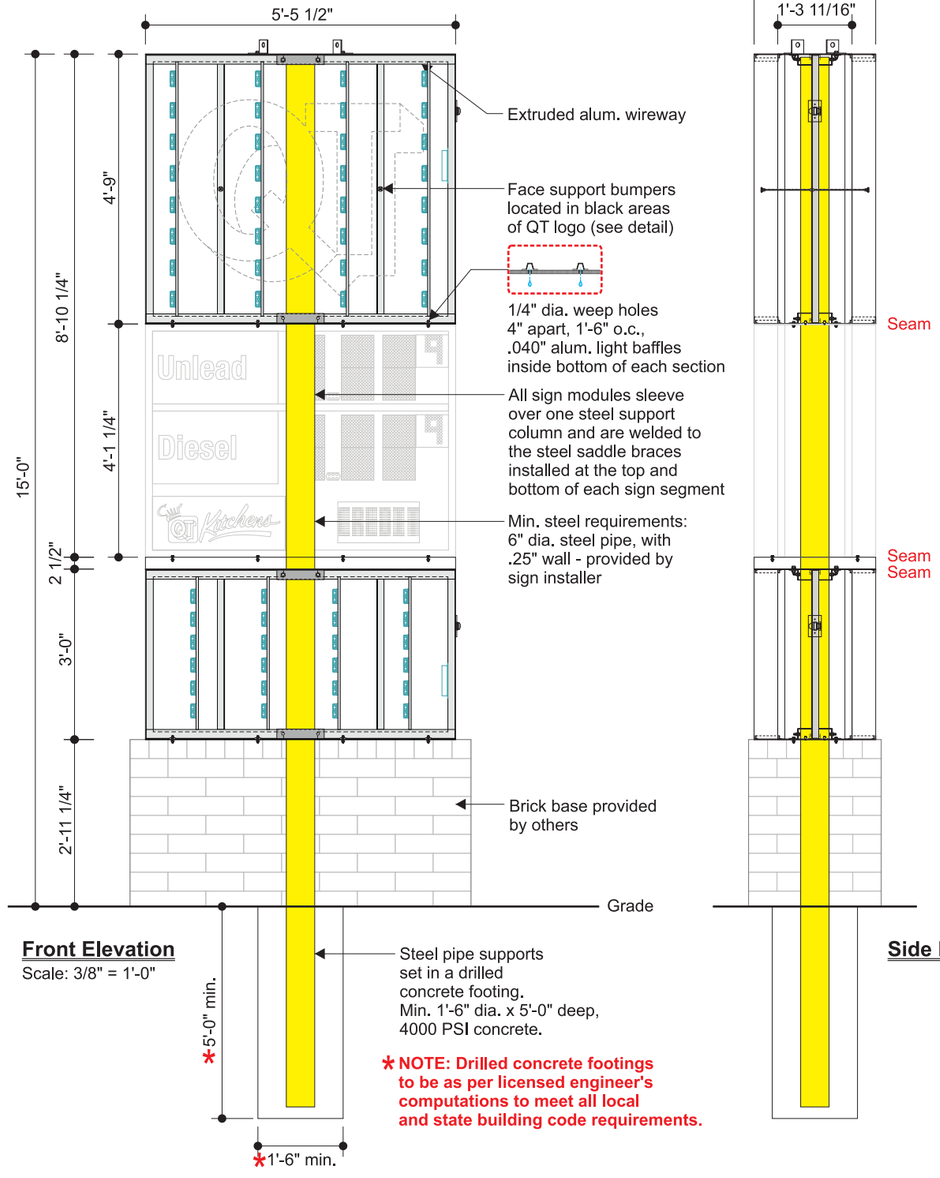



**Top View**

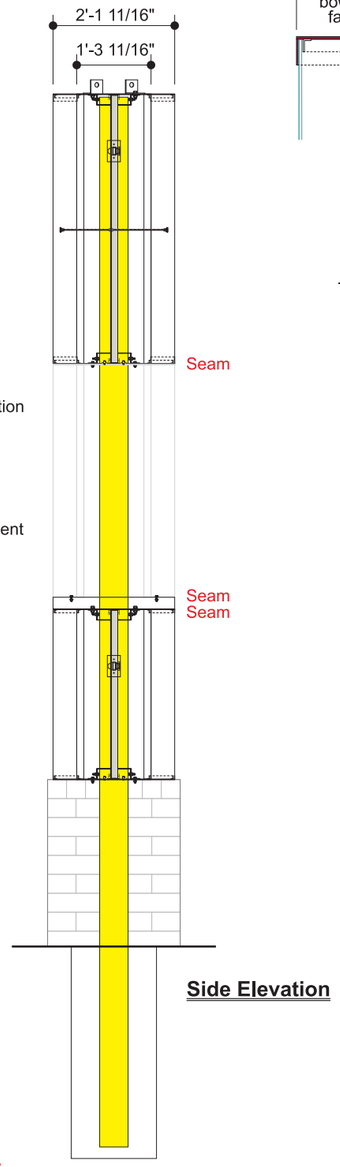



**Face Support Bumpers**
Scale: NTS

1" dia. perforated acrylic pad with applied black silicone adhesive cushion and 3/16" dia. SS stud, attached to vertical rails




**Front Elevation**
Scale: 3/8" = 1'-0"

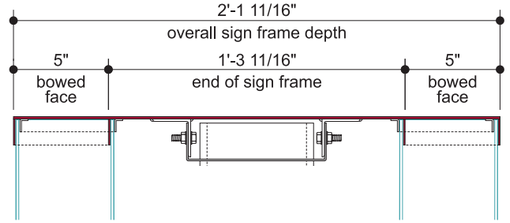



**Side Elevation**

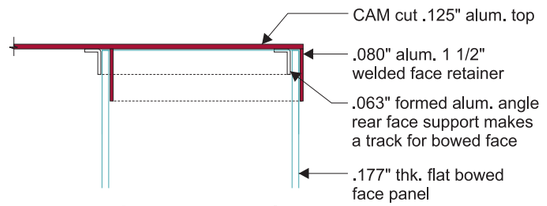
**NOTE: Drilled concrete footings to be as per licensed engineer's computations to meet all local and state building code requirements.**

## Construction Details

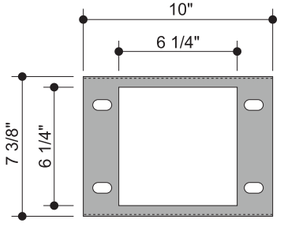
- Installation by others
- Steel should be primed and painted white for max. reflectivity
- Engineering, steel size requirements and footing specifications are obtained by QT



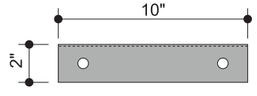

**Sign Frame Detail**
Scale: 1/8" = 1"



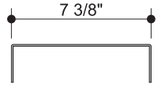

**Side View Detail**
Scale: 1/4" = 1"




**Top View**




**Steel Saddle Detail**
Scale: 1/8" = 1"




**Side View**

**YELLOW INDICATES THE STEEL SUPPORT PROVIDED BY SIGN INSTALLER**

Allen Industries FILE NUMBER:E212503 | Listed MET E212503 | Electric Sign Complies with UL48 CSA C22.2 No.207 | GROUNDED ELECTRICAL CONNECTIONS

THIS SIGN IS INTENDED TO BE INSTALLED IN ACCORDANCE WITH THE REQUIREMENTS OF **ARTICLE 600 OF THE NATIONAL ELECTRICAL CODE** AND/OR OTHER APPLICABLE LOCAL CODES. THIS INCLUDES PROPER GROUNDING AND BONDING OF THE SIGN.

**Item #QT-MV-E2PQ-CC-65-BB**

## Project Information

Client
**QuikTrip**

Location
**Store 4452**

File
**QT-MV-E2PQ-CC-65-BB_4452_100**

| Sales | Design | Project Manager |
|---|---|---|
| **House** | **CT** | **James Gentry** |

## Date / Description

01/08/26 Issue Date

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2
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## Notes

-

## Client Review Status

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☐ Approved ☐ Approved as Noted ☐ Revise & Resubmit

Name

Title Date

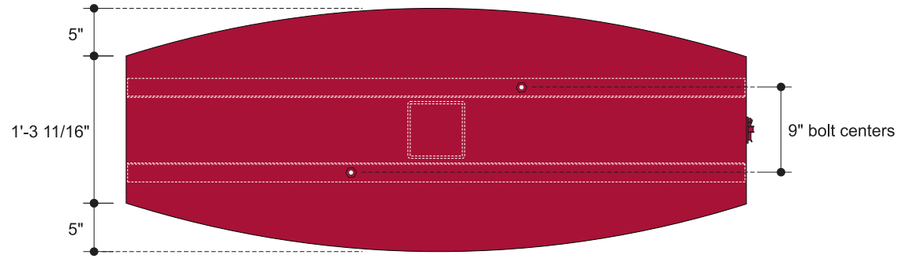
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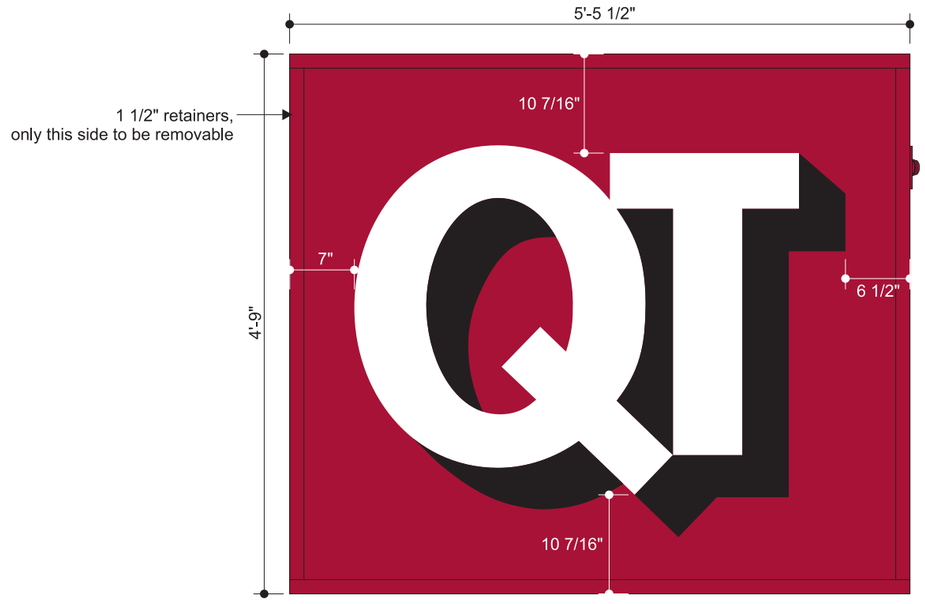
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# QT Logo Cabinet




**Top View**

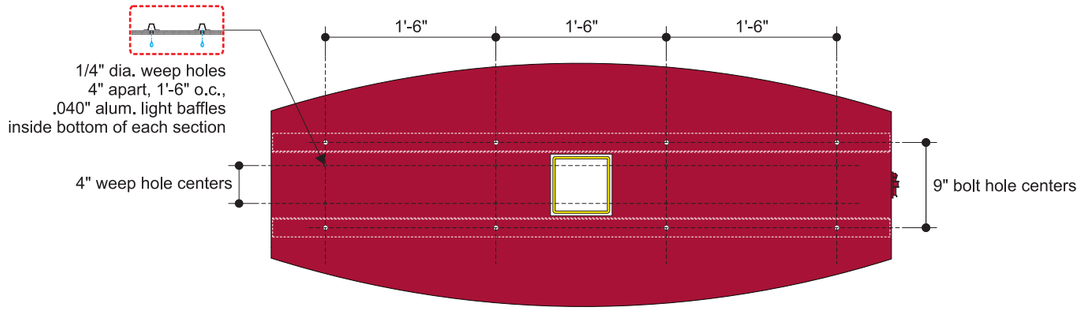



**Front View - QT Cabinet**

Scale: 3/4" = 1'-0"




**Side View**




**Bottom View**

All Sign Modules constructed with removable alum. face retainers and clear acrylic, .177" thickness, face panels with 2nd surface painted background colors and graphics.

Note: No Embossment

Translucent Graphics Red Background Color to Paint Match 3M Cardinal Red #3630-53 Translucent Vinyl

## Color Specifications

All Paint Finishes to be Akzo Nobel

- Translucent White
- Black - Low Gloss
- Matte White (Interior of Sign)
- Match 3M Cardinal Red #3630-53

Regarding Fabrication Fit & Finish of All QT Signs:

- Visible fabrication seams and welded joints are to be sanded smooth, filled and finished to QT specifications.
- Any visible fasteners are to be countersunk and have painted heads.
- Face retainers must fit flush and have even, minimal seams.
- Any variation from this directive must be brought to the attention of the QT Quality Control Manager without delay.

Allen Industries — FILE NUMBER: E212503 — Listed (MET) E212503 — Electric Sign Complies with UL48 CSA C22.2 No.207

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GROUNDED ELECTRICAL CONNECTIONS

**Item #QT-MV-E2PQ-CC-65-BB**

## Project Information

Client
**QuikTrip**

Location
**Store 4452**

File
**QT-MV-E2PQ-CC-65-BB_4452_100**

| Sales | Design | Project Manager |
|---|---|---|
| **House** | **CT** | **James Gentry** |

## Date / Description

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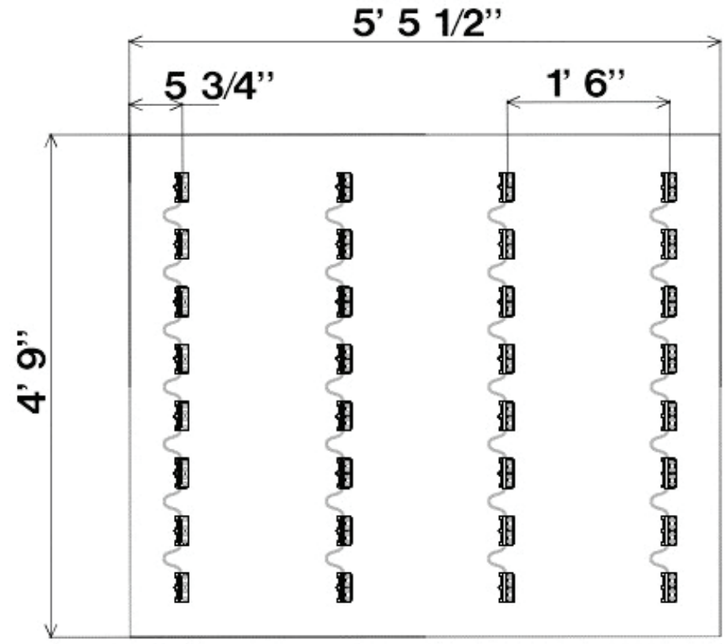
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# Illumination Details






| Material Breakdown | | |
|---|---|---|
| Snap DS 71K (24V) | Modules | 24V P/S |
| COLUMN 1 | 8 | P/S 1 |
| COLUMN 2 | 8 | |
| COLUMN 3 | 8 | |
| COLUMN 4 | 8 | |

1) **THE GRAPHICS ABOVE ARE FOR REFERENCE ONLY** and should not be used for commercial quotation or bid without validation. The material estimates for Tetra® LED Systems are based upon our engineering standards and information provided pertaining to font, letter height, can depth, face material, and any special instructions provided by the customer. Missing information will cause delays in delivery of estimates as well as affect product selection, quantities, application, and illumination.
2) **LED MODULE PLACEMENT AND QUANTITY IS AN APPROXIMATION ONLY.** The sign manufacturer must verify module placement and quantity to ensure even illumination.
3) Final material quantities for estimation purposes and construction are the responsibility of the sign OEM.
4) All signs should be tested as complete units (including correct Tetra® power supply) before installation for acceptable color, illumination, intensity, & functionality.
5) For detailed information refer to the applicable Tetra® product found under Signage; **https://products.gecurrent.com/led-signage-lighting**

| Sign Type | | Illumination |
|---|---|---|
| DOUBLE SIDED CABINET | | FACE LIT |
| Can Depth | LED Distance From Face | Power Supply Location |
| 32" | N/A | SELF-CONTAINED |
| Special Instructions | | |
| ESTIMATE FOR BOTH SIDES OF SIGN | | |
| SNAP DS TO BE INSTALLED @ 6.3" OC (HO - 1.9 modules/ft) | | |
| Notes | | |
| QT-HR8-ELP-ME3P_103, QT-HR8-ELP-ME4P_104 | | |

| Primary Circuit (120 VAC) | SKU | Description | Name | Quantity | |
|---|---|---|---|---|---|
| 1.1 Amps | 93128533 | GEDS71-3 | Snap DS 71K (24V) | 32 Modules | 23 Ft |
| Sign Area | | | | | |
| 51.86 Sq Ft | | | | | |
| Total Module Watts | | | | | |
| 82.88 Watts | | GEPS24-100U-GLX2 | 100W - 24V (GLX2) | 1 Ea | |
| Total System Watts | | - | - | | |
| 99.20 Watts | | GEDSRL08-3 | Rails (8') | 4 Ea | |
| Energy Usage | | GEDSSE-3 / GEDSFE-3 | Socket / Frame Endcap | 8 Ea | |
| 1.91 Watts/Sq Ft | | GEDSIC-3 | Interconnector | 0 Ea | |
| Total Lumens | | | | | |
| 12800.00 Lumens | 191600041 or 192160004 | | Wire Connector | 20 Ea | |
| 246.82 Lumens/Sq Ft | 9409 | | 18 AWG Supply Wire | 40 Ft | |
| | 191600041 | | Wire End Cap | 20 Ea | |

**TECHNICAL SUPPORT:**
**888-694-3533**
**EMAIL:** tetradrawings@gecurrent.com

Current

| | |
|---|---|
| Drawn By: | GG |
| Checked By: | MK |
| Date: | 9/5/22 |

**Job Name:** Quik Trip
**Customer Name:**

**Drwg #: 096021 - 02** **Rev -**



Allen Industries FILE NUMBER:E212503 | Listed (MET) E212503 | Electric Sign Complies with UL48 CSA C22.2 No.207

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GROUNDED ELECTRICAL CONNECTIONS

**Item #QT-MV-E2PQ-CC-65-BB**

## Project Information

Client
**QuikTrip**

Location
**Store 4452**

File
**QT-MV-E2PQ-CC-65-BB_4452_100**

| Sales | Design | Project Manager |
|---|---|---|
| House | CT | James Gentry |

## Date / Description

01/08/26 Issue Date

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## Notes

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## Client Review Status

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Name

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Sunshine Pricer

SUNSHINE

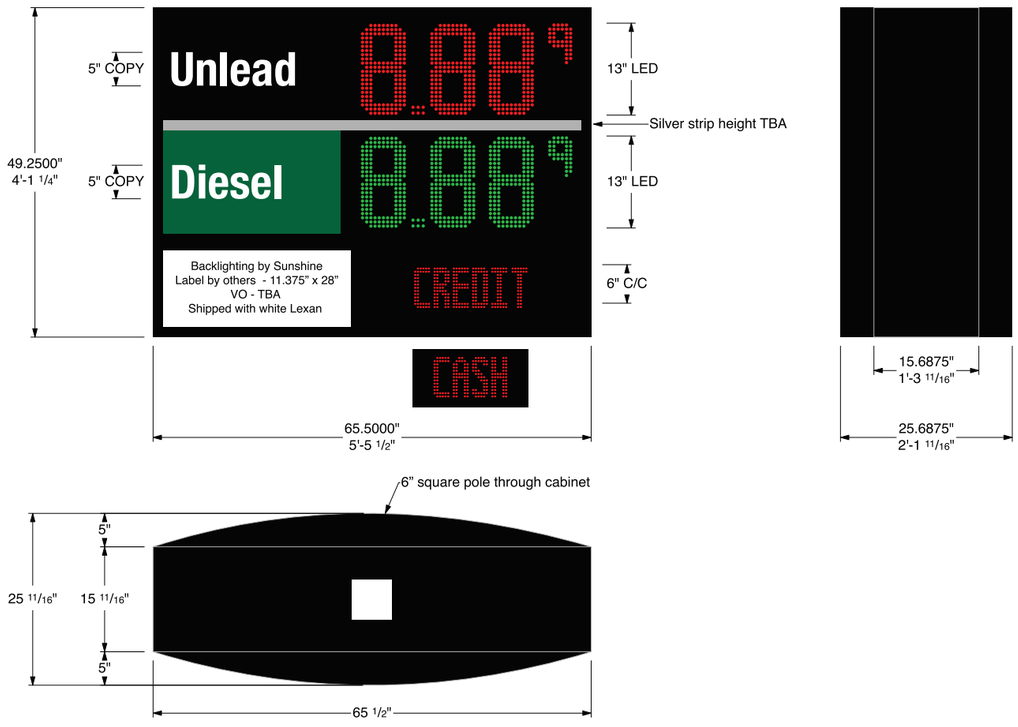
316 S. 6th Street
St. Joseph, MO 64501 800. 821. 9013

| Client | Install Location | Sales |
|---|---|---|
| QuikTrip Corporation | | Scottie Burnham<br>816-387-4202<br>scottie@sunshine.us.com |

Client Approval: Date:

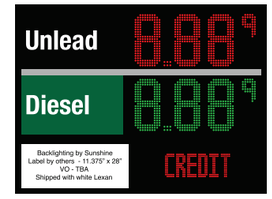
Date: Aug 1, 2022 Job #:

| Revisions: | Date: |
|---|---|
| | |
| | |
| | |
| | |
| | |




* Final layout to be determined by build specs

* Same layout both sides




| Cabinet Specs | | Label Specs | | Other |
|---|---|---|---|---|
| Digit Size & Style: | 13" LED | LED Backlit Label Panel - | | * Label and cabinet colors for representation only |
| Digit Color: | Red/Green | Label Font: | Helvetica Bold Cond | * 22.4 sq ft |
| Overall Cabinet Size: | 49.25"h x 65.5"w x 25.6875"d | Label Panel Color: | 3M 3632-22 Black | * 4.15 total AC amps including both sides |
| Cabinet Color: | Black | | 3M 3632-26 Green | * Cabinet(s) will have lifting/install eyebolt(s) |
| Single or Double Face: | Double | Label Type Color: | White | * Electrical to be knocked out and ran at installer's preference |
| Build type: | New cabinet | | | |

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* Actual LED size and configuration may vary

c UL us LISTED
UL File Number: E340294
CCN: UXYT

ETL LISTED
CONFORMS TO UL STD 48
UL STD 1433
CERTIFIED TO CAN/CSA STD C22.2 NO. 207
102482

Allen Industries
FILE NUMBER: E212503
Listed MET E212503
Electric Sign Complies with UL48
THIS SIGN IS INTENDED TO BE INSTALLED IN ACCORDANCE WITH THE REQUIREMENTS OF **ARTICLE 600 OF THE NATIONAL ELECTRICAL CODE** AND/OR OTHER APPLICABLE LOCAL CODES. THIS INCLUDES PROPER GROUNDING AND BONDING OF THE SIGN.
GROUNDED ELECTRICAL CONNECTIONS

**Item #QT-MV-E2PQ-CC-65-BB**

## Project Information

Client
**QuikTrip**

Location
**Store 4452**

File
**QT-MV-E2PQ-CC-65-BB_4452_100**

| Sales | Design | Project Manager |
|---|---|---|
| House | CT | James Gentry |

## Date / Description

01/08/26 Issue Date

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## Notes

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Title Date

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# QT Kitchens Insert




**Front View - QT Kitchens Insert**
Scale: 3/16" = 1"

.177" thick clear acrylic face panels with 2nd surface painted background colors and graphics.

## Color Specifications

All Paint Finishes to be Akzo Nobel

- Opaque Silver
- Translucent White
- 3M Day/Night Vinyl #3635-0171
- Matte White (Interior of Sign)
- 3M Cardinal Red #3630-53 Translucent Vinyl

Regarding Fabrication Fit & Finish of All QT Signs:

- Visible fabrication seams and welded joints are to be sanded smooth, filled and finished to QT specifications.
- Any visible fasteners are to be countersunk and have painted heads.
- Face retainers must fit flush and have even, minimal seams.
- Any variation from this directive must be brought to the attention of the QT Quality Control Manager without delay.

**Item #QT-MV-E2PQ-CC-65-BB**

## Project Information

Client
**QuikTrip**

Location
**Store 4452**

File
**QT-MV-E2PQ-CC-65-BB_4452_100**

| Sales | Design | Project Manager |
|---|---|---|
| **House** | **CT** | **James Gentry** |

## Date / Description

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## Notes

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Name

Title Date

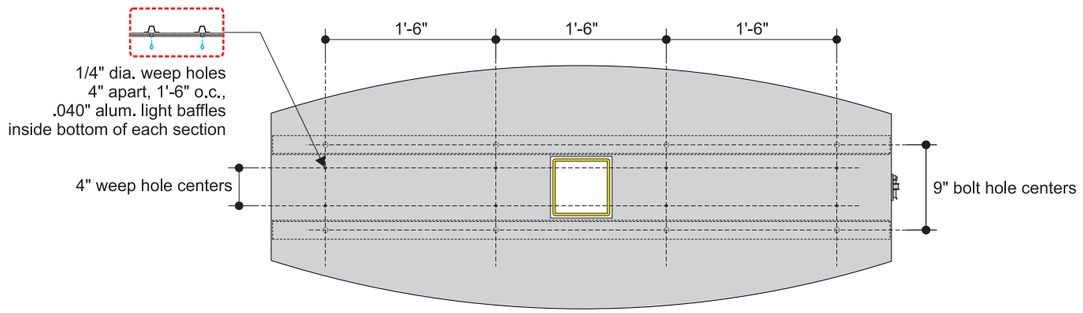
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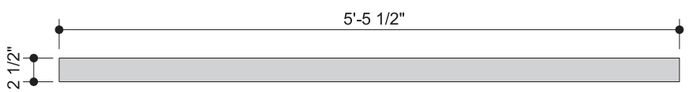
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# Silver Divider

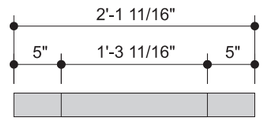



**Top View**

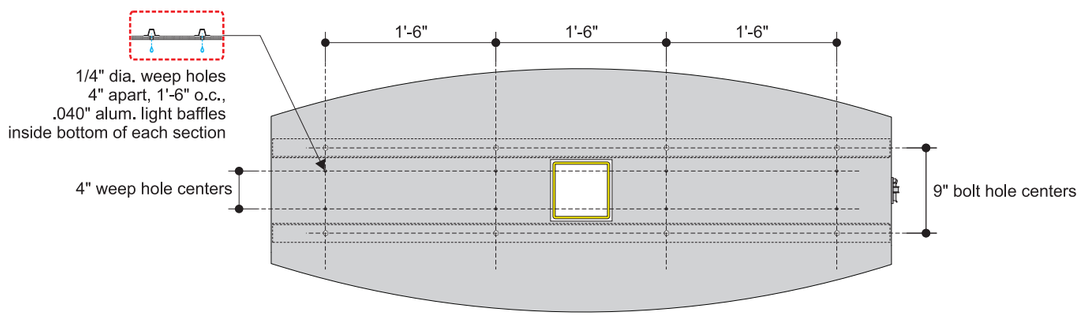



**Front View - Silver Divider**

Scale: 3/4" = 1'-0"




**Side View**




**Bottom View**

## Color Specifications

All Paint Finishes to be Akzo Nobel

Opaque Silver

Regarding Fabrication Fit & Finish of All QT Signs:

- Visible fabrication seams and welded joints are to be sanded smooth, filled and finished to QT specifications.
- Any visible fasteners are to be countersunk and have painted heads.
- Face retainers must fit flush and have even, minimal seams.
- Any variation from this directive must be brought to the attention of the QT Quality Control Manager without delay.

**Item #QT-MV-E2PQ-CC-65-BB**

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**Store 4452**

File
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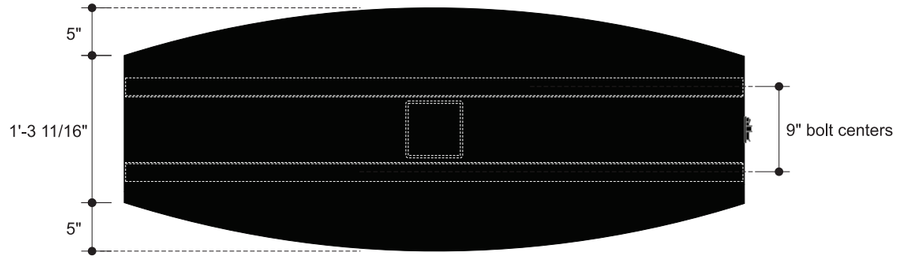
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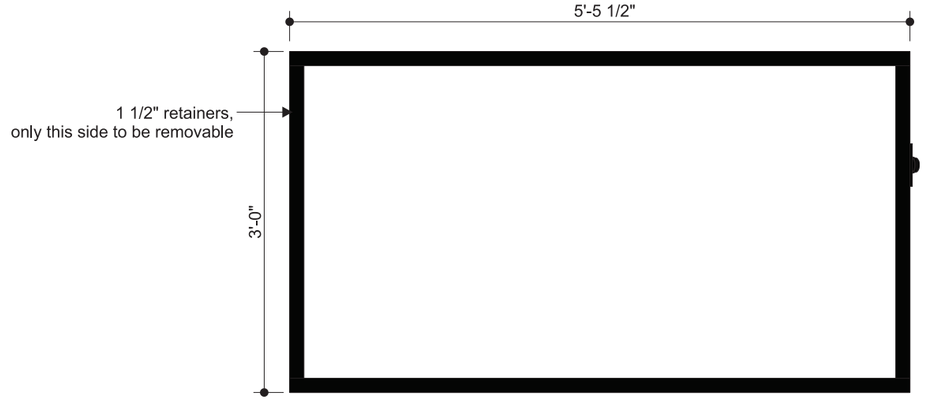
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# Tenant Cabinet

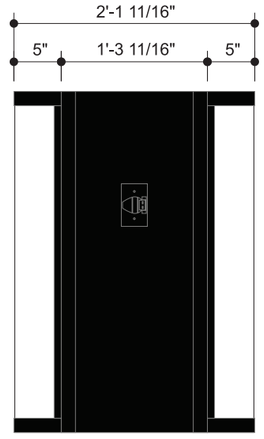



**Top View**

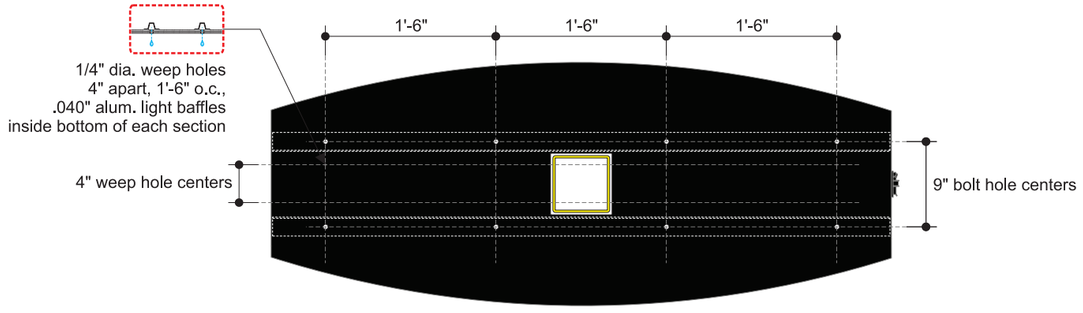



**Front View - Tenant Cabinet**

Scale: 3/4" = 1'-0"




**Side View**




**Bottom View**

All Sign Modules constructed with removable alum. face retainers and clear acrylic, .177" thickness, face panels with 2nd surface painted background colors and graphics.

Note: No Embossment

## Color Specifications

All Paint Finishes to be Akzo Nobel

- Translucent White
- Black - Low Gloss
- Matte White (Interior of Sign)

Regarding Fabrication Fit & Finish of All QT Signs:

- Visible fabrication seams and welded joints are to be sanded smooth, filled and finished to QT specifications.
- Any visible fasteners are to be countersunk and have painted heads.
- Face retainers must fit flush and have even, minimal seams.
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Allen Industries
FILE NUMBER:E212503
Listed MET E212503
Electric Sign Complies with UL48
CSA C22.2 No.207
GROUNDED ELECTRICAL CONNECTIONS
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**Item #QT-MV-E2PQ-CC-65-BB**

## Project Information

Client
**QuikTrip**

Location
**Store 4452**

File
**QT-MV-E2PQ-CC-65-BB_4452_100**

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|---|---|---|
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## Date / Description

01/08/26 Issue Date

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## Notes

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## Client Review Status

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☐ Approved ☐ Approved as Noted ☐ Revise & Resubmit

Name

Title Date

## Declaration

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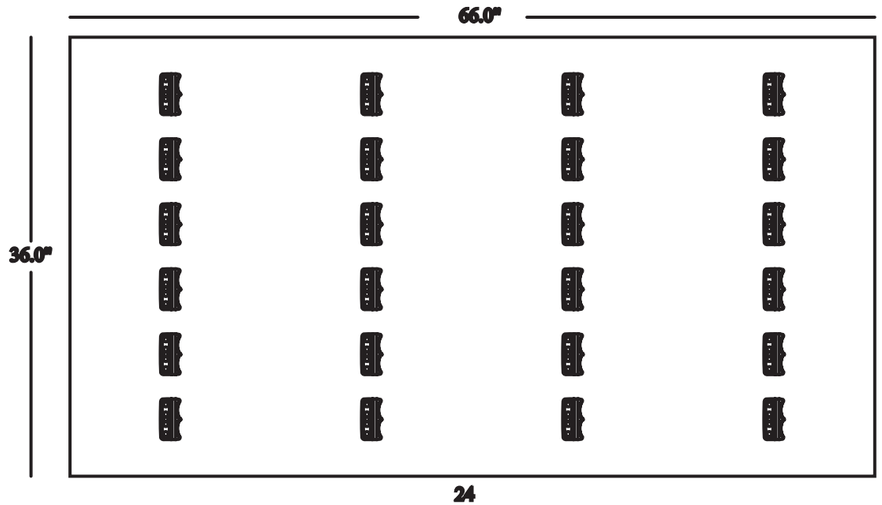
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# Illumination Details

Tetra®
**Tech Support**
1-888-694-3533
tetradrawings@gecurrent.com

Current




| Illumination | Depth | Power Supplies | Qty | Module Name | CCT | Qty | Ordering Length |
|---|---|---|---|---|---|---|---|
| Face Lit | 18.00 in | GEPS24-100U-TT | 1 ea | GEDS71-3 | 7100K | 24 ea | 17.15 feet |

| Height | Width | Total Circuit Amps (120 VAC) | Max Load Per PS | Total Module Watts |
|---|---|---|---|---|
| 36.00 in | 66.00 in | 1.10 | 33 | 62.16 watts |

**Date**
January 08, 2026

**Job ID**

**THE GRAPHICS ABOVE ARE FOR REFERENCE ONLY and should not be used for commercial quotation or bid without validation. The material estimates for Tetra® LED Systems are based upon our engineering standards and information provided pertaining to font, letter height, can depth, face material, and any special instructions provided by the customer. Missing information will cause delays in delivery of estimates as well as affect product selection, quantities, application, and illumination. LED MODULE PLACEMENT AND QUANTITY IS AN APPROXIMATION ONLY. The sign manufacturer must verify module placement and quantity to ensure even illumination. Final material quantities for estimation purposes and construction are the responsibility of the sign OEM. All signs should be tested as complete units (including correct Tetra® power supply) before installation for acceptable color, illumination, intensity, & functionality. For detailed information refer to the applicable Tetra® product found under Signage; https://www.led.com/applications/led-signage-lighting**

**Item #QT-MV-E2PQ-CC-65-BB**

## Project Information

Client
**QuikTrip**

Location
**Store 4452**

File
**QT-MV-E2PQ-CC-65-BB_4452_100**

| Sales | Design | Project Manager |
|---|---|---|
| House | CT | James Gentry |

## Date / Description

01/08/26 Issue Date

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Name

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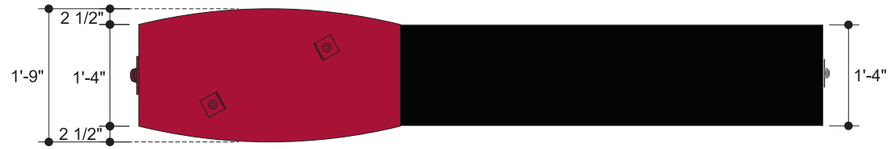
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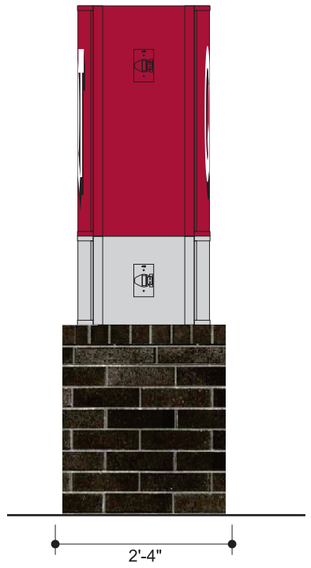
# MH-E2PGQ-CC-38-BB
# Horizontal Monument Sign

- Two (2) Product LED Gas Price Sign
- 38.1 Square Feet Sign Area
- Brick base by others

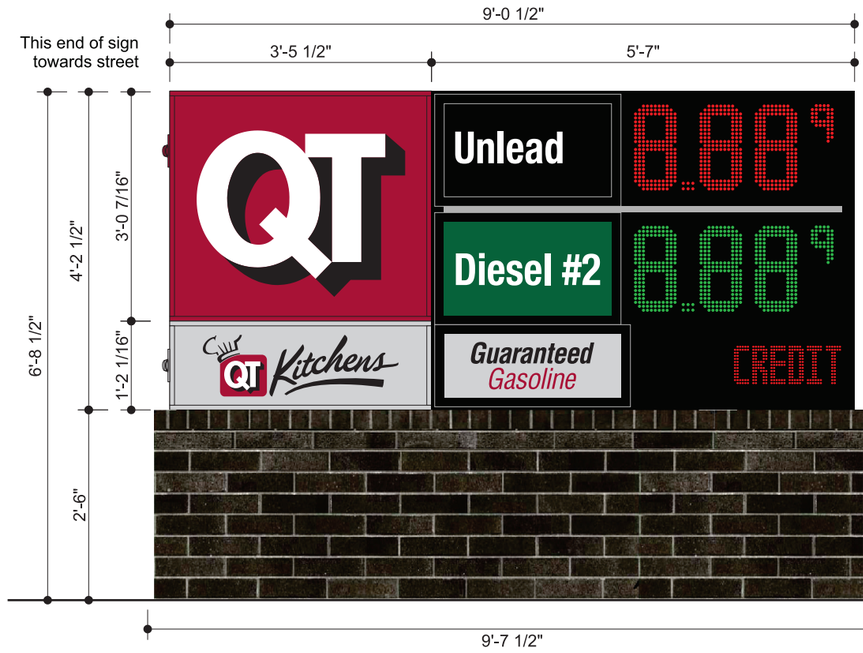
**Notes:**
1.) Engineering provided by QT.
2.) Steel supports provided by sign installer.




**Top View**




**Side Elevation**

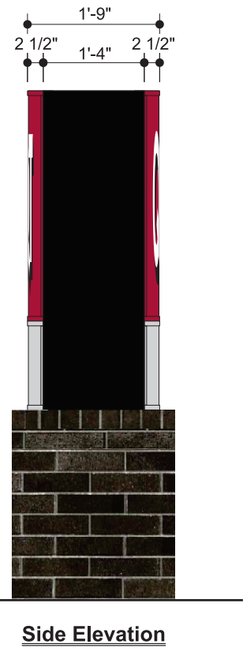



**Front Elevation**
Scale: 1/2" = 1'-0"

QT/K: 14.6 SF Sign Area

Pricer: 23.5 SF Sign Area

Black brick base by others




**Side Elevation**

## Color Specifications

All Paint Finishes to be Akzo Nobel

- Opaque Silver
- Translucent White
- Black - Low Gloss
- Matte White (Interior of Sign)
- Match 3M Cardinal Red #3632-53
- Match PMS 349C

Regarding Fabrication Fit & Finish of All QT Signs:

- Visible fabrication seams and welded joints are to be sanded smooth, filled and finished to QT specifications.
- Any visible fasteners are to be countersunk and have painted heads.
- Face retainers must fit flush and have even, minimal seams.
- Any variation from this directive must be brought to the attention of the QT Quality Control Manager without delay.

Allen Industries
FILE NUMBER: E212503
Listed MET E212503
Electric Sign Complies with UL48 CSA C22.2 No.207
GROUNDED ELECTRICAL CONNECTIONS
THIS SIGN IS INTENDED TO BE INSTALLED IN ACCORDANCE WITH THE REQUIREMENTS OF **ARTICLE 600 OF THE NATIONAL ELECTRICAL CODE** AND/OR OTHER APPLICABLE LOCAL CODES. THIS INCLUDES PROPER GROUNDING AND BONDING OF THE SIGN.

**Item #QT-MH-E2PGQ-CC-38-BB**

## Project Information

Client
**QuikTrip**

Location
**Store 4452**

File
**QT-MH-E2PGQ-CC-38-BB_4452_100**

| Sales | Design | Project Manager |
|---|---|---|
| **House** | **CT** | **James Gentry** |

## Date / Description

01/08/26 Issue Date

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## Notes

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Name

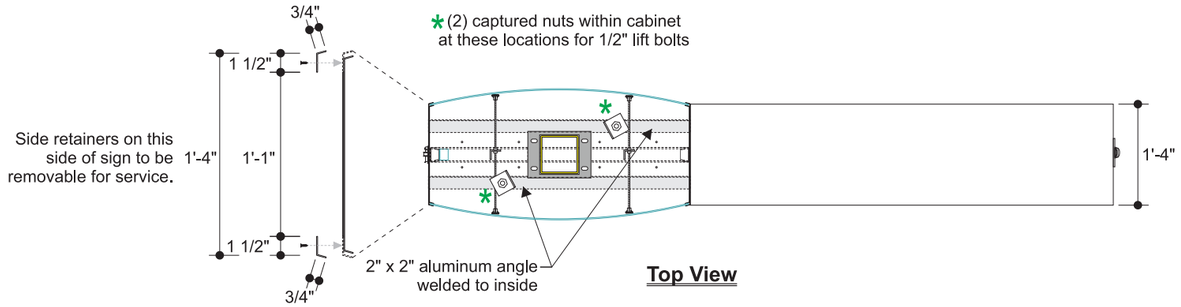
Title Date

## Declaration

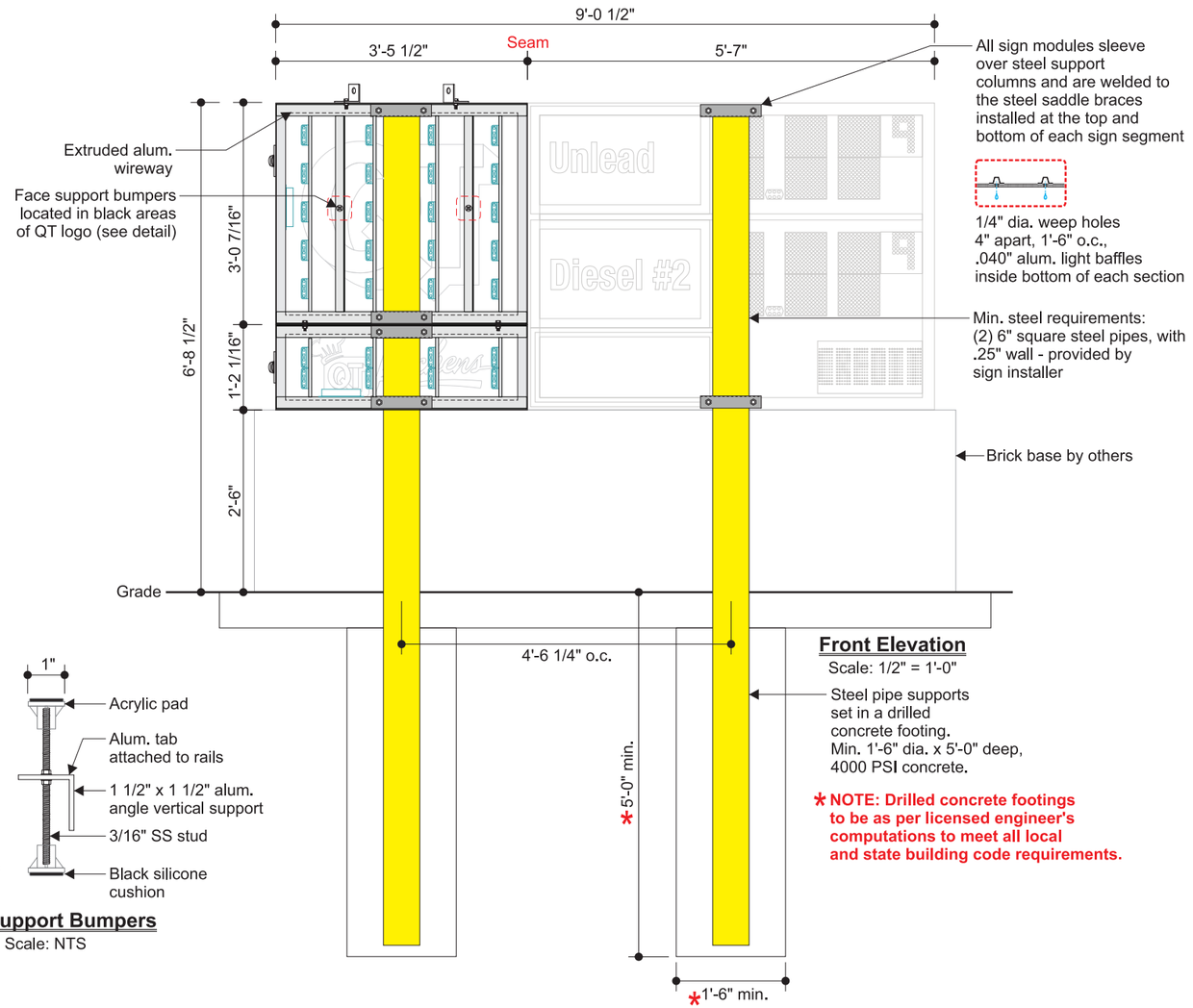
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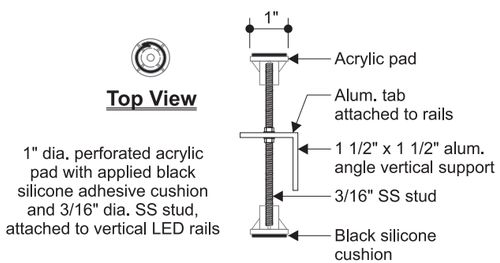

**Top View**




**Front Elevation**
Scale: 1/2" = 1'-0"

Steel pipe supports set in a drilled concrete footing. Min. 1'-6" dia. x 5'-0" deep, 4000 PSI concrete.

**NOTE: Drilled concrete footings to be as per licensed engineer's computations to meet all local and state building code requirements.**



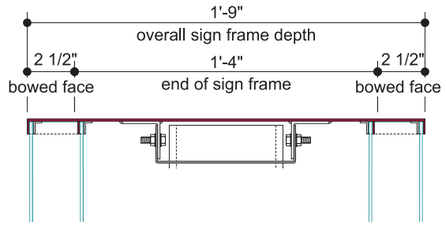

**Top View**

1" dia. perforated acrylic pad with applied black silicone adhesive cushion and 3/16" dia. SS stud, attached to vertical LED rails

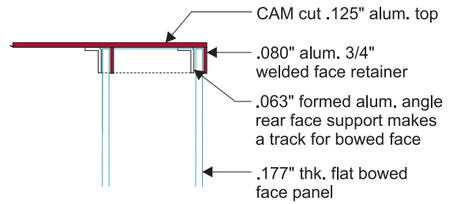
**Face Support Bumpers**
Scale: NTS

## Construction Details

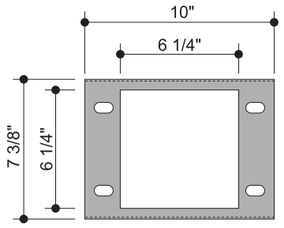
- Installation by others
- Steel should be primed and painted white for max. reflectivity
- Engineering, steel size requirements and footing specifications are obtained by QT



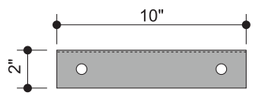

**Sign Frame Detail**
Scale: 1/8" = 1"



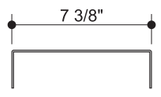

**Side View Detail**
Scale: 1/4" = 1"




**Top View**




**Steel Saddle Detail**
Scale: 1/8" = 1"




**Side View**

**YELLOW INDICATES THE STEEL SUPPORT PROVIDED BY SIGN INSTALLER**

Allen Industries
FILE NUMBER: E212503
Listed (MET) E212503
Electric Sign Complies with UL48
CSA C22.2 No.207
THIS SIGN IS INTENDED TO BE INSTALLED IN ACCORDANCE WITH THE REQUIREMENTS OF **ARTICLE 600 OF THE NATIONAL ELECTRICAL CODE** AND/OR OTHER APPLICABLE LOCAL CODES. THIS INCLUDES PROPER GROUNDING AND BONDING OF THE SIGN.
GROUNDED ELECTRICAL CONNECTIONS

**Item #QT-MH-E2PGQ-CC-38-BB**

## Project Information

Client
**QuikTrip**

Location
**Store 4452**

File
**QT-MH-E2PGQ-CC-38-BB_4452_100**

| Sales | Design | Project Manager |
|---|---|---|
| **House** | **CT** | **James Gentry** |

## Date / Description

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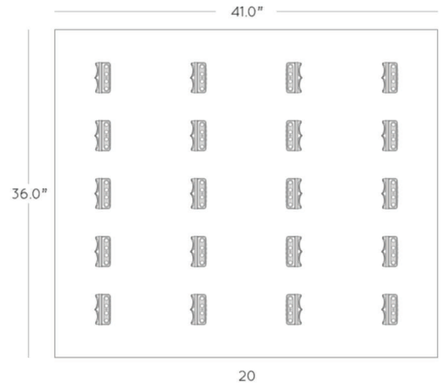
## Declaration

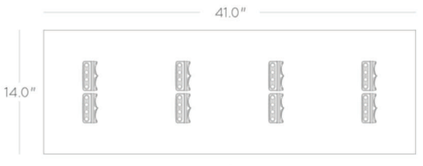
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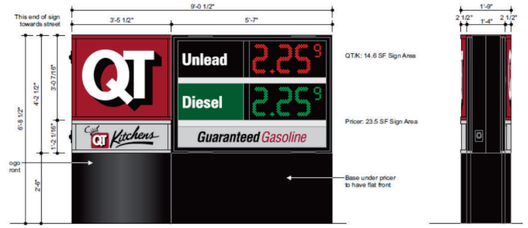
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# Illumination Details




| Material Breakdown | | |
|---|---|---|
| **Snap DS 71K (24V)** | **Modules** | **24V P/S** |
| QUIK TRIP | 20 | |
| QT | 8 | P/S 1-2 |

| DIMMABLE POWER SUPPLY | 5 YEAR WARRANTY POWER SUPPLY | 5 YEAR WARRANTY POWER SUPPLY | 10 YEAR WARRANTY POWER SUPPLY |
|---|---|---|---|
| GEPS24D-100U-NA | Sku# 93137579 - GEPS24-100U-GLX2 | Sku# 95054945 - GEPS24LT-100U-NA | Sku# 93137578 - GEPS24-100U-TT |

1) **THE GRAPHICS ABOVE ARE FOR REFERENCE ONLY** and should not be used for commercial quotation or bid without validation. The material estimates for Tetra® LED Systems are based upon our engineering standards and information provided pertaining to font, letter height, can depth, face material, and any special instructions provided by the customer. Missing information will cause delays in delivery of estimates as well as affect product selection, quantities, application, and illumination.
2) **LED MODULE PLACEMENT AND QUANTITY IS AN APPROXIMATION ONLY.** The sign manufacturer must verify module placement and quantity to ensure even illumination.
3) Final material quantities for estimation purposes and construction are the responsibility of the sign OEM.
4) All signs should be tested as complete units (including correct Tetra® power supply) before installation for acceptable color, illumination, intensity, & functionality.
5) For detailed information refer to the applicable Tetra® product found under Signage; https://products.gecurrent.com/led-signage-lighting

**TECHNICAL SUPPORT:**
**888-694-3533**
**EMAIL:** tetradrawings@gecurrent.com

| Sign Type | | Illumination | Primary Circuit (120 VAC) | SKU | Description | Name | Quantity | |
|---|---|---|---|---|---|---|---|---|
| DOUBLE SIDED CABINET | | FACE LIT | 2.2 Amps | 93128533 | GEDS71-3 | Snap DS 71K (24V) | 28 Modules | |
| Can Depth | LED Distance From Face | Power Supply Location | Sign Area | | | | | |
| 21" | N/A | SELF-CONTAINED | 41.40 Sq Ft | | | | | |
| Special Instructions | | | Total Module Watts | | | | | |
| SNAP DS TO BE INSTALLED @ 8" OC (Standard - 1.5 modules/ft) | | | 93.24 Watts | SEE OPTIONS ABOVE | 100W - 24V DRIVER | 100W - 24V DRIVER | 2 Ea | |
| ESTIMATE FOR BOTH SIDES OF SIGN | | | | - | - | - | | |
| | | | | | GEDSRL08-3 | Rails (8') | | |
| Notes | | | | | GEDSSE-3 / GEDSFE-3 | Socket / Frame Endcap | | |
| | | | | | GEDSIC-3 | Interconnector | | |
| | | | Total Lumens | | | | | |
| | | | 14400.00 Lumens | 191600041 | | Wire Connector | | |
| | | | 347.83 Lumens/Sq Ft | 9409 | | 18 AWG Supply Wire | | |

Current

Drawn By: CMK
Checked By: CMK
Date: 12/12/24

**Job Name:** QUIK TRIP
**Customer Name:**

**Drwg #: 106563 - 02**
**Rev** -



**Item #QT-MH-E2PGQ-CC-38-BB**

## Project Information

Client
**QuikTrip**

Location
**Store 4452**

File
**QT-MH-E2PGQ-CC-38-BB_4452_100**

| Sales | Design | Project Manager |
|---|---|---|
| **House** | **CT** | **James Gentry** |

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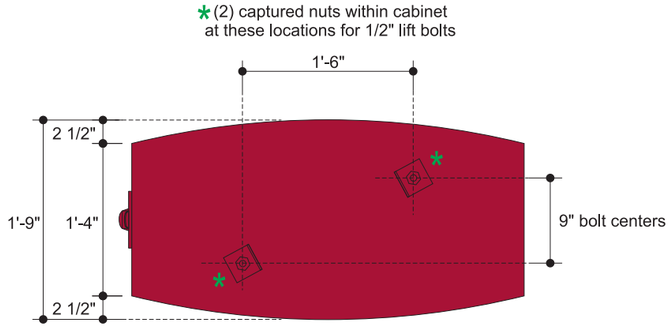
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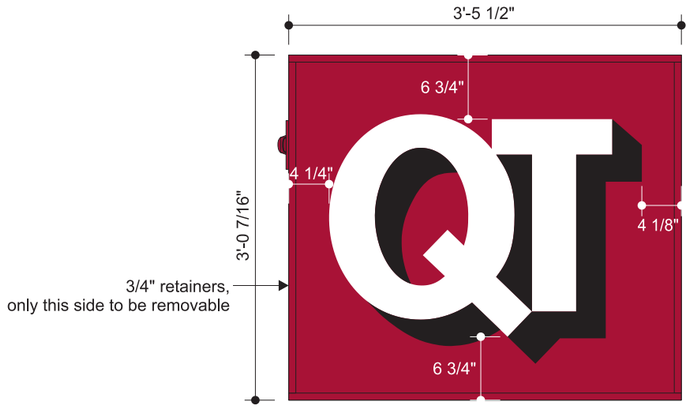
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# QT Logo Cabinet




**Top View**

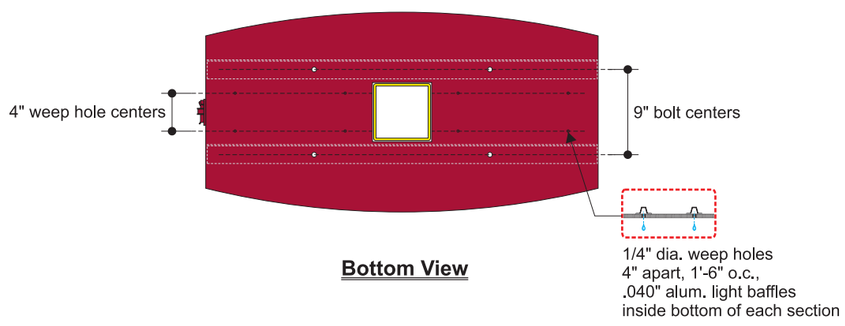



**Front View - QT Cabinet**

Scale: 3/4" = 1'-0"




**Side View**




**Bottom View**

All Sign Modules constructed with removable alum. face retainers and clear acrylic, .177" thickness, face panels with 2nd surface painted background colors and graphics.

Note: No Embossment

Translucent Graphics Red Background Color to Paint Match 3M Cardinal Red #3630-53 Translucent Vinyl

## Color Specifications

All Paint Finishes to be Akzo Nobel

- Translucent White
- Black - Low Gloss
- Matte White (Interior of Sign)
- Match 3M Cardinal Red #3630-53

Regarding Fabrication Fit & Finish of All QT Signs:

- Visible fabrication seams and welded joints are to be sanded smooth, filled and finished to QT specifications.
- Any visible fasteners are to be countersunk and have painted heads.
- Face retainers must fit flush and have even, minimal seams.
- Any variation from this directive must be brought to the attention of the QT Quality Control Manager without delay.

Allen Industries
MET FILE NUMBER: E212503
Listed MET E212503
Electric Sign Complies with UL48
THIS SIGN IS INTENDED TO BE INSTALLED IN ACCORDANCE WITH THE REQUIREMENTS OF **ARTICLE 600 OF THE NATIONAL ELECTRICAL CODE** AND/OR OTHER APPLICABLE LOCAL CODES. THIS INCLUDES PROPER GROUNDING AND BONDING OF THE SIGN.
GROUNDED ELECTRICAL CONNECTIONS

**Item #QT-MH-E2PGQ-CC-38-BB**

## Project Information

Client
**QuikTrip**

Location
**Store 4452**

File
**QT-MH-E2PGQ-CC-38-BB_4452_100**

| Sales | Design | Project Manager |
|---|---|---|
| **House** | **CT** | **James Gentry** |

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Name

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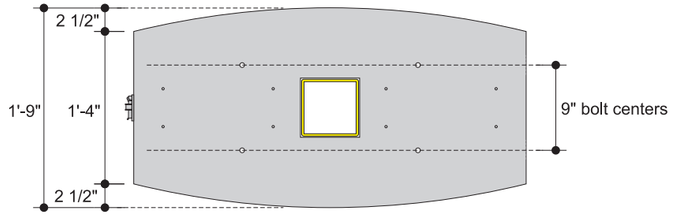
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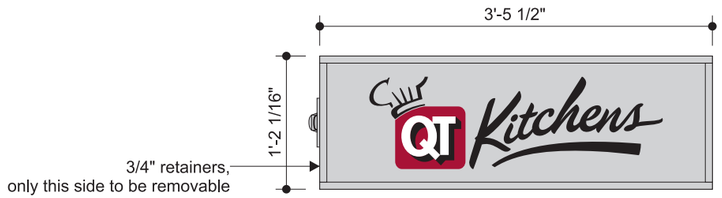
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# QT Kitchens Cabinet

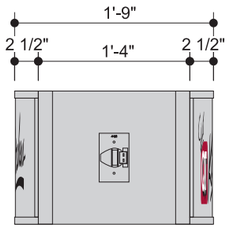



**Top View**




**Front View - QT Kitchens Cabinet**

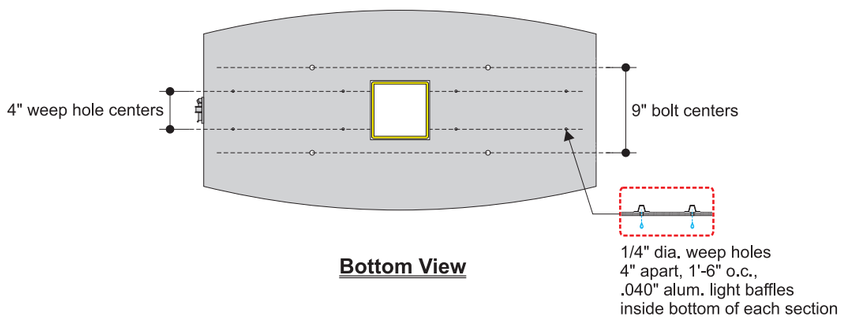
Scale: 3/4" = 1'-0"




**Side View**

All Sign Modules constructed with removable alum. face retainers and clear acrylic, .177" thickness, face panels with 2nd surface painted background colors and graphics.

Note: No Embossment




**Bottom View**

## Color Specifications

All Paint Finishes to be Akzo Nobel

- Opaque Silver
- Translucent White
- 3M Day/Night Vinyl #3635-0171
- Matte White (Interior of Sign)
- 3M Cardinal Red #3630-53 Translucent Vinyl

Regarding Fabrication Fit & Finish of All QT Signs:

- Visible fabrication seams and welded joints are to be sanded smooth, filled and finished to QT specifications.
- Any visible fasteners are to be countersunk and have painted heads.
- Face retainers must fit flush and have even, minimal seams.
- Any variation from this directive must be brought to the attention of the QT Quality Control Manager without delay.

Allen Industries
FILE NUMBER: E212503
Listed MET E212503
Electric Sign Complies with UL48
GROUNDED ELECTRICAL CONNECTIONS
THIS SIGN IS INTENDED TO BE INSTALLED IN ACCORDANCE WITH THE REQUIREMENTS OF **ARTICLE 600 OF THE NATIONAL ELECTRICAL CODE** AND/OR OTHER APPLICABLE LOCAL CODES. THIS INCLUDES PROPER GROUNDING AND BONDING OF THE SIGN.

**Item #QT-MH-E2PGQ-CC-38-BB**

## Project Information

Client
**QuikTrip**

Location
**Store 4452**

File
**QT-MH-E2PGQ-CC-38-BB_4452_100**

| Sales | Design | Project Manager |
|---|---|---|
| **House** | **CT** | **James Gentry** |

## Date / Description

01/08/26 Issue Date

1
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## Notes

-

## Client Review Status

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☐ Approved ☐ Approved as Noted ☐ Revise & Resubmit

Name

Title Date

## Declaration

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Sunshine Pricer

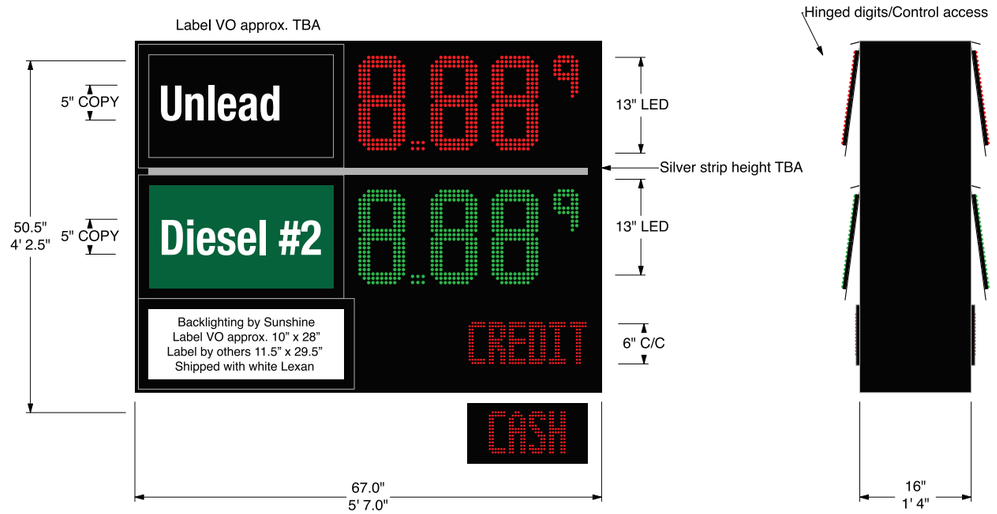
SUNSHINE
316 S. 6th Street
St. Joseph, MO 64501 800. 821. 9013

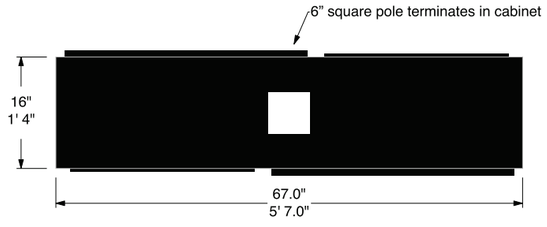
| Client | Install Location | Sales |
|---|---|---|
| QuikTrip Corporation | TBA | Scottie Burnham<br>816-387-4202<br>scottie@sunshine.us.com |

Client Approval: Date:

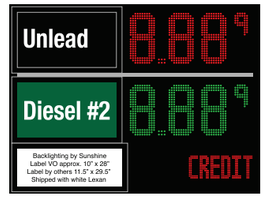
Date: Aug 19, 2022 Job #:

| Revisions: | Date: |
|---|---|
| | |
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| | |
| | |
| | |




* Same layout both sides




| Cabinet Specs | | Label Specs | | Other |
|---|---|---|---|---|
| Digit Size & Style: | 13" LED | LED Backlit Label Panel - | | * Label and cabinet colors for representation only |
| Digit Color: | Red/Green | Label Font: | Helvetica Bold Cond | * 23.5 sq ft |
| Overall Cabinet Size: | 4'2.5"h x 5'7"w x 16"d | Label Panel Color: | 3M 3632-22 Black | * 4.15 total AC amps including both sides |
| Cabinet Color: | Black | | 3M 3632-26 Green | * Cabinet(s) will have lifting/install eyebolt(s) |
| Single or Double Face: | Double | Label Type Color: | White | * Electrical to be knocked out and ran at installer's preference |
| Build type: | New cabinet | | | |

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* Actual LED size and configuration may vary

c UL us LISTED
UL File Number: E340294
CCN: UXYT

ETL LISTED
CONFORMS TO UL STD 48
UL STD 1433
CERTIFIED TO CAN/CSA STD C22.2 NO. 207
102482

**Item #QT-MH-E2PGQ-CC-38-BB**

## Project Information

Client
**QuikTrip**

Location
**Store 4452**

File
**QT-MH-E2PGQ-CC-38-BB_4452_100**

| Sales | Design | Project Manager |
|---|---|---|
| House | CT | James Gentry |

## Date / Description

01/08/26 Issue Date

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## Notes

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Name

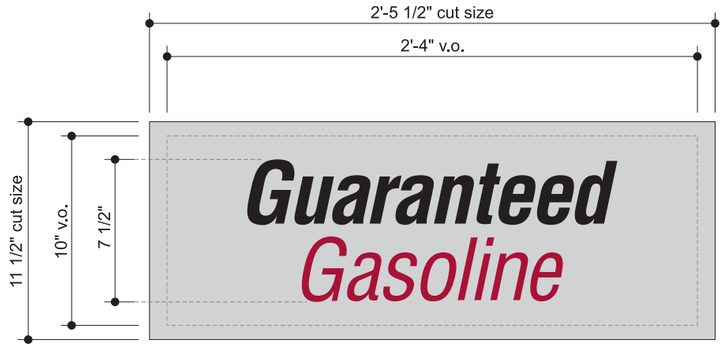
Title Date

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.177" thick clear acrylic face panels with 2nd surface painted background colors and graphics.

**Front View - GG Insert**
Scale: 1/8" = 1"

## Color Specifications

All Paint Finishes to be Akzo Nobel

- Opaque Silver
- Translucent White
- 3M Day/Night Vinyl #3635-0171
- Matte White (Interior of Sign)
- 3M Cardinal Red #3630-53 Translucent Vinyl

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# GG Insert

**Item #QT-MH-E2PGQ-CC-38-BB**

## Project Information

Client
**QuikTrip**

Location
**Store 4452**

File
**QT-MH-E2PGQ-CC-38-BB_4452_100**

| Sales | Design | Project Manager |
|---|---|---|
| **House** | **CT** | **James Gentry** |

## Date / Description

01/08/26 Issue Date

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## Notes

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☐ **Approved** ☐ **Approved as Noted** ☐ **Revise & Resubmit**

Name

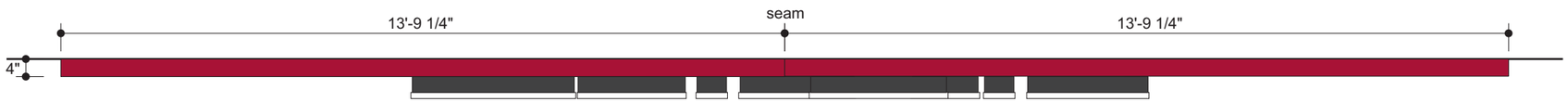
Title Date

## Declaration

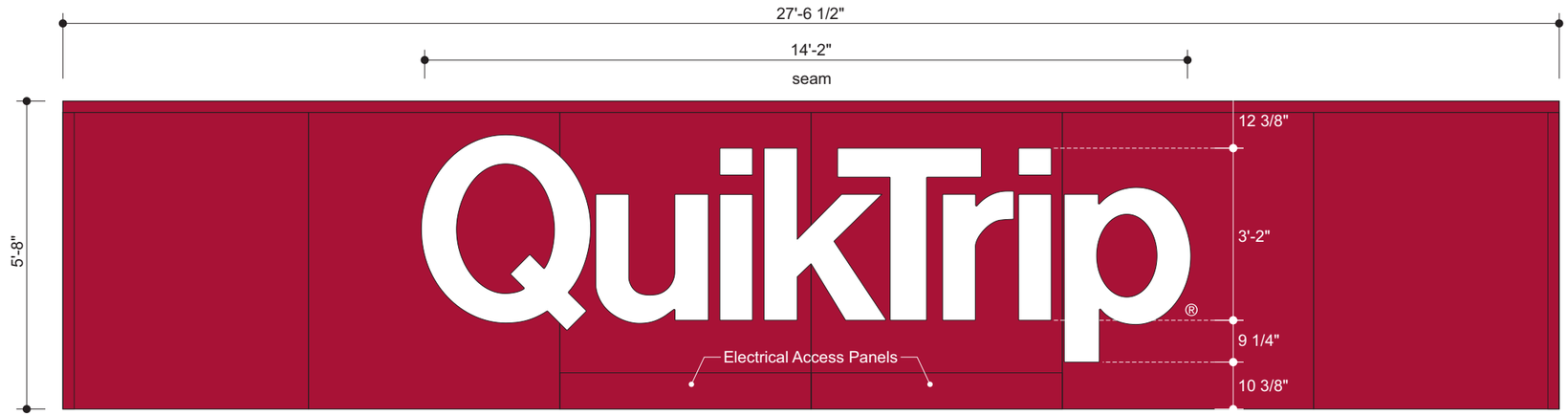
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**Top View**
Scale: 3/8" = 1'-0"




## Front Elevation
Scale: 3/8"=1'-0"

## General Specifications

**Backer Panel:** custom fabricated aluminum tube frame with .080" thk. aluminum faces

**Letter Faces:** .177" translucent White Evonik Cyro SG-7328 formed face

**Letter Returns:** 5" deep, .063" welded aluminum

**Illumination:** White LEDs as required by manufacturer with remote power supplies

**Wall Type:** TBD

**Install:** Flush to wall as per detail

**Quantity:** TBD

# APPROVED

3/27/25

Regarding Fabrication Fit & Finish of All QT Signs:

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- Any visible fasteners are to be countersunk and have painted heads.
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## Paint Specifications

Akzo Noble to match 3M Cardinal Red #3630-53

Akzo Nobel to match SW 7069 Iron Ore

**All paint finishes to be Satin unless otherwise specified**

Allen Industries FILE NUMBER: E212503 | Listed MET E212503 | Electric Sign Complies with UL48

THIS SIGN IS INTENDED TO BE INSTALLED IN ACCORDANCE WITH THE REQUIREMENTS OF **ARTICLE 600 OF THE NATIONAL ELECTRICAL CODE** AND/OR OTHER APPLICABLE LOCAL CODES. THIS INCLUDES PROPER GROUNDING AND BONDING OF THE SIGN.

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Client: **QuikTrip**

Address: **Various**

Date: **01/17/25** | Estimate #: **E21326** | Job #: **-** | Page #: **1 of 4**

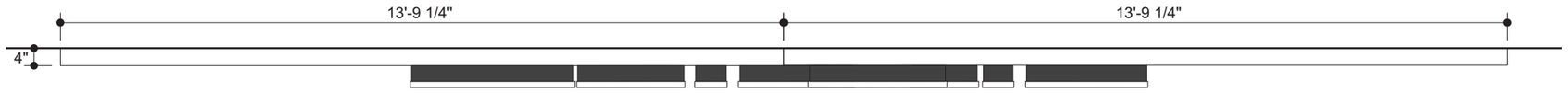
File Name: **QT Gen4 - CL60_101**

Sales: **House** | Design: **CT** | PM: **JG**

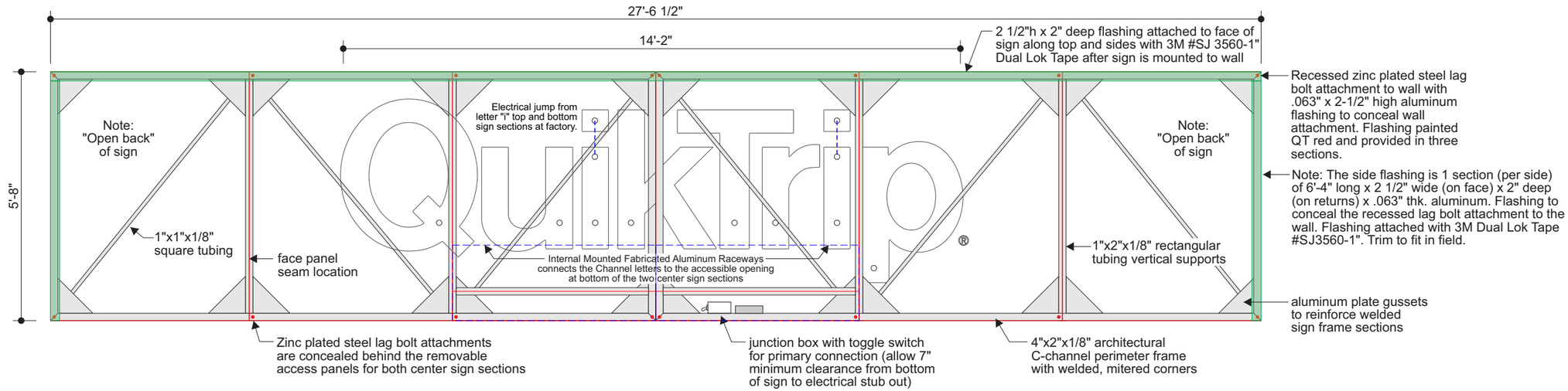
| # | Date | Description | Initial |
|---|---|---|---|
| 1 | 03/09/25 | Revised size per customer | CT |
| 2 | 03/19/25 | Revised size & electrical notes per customer | CT |
| 3 | - | - | - |
| 4 | - | - | - |
| 5 | - | - | - |
| 6 | - | - | - |

**Client Review Status**
Allen Industries, Inc. requires that an approved drawing be obtained from the client prior to any production release or production release revision.

Client Signature: | Approval Date:




**Top View**
Scale: 3/8" = 1'-0"




Internal fabricated aluminum raceways contain the remote located GE power supplies allowing service access through the removable service doors located at the bottom center sign sections to maintain UL approved construction.

**Front View**
Scale: 3/8" = 1'-0"

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- Face retainers must fit flush and have even, minimal seams.
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**Paint Specifications**

Akzo Noble to match 3M Cardinal Red #3630-53

Akzo Nobel to match SW 7069 Iron Ore

**All paint finishes to be Satin unless otherwise specified**

Allen Industries FILE NUMBER: E212503 | Listed MET E212503 Electric Sign Complies with UL48 | THIS SIGN IS INTENDED TO BE INSTALLED IN ACCORDANCE WITH THE REQUIREMENTS OF **ARTICLE 600 OF THE NATIONAL ELECTRICAL CODE** AND/OR OTHER APPLICABLE LOCAL CODES. THIS INCLUDES PROPER GROUNDING AND BONDING OF THE SIGN. | GROUNDED ELECTRICAL CONNECTIONS

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Client: **QuikTrip**

Address: **Various**

| Date: | Estimate #: | Job #: | Page #: |
|---|---|---|---|
| 01/17/25 | E21326 | - | 2 of 4 |

File Name: **QT Gen4 - CL60_101**

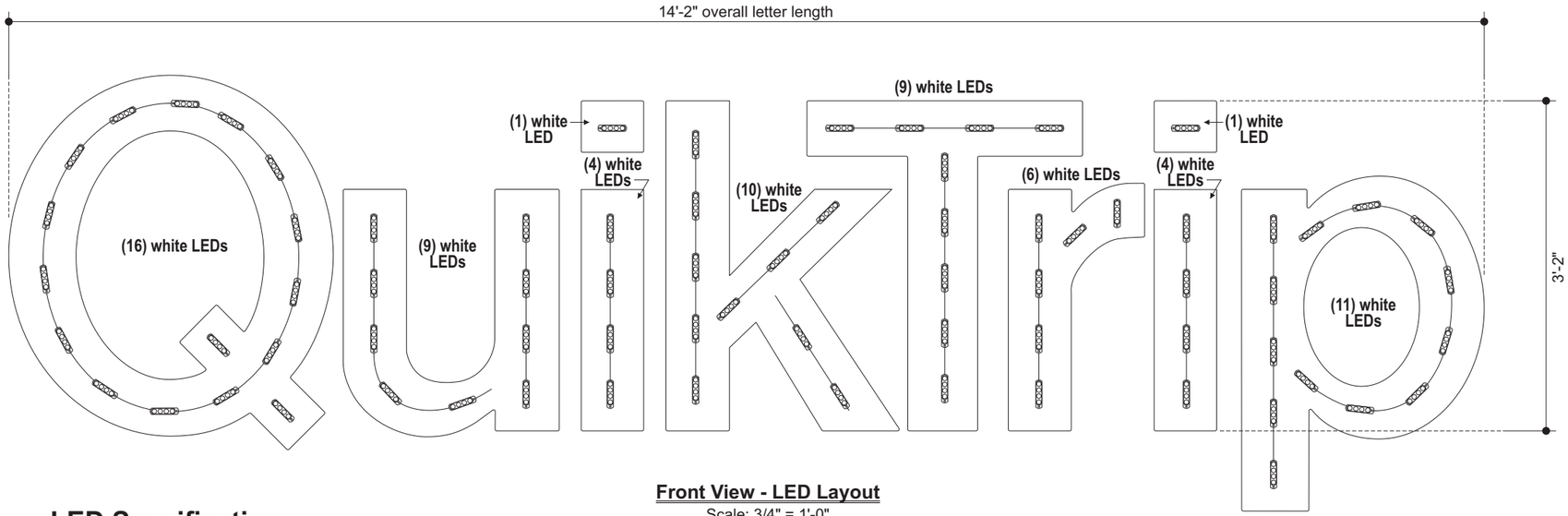
| Sales: | Design: | PM: |
|---|---|---|
| House | CT | JG |

| # | Date | Description | Initial |
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| 5 | - | - | - |
| 6 | - | - | - |

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Client Signature:

Approval Date:




**Front View - LED Layout**
Scale: 3/4" = 1'-0"

## LED Specification

**E**

71 ea. GEMX2471-W1 7100K White
4 LEDs per Module, Spaced 8" OC
1 ea. GEPS24-100U-GLX (pulls 130 modules)
Total Electrical Amp Load = 1.1 Amps
One (1) 120 Volt - 20 Amp
Circuit Breaker Required for Sign

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Akzo Nobel to match SW 7069 Iron Ore

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Client: **QuikTrip**

Address: **Various**

| Date: | Estimate #: | Job #: | Page #: |
|---|---|---|---|
| 01/17/25 | E21326 | - | 3 of 4 |

File Name: **QT Gen4 - CL60_101**

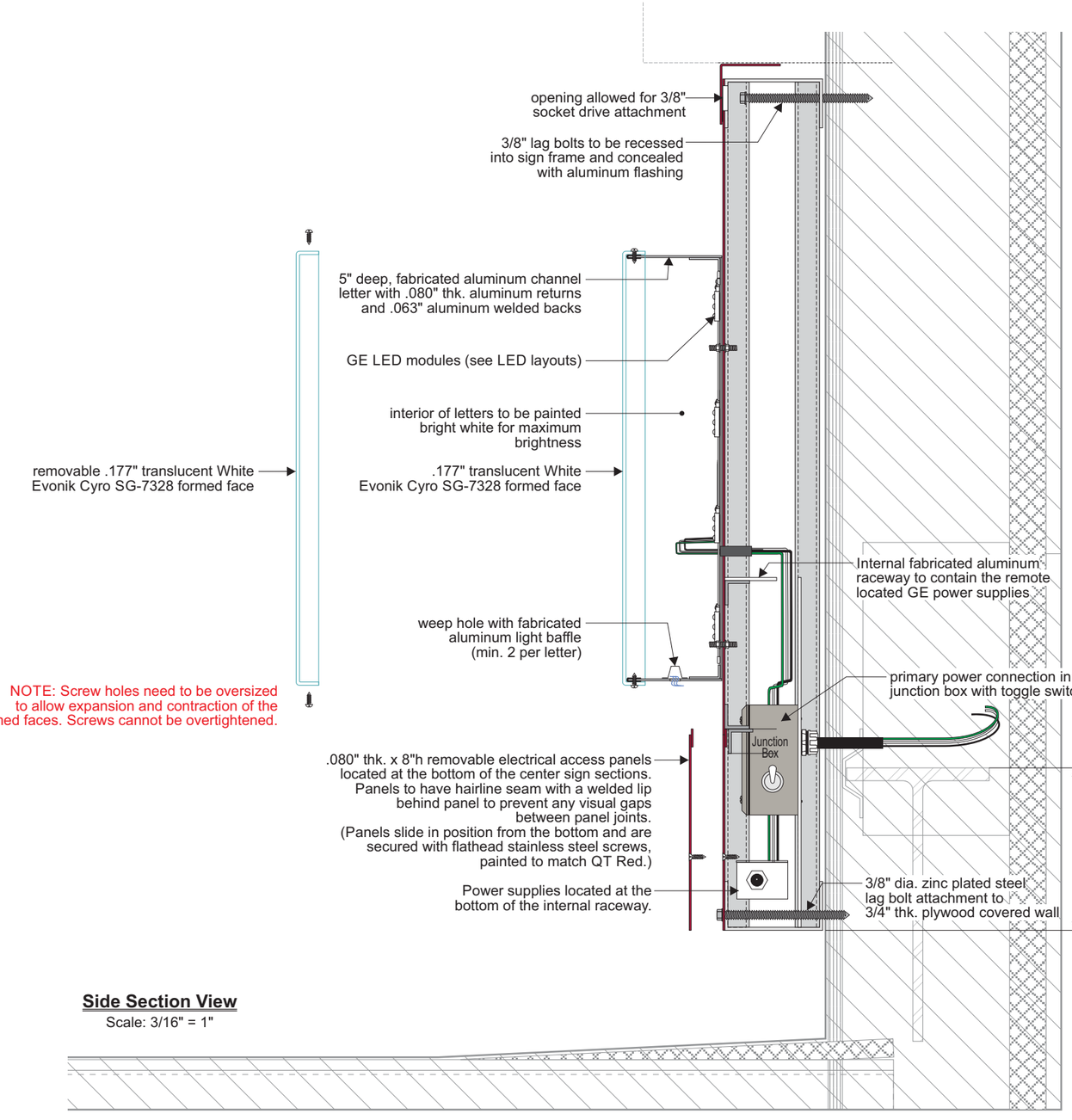
| Sales: | Design: | PM: |
|---|---|---|
| House | CT | JG |

| # | Date | Description | Initial |
|---|---|---|---|
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| 5 | - | - | - |
| 6 | - | - | - |

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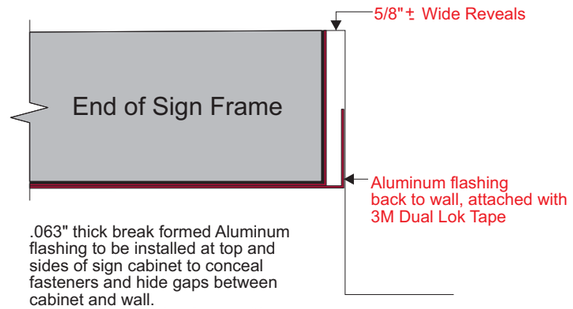
Client Signature:

Approval Date:




NOTE: Screw holes need to be oversized to allow expansion and contraction of the formed faces. Screws cannot be overtightened.

**Side Section View**
Scale: 3/16" = 1"




.063" thick break formed Aluminum flashing to be installed at top and sides of sign cabinet to conceal fasteners and hide gaps between cabinet and wall.
Trim attached to sign frame with 3M #SJ3560-1" Dual Lok Tape.

**Top View - Top Trim Detail**
Scale: 1/4" = 1"

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- Akzo Nobel to match SW 7069 Iron Ore

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| | |
|---|---|
| Client: | **QuikTrip** |
| Address: | **Various** |
| Date: | **01/17/25** |
| Estimate #: | **E21326** |
| Job #: | **-** |
| Page #: | **4 of 4** |
| File Name: | **QT Gen4 - CL60_101** |
| Sales: | **House** |
| Design: | **CT** |
| PM: | **JG** |

| # | Date | Description | Initial |
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Client Signature: | Approval Date:

*QuikTrip Store 4452*
*Lighting Cut Sheets*
*Site Lights*

| Catalog # : | Project : |
|---|---|
| Prepared By : | Date : |

# Slice Medium - SLM
# Outdoor LED Area Light



The Slice's sleek design makes it perfectly-suited for Commercial & Industrial applications, while its cost-effective die-cast aluminum housing makes its acquisition cost very competitive. The Slice offers high performance silicone optics, die cast aluminum housing, 42,000+ lumens and is available with integral Airlink Synapse controls.

## Features & Specifications

### Optical System

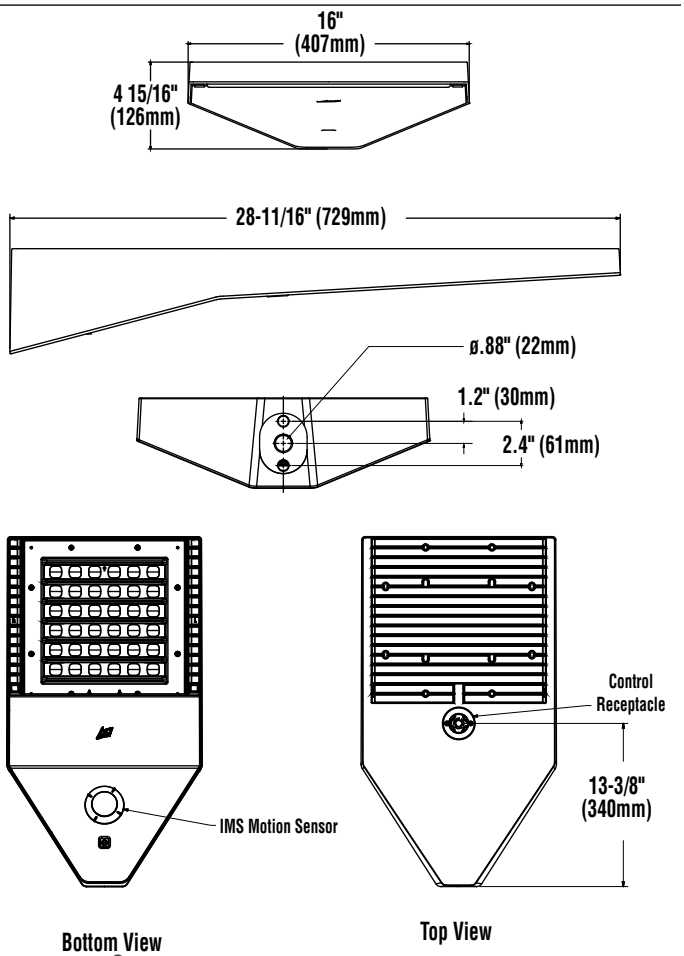
- State-of-the-Art one piece silicone optic sheet delivers industry leading optical control with an integrated gasket to provide IP66 rated sealed optical chamber in 1 component.
- Proprietary silicone refractor optics provide exceptional coverage and uniformity in IES Types 2, 3, 5W, FT and FTA.
- Silicone optical material does not yellow or crack with age and provides a typical light transmittance of 93%.
- Zero uplight.
- Available in 5000K, 4000K, 3000K, and 2700K color temperatures per ANSI C78.377. Optional 5700K CCT available in 90CRI only.
- Minimum CRI of 70. Optional 80 and 90 CRI available, consult factory for lead time.
- Integral Louver (IL) option available for improved back-light control without sacrificing street side performance. See page 5 for more details.

### Electrical

- High-performance driver features over-voltage, under-voltage, short-circuit and over temperature protection.
- 0-10V dimming (10% - 100%) standard.
- Standard Universal Voltage (120-277 Vac) Input 50/60 Hz or optional High Voltage (347-480 Vac).
- L80 Calculated Life: >100k Hours (See Lumen Maintenance on Page 3)
- Total harmonic distortion: <20%
- Operating temperature: -40°C to +50°C (-40°F to +122°F). 42L lumen package rated to +40ºC.
- Power factor: >.90
- Input power stays constant over life.
- Field replaceable surge protection device meets a minimum Category C Low operation (per ANSI/IEEE C62.41.2).
- High-efficacy LEDs mounted to metal-core circuit board to maximize heat dissipation
- Terminal block provided accepts up to 10ga wire.
- Components are fully encased in potting material for moisture resistance. Driver complies with FCC standards. Driver and key electronic components can easily be accessed.

Dimmable · WIRELESS CONTROLS · IP66 · RoHS COMPLIANT · ARRA Funding Compliant · c UL us LISTED · MANUFACTURED IN USA · TITLE 24 COMPLIANT · ida DARK SKY APPROVED · DLC LISTED · DLC LISTED PREMIUM

## Product Dimensions




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## Features & Specifications (Cont.)

### Construction

- Rugged die-cast aluminum housing contains factory prewired driver and optical unit. Cast aluminum wiring access door located underneath.
- Designed to mount to square poles.
- Luminaire is proudly manufactured in the U.S.of U.S. and imported parts.
- IP66 rated luminaire protects integral components from harsh environments.
- 3G rated for ANSI C136.31 high vibration applications
- Fixtures are finished with LSI's DuraGrip® polyester powder coat finishing process. The DuraGrip finish withstands extreme weather changes without cracking or peeling. Other standard LSI finishes available. Consult factory.
- Shipping weight: 30 lbs in carton.

### Controls

#### Wireless Controls System

To make this fixture AirLink ready, simply order one of the following options:

a. The integrated Wireless Lighting Controller: ALSC or ALSCH (see ordering guide) as the controls option, or

b. Integrated Wireless Controller option (above) with integrated motion sensor: ALSCS (ordering guide for mounting heights) or

c. The 7-Pin Photoelectric Control Receptacle: CR7P as the controls option; and either the 5-Pin or 7-Pin Twist Lock Controller: ALSC UNV TL5 or ALSC UNV TL7 as an accessory

To see how the components of AirLink system work together, reference the diagram in the controls section of this specsheet. For more information on our AirLink products, visit our website: www.lsi-airlink.com/airlink-synapse/

#### Stand-Alone Controls

- The integral passive infrared motion sensor (IMS) activates switching of luminaire light levels (see the controls section for more details).
- The 7-pin ANSI C136.41-2013 photocontrol receptacle option (CR7P) is available for twist lock photocontrols or wireless control modules.
- The Button Type Photocells (PCI) are capable of switching luminaires ON/OFF in response to the amount of available daylight.

### Installation

- A single fastener secures the hinged door, underneath the housing and provides quick & easy access to the electrical compartment for installing/servicing.
- Included terminal block provides quick and easy on-site wiring.
- Utilizes LSI's traditional 3" drill pattern for easy fastening of LSI products. (See drawing on page 1)

### Warranty

- LSI LED Fixtures carry a 5-year warranty.

### Listings

- Listed to UL 1598 and UL 8750.
- RoHS Compliant.
- American Recovery and Reinvestment Act Funding Compliant.
- IDA compliant; with 3000K color temperature selection.
- Title 24 Compliant; see local ordinance for qualification information.
- Suitable For wet Locations.
- IP66 rated Luminaire. IP66 rated optical chamber.
- 3G rated for ANSI C136.31 high vibration applications

## Performance

**ELECTRICAL DATA (AMPS)***

| Lumens | Watts | 120V | 208V | 240V | 277V | 347V | 480V |
|---|---|---|---|---|---|---|---|
| 9L | 68.2 | 0.6A | 0.3A | 0.3A | 0.2A | 0.2A | 0.1A |
| 12L | 93.1 | 0.8A | 0.4A | 0.4A | 0.3A | 0.3A | 0.2A |
| 18L | 148.5 | 1.2A | 0.7A | 0.6A | 0.5A | 0.4A | 0.3A |
| 24L | 188.8 | 1.6A | 0.9A | 0.8A | 0.7A | 0.5A | 0.4A |
| 30L | 248.6 | 2.1A | 1.2A | 1.0A | 0.9A | 0.7A | 0.5A |
| 36L | 317.8 | 2.6A | 1.5A | 1.3A | 1.1A | 0.9A | 0.7A |
| 42L | 393.4 | 3.3A | 1.9A | 1.6A | 1.4A | 1.1A | 0.8A |

*Electrical data at 25C (77F). Actual wattage may differ by +/-10%

**ELECTRICAL DATA - PHOSPHOR CONVERTED AMBER (AMPS)***

| Lumens | Watts | 120V | 208V | 240V | 277V | 347V | 480V |
|---|---|---|---|---|---|---|---|
| 9L | 74.3 | 0.6A | 0.4A | 0.3A | 0.3A | 0.2A | 0.2A |
| 12L | 102.9 | 0.9A | 0.5A | 0.4A | 0.4A | 0.3A | 0.2A |

*Electrical data at 25C (77F). Actual wattage may differ by +/-10%

**RECOMMENDED LUMEN MAINTENANCE[1](24-42L)**

| Ambient | Initial[2] | 25 hr[2] | 50 hr[2] | 75 hr[3] | 100 hr[3] |
|---|---|---|---|---|---|
| 0-40 C | 100% | 100% | 97% | 94% | 92% |

**RECOMMENDED LUMEN MAINTENANCE[1](9-18L)**

| Ambient | Initial[2] | 25 hr[2] | 50 hr[2] | 75 hr[3] | 100 hr[3] |
|---|---|---|---|---|---|
| 0-50 C | 100% | 96% | 91% | 87% | 83% |

1- Lumen maintenance values at 25C are calculated per TM-21 based on LM-80 data and in-situ testing.
2- In accordance with IESNA TM-21-11, Projected Values represent interpolated value based on time durations that are within six times the IESNA LM-80-08 total test duration for the device under testing.
3- In accordance with IESNA TM-21-11, Calculated Values represent time durations that exceed six times the IESNA LM-80-08 total test duration for the device under testing

**DELIVERED LUMENS***

| Lumen Package | Distribution | Phosphor Converted Amber | | | Wattage |
|---|---|---|---|---|---|
| | | Delivered Lumens | Efficacy | BUG Rating | |
| 9L | 2 | 5958 | 80 | B2-U0-G1 | 74 |
| | 2 IL | 3735 | 50 | B0-U0-G1 | |
| | 3 | 6196 | 83 | B1-U0-G1 | |
| | 3 IL | 4205 | 56 | B0-U0-G1 | |
| | 5W | 5528 | 74 | B3-U0-G1 | |
| | FT | 5922 | 79 | B1-U0-G2 | |
| | FT IL | 3712 | 50 | B0-U0-G1 | |
| | FTA | 5997 | 80 | B2-U0-G2 | |
| | FTA IL | 4254 | 57 | B0-U0-G1 | |
| 12L | 2 | 7559 | 73 | B2-U0-G2 | 103 |
| | 2 IL | 4738 | 46 | B0-U0-G1 | |
| | 3 | 7860 | 76 | B2-U0-G2 | |
| | 3 IL | 5335 | 52 | B0-U0-G1 | |
| | 5W | 7013 | 68 | B3-U0-G2 | |
| | FT | 7513 | 73 | B2-U0-G2 | |
| | FT IL | 4709 | 46 | B0-U0-G2 | |
| | FTA | 7608 | 74 | B2-U0-G2 | |
| | FTA IL | 5397 | 52 | B0-U0-G1 | |

*LED Chips are frequently updated therefore values are nominal

**LUMINAIRE EPA CHART - SLM**

| Tilt Degree | | 0° | 30° | 45° | Tilt Degree | | 0° | 30° | 45° |
|---|---|---|---|---|---|---|---|---|---|
| | Single | 0.5 | 2.1 | 2.6 | | T90° | 1.2 | 2.9 | 3.6 |
| | D180° | 1.1 | 2.1 | 2.6 | | TN120° | 1.3 | 4.4 | 5.4 |
| | D90° | 0.9 | 2.5 | 3.1 | | Q90° | 1.2 | 2.9 | 3.6 |

Specifications and dimensions subject to change without notice.

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# Slice Medium - SLM
# Outdoor LED Area Light

**DELIVERED LUMENS***

| Lumen Package | Distribution | CRI | 2700K CCT | | | 3000K CCT | | | 4000K CCT | | | 5000K CCT | | | Wattage |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Delivered Lumens | Efficacy | BUG Rating | Delivered Lumens | Efficacy | BUG Rating | Delivered Lumens | Efficacy | BUG Rating | Delivered Lumens | Efficacy | BUG Rating | |
| 9L | 2 | 70 | 8349 | 122 | B2-U0-G2 | 8576 | 125 | B2-U0-G2 | 9396 | 137 | B2-U0-G2 | 9784 | 143 | B2-U0-G2 | 69 |
| | 2 IL | 70 | 5185 | 76 | B0-U0-G1 | 5326 | 78 | B0-U0-G1 | 5835 | 85 | B0-U0-G1 | 6076 | 89 | B0-U0-G1 | |
| | 3 | 70 | 8571 | 125 | B1-U0-G2 | 8804 | 129 | B1-U0-G2 | 9646 | 141 | B2-U0-G2 | 10044 | 147 | B2-U0-G2 | |
| | 3 IL | 70 | 6283 | 92 | B0-U0-G2 | 6454 | 94 | B0-U0-G2 | 7071 | 103 | B0-U0-G2 | 7363 | 107 | B0-U0-G2 | |
| | 5W | 70 | 8158 | 119 | B3-U0-G2 | 8380 | 122 | B3-U0-G2 | 9181 | 134 | B3-U0-G2 | 9560 | 140 | B4-U0-G2 | |
| | FT | 70 | 8337 | 122 | B2-U0-G2 | 8563 | 125 | B2-U0-G2 | 9382 | 137 | B2-U0-G2 | 9769 | 143 | B2-U0-G2 | |
| | FT IL | 70 | 5393 | 79 | B0-U0-G2 | 5540 | 81 | B0-U0-G2 | 6069 | 89 | B0-U0-G2 | 6320 | 92 | B0-U0-G2 | |
| | FTA | 70 | 8459 | 123 | B2-U0-G2 | 8689 | 127 | B2-U0-G2 | 9520 | 139 | B2-U0-G2 | 9913 | 145 | B2-U0-G2 | |
| | FTA IL | 70 | 6200 | 91 | B1-U0-G1 | 6369 | 93 | B1-U0-G1 | 6978 | 102 | B1-U0-G1 | 7266 | 106 | B1-U0-G1 | |
| 12L | 2 | 70 | 11157 | 119 | B2-U0-G2 | 11461 | 122 | B2-U0-G2 | 12556 | 134 | B3-U0-G2 | 13075 | 139 | B3-U0-G2 | 94 |
| | 2 IL | 70 | 6929 | 74 | B1-U0-G1 | 7117 | 76 | B1-U0-G2 | 7798 | 83 | B1-U0-G2 | 8119 | 86 | B1-U0-G2 | |
| | 3 | 70 | 11454 | 122 | B2-U0-G2 | 11766 | 125 | B2-U0-G2 | 12890 | 137 | B2-U0-G2 | 13423 | 143 | B2-U0-G2 | |
| | 3 IL | 70 | 8396 | 89 | B0-U0-G2 | 8625 | 92 | B0-U0-G2 | 9449 | 101 | B0-U0-G2 | 9839 | 105 | B0-U0-G2 | |
| | 5W | 70 | 10902 | 116 | B4-U0-G2 | 11199 | 119 | B4-U0-G2 | 12269 | 131 | B4-U0-G2 | 12775 | 136 | B4-U0-G2 | |
| | FT | 70 | 11141 | 119 | B2-U0-G2 | 11444 | 122 | B2-U0-G2 | 12538 | 133 | B2-U0-G3 | 13055 | 139 | B2-U0-G3 | |
| | FT IL | 70 | 7207 | 77 | B0-U0-G2 | 7403 | 79 | B0-U0-G2 | 8110 | 86 | B0-U0-G2 | 8445 | 90 | B0-U0-G2 | |
| | FTA | 70 | 11304 | 120 | B2-U0-G2 | 11612 | 124 | B2-U0-G2 | 12722 | 135 | B2-U0-G2 | 13247 | 141 | B2-U0-G2 | |
| | FTA IL | 70 | 8286 | 88 | B1-U0-G1 | 8511 | 91 | B1-U0-G1 | 9325 | 99 | B1-U0-G1 | 9710 | 103 | B1-U0-G1 | |
| 18L | 2 | 70 | 16714 | 112 | B3-U0-G3 | 17168 | 115 | B3-U0-G3 | 18809 | 126 | B3-U0-G3 | 19586 | 131 | B3-U0-G3 | 150 |
| | 2 IL | 70 | 10379 | 69 | B1-U0-G2 | 10662 | 71 | B1-U0-G2 | 11681 | 78 | B1-U0-G2 | 12163 | 81 | B1-U0-G2 | |
| | 3 | 70 | 17158 | 115 | B2-U0-G3 | 17625 | 118 | B2-U0-G3 | 19310 | 129 | B3-U0-G3 | 20107 | 134 | B3-U0-G3 | |
| | 3 IL | 70 | 12578 | 84 | B1-U0-G3 | 12920 | 86 | B1-U0-G3 | 14155 | 95 | B1-U0-G3 | 14739 | 99 | B1-U0-G3 | |
| | 5W | 70 | 16331 | 109 | B4-U0-G2 | 16776 | 112 | B4-U0-G2 | 18379 | 123 | B4-U0-G2 | 19138 | 128 | B5-U0-G3 | |
| | FT | 70 | 16689 | 112 | B3-U0-G3 | 17143 | 115 | B3-U0-G3 | 18781 | 126 | B3-U0-G4 | 19557 | 131 | B3-U0-G4 | |
| | FT IL | 70 | 10795 | 72 | B1-U0-G2 | 11089 | 74 | B1-U0-G2 | 12149 | 81 | B1-U0-G3 | 12651 | 85 | B1-U0-G3 | |
| | FTA | 70 | 16934 | 113 | B3-U0-G3 | 17395 | 116 | B3-U0-G3 | 19058 | 127 | B3-U0-G3 | 19844 | 133 | B3-U0-G3 | |
| | FTA IL | 70 | 12412 | 83 | B1-U0-G1 | 12750 | 85 | B1-U0-G2 | 13969 | 93 | B1-U0-G2 | 14546 | 97 | B1-U0-G2 | |
| 24L | 2 | 70 | 20880 | 112 | B3-U0-G3 | 22701 | 121 | B4-U0-G3 | 24276 | 130 | B4-U0-G3 | 24784 | 133 | B4-U0-G3 | 187 |
| | 2 IL | 70 | 13100 | 70 | B1-U0-G2 | 14243 | 76 | B1-U0-G2 | 15231 | 81 | B1-U0-G2 | 15550 | 83 | B1-U0-G2 | |
| | 3 | 70 | 21739 | 116 | B3-U0-G3 | 23636 | 126 | B3-U0-G4 | 25275 | 135 | B3-U0-G4 | 25804 | 138 | B3-U0-G4 | |
| | 3 IL | 70 | 15828 | 85 | B1-U0-G3 | 17209 | 92 | B1-U0-G3 | 18403 | 98 | B1-U0-G4 | 18788 | 100 | B1-U0-G4 | |
| | 5W | 70 | 20632 | 110 | B5-U0-G3 | 22432 | 120 | B5-U0-G3 | 23988 | 128 | B5-U0-G3 | 24490 | 131 | B5-U0-G3 | |
| | FT | 70 | 21611 | 116 | B3-U0-G4 | 23496 | 126 | B3-U0-G4 | 25126 | 134 | B3-U0-G4 | 25652 | 137 | B3-U0-G4 | |
| | FT IL | 70 | 13692 | 73 | B1-U0-G3 | 14886 | 80 | B1-U0-G3 | 15919 | 85 | B1-U0-G3 | 16252 | 87 | B1-U0-G3 | |
| | FTA | 70 | 21496 | 115 | B3-U0-G3 | 23371 | 125 | B3-U0-G3 | 24992 | 134 | B3-U0-G3 | 25515 | 136 | B3-U0-G3 | |
| | FTA IL | 70 | 15226 | 81 | B1-U0-G2 | 16555 | 89 | B1-U0-G2 | 17703 | 95 | B2-U0-G2 | 18073 | 97 | B2-U0-G2 | |
| 30L | 2 | 70 | 26581 | 108 | B4-U0-G3 | 28900 | 117 | B4-U0-G3 | 30905 | 125 | B4-U0-G3 | 31551 | 128 | B4-U0-G3 | 247 |
| | 2 IL | 70 | 16677 | 68 | B1-U0-G2 | 18132 | 73 | B1-U0-G2 | 19390 | 79 | B1-U0-G2 | 19796 | 80 | B1-U0-G2 | |
| | 3 | 70 | 27675 | 112 | B3-U0-G4 | 30089 | 122 | B3-U0-G4 | 32176 | 130 | B3-U0-G4 | 32850 | 133 | B3-U0-G4 | |
| | 3 IL | 70 | 20150 | 82 | B1-U0-G4 | 21908 | 89 | B1-U0-G4 | 23428 | 95 | B1-U0-G4 | 23918 | 97 | B1-U0-G4 | |
| | 5W | 70 | 26266 | 106 | B5-U0-G3 | 28557 | 116 | B5-U0-G3 | 30538 | 124 | B5-U0-G4 | 31177 | 126 | B5-U0-G4 | |
| | FT | 70 | 27512 | 111 | B3-U0-G4 | 29912 | 121 | B3-U0-G4 | 31987 | 130 | B3-U0-G4 | 32656 | 132 | B3-U0-G5 | |
| | FT IL | 70 | 17430 | 71 | B1-U0-G3 | 18951 | 77 | B1-U0-G4 | 20266 | 82 | B1-U0-G4 | 20690 | 84 | B1-U0-G4 | |
| | FTA | 70 | 27365 | 111 | B3-U0-G3 | 29752 | 120 | B4-U0-G3 | 31816 | 129 | B4-U0-G3 | 32482 | 132 | B4-U0-G3 | |
| | FTA IL | 70 | 19384 | 78 | B2-U0-G2 | 21075 | 85 | B2-U0-G2 | 22537 | 91 | B2-U0-G2 | 23008 | 93 | B2-U0-G2 | |
| 36L | 2 | 70 | 32214 | 102 | B4-U0-G3 | 35025 | 111 | B4-U0-G3 | 37454 | 118 | B4-U0-G3 | 38238 | 121 | B4-U0-G4 | 317 |
| | 2 IL | 70 | 20212 | 64 | B1-U0-G2 | 21975 | 69 | B1-U0-G3 | 23499 | 74 | B2-U0-G3 | 23991 | 76 | B2-U0-G3 | |
| | 3 | 70 | 33540 | 106 | B3-U0-G4 | 36466 | 115 | B3-U0-G5 | 38996 | 123 | B3-U0-G5 | 39812 | 126 | B3-U0-G5 | |
| | 3 IL | 70 | 24421 | 77 | B1-U0-G4 | 26551 | 84 | B1-U0-G4 | 28393 | 90 | B1-U0-G4 | 28987 | 92 | B1-U0-G5 | |
| | 5W | 70 | 31832 | 101 | B5-U0-G4 | 34609 | 109 | B5-U0-G4 | 37010 | 117 | B5-U0-G4 | 37785 | 119 | B5-U0-G4 | |
| | FT | 70 | 33342 | 105 | B3-U0-G5 | 36251 | 114 | B3-U0-G5 | 38766 | 122 | B4-U0-G5 | 39577 | 125 | B4-U0-G5 | |
| | FT IL | 70 | 21125 | 67 | B1-U0-G4 | 22968 | 73 | B1-U0-G4 | 24561 | 78 | B1-U0-G4 | 25075 | 79 | B1-U0-G4 | |
| | FTA | 70 | 33164 | 105 | B4-U0-G3 | 36058 | 114 | B4-U0-G4 | 38559 | 122 | B4-U0-G4 | 39366 | 124 | B4-U0-G3 | |
| | FTA IL | 70 | 23492 | 74 | B2-U0-G2 | 25541 | 81 | B2-U0-G2 | 27313 | 86 | B2-U0-G2 | 27885 | 88 | B2-U0-G2 | |
| 42L | 2 | 70 | 36785 | 94 | B4-U0-G3 | 39994 | 103 | B5-U0-G4 | 42768 | 110 | B5-U0-G4 | 43663 | 112 | B5-U0-G4 | 390 |
| | 2 IL | 70 | 23079 | 59 | B1-U0-G3 | 25093 | 64 | B2-U0-G3 | 26833 | 69 | B2-U0-G3 | 27395 | 70 | B2-U0-G3 | |
| | 3 | 70 | 38299 | 98 | B3-U0-G5 | 41640 | 107 | B4-U0-G5 | 44528 | 114 | B4-U0-G5 | 45460 | 117 | B4-U0-G5 | |
| | 3 IL | 70 | 27886 | 72 | B1-U0-G4 | 30319 | 78 | B1-U0-G5 | 32422 | 83 | B1-U0-G5 | 33100 | 85 | B1-U0-G5 | |
| | 5W | 70 | 36349 | 93 | B5-U0-G4 | 39520 | 101 | B5-U0-G4 | 42261 | 108 | B5-U0-G4 | 43145 | 111 | B5-U0-G4 | |
| | FT | 70 | 38073 | 98 | B4-U0-G5 | 41395 | 106 | B4-U0-G5 | 44266 | 114 | B4-U0-G5 | 45192 | 116 | B4-U0-G5 | |
| | FT IL | 70 | 24122 | 62 | B1-U0-G4 | 26226 | 67 | B1-U0-G4 | 28045 | 72 | B1-U0-G4 | 28632 | 73 | B1-U0-G4 | |
| | FTA | 70 | 37870 | 97 | B4-U0-G4 | 41174 | 106 | B4-U0-G4 | 44030 | 113 | B4-U0-G4 | 44951 | 115 | B4-U0-G4 | |
| | FTA IL | 70 | 26825 | 69 | B2-U0-G2 | 29165 | 75 | B2-U0-G2 | 31188 | 80 | B2-U0-G2 | 31841 | 82 | B2-U0-G2 | |

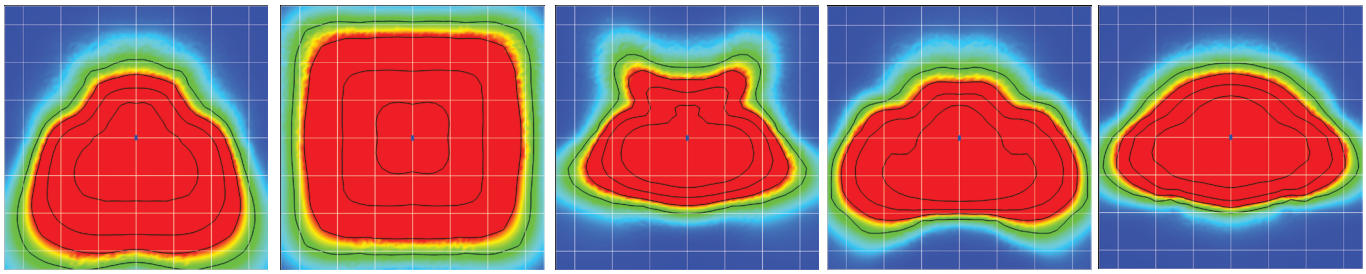
*LED Chips are frequently updated therefore values are nominal

Specifications and dimensions subject to change without notice.

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## Performance (Cont.)

All published luminaire photometric testing performed to IESNA LM-79 standards. ISO footcandle plots below demonstrate the Slice (SLM) light patterns only. Not for total fixture output. For complete specifications and IES files, see website.



FT | 5W | FTA | Type 3 | Type 2

## Ordering Guide

TYPICAL ORDER EXAMPLE: **SLM LED 36L SIL FTA UNV DIM 50 70CRI ALSCS04 BRZ IL**

| Luminaire Prefix | Light Source | Lumen Package* | Light Output | Distribution | Orientation[1] | Voltage | Driver |
|---|---|---|---|---|---|---|---|
| **SLM** Slice Medium | **LED** | **9L** - 9,000 lms<br>**12L** - 12,000 lms<br>**18L** - 18,000 lms<br>**24L** - 24,000 lms<br>**30L** - 30,000 lms<br>**36L** - 36,000 lms<br>**42L** - 42,000 lms<br><br>*Consult factory for programmable wattages and lumen packages | **SIL** - Silicone | **2** - Type 2<br>**3** - Type 3<br>**5W** - Type 5 Wide<br>**FT** - Forward Throw<br>**FTA** - Forward Throw Automotive | **(blank)** - standard<br>**L**- Optics rotated left 90<br>**R** - Optics rotated right 90 | **UNV** - Universal Voltage (120-277V)<br>**HV** - High Voltage (347-480V) | **DIM** - 0-10V Dimming (0-10%) |

| Color Temp | Color Rendering | Controls (Choose One) | Finish | Options |
|---|---|---|---|---|
| **57** - 5,700 CCT[2,12]<br>**50** - 5,000 CCT<br>**40** - 4,000 CCT<br>**30** - 3,000 CCT[2]<br>**27** - 2,700 CCT[2]<br>**AMB** - Phosphor Converted Amber[2,3] | **70CRI** - 70 CRI<br>**80CRI** - 80 CRI[2]<br>**90CRI** - 80 CRI [2,12] | **(Blank)** - None<br><br>**Wireless Controls System**<br>**ALSC** - AirLink Synapse Control System [4]<br>**ALSCH** - AirLink Synapse Control System Host / Satelite [4,5]<br>**ALSCS01** - AirLink Synapse Control System with 8-12' Motion Sensor [4]<br>**ALSCHS01** - AirLink Synapse Control System Host / Satelite with 8-12' Motion Sensor [4,5]<br>**ALSCS02** - AirLink Synapse Control System with 12-20' Motion Sensor[4]<br>**ALSCHS02** - AirLink Synapse Control System Host / Satelite with 12-20' Motion Sensor [4,5]<br>**ALSCS04** - AirLink Synapse Control System with 20-40' Motion Sensor [4]<br>**ALSCHS04** - AirLink Synapse Control System Host / Satelite with 20-40' Motion Sensor [4,5]<br><br>**Stand-Alone Controls**<br>**EXT** - 0-10v Dimming (from external signal)<br>**IMS0M1** - Integral Motion Sensor 8-12' 120-277V [4,6]<br>**IMS0M2** - Integral Motion Sensor 12-20' 120-277V [4,6]<br>**IMS0M4** - Integral Motion Sensor 20-40' 120-277V [4,6]<br>**IMS0M1HV** - Integral Motion Sensor 8-12' 347-480V [6,10]<br>**IMS0M2HV** - Integral Motion Sensor 12-20' 347-480V [6,10]<br>**IMS0M4HV** - Integral Motion Sensor 20-40' 347-480V [6,10]<br>**CR7P** - 7 Pin Control Receptacle ANSI C136.41 [7]<br><br>**Button Type Photocells**<br>**PCI120** - 120V<br>**PCI208-277** - 208 -277V<br>**PCI347** - 347V | **BRZ** - Bronze<br>**BLK** - Black<br>**GPT** - Graphite<br>**MSV** - Metallic Silver<br>**WHT** - White<br>**PLP** - Platinum Plus<br>**SVG** - Satin Verde Green | **(Blank)** - None<br><br>**IL** - Integral Louver HSS[1] |

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## Accessory Ordering Information[8]

| Description | Order Number | Description | Order Number |
|---|---|---|---|
| PC120 Photocell for use with CR7P option (120V)[9] | 122514 | DFK208, 240 Double Fusing (208V, 240V) | DFK240 |
| PC208-277 Photocell for use with CR7P option (208V, 240V, 277V)[9] | 122515 | DFK480 Double Fusing (480V) | DFK480 |
| PC347 Photocell for use with CR7P option (347V)[9] | 122516 | DFK347 Double Fusing (347V) | DFK347 |
| PC480 Photocell for use with CR7P option (480V)[9] | 1225180 | X5RPP - Round Pole Adapter for 5" Poles[11] | 379968CLR |
| ALSC UNV TL5 - Airlink 5Pin Twist Lock Controller[4,9] | 661409 | IL - Integral Louver HSS | 684812 |
| ALSC UNV TL7 - Airlink 7Pin Twist Lock Controller[4,9] | 661410 | Universal Mounting Bracket (UMB)[11] | 684616CLR |
| PMOS24 - 24V Pole-Mount Occupancy Sensor (ALSC/H Compatible)[10,11] | 663284CLR | Adjustable Slip Fitter (ASF)[11] | 688138CLR |
| IMS/PC Remote Configurator Tool | 584929 | Pole Quick Mount Bracket - Square Pole[11] | 687073CLR |
| X3RPP - Round Pole Adapter for 3" Round Tapered Poles[11] | 408273CLR | Pole Quick Mount Bracket - 4-5" Round Pole[11] | 689903CLR |
| X4RPP - Round Pole Adapter for 4" Poles[11] | 379967CLR | 15° Tilt Pole Quick Mount Bracket - Square Pole[11] | 688003CLR |
| FK120 Single Fusing (120V) | FK120 | 15° Tilt Pole Quick Mount Bracket - 4-5" Round Pole[11] | 689905CLR |
| FK277 Single Fusing (277V) | FK277 | BKS XBO WM * CLR Wall Mount Bracket[11] | 382132CLR |

**FOOTNOTES:**
1 - Not available on "Type V" distribution.
2 - Consult Factory for availability.
3 - Only available in 9L and 12L Lumen Packages
4 - Not available in HV.
5 - Consult Factory for Site Layout
6 - IMS is field adjustable, via a hand held Remote Configurator Tool, which must be ordered separately. See Accessory Ordering Information.
7 - Control device must be ordered separately. 7 pin standard. See Accessory Ordering Information.
8 - Accessories are shipped seperately and field installed.
9 - Factory installed CR7P option required. See Options.
10 - Only available with ALSC* Controls
11 - "CLR" denotes finish. See Finish options.
12 - Only available in 5700K 90CRI for lumen packages 24L-42L.

## Accessories/Options

### Integral Louver (IL)

Accessory Integral Louver available for improved back-light control without sacrificing street side performance. LSI's Integral Louver (IL) option delivers backlight control that significantly reduces light spill behind the pole for applications with pole locations close to adjacent properties. The integrated louvers' design maximizes forward-reflected light while - reducing glare, maintaining the optical distribution selected, and most importantly, eliminating light trespass. The Integral louver rotates with the optical distribution.

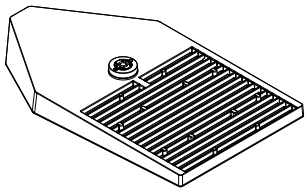
**Luminaire Shown with Integral Louver (IL)**



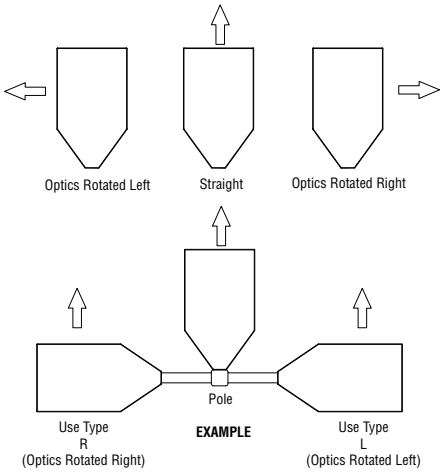
### 7 Pin Photoelectric Control

7-pin ANSI C136.41-2013 control receptacle option available for twist lock photocontrols or wireless control modules. Control accessories sold separately. Dimming leads from the receptacle will be connected to the driver dimming leads (Consult factory for alternate wiring).

**Fixture Shown with CR7P**



## Optics Rotation




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### Stand-alone Controls: Occupancy Sensor (IMS)

The integral passive infrared motion sensor activates switching of luminaire light levels. Standard Factory settings: High level light is activated and increased to full bright upon detection of motion. Lowlight level (10% maximum drive current) is activated when target zone is absent of motion activity for ~5 minutes. See coverage diagram for detection cone.

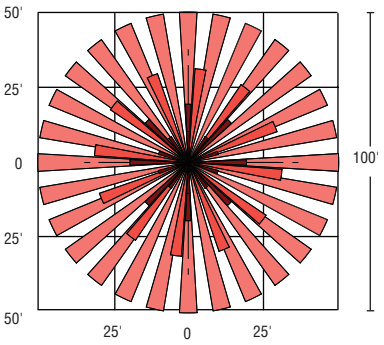
The Remote Configurator Tool allows for easy and safe programming of each luminaire from ground level.
See the Remote Configurator User Guide for programming instructions.

When ordering the Stand-alone Occupancy Sensor on the fixture, you must include IMS (see ordering guide for mounting height options) as the controls option in the fixture nomenclature.

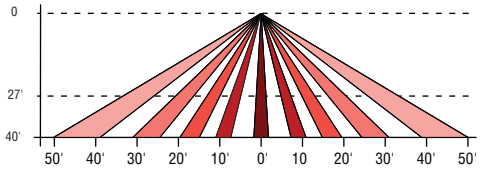
To order as a motion sensor with the AirLink Wireless Control System, see ordering guide under “Wireless Controls System” and select the ALSCS controls option with the desired mounting height.

### IMS Coverage Diagrams

**TOP VIEW**




**SIDE VIEW**




### Remote Configurator Tool




### Luminaire Shown with IMS




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# Slice Medium - SLM
# Outdoor LED Area Light

AirLink™ enabled by Synapse®

The AirLink enabled by Synapse Wireless Lighting Control System is the perfect solution for commercial, industrial and municipal applications, such as: auto dealerships, parking lots, garages, shopping complexes and warehouses.

AirLink utilizes robust wireless communication via 2.4 GHz Self-Healing Mesh Network which not only increases reliability and accuracy of system, but also eliminates single point of failure.

The flexibility of the system make it perfect for new construction and retrofit projects. The user-friendly AirLink web application is accessible through any device with an internet connection and allows for complete customization of the system's features.

Some capabilities of the system include: occupancy/vacancy sensing, daylight harvesting, scheduling, high-end trim, dimming, zone control, BMS integration and energy monitoring.

## The AirLink System

### Wireless controls & sensors



Wireless & Override Switches



Occupancy/Vacancy & Daylight Sensors



AirLink-integrated Fixtures



AirLink-compatible Fixtures



Circuit & Zone Controllers

### Centralized control & integration



Site Manager Controller



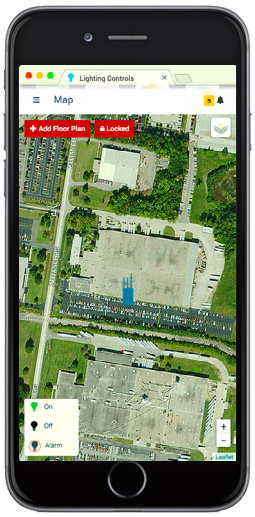
Gateway Module

BACnet®



WiFi, Cellular or Ethernet Connection

### Simple-to-use software




AirLink Site Manger: Lighting control web app

## Contact LSI Controls

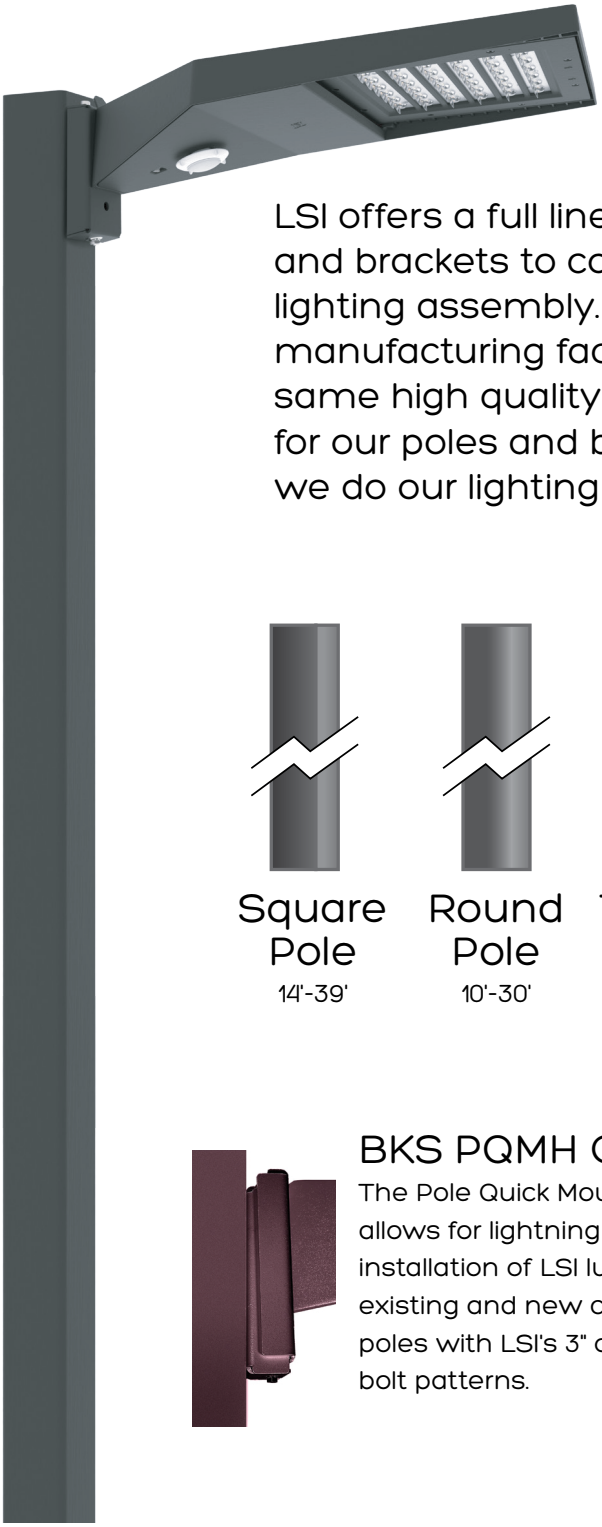
**Sales**
controls.sales@lsi-industries.com

**Support**
controls.support@lsi-industries.com
1 (800) 436-7800 (support, option 8)

**More information**
For more information on AirLink, visit our website at **www.lsi-airlink.com**

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# poles & Brackets

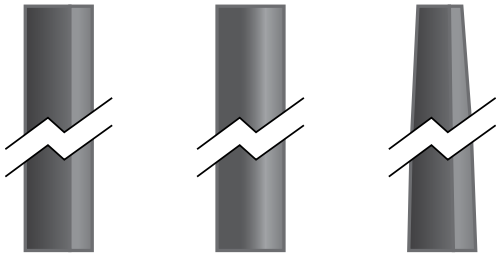


LSI offers a full line of poles and brackets to complete your lighting assembly. Our USA manufacturing facility has the same high quality standards for our poles and brackets as we do our lighting fixtures.



## BKA UMB CLR

The 3G rated Universal Mounting Bracket (UMB) allows for seemless integration of LSI Luminaires onto existing or new construction poles. The UMB bracket was designed specifically for square or round (tapered/ straight) poles with (2) mounting hole spaces between 3.5"-5".



Square Pole
14'-39'

Round Pole
10'-30'

Tapered Pole
20'-39'



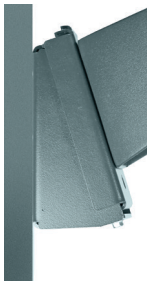
## BKA ASF CLR

The adjustable Slip Fitter is a 3G rated rugged die cast aluminum adapter to mount LSI luminaires onto a 2" (51mm) IP, 2.375" (60mm) O.D. tenon. The Adjustable Slip Fitter can be rotated 180° allowing for tilting LSI luminaires up to 45° and 90° when using a vertical tenon.



## BKS PQMH CLR

The Pole Quick Mount Bracket allows for lightning fast installation of LSI luminaires onto existing and new construction poles with LSI's 3" or 5"standard bolt patterns.



## BKS PQM15 CLR

The Pole Quick Mount Bracket allows for preset 15° uptilt of LSI luminaires for greater throw of light and increased vertical illumination aswell as fast installation onto poles with LSI's 3" or 5" bolt pattern.

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*QuikTrip Store 4452*
*Lighting Cut Sheets*
*Fuel Canopy Lights*

Catalog # : _____ Project : _____ Type : _____

Prepared By : _____ Date : _____

# Scottsdale Vertex™ (SCV)

## Petroleum Canopy Light



| OVERVIEW | |
|---|---|
| Lumen Package (lm) | 9,000 - 23,000 |
| Wattage Range (W) | 67 - 188 |
| Efficacy Range (LPW) | 109 - 154 |
| Weight lbs (kg) | 18.5 (8.4) |

## QUICK LINKS

Ordering Guide | Performance | Photometrics | Dimensions

## FEATURES & SPECIFICATIONS

### Construction

- Rugged low-profile die-cast aluminum housing, optical unit, and driver cover.
- Below canopy access to optical chamber and driver housing for serviceability.
- IP66 rated luminaire protects integral components from dust and water.
- Fixtures are finished with LSI's DuraGrip® polyester powder coat finishing process. The DuraGrip finish withstands extreme weather changes without cracking or peeling.
- Four fasteners secure the door frame to housing. Door frame also provides quick and easy access to the electrical compartment for servicing.
- Shipping weight: 18.5 lbs in carton.

### Optical System

- Symmetrical distribution utilizes a clear tempered flat glass lens to uniformly illuminate the area under the gas canopy.
- Combination Forward Throw distribution uses clear tempered flat glass and optical grade PMMA acrylic lens to create an industry leading unique distribution pattern to illuminate the area under the gas canopy and the area between the gas canopy and convenience store eliminating the need for extra floodlights.
- Available in 5000K, 4000K and 3000K color temperatures.
- Minimum CRI of 80.

### Electrical

- High-performance factory programmable driver; features include over-voltage, undervoltage, short circuit and over temperature protection.
- Integral 6kV surge protection that meets IEEE C62.41.2 and ANSI C82.77-5 Location Category C Low standards.
- Additional field replaceable 10kV surge protection device meets a minimum Category C Low operation (per ANSI/IEEE C62.41.2).
- Custom lumen and wattage packages available.
- 0-10V dimming (10% - 100%) standard.
- Standard Universal Voltage (120-277 Vac) Input 50/60 Hz or optional High Voltage (347-480 Vac).
- L80 Calculated Life: >100k Hours (See Lumen Maintenance on Page 2).
- Total harmonic distortion: <20%.
- Operating temperature: -40°C to +50°C. (-40°F to +122°F) when mounted to Steel/ Aluminum surfaces for 10L, 13L, & 15L Lumen Packages, +45°C for 20L Lumen Package, and +35°C for 23L Lumen Package. If mounted to a non-metallic surface, reduce ambient by 5°C.
- Power factor: >0.90.
- High-efficacy LEDs are mounted to (4) circuit boards to maximize heat dissipation.
- Driver components are fully encased in potting material for moisture resistance. Driver complies with FCC standards.

### Hazardous Location

- Designed for lighter than air fuel applications. Product is suitable for Class 1 Division 2 with all lumen packages and distributions only when properly installed per LSI installation instructions. Models with optional controls are not approved for Class 1, Division 2 applications.
  - Gas Groups A, B, C, and D – Group A: Acetylene / Group B: Hydrogen / Group C: Propane and Ethylene / Group D: Benzene, Butane, Methane & Propane.

### Installation (Standard)

- Installs in a 12" or 16" deck pan.
- Four fasteners are provided for use in single deck steel canopies. Other suitable fasteners may be required and provided by others.
- Unit is designed to quickly retrofit into existing Scottsdale (4") hole.
- Aluminum locking collar and gasket are included and required for complete seal and support of canopy deck.
- Retrofit panels are available for existing Encores, Richmond, 2x2 Universal, and more.
- Direct mount to surface or recessed J box with hardware bracket kit ordered separately as an accessory.

### Installation (REDiMount)

- Patent pending 3 piece quick mounting system; components include collar, capsule and connector.
- Designed to reduce canopy penetrations and increase installation efficiency.
- Installs in 12" or 16" deck pan.

### Warranty

- LSI luminaires carry a 5-year limited warranty. Refer to https://www.lsicorp.com/resources/terms-conditions-warranty/ for more information.

### Listings

- Listed to UL 1598 and UL 8750.
- Meets Buy American Act requirements.
- State of California Title 24 Compliant with IMSBT option.
- DesignLights Consortium® (DLC) Premium qualified product. Not all versions of this product may be DLC Premium qualified. Please check the DLC Qualified Products List at www.designlights.org/QPL to confirm which versions are qualified.
- IDA compliant with 3000K or lower color temperature.


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# Scottsdale Vertex™ (SCV) Petroleum Canopy Light

Type : _____

**Have questions?** Call us at (800) 436-7800

## ORDERING GUIDE

Back to Quick Links

**TYPICAL ORDER EXAMPLE: SCV LED 13L SC UNV DIM 50 WHT IMSBT2 REDI**

| Prefix | Light Source | Lumen Package | Distribution | Voltage | Driver | Color Temperature | Finish | Options | Mounting |
|---|---|---|---|---|---|---|---|---|---|
| **SCV** - Petroleum Canopy Luminaire | **LED**<br><br>**23L** - 23,000 Lumens | **10L** - 10,000 Lumens<br>**13L** - 13,000 Lumens<br>**15L** - 15,000 Lumens<br>**20L** - 20,000 Lumens<br>**23L** - 23,000 Lumens<br><br>**Custom Lumen Packages**[1]<br><br>**SCFT** - Combination Standard Symmetric and Forward Throw[1] | **SC** - Standard Symmetric | **UNV** - Universal Voltage (120-277VAC)<br>**HV** - 347-480V[2] | **DIM** - 0-10V Dimming[3] | **30** - 3000K<br>**40** - 4000K<br>**50** - 5000K | **WHT** - White<br>**BLK** - Black<br>**BRZ** - Bronze | **Blank** - None<br>**ALBCS1** - AirLink Blue Wireless Motion & Photo Sensor Controller (8-24' mounting height)<br>**ALBCS2** - AirLink Blue Wireless Motion & Photo Sensor Controller (25-40' mounting height)<br>**IMSBT1L** - Integral Bluetooth™ Motion and Photocell Sensor (8 - 24' mounting height)[4]<br>**IMSBT2L** - Integral Bluetooth™ Motion and Photocell Sensor (25 - 40' mounting height)[4]<br>**HL** - Hazardous Location Class 1 Div 2[5] | **Blank** - None<br>**REDI** - REDiMount integrated junction box system[6] |

**Need more information?**
Click here for our glossary

**Have additional questions?**
Call us at (800) 436-7800

## ACCESSORY ORDERING INFORMATION

| Part Number | Description |
|---|---|
| **673425R2** | Retrofit Panel Kit - EC / ECTA / SCF to SCV, for 16" Deck Panel with larger openings[7] |
| **676011R2** | Retrofit Panel Kit - EC / ECTA / SCF to SCV, for 12" Deck Panel[8] |
| **673426R2** | Retrofit Panel Kit - RECU Richmond to SCV |
| **673427R2** | Retrofit Panel Kit - UNV Universal 2x2 to SCV |
| **357282** | Retrofit 2x2 Cover Panel Blank (no holes) |
| **354702** | Retrofit RIC Cover Panel Blank (no holes) |
| **557193WHT** | 26" X 26" Beauty Plate Kit (with 4" Center hole) |
| **564160WHT** | 26" X 32" Beauty Plate Kit (with 4" Center hole) |

| Part Number | Description |
|---|---|
| **687461** | Junction Box |
| **1320540** | Kit - Hole Plugs and Sealant (enough for 25 retrofits) |
| **678291R2WHT** | Rectangular Top Plate Kit (includes top plate and sealant) |
| **673433R2** | Surface Mount Box |
| **687462R2** | Retrofit Kit - CRU/CRUS to SCV |
| **744333** | Retrofit Kit for SCM/SCV to upgrade SC/SCF/EC/ECTA White |
| **752172R2** | Bracket SCM/SCV Direct Mount with Hardware |

1 Custom lumen and wattage packages available consult factory. Values are within industry standard tolerances but not DLC listed.
2 HV not available with REDiMount.
3 0-10 low voltage wired dimming not available with REDiMount.
4 IMSBT is field configurable via the LSI app that can be downloaded from your smartphone's native app store.
5 HL not compatible with AirLink, IMSBT, 3000K, or REDiMount.
6 Light fixture engine ships with REDiMount attached.
7 Ideal for 9" to 12" openings.
8 Ideal for 9" openings.


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## PERFORMANCE

Back to Quick Links

**Delivered Lumens***

| Lumen Package | 3000K CCT | | | 4000K CCT | | | 5000K CCT | | | Wattage |
|---|---|---|---|---|---|---|---|---|---|---|
| | Delivered Lumens | Efficiency | BUG Ratings | Delivered Lumens | Efficiency | BUG Ratings | Delivered Lumens | Efficiency | BUG Ratings | |
| 10L | 9,652 | 144 | B3-U0-G1 | 9,928 | 148 | B3-U0-G1 | 10,317 | 154 | B3-U0-G1 | 67 |
| 13L | 12,567 | 140 | B3-U0-G1 | 12,927 | 144 | B3-U0-G1 | 13,443 | 149 | B3-U0-G1 | 90 |
| 15L | 13,999 | 137 | B3-U0-G1 | 14,399 | 141 | B3-U0-G1 | 14,963 | 147 | B3-U0-G1 | 102 |
| 20L | 18,755 | 141 | B4-U0-G1 | 19,598 | 147 | B4-U0-G1 | 20,234 | 152 | B4-U0-G1 | 133 |
| 23L | 21,783 | 141 | B4-U0-G2 | 22,406 | 145 | B4-U0-G2 | 23,284 | 150 | B4-U0-G2 | 155 |
| 23L (SCFT) | 20,886 | 111 | B3-U0-G3 | 23,187 | 123 | B4-U0-G3 | 23,101 | 123 | B3-U0-G3 | 188 |

*LEDs are frequently updated therefore values are nominal.

**Recommended Lumen Maintenance - SCV 15L SC[1]**

| Ambient Temperature °C | Lumen Multiplier | | | | |
|---|---|---|---|---|---|
| | Initial[2] | 25k hr[2] | 50k hr[2] | 75k hr[3] | 100k hr[3] |
| 25 | 102% | 97% | 92% | 88% | 84% |
| 30 | 102% | 97% | 92% | 88% | 84% |
| 35 | 102% | 97% | 92% | 88% | 84% |
| 40 | 102% | 97% | 92% | 88% | 84% |
| 45 | 101% | 95% | 91% | 86% | 81% |
| 50 | 101% | 95% | 90% | 85% | 80% |

**Recommended Lumen Maintenance - SCV 23 SCFT[1]**

| Ambient Temperature °C | Lumen Multiplier | | | | |
|---|---|---|---|---|---|
| | Initial[2] | 25k hr[2] | 50k hr[2] | 75k hr[3] | 100k hr[3] |
| 25 | 105% | 88% | 73% | 61% | 51% |
| 30 | 105% | 80% | 61% | 47% | 36% |
| 35 | 105% | 70% | 47% | 32% | 21% |

**Recommended Lumen Maintenance - SCV 23 SC[1]**

| Ambient emperature °C | Lumen Multiplier | | | | |
|---|---|---|---|---|---|
| | Initial[2] | 25k hr[2] | 50k hr[2] | 75k hr[3] | 100k hr[3] |
| 25 | 102% | 97% | 92% | 88% | 84% |
| 30 | 102% | 97% | 92% | 88% | 84% |
| 35 | 102% | 97% | 92% | 88% | 84% |
| 40 | 101% | 96% | 91% | 86% | 82% |

**Electrical Data - Current draw in AMPS***

| Lumen Package | Wattage | 120V | 208V | 240V | 277V | 347V | 480V |
|---|---|---|---|---|---|---|---|
| 10L | 67 | 0.56 | 0.32 | 0.28 | 0.24 | 0.19 | 0.14 |
| 13L | 90 | 0.75 | 0.43 | 0.37 | 0.32 | 0.26 | 0.19 |
| 15L | 102 | 0.85 | 0.49 | 0.42 | 0.37 | 0.29 | 0.21 |
| 20L | 133 | 1.1 | 0.64 | 0.55 | 0.48 | 0.38 | 0.28 |
| 23L (SC) | 155 | 1.29 | 0.75 | 0.65 | 0.56 | 0.45 | 0.32 |
| 23L (SCFT) | 188 | 1.57 | 0.9 | 0.78 | 0.68 | 0.54 | 0.39 |

*Electrical data at 25˚C (77F). Actual wattage may differ by +/-10%.

1 Lumen maintenance values at 25˚C are calculated per TM-21 based on LM-80 data and in-situ luminaire testing.
2 In accordance with IESNA TM-21-11, Projected Values represent interpolated value based on time durations that are within six times (6X) the IESNA LM-80-08 total test duration (in hours) for the device under testing ((DUT) i.e. the packaged LED chip).
3 In accordance with IESNA TM-21-11, Calculated Values represent time durations that exceed six times NA LM-80-08 total test duration (in hours) for the device under testing ((DUT) i.e. the packaged LED chip).



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# Scottsdale Vertex™ (SCV) Petroleum Canopy Light

Type : _____

**Have questions?** Call us at (800) 436-7800

## PHOTOMETRICS

Back to Quick Links

Luminaire photometry has been conducted by a NVLAP accredited testing laboratory in accordance with IESNA LM-79-08. As specified by IESNA LM-79-08 the entire luminaire is tested as the source resulting in a luminaire efficiency of 100%.

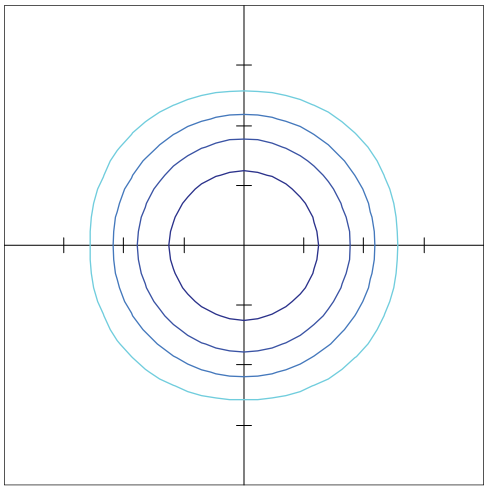
See the individual product page on https://www.lsicorp.com/ for detailed photometric data.

### SCV-LED-15L-SC-50

| Luminaire Data | |
|---|---|
| **Wide Distribution** | |
| **Description** | 5000 Kelvin, 80 CRI |
| **Delivered Lumens** | 15,410 |
| **Watts** | 103 |
| **Efficacy** | 150 |
| **IES Type** | Type VS - Very Short |
| **BUG Rating** | B3-U0-G1 |

| Zonal Lumen Summary | | |
|---|---|---|
| **Zone** | **Lumens** | **% Luminaire** |
| **Low (0-30°)** | 4,101.6 | 26.6% |
| **Medium (30-60°)** | 8,386.4 | 54.4% |
| **High (60-80°)** | 2,748.8 | 17.8% |
| **Very High (80-90°)** | 173.4 | 1.1% |
| **Uplight (90-180°)** | 0 | 0.0% |
| **Total Flux** | 15,410.2 | 100% |

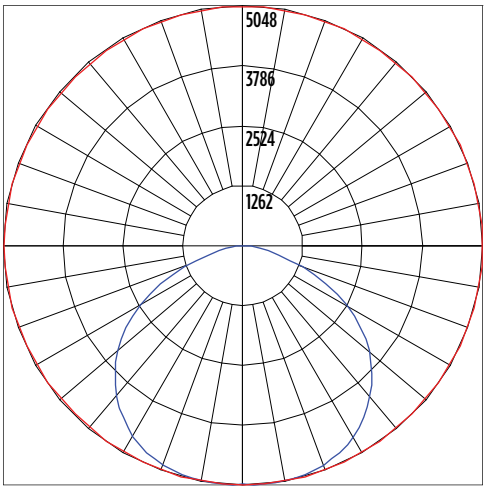
**ISO Footcandle**



15' Mounting Height / 15' Grid Spacing

5 FC 2 FC 1 FC 0.5 FC

**Polar Curve**



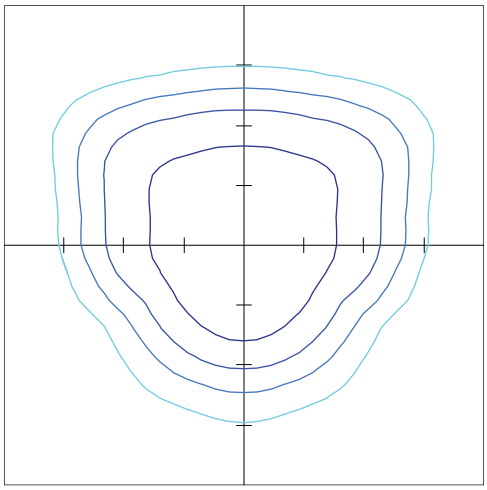

Vertical Plane Horizontal Cone

### SCV-LED-23L-SCFT-50

| Luminaire Data | |
|---|---|
| **Wide Distribution** | |
| **Description** | 5000 Kelvin, 80 CRI |
| **Delivered Lumens** | 24,361 |
| **Watts** | 191.5 |
| **Efficacy** | 127 |
| **IES Type** | Type IV - Short |
| **BUG Rating** | B3-U0-G3 |

| Zonal Lumen Summary | | |
|---|---|---|
| **Zone** | **Lumens** | **% Luminaire** |
| **Low (0-30°)** | 4,368.4 | 17.9% |
| **Medium (30-60°)** | 12,592.5 | 51.7% |
| **High (60-80°)** | 6,960.6 | 28.6% |
| **Very High (80-90°)** | 439.5 | 1.8% |
| **Uplight (90-180°)** | 0 | 0.0% |
| **Total Flux** | 24,361.0 | 100% |

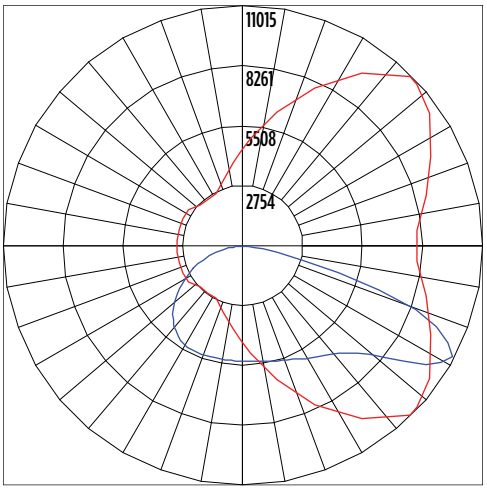
**ISO Footcandle**



15' Mounting Height / 15' Grid Spacing

5 FC 2 FC 1 FC 0.5 FC

**Polar Curve**




Vertical Plane Horizontal Cone


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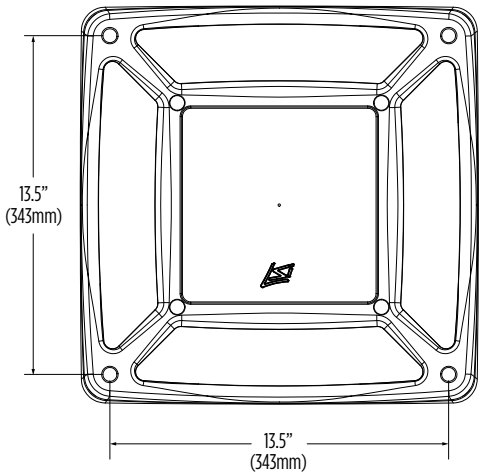
# Scottsdale Vertex™ (SCV) Petroleum Canopy Light

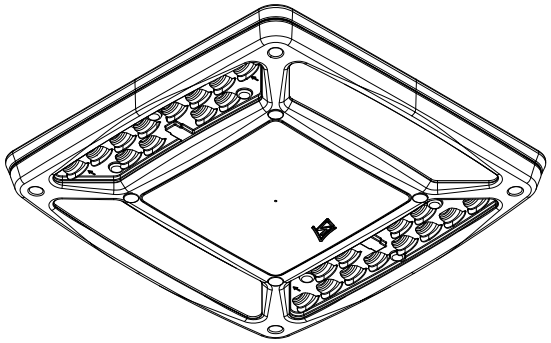
Type : _____

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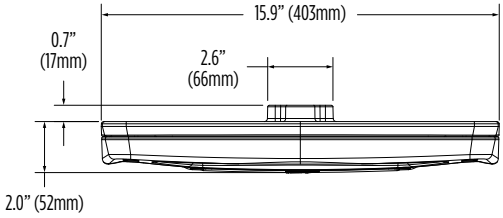
## PRODUCT DIMENSIONS

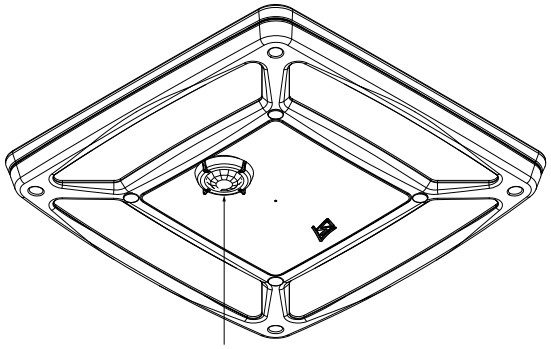
Back to Quick Links



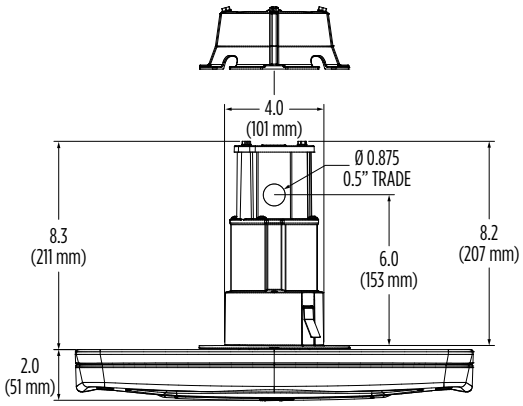



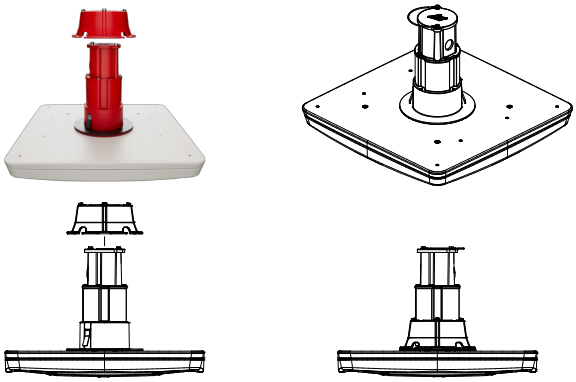
SCFT Distribution



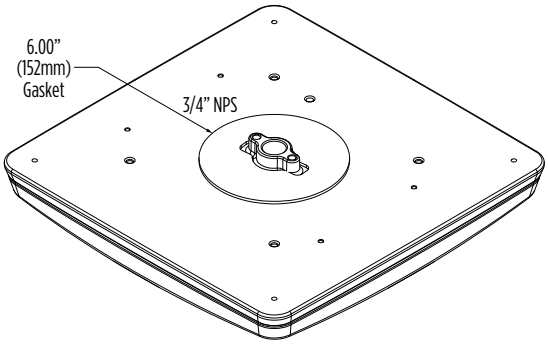



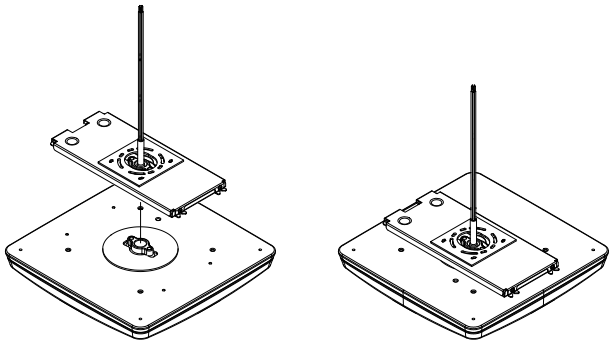
IMSBTxL Option



REDiMount



Direct Mount Accessory


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## CONTROLS

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### Integral Bluetooth™ Motion and Photocell Sensor (IMSBT1L, IMSBT2L)

Slim low profile sensor provides multi-level control based on motion and/or daylight. Sensor controls 0-10 VDC LED drivers and is rated for cold and wet locations (-30° C to 70° C). Two unique PIR lenses are available and used based on fixture mounting height. All control parameters are adjustable via an iOS or Android App capable of storing and transmitting sensor profiles.

Click here to learn more details about IMSBTxL

### AirLink Blue (ALBC, ALBCS1, ALBCS2)

Wireless Bluetooth Mesh Lighting Control System that provides energy savings, code compliance and enhanced safety/security. Three key components; Bluetooth wireless radio/sensor controller, Time Keeper and an App. Capable of grouping multiple fixtures and sensors as well as scheduling time-based events by zone. Radio/Sensor Controller is factory integrated into luminaires.

Click here to learn more details about AirLink Blue

## RETROFIT KITS

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LSI Industries offers a full line of Retrofit Kits for existing Encore, Richmond, 2x2 Universal and many more older canopy luminaires.

Click here to learn more details on all our Retrofit Kits



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*QuikTrip Store 4452*
*Lighting Cut Sheets*
*Building Canopy Lights*

Catalog #: _____ Project: _____

Prepared By: _____ Date: _____ Type: _____

# XSPS

## LED Soffit Light



| OVERVIEW | |
|---|---|
| Lumen Package | 4000 - 8000 |
| Wattage Range | 43 -59 |
| Efficacy Range (LPW) | 96 -104 |
| Weight lbs (kg) | 7.6 (3.5) |

### QUICK LINKS

Ordering Guide | Performance | Photometrics | Dimensions

## FEATURES & SPECIFICATIONS

### Construction

- Housing is die-formed aluminum with diffuse acrylic lens providing a water-resistant seal. Enclosure contains factory prewired driver and optical unit containing LEDs.
- Recess mount into an enclosed soffit with screws through the mounting frame. 8" clearance required for ease of installation.
- Finished with LSI's DuraGrip® polyester powder coat finishing process. The DuraGrip finish withstands extreme weather changes without cracking or peeling, and is guaranteed for five full years. Standard color is gloss white.
- Shipping weight: 7.6 lbs in carton.
- Suitable for wet locations.

### Optical System

- Symmetric distribution with excellent uniformity and a BUG rating of B2-UO-G1. Diffuse lens is standard to minimizing visibility of LEDs.
- Select high-brightness LEDs.
- Available in 5000K, 4000K and 3000K
- Color temperatures per ANSI C78.377.
- Minimum CRI of 80.

### Electrical

- High-performance factory programmable driver features over-voltage, under voltage, short-circuit and over temperature protection with integral surge protection that meets IEEE C62.41.2 and ANSI C82.77. -5 Location Category C Low standards.
- 0-10 volt dimming (10% - 100%) standard.
- 120-347VAC 50/60Hz
- Thermal protector standard on 5000-8000 lumen versions.
- L80 Calculated Life: >100k Hours (See Lumen Maintenance chart)
- Total harmonic distortion: <20%
- Operating temperature: -40°C to 40°C (-40°F to 104°F) for HO and VHO. -40°C to 45°C (-40°F to 113°F) for SS. -40°C to 35°C (-40°F to 95°F) for SHO .
- Power factor: >0.90
- Input power stays constant over life.
- High-efficacy LEDs with integrated circuit board mount to the housing to maximize heat dissipation and promote long life.
- Driver components are fully encased in potting material for moisture resistance. Driver complies with FCC standards.

### Warranty

- LSI luminaires carry a 5-year limited warranty. Refer to https://www.lsicorp.com/resources/terms-conditions-warranty/ for more information.

### Listings

- Listed to UL 1598 and UL 8750
- Suitable For Damp Locations
- Meets Buy American Act requirements.
- DesignLights Consortium® (DLC) qualified product. Not all versions of this product may be DLC qualified. Please check the DLC Qualified Products List at www.designlights.org/QPL to confirm which versions are qualified.
- IDA compliant with 3000K or lower color temperature.

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Type: _____

# XSPS LED Soffit Light

Back to Quick Links

## ORDERING GUIDE

TYPICAL ORDER EXAMPLE: **XSPS S LED SS CW 120 GWT DFL**

| Prefix | Distribution | Light Source | Drive Current | Color Temperature | Input Voltage | Finish | Lens | Options |
|---|---|---|---|---|---|---|---|---|
| **XSPS -** LED Soffit | **S -** Symmetric | **LED** | **SS -** 4,000 Lumens<br>**HO -** 5,000 Lumens<br>**VHO -** 6,000 Lumens<br>**SHO -** 8,000 Lumens | **CW -** 5000K 80 CRI<br>**NW -** 4000K 80 CRI<br>**WW -** 3000K 80 CRI | **120 -** 120V<br>**208 -** 208V<br>**240 -** 240V<br>**277 -** 277V<br>**347 -** 347V | **GWT -** Gloss White | **DFL -** Diffused Acrylic Lens | **CMT -** Channel Bar Mounting Kit<br>**BB -** Emergency Battery Pack[1] |

1 - Emergency Battery Pack only available on the SS - 4000 lumen version (120, 208, 240 & 277V versions).

## PERFORMANCE

**DELIVERED LUMENS**

| Lumen Package | Distribution | Lens Type | CRI | 3000K CCT | | | 4000K CCT | | | 5000K CCT | | | Wattage |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Delivered Lumens | Efficacy | Bug Rating | Delivered Lumens | Efficacy | Bug Rating | Delivered Lumens | Efficacy | Bug Rating | |
| SS | S | DFL | 80 | 3816 | 123 | B2-U0-G1 | 4022 | 129 | B2-U0-G1 | 3966 | 128 | B2-U0-G1 | 31 |
| HO | S | DFL | 80 | 4756 | 120 | B2-U0-G1 | 5011 | 127 | B2-U0-G1 | 4941 | 125 | B2-U0-G1 | 40 |
| VHO | S | DFL | 80 | 5733 | 118 | B2-U0-G1 | 6041 | 124 | B2-U0-G1 | 5957 | 122 | B2-U0-G1 | 49 |
| SHO | S | DFL | 80 | 7559 | 113 | B3-U0-G1 | 7965 | 119 | B3-U0-G1 | 7853 | 118 | B3-U0-G1 | 67 |

LEDs are frequently updated therefore values are nominal.

**Electrical Data (Amps)***

| Lumen Package | Wattage | 120V | 208V | 240V | 277V | 347V |
|---|---|---|---|---|---|---|
| SS | 31 | 0.26 | 0.15 | 0.13 | 0.11 | 0.09 |
| HO | 40 | 0.33 | 0.19 | 0.16 | 0.14 | 0.11 |
| VHO | 49 | 0.41 | 0.23 | 0.2 | 0.18 | 0.14 |
| SHO | 67 | 0.56 | 0.32 | 0.28 | 0.24 | 0.19 |

*Electrical data at 25C (77F). Actual wattage may differ by +/-10%.

**RECOMMENDED LUMEN MAINTENANCE**

| Ambient Temp C | Initial[1] | 25K hrs.[1] | 50K hrs.[1] | 75K hrs.[2] | 100K hrs.[2] |
|---|---|---|---|---|---|
| 25 C | 100% | 95% | 91% | 86% | 82% |

1 - In accordance with IESNA TM-21-11, Projected Values represent interpolated value based on time durations that are within six times the IESNA LM-80-08 total test duration for the device under testing.
2 - In accordance with IESNA TM-21-11, Calculated Values represent time durations that exceed six times the IESNA LM-80-08 total test duration for the device under testing.

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## PHOTOMETRICS

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Luminaire photometry has been conducted by a NVLAP accredited testing laboratory in accordance with IESNA LM-79-08. As specified by IESNA LM-79-08 the entire luminaire is tested as the source resulting in a luminaire efficiency of 100%.

For complete specifications and IES files, see website.

### XSPS S LED HO NW DFL

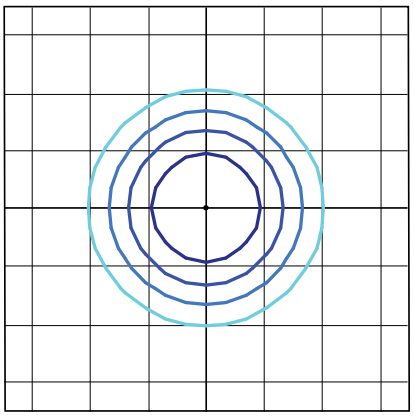
### Luminaire Data

| Type S Distribution | |
|---|---|
| Description | 4000 Kelvin, 70 CRI |
| Delivered Lumens | 5,011 |
| Watts | 39.5 |
| Efficacy | 127 |
| IES Type | Type VS - Very Short |
| BUG Rating | B2-U0-G1 |

### Zonal Lumen Summary

| Zone | Lumens | %Luminaire |
|---|---|---|
| Low (0-30°) | 1536 | 31% |
| Medium (30-60°) | 2565 | 51% |
| High (60-80°) | 826 | 16% |
| Very High (80-90°) | 84 | 2% |
| Uplight (90-180°) | 0 | 0% |
| Total Flux | 5011 | 100% |

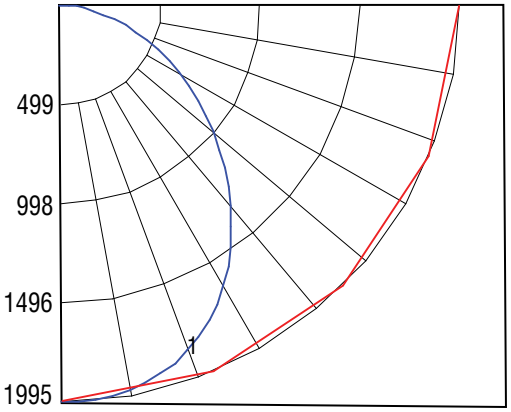
### ISO FOOTCANDLE PLOT



10' Mounting Height/10' Grid Spacing

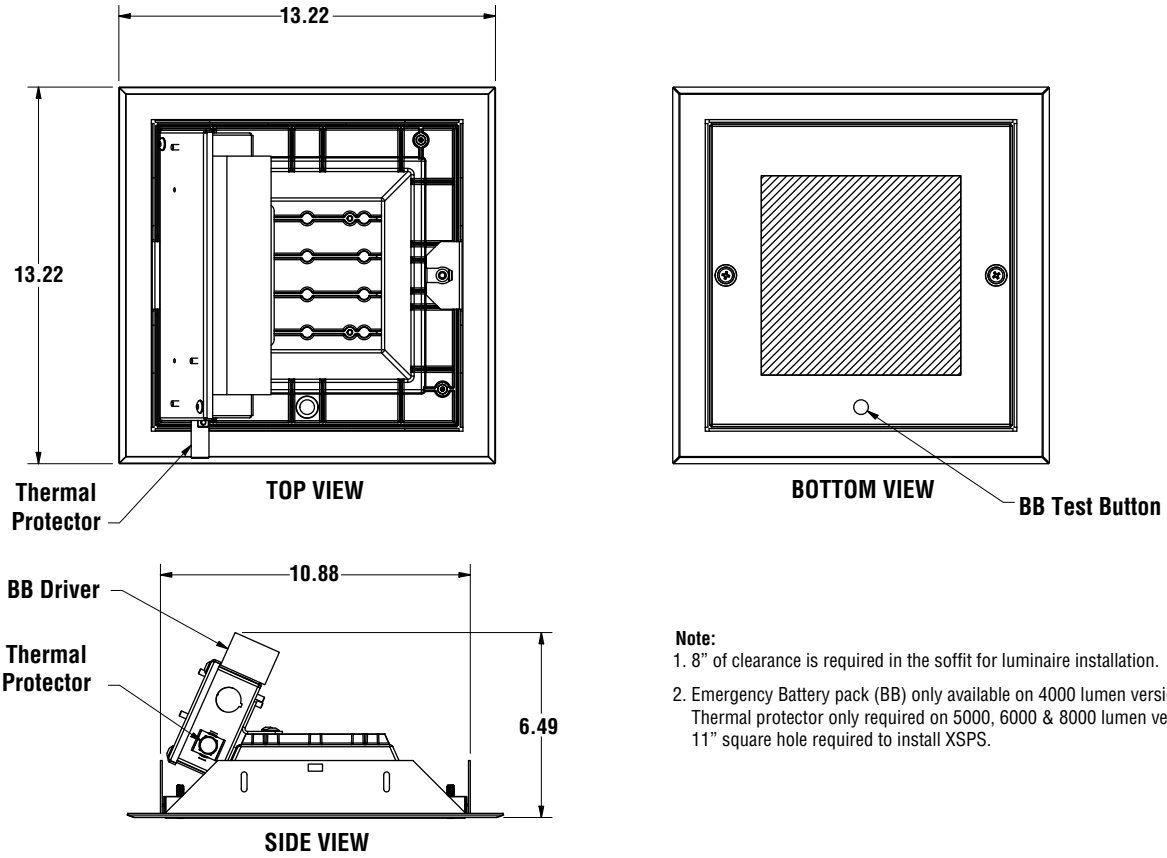
5 FC 2 FC 1 FC 0.5 FC

### POLAR CURVE



## PRODUCT DIMENSIONS

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**Note:**

1. 8” of clearance is required in the soffit for luminaire installation.
2. Emergency Battery pack (BB) only available on 4000 lumen version. Thermal protector only required on 5000, 6000 & 8000 lumen versions. 11” square hole required to install XSPS.

*QuikTrip Store 4452*
*Lighting Cut Sheets*
*Building Wall Sconce*

Catalog #: _____ Project: _____

Prepared By: _____ Date: _____ Type: _____

# Mirada Medium Wall Sconce (XWM)

## Outdoor Wall Sconce

IK08



| OVERVIEW | |
|---|---|
| Lumen Range | 3,000 - 21,000 |
| Wattage Range | 23 - 175 |
| Efficacy Range (LPW) | 125 - 158 |
| Weight lbs(kg) | 30 (13.6) |

## QUICK LINKS

Ordering Guide | Performance | Photometrics | Dimensions

## FEATURES & SPECIFICATIONS

### Construction

- Rugged die-cast aluminum housing contains factory prewired driver and optical unit. Hinged die-cast aluminum wiring access door located underneath.
- Galvanized-steel universal wall mount bracket comes standard with hinging mechanism to easily access the junction box wire connections without removing the luminaire.
- Optional pole-mounting bracket (XPMA) permits mounting to standard poles.
- Fixtures are finished with LSI's DuraGrip® polyester powder coat finishing process. The DuraGrip finish withstands extreme weather changes without cracking or peeling. Other standard LSI finishes available. Consult factory.
- Shipping weight: 30 lbs in carton.

### Optical System

- State-of-the-Art one piece silicone optic sheet delivers industry leading optical control with an integrated gasket to provide IP65 rated sealed optical chamber in 1 component.
- Proprietary silicone refractor optics provide exceptional coverage and uniformity in Types 2, 3, and Forward Throw (FT) distributions.
- Silicone optical material does not yellow or crack with age and provides a typical light transmittance of 93%.
- Zero uplight.
- Available in 5000K, 4000K and 3000K color temperatures per ANSI C78.377. Also Available in Phosphor Converted Amber with Peak intensity at 610nm.
- Minimum CRI of 70.

### Electrical

- High-performance programmable driver features over-voltage, under-voltage, short-circuit and over temperature protection. Custom lumen and wattage packages available.
- 0-10V dimming (10% - 100%) standard.
- Standard Universal Voltage (120-277 Vac) Input 50/60 Hz or optional High Voltage (347-480 Vac).
- L80 Calculated Life: >100k Hours
- Total harmonic distortion: <20%
- 3L to 12L operating temperature: -40°C to +50°C (-40°F to +122°F)
- 15L operating temperature: -40°C to +45°C (-40°F to +113°F).
- 18L operating temperature: -40°C to +40°C (-40°F to +104°F).
- 21L operating temperature: -40°C to +35°C (-40°F to + 95°F).
- Power factor: >.90
- Input power stays constant over life.
- Optional 10kV surge protection device meets a minimum Category C Low operation (per ANSI/IEEE C62.41.2).
- High-efficacy LEDs mounted to metal-core circuit board to maximize heat dissipation
- Components are fully encased in potting material for moisture resistance. Driver complies with FCC standards. Driver and key electronic components can easily be accessed via hinged door.
- Optional integral emergency battery pack provides 90-minutes of constant power to the LED system, ensuring code compliance. A test switch/indicator button is installed on the housing for ease of maintenance. The fixture delivers 1500 lumens during emergency mode.

### Controls

- Integral passive infrared Bluetooth™ motion and photocell sensor options. Fixtures operate independently and can be commissioned via an iOS or Android configuration app. Updates and modifications to the control strategy are easily implemented via an intuitive app.
- LSI's AirLink™ Blue lighting control system is a simple feature rich wireless Bluetooth mesh network. The integrated fixture sensor module provides wireless control of grouped fixtures based on motion sensors, daylight or a fully customizable schedule.

### Installation

- Universal wall mounting plate easily mounts directly to 4" octagonal or square junction box.
- 2 fasteners secure the hinged door underneath the housing and provide quick & easy access to the electrical compartment for installing/servicing.
- Optional terminal block accepts up to 12 ga wire.

### Warranty

- LSI LED Fixtures carry a 5-year warranty.
- 1 Year warranty on Battery Back-up option.

### Listings

- Listed to UL 1598 and UL 8750.
- Meets Buy American Act requirements.
- IDA compliant; with 3000K or lower color temperature selection.
- Title 24 Compliant; see local ordinance for qualification information.
- Suitable for wet Locations.
- IP65 rated luminaire per IEC 60598.
- 3G rated for ANSI C136.31 high vibration applications when pole mounted (using optional XPMA bracket) or wall mounted.
- IK08 rated luminiare per IEC 66262 mechanical impact code
- DesignLights Consortium® (DLC) qualified product. Not all versions of this product may be DLC qualified. Please check the DLC Qualified Products List at www.designlights.org/QPL to confirm which versions are qualified.

Type: _____

# Mirada Wall Sconce (XWM)

## ORDERING GUIDE

Back to Quick Links

TYPICAL ORDER EXAMPLE: **XWM 2 LED 03L 30 UE BRZ ALSC**

| Family | Distribution | LED Technology | Lumen Package | Color Temperature | Voltage |
|---|---|---|---|---|---|
| **XWM -** Mirada Medium Wall Sconce | **2** - Type 2<br>**3** - Type 3<br>**FT** - Type 4 Forward Throw | **LED** | **3L** - 3,000 lms<br>**4L** - 4,000 lms<br>**6L** - 6,000 lms<br>**8L** - 8,000 lms<br>**12L** - 12,000 lms<br>**15L** - 15,000 lms<br>**18L** - 18,000 lms<br>**21L** - 21,000 lms<br>**Custom Lumen Packages**[6] | **30** - 3000K<br>**40** - 4000K<br>**50** - 5000K<br>**AMB** - Phosphor Converted Amber[1] | **UE** - Universal Voltage (120-277V)<br>**HV** - High Voltage (347-480V) |

| Finish | Controls (Choose One) | Options |
|---|---|---|
| **BLK -** Black<br>**BRZ -** Dark Bronze<br>**GMG -** Gun Metal Gray<br>**GPT -** Graphite<br>**MSV -** Metallic Silver<br>**PLP -** Platinum Plus<br>**SVG -** Satin Verde Green<br>**WHT -** White | **Wireless Controls**<br>**ALSC** - Airlink Synapse Control System<br>**ALSCS01** - AirLink Synapse Control System with 8-12' Motion Sensor<br>**ALSCS02** - AirLink Synapse Control System with 12-20' Motion Sensor<br>**ALBCS1** - AirLink Blue Wireless Motion & Photo Sensor Controller (8-24' mounting height)<br>**ALBCS2** - AirLink Blue Wireless Motion & Photo Sensor Controller (25-40' mounting height)<br>**Standalone Controls**<br>**DIM** - 0-10v Dimming leads extended to housing exterior<br>**IMSBT1-** Integral Bluetooth™ Motion and Photocell Sensor max 8-24' mounting height [4]<br>**IMSBT2-** Integral Bluetooth Motion and Photocell Sensor max 25-40' mounting height [4]<br>**Button Type Photocells**<br>**PCI120** - 120V<br>**PCI208-277** - 208 -277V<br>**PCI347** - 347V | **BB** - Battery Back-up (0°C)[2]<br>**CWBB** - Cold Weather Battery Backup (-20°C)[2]<br>**XPMA** - Pole Mounting Bracket<br>**SP1** - 10kV Surge Protection<br>**TB** - Terminal Block |

## ACCESSORY ORDERING INFORMATION[7]

| Description | Order Number | Description | Order Number |
|---|---|---|---|
| XWM Surface Wiring Box | 356915CLR | FK347 - Single Fusing | FK347[5] |
| 10' Linear Bird Spike Kit (2' Recommended per Luminaire) | 751632 | DFK - Double Fusing | DFK208[5] |
| FK120 - Single Fusing | FK120[5] | DFK - Double Fusing (240V) | DFK240[5] |
| FK277 - Single Fusing | FK277[5] | DFK - Double Fusing (480V) | DFK480[5] |

1. Only available in 6L Lumen Package. Consult factory for lead time and availability.
2. Not available in HV.
3. Consult Factory for Site Layout.
4. IMSBT is field configurable via the LSI app that can be downloaded from your smartphone's native app store.
5. Fusing must be located in a hand hole for pole or in the junction box.
6. Custom lumen and wattage packages available consult factory. Values are within industry standard tolerances but not DLC listed.
7. Accessories are shipped separately and field installed.

## PERFORMANCE

Back to Quick Links

**DELIVERED LUMENS***

| Lumen Package | Distribution | CRI | 3000K | | | 4000K | | | 5000K | | | Wattage |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Delivered Lumens | Efficacy | BUG Rating | Delivered Lumens | Efficacy | BUG Rating | Delivered Lumens | Efficacy | BUG Rating | |
| 03L | 2 | 70 | 3178 | 138 | B1-U0-G1 | 3368 | 146 | B1-U0-G1 | 3313 | 143 | B1-U0-G1 | 23 |
| | 3 | 70 | 3224 | 140 | B1-U0-G1 | 3416 | 148 | B1-U0-G1 | 3361 | 145 | B1-U0-G1 | |
| | FT | 70 | 3160 | 137 | B1-U0-G1 | 3349 | 145 | B1-U0-G1 | 3294 | 143 | B1-U0-G1 | |
| 04L | 2 | 70 | 4230 | 139 | B1-U0-G1 | 4483 | 147 | B1-U0-G1 | 4410 | 145 | B1-U0-G1 | 30 |
| | 3 | 70 | 4291 | 141 | B1-U0-G1 | 4547 | 150 | B1-U0-G1 | 4473 | 147 | B1-U0-G1 | |
| | FT | 70 | 4206 | 138 | B1-U0-G1 | 4458 | 147 | B1-U0-G1 | 4385 | 144 | B1-U0-G1 | |
| 06L | 2 | 70 | 6326 | 134 | B2-U0-G1 | 6704 | 142 | B2-U0-G2 | 6595 | 140 | B2-U0-G2 | 47 |
| | 3 | 70 | 6417 | 136 | B1-U0-G2 | 6800 | 144 | B1-U0-G2 | 6689 | 142 | B1-U0-G2 | |
| | FT | 70 | 6290 | 134 | B2-U0-G2 | 6666 | 142 | B2-U0-G2 | 6557 | 139 | B2-U0-G2 | |
| 08L | 2 | 70 | 8166 | 128 | B2-U0-G2 | 8654 | 135 | B2-U0-G2 | 8513 | 133 | B2-U0-G2 | 64 |
| | 3 | 70 | 8283 | 129 | B2-U0-G2 | 8778 | 137 | B2-U0-G2 | 8635 | 134 | B2-U0-G2 | |
| | FT | 70 | 8120 | 126 | B2-U0-G2 | 8605 | 134 | B2-U0-G2 | 8465 | 132 | B2-U0-G2 | |
| 12L | 2 | 70 | 11902 | 146 | B3-U0-G2 | 12358 | 151 | B3-U0-G2 | 12927 | 158 | B3-U0-G2 | 82 |
| | 3 | 70 | 11834 | 145 | B2-U0-G2 | 12287 | 150 | B2-U0-G2 | 12853 | 157 | B2-U0-G2 | |
| | FT | 70 | 11737 | 143 | B2-U0-G2 | 12186 | 149 | B2-U0-G2 | 12747 | 156 | B2-U0-G2 | |
| 15L | 2 | 70 | 14662 | 140 | B3-U0-G3 | 15223 | 145 | B3-U0-G3 | 15924 | 152 | B3-U0-G3 | 105 |
| | 3 | 70 | 14603 | 139 | B2-U0-G2 | 15162 | 145 | B2-U0-G3 | 15860 | 151 | B2-U0-G3 | |
| | FT | 70 | 14502 | 139 | B2-U0-G3 | 15057 | 144 | B2-U0-G3 | 15750 | 150 | B2-U0-G3 | |
| 18L | 2 | 70 | 17403 | 134 | B3-U0-G3 | 18069 | 139 | B3-U0-G3 | 18901 | 145 | B3-U0-G3 | 130 |
| | 3 | 70 | 17438 | 134 | B3-U0-G3 | 18106 | 139 | B3-U0-G3 | 18940 | 146 | B3-U0-G3 | |
| | FT | 70 | 17259 | 133 | B3-U0-G3 | 17920 | 138 | B3-U0-G3 | 18745 | 144 | B3-U0-G3 | |
| 21L | 2 | 70 | 20380 | 127 | B3-U0-G3 | 21160 | 132 | B3-U0-G3 | 22134 | 138 | B4-U0-G3 | 161 |
| | 3 | 70 | 20375 | 125 | B3-U0-G3 | 21155 | 131 | B3-U0-G3 | 22129 | 131 | B3-U0-G3 | |
| | FT | 70 | 20215 | 126 | B3-U0-G3 | 20989 | 130 | B3-U0-G3 | 21955 | 136 | B3-U0-G3 | |

*LEDs are frequently updated therefore values are nominal.

**ELECTRICAL DATA***

| Lumen Package | 120V | 208V | 240V | 277V | 347V | 480V |
|---|---|---|---|---|---|---|
| 03L | 0.19 | 0.11 | 0.10 | 0.08 | 0.07 | 0.05 |
| 04L | 0.25 | 0.15 | 0.13 | 0.11 | 0.09 | 0.06 |
| 06L | 0.39 | 0.23 | 0.20 | 0.17 | 0.14 | 0.10 |
| 08L | 0.54 | 0.31 | 0.27 | 0.23 | 0.19 | 0.13 |
| 12L | 0.68 | 0.39 | 0.34 | 0.30 | 0.24 | 0.17 |
| 15L | 0.87 | 0.50 | 0.44 | 0.38 | 0.30 | 0.22 |
| 18L | 1.08 | 0.63 | 0.54 | 0.47 | 0.37 | 0.27 |
| 21L | 1.34 | 0.77 | 0.67 | 0.58 | 0.46 | 0.34 |

*Electrical data at 25C (77F). Actual wattage may differ by +/-10%.

**DELIVERED LUMENS***

| Lumen Package | Distribution | Amber | | | Wattage |
|---|---|---|---|---|---|
| | | Delivered Lumens | Efficacy | BUG Rating | |
| 6L | 2 | 3325 | 76 | B1-U0-G1 | 43.5 |
| | 3 | 3385 | 78 | B1-U0-G1 | |
| | FT | 3343 | 77 | B1-U0-G1 | |

**RECOMMENDED LUMEN MAINTENANCE (3L-8L)[1]**

| Ambient Temperature C | Initial [2] | 25K hrs.[2] | 50K hrs.[3] | 75K hrs.[3] | 100K hrs.[3] |
|---|---|---|---|---|---|
| 0 C - 50 C | 100% | 98% | 95% | 93% | 90% |

**RECOMMENDED LUMEN MAINTENANCE (12L-21L)[1]**

| Ambient Temperature C | Initial [2] | 25K hrs.[2] | 50K hrs.[3] | 75K hrs.[3] | 100K hrs.[3] |
|---|---|---|---|---|---|
| 0 - 35 C | 99% | 97% | 95% | 93% | 91% |

1 - Lumen maintenance values at 25C are calculated per TM-21 based on LM-80 data and in-situ testing.
2 - In accordance with IESNA TM-21-11, Projected Values represent interpolated value based on time durations that are within six times the IESNA LM-80-08 total test duration for the device under testing.
3 - Lumen maintenance values at 25C are calculated per TM-21 based on LM-80 data and in-situ testing times the IESNA LM-80-08 total test duration for the device under testing

## PHOTOMETRICS

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All published luminaire photometric testing performed to IESNA LM-79 standards. ISO footcandle plots below demonstrate the Mirada Wall Sconce (XWM) light patterns only. Not for total fixture output. For complete specifications and IES files, see website.

### XWM-2-LED-6L-40

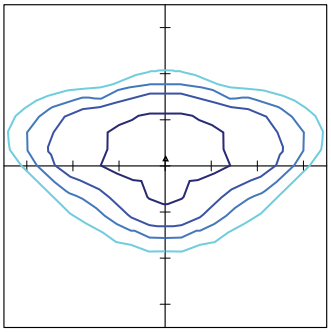
**LUMINAIRE DATA**

| Type 2 Distribution | |
|---|---|
| Description | 4000 Kelvin, 70 CRI |
| Delivered Lumens | 6,025 |
| Watts | 44.7 |
| Efficacy | 135 |
| IES Type | Type III - Medium |
| BUG Rating | B2-U0-G2 |

**Zonal Lumen Summary**

| Zone | Lumens | %Luminaire |
|---|---|---|
| Low (0-30)° | 807.1 | 13.4% |
| Medium (30-60)° | 3301.0 | 54.8% |
| High (60-80)° | 1847.4 | 30.7% |
| Very High (80-90)° | 69.2 | 1.1% |
| Uplight (90-180)° | 0.0 | 0.0% |
| Total Flux | 6024.7 | 100% |

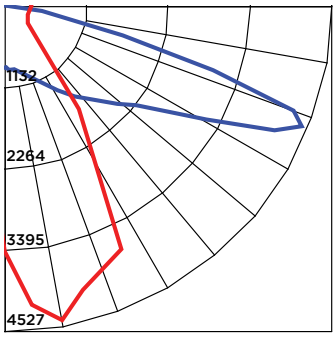
**ISO FOOTCANDLE PLOT**



15' Mounting Height / 10' Grid Spacing

5 FC 2 FC 1 FC 0.5 FC

**POLAR CURVE**




### XWM-3-LED-6L-40

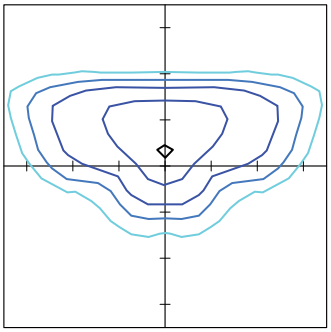
**LUMINAIRE DATA**

| Type 3 Distribution | |
|---|---|
| Description | 4000 Kelvin, 70 CRI |
| Delivered Lumens | 6,133 |
| Watts | 44.7 |
| Efficacy | 137 |
| IES Type | Type III - Medium |
| BUG Rating | B1-U0-G2 |

**Zonal Lumen Summary**

| Zone | Lumens | %Luminaire |
|---|---|---|
| Low (0-30)° | 567.4 | 9.3% |
| Medium (30-60)° | 3106.3 | 50.6% |
| High (60-80)° | 2368.8 | 38.6% |
| Very High (80-90)° | 90.7 | 1.5% |
| Uplight (90-180)° | 0.0 | 0.0% |
| Total Flux | 6133.2 | 100% |

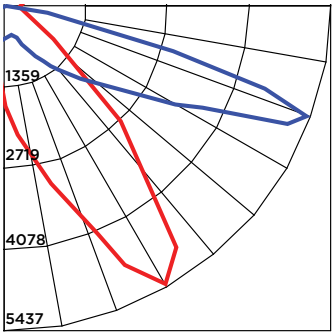
**ISO FOOTCANDLE PLOT**



10' Mounting Height / 10' Grid Spacing

5 FC 2 FC 1 FC 0.5 FC

**POLAR CURVE**




### XWM-FT-LED-6L-40

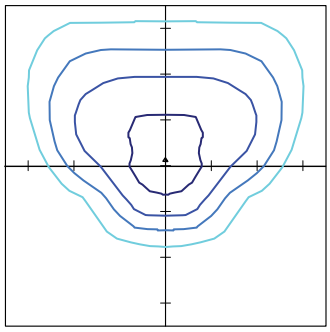
**LUMINAIRE DATA**

| Type FT Distribution | |
|---|---|
| Description | 4000 Kelvin, 70 CRI |
| Delivered Lumens | 6,058 |
| Watts | 44.7 |
| Efficacy | 136 |
| IES Type | Type IV - Short |
| BUG Rating | B1-U0-G2 |

**Zonal Lumen Summary**

| Zone | Lumens | %Luminaire |
|---|---|---|
| Low (0-30)° | 779.0 | 12.9% |
| Medium (30-60)° | 2584.4 | 42.7% |
| High (60-80)° | 2523.2 | 41.7% |
| Very High (80-90)° | 170.8 | 2.8% |
| Uplight (90-180)° | 0.0 | 0.0% |
| Total Flux | 6057.4 | 100.0% |

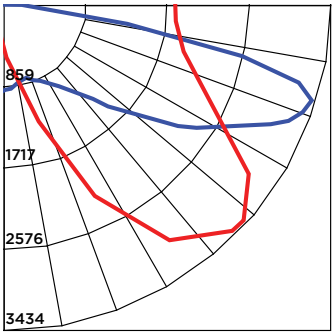
**ISO FOOTCANDLE PLOT**



10' Mounting Height / 10' Grid Spacing

5 FC 2 FC 1 FC 0.5 FC

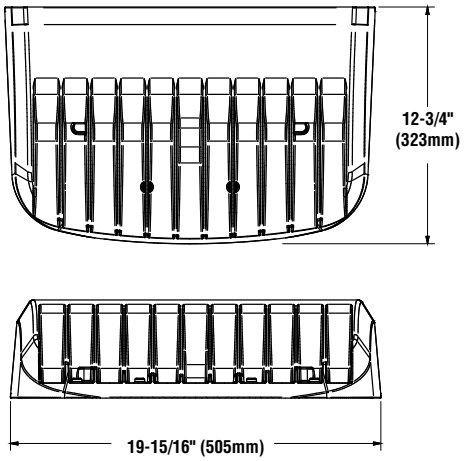
**POLAR CURVE**



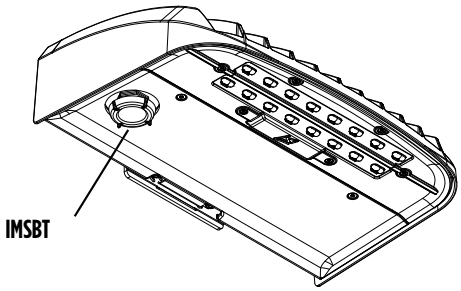
# Mirada Wall Sconce (XWM)

## PRODUCT DIMENSIONS

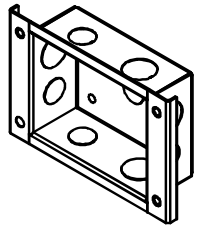
Back to Quick Links




Luminaire Shown with IMSBT

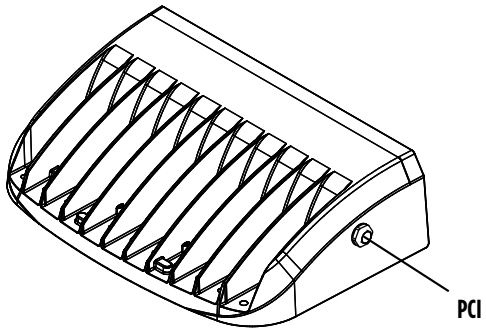



Surface Wiring Box



Wet location rated surface wiring box features 1/2" and 3/4" knockouts for surface conduit

Luminaire Shown with PCI




## CONTROLS

### AirLink Wireless Lighting Controller

The AirLink integrated controller is a California Title 24 compliant lighting controller that provides real-time light monitoring and control with utility-grade power monitoring. It includes a 24V sensor input and power supply to connect a sensor into the outdoor AirLink wireless lighting system. The wireless integrated controller is compatible with this fixture.

Click here to learn more about AirLink.

### Integral Bluetooth™ Motion and Photocell Sensor (IMSBT)

Slim low profile sensor provides multi-level control based on motion and/or daylight. Sensor controls 0-10 VDC LED drivers and is rated for cold and wet locations (-30° C to 70° C). Two unique PIR lenses are available and used based on fixture mounting height. All control parameters are adjustable via an iOS or Android App capable of storing and transmitting sensor profiles.

Click here to learn more about IMSBT.

### AirLink Blue

Wireless Bluetooth Mesh Outdoor Lighting Control System that provides energy savings, code compliance and enhanced safety/security for parking lots and parking garages. Three key components; Bluetooth wireless radio/sensor controller, Time Keeper and an iOS App. Capable of grouping multiple fixtures and sensors as well as scheduling time-based events by zone. Radio/Sensor Controller is factory integrated into Area/Site, Wall Mounted, Parking Garage and Canopy luminaires.

Click here to learn more about AirLink Blue.

*QuikTrip Store 4452*
*Lighting Cut Sheets*
*Light Poles*

Catalog # : _____ Project : _____ Type : _____

Prepared By : _____ Date : _____

# Steel Poles

## Square Straight



### QUICK LINKS

Ordering Guide | Configurations | Dimensions | EPA

## FEATURES & SPECIFICATIONS

### Pole Shaft

- Straight poles are 4”, 5”, or 6” square.
- Pole shaft is electro-welded ASTM-A500 Grade C steel tubing with a minimum yield strength of 50,000 psi.
- On Tenon Mount steel poles, tenon is 2-3/8” O.D. high-strength pipe. Tenon is 4-3/4” in length.

### Hand-Hole

- Standard hand-hole location is 12” above pole base.
- Poles 22’ and above have a 3” x 6” reinforced hand-hole. Shorter poles have a 2” x 4” non-reinforced hand-hole.

### Base

- Pole base is ASTM-A36 hot-rolled steel plate with a minimum yield strength of 36,000 psi.
- Two-piece square base cover is optional.

### Anchor Bolts

- Poles are furnished with anchor bolts featuring zinc-plated double nuts and washers. Galvanized anchor bolts are optional.
- Anchor Bolts conform to ASTM F 1554-07a Grade 55 with a minimum yield strength of 55,000 PSI.

### Ground Lug

- Ground lug is standard.

### Duplex Receptacle

- Weatherproof duplex receptacle is optional.

### Ground Fault Circuit Interrupter

- Self-testing Ground fault circuit interrupter is optional.

### Finishes

- Every pole is provided with the DuraGrip Protection System and a 5-year limited warranty:
- When the top-of-the line DuraGrip Plus Protection System is selected, in addition to the DuraGrip Protection System, a non-porous, automotive-grade corrosion coating is applied to the lower portion of the pole interior sealing and further protecting it from corrosion. This option extends the limited warranty to 7 years.

### Determining The Luminaire/Pole Combination For Your Application:

- Select luminaire from luminaire ordering information.
- Select bracket configuration if required
- Determine EPA value from luminaire/ bracket EPA chart
- Select Pole Height
- Select MPH to match wind speed in the application area (See windspeed maps).
- Confirm pole EPA equal to or exceeding value of luminaire/bracket EPA
- Consult factory for special wind load requirements and banner brackets.

### Pole Vibration Damper

- A pole vibration damper is recommended in open terrain areas of the country where low steady state winds are common.
- Non-tapered poles and lightly loaded poles are more susceptible to destructive vibration if a damper is not installed.

### Listings

- UL Listed
- BAA/TAA Compliant



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# Steel Poles Square Straight

Type : _____

**Have questions?** Call us at (800) 436-7800

## ORDERING GUIDE

Back to Quick Links

**TYPICAL ORDER EXAMPLE: 4SQ B3 S11G 24 S PLP DGP**

| Pole Series | Mounting Method | Material | Height [2] | Mounting Configuration | Pole Finish | Options |
|---|---|---|---|---|---|---|
| **4SQ** - 4" x 4" Square Straight Pole (New Build)<br>**5SQ** - 5" x 5" Square Straight Pole (New Build)<br>**6SQ** - 6" x 6" Square Straight Pole (New Build)<br>**4SQU** - 4" x 4" Square Straight Pole (Retrofit)<br>**5SQU** - 5" x 5" Square Straight Pole (Retrofit)<br>**6SQU** - 6" x 6" Square Straight Pole (Retrofit) | **Bolt-On Mount**[1] - See pole selection guide for patterns and fixture matches<br>**B5** - 5" Traditional Drilling Pattern<br>**B3** - 3" Reduced Drilling Pattern<br>**B2** - 2" Reduced Drilling Pattern<br><br>**T** - Tenon Mount - See pole selection guide for tenon and fixture/bracket matches<br><br>**I** - No Mounting Holes[1] | **S11G** – 11 Ga. Steel (4SQ/4SQU and 5SQ/5SQU Only)<br>**S07G** – 07 Ga. Steel | **8'**<br>**10'**<br>**12'**<br>**13'**<br>**14'**<br>**15'**<br>**16'**<br>**17'**<br>**17'6"**<br>**18'**<br>**20'**<br>**22'**<br>**22'6"**<br>**23'**<br>**24'**<br>**25'**<br>**26'**<br>**27'**<br>**28'**<br>**30'**<br>**32'**<br>**35'**<br>**39'** | **S** – Single/Parallel<br>**D180** – Double<br>**D90** – Double<br>**DN90** – Double<br>**T90** – Triple<br>**TN120** – Triple<br>**Q90** – Quad<br>**QN90** – Quad<br><br>**N** – Tenon Mount (Standard Tenon size is 2-3/8" O.D.)[8]<br>**(Blank)** - Use with I for Mounting Method | **BRZ** – Bronze<br>**BLK** – Black<br>**PLP** – Platinum Plus<br>**WHT** – White<br>**SVG** – Satin Verde Green<br>**GPT** – Graphite<br>**MSV** – Metallic Silver<br>**BZA** – Alternate Bronze | **GA** – Galvanized Anchor Bolts<br>**SF** – Single Flood[3]<br>**DF** – Double Flood[3]<br>**DGP** – DuraGrip® Plus<br>**LAB** – Less Anchor Bolts<br>**CRXX** - Conduit Raceway[4] |

**Need more information?**
Click here for our glossary

**Have additional questions?**
Call us at (800) 436-7800

## ACCESSORY ORDERING INFORMATION

| Part Number | Description |
|---|---|
| **122559CLR** | 4BC – 4" Square Base Cover |
| **122561CLR** | 5BC – 5" Square Base Cover |
| **122563CLR** | 6BC – 6" Square Base Cover |
| **132488CLR** | 5BC - 5' Square Universal Base Cover |
| **131252CLR** | 6BC - 6' Square Universal Base Cover |
| **122566CLR** | ER2 – Weatherproof Duplex Receptacle |
| **122567CLR** | GFI – Ground Fault Circuit Interrupter |
| **132336** | MH5 - mounting Hole Plugs for use with 5" traditional drill pattern (3 set of 3 plugs) |
| **681126** | MH3 - mounting Hole Plugs for use with 3" reduced drill pattern (3 set of 3 plugs) |
| **725841** | MH2 - Mounting Hole Plugs for use with 2" reduced drill pattern (3 sets of 3 plugs) |
| **172539** | Vibration Damper - 4" Square Pole (bolt-on mount only) |
| **172538** | Vibration Damper - 5" Square Pole (bolt-on mount only) |
| **178361** | Vibration Damper - 6" Square Pole (bolt-on mount only) |

## ANCHOR BOLT KIT ORDERING INFORMATION

| Part Number | Description |
|---|---|
| **AB KIT 122584** | 4SQ S11G/S07G Anchor Bolts (Steel Plated) |
| **AB KIT 122609** | 4SQ S11G/S07G Anchor Bolts (Galvanized) |
| **AB KIT 1225850** | 5SQ S11G Anchor Bolts (Steel Plated) |
| **AB KIT 122610** | 5SQ S11G Anchor Bolts (Galvanized) |
| **AB KIT 122586** | 5SQ S07G Anchor Bolts (Steel Plated) |
| **AB KIT 122611** | 5SQ S07G Anchor Bolts (Galvanized) |
| **AB KIT 122612** | 6SQ S07G Anchor Bolts (Galvanized) |

1 - See Area Light Brackets - 3" Reduced Drill Pattern and Area Light Brackets - 5" Traditional Drill Pattern Spec Sheets.
2 - Pole heights will have +/- 1/2" tolerance.
3 - See Flood Lighting Brackets section for choice of FBO brackets.
4 - CR selection must indicate required height and side of pole mounting location. Mounting template required at time of order.


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# Steel Poles Square Straight

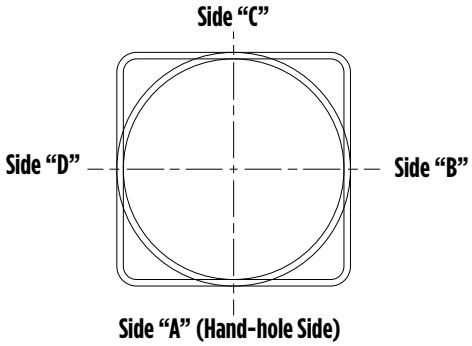
Type : _____

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## DRILLING LOCATIONS

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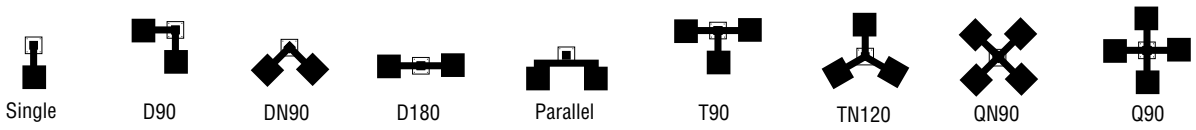
| Sides | A | B | C | D |
|---|---|---|---|---|
| Hand-hole | X | | | |
| Single | X | | | |
| D180 | | X | | X |
| D90 | X | | | X |
| DN90[1] | | | | |
| T90 | X | X | | X |
| TN120[2] | | | | |
| Q90 | X | X | X | X |
| QN90[3] | | | | |
| Single FBO | X | | | |
| Double FBO | | X | | X |




1 - Two locations will be 45° to the left and right of Side A.
2 - Other two locations will be 120° to the left and right of Side A.
3 - Two locations will be 45° to the left and right of Side A and two locations will be 135° to the left and right of Side A.

Consult factory for custom variations. Standard SF and DF pole preparations are located 3/4 of the height of the pole from the base, except on 20' poles. Maximum height for SF and DF pole preparations on 20' poles is 13' from the base.

## FIXTURE CONFIGURATIONS



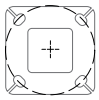


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## BOLT CIRCLE

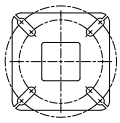
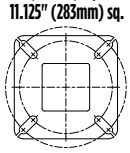
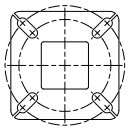
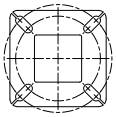
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### STANDARD BASEPLATE

| | 4" (102mm) square 10-1/8" (257mm) sq. | 5" (127mm) square 10-1/8" (257mm) sq. | 5" (127mm) square 10-1/8" (257mm) sq. | 6" (152mm) square 12" (305mm) sq. |
|---|---|---|---|---|
| |  |  |  |  |
| | 11" (279mm) Dia. Bolt Circle | 11" (279mm) Dia. Bolt Circle | 11" (279mm) Dia. Bolt Circle | 12" (305mm) Dia. Bolt Circle |
| **Bolt Circle Designator** | **B** | **C** | **D** | **J** |
| **Bolt Circle** | Slotted 8"-11" (203mm-279mm) | Slotted 9"-11" (229mm-279mm) | Slotted 9"-11" (229mm-279mm) | Slotted 12" (305mm) |
| **Anchor Bolt Size** | 3/4" x 24" (19mm x 609mm) | 3/4" x 24" (19mm x 609mm) | 1"x30" (25mm x 762mm) | 1"x30" (25mm x 762mm) |
| **Anchor Bolt Projection** | 3-1/4" (83mm) | 3-1/4" (83mm) | 4" (102mm) | 4" (102mm) |
| **Base Plate Opening for Wireway Entry** | 3-5/8" (92mm) | 4-3/4" (121mm) | 4-5/8" (117mm) | 5-5/8" (143mm) |
| **Base Plate Dimensions** | 10-1/8" sq. x 3/4" thk. (257mm x 19mm) | 10-1/8" sq. x 3/4" thk. (257mm x 19mm) | 10-1/8" sq. x 1" thk. (257mm x 25mm) | 12" sq. x 1-1/8" thk. (305mm x 29mm) |
| **Pole Gauge** | 11 | 11 | 7 | 7 |

Note: Base plate illustrations may change without notice. Do not use for setting anchor bolts. Consult factory for the appropriate anchor bolt template.

### UNIVERSAL BASEPLATE

| | 4" (102mm) square 10.5" (267mm) sq. | 5" (127mm) square 11.125" (283mm) sq. | 5" (127mm) square 11.75" (298mm) sq. | 6" (152mm) square 12-1/2" (318mm) sq. |
|---|---|---|---|---|
| |  |  |  |  |
| | 4SQ | 5SQ | 5SQ | 14" (356mm) Dia. Bolt Circle |
| **Bolt Circle Designator** | **E** | **F** | **G** | **H** |
| **Bolt Circle** | Slotted 9"-12" | Slotted 10-13" | Slotted 10-13" | Slotted 11"-14" (279mm-356mm) |
| **Anchor Bolt Size** | 3/4" x 24" (19mm x 609 mm) | 3/4x 24" (19mm x 609 mm) | 1"x30" (25mm x 762mm) | 1"x30" (25mm x 762mm) |
| **Anchor Bolt Projection** | 3-1/4" (83 mm) | 3-1/4" (83 mm) | 4" (102 mm) | 4" (102mm) |
| **Base Plate Opening for Wireway Entry** | 3-5/8" (92mm) | 4-3/4" (121mm) | 5-1/8" (130 mm) | 5-5/8" (143mm) |
| **Base Plate Dimensions** | 10-1/2" sq. x 3/4" thk. (267 mm x 19 mm) | 11-1/8 sq. x 3/4" thk. (283 mm x 19 mm) | 11-3/4" sq. x 1" thk. (298 mm x 25 mm) | 12 1/2" sq. x 1 1/8" thk. (318mm x 29mm) |
| **Pole Gauge** | 11 | 11 | 7 | 7 |

Note: Base plate illustrations may change without notice. Do not use for setting anchor bolts. Consult factory for the appropriate anchor bolt template.

1 - Full Galvanized option is 1" x 30" straight headed anchor bolt. Contact factory for questions



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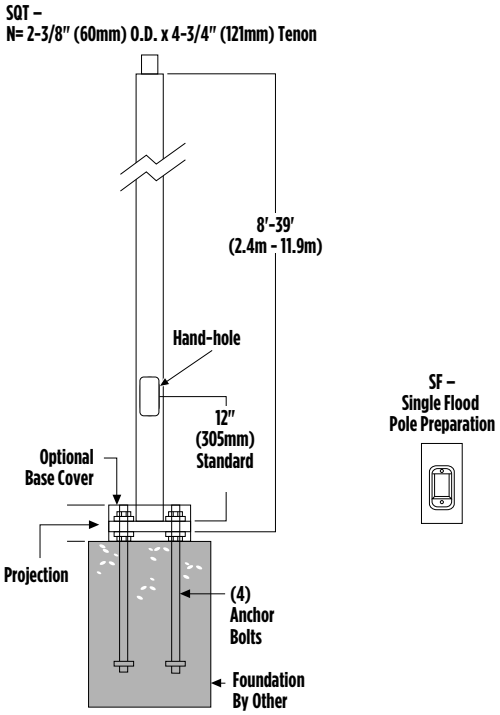
# Steel Poles Square Straight

Type : _____

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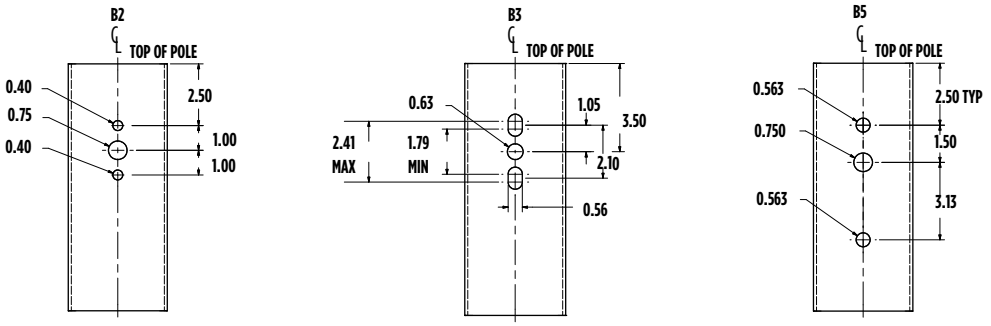
## PRODUCT DIMENSIONS

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| SHIPPING WEIGHTS | |
|---|---|
| 4"(102mm) sq. 11 Ga. is approximately | 7.50 lbs./ft. |
| 4"(102mm) sq. 07 Ga. is approximately | 10.00 lbs./ft. |
| 5"(127mm) sq. 11 Ga. is approximately | 9.00 lbs./ft. |
| 5"(127mm) sq. 07 Ga. is approximately | 12.50 lbs./ft. |
| 6"(152mm) sq. 07 Ga. is approximately | 15.40 lbs./ft. |
| Anchor Bolts (3/4" x 24")(19mm x 609mm) | 15 lbs. (7kg)/set |
| Anchor Bolts (1" x 30") (25mm x 762mm) | 30 lbs. (14kg)/set |

**Bolt-On Mount 2-Bolt Pattern**





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# Steel Poles Square Straight

Type : _____

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## WIND SPEED

Back to Quick Links

**EPA Information**

All LSI Industries' poles are guaranteed to meet the EPA requirements listed. LSI Industries is not responsible if a pole order has a lower EPA rating than the indicated wind-loading zone where the pole will be located.

CAUTION: This guarantee does not apply if the pole/bracket/fixture combination is used to support any other items such as flags, pennants, or signs, which would add stress to the pole. LSI Industries cannot accept responsibility for harm or damage caused in these situations.

**NOTE:** Pole calculations include a 1.3 gust factor over steady wind velocity. Example: poles designed to withstand 80 MPH steady wind will withstand gusts to 104 MPH. EPAs are for locations 100 miles away from hurricane ocean lines. Consult LSI for other areas. Note: Hurricane ocean lines are the Atlantic and Gulf of Mexico coastal areas. For applications in Florida or Canada, consult factory.

| POLE[1] | Mtg. Height Length (ft) | Wall Thick (ga) | BOLT CIRCLE | | | EPA | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Designator | Dia. (in) | Anchor bolt Dia {in} | 110 MPH | 115 MPH | 120 MPH | 130 MPH | 140 MPH | 150 MPH | 160 MPH | 170 MPH | 180 MPH |
| 4" x 11-ga x 12' | 12 | 11 | B | 8" - 11" | 0.75 | 13.9 | 12.5 | 11.3 | 9.2 | 7.6 | 6.3 | 5.2 | 4.3 | 3.6 |
| 4" x 11-ga x 14' | 14 | 11 | B | 8" - 11" | 0.75 | 10.7 | 9.5 | 8.5 | 6.8 | 5.4 | 4.4 | 3.5 | 2.7 | 2.1 |
| 4" x 11-ga x 16' | 16 | 11 | B | 8" - 11" | 0.75 | 8.2 | 7.2 | 6.4 | 4.9 | 3.8 | 2.9 | 2.1 | 1.5 | 1.0 |
| 4" x 11-ga x 18' | 18 | 11 | B | 8" - 11" | 0.75 | 6.3 | 5.4 | 4.7 | 3.4 | 2.4 | 1.6 | 1.0 | 0.4 | n/a |
| 4" x 11-ga x 20' | 20 | 11 | B | 8" - 11" | 0.75 | 4.6 | 3.9 | 3.2 | 2.1 | 1.2 | 0.6 | n/a | n/a | n/a |
| 4" x 11-ga x 22' | 22 | 11 | B | 8" - 11" | 0.75 | 7.6 | 6.6 | 5.7 | 4.2 | 3.0 | 2.0 | 1.2 | 0.5 | n/a |
| 4" x 11-ga x 24' | 24 | 11 | B | 8" - 11" | 0.75 | 6.0 | 5.1 | 4.3 | 2.9 | 1.8 | 0.9 | n/a | n/a | n/a |
| 4" x 11-ga x 26' | 26 | 11 | B | 8" - 11" | 0.75 | 4.6 | 3.7 | 3.0 | 1.7 | 0.7 | n/a | n/a | n/a | n/a |
| 4" x 7-ga x 14' | 14 | 7 | B | 8" - 11" | 0.75 | 18.3 | 16.4 | 14.9 | 12.2 | 10.2 | 8.5 | 7.1 | 5.9 | 5.0 |
| 4" x 7-ga x 16' | 16 | 7 | B | 8" - 11" | 0.75 | 14.7 | 13.2 | 11.8 | 9.6 | 7.8 | 6.3 | 5.2 | 4.2 | 3.4 |
| 4" x 7-ga x 18' | 18 | 7 | B | 8" - 11" | 0.75 | 11.9 | 10.5 | 9.3 | 7.4 | 5.9 | 4.6 | 3.6 | 2.8 | 2.1 |
| 4" x 7-ga x 20' | 20 | 7 | B | 8" - 11" | 0.75 | 9.6 | 8.4 | 7.4 | 5.7 | 4.3 | 3.2 | 2.3 | 1.6 | 0.9 |
| 4" x 7-ga x 22' | 22 | 7 | B | 8" - 11" | 0.75 | 7.7 | 6.6 | 5.7 | 4.2 | 3.0 | 2.0 | 1.2 | 0.5 | n/a |
| 4" x 7-ga x 24' | 24 | 7 | B | 8" - 11" | 0.75 | 6.0 | 5.1 | 4.3 | 2.9 | 1.8 | 0.9 | n/a | n/a | n/a |
| 4" x 7-ga x 26' | 26 | 7 | B | 8" - 11" | 0.75 | 4.6 | 3.7 | 3.0 | 1.7 | 0.7 | n/a | n/a | n/a | n/a |
| 4" x 7-ga x 28"[2] | 28 | 7 | B | 8" - 11" | 0.75 | 3.3 | 2.5 | 1.8 | 0.7 | n/a | n/a | n/a | n/a | n/a |
| 4" x 7-ga x 30"[2] | 30 | 7 | B | 8" - 11" | 0.75 | 2.2 | 1.4 | 0.8 | n/a | n/a | n/a | n/a | n/a | n/a |
| 5" x 11-ga x 14' | 14 | 11 | C | 9" - 11" | 0.75 | 17.4 | 15.7 | 14.1 | 11.5 | 9.3 | 7.7 | 6.3 | 5.2 | 4.2 |
| 5" x 11-ga x 16' | 16 | 11 | C | 9" - 11" | 0.75 | 13.8 | 12.3 | 10.9 | 8.7 | 6.9 | 5.5 | 4.3 | 3.3 | 2.5 |
| 5" x 11-ga x 18' | 18 | 11 | C | 9" - 11" | 0.75 | 10.8 | 9.6 | 8.4 | 6.5 | 4.9 | 3.7 | 2.6 | 1.8 | 1.1 |
| 5" x 11-ga x 20' | 20 | 11 | C | 9" - 11" | 0.75 | 8.5 | 7.3 | 6.3 | 4.6 | 3.2 | 2.1 | 1.2 | 0.5 | n/a |
| 5" x 11-ga x 22' | 22 | 11 | C | 9" - 11" | 0.75 | 10.9 | 9.5 | 8.3 | 6.2 | 4.5 | 3.2 | 2.1 | 1.2 | 0.5 |
| 5" x 11-ga x 24' | 24 | 11 | C | 9" - 11" | 0.75 | 8.8 | 7.5 | 6.4 | 4.5 | 3.0 | 1.8 | 0.8 | n/a | n/a |
| 5" x 11-ga x 26' | 26 | 11 | C | 9" - 11" | 0.75 | 6.8 | 5.7 | 4.6 | 3.0 | 1.6 | 0.6 | n/a | n/a | n/a |
| 5" x 11-ga x 28' | 28 | 11 | C | 9" - 11" | 0.75 | 5.2 | 4.1 | 3.2 | 1.6 | 0.4 | n/a | n/a | n/a | n/a |
| 5" x 11-ga x 30' | 30 | 11 | C | 9" - 11" | 0.75 | 3.6 | 2.7 | 1.8 | 0.4 | n/a | n/a | n/a | n/a | n/a |
| 5" x 7-ga x 20' | 20 | 7 | D | 9" - 11" | 1.00 | 21.6 | 19.3 | 17.3 | 14.0 | 11.3 | 9.2 | 7.4 | 6.0 | 4.8 |
| 5" x 7-ga x 22' | 22 | 7 | D | 9" - 11" | 1.00 | 20.7 | 18.6 | 16.6 | 13.3 | 10.7 | 8.5 | 6.8 | 5.4 | 4.2 |
| 5" x 7-ga x 24' | 24 | 7 | D | 9" - 11" | 1.00 | 17.7 | 15.6 | 13.8 | 10.8 | 8.5 | 6.6 | 5.0 | 3.7 | 2.6 |
| 5" x 7-ga x 26' | 26 | 7 | D | 9" - 11" | 1.00 | 14.9 | 13.1 | 11.4 | 8.8 | 6.6 | 4.9 | 3.5 | 2.3 | 1.3 |
| 5" x 7-ga x 28' | 28 | 7 | D | 9" - 11" | 1.00 | 12.5 | 10.9 | 9.4 | 6.9 | 4.9 | 3.4 | 2.1 | 1.0 | n/a |
| 5" x 7-ga x 30' | 30 | 7 | D | 9" - 11" | 1.00 | 10.3 | 8.9 | 7.5 | 5.2 | 3.4 | 2.0 | 0.8 | n/a | n/a |
| 5" x 7-ga x 35' | 35 | 7 | D | 9" - 11" | 1.00 | 6.0 | 4.8 | 3.6 | 1.8 | n/a | n/a | n/a | n/a | n/a |
| 6" x 7-ga x 24' | 24 | 7 | J | 12" | 1.00 | 18.6 | 16.4 | 14.3 | 11.2 | 8.6 | 6.5 | 4.8 | 3.4 | 2.2 |
| 6" x 7-ga x 26' | 26 | 7 | J | 12" | 1.00 | 15.6 | 13.4 | 11.7 | 8.8 | 6.5 | 4.6 | 3.0 | 1.8 | 0.7 |
| 6" x 7-ga x 28' | 28 | 7 | J | 12" | 1.00 | 12.9 | 10.9 | 9.3 | 6.7 | 4.6 | 2.8 | 1.5 | n/a | n/a |
| 6" x 7-ga x 30' | 30 | 7 | J | 12" | 1.00 | 10.4 | 8.8 | 7.3 | 4.8 | 2.9 | 1.3 | n/a | n/a | n/a |
| 6" x 7-ga x 32' | 32 | 7 | J | 12" | 1.00 | 8.3 | 6.8 | 5.5 | 3.1 | 1.3 | n/a | n/a | n/a | n/a |
| 6" x 7-ga x 34' | 34 | 7 | J | 12" | 1.00 | 6.5 | 5.0 | 3.7 | 1.6 | n/a | n/a | n/a | n/a | n/a |
| 6" x 7-ga x 35' | 35 | 7 | J | 12" | 1.00 | 5.5 | 4.2 | 2.9 | 0.9 | n/a | n/a | n/a | n/a | n/a |
| 6" x 7-ga x 39' | 39 | 7 | J | 12" | 1.00 | 2.3 | 1.0 | n/a | n/a | n/a | n/a | n/a | n/a | n/a |



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# Steel Poles Square Straight

Type : _____

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## WIND SPEED

| POLE[1] | Mtg. Height Length (ft) | Wall Thick (ga) | BOLT CIRCLE | | | EPA | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Designator | Dia. (in) | Anchor Bolt Dia (in) | 110 MPH | 115 MPH | 120 MPH | 130 MPH | 140 MPH | 150 MPH | 160 MPH | 170 MPH | 180 MPH |
| 5" x 11-ga x 14' | 14 | 11 | F | 11" | 0.75 | 17.6 | 15.8 | 14.2 | 11.5 | 9.4 | 7.7 | 6.3 | 5.2 | 4.3 |
| 5" x 11-ga x 14' | 14 | 11 | F | 13" | 0.75 | 17.6 | 15.8 | 14.2 | 11.5 | 9.4 | 7.7 | 6.3 | 5.2 | 4.3 |
| 5" x 11-ga x 16' | 16 | 11 | F | 11" | 0.75 | 13.9 | 12.2 | 11.0 | 8.8 | 7.0 | 5.5 | 4.3 | 3.4 | 2.5 |
| 5" x 11-ga x 16' | 16 | 11 | F | 13" | 0.75 | 13.9 | 12.2 | 11.0 | 8.8 | 7.0 | 5.5 | 4.3 | 3.4 | 2.5 |
| 5" x 11-ga x 18' | 18 | 11 | F | 11" | 0.75 | 11.0 | 9.6 | 8.4 | 6.5 | 5.0 | 3.7 | 2.7 | 1.8 | 1.1 |
| 5" x 11-ga x 18' | 18 | 11 | F | 13" | 0.75 | 11.0 | 9.6 | 8.4 | 6.5 | 5.0 | 3.7 | 2.7 | 1.8 | 1.1 |
| 5" x 11-ga x 20' | 20 | 11 | F | 11" | 0.75 | 8.6 | 7.4 | 6.4 | 4.6 | 3.3 | 2.2 | 1.3 | 0.5 | - |
| 5" x 11-ga x 20' | 20 | 11 | F | 13" | 0.75 | 8.6 | 7.4 | 6.4 | 4.6 | 3.3 | 2.2 | 1.3 | 0.5 | - |
| 5" x 11-ga x 22' | 22 | 11 | F | 11" | 0.75 | 12.7 | 11.1 | 9.6 | 7.4 | 5.6 | 4.1 | 3.0 | 2.0 | 1.1 |
| 5" x 11-ga x 22' | 22 | 11 | F | 12" | 0.75 | 10.3 | 8.9 | 7.7 | 5.7 | 4.1 | 2.8 | 1.8 | 0.9 | - |
| 5" x 11-ga x 22' | 22 | 11 | F | 13" | 0.75 | 8.6 | 7.4 | 6.4 | 4.6 | 3.1 | 2.0 | 1.1 | - | - |
| 5" x 11-ga x 24' | 24 | 11 | F | 11" | 0.75 | 10.2 | 8.9 | 7.6 | 5.6 | 4.0 | 2.6 | 1.6 | 0.7 | - |
| 5" x 11-ga x 24' | 24 | 11 | F | 12" | 0.75 | 8.0 | 6.9 | 5.8 | 4.0 | 2.6 | 1.5 | 0.5 | - | - |
| 5" x 11-ga x 24' | 24 | 11 | F | 13" | 0.75 | 6.7 | 5.5 | 4.6 | 3.0 | 1.7 | 0.7 | - | - | - |
| 5" x 11-ga x 26' | 26 | 11 | F | 11" | 0.75 | 8.1 | 6.9 | 5.8 | 4.0 | 2.5 | 1.3 | - | - | - |
| 5" x 11-ga x 26' | 26 | 11 | F | 12" | 0.75 | 6.2 | 5.1 | 4.1 | 2.6 | 1.3 | - | - | - | - |
| 5" x 11-ga x 26' | 26 | 11 | F | 13" | 0.75 | 5.0 | 4.0 | 3.1 | 1.6 | 0.5 | - | - | - | - |
| 5" x 11-ga x 28' | 28 | 11 | F | 11" | 0.75 | 6.3 | 5.2 | 4.3 | 2.5 | 1.1 | - | - | - | - |
| 5" x 11-ga x 28' | 28 | 11 | F | 12" | 0.75 | 4.6 | 3.6 | 2.7 | 1.2 | - | - | - | - | - |
| 5" x 11-ga x 28' | 28 | 11 | F | 13" | 0.75 | 3.4 | 2.5 | 1.7 | - | - | - | - | - | - |
| 5" x 11-ga x 30' | 30 | 11 | F | 11" | 0.75 | 4.7 | 3.7 | 2.8 | 1.2 | - | - | - | - | - |
| 5" x 11-ga x 30' | 30 | 11 | F | 12" | 0.75 | 3.1 | 2.2 | 1.4 | - | - | - | - | - | - |
| 5" x 11-ga x 30' | 30 | 11 | F | 13" | 0.75 | 2.0 | 1.2 | 0.5 | - | - | - | - | - | - |
| 5" x 7-ga x 20' | 20 | 7 | G | 11" | 0.75 | 19.0 | 17.0 | 15.0 | 12.2 | 9.7 | 7.8 | 6.2 | 5.0 | 3.8 |
| 5" x 7-ga x 20' | 20 | 7 | G | 12" | 0.75 | 21.4 | 19.1 | 17.1 | 13.8 | 11.2 | 9.1 | 7.3 | 5.9 | 4.7 |
| 5" x 7-ga x 20' | 20 | 7 | G | 13" | 0.75 | 21.4 | 19.2 | 17.2 | 13.9 | 11.3 | 9.2 | 7.4 | 6.0 | 4.8 |
| 5" x 7-ga x 20' | 20 | 7 | G | 11" | 1 | 21.7 | 19.4 | 17.4 | 14.0 | 11.4 | 9.3 | 7.5 | 6.0 | 4.8 |
| 5" x 7-ga x 20' | 20 | 7 | G | 13" | 1 | 21.7 | 19.4 | 17.4 | 14.0 | 11.4 | 9.3 | 7.5 | 6.0 | 4.8 |
| 5" x 7-ga x 22' | 22 | 7 | G | 11" | 0.75 | 16.0 | 14.1 | 12.5 | 9.8 | 7.6 | 5.9 | 4.4 | 3.3 | 2.3 |
| 5" x 7-ga x 22' | 22 | 7 | G | 12" | 0.75 | 17.7 | 15.9 | 14.2 | 11.2 | 8.7 | 7.0 | 5.4 | 4.1 | 3.0 |
| 5" x 7-ga x 22' | 22 | 7 | G | 13" | 0.75 | 19.9 | 17.3 | 15.6 | 12.6 | 10.0 | 8.0 | 6.3 | 5.0 | 3.8 |
| 5" x 7-ga x 22' | 22 | 7 | G | 11" | 1 | 21.0 | 18.7 | 16.7 | 13.4 | 10.6 | 8.5 | 6.8 | 5.4 | 4.2 |
| 5" x 7-ga x 22' | 22 | 7 | G | 12" | 1 | 23.4 | 20.6 | 18.4 | 15.0 | 12.2 | 9.9 | 8.0 | 6.4 | 5.1 |
| 5" x 7-ga x 22' | 22 | 7 | G | 13" | 1 | 21.3 | 18.8 | 17.0 | 13.7 | 11.0 | 8.8 | 7.0 | 5.6 | 4.3 |
| 5" x 7-ga x 24' | 24 | 7 | G | 11" | 0.75 | 13.3 | 11.6 | 10.0 | 7.7 | 5.7 | 4.2 | 2.9 | 1.9 | 1.0 |
| 5" x 7-ga x 24' | 24 | 7 | G | 12" | 0.75 | 15.0 | 13.0 | 11.6 | 8.9 | 6.8 | 5.1 | 3.8 | 2.6 | 1.7 |
| 5" x 7-ga x 24' | 24 | 7 | G | 13" | 0.75 | 16.6 | 14.6 | 12.9 | 10.2 | 8.0 | 6.1 | 4.6 | 3.3 | 2.3 |
| 5" x 7-ga x 24' | 24 | 7 | G | 11" | 1 | 17.5 | 15.7 | 13.9 | 10.9 | 8.6 | 6.7 | 5.0 | 3.7 | 2.7 |
| 5" x 7-ga x 24' | 24 | 7 | G | 12" | 1 | 20.0 | 17.4 | 15.4 | 12.3 | 9.9 | 7.8 | 6.0 | 4.7 | 3.5 |
| 5" x 7-ga x 24' | 24 | 7 | G | 13" | 1 | 18.1 | 16.0 | 14.2 | 11.0 | 8.7 | 6.7 | 5.3 | 3.9 | 2.8 |
| 5" x 7-ga x 26' | 26 | 7 | G | 11" | 0.75 | 10.9 | 9.3 | 8.0 | 5.9 | 4.1 | 2.7 | 1.6 | 0.6 | - |
| 5" x 7-ga x 26' | 26 | 7 | G | 12" | 0.75 | 12.4 | 10.9 | 9.5 | 7.0 | 5.1 | 3.6 | 2.3 | 1.3 | - |
| 5" x 7-ga x 26' | 26 | 7 | G | 13" | 0.75 | 14.0 | 12.3 | 10.7 | 8.1 | 6.0 | 4.4 | 3.1 | 2.0 | 1.0 |
| 5" x 7-ga x 26' | 26 | 7 | G | 11" | 1 | 15.0 | 13.2 | 11.5 | 8.8 | 6.7 | 4.9 | 3.5 | 2.3 | 1.3 |


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# Steel Poles Square Straight

Type : _____

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## WIND SPEED

| POLE[1] | Mtg. Height Length (ft) | Wall Thick (ga) | BOLT CIRCLE | | | EPA | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Designator | Dia. (in) | Anchor Bolt Dia (in) | 110 MPH | 115 MPH | 120 MPH | 130 MPH | 140 MPH | 150 MPH | 160 MPH | 170 MPH | 180 MPH |
| 5" x 7-ga x 26' | 26 | 7 | G | 12" | 1 | 17.0 | 14.8 | 13.0 | 10.2 | 7.9 | 6.0 | 4.4 | 3.1 | 2.1 |
| 5" x 7-ga x 26' | 26 | 7 | G | 13" | 1 | 15.3 | 13.5 | 11.8 | 9.0 | 6.8 | 5.0 | 3.6 | 2.5 | 1.4 |
| 5" x 7-ga x 28' | 28 | 7 | G | 11" | 0.75 | 8.9 | 7.4 | 6.3 | 4.3 | 2.7 | 1.4 | - | - | - |
| 5" x 7-ga x 28' | 28 | 7 | G | 12" | 0.75 | 10.2 | 8.8 | 7.5 | 5.3 | 3.5 | 2.1 | 1.0 | - | - |
| 5" x 7-ga x 28' | 28 | 7 | G | 13" | 0.75 | 11.8 | 10.2 | 8.8 | 6.4 | 4.5 | 3.0 | 1.7 | 0.7 | - |
| 5" x 7-ga x 28' | 28 | 7 | G | 11" | 1 | 12.5 | 10.9 | 9.5 | 7.0 | 5.0 | 3.3 | 2.1 | 1.0 | - |
| 5" x 7-ga x 28' | 28 | 7 | G | 12" | 1 | 14.2 | 12.4 | 11.0 | 8.2 | 6.0 | 4.3 | 3.0 | 1.7 | 0.8 |
| 5" x 7-ga x 28' | 28 | 7 | G | 13" | 1 | 12.9 | 11.0 | 9.7 | 7.2 | 5.2 | 3.6 | 2.2 | 1.1 | - |
| 5" x 7-ga x 30' | 30 | 7 | G | 11" | 0.75 | 7.0 | 5.8 | 4.7 | 2.8 | 1.3 | - | - | - | - |
| 5" x 7-ga x 30' | 30 | 7 | G | 12" | 0.75 | 8.4 | 7.0 | 5.8 | 3.8 | 2.2 | 0.9 | - | - | - |
| 5" x 7-ga x 30' | 30 | 7 | G | 13" | 0.75 | 9.7 | 8.2 | 7.0 | 4.8 | 3.0 | 1.6 | 0.5 | - | - |
| 5" x 7-ga x 30' | 30 | 7 | G | 11" | 1 | 10.4 | 8.8 | 7.6 | 5.3 | 3.4 | 2.0 | 0.8 | - | - |
| 5" x 7-ga x 30' | 30 | 7 | G | 12" | 1 | 12.0 | 10.3 | 9.0 | 6.4 | 4.4 | 2.9 | 1.6 | 0.5 | - |
| 5" x 7-ga x 30' | 30 | 7 | G | 13" | 1 | 10.6 | 9.1 | 7.7 | 5.5 | 3.6 | 2.1 | 1.0 | - | - |
| 5" x 7-ga x 35' | 35 | 7 | G | 11" | 0.75 | 3.2 | 2.2 | 1.2 | - | - | - | - | - | - |
| 5" x 7-ga x 35' | 35 | 7 | G | 12" | 0.75 | 4.4 | 3.2 | 2.2 | 0.5 | - | - | - | - | - |
| 5" x 7-ga x 35' | 35 | 7 | G | 13" | 0.75 | 5.5 | 4.2 | 3.1 | 1.3 | - | - | - | - | - |
| 5" x 7-ga x 35' | 35 | 7 | G | 11" | 1 | 6.0 | 4.8 | 3.6 | 1.8 | - | - | - | - | - |
| 5" x 7-ga x 35' | 35 | 7 | G | 12" | 1 | 7.3 | 6.0 | 4.8 | 2.7 | 1.1 | - | - | - | - |
| 5" x 7-ga x 35' | 35 | 7 | G | 13" | 1 | 6.3 | 5.0 | 3.8 | 1.9 | - | - | - | - | - |
| 6" x 7-ga x 24' | 24 | 7 | H | 11" | 1 | 16.5 | 14.4 | 12.6 | 9.6 | 7.2 | 5.3 | 3.8 | 2.5 | 1.4 |
| 6" x 7-ga x 24' | 24 | 7 | H | 12-1/2" | 1 | 19.8 | 17.5 | 15.4 | 12.0 | 9.2 | 7.0 | 5.3 | 3.8 | 2.7 |
| 6" x 7-ga x 24' | 24 | 7 | H | 14" | 1 | 23.0 | 20.5 | 18.0 | 14.3 | 11.2 | 8.9 | 6.9 | 5.3 | 3.8 |
| 6" x 7-ga x 26' | 26 | 7 | H | 11" | 1 | 13.7 | 11.8 | 10.2 | 7.5 | 5.3 | 3.6 | 2.1 | 1.0 | - |
| 6" x 7-ga x 26' | 26 | 7 | H | 12-1/2" | 1 | 16.5 | 14.6 | 12.6 | 9.6 | 7.0 | 5.2 | 3.6 | 2.2 | 1.1 |
| 6" x 7-ga x 26' | 26 | 7 | H | 14" | 1 | 19.6 | 17.3 | 15.2 | 11.7 | 8.9 | 6.7 | 5.0 | 3.5 | 2.2 |
| 6" x 7-ga x 28' | 28 | 7 | H | 11" | 1 | 11.0 | 9.3 | 7.8 | 5.5 | 3.5 | 1.9 | 0.6 | - | - |
| 6" x 7-ga x 28' | 28 | 7 | H | 12-1/2" | 1 | 13.8 | 12.0 | 10.2 | 7.5 | 5.2 | 3.4 | 1.9 | 0.7 | - |
| 6" x 7-ga x 28' | 28 | 7 | H | 14" | 1 | 16.4 | 14.5 | 12.5 | 9.4 | 6.9 | 4.7 | 3.2 | 1.8 | 0.7 |
| 6" x 7-ga x 30' | 30 | 7 | H | 11" | 1 | 9.0 | 7.3 | 6.0 | 3.6 | 1.9 | 0.5 | - | - | - |
| 6" x 7-ga x 30' | 30 | 7 | H | 12-1/2" | 1 | 11.4 | 9.6 | 8.0 | 5.5 | 3.4 | 1.7 | - | - | - |
| 6" x 7-ga x 30' | 30 | 7 | H | 14" | 1 | 14.0 | 12.0 | 10.0 | 7.2 | 5.0 | 3.2 | 1.6 | - | - |
| 6" x 7-ga x 32' | 32 | 7 | H | 11" | 1 | 7.0 | 5.5 | 4.2 | 2.0 | - | - | - | - | - |
| 6" x 7-ga x 32' | 32 | 7 | H | 12-1/2" | 1 | 9.2 | 7.6 | 6.0 | 3.8 | 1.8 | - | - | - | - |
| 6" x 7-ga x 32' | 32 | 7 | H | 14" | 1 | 11.4 | 9.7 | 8.0 | 5.4 | 3.2 | 1.6 | - | - | - |
| 6" x 7-ga x 34' | 34 | 7 | H | 11" | 1 | 5.1 | 3.7 | 2.5 | 0.6 | - | - | - | - | - |
| 6" x 7-ga x 34' | 34 | 7 | H | 12-1/2" | 1 | 7.2 | 5.6 | 4.4 | 2.2 | - | - | - | - | - |
| 6" x 7-ga x 34' | 34 | 7 | H | 14" | 1 | 9.3 | 7.6 | 6.2 | 3.6 | 1.7 | - | - | - | - |
| 6" x 7-ga x 35' | 35 | 7 | H | 11" | 1 | 4.2 | 3.0 | 1.8 | - | - | - | - | - | - |
| 6" x 7-ga x 35' | 35 | 7 | H | 12-1/2" | 1 | 6.2 | 4.8 | 3.6 | 1.4 | - | - | - | - | - |
| 6" x 7-ga x 35' | 35 | 7 | H | 14" | 1 | 8.2 | 6.6 | 5.2 | 2.9 | 1.0 | - | - | - | - |
| 6" x 7-ga x 39' | 39 | 7 | H | 11" | 1 | 1.0 | - | - | - | - | - | - | - | - |
| 6" x 7-ga x 39' | 39 | 7 | H | 12-1/2" | 1 | 3.0 | 1.6 | 0.5 | - | - | - | - | - | - |
| 6" x 7-ga x 39' | 39 | 7 | H | 14" | 1 | 4.6 | 3.3 | 2.0 | - | - | - | - | - | - |


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