PLAN COMMISSION COMMUNITY DEVELOPMENT STAFF REPORT

30W063 AND 30W081 ESTES STREET – DREAM CLEAN / STARBUCKS ZONING RELIEF

March 20, 2025

Project No.

SUP-2025-0011

Applicant

Dream Clean Holdings LLC
625 Greenleaf Ave
Wilmette, IL 60091

Property Owner

Leland M. Stahelin Irrevocable Trust / Michael A. Stahelin Irrevocable Trust
800 Roosevelt Road Build A Ste 120
Glen Ellyn, IL 60137

Subject Property Location & Info.

30W063 Estes Street

Located on the west side of Route 59 and between Duke Parkway and Estes Street

PINs: 04-33-403-003, 04-33-403-006, 04-33-403-007
Approximate Size: 3.59 acres

30W081 Estes Street

Located on the east side of Barkley Ave and between Duke Parkway and Estes Street

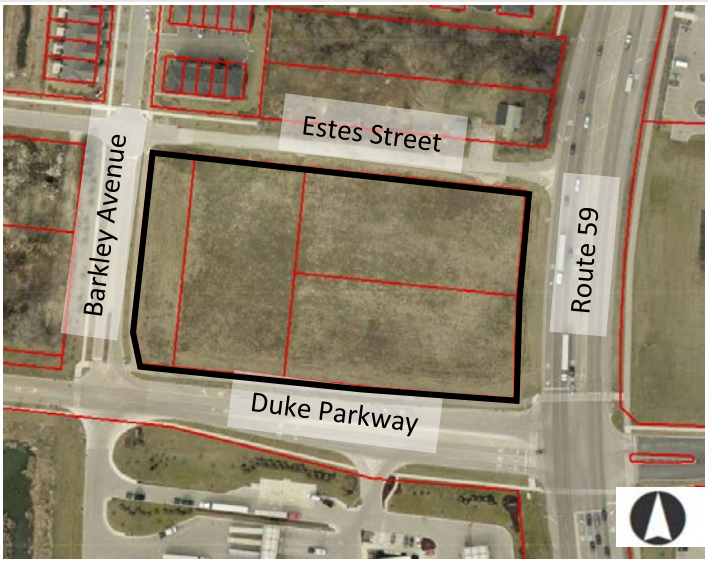
PIN: 04-33-403-008
Approximate Size: 0.46 acres

Existing Zoning

R-2 Medium-Low Density Single Family Residential

Subarea Plan Designation

Commercial



LOCATION MAP

PROJECT DESCRIPTION

Mitch Zaveduk on behalf of Dream Clean Holdings LLC, "the Applicant," is seeking zoning relief for a Dream Clean car wash and Starbucks drive-through development and related improvements at 30W063 and 30W081 Estes Street, "the Subject Properties." Project documents are available on the *City Private Development Projects* webpage at:

https://www.warrenville.il.us/969/Dream-Clean-Starbucks-Development

The public hearing for this request is scheduled for the March 20, 2025, Zoning Board of Appeals meeting. It is important to note that this staff report does not reflect any public input that may be received during the March 20, 2025, public hearing, and therefore should be reviewed with this in mind. Any additional information concerning the application that may be provided up to and at the public hearing will need to be reviewed and taken into consideration.

The Plan Commission is responsible for making recommendations to the City Council for all the requested zoning relief for this project.

Approvals Sought

- Rezoning from R-2 Medium-Low Density Single Family Residential to B-4 Motorist Service;
- Final Plat of Resubdivison;
- Special Use Permit for a drive-through;
- Special Use Permit for an automobile laundry;
- Special Use Permit for a Planned Unit Development with code deviations; and
- Preliminary/Final Planned Unit Development plan approval

Attachments

- Attachment A – Zoning Applications
- Attachment B – Subdivision Plat
- Attachment C – Site Plan
- Attachment D – Landscape Plan
- Attachment E – Dream Clean Elevations and Renderings
- Attachment F – Starbucks Renderings
- Attachment G – Dream Clean Sign Package
- Attachment H – Preliminary Civil Engineering Plans
- Attachment I – Auto Turn Exhibit
- Attachment J – Photometric Study
- Attachment K – Traffic Study
- Attachment L – Engineering/SWM/Public Works Review #1

BACKGROUND

In November of 2024, the Applicant and Starbucks development team completed a Courtesy Review for a Dream Clean and Starbucks development. The Plan Commission raised some points of concern including, but not limited to, landscaping, number of vacuums on-site, traffic generated by the use, limiting future uses on the site, signage, hours of operation, native plantings, solar installations, tire air station, and site lighting. Six residents from the Lexington Trace residential development provided testimony in opposition to the project citing the intensity of land use, the number of proposed vacuums, cut-through traffic, future additional uses and their compatibility with the neighborhood, and potential impacts to bike path users and pedestrians.

Based on feedback received at the November 7, 2024, Courtesy Review, the Applicant updated the proposed plans and submitted a formal application.

ANALYSIS

The Applicant is seeking approval of the following zoning relief requests:

- Rezoning the Subject Properties from R-2 Medium-Low Density Single Family Residential to B-4 Motorist Service;
- Final Plat of Resubdivision;
- Special Use Permit for a drive-through;
- Special Use Permit for an automobile laundry;
- Special Use Permit for a Planned Unit Development;
- Preliminary Planned Unit Development Plan approval for Lot 1;
- Preliminary and Final Planned Unit Development Plan approval for Lot 2 and Lot 3 with the following code deviations:

Starbucks Development

1. Front yard setback reduction from 40’ to approximately 32.14’;
2. Reduce the minimum front yard setback for all other pavement across from residential zoning from 15’ to approximately 10.57’ on the north side;

Dream Clean Development

1. Reduce the minimum lot width from 150’ to approximately 146.98’;
2. Reduce the minimum interior side yard from 10’ to approximately 7’;
3. Reduce the minimum corner side yard setback of pavement across from non-residential zoning from 15’ to approximately 8.11’.

- Landscape Relief Requests:

Starbucks Development

1. Reduce the minimum required foundational landscaping from a cumulative of approximately 2,000 square feet to 396 square feet along the north half of the building;
2. Reduce the minimum required interior parking lot landscaping from 1,211 square feet to 841 square feet;
3. Reduce the minimum width of interior parking lot peninsulas from 9' to approximately 8';
4. Further landscape relief may be required upon review of revised landscape plan;

Dream Clean Development

1. Reduce the minimum required foundational landscaping from a cumulative of approximately 3,910 square feet to approximately 1,559 square feet located on the north and east sides of the building;
2. Increase the number of parking spaces between a landscape island from 10 spaces to 11 spaces;
3. Reduce the required interior parking lot peninsula area and width from 162 square feet and 9' in width to approximately 128 square feet and 7' in width;
4. Not require perimeter landscaping along the west property line;
5. Further landscape relief may be identified upon review of revised landscape plan;

Lot 1 (Undeveloped)

1. Exempt the property from required perimeter landscaping along the north and west lot line;

- Sign Variance Requests:

  Dream Clean Development

  1. Increase the maximum sign area for a small convenience sign from 3 square feet to approximately 6.5 square feet;
  2. Increase the maximum cumulative area of wall signs not facing a dedicated street from 90 square feet to 150 square feet;

Granting the above zoning relief requests will permit the three-lot development as proposed. Below is a summary of the proposed plans:

Lot 1 (Undeveloped)

Aside from a full access point on Barkley Avenue, 24' wide access drive, and connection points to Lot 2 and Lot 3, Lot 1 is proposed to remain undeveloped (see Attachment C). The full access point on Barkley Avenue will be the only route for those customers leaving the site who want to travel northbound on Route 59. The City currently owns a parcel with frontage along Barkley between Estes and Duke that lies between the westernmost limits of Lots 1 and 2 and the Barkley right of way. The City Council has directed City Staff to prepare a Purchase and Sale Agreement for that property. That process is underway. Review and approval will occur concurrent with any recommendations received by the Plan Commission.

Lot 1 Land Use Data

Zoning: B-4 Motorist Service
Site Area: 1.2 acres

NOTE: Any future development on Lot 1 will require final Planned Unit Development approval, which includes a public meeting before the Plan Commission and final action by the City Council.

Lot 2 (Starbucks)

The Applicant proposes a 2,050 square foot Starbucks with drive-through on Lot 3 (see Attachment C). 22 parking spaces, including two ADA spaces, are proposed to serve the site. 15 stacking spaces are proposed

to serve the drive-through. Customers will access the site from Estes Street or via a connection with Lot 1.

The Starbucks building itself measures approximately 38.83' by 56'. Building materials include brick, stucco, panels, windows, and canopies (see Attachment F). The building uses a brown and beige color scheme. Fencing is proposed around the rear of the building (east side) to screen utilities. An approximately 650 square foot patio is located on the south side of the building. A nine-foot-wide sidewalk is proposed to serve the perimeter of the building. One menu board and one monument sign are proposed. Other sign details are not yet provided.

The Applicant proposes four street trees, shrubs, and perennial plantings along Route 59 (see Attachment D). Six trees are proposed to be planted in parking lot landscaping islands. Four shade trees and thirteen ornamental trees are proposed around the remainder of the site including near the patio, landscape peninsula at the southwest corner of the property, around the proposed dumpster enclosure, and at the northwest corner of the property. A mix of shrubs and perennials will fill out the remainder of the site.

Lot 2 (Starbucks) Land Use Data

Zoning: B-4 Motorist Service District with a drive-through special use permit
Site Area: 0.85 acres
Building Area: ~2,050 square feet
Parking Provided: 22 spaces (including 2 ADA spaces)
Car Stacking Provided: 15 cars

Lot 3 (Dream Clean Car Wash)

The Applicant proposes a 6,500 square foot car wash and related improvements on Lot 3 (see Attachment C). 21 vacuum stalls and six employee parking spaces, including an ADA stall and an accessible vacuum stall, serve the site. Two parking stalls are proposed next to a tire inflation station located at the northwest corner of the developed portion of the lot. Cars will queue in the double-wide, approximately 360-foot-long queueing lane designed to accommodate 37 cars. Customers may access the site from Duke Parkway or a connection with Lot 1.

The car wash building measures approximately 152.33' by 41.67' with a maximum height of 34' 10.5" at the entrance of the wash near Route 59 (see Attachment E). The building design incorporates a mix of materials including stone masonry veneer, brick, aluminum siding, and windows. The color scheme includes shades of blue, gray, and brown. Wall signs are proposed on all sides of the building; 90 square foot signs on the north and south facades and 60 square foot signs on the east and west facades. Two menu boards, seven small convenience and directional signs, and one eight-foot-tall monument sign with message board is proposed on the southwest corner of the property (see Attachment G).

Trees are proposed throughout Lot 3 including six near the access point on Duke Parkway, three along Route 59, eight trees throughout the parking lot and queueing lane, and two near the car wash building exit. 15 ornamental trees are proposed on the north side of the car wash building. Shrubs, grasses, and ornamental trees are proposed to fill out the remainder of the site (see Attachment D).

Lot 3 (Dream Clean Car Wash) Land Use Data

Zoning: B-4 Motorist Service District with an automobile laundry Special Use Permit
Site Area: 1.95 acres
Building Area: 6,500 square feet
Parking Provided: 8 spaces (including one ADA space)
Vacuum Stalls: 21 spaces (including one accessible space)

Car Wash Stacking Provided: 37 cars

PUBLIC RIGHT-OF-WAY IMPROVEMENTS

The Applicant is proposing a revised right in / right out at the intersection of Route 59 and Estes Street (see Attachment C). Currently a rural cross section, Estes Street will be upgraded with full curb and gutter. Sidewalk is proposed along the south side of Estes Street and Route 59. Twelve street trees are proposed between Estes Street and the Subject Properties. All developments will be served by existing water and sewer utilities.

PLAN REVISIONS SUBSEQUENT TO COURTESY REVIEW SUBMISSION

Below is a list highlighting some of the changes made subsequent to feedback received at the November 7, 2024, Courtesy Review:

- Reduction in the number of vacuum stalls from 30 to 21;
- Addition of a tire inflation station and related parking spaces;
- Addition of an interior parking lot landscape island in the row of vacuum stalls;
- Increase in the drive aisle width currently proposed on Lot 1 from 22' to 24';
- Relocation of the Dream Clean trash enclosure;
- Required public improvements along Estes Street;
- Submission of a Landscape Plan;
- Submission of a Traffic Impact Study;

I. REZONING (Requires a public hearing and ultimately a Plan Commission recommendation to the City Council)

In recommending approval or conditional approval of a **zoning map amendment (rezoning) from R-2 Medium-Low Single Family Residential to B-4 Motorist Service**, the Plan Commission shall transmit to the City Council written findings of fact that all of the conditions below apply to the application. In granting approval or conditional approval, the City Council shall similarly find that all of the following conditions apply in the ways listed below (Community Development Department staff intends to develop and submit its findings to these approval criteria after the initial public hearing for this proposal is conducted):

1. Compatible with Use or Zoning of Environs
   The proposed use(s) or the uses permitted under the proposed zoning classification are compatible with existing uses or existing zoning of property in the environs.

2. Supported by Trend of Development
   The trend of development in the general area since the original zoning of the affected property was established supports the proposed use of zoning classification.

3. Consistent With Comprehensive Plan Objectives
   The proposed use or zoning classification is in harmony with the objectives of the Comprehensive Plan of the City as viewed in light of any changed conditions since its adoption.

4. Furthers Public Interest
   The proposed use or zoning classification promotes the public interest and not solely the interest of the applicant.

II. SPECIAL USE PERMIT (Requires public hearing and ultimately a Plan Commission recommendation to the City Council)

In recommending or granting approval or conditional approval of **Special Use Permits for an automobile laundry, drive-through, and Planned Unit Development**, the City Council and Plan Commission shall prepare written findings of fact that on the basis of the characteristics listed Table 7C, titled "Approval Criteria for Special Uses" and any conditions recommended to be part of the approval -- the proposed use will be compatible with existing uses in the area, and with Permitted Uses in the zoning district, in the ways listed and described below (Community Development Department staff intends to develop and submit its findings to these approval criteria after the initial public hearing for this proposal is conducted):

1. Traffic
   Any adverse impact of types or volumes of traffic flow not otherwise typically in the zoning district has been minimized.

2. Environmental Nuisance
   Any adverse effects of noise, glare, odor, dust, waste disposal, blockage of light or air, or other adverse environmental effects of a type or degree not characteristic of Permitted Uses in the zoning district, have been appropriately controlled.

3. Neighborhood Character
   The proposed use will fit harmoniously with the existing natural or man-made character of its surroundings and with Permitted Uses in the zoning district. The use will not have undue deleterious effect on the environmental quality, property values, or neighborhood character already existing in the area or normally associated with Permitted Uses in the district.

4. Public Services and Facilities
   The proposed use will not require existing community facilities or services to a degree disproportionate to that normally expected of Permitted Uses in the district, nor generate disproportionate demand for new services or facilities as compared with the Permitted Uses, in such a way as to place undue burdens upon existing development in the area.

5. Public Safety and Health
   The proposed use will not be detrimental to the safety or health of the employees, patrons, or visitors associated with the use nor of the general public in the vicinity.

6. Other Factors
   The proposed use is in harmony with any other elements of compatibility pertinent in the judgment of the Commission or Council to the particular Special Use or its particular location.

III. PRELIMINARY/FINAL PLANNED UNIT DEVELOPMENT PLAN WITH DEVIATIONS APPROVAL (requires a public hearing before the Plan Commission and ultimately a recommendation to the City Council)
In recommending approval or conditional approval of a Preliminary/Final Plan for a Planned Unit Development (PUD), the Zoning Ordinance requires the Plan Commission to transmit to the City Council written findings of fact that the application meets all of the criteria below or will meet them when the Commission's conditions are fulfilled. The City Council shall, in granting approval or conditional approval, also find that all of the following criteria are met or will be met when the conditions to which the approval is made subject are fulfilled. (Community Development Department staff intends to develop and submit its findings to these approval criteria after the initial public hearing for this proposal is conducted):

1. SUPERIOR DESIGN

The PUD represents a more creative approach to the unified planning of development and incorporates a higher standard of integrated design and amenity than could be achieved under otherwise applicable zoning district and subdivision regulations, and solely on this basis modifications to the use and design standards established by such regulations are warranted.

2. MEETS PUD REQUIREMENTS

The PUD meets the requirements for Planned Unit Developments set forth in this Ordinance, and no modifications to the use and design standards otherwise applicable are allowed other than those permitted herein.

3. CONSISTENT WITH CITY PLAN

The PUD is generally consistent with the objectives of the City Comprehensive Plan as viewed in light of any changed conditions since its adoption.

4. PUBLIC WELFARE

The PUD will not be detrimental to the Public health, safety, morals, or general welfare.

5. COMPATIBLE WITH ENVIRONS

Neither the PUD nor any portion thereof will be injurious to the use and enjoyment of other properties in its vicinity, seriously impair property values or environmental quality in the neighborhood, nor impede the orderly development of surrounding property.

6. NATURAL FEATURES

The design of the PUD is as consistent as practical with the preservation of natural features of the site such as flood plains, steep slopes, natural drainage ways, or other areas of sensitive or valuable environmental character.

7. CIRCULATION

Streets, sidewalks, off-street driveways, and off-street loading as appropriate to the planned land uses are provided. They are adequate in location, size capacity, and design to ensure safe efficient circulation of automobiles, trucks, garbage trucks, and snow plows as appropriate without blocking traffic, creating unnecessary pedestrian-vehicular conflict, creating unnecessary through traffic within the PUD, or unduly interfering with the safety or capacity of adjacent streets.

8. OPEN SPACES AND LANDSCAPING

The quality and quantity of public and common open spaces and landscaping provided are consistent with the higher standards of design and amenity required of a PUD. The size, shape, and location of a substantial portion of the total public and common open space provided in residential areas render it useable for recreation purposes.

9. COVENANTS

Where individual parcels are to be later sold, adequate provision has been made in the form of deed restrictions, homeowners or condominium associations, or the like for:

a. The preservation and maintenance of any open spaces, thoroughfares, utilities, water retention or detention areas, and other common elements not to be dedicated to the City or another public body

b. Such control of the use and exterior design of individual structures, if any, as is necessary for continuing conformance to the PUD Plan, such provision to be binding on all future ownership.

10. PUBLIC SERVICES

The land use and improvements are consistent with the anticipated ability of the City to support police and fire protection, water supply, sewage disposal, and other public facilities and services without placing undue burden on existing residents and businesses.

11. PHASING

Each development phase of the PUD can, together with any phases that preceded it, exist as an independent unit that meets all of the foregoing criteria and all other applicable regulations herein even if no subsequent phase should ever be completed. The provision and improvement of public or common area improvements, open spaces, and amenities—or the provision of financial sureties guaranteeing their improvement—is phased generally proportionate to the phasing of the number of dwelling units or amount of non-residential floor area.

IV. PLAT OF RESUBDIVISION (Requires a public meeting and ultimately a Plan Commission recommendation to the City Council)

The Applicant is requesting approval of a Plat of Resubdivision (see Attachment B), which will facilitate the proposed development, allow separate ownership of lots, and create a new undeveloped lot for a future user.

V. CITY STAFF REVIEW COMMENTS

Planning and Zoning

Planning and zoning staff reviewed the proposal and have the following review comments:

General Comments

- Final engineering plans are required for final Planned Unit Development approval;
- There appears to be excess paving throughout the entire development (e.g., drive aisle width, undefined paved areas, etc.) . Staff recommends reducing pavement where possible;
- The landscape plan shall be updated to include a maintenance plan and calendar as per 11.C.9;
- The City is considering electric vehicle related text amendments that may result in electric vehicle charging station requirements for all developments. The current amendments being reviewed by the Plan Commission would result in all developments with more than eight required parking spaces being required to install parking spaces equal to 15% of the total parking spaces for a maximum of 12 spaces; This matter will next be considered at the April 10, 2025 Plan Commission Meeting. Staff will keep the petitioner informed of revisions. While your application has been received prior to the adoption of the code, inclusion of EV charging stations is recommended.
- Plat of Subdivision or Site Plan shall be updated so that the lot numbers are consistent;

Lot 1 (Undeveloped)

- The proposed landscape plan should be revised to include perimeter landscaping along the north and west property lines;
- Staff recommends narrowing the drive aisle from 24’ to 22’ to reduce the amount of paved surface;

Lot 2 (Starbucks)

- Landscape Plan Revisions
    - Plan shall be updated to include landscape calculations showing code conformance as per 11.C.9.
    - Not all perimeter parking lot landscaping species proposed meet the evergreen/dense shrub requirements, planting height requirement, and mature height requirement. Species shall be updated to meet these minimum requirements.

  - The Applicant shall revise the landscape plan so that the perimeter parking lot landscaping includes evergreen and dense shrub species with a planting height of at least 2.5' and a mature height of at least 4';
  - Consider narrowing the 9' wide sidewalk around the building to accommodate foundational landscaping and reduce impervious surface on site;
  - Staff recommends additional plantings south of the patio as compensatory plantings for the required foundational plantings;
  - The landscape islands that bookend the back-to-back row of angled parking do not meet minimum code requirements as per 11.G.2.b.(i). There appears to be space to update the size of these islands to meet code requirements;
- Provide elevation plans for the proposed development, with all materials labeled. Plans should show the location and height of any rooftop mechanical units so staff can confirm screening by the parapet wall.;
- Provide a sign package;
- Include a sidewalk connection from the Estes Street sidewalk to the Starbucks;
- Provide a detail for the proposed dumpster enclosure;

Lot 3 (Dream Clean)

- Landscape plan revisions
  - The Applicant shall revise the landscape plan so that the perimeter parking lot landscaping includes evergreen and dense shrub species with a planting height of at least 2.5' and a mature height of at least 4';
- Consider removing one vacuum station from the western row of vacuums. This would result in code compliance regarding the number of parking spaces between landscape peninsulas and provide extra space to increase the size of the landscape peninsulas between parking spaces and at the east end of the row of parking;
- Consider reducing the width of the drive aisle directly adjacent to the vacuum stalls from 28' wide to the minimum required 24' wide;
- Provide data from existing locations that support the approximately 360' long queueing lane;
- Staff recommends continuous landscaping between the dumpster and vacuum utility area;
- Staff recommends limiting signage to the north, south, and west facades.
- Staff recommends the southwest undeveloped portion of the parcel be dedicated to a native planting garden to provide a natural amenity rather than remaining vacant.

The City is in receipt of the KLOA Traffic Impact Study and photometric plan. The Applicant stated a sound study is being prepared. These will be reviewed by City staff and consultants prior to a recommendation.

Engineering and Public Works

Engineering and Public Works staff worked with the Applicant to identify required public improvements for this project. Engineering and Public Works review comments are found in the Engineering/SWM/Public Works Review #1 memo dated March 11, 2025 (see Attachment L). Engineering and Public Works comments include noting the required public improvements on Barkley Avenue and Estes Street, drive aisle width reduction, and reduction in length of the car wash queue.

Warrenville Fire Protection District

The Warrenville Fire Protection District (WFPD) has reviewed the documents and shared comments with

the Applicant related to internal turning radius, emergency access to the drive-through lane, and fire protection systems.

Building Department
The Building Department does not have comment at this time.

CONCLUSION

After the March 20, 2025, public hearing, the Applicant shall submit revised plans addressing staff's comments. The Community Development Department staff (and City Consultants) will finalize and distribute an updated staff report with a recommendation.

Based on the findings outlined in this report, staff recommends the Plan Commission continue the public hearing to the May 8, 2025, meeting to allow the applicant to submit revised plans and allow staff time to review and prepare a staff report.

Attachment A – Zoning Applications
Attachment B – Subdivision Plat
Attachment C – Site Plan
Attachment D – Landscape Plan
Attachment E – Dream Clean Elevations and Renderings
Attachment F – Starbucks Renderings
Attachment G – Dream Clean Sign Package
Attachment H – Preliminary Civil Engineering Plans
Attachment I – Auto Turn Exhibit
Attachment J – Photometric Study
Attachment K – Traffic Study
Attachment L – Engineering/SWM/Public Works Review #1

Attachment A

CITY OF WARRENVILLE

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GENERAL APPLICATION INFORMATION FORM

(For office use only)

Name of Development/Subdivision _____ Project Number _____

$ _____ Filing Fee(s) _____ Date Paid

Instructions:

- ☐ **Before filing an application, the Warrenville Zoning Ordinance should be reviewed for filing procedures and requirements.**
- ☐ Please print or type. Application(s) must be complete before filing with the City of Warrenville.
- ☐ Filing Fees must accompany application(s). Please check the Planning and Zoning Application and Review Fees sheet.
- ☐ Proof of ownership, disclosure of beneficial interest, and authorization to represent owner must be attached to this application as provided in Zoning Ordinance No. 1018, page 2-4.
- ☐ Fifteen (15) paper copies and an electronic copy of this application, other related application forms and any additional application information required by law and/or in Chapter 2 of the Warrenville Zoning Ordinance shall be submitted simultaneously with this application. The application will not be forwarded to the Plan Commission/Zoning Board of Appeals for consideration until all required information and supporting documentation is submitted.

GENERAL APPLICATION INFORMATION:

1. Name of Applicant/Developer Dream Clean Holdings LLC
2. Address of Applicant/Developer 625 Greenleaf Ave. Wilmette, IL 60091
3. Phone (847)-989-9287 Fax N/A
4. E-mail Address mzaveduk@dreamcleancw.com
5. Subject Property Address: Vacant parcels Northwest corner of Rte 59 and Duke Parkway
6. Permanent Parcel Identification Number(s) PIN(s) of the Subject Property:
   04-33-403-003 (Lot 66) 04-33-403-007 (Lot 65)
   04-33-403-006 (Lot 64) 04-33-403-008 (Lot 67)*
   * - currently owned by City of Warrenville

7. Legal Description of the Subject Property:

Attached as Exhibit A

If additional space is required, the complete legal description may be attached to this application.

8. Name, mailing address, phone number, fax number and e-mail address of Property Owner if different from Applicant/Developer:

Leland M. Stahelin Irrevocable Trust / Michael A. Stahelin Irrevocable Trust

Address 800 Roosevelt Rd Bldg A Ste 120
Glen Ellyn, IL 60137

Phone 630.469.3331 Fax N/A

E-mail Address Tom Kolschowsky (Counsel) tom@stahelin.com

9. Name(s), mailing address(es), phone number(s), fax number(s) and e-mail address(es) of Developer, Site Engineer, Attorney and other Consultants involved in the project *(attach addendum if necessary)*:

See Attached Exhibit B

Address

Phone Fax

E-mail Address

10. Description of Present and Proposed Use of Property:

Currently vacant Parcels (3) with intent to develop into a three(3) lot Resubdivision. Development for a car wash (tunnel), Starbucks, and last lot TBD use.

11. Present Zoning of Subject Property: R-2

REQUESTS: *(Check all Proposed/Requested action(s) that apply)*

- ☐ Zoning Ordinance Variation (Submit Application Form A)
- ☑ Special Use (Submit Application Form B)
- ☑ Rezoning/Map Amendment (Submit Application Form C)
- ☐ Landscape Relief
- ☐ Subdivision Control Ordinance Variation
- ☐ Land Division
- ☑ Plat of Subdivision/Resubdivision
- ☐ Preliminary Planned Unit Development (Submit Application Form D)
- ☐ Final Planned Unit Development (Submit Application Form D)
- ☐ Planned Unit Development Exceptions (Submit Application Form D)
- ☐ Minor Amendment to Approved Final PUD Plans (Submit Minor PUD Amendment Form)
- ☐ Major Amendment to Approved Final PUD Plans (Submit Major PUD Amendment Form)
- ☐ Annexation (Submit Annexation Petition)
- ☐ Conditional Use for Outdoor Display or Community Garden

I HEREBY CERTIFY THAT THE ABOVE INFORMATION IS TRUE AND ACCURATE TO THE BEST OF MY KNOWLEDGE AND BELIEF AND THAT I HAVE THOROUGHLY REVIEWED THE FILING PROCEDURES AND REQUIREMENTS OUTLINED IN CHAPTER 2 OF THE CITY OF WARRENVILLE ZONING ORDINANCE.

Dream Cleaning Holdings, LLC

Signature of ~~Applicant~~/Agent

Mitchell Zavadlik,

(Print Name)

February 25, 2025

Date

EXHIBIT A

Legal description
Rte 59 and Duke Parkway

LOTS 64, 65, 66 and 67 IN BARTLETT'S GREEN ACRES, BEING A SUBDIVISION OF THE EAST 1/2 OF SECTION 33 AND IN THE WEST 1/2 OF SECTION 34, TOWNSHIP 39 NORTH, RANGE 9, EAST OF THE THIRD PRINCIPAL MERIDIAN, ACCORDING TO THE PLAT THEREOF RECORDED OCTOBER 20, 1943 AS DOCUMENT 454884, IN DUPAGE COUNTY, ILLINOIS.

PINs 04-33-403-003, 04-33-403-006, 04-33-403-007, and 04-33-403-008

EXHIBIT B

Consultants, etc.

Engineer

Benedict Bussman
Webster, McGrath & Ahlberg, Ltd.
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Traffic

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CITY OF WARRENVILLE

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WARRENVILLE

SPECIAL USE PERMIT APPLICATION – FORM B

(For office use only)

Name of Development/Project _____ Project Number _____

Certain uses cannot be allowed generally in a particular zoning district, or in any zoning district, because of the impact their special character creates on surrounding areas. However, some special uses may be allowed under special conditions. These uses are listed in the Zoning Ordinance as Special Uses. Because a Special Use is compatible with the applicable zoning district only under special conditions, a Special Use Permit is required before any use listed in the Zoning Ordinance as a Special Use may be established.

A. List specific Special Use approval that is being sought *(refer to Zoning Ordinance Table 3A for a list of Special Uses possible in each zoning district).*

Special Use approval is being sought for operation of a car wash on subject parcels

B. In evaluating the suitability of a proposed Special Use, the Plan Commission and City Council shall examine the following characteristics of the proposed use and its individual structures or components:

1. Location and orientation
2. Lot Size
3. Size of facility, including floor area, structure height, design capacity, and anticipated employment
4. Site design and arrangement
5. Provisions affecting on and off-site pedestrian and traffic movement, vehicle storage, and the passage of emergency vehicles
6. Appearance
7. Screening or landscaping
8. On or off-site buffering from incompatible uses with open spaces or transitional uses
9. Operations factors, such as hours of use or environmental controls
10. Other characteristics of the proposed use pertinent in the judgment of the Commission or Council to an assessment of the impact of the use on the area.

In recommending or granting approval or conditional approval of a Special use, the City Council and Plan Commission shall prepare written findings of fact that on the basis of the ten characteristics cited above, or changes to such characteristics that conditions to which the approval is made subject require, the proposes use will be compatible with existing uses in the area, and with the Permitted Uses in the zoning district, in the following ways. Please review and provide a written response indicating how these six characteristics/criteria will be impacted by the proposed Special Use:

City of Warrenville Special Use Application Form B

1. Traffic And adverse impact of types or volumes of traffic flow not otherwise typical in the zoning district has been minimized.

Applicant Response: Pursuant to Traffic Study as completed the proposed uses (Car Wash and Starbucks) the proposed uses should not have a negative impact beyond those as typical and as currently exist in the area to be developed.

2. Environmental Nuisance Any adverse effects of noise, glare, odor, dust, waste disposal, blockage or light or air, or other adverse environmental effects of a type or degree not characteristic of Permitted Uses in the zoning district, have been appropriately controls.

Applicant Response: As a part of the development process and design criteria as to be implemented there should not be any adverse effects of noise, glare, odor, dust, waste disposal, blockage or light or air, or other adverse environmental effects of a type or degree not characteristic of Permitted Uses in the zoning district

3. Neighborhood Character The proposed use will fit harmoniously with the existing natural or man-made character of its surroundings and with Permitted Uses in the zoning district. The use will not have undue deleterious effect on the environmental quality, property values, or neighborhood character already existing in the area or normally associated with Permitted Uses in the district.

Applicant Response: The development of the property in question, as it abuts Rte 59 and other adjoining commercial uses should not have any undue deleterious effect on the environmental quality, property values, or neighborhood character already existing in the area or normally associated with Permitted Uses in the district.

4. Public Services and Facilities The proposed use will not require existing community facilities or services to a degree disproportionate to that normally expected of Permitted Uses in the district, nor generate disproportionate demand for new services or facilities as compared with the Permitted Uses, in such a way as to place undue burdens upon existing development in the area.

Applicant Response: As noted above, the proposed uses should not impact existing community facilities or services to a degree disproportionate to that normally expected of Permitted Uses in the district, nor generate disproportionate demand for new services or facilities as compared with the Permitted Uses, in such a way as to place undue burdens upon existing development in the area.

City of Warrenville Special Use Application Form

5. Public Safety and Health The proposed use will not be detrimental to the safety or health of the employees, patrons, or visitors associated with the use nor of the general public in the vicinity.

Applicant Response: The proposed uses should in no way be detrimental to the safety or health of the employees, patrons, or visitors associated with the uses proposed, nor of the general public in the vicinity.

6. Other Factors The proposed use is in harmony with any other elements of compatibility pertinent in the judgment of the Commission or Council to the particular Special use or its particular location.

Applicant Response: In light of other adjacent uses and uses along Rte 59, the proposed use is generally in harmony with any other elements of compatibility pertinent to the requested Special Use or its particular location.

I HEREBY CERTIFY THAT THE ABOVE STATEMENTS AND ALL ACCOMPANYING STATEMENTS AND APPLICATION INFORMATION ARE TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE.

Signature of Applicant/Agent

Dream Clean Holdings, LLC

By: Mitchell Zaveduk

Mitchell Zaveduk

Date February 25, 2025

CITY OF WARRENVILLE

3S258 MANNING AVENUE • WARRENVILLE, IL 60555 • PH: (630) 393-9050 • FAX (630) 393-1531

REZONING APPLICATION - FORM C

(For office use only)

Name of Development/Project _____ Project Number _____

A. Describe Proposed Action: SEE ATTACHED FOR RESPONSES

B. In recommending approval or conditional approval of a map amendment (rezoning), the Plan Commission shall transmit to the City Council written findings of fact that all of the conditions below apply to the application. In granting approval or conditional approval, the City Council shall similarly find that all of the following conditions apply:

1. Compatible with Use or Zoning of Environs

The proposed use(s) or the uses permitted under the proposed zoning classification are compatible with existing uses or existing zoning of property in the environs.

2. Supported by Trend of Development

The trend of development in the general area since the original zoning of the affected property was established supports the proposed use of zoning classification.

CITY OF WARRENVILLE 3S258 MANNING AVENUE • WARRENVILLE, IL 60555 • PH: (630) 393-9050 • FAX (630) 393-1531 REZONING APPLICATION –

FORM C

_____ _____

Name of Development/Project Project Number

A. Describe Proposed Action:

Rezoning of parcel currently zoned R-2 to B-4 along with a Special Use for operation of a car wash. Property along Rte 59 which has highest and best uses as non-residential.

B. In recommending approval or conditional approval of a map amendment (rezoning), the Plan Commission shall transmit to the City Council written findings of fact that all of the conditions below apply to the application. In granting approval or conditional approval, the City Council shall similarly find that all of the following conditions apply:

1. Compatible with Use or Zoning of Environs The proposed use(s) or the uses permitted under the proposed zoning classification are compatible with existing uses or existing zoning of property in the environs.

As noted above and as a part of this entire submittal, based on uses adjacent along Rte 59 and nearby, the proposed uses and zoning is quite compatible with the others as currently exist.

2. Supported by Trend of Development The trend of development in the general area since the original zoning of the affected property was established supports the proposed use of zoning classification.

While residential zoning at one time may have seemed to make sense and fit it, the current trend of development for this parcel is for uses as proposed and the underlying zoning necessary to accommodate these uses.

3. Consistent With Comprehensive Plan Objectives The proposed use or zoning classification is in harmony with the objectives of the Comprehensive Plan of the City as viewed in light of any changed conditions since its adoption.

The proposed uses are clearly in harmony with the City's Comprehensive Plan along Rte 59.

4. Furthers Public Interest The proposed use or zoning classification promotes the public interest and not solely the interest of the applicant.

The uses and zoning as proposed will serve the needs of the overall community as well the City with the proposed uses and taxes generated therefrom.

I HEREBY CERTIFY THAT THE ABOVE STATEMENTS AND ALL ACCOMPANYING STATEMENTS AND APPLICATION INFORMATION ARE TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE.

_____

Signature of Applicant/Agent

Dream Clean Holdings, LLC

By: Mitchell Zaveduk

Mitchell Zaveduk

Date February 25, 2025

CITY OF WARRENVILLE

3S258 MANNING AVENUE • WARRENVILLE, IL 60555 • PH: (630) 393-9050 • FAX (630) 393-1531

APPLICATION FORM D
FOR PRELIMINARY/FINAL PLANNED UNIT DEVELOPMENT

(For office use only)

Name of Development/Subdivision

Project Number

Approval Criteria for Planned Unit Development

In recommending approval or conditional approval of a General Site Plan for an SD District Development (including Development Control Regulations associated therewith) or a Preliminary or Final Plan for a Planned Unit Development (PUD), the Plan Commission shall transmit to the City Council written findings of fact that the application meets all of the criteria below or will meet them when the Commission's conditions are complied with. The City Council shall, in granting approval or conditional approval, also find that all of the following criteria are met or will be met when the conditions to which the approval is made subject are complied with.

Please review and provide a written response indicating how the proposed Planned Unit Development will meet these criteria:

1. SUPERIOR DESIGN

The PUD represents a more creative approach to the unified planning of development and incorporates a higher standard of integrated design and amenity than could be achieved under otherwise applicable zoning district and subdivision regulations, and solely on this basis modifications to the use and design standards established by such regulations are warranted.

Applicant Response: Straight Subdivision / Plan-Plat

2. MEETS PUD REQUIREMENTS

The PUD meets the requirements for Planned Unit Developments set forth in Warrenville Zoning Ordinance, and no modifications to the use and design standards otherwise applicable are allowed other than those permitted herein.

Applicant Response:

Preliminary Plan - Final Plat intended to meet application needs and conditions without any variation requests

3. CONSISTENT WITH CITY PLAN

The PUD is generally consistent with the objectives of the City Comprehensive Plan as viewed in light of any changed conditions since its adoption.

Applicant Response:

The Plat/Final Plat designed to meet all application conditions and meet Comprehensive Plan for design and uses

4. PUBLIC WELFARE

The PUD will not be detrimental to the public health, safety, morals, or general welfare.

Applicant Response:

This commercial development should be in line with nearby uses and in no way detrimental to public health, safety, morals or general welfare.

5. COMPATIBLE WITH ENVIRONS

Neither the PUD nor any portion thereof will be injurious to the use and enjoyment of other properties in its vicinity, seriously impair property values or environmental quality in the neighborhood, nor impede the orderly development of surrounding property.

Applicant Response: The Plan/Plat and uses as intended are compatible with adjoining uses along Rte 59 and in no way injurious to use or enjoyment of other properties in vicinity of the development

6. NATURAL FEATURES

The design of the PUD is as consistent as practical with the preservation of natural features of the site such as flood plains, wooded areas, steep slopes, natural drainage ways, or other areas of sensitive or valuable environmental character.

Applicant Response: N/A

7. CIRCULATION

Streets, sidewalks, pedestrian ways, bicycle paths, off-street parking, and off-street loading as appropriate to the planned land uses are provided. They are adequate in location, size, capacity, and design to ensure safe and efficient circulation of automobiles, trucks, bicycles, pedestrians, fire trucks, garbage trucks, and snow plows as appropriate without blocking traffic, creating unnecessary pedestrian-vehicular conflict, creating unnecessary through traffic within the PUD, or unduly interfering with the safety or capacity of adjacent streets

Applicant Response: All designs have been created in compliance of city requirements and applicable ordinances. Circulation designed for safety and smooth transitions

8. OPEN SPACES AND LANDSCAPING

The quality and quantity of public and common open spaces and landscaping provided are consistent with the higher standards of design and amenity required of a PUD. The size, shape, and location of a substantial portion of total public and common open space provided in residential areas render it useable for recreation purposes.

Open space between all buildings is adequate to allow for light and air, access by fire fighting equipment, and for privacy where walls have windows, terraces, or adjacent patios. Open space along the perimeter of the development is sufficient to protect existing and permitted future uses of adjacent property from adverse effects from the development.

Applicant Response: Design of open areas designed consistent with generally accepted principals and City Ordinances

9. COVENANTS

Where individual parcels are to be later sold, adequate provision has been made in the form of deed restrictions, homeowners or condominium associations, or the like for:

a. The preservation and maintenance of any open spaces, thoroughfares, utilities, water retention or detention areas, and other common elements not to be dedicated to the City or another public body

b. Such control of the use and exterior design of individual structures, if any, as is necessary for continuing conformance to the PUD Plan, such provision to be binding on all future ownership.

Applicant Response: Covenants in formation, no significant shared expenses required nor applicable

10. PUBLIC SERVICES

The land uses, intensities, and phasing of the PUD are consistent with the anticipated ability of the City, the school districts, and other public bodies to provide and economically support police and fire protection, water supply, sewage disposal, schools, and other public facilities and services without placing undue burden on existing residents and businesses.

Applicant Response: The uses proposed and allowable should not put any undue burden upon residents of other businesses in the City.

11. PHASING

Each development phase of the PUD can, together with any phases that preceded it, exist as an independent unit that meets all of the foregoing criteria and all other applicable regulations herein even if no subsequent phase should ever be completed. The provision and improvement of public or common area improvements, open spaces, and amenities--or the provision of financial sureties guaranteeing their improvement--is phased generally proportionate to the phasing of the number of dwelling units or amount of non-residential floor area.

Applicant Response: N/A - Commercial

THE ABOVE INFORMATION IS TRUE AND ACCURATE TO THE BEST OF MY KNOWLEDGE AND BELIEF

Mitchell Zawedzki
Signature of Applicant/Agent

Mitchell Zawedzki
(Print Name)

February 2025
Application Date

DREAM CLEAN RESUBDIVISION

IN THE CITY OF WARRENVILLE, ILLINOIS

IN PART OF SECTION 33 AND SECTION 34, TOWNSHIP 39 NORTH, RANGE 9, EAST OF THE THIRD PRINCIPAL MERIDIAN, IN DU PAGE COUNTY, ILLINOIS.

PIN
04-33-403-003
04-33-403-006
04-33-403-007
04-33-403-008

RECORDER'S CERTIFICATE

STATE OF ILLINOIS)
COUNTY OF DUPAGE) SS

I, THE UNDERSIGNED, AS THE RECORDER OF DEEDS FOR _____ COUNTY DO HEREBY CERTIFY THAT INSTRUMENT NUMBER _____ WAS FILED FOR RECORD IN THE RECORDER'S OFFICE OF _____ COUNTY, ILLINOIS, ON THE _____ DAY OF _____, A.D., 20_____ AT _____ O'CLOCK ___M.

_____
RECORDER OF DEEDS

_____
PLEASE TYPE/PRINT NAME

COUNTY CLERK CERTIFICATE

STATE OF ILLINOIS)
COUNTY OF DuPAGE)SS

I, THE UNDERSIGNED, AS COUNTY CLERK OF DuPAGE COUNTY, ILLINOIS, DO HEREBY CERTIFY THAT THERE ARE NO DELINQUENT GENERAL TAXES, NO UNPAID OR FORFEITED TAXES, AND NO REDEEMABLE TAX SALES AGAINST ANY OF THE LAND DEPICTED HEREON.

I FURTHER CERTIFY THAT I HAVE RECEIVED ALL STATUTORY FEES IN CONNECTION WITH THE PLAT DEPICTED HEREON.

GIVEN UNDER MY HAND AND SEAL OF THE COUNTY CLERK AT WHEATON, ILLINOIS, THIS _____ DAY

OF _____ , A.D., 20_____.

_____
COUNTY CLERK

_____
PLEASE TYPE/PRINT NAME

CITY COUNCIL CERTIFICATE

STATE OF ILLINOIS)
COUNTY OF DUPAGE) SS

THIS IS TO CERTIFY THAT THE CITY COUNCIL OF THE CITY OF WARRENVILLE, DUPAGE COUNTY, ILLINOIS, HAS REVIEWED AND APPROVED THIS PLAT.

DATED AT WARRENVILLE, DUPAGE COUNTY, ILLINOIS, THIS ___ DAY OF _____20___.

_____
MAYOR

ATTEST:

_____
CITY CLERK

CITY CLERK'S CERTIFICATE

STATE OF ILLINOIS)
COUNTY OF DUPAGE) SS

I, _____ CITY CLERK OF THE CITY OF WARRENVILLE, ILLINOIS HEREBY CERTIFY THAT THE PLAT WAS PRESENTED TO AND BY RESOLUTION DULY APPROVED BY THE CITY COUNCIL OF SAID CITY AT ITS MEETING HELD ON _____, 20___, AND THAT THE REQUIRED BOND OR OTHER GUARANTEE HAS BEEN POSTED FOR THE COMPLETION OF THE IMPROVEMENTS REQUIRED BY THE REGULATIONS OF SAID CITY.

IN WITNESS WHEREOF, I HAVE HERETO SET MY HAND AND SEAL OF THE CITY OF WARRENVILLE, ILLINOIS,

THIS _____ DAY OF _____, 20___.

_____
CITY CLERK

CITY ENGINEER'S CERTIFICATE

STATE OF ILLINOIS)
COUNTY OF DUPAGE) SS

I, _____, CITY ENGINEER OF THE CITY OF WARRENVILLE, ILLINOIS, HEREBY CERTIFY THAT THE LAND IMPROVEMENTS DESCRIBED IN THE PLAT, AND THE PLANS AND SPECIFICATIONS THEREFORE, MEET THE MINIMUM REQUIREMENTS OF SAID CITY AND HAVE BEEN APPROVED BY ALL PUBLIC AUTHORITIES HAVING JURISDICTION THEREOF.

DATED AT WARRENVILLE, DUPAGE COUNTY, ILLINOIS THIS _____ DAY OF _____, 20___.

_____
CITY ENGINEER

_____
REGISTRATION NUMBER

PLAN COMMISSION CERTIFICATE

STATE OF ILLINOIS)
COUNTY OF DUPAGE) SS

THIS IS TO CERTIFY THAT THE MEMBERS OF THE PLAN COMMISSION OF THE CITY OF WARRENVILLE, ILLINOIS HAVE REVIEWED AND APPROVED THIS PLAT.

DATED AT WARRENVILLE, DUPAGE COUNTY, ILLINOIS THIS _____ DAY OF _____, 20___.

_____
CHAIRMAN

_____
SECRETARY

SCHOOL DISTRICT BOUNDARY STATEMENT

THE UNDERSIGNED, BEING DULY SWORN, UPON HIS/HER OATH DEPOSES AND STATES AS FOLLOWS:

THE HE/SHE IS THE OWNER OF THE PROPERTY LEGALLY DESCRIBED ON A PROPOSED PLAT OF SUBDIVISION SUBMITTED TO THE CITY FOR APPROVAL, WHICH LEGAL DESCRIPTION IS ATTACHED HERETO AND INCORPORATED BY REFERENCE HEREIN AND TO THE BEST OF THE OWNER'S KNOWLEDGE, THE SCHOOL DISTRICT(S) IN WHICH EACH TRACT, PARCEL, LOT OR BLOCK OF THE PROPOSED SUBDIVISION LIES IS/ARE:

COMMUNITY UNIT SCHOOL DISTRICT 200, 130 WEST PARK AVE., WHEATON, IL 60189

COMMUNITY COLLEGE DISTRICT: COLLEGE OF DUPAGE 502, 425 FAWELL BLVD. GLEN ELLYN, IL 60137

DATED THIS _____ DAY OF _____, 2017.

_____
OWNER

ILLINOIS DEPARTMENT OF TRANSPORTATION CERTIFICATE

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.

_____
JOSE RIOS, P.E.

REGION ONE ENGINEER

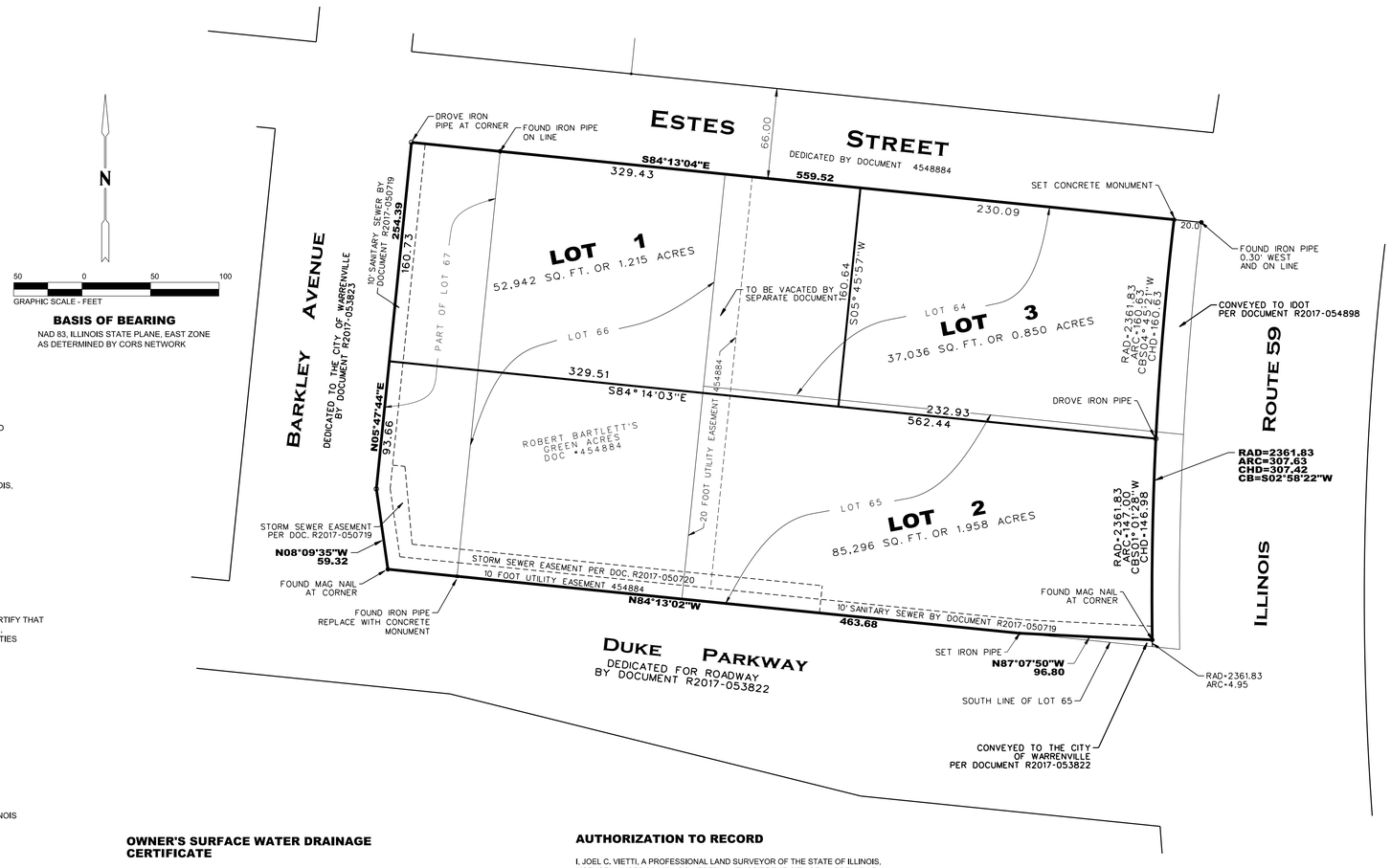
CITY COLLECTOR CERTIFICATE

STATE OF ILLINOIS)
COUNTY OF DUPAGE) SS

I, _____, COLLECTOR FOR THE CITY OF WARRENVILLE, ILLINOIS DO HEREBY CERTIFY THAT THERE ARE NO DELINQUENT OR UNPAID CURRENT OR FORFEITED SPECIAL ASSESSMENTS OR ANY DEFERRED INSTALLMENTS THEREOF THAT HAVE NOT BEEN APPORTIONED AGAINST THE TRACT, INCLUDED IN THE PLAT

DATED AT WARRENVILLE, DUPAGE COUNTY, ILLINOIS THIS _____ DAY OF _____, 20___.

_____
CITY COLLECTOR



OWNER'S SURFACE WATER DRAINAGE CERTIFICATE

STATE OF ILLINOIS)
COUNTY OF DUPAGE) ss

THIS IS TO CERTIFY THAT OWNER(S) OF THE LAND HEREIN DESCRIBED OR DULY AUTHORIZED ATTORNEY CERTIFY THAT TO THE BEST OF MY 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 BE CHANGED, ADEQUATE PROVISION HAS BEEN MADE FOR 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

_____
SIGNATURE AND TITLE

_____
ADDRESS

_____

_____

DATED THIS _____ DAY OF _____, 20____.

AUTHORIZATION TO RECORD

I, JOEL C. VIETTI, A PROFESSIONAL LAND SURVEYOR OF THE STATE OF ILLINOIS, LICENSE NUMBER 35-3561, DO HEREBY AUTHORIZE THE CITY OF WARRENVILLE, DUPAGE COUNTY, ITS STAFF OR AUTHORIZED AGENT, TO PLACE THIS DOCUMENT OF RECORD IN THE COUNTY RECORDER'S OFFICE IN MY NAME AND IN COMPLIANCE WITH ILLINOIS STATUES CHAPTER 109 PARAGRAPH 2, AS AMENDED.

SIGNED AT WHEATON, ILLINOIS THIS _____ DAY OF _____, A.D., 20__

WEBSTER, McGRATH AND AHLBERG, LTD.

BY:_____

IL. PROF. LAND SURVEYOR NO. 3561
LICENSE EXPIRATION DATE: NOVEMBER 30, 2026
2100 MANCHESTER ROAD, SUITE 203
WHEATON, ILLINOIS 60187
PHONE; (630) 668-7603

ACCESS NOTES

1. THERE SHALL BE NO DIRECT VEHICULAR ACCESS TO ILLINOIS ROUTE 59.
2. ALL ACCESS TO ILLINOIS ROUTE 59 SHALL BE FROM INTERNAL CIRCULATION.

ENGINEER'S SURFACE WATER DRAINAGE CERTIFICATE

STATE OF ILLINOIS)
COUNTY OF DUPAGE) ss

THIS IS TO CERTIFY THAT I, A REGISTERED PROFESSIONAL ENGINEER, CERTIFY THAT TO THE BEST OF MY KNOWLEDGE AND BELIEF THAT DRAINAGE OF SURFACE WATERS WILL NOT BE CHANGED BY CONSTRUCTION OF SUCH SUBDIVISION OR ANY PART THEREOF, OR THAT IF SUCH SURFACE WATER DRAINAGE WILL BE CHANGED, ADEQUATE PROVISIONS HAVE BEEN MADE FOR COLLECTION AND DIVERSION OF SUCH SURFACE WATERS INTO PUBLIC AREAS, OR DRAINS WHICH THE SUBDIVIDER HAS THE 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 THIS _____ DAY OF _____, 20__.

WEBSTER, McGRATH AND AHLBERG, LTD.

BY:_____
ENGINEER

LICENSE EXPIRATION DATE: NOVEMBER 30, 2025
2100 MANCHESTER ROAD, SUITE 203
WHEATON, ILLINOIS 60187
PHONE: (630) 668-7603

OWNER'S CERTIFICATE

STATE OF ILLINOIS)
COUNTY OF_____)SS

_____, AN ILLINOIS LIMITED LIABILITY COMPANY AUTHORIZED TO DO BUSINESS IN ILLINOIS, CERTIFIES THAT IT IS THE RECORD OWNER OF THE PROPERTY DESCRIBED IN THE SURVEYOR'S CERTIFICATE AFFIXED HEREON, AND THAT IT HAS CAUSED THE SAME TO BE SURVEYED AND SUBDIVIDED AS INDICATED HEREON FOR THE USES AND PURPOSES SET FOR AND DOES HEREBY CONSENTS TO THE SUBDIVISION OF SAID PROPERTY AND THE VARIOUS DEDICATIONS, GRANTS, RESERVATION OF EASEMENTS, AND RIGHTS OF WAY SHOWN HEREON,

DATED THIS _____ DAY OF _____, A.D., 20_____.

_____
SIGNATURE TITLE

_____
ADDRESS

_____

NOTARY'S CERTIFICATE

STATE OF ILLINOIS)
COUNTY OF_____) SS

I, THE UNDERSIGNED, A NOTARY PUBLIC IN AND FOR THE AFORESAID COUNTY AND STATE, DO HEREBY CERTIFY THAT THE FOREGOING SIGNATOR OF THE OWNER'S CERTIFICATE IS PERSONALLY KNOWN TO ME TO BE THE SAME PERSON WHOSE NAME IS SUBSCRIBED TO THE FOREGOING INSTRUMENT, AND THAT SAID INDIVIDUAL APPEARED AND DELIVERED SAID INSTRUMENT AS A FREE AND VOLUNTARY ACT OF THE CORPORATION AND THAT SAID INDIVIDUAL DID ALSO THEN AND THERE ACKNOWLEDGE THAT HE OR SHE IS A CUSTODIAN OF THE CORPORATE SEAL OF SAID CORPORATION AND DID AFFIX SAID SEAL OF SAID CORPORATION TO SAID INSTRUMENT AS HIS OR HER OWN FREE AND VOLUNTARY ACT AND AS THE FREE AND VOLUNTARY ACT OF SAID CORPORATION, AS OWNER, FOR THE USES AND PURPOSES THEREIN SET FORTH IN AFORESAID INSTRUMENT.

GIVEN UNDER MY HAND AND NOTARIAL SEAL THIS _____ DAY OF _____

A.D., 20____.

BY:_____
NOTARY

_____
PRINT NAME

SURVEYOR'S CERTIFICATE

STATE OF ILLINOIS)
COUNTY OF DuPAGE)SS

THIS IS TO CERTIFY THAT WEBSTER, McGRATH AND AHLBERG, LTD., HAVE SURVEYED AND SUBDIVIDED THE FOLLOWING DESCRIBED PROPERTY:

LOTS 64, 65, 66 AND 67 IN ROBERT BARTLETT'S GREEN ACRES, BEING A SUBDIVISION IN THE EAST HALF OF SECTION 33 AND THE WEST HALF OF SECTION 34, TOWNSHIP 39 NORTH, RANGE 9 EAST OF THE THIRD PRINCIPAL MERIDIAN, ACCORDING TO THE PLAT THEREOF RECORDED OCTOBER 20, 1943 AS DOCUMENT 454884, IN DUPAGE COUNTY, ILLINOIS.

EXCEPTING THEREFROM THE EAST 20 FEET OF SAID LOTS 64 AND 65 (AS MEASURED ON THE NORTH LINE OF LOT 64 AND ON THE SOUTH LINE OF LOT 65) CONVEYED TO IDOT PER THE PLAT OF DEDICATION RECORDED JUNE 5, 2017 AS DOCUMENT 054898.

AND EXCEPTING THEREFROM A PART OF SAID LOT 65 CONVEYED TO IDOT PER THE PLAT OF DEDICATION RECORDED JUNE 1, 2017 AS DOCUMENT 053822, IN DUPAGE COUNTY, ILLINOIS, BEING FURTHER DESCRIBED AS FOLLOWS:THAT PART OF LOT 65 OF ROBERT BARTLETT'S GREEN ACRES SUBDIVISION, RECORDED AS DOCUMENT 454884, DESCRIBED BY BEGINNING AT THE INTERSECTION OF THE SOUTH LINE OF SAID LOT 65 WITH A LINE 20 FEET WEST OF AND RADIAL DISTANT FROM THE WESTERLY RIGHT OF LINE OF ILLINOIS ROUTE 59 PER DOCUMENT 321382; THENCE NORTH 84 DEGREES 13 MINUTES 02 SECONDS WEST ALONG THE SOUTH LINE OF SAID LOT 65, A DISTANCE OF 97.25 FEET; THENCE NORTH 87 DEGREES 07 MINUTES 50 SECONDS EAST A DISTANCE OF 96.80 FEET TO A POINT ON SAID LINE WHICH IS 20 FEET WEST OF AND RADIAL DISTANT FROM SAID WESTERLY RIGHT OF WAY LINE; THENCE SOUTHERLY ALONG SAID LINE WHICH IS 20 FEET WEST OF AND RADIAL DISTANT FROM SAID WESTERLY RIGHT OF WAY LINE, BEING A CURVE TO THE LEFT, HAVING A RADIUS 2361.83 FEET, ARC DISTANCE OF 4.95 FEET, CHORD 4.95 FEET, BEARING SOUTH 00 DEGREES 49 MINUTES 00 SECONDS EAST TO THE POINT OF BEGINNING.

AND ALSO EXCEPTING THEREFROM THAT PART OF LOT 67 DEDICATED FOR BARKLEY AVENUE PER DOCUMENT R2017-053823, IN DUPAGE COUNTY, ILLINOIS.

WE FURTHER CERTIFY THAT THE PROPERTY SHOWN ON THE PLAT HEREON DRAWN IS WITHIN THE CORPORATE LIMITS OF THE CITY OF WARRENVILLE WHICH HAS AUTHORIZED A COMPREHENSIVE PLAN AND WHICH IS EXERCISING THE SPECIAL POWERS AUTHORIZED BY DIVISION 12 OF ARTICLE 11 OF THE ILLINOIS MUNICIPAL CODE AS HERETOFORE AND HEREAFTER AMENDED.

WE FURTHER CERTIFY THAT THIS PROPERTY IS WITHIN ZONES "UNSHADED X " (AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN). AS DESIGNATED BY THE FLOOD INSURANCE RATE MAP (F.I.R.M.) FOR DUPAGE COUNTY AND INCORPORATED AREAS , MAP NUMBER 17043C0129J, WITH AN EFFECTIVE DATE OF AUGUST 1, 2019.

THIS PROFESSIONAL SERVICE CONFORMS TO THE CURRENT ILLINOIS MINIMUM STANDARDS FOR A BOUNDARY SURVEY.

GIVEN UNDER MY HAND AND CORPORATE SEAL AT WHEATON, ILLINOIS, THIS _____

DAY OF _____, A.D., 20_____.

WEBSTER, McGRATH AND AHLBERG, LTD.

BY:_____

IL. PROF. LAND SURVEYOR NO. 3561
LICENSE EXPIRATION DATE: NOVEMBER 30, 2026
2100 MANCHESTER ROAD, SUITE 203
WHEATON, ILLINOIS 60187
PHONE; (630) 668-7603

LINE LEGEND

———	=	BOUNDARY LINE
———	=	LOT LINE
— — —	=	SETBACK LINE
— — —	=	EASEMENT LINE
— · — · —	=	SECTION LINE

Rev	Date	Description	By

WEBSTER, McGRATH & AHLBERG LTD.
WMA
LAND SURVEYING - CIVIL ENGINEERING - LANDSCAPE ARCHITECTURE
Over a Century of Service to our Clients
2100 Manchester Road, Building A, Suite 203 Wheaton, Illinois 60187
ph: (630)668-7603 web: www.wmaltd.com
Design Firm License No.: 184-003101

PLAT OF RESUBDIVISION

LOCATION: NORTHWEST CORNER ROUTE 59 AND DUKE PARKWAY WARRENVILLE, IL

PREPARED FOR: DREAM CLEAN OPERATING CO. LLC. 625 GREENLEAF AVENUE WILMETTE, ILLINOIS 60091 PHONE: 847.989.9287

JOB #:	DATE:	SCALE:
41516	2-4-2025	1"=50'
SURV: CB/JCV	DRAWN: CB/JCV	DESIGN: XXX
FILE #: D-26199 SUB		SHEET #: 1 of 1

Attachment C

PAVING LEGEND

- HMA PAVEMENT — 1.5" HMA N-50 SURFACE, 2" HMA N-50 BINDER", 10" AGGREGATE BASE
- HEAVY DUTY CONCRETE — 8" CONCRETE CLASS PV, 4" AGGREGATE BASE
- SIDEWALK — 6" CONCRETE CLASS SI, 4" AGGREGATE BASE

SITE DATA TABLE - PROPOSED DREAM CLEAN AND STARBUCKS

ROUTE 59 and DUKE PARKWAY, WARRENVILLE, IL
PIN 04-33-403-003,006,007,008

SITE AREA = 4.02 ACRES

BUILDING SETBACKS

FRONT - EAST	40 FEET
REAR - WEST	20 FEET
SIDE - NORTH	40 FEET
SIDE - SOUTH	15 FEET

LAND USE DATA - LOT 1

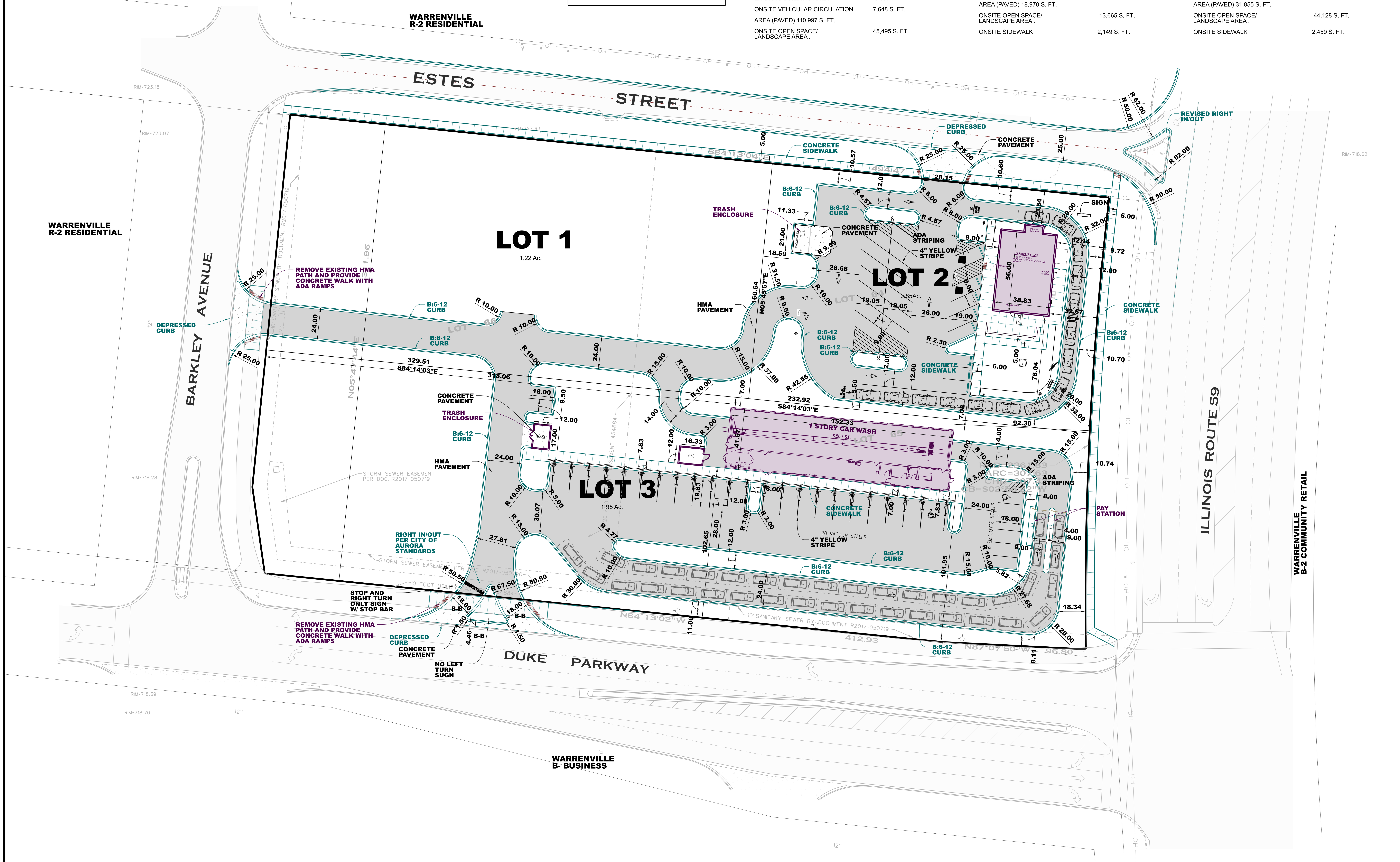
ZONING CATEGORY/ ZONING AGENCY	B-4, CITY OF WARRENVILLE
SITE AREA	1.22 AC.
EXISTING BUILDING AREA	0 S. FT.
ONSITE VEHICULAR CIRCULATION	7,648 S. FT.
AREA (PAVED) 110,997 S. FT.	
ONSITE OPEN SPACE/ LANDSCAPE AREA .	45,495 S. FT.

LAND USE DATA - LOT 2 - STARBUCKS

MAX. BUILDING HEIGHT	42 FEET ALLOWED
ZONING CATEGORY/ ZONING AGENCY	B-4, CITY OF WARRENVILLE
SITE AREA	0.85 AC.
STARBUCKS BUILDING AREA	2,242 S.FT
EXISTING BUILDING AREA	0 S. FT.
PARKING PROVIDED	22 SPACES
CAR STACKING PROVIDED	15 CARS
ONSITE VEHICULAR CIRCULATION	18,970 S. FT.
AREA (PAVED) 18,970 S. FT.	
ONSITE OPEN SPACE/ LANDSCAPE AREA .	13,665 S. FT.
ONSITE SIDEWALK	2,149 S. FT.

LAND USE DATA - LOT 3 - DREAM CLEAN

MAX. BUILDING HEIGHT	42 FEET ALLOWED
ZONING CATEGORY/ ZONING AGENCY	B-4, CITY OF WARRENVILLE
SITE AREA	1.95 AC.
DREAM CLEAN BUILDING AREA	6,500 S.FT
EXISTING BUILDING AREA	0 S. FT.
PARKING PROVIDED	20 SPACES
CAR STACKING PROVIDED	37 CARS
ONSITE VEHICULAR CIRCULATION	31,855 S. FT.
AREA (PAVED) 31,855 S. FT.	
ONSITE OPEN SPACE/ LANDSCAPE AREA .	44,128 S. FT.
ONSITE SIDEWALK	2,459 S. FT.



GRAPHIC SCALE - FEET (0, 30, 60)

DREAM CLEAN
R. 59 AND DUKE PARKWAY
WARRENVILLE , IL 60555

Prepared For:
Dream Clean Operating Company
625 Greenleaf Ave.
Wilmette, IL 60091
email: mzaveduk@dreamcleancw.com

ARCHAMERICA
34121 North US 45, Suite 213
Grayslake, Illinois 60030
Phone 847-957-7755

DREAM CLEAN CAR WASH

WEBSTER, MCGRATH & AHLBERG, LTD.
WMA
LAND SURVEYING - CIVIL ENGINEERING - LANDSCAPE ARCHITECTURE
Over 100 Years of Service to Clients
2100 MANCHESTER RD, BUILDING A, SUITE 203
WHEATON, ILLINOIS 60187
PH: (630)668-7603 WEB: WWW.WMALTD.COM
DESIGN FIRM LICENSE NO. 184-003101

REV#	DATE	REVISION DESCRIPTION	BY

Section-Township-Range
DuPage: 33/34 T 39N R 09E

JOB #	41516	SURV:	CB
DRAWN:	BMB	REVIEW:	SMR
SCALE:	1"=30'	DATE:	02-10-25

SHEET NAME
SITE PLAN

SHEET # **SP-1**

E:\ACTIVE-PROJECTS\41516-333909-DuPage\ENGR-BB\FINAL ENGINEERING PLANS\UNIT 6\Dream Clean and Starbucks\41516 Dream Clean.dgn, Model: SP-1, Date: 2/5/2025

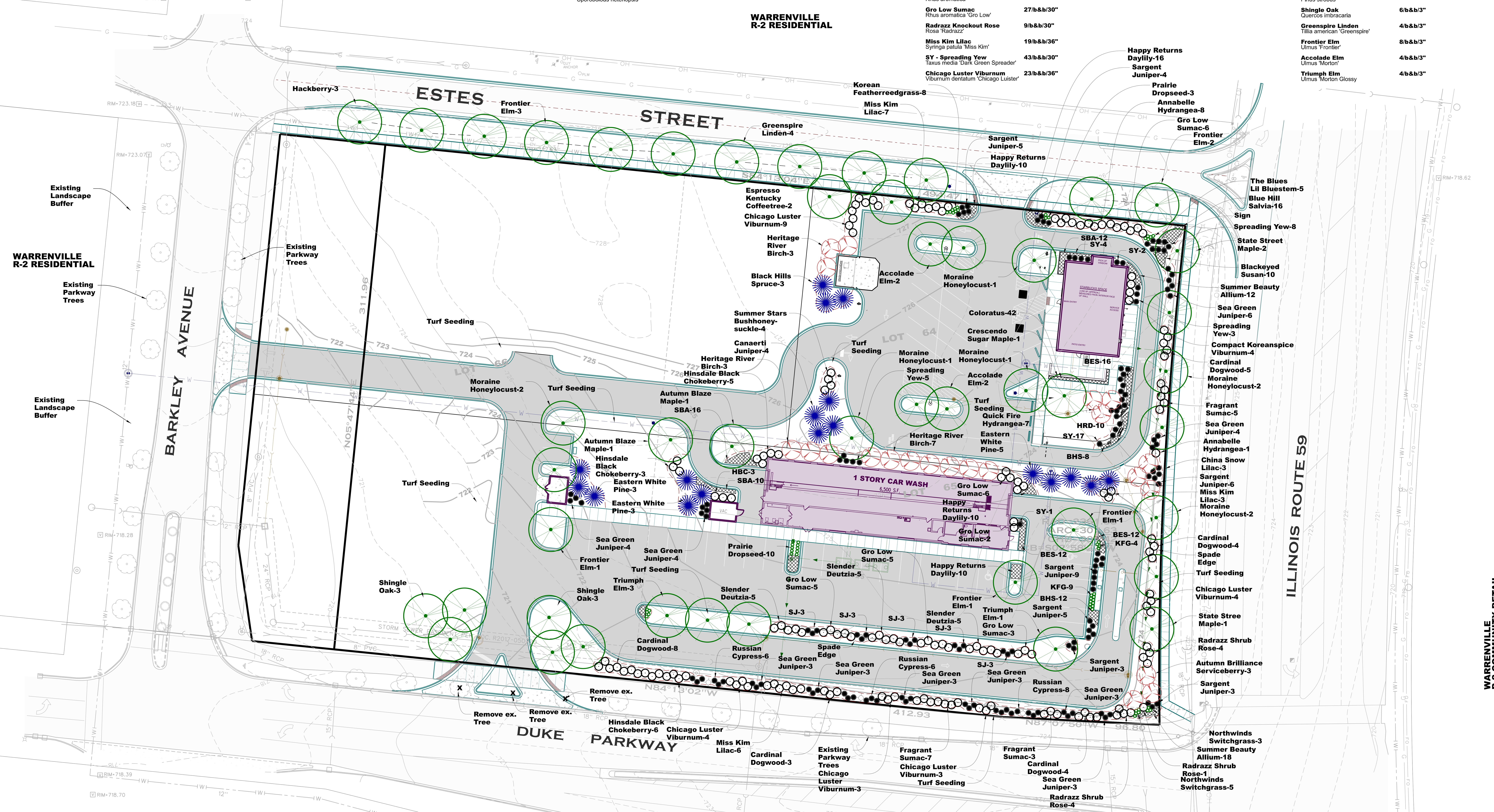
Attachment D

Perennials and Grasses	qty./root form/size
SBA - Summer Beauty Allium Allium tanguticum 'Summer Beauty'	68/pot/1 gal.
KFG - Korean Featherreedg. Calamgrostis brachytricha	21/pot/2 gal.
Coloratus Euonymus 'Coloratus'	42/pot/3"
HRD - Happy Returns Daylily Hemorcallis 'Happy Returns'	56/pot/1 gal.
Northwind Switchgrass Panicum virgatum 'Northwinds'	8/pot/ 1gal.
BES - Blackeyed Susan Rudbeckia fulgida 'Goldstrum'	38/pot/1 gal.
Blue Hill Salvia Salvia nemorosa 'Blue Hill'	36/pot/1 gal.
The Blues Lil Bluestem Schizachyrium scoparium	5/pot/1 gal.
Prairie Dropseed Sporobolous heterlopsis	13/pot/1 gal.

Ornamental Trees	qty./root form/size
Autumn Brilliance Serviceberry Amelanchier grandiflora 'Autumn Brilliance'	3/b&b/6'
Heritage River Birch Betula nigra 'Heritage'	13/b&b/8-10' clump
Quick Fire Hydrangea Magnolia soulangiana	3/b&b/6'
China Snow Lilac Syringa pekinensis 'Morton'	3/b&b/6'

Shrubs	qty./root form/size
Hinsdale Black Chokeberry Aronia melanocarpa 'Hinsdale'	17/b&b/36"
Cardinal Dogwood Cornus sericea 'Cardinal'	23/b&b/30"
Summer Stars Bushhoneysuck. Diervilla sessifolia 'Summer Stars'	4/b&b/36"
Slender Deutzia Deutzia gracillus	15/b&b/36"
Annabelle Hydrangea Hydrangea arborescens	9/b&b/36"
Sea Green Juniper Juniperus chinensis 'Sea Green'	30/b&b/30"
SJ - Sargent Juniper Juniperus chinensis 'Sargentii'	50/b&b/30"
Russian Cypress Microbiota decussata	20/b&b/30"
Fragrant Sumac Rhus aromatica	15/b&b/36"
Gro Low Sumac Rhus aromatica 'Gro Low'	27/b&b/30"
Radrazz Knockout Rose Rosa 'Radrazz'	9/b&b/30"
Miss Kim Lilac Syringa patula 'Miss Kim'	19/b&b/36"
SY - Spreading Yew Taxus media 'Dark Green Spreader'	43/b&b/30"
Chicago Luster Viburnum Viburnum dentatum 'Chicago Luister'	23/b&b/36"

TREES	qty./root form/size
Autumn Blaze Maple Acer freemanii 'Autumn Blaze'	2/b&b/3"
Crescendo Sugar Maple Acer saccharum 'Crerscendo'	1/b&b/3"
State Street Maple Acer miyabei 'Morton'	3/b&b/3"
Hackberry Celtis occidentails	3/b&b/3"
Moraine Honeylocust Gleditsia triacanthos inermis 'Moraine'	9/b&b/3"
Canaerti Juniper Juniperus virginiana 'Canaerti'	4/b&b/6'
Espresso Kentucky Coffeetree Gymnocladus diocau 'Espresso'	2/b&b/3"
Black Hills Spruce Picea glauca densata	3/b&b/6'
Eastern White Pine Pinus strobus	11/b&b/6'
Shingle Oak Quercos imbracaria	6/b&b/3"
Greenspire Linden Tillia american 'Greenspire'	4/b&b/3"
Frontier Elm Ulmus 'Frontier'	8/b&b/3"
Accolade Elm Ulmus 'Morton'	4/b&b/3"
Triumph Elm Ulmus 'Morton Glossy	4/b&b/3"



Parking Lot Perimeter Landscape Requirements:
100% of the street frontage shall be planted with continuous landscaping.

Route 59 and Estes Right of Way Landscape Requirements:
1 tree per 40 feet or 1 tree per 800 s.f. of parkway area

Parking Lot Landscape Requirements:
10% of the interior of the lot shall be devoted to landscaping

Duke Parkway Landscape Requirements:
Trees Previously Provided in ROW per City of Aurora Requirements.

Transitional Yard Landscaping:
Sreening with solid fence, trees at 50' spacing, and shrub masses two rows deep.
West transtional yard, variance to landscape code requested.

Trees and Shrub beds shall have a spaded edge and be mulched with shredded harwood mulch

0 30 60
GRAPHIC SCALE - FEET

DREAM CLEAN
R. 59 AND DUKE PARKWAY
WARRENVILLE , IL 60555

Prepared For:
Dream Clean Operating Company
625 Greenleaf Ave.
Wilmette, IL 60091
email: mzaveduk@dreamcleancw.com

ARCHAMERICA
34121 North US 45, Suite 213
Grayslake, Illinois 60030
Phone 847-957-7755

DREAM CLEAN CAR WASH

WEBSTER, MCGRATH & AHLBERG, LTD.
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LAND SURVEYING - CIVIL ENGINEERING - LANDSCAPE ARCHITECTURE
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2100 MANCHESTER RD, BUILDING A, SUITE 203
WHEATON, ILLINOIS 60187
PH: (630)668-7603 WEB: WWW.WMALTD.COM
DESIGN FIRM LICENSE NO. 184-003101

REV#	DATE	REVISION DESCRIPTION	BY

Section-Township-Range
DuPage: 33/34 T 39N R 09E

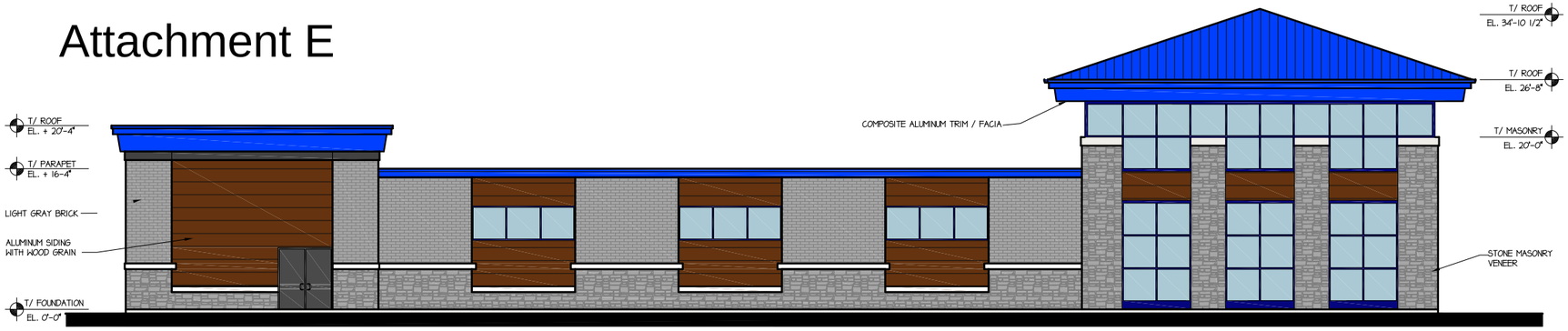
JOB #	41516	SURV:	CB
DRAWN:	BMB	REVIEW:	SMR
SCALE:	1"=30'	DATE:	02-10-25

SHEET NAME
LANDSCAPE PLAN

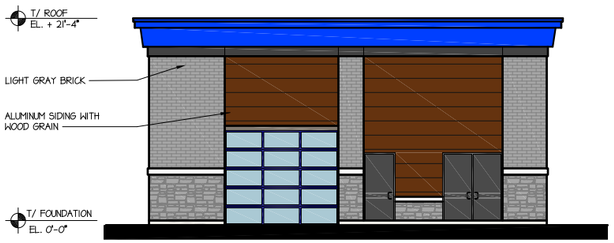
SHEET # L-1

E:\ACTIVE-PROJECTS\41516-333909-DuPage\ENGR-BB\FINAL ENGINEERING PLANS\UNIT 6\Dream Clean and Starbucks\41516 Dream Clean.dgn, Model: L-1, Date: 2/7/2025

Attachment E

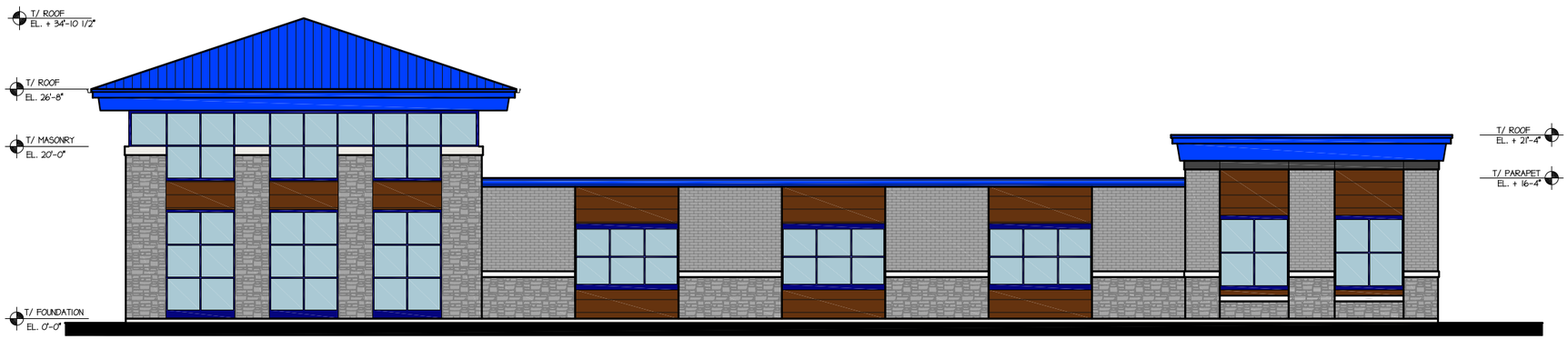


FRONT ELEVATION



SIDE ELEVATION TUNNEL EXIT

SIDE ELEVATION TUNNEL ENTRANCE



BACK ELEVATION

ARCHAMERICA
34121 N. US 45, Suite 213
Grayslake, Illinois 60030
Phone 847-336-6600
Fax 847-336-6601

Exterior Elevations

PROPOSED NEW CAR WASH

Dream Clean

WARRENVILLE, ILLINOIS

NOVEMBER 6, 2024

Archamerica Job No. 24086

Renderings

Renderings

Attachment F

NOTE : SHOWN FOR DESIGN INTENT ONLY.

STARBUCKS®
2401 UTAH AVENUE SOUTH
SEATTLE, WASHINGTON 98134
(206) 318-1575

SHEET TITLE:
3D RENDERINGS
(EXTERIOR VIEWS)
SCALE: AS SHOWN

SHEET NUMBER:
G003

Client Signature _____ Client Print Name _____ Date _____

☐ Artwork is APPROVED Proceed with order ☐ Make Changes & send NEW Proof ☐ Make Changes & Proceed with order

Attachment G

Dream Clean Car Wash
Branding Guidelines & Paint Colors

3M Translucent Vinyl
Olympic Blue

3M Translucent Vinyl
Sultan Blue

3M Translucent Vinyl
Black

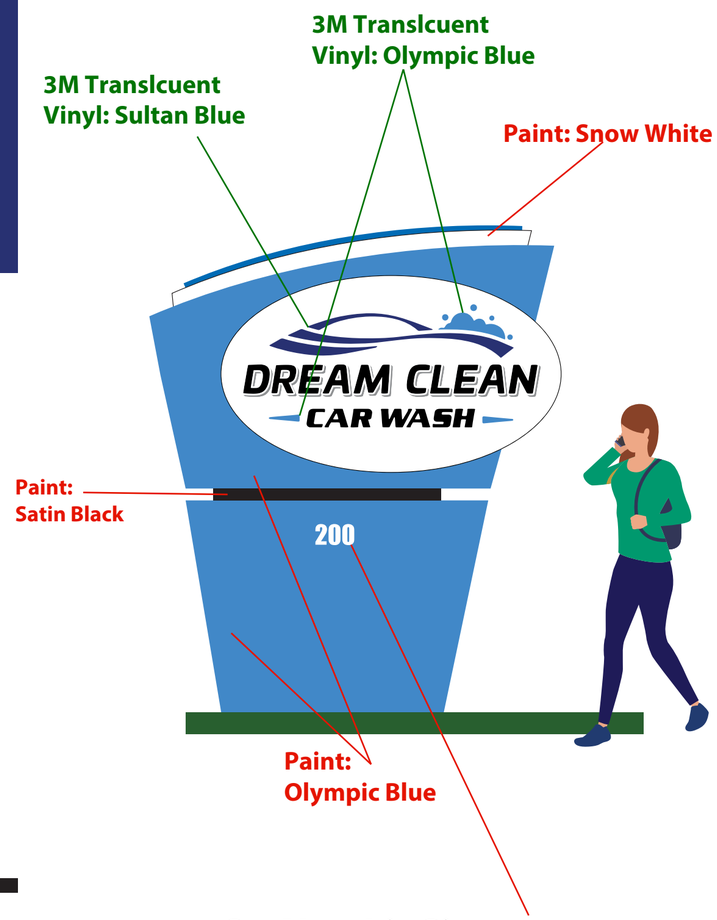
3M Translucent Vinyl
Slate Grey

Paint Match:
3M Olympic Blue
Satin Finish

Paint Match:
3M Sultan Blue
Satin Finish

Paint Match:
Mathews - Black
Satin Finish

Paint Match:
Mathews - Snow White
Satin Finish



On Non Lit Signage:
Reflective Vinyl
Color = White

CAR WASH

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We cannot accept changes or approvals verbally.
*IF YOUR JOB IS A RUSH TURNAROUND OR NEEDED ON A SPECIFIC DATE OR TIME, IT IS CLIENT'S RESPONSIBILITY TO LET OUR STAFF KNOW PRIOR TO ORDER APPROVAL OF YOUR ORDER. RUSH FEES WILL APPLY FOR LESS THAN 72 HR TURNAROUND TIME. NOT ALL JOBS CAN BE RUSHED.

COLORS DEPICTED ON THIS PROOF ARE PRINTED SIMULATIONS TO ASSIST IN VISUALIZING THE DESIGN. THEY MAY NOT ACCURATELY REFLECT THE ACTUAL COLOR SPECIFIED. ALL SCREENS SHOW COLORS IN VARIOUS WAYS. OURS SCREENS ARE COLOR CALIBRATED FOR DESIGN PROCESSES.

iC Signs & Graphics
"Your Eye For Creative Sign Solutions"

Job Name: Paint/Vinyl Guideline		Contact: Tim/Mitch	
Location: ALL Locations			
Design By: CH	Survey By: CLH	Sales Person: CLH	
Date: 2-25-25	Manufacturer: IC Signs & Graphics Inc. / Underwriters Laboratories	Drawing #: Pending	

417 Sheridan Rd. Highwood, IL 60040 P: 708.669.7177 E: Cory@icsignsinc.com W: icsignsinc.com

Client Signature _____ Client Print Name _____ Date _____

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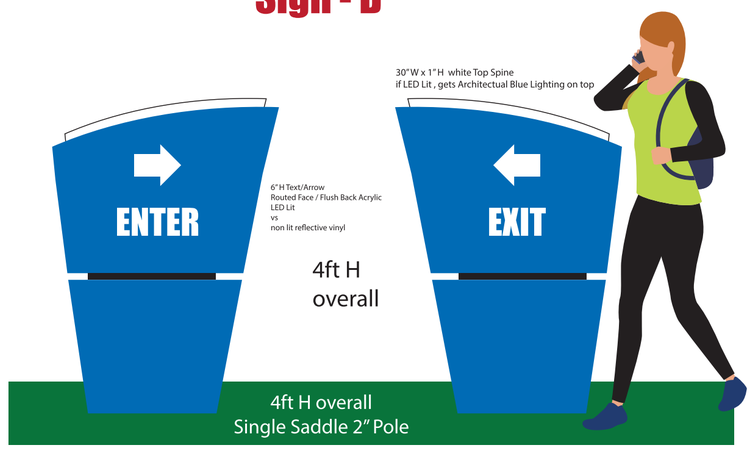
☐ Make Changes & Proceed with order

Sign - C

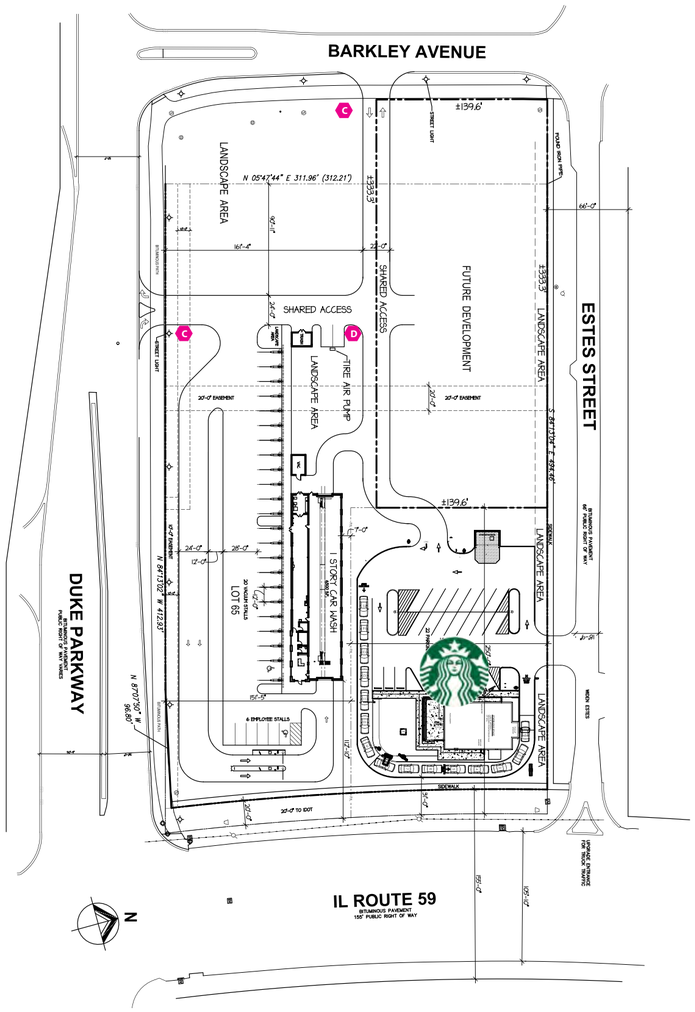
Enter / Exit - Directional Signs w/ Branded Logos Total Sq ft = 12 sqft

Sign - D



Enter / Exit - Directional Signs No Branded Logos Total Sq ft = 4 sqft

Per Village Signage: Directional Signage 3 Sq ft Per Sign



Site Plan Map = Sign C or D

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Job Name: Enter/Exit Directional		Contact: Tim/Mitch	
Location: Warrenville IL			
Design By: CH	Survey By: CLH	Sales Person: CLH	
Date: 2-25-25	Manufacturer: IC Signs & Graphics Inc. Underwriters Laboratories	Drawing #: Pending	

417 Sheridan Rd. Highwood, IL 60040 P: 708.669.7177 E: Cory@icsignsinc.com W: icsignsinc.com

Client Signature _____ Client Print Name _____ Date _____

☐ Artwork is APPROVED Proceed with order

☐ Make Changes & send NEW Proof

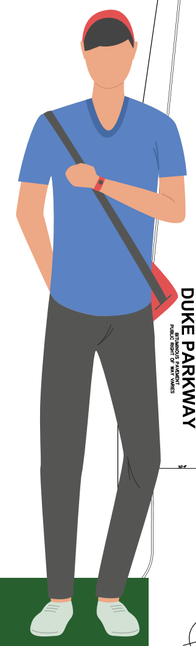
☐ Make Changes & Proceed with order

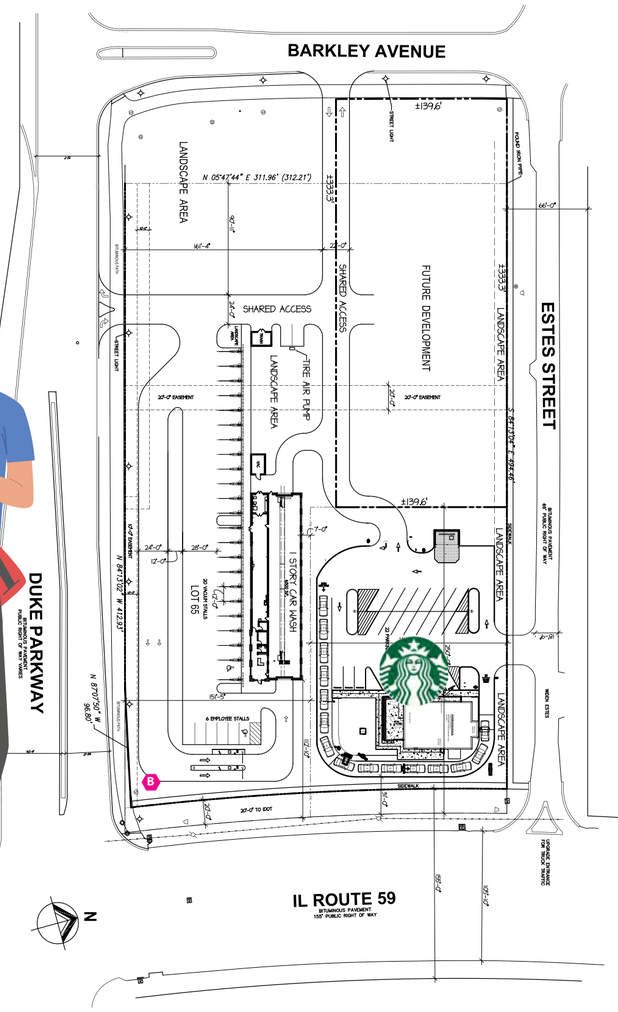
Nite View

Per Village Signage:
No Pole Signs allowed
Monument Style - 8ft H max - up to 50 sq ft MAX of signage including EMC Video per side
EMC Video allowed up to 16 sqft max

Total Sq ft = 38.16 sqft

Monument Style - shorter - 96" H Overall





Monument Style (Some villages may only Allow)
w/ EMC Video if allowed - Height may vary
***Note bases may be required to be fuax or real brick materials)**

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Job Name: Monument Signs		Contact: Tim/Mitch
Location: Warrenville IL		
Design By: CH	Survey By: CLH	Sales Person: CLH
Date: 2-25-25	Manufacturer: IC Signs & Graphics Inc. (UL Underwriters Laboratories)	Drawing #: Pending

417 Sheridan Rd. Highwood, IL 60040 P: 708.669.7177 E: Cory@icsignsinc.com W: icsignsinc.com

Client Signature _____ Client Print Name _____ Date _____

☐ Artwork is APPROVED Proceed with order

☐ Make Changes & send NEW Proof

☐ Make Changes & Proceed with order

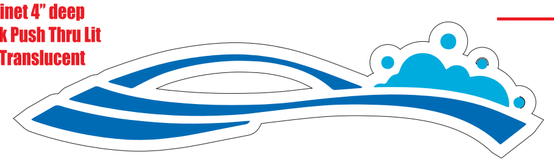
(i) recomended building signage Look

Sign - i-1 - Building Length Sides

Frontlit Channel Letters - Flush Mounted

90 sqft

Icon =
Shaped Cabinet 4" deep
w/ 1/2" Thick Push Thru Lit
Edge / Face Translucent



30" H x 120"

DREAM CLEAN

18" H x 180" W

CAR WASH

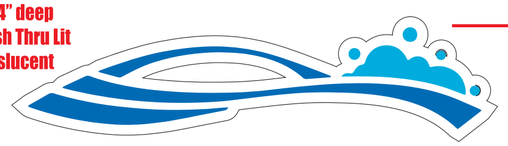
12" H x 144" W

72" H Overall

Sign - i-2 - Tunnel Exit/Enter

60 sqft

Icon =
Shaped Cabinet 4" deep
w/ 1/2" Thick Push Thru Lit
Edge / Face Translucent



26" H x 104"

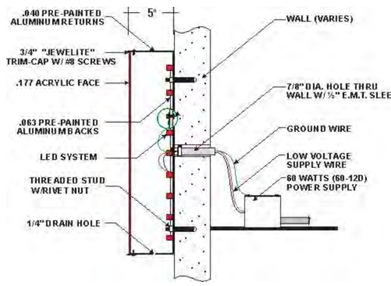
DREAM CLEAN

14.5" H x 144" W

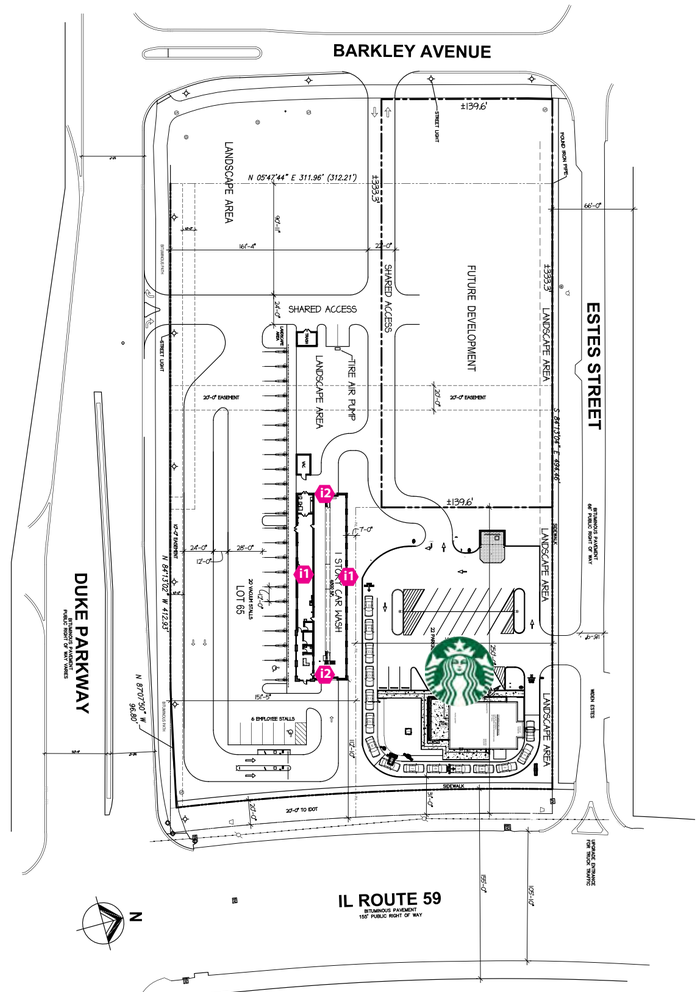
CAR WASH

8.75" H x 114" W

60" H Overall



Per Village Signage:
1.5 sq ft Linear building Sign Area
or 125 Sq ft Max
Per Building Frontage



Site Plan Map = Signs i1 or i2

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Job Name: Building Signs		Contact: Tim/Mitch	
Location: Warrenville IL			
Design By: CH	Survey By: CLH	Sales Person: CLH	
Date: 2-25-25	Manufacturer: IC Signs & Graphics Inc. UL Underwriters Laboratories	Drawing #: Pending	

417 Sheridan Rd. Highwood, IL 60040 P: 708.669.7177 E: Cory@icsignsinc.com W: icsignsinc.com

Client Signature _____ Client Print Name _____ Date _____

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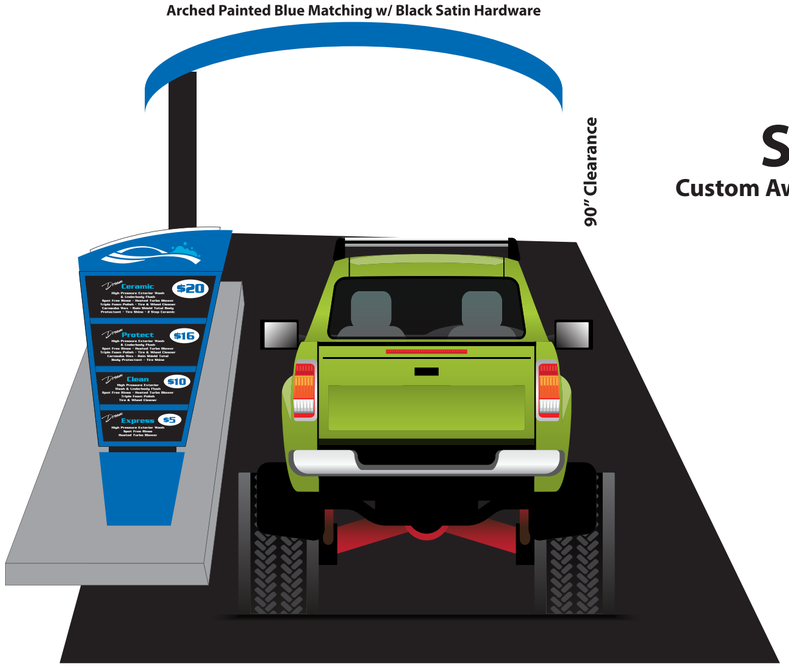
☐ Make Changes & send NEW Proof

☐ Make Changes & Proceed with order

10ft W overall
Arched Painted Blue Matching w/ Black Satin Hardware

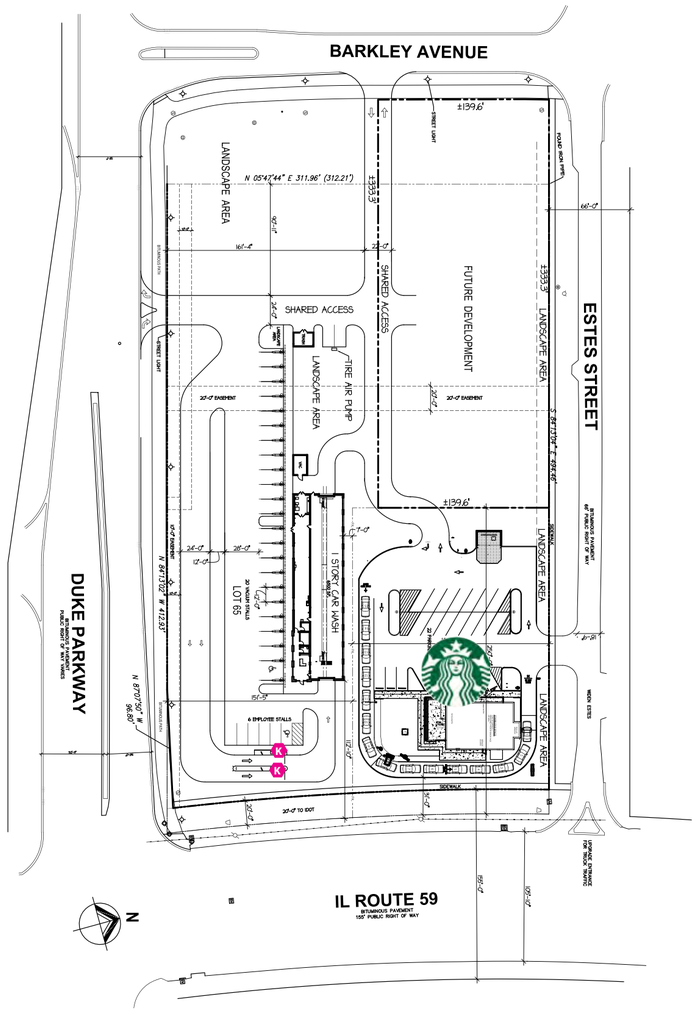


SIGN - K

Custom Awning Canopy Fabrication

5ft Wide

Per Village Signage:



Site Plan Map = Signs - K

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"Your Eye For Creative Sign Solutions"

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At IC Signs, we take pride in precision - but the final examination for accuracy is your responsibility. Before giving approval, please examine all proofs carefully for the accuracy of information presented, including spelling, punctuation, numbers, graphics, colors, sizes and general layout. Our normal production cycle will begin from the date approval is received.
We cannot accept changes or approvals verbally.
*IF YOUR JOB IS A RUSH TURNAROUND OR NEEDED ON A SPECIFIC DATE OR TIME, IT IS CLIENT'S RESPONSIBILITY TO LET OUR STAFF KNOW PRIOR TO ORDER APPROVAL OF YOUR ORDER. RUSH FEES WILL APPLY FOR LESS THAN 72 HR TURNAROUND TIME. NOT ALL JOBS CAN BE RUSHED.

COLORS DEPICTED ON THIS PROOF ARE PRINTED SIMULATIONS TO ASSIST IN VISUALIZING THE DESIGN. THEY MAY NOT ACCURATELY REFLECT THE ACTUAL COLOR SPECIFIED. ALL SCREENS SHOW COLORS IN VARIOUS WAYS. OURS SCREENS ARE COLOR CALIBRATED FOR DESIGN PROCESSES.

Job Name: Canopy - Pay Station		Contact: Tim/Mitch	
Location: Warrenville IL			
Design By: CH	Survey By: CLH	Sales Person: CLH	
Date: 2-25-25	Manufacturer: IC Signs & Graphics Inc. Underwriters Laboratories	Drawing #: Pending	

417 Sheridan Rd. Highwood, IL 60040 P: 708.669.7177 E: Cory@icsignsinc.com W: icsignsinc.com

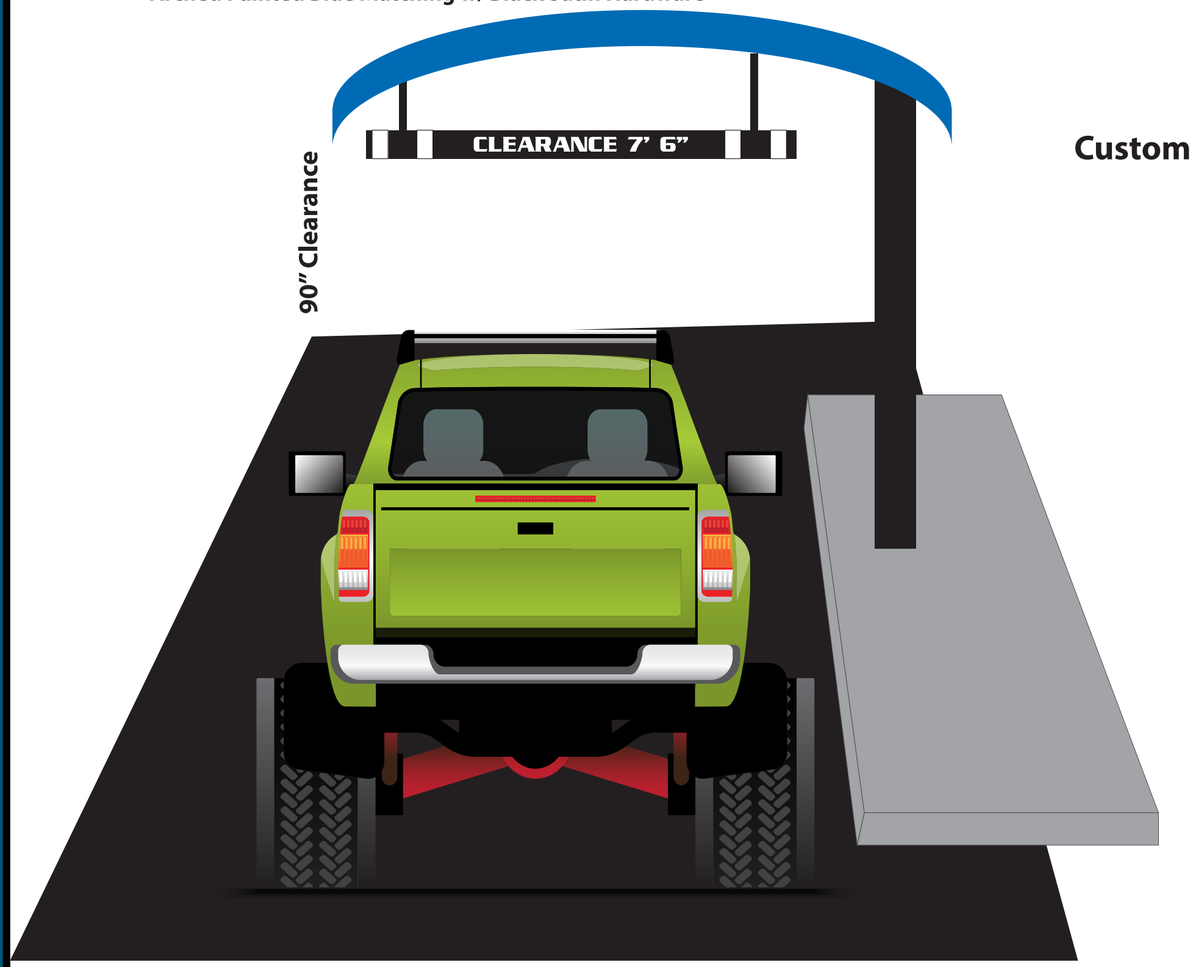
Client Signature _____ Client Print Name _____ Date _____

☐ Artwork is APPROVED Proceed with order

☐ Make Changes & send NEW Proof

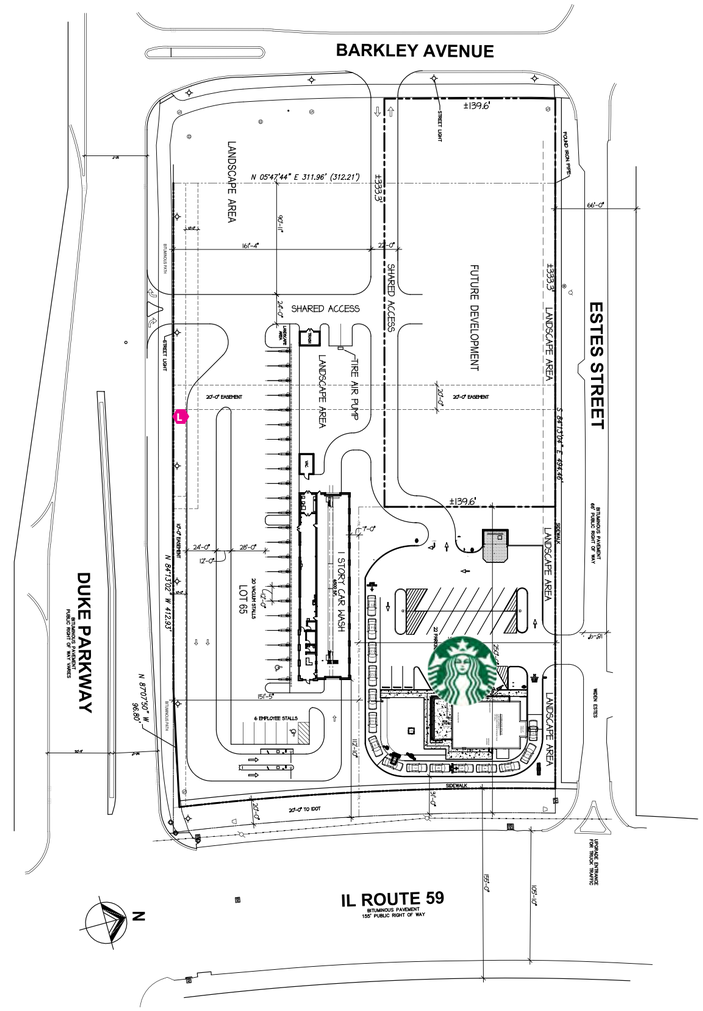
☐ Make Changes & Proceed with order

10ft W overall
Arched Painted Blue Matching w/ Black Satin Hardware



SIGN - L

Custom Clearance Bar - Fabrication



Site Plan Map = Signs - L

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Client is the last person to review the final details of this job per specifications provided on this proof. By providing your signature, printed name & date & checking the appropriate w/ Check Marking Your Choice above. You are responsible for any additional costs for errors missed on this job.

iC Signs & Graphics
"Your Eye For Creative Sign Solutions"

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Job Name: Clearance Bar		Contact: Tim/Mitch	
Location: Warrenville iL			
Design By: CH	Survey By: CLH	Sales Person: CLH	
Date: 2-25-25	Manufacturer: IC Signs & Graphics Inc. Underwriters Laboratories	Drawing #: Pending	

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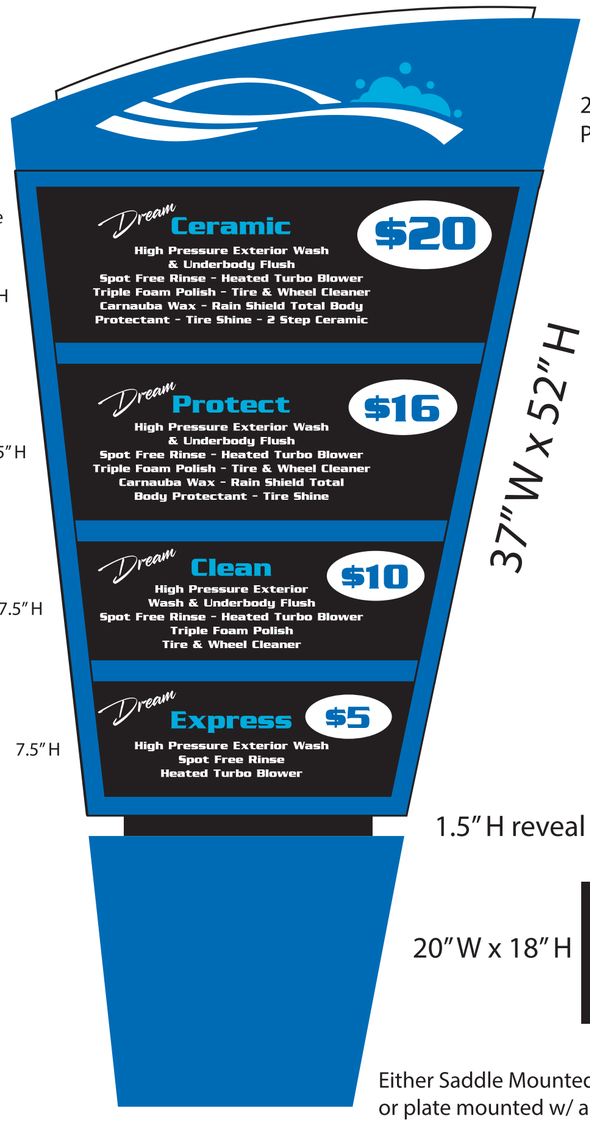
SIGN J

Single Sided - Custom Lit Cabinet - Menu Boards

30″W x 1″H white Top Spine

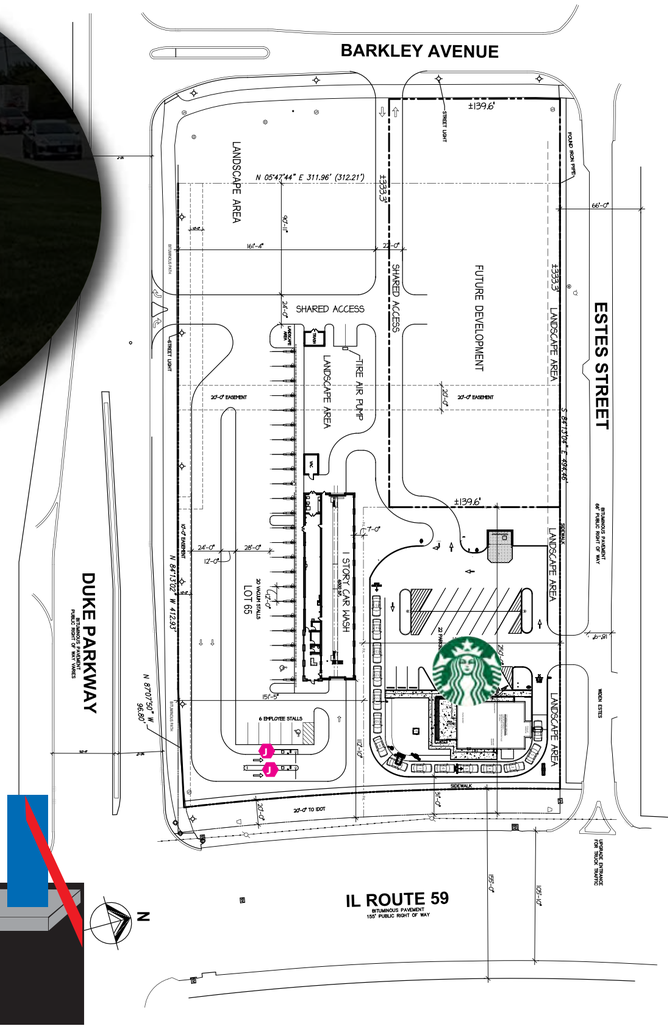
LED Lit , gets Architectual Blue Lighting on top



24″W x 5.5″
Push thru 1/2″ Lit

Either Saddle Mounted 2″ Pole
or plate mounted w/ anchor bolts

Per Village Signage:
Incidental Internal Signage
does not count against allowances



Site Plan Map = Signs J

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Job Name: Menu Boards		Contact: Tim/Mitch	
Location: Warrenville IL			
Design By: CH	Survey By: CLH	Sales Person: CLH	
Date: 2-25-25	Manufacturer: IC Signs & Graphics Inc. UL Underwriters Laboratories	Drawing #: Pending	

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Client Signature | Client Print Name | Date

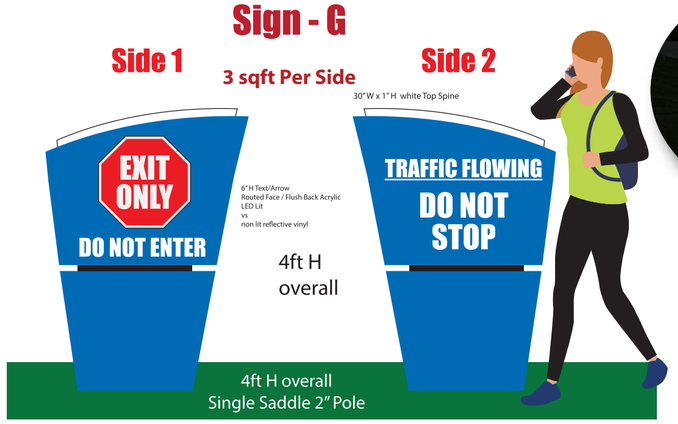
☐ Artwork is APPROVED Proceed with order

☐ Make Changes & send NEW Proof

☐ Make Changes & Proceed with order

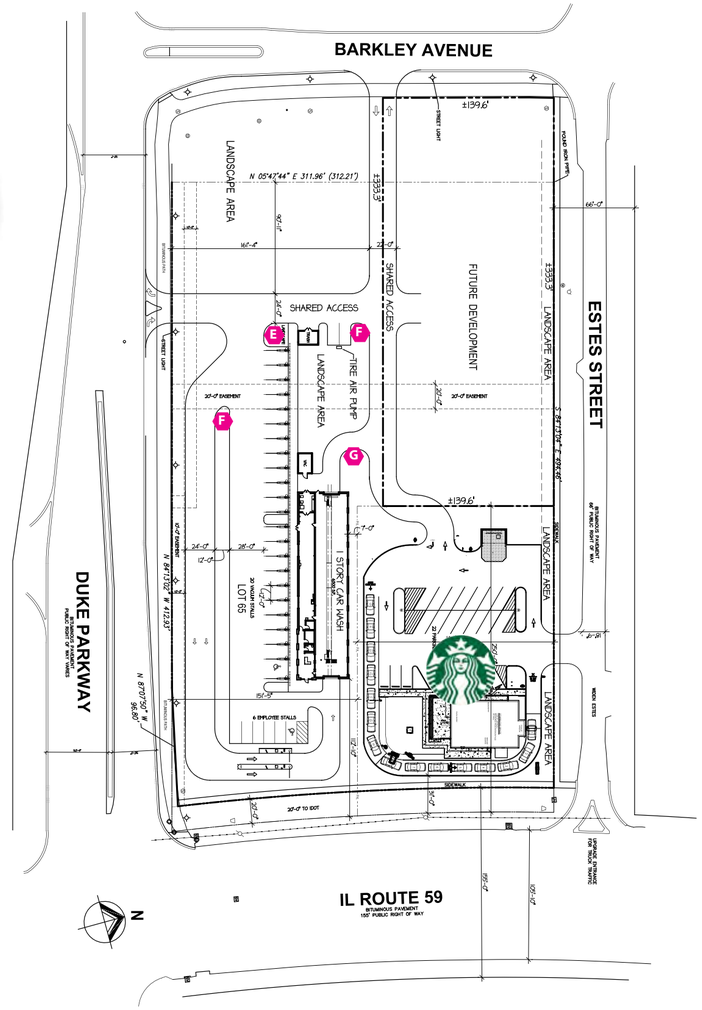
Per Village Signage:
Directional Signage
3 Sq ft Per Sign

Sign - G

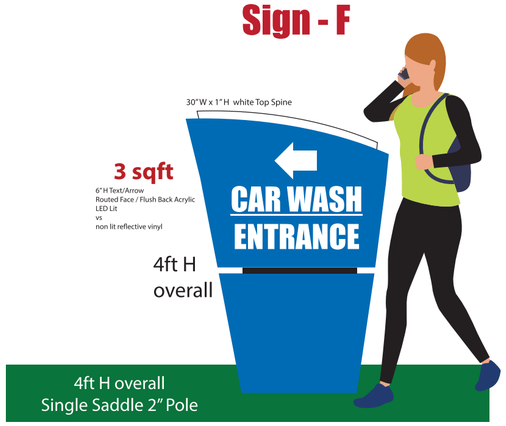


Tunnel Exit Signs
(when grass/soil is at exit)

Total Sq ft = 11.75 sqft
***text subject to change if needed**

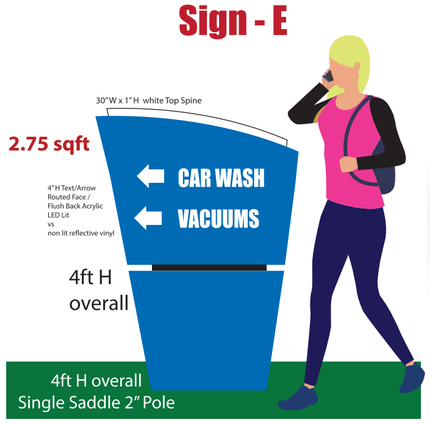


Sign - F



Directional Signs
For Internal Traffic Flow

Sign - E



Directional Signs
For Internal Traffic Flow

Site Plan Map = Signs E,F,G

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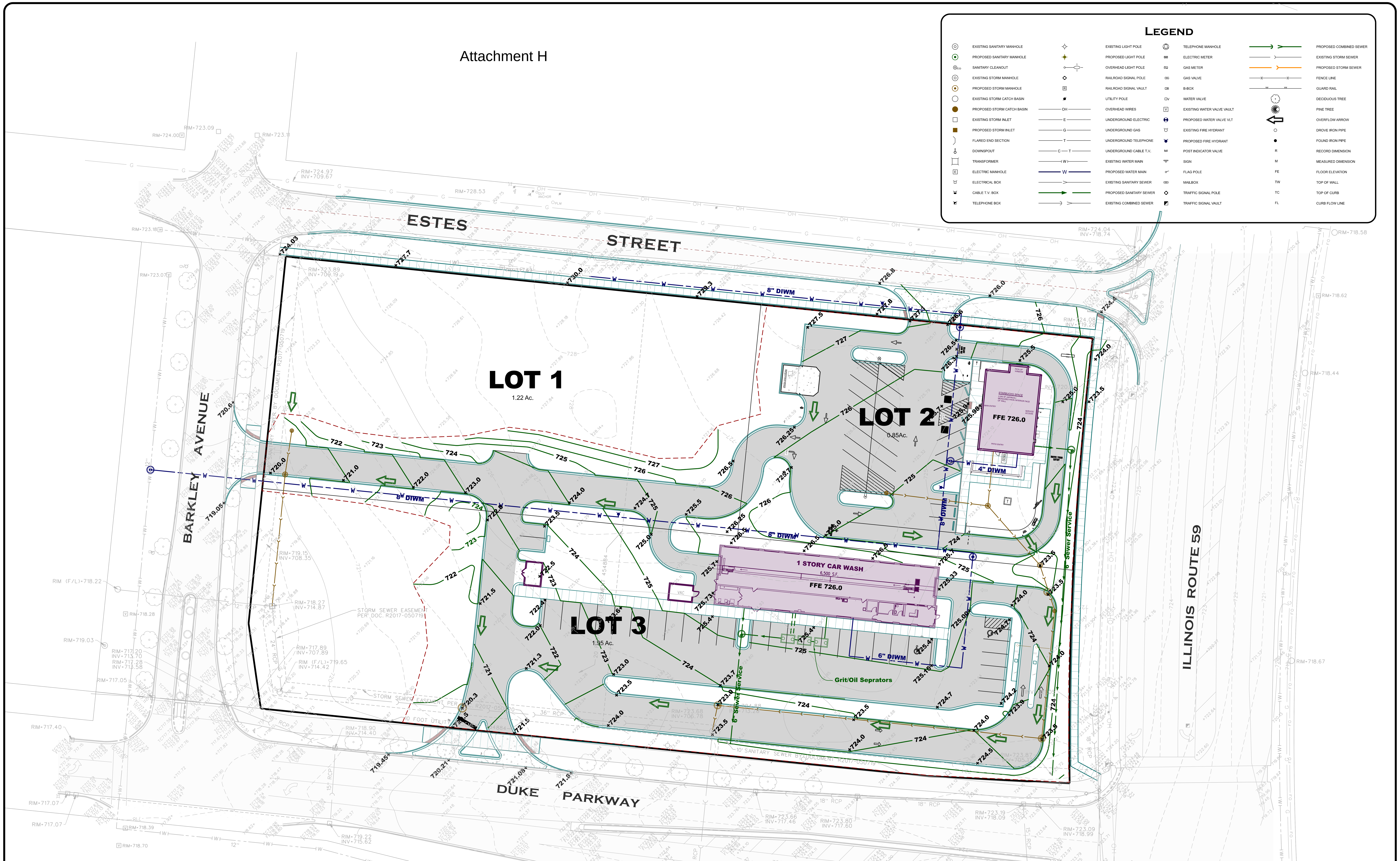
Job Name: Directional Signs		Contact: Tim/Mitch	
Location: Warrenville IL			
Design By: CH	Survey By: CLH	Sales Person: CLH	
Date: 2-25-25	Manufacturer: IC Signs & Graphics Inc. / Underwriters Laboratories	Drawing #: Pending	

417 Sheridan Rd. Highwood, IL 60040 P: 708.669.7177 E: Cory@icsignsinc.com W: icsignsinc.com

Attachment H



STORMWATER MANAGEMENT SUMMARY

DETENTION PROVIDED AS PART OF DUKE UNIT 6 BASIN	6.95 ac-ft
DETENTION REQUIRED FOR THORNTONS DEVELOPMENT + BASIN	4.42 ac-ft
DETENTION VOLUME AVAILABLE FOR DREAM CLEAN/STARBUCKS	2.53 ac-ft
PROPOSED PROJECT CN VALUE = (OUTSIDE OF DETENTION EASEMENT)	84
BASIN DESIGN CN VALUE =	87
EXISTING CONDITION IMPERVIOUS AREA =	0 AC.
DISTURBED AREA =	2.79 AC.

0 30 60
GRAPHIC SCALE - FEET

DREAM CLEAN
R. 59 AND DUKE PARKWAY
WARRENVILLE, IL 60555

Prepared For:
Dream Clean Operating Company
625 Greenleaf Ave.
Wilmette, IL 60091
email: mzaveduk@dreamcleancw.com

ARCH AMERICA
34121 North US 45, Suite 213
Grayslake, Illinois 60030
Phone 847-957-7755

DREAM CLEAN CAR WASH

WEBSTER, MCGRATH & AHLBERG, LTD.
WMA
LAND SURVEYING - CIVIL ENGINEERING - LANDSCAPE ARCHITECTURE
Over 100 Years of Service to Clients
2100 MANCHESTER RD, BUILDING A, SUITE 203
WHEATON, ILLINOIS 60187
PH: (630)668-7603 WEB: WWW.WMALTD.COM
DESIGN FIRM LICENSE NO. 184-003101

REV#	DATE	REVISION DESCRIPTION	BY

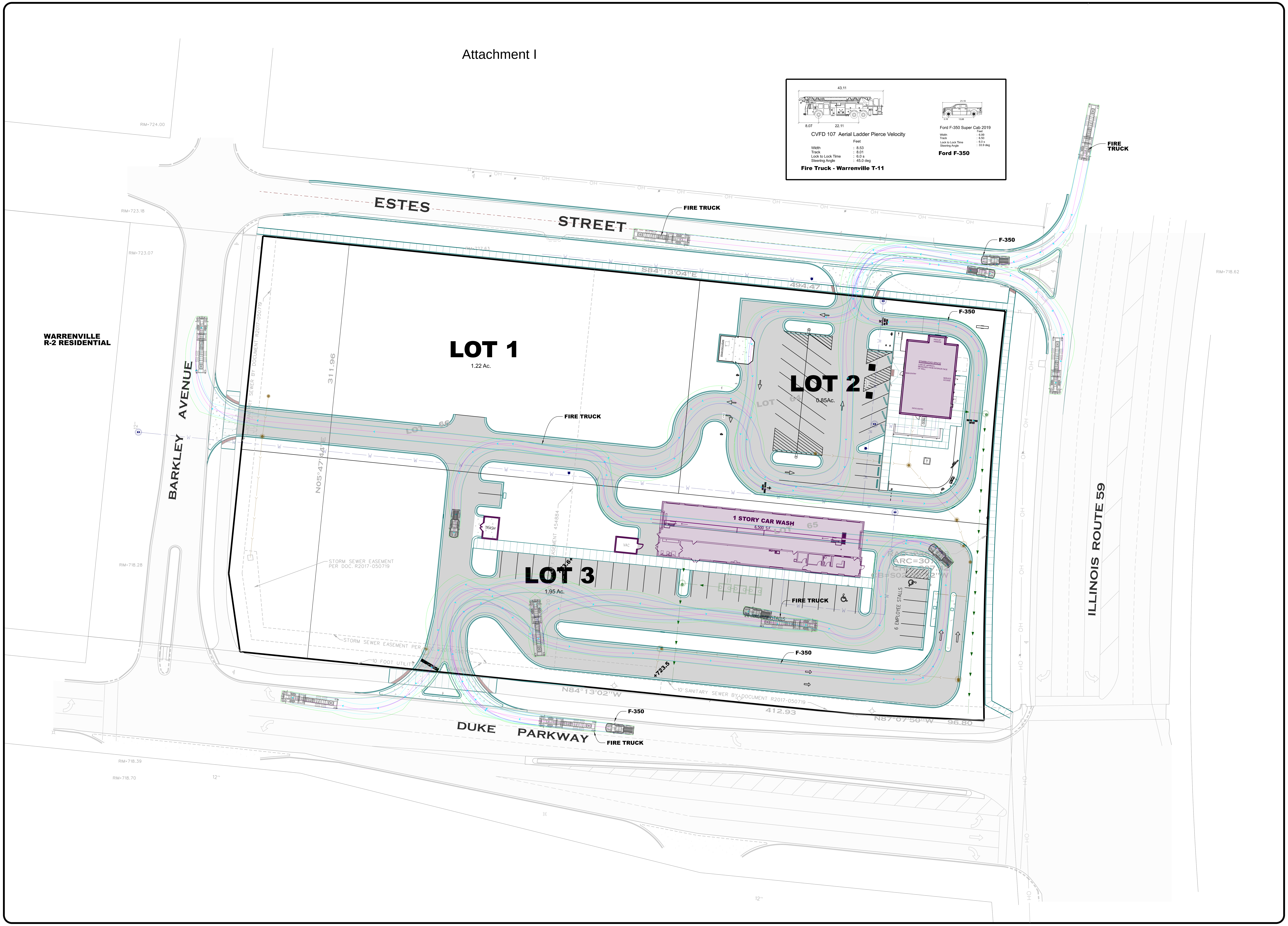
Section-Township-Range
DuPage: 33/34 T 39N R 09E

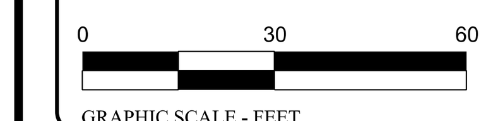
JOB # 41516	SURV: CB
DRAWN: BMB	REVIEW: SMR
SCALE: 1"=30'	DATE: 02-10-25

SHEET NAME
PRELIMINARY CIVIL PLAN

SHEET #
C-1

Attachment I





Dream Clean
R. 59 and Duke Parkway
Warrenville , IL 60555

Prepared For:

Dream Clean Operating Company

625 Greenleaf Ave.
Wilmette, IL 60091
email: mzaveduk@dreamcleancw.com

ARCH AMERICA
34121 North US 45, Suite 213
Grayslake, Illinois 60030
Phone 847-957-7755

DREAM CLEAN CAR WASH

Webster, McGrath & Ahlberg, Ltd.

WMA

Land Surveying - Civil Engineering - Landscape Architecture

Over 100 Years of Service to Clients

2100 Manchester Rd, Building A, Suite 203
Wheaton, Illinois 60187
Ph: (630)668-7603 Web: www.wmaltd.com
Design Firm License No. 184-003101

REV#	DATE	REVISION DESCRIPTION	BY

Section-Township-Range
DuPage: 33/34 T 39N R 09E

JOB #	41516	SURV:	CB
DRAWN:	BMB	REVIEW:	SMR
SCALE:	1"=30'	DATE:	02-10-25

SHEET NAME

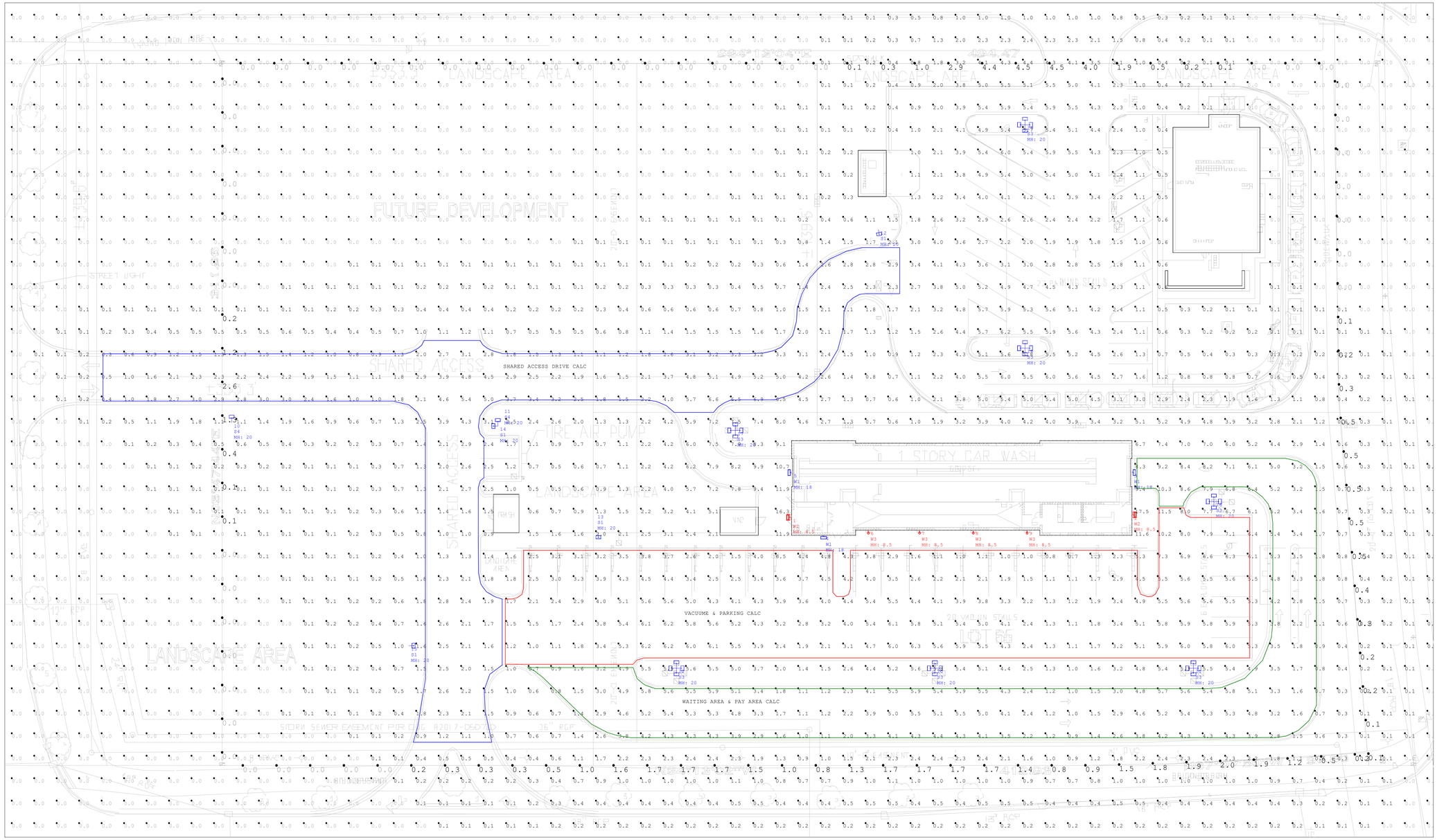
Auto Turn Exhibit

SHEET #

AT-1

E:\ACTIVE-PROJECTS\41516-333909-DuPage\ENGR-BB\FINAL ENGINEERING PLANS\UNIT 6\Dream Clean and Starbucks\41516 Dream Clean.dgn, Model: AT-1, Date: 2/5/2025

Attachment J



Not to Scale

Calculation Summary								
Label	**CalcType**	**Units**	**Avg**	**Max**	**Min**	**Max/Min**	**Avg/Min**	**Calc Plane Ht**
FULL AREA_Planar	Illuminance	Fc	0.54	17.5	0.0	N.A.	N.A.	0
PROPERTY LINE CALC	Illuminance	Fc	0.64	4.5	0.0	N.A.	N.A.	N.A.
SHARED ACCESS DRIVE CALC	Illuminance	Fc	2.63	6.9	0.9	7.67	2.92	
VACUUME & PARKING CALC	Illuminance	Fc	3.90	8.0	0.7	11.43	5.57	
WAITING AREA & PAY AREA CALC	Illuminance	Fc	3.74	10.3	0.7	14.71	5.34	

Luminaire Schedule - Part numbers are provided by the manufacturer and are only intended to be used as a reference to output and optics used.

Symbol	Qty	Tag	Manufacturer	Description	Arrangement	Luminaire Lumens	Arr. Lum. Lumens	Luminaire Watts	Arr. Watts	LLF
	4	S1	BEACON	VP-1-160L-75-4K7-4W	Single	10070	10070	72.5	72.5	0.900
	7	S3	BEACON	VP-1-160L-75-4K7-4W	4 @ 90 Degrees	10070	40280	72.5	290	0.900
	2	S4	BEACON	VP-1-160L-75-4K7-3	Single	10242	10242	72.5	72.5	0.900
	3	W1	EXO	TRP2-24L-90-4K7-4	Single	9659	9659	86.68	86.68	0.900
	2	W2	EXO	PRL-C-LS-4K(26W)	Single	3665	3665	26	26	0.900
	4	W3	ILP	UC3UD-09L-U-40-N-N-WM	Single	893	893	7.89	7.89	0.900

Luminaire Location Summary		
LumNo	**Label**	**Mtg Ht**
1	PRL-C-LS-4K-26W	8.5
2	PRL-C-LS-4K-26W	8.5
3	TRP2-24L-90-4K7-4	18
4	TRP2-24L-90-4K7-4	18
5	TRP2-24L-90-4K7-4	18
6	UC3UD-09L-U-40-N-N-WM	8.5
7	UC3UD-09L-U-40-N-N-WM	8.5
8	UC3UD-09L-U-40-N-N-WM	8.5
9	UC3UD-09L-U-40-N-N-WM	8.5
10	VP-1-160L-75-4K7-3	20
11	VP-1-160L-75-4K7-3	20
12	VP-1-160L-75-4K7-4W_1	20
13	VP-1-160L-75-4K7-4W_1	20
14	VP-1-160L-75-4K7-4W_1	20
15	VP-1-160L-75-4K7-4W_1	20
16	VP-1-160L-75-4K7-4W_2	20
17	VP-1-160L-75-4K7-4W_2	20
18	VP-1-160L-75-4K7-4W_2	20
19	VP-1-160L-75-4K7-4W_2	20
20	VP-1-160L-75-4K7-4W_2	20
21	VP-1-160L-75-4K7-4W_2	20
22	VP-1-160L-75-4K7-4W_2	20

NOTES

- PG-ENLIGHTEN IS NEITHER LICENSED NOR INSURED TO DETERMINE CODE COMPLIANCE. CODE COMPLIANCE REVIEW BY OTHERS.
- ANY VARIANCE FROM REFLECTANCE VALUES, OBSTRUCTIONS, LIGHT LOSS FACTORS OR DIMENSIONAL DATA WILL AFFECT THE ACTUAL LIGHT LEVELS OBTAINED.
- THIS ANALYSIS IS A MATHEMATICAL MODEL AND CAN BE ONLY AS ACCURATE AS IS PERMITTED BY THE THIRD-PARTY SOFTWARE AND THE IES STANDARDS USED.
- FIXTURE TYPES AND QUANTITIES MAY CHANGE BASED ON UNKNOWN OBSTRUCTIONS OR FIELD CONDITIONS. THESE CHANGES MAY RESULT IN AN INCREASED QUANTITY OF FIXTURES.
- FIXTURE TYPES AND QUANTITIES BASED ON PROVIDED LAYOUT AND DRAWINGS ARE FOR REFERENCE ONLY. TYPES AND QUANTITIES MAY CHANGE WITH FUTURE REVISIONS.
- CALCULATION GRID VALUES 10'-0" O.C.

enlighten

DRAWN BY:
Josh Burge
josh.burge@pg-enlighten.com
847.228.1199

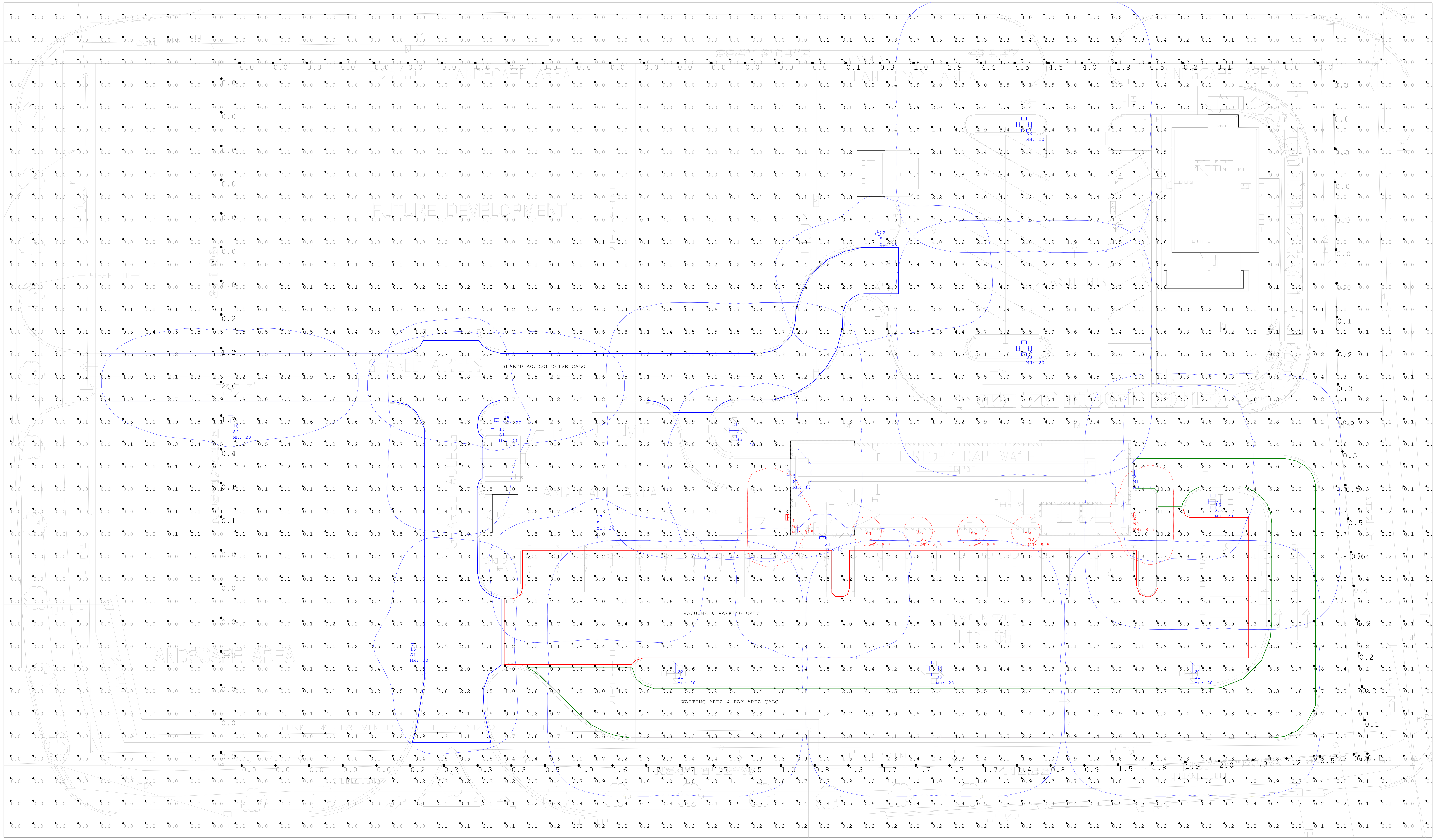
PG CONTACT:
Dan Ardelean
dan.ardelean@pg-enlighten.com
630.816.9420

REVISIONS	DESCRIPTION
1	XX/XX/XXXX
2	XX/XX/XXXX
3	XX/XX/XXXX

PROJECT NAME:
DREAM CLEAN - WARRENVILLE, IL

CLIENT NAME:
ARCHAMERICA

Date:2/18/2025



Not to Scale

Calculation Summary								
Label	CalcType	Units	Avg	Max	Min	Max/Min	Avg/Min	Calc Plane Ht
FULL AREA_Planar	Illuminance	Fc	0.54	17.5	0.0	N.A.	N.A.	0
PROPERTY LINE CALC	Illuminance	Fc	0.64	4.5	0.0	N.A.	N.A.	N.A.
SHARED ACCESS DRIVE CALC	Illuminance	Fc	2.63	6.9	0.9	7.67	2.92	
VACUUME & PARKING CALC	Illuminance	Fc	3.90	8.0	0.7	11.43	5.57	
WAITING AREA & PAY AREA CALC	Illuminance	Fc	3.74	10.3	0.7	14.71	5.34	

Luminaire Schedule - Part numbers are provided by the manufacturer and are only intended to be used as a reference to output and optics used.

Symbol	Qty	Tag	Manufacturer	Description	Arrangement	Luminaire Lumens	Arr. Lum. Lumens	Luminaire Watts	Arr. Watts	LLF
	4	S1	BEACON	VP-1-160L-75-4K7-4W	Single	10070	10070	72.5	72.5	0.900
	7	S3	BEACON	VP-1-160L-75-4K7-4W	4 @ 90 Degrees	10070	40280	72.5	290	0.900
	2	S4	BEACON	VP-1-160L-75-4K7-3	Single	10242	10242	72.5	72.5	0.900
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4	TRP2-24L-90-4K7-4	18
5	TRP2-24L-90-4K7-4	18
6	UC3UD-09L-U-40-N-N-WM	8.5
7	UC3UD-09L-U-40-N-N-WM	8.5
8	UC3UD-09L-U-40-N-N-WM	8.5
9	UC3UD-09L-U-40-N-N-WM	8.5
10	VP-1-160L-75-4K7-3	20
11	VP-1-160L-75-4K7-3	20
12	VP-1-160L-75-4K7-4W_1	20
13	VP-1-160L-75-4K7-4W_1	20
14	VP-1-160L-75-4K7-4W_1	20
15	VP-1-160L-75-4K7-4W_1	20
16	VP-1-160L-75-4K7-4W_2	20
17	VP-1-160L-75-4K7-4W_2	20
18	VP-1-160L-75-4K7-4W_2	20
19	VP-1-160L-75-4K7-4W_2	20
20	VP-1-160L-75-4K7-4W_2	20
21	VP-1-160L-75-4K7-4W_2	20
22	VP-1-160L-75-4K7-4W_2	20

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CALCULATION GRID VALUES 10'-0" O.C.

PG enlighten

DRAWN BY:
Josh Burge
josh.burge@pg-enlighten.com
847.228.1199

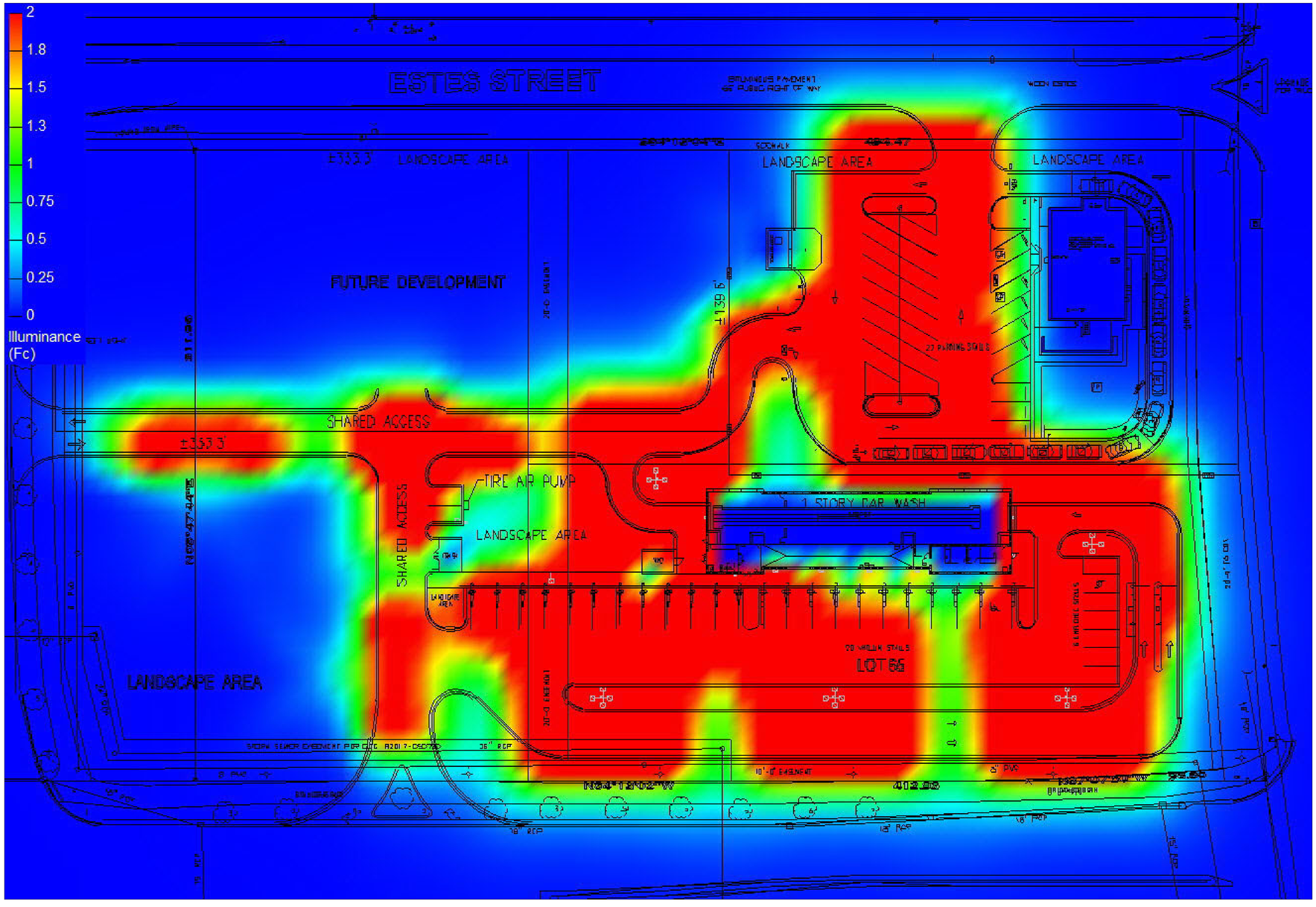
PG CONTACT:
Dan Ardelean
dan.ardelean@pg-enlighten.com
630.816.9420

REVISIONS		
1	XX/XX/XXXX	DESCRIPTION
2	XX/XX/XXXX	DESCRIPTION
3	XX/XX/XXXX	DESCRIPTION

PROJECT NAME:
DREAM CLEAN - WARRENVILLE, IL

CLIENT NAME:
ARCHAMERICA

Date:2/18/2025



Calculation Summary								
Label	**CalcType**	**Units**	**Avg**	**Max**	**Min**	**Max/Min**	**Avg/Min**	**Calc Plane Ht**
FULL AREA_Planar	Illuminance	Fc	0.54	17.5	0.0	N.A.	N.A.	0
PROPERTY LINE CALC	Illuminance	Fc	0.64	4.5	0.0	N.A.	N.A.	N.A.
SHARED ACCESS DRIVE CALC	Illuminance	Fc	2.63	6.9	0.9	7.67	2.92	
VACUUME & PARKING CALC	Illuminance	Fc	3.90	8.0	0.7	11.43	5.57	
WAITING AREA & PAY AREA CALC	Illuminance	Fc	3.74	10.3	0.7	14.71	5.34	

Luminaire Schedule - Part numbers are provided by the manufacturer and are only intended to be used as a reference to output and optics used.										
Symbol	**Qty**	**Tag**	**Manufacturer**	**Description**	**Arrangement**	**Luminaire Lumens**	**Arr. Lum. Lumens**	**Luminaire Watts**	**Arr. Watts**	**LLF**
	4	S1	BEACON	VP-1-160L-75-4K7-4W	Single	10070	10070	72.5	72.5	0.900
	7	S3	BEACON	VP-1-160L-75-4K7-4W	4 @ 90 Degrees	10070	40280	72.5	290	0.900
	2	S4	BEACON	VP-1-160L-75-4K7-3	Single	10242	10242	72.5	72.5	0.900
	3	W1	EXO	TRP2-24L-90-4K7-4	Single	9659	9659	86.68	86.68	0.900
	2	W2	EXO	PRL-C-LS-4K(26W)	Single	3665	3665	26	26	0.900
	4	W3	ILP	UC3UD-09L-U-40-N-N-WM	Single	893	893	7.89	7.89	0.900

Luminaire Location Summary		
LumNo	**Label**	**Mtg Ht**
1	PRL-C-LS-4K-26W	8.5
2	PRL-C-LS-4K-26W	8.5
3	TRP2-24L-90-4K7-4	18
4	TRP2-24L-90-4K7-4	18
5	TRP2-24L-90-4K7-4	18
6	UC3UD-09L-U-40-N-N-WM	8.5
7	UC3UD-09L-U-40-N-N-WM	8.5
8	UC3UD-09L-U-40-N-N-WM	8.5
9	UC3UD-09L-U-40-N-N-WM	8.5
10	VP-1-160L-75-4K7-3	20
11	VP-1-160L-75-4K7-3	20
12	VP-1-160L-75-4K7-4W_1	20
13	VP-1-160L-75-4K7-4W_1	20
14	VP-1-160L-75-4K7-4W_1	20
15	VP-1-160L-75-4K7-4W_1	20
16	VP-1-160L-75-4K7-4W_2	20
17	VP-1-160L-75-4K7-4W_2	20
18	VP-1-160L-75-4K7-4W_2	20
19	VP-1-160L-75-4K7-4W_2	20
20	VP-1-160L-75-4K7-4W_2	20
21	VP-1-160L-75-4K7-4W_2	20
22	VP-1-160L-75-4K7-4W_2	20

NOTES

- PG-ENLIGHTEN IS NEITHER LICENSED NOR INSURED TO DETERMINE CODE COMPLIANCE. CODE COMPLIANCE REVIEW BY OTHERS.
- ANY VARIANCE FROM REFLECTANCE VALUES, OBSTRUCTIONS, LIGHT LOSS FACTORS OR DIMENSIONAL DATA WILL AFFECT THE ACTUAL LIGHT LEVELS OBTAINED.
- THIS ANALYSIS IS A MATHEMATICAL MODEL AND CAN BE ONLY AS ACCURATE AS IS PERMITTED BY THE THIRD-PARTY SOFTWARE AND THE IES STANDARDS USED.
- FIXTURE TYPES AND QUANTITIES MAY CHANGE BASED ON UNKNOWN OBSTRUCTIONS OR FIELD CONDITIONS. THESE CHANGES MAY RESULT IN AN INCREASED QUANTITY OF FIXTURES.
- FIXTURE TYPES AND QUANTITIES BASED ON PROVIDED LAYOUT AND DRAWINGS ARE FOR REFERENCE ONLY. TYPES AND QUANTITIES MAY CHANGE WITH FUTURE REVISIONS.
- CALCULATION GRID VALUES 10'-0" O.C.

PG enlighten

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REVISIONS		
1	XX/XX/XXXX	DESCRIPTION
2	XX/XX/XXXX	DESCRIPTION
3	XX/XX/XXXX	DESCRIPTION

PROJECT NAME:
DREAM CLEAN - WARRENVILLE, IL

CLIENT NAME:
ARCHAMERICA

Date:2/18/2025

Attachment K

Traffic Impact Study
Proposed Car Wash

Warrenville, Illinois

Prepared For:

Dream Clean Car Wash

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

February 14, 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 development to be located in the northwest corner of the intersection of IL Route 59 with Duke Parkway/Everton Drive. As proposed, the south portion of the site will be developed with an automatic car wash tunnel with 20 vacuum stalls and six employee stalls. The northeast portion of the site will contain an approximately 2,050 square-foot Starbucks coffee shop with a drive-through lane and 22 parking spaces. Access to the site will be provided off Estes Street, Barkley Avenue, and Duke Parkway.

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:

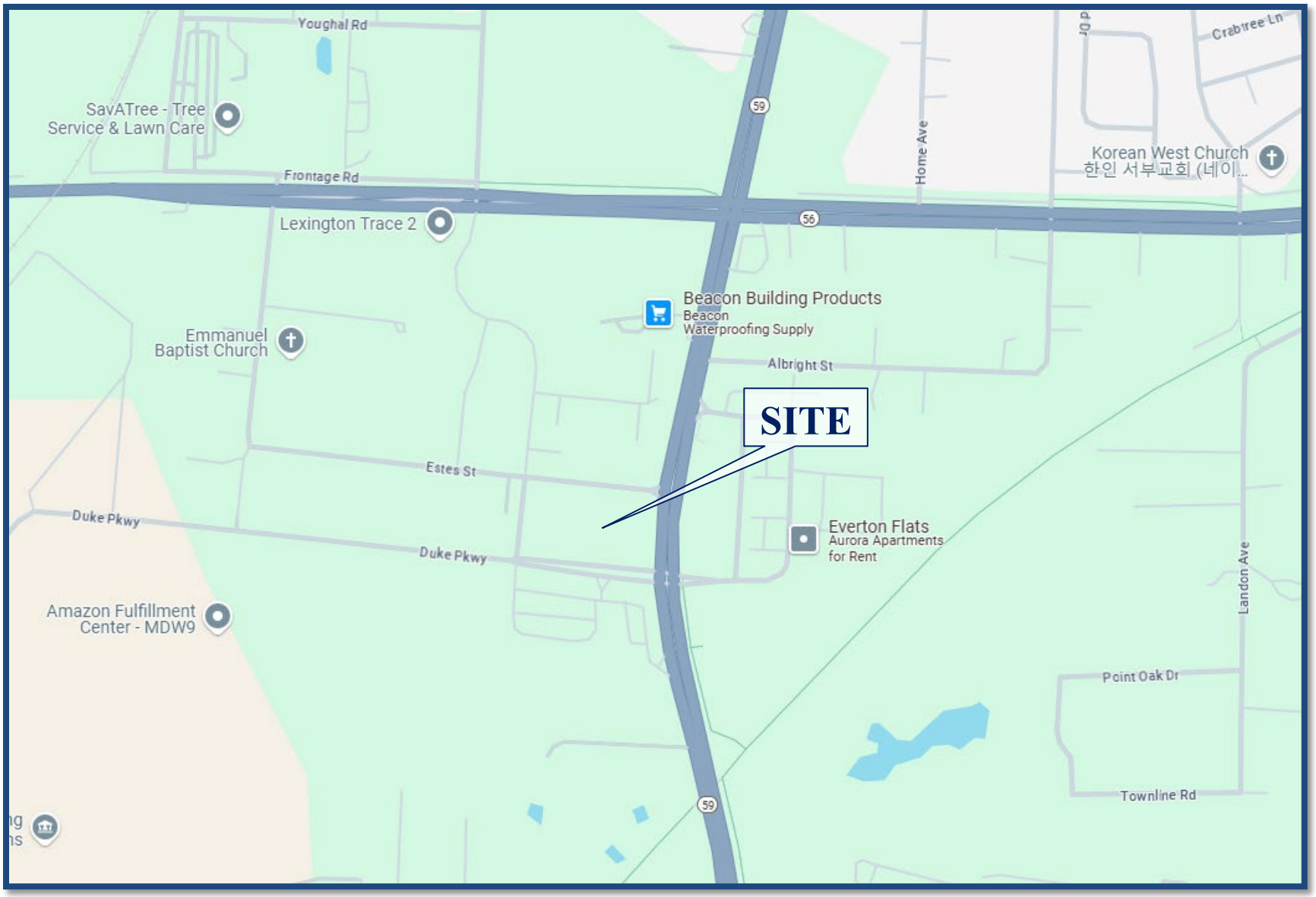
- Existing roadway conditions
- A description of the development
- Directional distribution of the development traffic
- Vehicle trip generation for the development
- Future traffic conditions including access to the development
- Traffic analyses for the weekday morning, weekday evening, and Saturday 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 existing peak hour traffic volumes in the surrounding area.

2. No-Build Conditions – Analyzes the capacity of the existing roadway system using the ambient area growth not attributable to any particular development and any additional developments not associated with the development.

3. Projected Conditions – Analyzes the capacity of the future roadway system using the projected traffic volumes that include the existing traffic volumes, ambient area growth not attributable to any particular development, and the traffic estimated to be generated by the proposed development.



Site Location **Figure 1**

Aerial View of Site **Figure 2**

2. Existing 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 is currently vacant, is located in the northwest quadrant of the intersection of IL Route 59 with Duke Parkway/Everton Drive. Surrounding land uses are a mixture of residential and commercial land uses including Thorntons fuel center to the south, Culver's to the northeast, and residential uses to the north, west, and east.

Existing Roadway System Characteristics

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

Illinois Route 59 (IL 59) is a north-south, other principal arterial roadway that provides two travel lanes in each direction generally divided by a 12-foot striped median. At its signalized intersection with Duke Parkway/Everton Drive, IL 59 provides dual left-turn lanes, two through lanes, and an exclusive right-turn lane on the northbound approach, an exclusive left-turn lane, two through lanes, and an exclusive right-turn lane on the southbound approach. High visibility crosswalks are provided on all four legs of this intersection. At its unsignalized "T" intersection with Estes Street, IL 59 provides two through lanes on the northbound approach, two through lanes and an exclusive right-turn lane on the southbound approach. IL 59 is under the jurisdiction of the Illinois Department of Transportation (IDOT), has a posted speed limit of 45 mph, and is designated as a Strategic Regional Arterial (SRA). IL 59 carries an Annual Average Daily Traffic (AADT) volume of 34,200 vehicles (IDOT 2023) and has a posted speed limit of 45 miles per hour.

Duke Parkway is a local roadway that extends from IL 59 west and then south to Ferry Road. It generally provides one travel lane in each direction. At its signalized intersection with IL 59/Everton Drive, Duke Parkway provides an exclusive left-turn lane, a through lane, and an exclusive right-turn lane on the eastbound approach while the Everton Drive provides an exclusive left-turn lane and a shared through/right-turn lane on the westbound approach. At its unsignalized intersection with Barkley Drive, Duke Parkway provides an exclusive left-turn lane and a shared through/right-turn lane on the eastbound approach and an exclusive left-turn lane, a through lane, and an exclusive right-turn lane on the westbound approach. High visibility crosswalks are provided on the west and north legs of this intersection. Duke Parkway is under the jurisdiction of the City of Aurora and has a posted speed limit of 20 mph.

LEGEND

- TRAVEL LANE
- TRAFFIC SIGNAL
- STOP SIGN
- SPEED LIMIT SIGN
- NO PARKING
- HIGH VISIBILITY CROSSWALK
- NO LEFT TURN SIGN

N

NOT TO SCALE

BARKLEY AVENUE

20

56

BUTTERFIELD ROAD

RESIDENTIAL

RESIDENTIAL

59

CULVER'S

ESTES STREET

20

SITE

RESIDENTIAL

DUKE PARKWAY

THORNTONS

CAR WASH
WARRENVILLE,
ILLINOIS

EXISTING ROADWAY CHARACTERISTICS

KLOA
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Job No: 25-009 Figure: 3

Barkley Avenue is a local roadway that provides one travel lane in each direction. At its unsignalized intersection with Duke Parkway, Barkley Avenue provides a shared left-turn/through/right-turn lane on both approaches. At its unsignalized intersection with Estes Street, Barkley Avenue provides a shared left-turn/through/right-turn lane on b approaches. At its unsignalized intersection with Butterfield Road, Barkley Avenue provides a shared left-turn/through lane, an exclusive right-turn lane, and a high visibility crosswalk on the northbound approach. Barkley Drive is under the jurisdiction of the city of Warrenville and has a posted speed limit of 25 miles per hour.

Butterfield Road (IL Route 56) is an east-west, other principal arterial that in the vicinity of the site provides two travel lanes in each direction separated by a landscaped raised median. At its unsignalized intersection with Barkley Avenue, Butterfield Road provides an exclusive left-turn lane, a through lane, and a shared through/right-turn lane on both approaches. Butterfield Road is under the jurisdiction of IDOT, is designated as an SRA, carries an AADT volume of 22,600 vehicles (IDOT 2023, and has a posted speed limit of 45 miles per hour in the vicinity of the site.

Estes Street is an east-west local roadway that provides one travel lane in each direction. At its unsignalized intersection with IL 59, Estes Street provides an exclusive right-turn lane under stop sign control. Estes Street is under the jurisdiction of the city of Warrenville and has a posted speed limit of 20 miles per hour.

Existing Traffic Volumes

In order to determine current traffic conditions in the vicinity of the site, KLOA, Inc. conducted peak period traffic counts utilizing Miovision Scout Video Collection Units during the weekday morning (7:00 to 9:00 A.M.), weekday evening (4:00 to 6:00 P.M.), and Saturday midday (12:00 to 2:00 P.M.) peak periods at the following intersections:

- IL Route 59 with Duke Parkway/Everton Drive
- IL Route 59 with Estes Drive
- Barkley Avenue with Butterfield Road
- Barkley Avenue with Estes Drive
- Barkley Avenue with Duke Parkway

All counts were conducted on January 25th and 28th, 2025. The results of the traffic counts showed that the weekday morning peak hour of traffic generally occurs from 7:15 A.M. to 8:15 A.M., the weekday evening peak hour of traffic generally occurs from 4:30 P.M. to 5:30 P.M., and the Saturday midday peak hour generally occurs from 1:00 P.M. to 2:00 P.M.

Figure 4 illustrates the existing traffic volumes. Copies of the traffic count summary sheets are included in the Appendix.

LEGEND

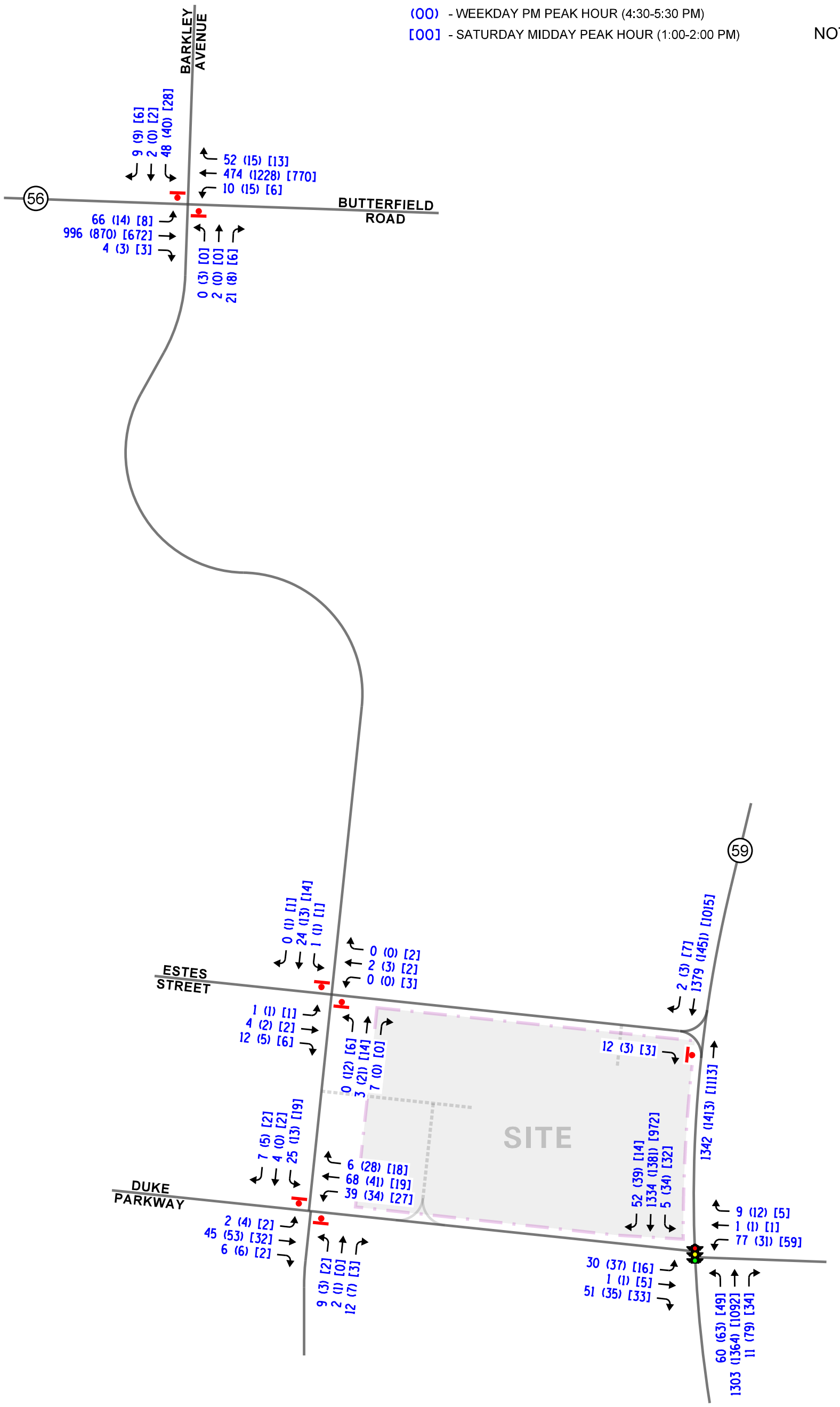
00 - WEEKDAY AM PEAK HOUR (7:15-8:15 AM)

(00) - WEEKDAY PM PEAK HOUR (4:30-5:30 PM)

[00] - SATURDAY MIDDAY PEAK HOUR (1:00-2:00 PM)

N

NOT TO SCALE



CAR WASH
WARRENVILLE,
ILLINOIS

EXISTING TRAFFIC VOLUMES

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

Job No: 25-009 Figure: 4

Crash Data Summary

KLOA, Inc. obtained crash data[1] for the most recent available past five years (2019 to 2023) for the intersections within the study area. It should be noted that no crashes were reported at the intersections of Barkley Road with Estes Street and Duke Parkway during the review period. The crash data for the other intersections is summarized in **Tables 1** through **3**. A review of the crash data revealed that no fatalities were reported at the intersections during the reviewed period.

Table 1
IL 59 WITH DUKE PARKWAY/EVERTON DRIVE – CRASH SUMMARY

Year	Type of Crash Frequency							
	Angle	Head On	Object	Rear End	Sideswipe	Turning	Other	Total
2019	0	0	0	0	0	0	0	0
2020	0	0	0	1	0	0	0	1
2021	0	0	0	2	0	1	0	3
2022	0	0	0	1	0	1	0	2
2023	0	0	0	2	0	0	0	2
Total	**0**	**0**	**0**	**6**	**0**	**2**	**0**	**8**
Average	**--**	**--**	**--**	**1.2**	**--**	**<1.0**	**--**	**1.6**

Table 2
BUTTERFIELD ROAD AND BARKLEY AVENUE – CRASH SUMMARY

Year	Type of Crash Frequency							
	Angle	Head On	Object	Rear End	Sideswipe	Turning	Other	Total
2019	0	0	0	0	0	1	0	1
2020	0	0	0	0	0	0	0	0
2021	0	0	0	1	0	0	0	1
2022	0	0	0	0	0	0	0	0
2023	0	0	0	0	0	1	0	1
Total	**0**	**0**	**0**	**1**	**0**	**2**	**0**	**3**
Average	**--**	**--**	**--**	**<1.0**	**--**	**<1.0**	**--**	**<1.0**

[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
IL 59 WITH ESTES STREET – CRASH SUMMARY

Year	Type of Crash Frequency							
	Angle	Head On	Object	Rear End	Sideswipe	Turning	Other	Total
2019	0	0	0	0	0	0	0	0
2020	0	0	0	0	0	0	0	0
2021	0	0	0	0	0	0	0	0
2022	0	0	0	0	0	1	0	1
2023	0	0	0	0	0	0	0	0
Total	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**1**
Average	**--**	**--**	**--**	**--**	**--**	**<1.0**	**--**	**<1.0**

3. Traffic Characteristics of the Proposed Development

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 generates.

Proposed Site and Development Plan

As proposed, the south portion of the site will be developed with an automatic car wash tunnel with 20 vacuum stalls and six employee stalls. The northeast portion of the site will contain an approximately 2,050 square-foot Starbucks coffee shop with a drive-through lane and 22 parking spaces. Access to the proposed development will be provided via the access drives:

- A proposed full-movement access drive off Estes Street located approximately 205 feet west of IL 59. This access drive will provide one inbound lane and one outbound lane with the outbound movements under stop sign control. It should be noted that this access drive will provide direct access to Starbucks and indirect access to the car wash via an internal shared driveway.

- A proposed full movement access drive off Barkley Avenue approximately 170 feet south of Estes Street. This access drive will provide one inbound lane and one outbound lane with the outbound movements under stop sign control.

- A proposed right-in/right-out access drive located approximately 505 feet west of IL 59. This access drive will provide one inbound lane and one outbound lane with the outbound movement under stop sign control. This access drive will provide direct access to the car wash and indirect access to Starbucks via an internal shared driveway.

A copy of the preliminary site plan is included in the Appendix.

Car Wash Operations and Circulation

The car wash tunnel will be located in the southeast portion of the property, oriented east-west. The vacuum stalls will be located on the south side of the car wash tunnel. Circulation through the vacuum stalls will be provided via a two-way drive aisle. All vehicles will have access to the vacuum stalls before and after utilizing the car wash.

Access to the car wash tunnel entrance will be provided via a two-way drive aisle on the south and east sides of the building. The two queue lanes will be provided with two pay stations before the merger. Immediately after the pay stations, the two approach lanes will narrow to one lane that leads to the entrance of the car wash tunnel.

As proposed, the single-lane automatic car wash tunnel will be an exterior-only car wash system and will provide one-way, counterclockwise circulation. Manual and automated controls will increase, decrease, or stop vehicle flow through the car wash. The entrance to the car wash will be oriented towards the east of the site and the exit will be located towards the west of the site. Each of the two approach lanes will be individually gated with a separate automatic pay station. The gates will meter the traffic flow proceeding to the car wash tunnel entrance and will open in sequence based on the order of vehicle arrival.

Once the gate is lifted for the respective lane, the individual vehicle will proceed north and east to the entrance to the car wash tunnel. At the entrance to the car wash tunnel, the driver will remain in the vehicle and the car wash will automatically pull the vehicle through the tunnel. After exiting the tunnel, the vehicles will proceed to either use the vacuum stalls or exit the site via the access drives.

Car Wash Stacking

According to the site plan, there will be stacking for a total of approximately 30 vehicles to queue in the two approach lanes to the two pay stations. In addition, there will be stacking for approximately three vehicles between the pay stations and the entrance to the tunnel. As such, the plan provides stacking for a total of approximately 33 from the drive aisle to the entrance to the drive-through system.

Car Wash Wayfinding and Traffic Control Signage

The following wayfinding and traffic control signage is recommended:

- Wayfinding signage should be posted to guide vehicles to the respective car wash stacking area to minimize vehicle turning movements within the internal site circulation area.
- Wayfinding signage should be posted at the exit of the car wash tunnel to direct vehicles exiting the car wash to either the access drives or the vacuum stalls.
- A “Do Not Enter” sign should be posted at the exit of the car wash tunnel to deter opposing traffic from entering the car wash tunnel from the one-way exit direction.
- A stop sign should be provided at the western end of the vacuum stall drive aisle in order to promote free-flow movement for vehicles entering and exiting the site.

Vacuum Stalls

All the 20 vacuum stalls will be located on the south side of the car wash tunnel, of which one will be accessible. A two-way drive aisle will be provided, allowing flexibility for vehicles to access the south vacuum area before or after the car wash and vehicles exiting the vacuum stalls to utilize the two-way drive aisle to exit the site.

Peak Day Operations

Typical of any car wash, its peak operations (design day) typically occur after a weather event such as a snowfall or a rain event. Based on historical data from other car washes, this typically occurs 12 to 15 times per year.

When this peak demand occurs, the following operational procedures are implemented:

- Increase the service rate of the tunnel to the maximum it can process.
- Provide staff at critical locations within the circulation system during peak periods at the car wash to help direct and manage the flow of traffic through the site. Critical internal locations where staff should be located include the pay stations and at the exit of the car wash.

Starbucks Stacking

All vehicles will enter the drive-through lane from the southwest corner of the site. After ordering, the vehicles will make a left-turn to drive north and make another left to the pick-up window located on the north side of the building. After picking up the order, vehicles can make a right turn to exit onto Estes Street or continue west to access the other two access drives. Exiting movements from the drive-through should be under stop sign control. A review of the site plan showed a stacking of approximately 15 vehicles within the drive-through layout.

Directional Distribution of Site Traffic

The directions from which traffic will approach and depart the site were estimated based on existing travel patterns, as determined from the traffic counts. **Figure 5** illustrates the directional distribution of vehicles to/from the proposed development.

Development-Generated 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 "Automated Car Wash" (Land-Use Code 948) rate was utilized for the car wash tunnel.

It is important to note that trips made to car washes are typically diverted from the existing traffic on the roadway system. This is particularly true during the weekday morning and evening peak hours when traffic is diverted from the home-to-work and work-to-home trips. Such diverted trips are referred to as pass-by traffic. However, in order to present a worst-case scenario, no reduction in the site-generated traffic was taken into account. Based on the data provided in the ITE Manual for an automated car wash (Land-Use Code 948), the typical usage is approximately 71 vehicles per hour during the weekday evening peak hour. The ITE Manual does not provide data for the morning peak hour for an automated car wash. For the purposes of the evaluation, it was assumed to be approximately one-third of the weekday evening peak hour trip generation.

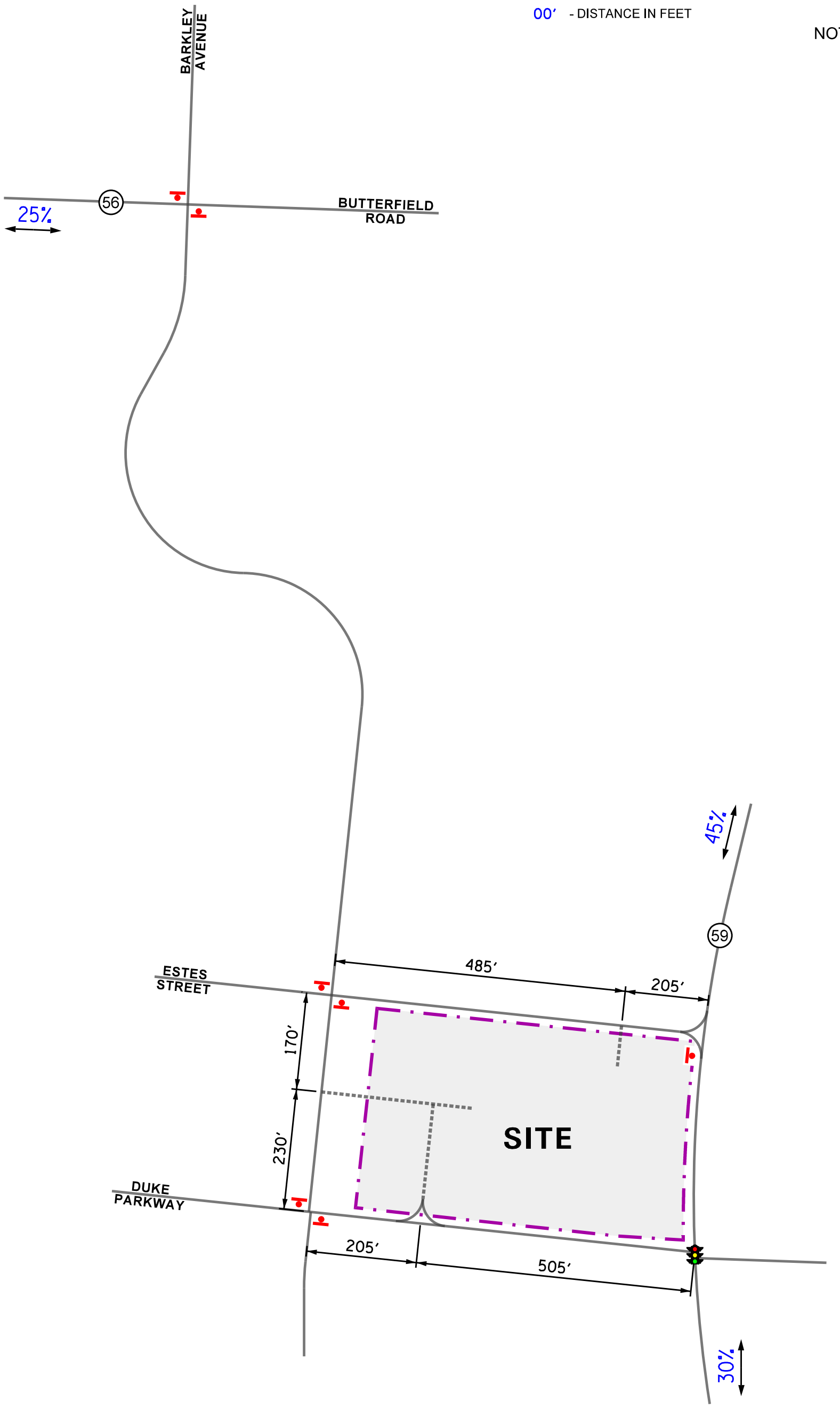
LEGEND

00% - PERCENT DISTRIBUTION

00′ - DISTANCE IN FEET

N

NOT TO SCALE



CAR WASH
WARRENVILLE,
ILLINOIS

DIRECTIONAL DISTRIBUTION

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Job No: 25-009 Figure: 5

Additionally, the "Coffee Shop with Drive-Through" (Land-Use Code 937) rate was used for the Starbucks with drive-through facility. It is important to note that surveys conducted by ITE have shown that approximately 70 percent of trips made to coffee shops are diverted from the existing traffic on the roadway system. As such, the number of new passenger vehicle trips estimated to be generated by Starbucks was reduced to account for pass-by traffic.

Table 4 summarizes the estimated peak hour trips. A copy of the ITE trip generation sheets is included in the Appendix.

Table 4
PEAK HOUR SITE-GENERATED TRAFFIC VOLUMES

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
948	Automated Car Wash (1 Tunnel)	13	13	26	39	39	78	19	22	41
937	Coffee Shop with Drive-Through (2,050 s.f.)	90	86	176	40	40	80	90	90	180
	Total Trips	103	99	202	79	79	158	109	112	221
	70% Pass-By Reduction	*-60*	*-60*	*-120*	*-28*	*-28*	*-56*	*-63*	*-63*	*-126*
	Total New Trips	**43**	**39**	**82**	**51**	**51**	**102**	**46**	**49**	**95**

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-Generated Traffic Assignment

The estimated weekday morning, weekday evening, and Saturday midday peak hour 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). The traffic assignment for the car wash is illustrated in **Figure 6** and the traffic assignment for the Starbucks is illustrated in **Figure 7**. The pass-by traffic volumes are illustrated in **Figure 8.**

Background (No-Build) Traffic 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 2050 Average Daily Traffic (ADT) projections provided by the Chicago Metropolitan Agency for Planning (CMAP) in a letter, the existing traffic volumes were increased by an annually compounded growth rate of 0.94 percent for six years totaling approximately seven percent to represent Year 2031 background conditions. **Figure 9** shows the Year 2031 no-build traffic volumes.

Year 2031 Total Projected Traffic Volumes

The Year 2031 total projected traffic volumes include the no-build traffic volumes and the traffic estimated to be generated by the proposed car wash and Starbucks. **Figure 10** shows the Year 2031 total projected traffic volumes.

LEGEND

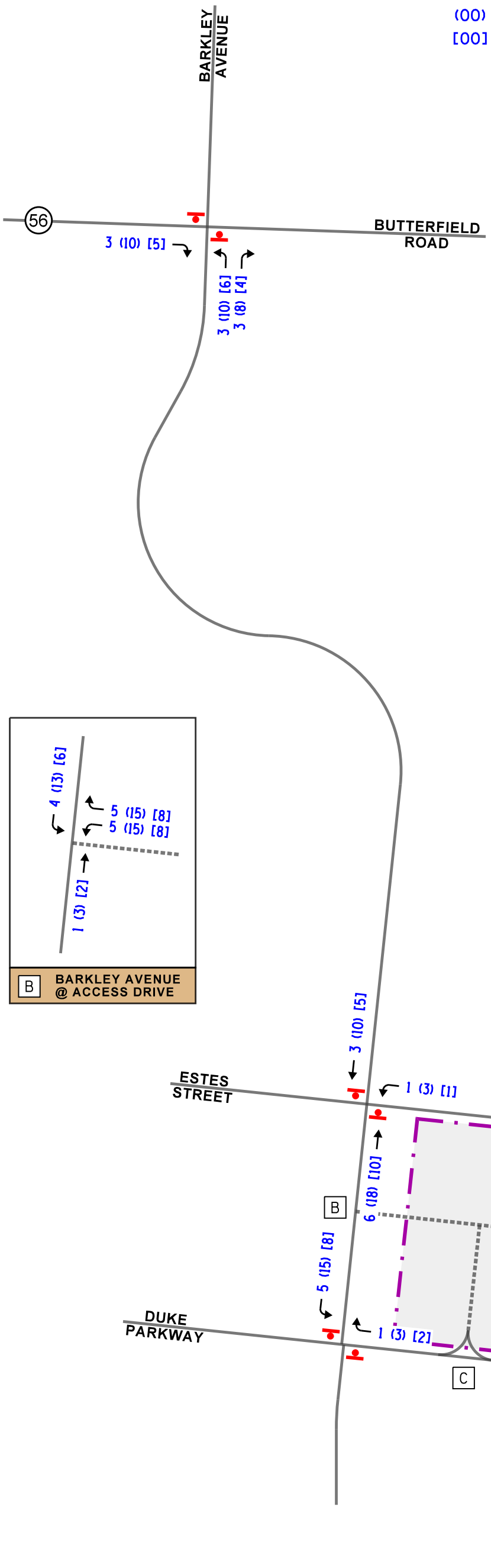
00 - WEEKDAY AM PEAK HOUR (7:15-8:15 AM)

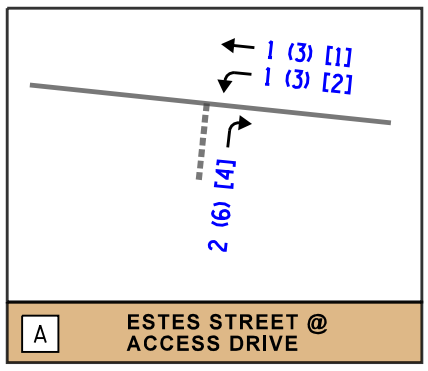
(00) - WEEKDAY PM PEAK HOUR (4:30-5:30 PM)

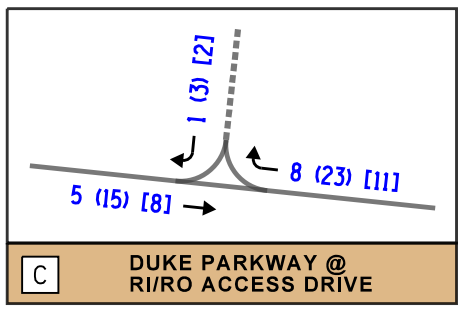
[00] - SATURDAY MIDDAY PEAK HOUR (1:00-2:00 PM)

N

NOT TO SCALE







CAR WASH
WARRENVILLE,
ILLINOIS

CAR WASH-GENERATED TRAFFIC VOLUMES

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Job No: 25-009 Figure: 6

LEGEND

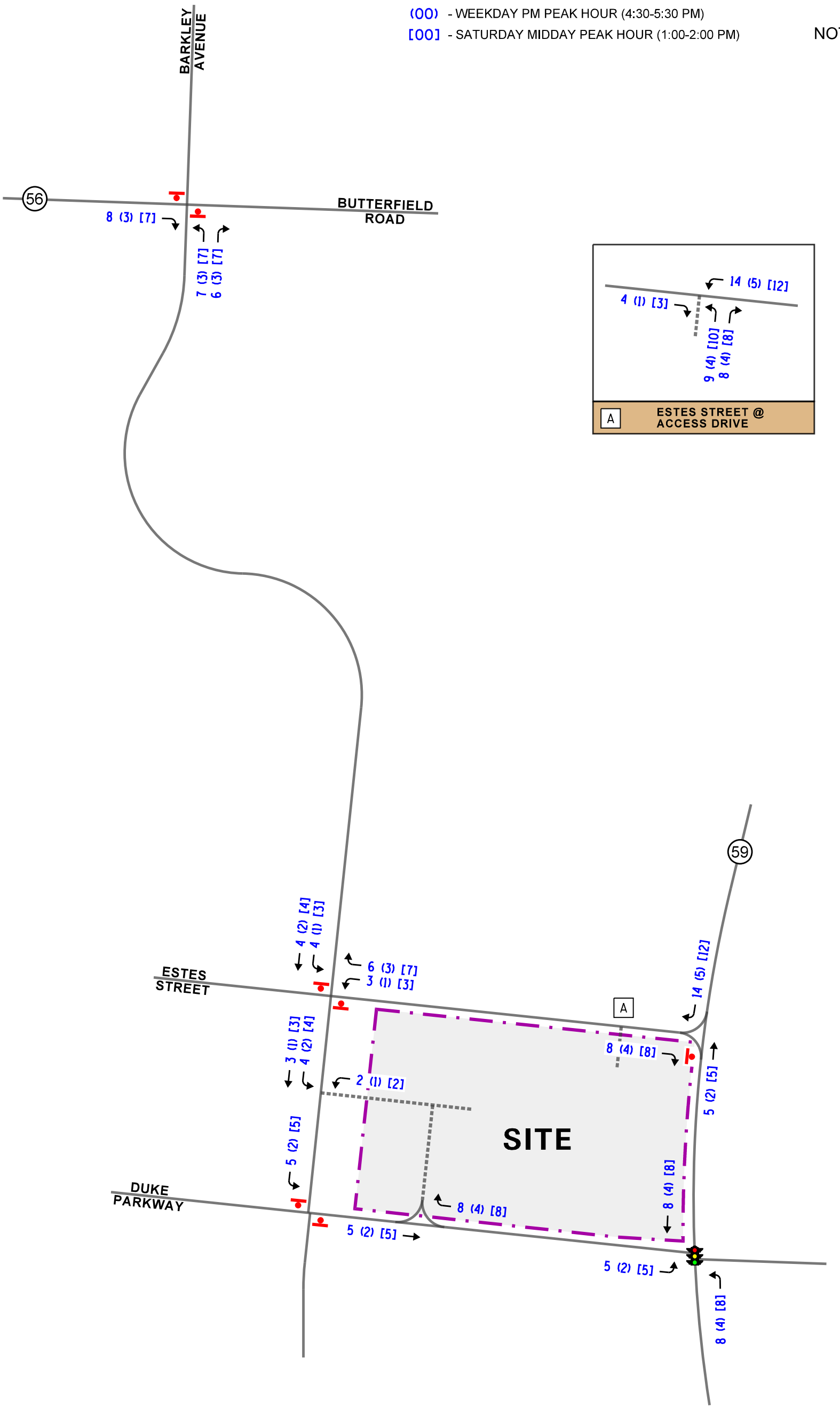
00 - WEEKDAY AM PEAK HOUR (7:15-8:15 AM)

(00) - WEEKDAY PM PEAK HOUR (4:30-5:30 PM)

[00] - SATURDAY MIDDAY PEAK HOUR (1:00-2:00 PM)

N

NOT TO SCALE



CAR WASH
WARRENVILLE, ILLINOIS

STARBUCKS-GENERATED TRAFFIC VOLUMES

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Job No: 25-009 Figure: 7

LEGEND

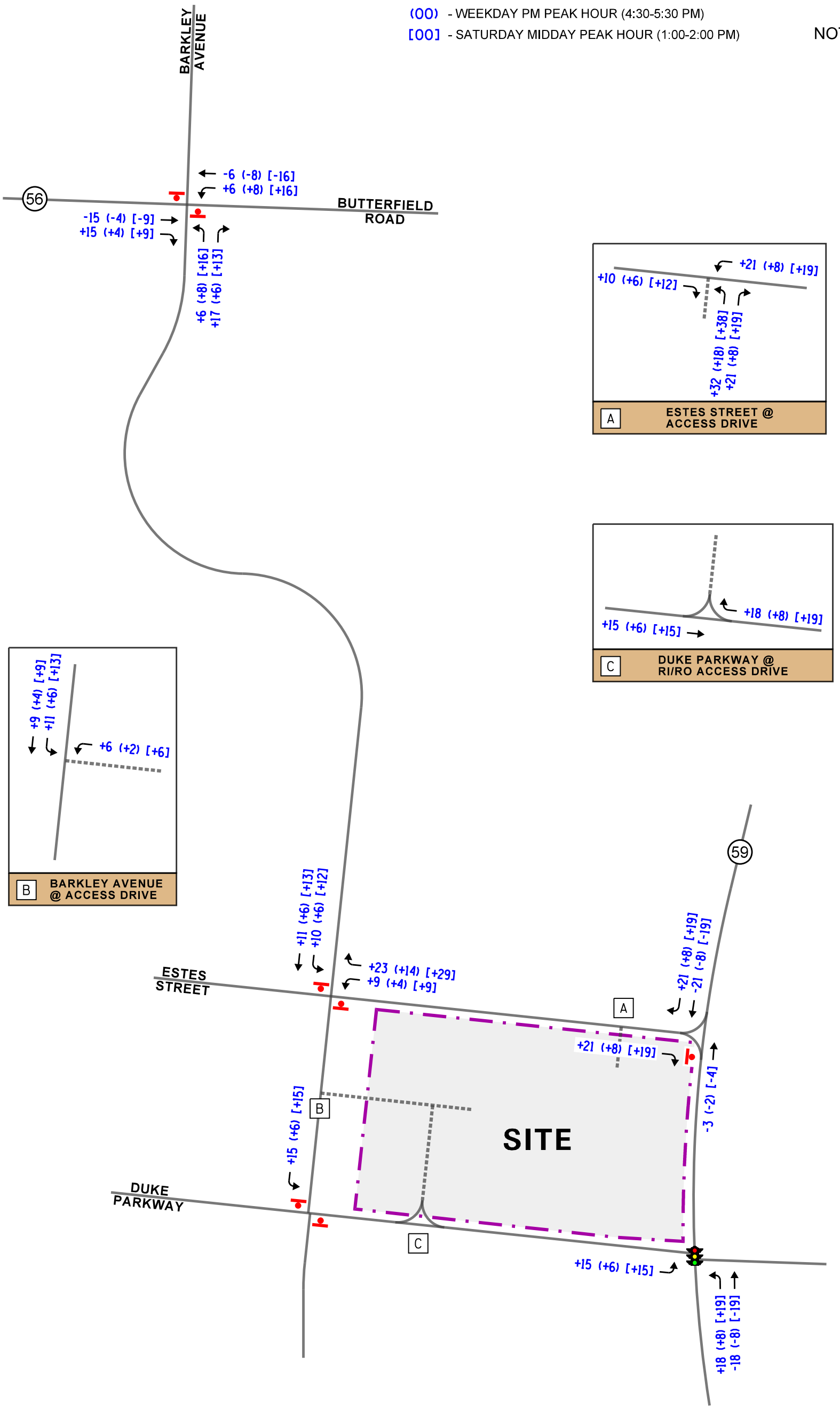
00 - WEEKDAY AM PEAK HOUR (7:15-8:15 AM)

(00) - WEEKDAY PM PEAK HOUR (4:30-5:30 PM)

[00] - SATURDAY MIDDAY PEAK HOUR (1:00-2:00 PM)

N

NOT TO SCALE



CAR WASH
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PASS-BY TRAFFIC VOLUMES

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

Job No: 25-009 Figure: 8

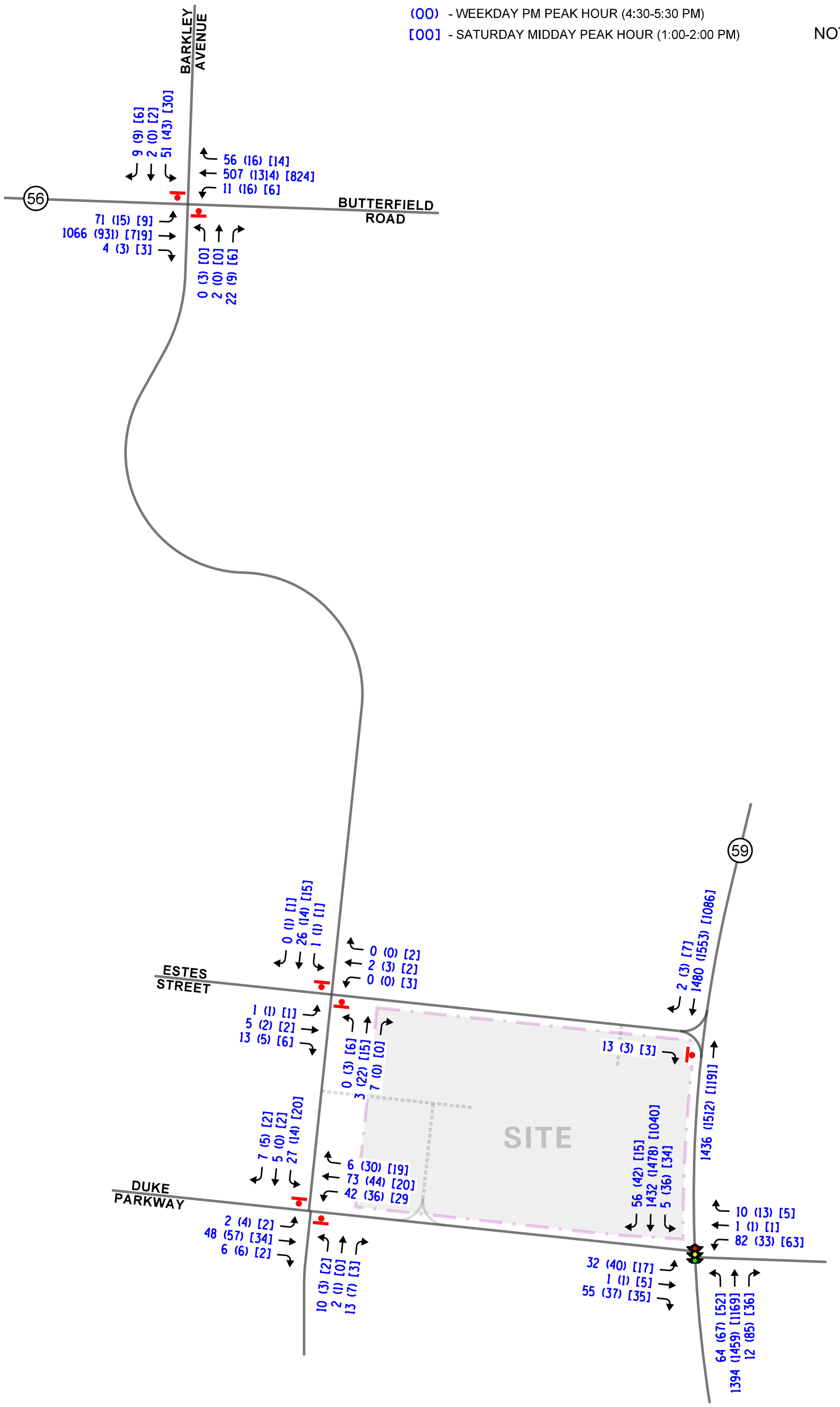
LEGEND

00 - WEEKDAY AM PEAK HOUR (7:15-8:15 AM)

(00) - WEEKDAY PM PEAK HOUR (4:30-5:30 PM)

[00] - SATURDAY MIDDAY PEAK HOUR (1:00-2:00 PM)

NOT TO SCALE



CAR WASH
WARRENVILLE, ILLINOIS

YEAR 2031 NO-BUILD TRAFFIC VOLUMES

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

Job No: 25-009 Figure: 9

LEGEND

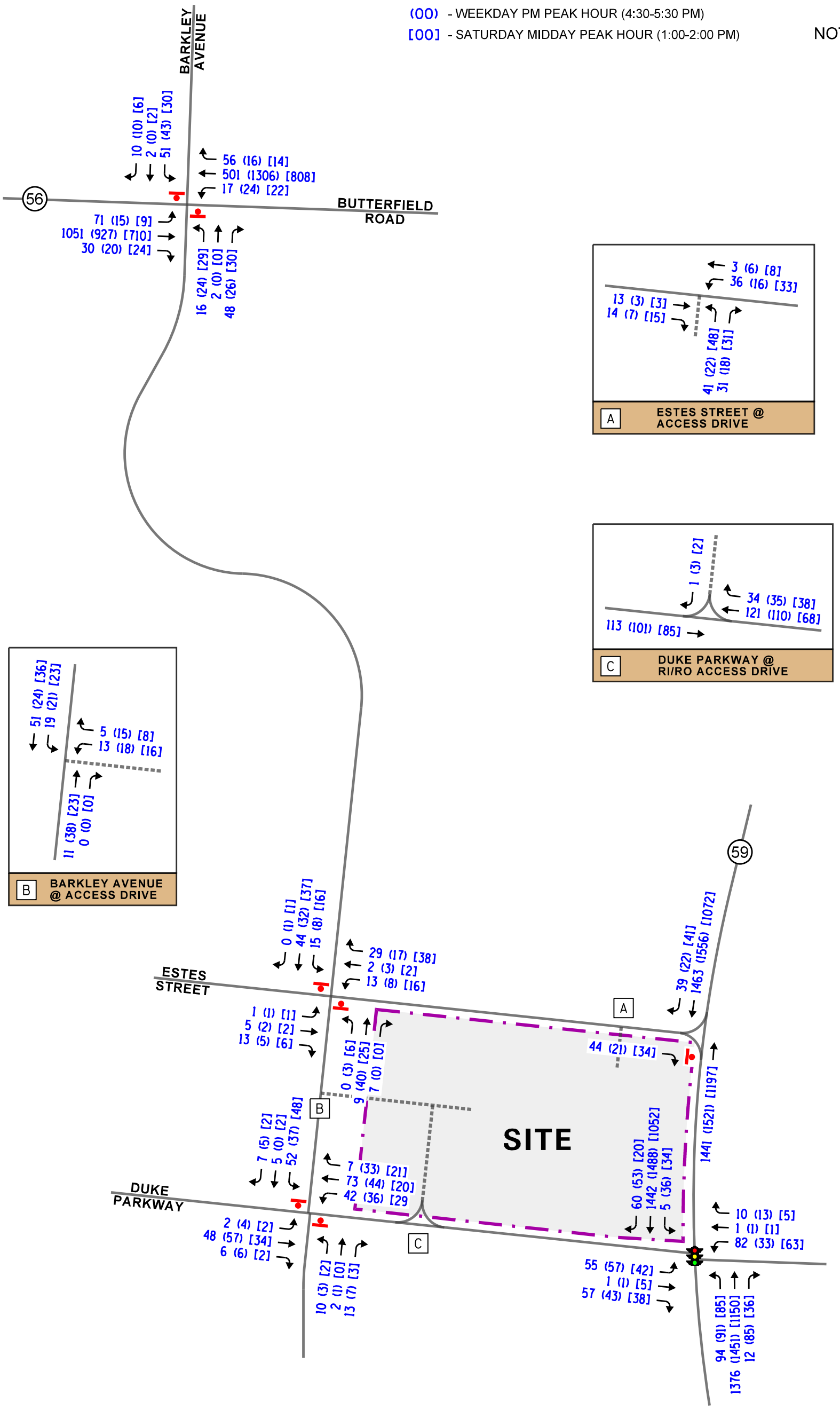
00 - WEEKDAY AM PEAK HOUR (7:15-8:15 AM)

(00) - WEEKDAY PM PEAK HOUR (4:30-5:30 PM)

[00] - SATURDAY MIDDAY PEAK HOUR (1:00-2:00 PM)

N

NOT TO SCALE



CAR WASH
WARRENVILLE, ILLINOIS

YEAR 2031 TOTAL TRAFFIC VOLUMES

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

Job No: 25-009 Figure: 10

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 (Year 2024), no-build, and future projected (Year 2031) 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 the Synchro/SimTraffic 11 software. The analysis for the traffic-signal controlled intersections were accomplished 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, Year 2031 no-build, and Year 2031 total projected conditions are presented in **Tables 5** through **8**. A discussion of the intersections follows. Summary sheets for the capacity analyses are included in the Appendix.

Table 5
IL 59 WITH DUKE PARKWAY – SIGNALIZED

	Peak Hour	Eastbound			Westbound		Northbound			Southbound			Overall
		L	T	R	L	T/R	L	T	R	L	T	R	
Existing Conditions	Weekday Morning	E 59.5	E 63.0	B 18.4	E 63.4	E 63.0	E 66.2	A 6.5	A 1.6	E 65.6	B 10.2	A 0.2	B 11.8
		C – 33.9			E – 63.4		A – 9.1			B – 10.0			
	Weekday Evening	E 62.1	E 60.0	A 8.1	D 54.0	E 64.3	E 66.3	B 11.6	A 2.7	E 71.2	B 12.2	A 0.1	B 14.5
		D – 35.4			E – 57.0		B – 13.4			B – 13.3			
	Saturday Midday	E 56.2	E 63.0	A 7.9	E 62.9	E 61.0	E 65.5	A 7.2	A 2.4	E 71.1	A 7.4	A 0.1	B 11.3
		C – 27.0			E – 62.8		A – 9.5			A – 9.3			
No-Build Conditions	Weekday Morning	E 61.1	E 63.0	B 19.3	E 59.0	E 63.0	E 66.3	A 8.0	A 1.6	E 65.6	B 13.3	A 0.3	B 13.8
		C – 34.9			E – 59.5		B – 10.5			B – 13.0			
	Weekday Evening	E 62.2	E 60.0	A 9.1	D 53.8	E 64.4	E 66.4	B 12.7	A 2.7	E 71.5	B 13.4	A 0.1	B 15.5
		D – 36.3			E – 57.0		B – 14.4			B – 14.4			
	Saturday Midday	E 56.4	E 63.0	A 8.7	E 63.4	E 61.0	E 65.6	A 8.3	A 2.5	E 71.4	A 7.7	A 0.1	B 12.0
		C – 27.8			E – 63.2		B – 10.5			A – 9.6			
Projected Conditions	Weekday Morning	E 634	E 62.0	B 17.6	E 58.9	E 63.8	E 66.4	A 8.1	A 1.7	E 65.6	B 14.5	A 0.4	B 15.3
		D – 40.3			E – 59.4		B – 11.8			B – 14.1			
	Weekday Evening	E 62.6	E 59.0	B 12.0	D 52.3	E 64.4	E 66.5	B 13.4	A 2.9	E 71.5	B 15.5	A 0.3	B 17.3
		D – 40.3			E – 55.9		B – 15.8			B – 16.3			
	Saturday Midday	E 60.7	E 63.0	A 9.4	E 63.8	E 62.5	E 66.0	A 8.1	A 2.5	E 71.4	A 8.5	A 0.1	B 13.4
		D – 37.8			E – 63.7		B – 11.8			B – 10.3			

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

Table 6
UNSIGNALIZED – EXISTING CONDITIONS

Intersection	Weekday Morning Peak Hour		Weekday Evening Peak Hour		Saturday Midday Peak Hour	
	LOS	Delay	LOS	Delay	LOS	Delay
Butterfield Road with Barkley Avenue[1]						
• Northbound Approach	C	15.5	B	13.3	B	10.6
• Southbound Approach	E	37.2	D	34.8	C	16.6
• Eastbound Left Turn	A	8.0	A	9.2	A	8.1
• Westbound Left Turn	B	10.9	A	9.9	A	9.0
Barkley Avenue with Estes Street[1]						
• Northbound Approach	A	8.6	A	9.2	A	9.1
• Southbound Approach	A	9.3	A	9.1	A	9.2
• Eastbound Left Turn	A	7.2	A	7.2	A	7.2
• Westbound Left Turn	A	0.1	A	0.1	A	7.2
Barkley Avenue with Duke Parkway[1]						
• Northbound Approach	B	10.6	B	10.5	A	9.5
• Southbound Approach	B	10.9	B	10.0	A	9.5
• Eastbound Left Turn	A	7.4	A	7.4	A	7.3
• Westbound Left Turn	A	8.0	A	7.9	A	7.6
IL 59 with Estes Street[2]						
• Eastbound Approach	B	12.2	B	12.4	B	10.4

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

Table 7
UNSIGNALIZED – YEAR 2031 NO-BUILD CONDITIONS

Intersection	Weekday Morning Peak Hour		Weekday Evening Peak Hour		Saturday Midday Peak Hour	
	LOS	Delay	LOS	Delay	LOS	Delay
Butterfield Road with Barkley Avenue[1]						
• Northbound Approach	C	16.7	B	14.3	B	10.8
• Southbound Approach	E	46.6	F	54.2	C	18.2
• Eastbound Left Turn	A	8.0	A	9.4	A	8.2
• Westbound Left Turn	B	11.4	B	10.1	A	9.2
Barkley Avenue with Estes Street[1]						
• Northbound Approach	A	8.6	A	9.3	A	9.1
• Southbound Approach	A	9.3	A	9.2	A	9.2
• Eastbound Left Turn	A	7.2	A	7.2	A	7.2
• Westbound Left Turn	A	0.1	A	0.1	A	7.2
Barkley Avenue with Duke Parkway[1]						
• Northbound Approach	B	10.7	B	10.6	A	9.6
• Southbound Approach	B	11.2	B	10.2	A	9.6
• Eastbound Left Turn	A	7.4	A	7.4	A	7.3
• Westbound Left Turn	A	8.0	A	7.9	A	7.6
IL 59 with Estes Street[2]						
• Eastbound Approach	B	12.6	B	13.2	B	10.6

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

Table 8
UNSIGNALIZED – YEAR 2031 TOTAL CONDITIONS

Intersection	Weekday Morning Peak Hour		Weekday Evening Peak Hour		Saturday Midday Peak Hour	
	LOS	Delay	LOS	Delay	LOS	Delay
Butterfield Road with Barkley Avenue[1]						
• Northbound Approach	D	25.1	C	18.2	B	14.3
• Southbound Approach	F	51.2	F	57.6	C	19.5
• Eastbound Left Turn	A	8.0	A	9.4	A	8.2
• Westbound Left Turn	B	11.0	B	10.3	A	9.3
Barkley Avenue with Estes Street[1]						
• Northbound Approach	A	9.1	A	9.9	A	9.7
• Southbound Approach	A	9.8	A	9.7	A	9.7
• Eastbound Left Turn	A	7.3	A	7.3	A	7.3
• Westbound Left Turn	A	7.3	A	7.2	A	7.2
Barkley Avenue with Duke Parkway[1]						
• Northbound Approach	B	10.7	B	10.6	A	9.6
• Southbound Approach	B	11.8	B	10.8	A	9.8
• Eastbound Left Turn	A	7.4	A	7.4	A	7.3
• Westbound Left Turn	A	8.0	A	7.9	A	7.6
IL 59 with Estes Street[2]						
• Eastbound Approach	B	13.2	B	13.6	B	10.9
Barkley Avenue with Proposed Access Drive[2]						
• Westbound Approach	A	9.0	A	9.0	A	9.0
• Southbound Left Turn	A	7.2	A	7.3	A	7.3
Eastes Street with Proposed Access Drive[2]						
• Northbound Approach	A	9.1	A	8.7	A	9.1
• Westbound Left Turn	A	7.3	A	7.2	A	7.3
Duke Parkway with Proposed Right-In/Right-Out[2]						
• Southbound Approach	A	9.0	A	8.9	A	8.7

LOS = Level of Service
Delay is measured in seconds.
1 – Two-way stop control
2 – One-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 development-generated traffic.

IL 59 with Duke Parkway

The results of the capacity analysis indicate that this signalized intersection currently operates overall at Level of Service (LOS) B during the weekday morning, weekday afternoon, and weekday evening peak hours. All the approaches operate at LOS D or better during the peak hours except for the westbound approach that operates at LOS E during all three peak hours which is due to the long cycle length (140 seconds) of the signal.

Under Year 2030 no-build and total projected conditions, the intersection is projected to continue operating at LOS B during all three peak hours with increases in delay of less than four seconds over the existing conditions. All the approaches are projected to continue operating at LOS D or better during the peak hours except for the westbound approach that is projected to continue operating at LOS E during all three peak hours. Additionally, the maximum 95th percentile queue for the eastbound left-turn movement is projected to be approximately 85 feet during the weekday evening peak hour and will not extend back to the location of the proposed right-in/right-out access drive. It should be noted that the proposed development is estimated to increase traffic traversing this intersection by less than two percent during the peak hours. As such, this intersection will not be significantly impacted by the proposed development and no roadway or traffic signal modifications will be required.

Butterfield Road with Barkley Avenue

The results of the capacity analysis indicate the northbound and southbound approaches currently operate at LOS D or better during the weekday morning, weekday evening, and Saturday midday peak hours except for the southbound approach that operates at LOS E during the weekday morning peak hour. The eastbound and westbound approaches operate at LOS B or better during the peak hours.

Under Year 2031 no-build and total projected conditions, the northbound and southbound approaches are projected to operate at LOS D or better during the peak hours except for the southbound approach that is projected to operate at LOS F with a Volume to Capacity ratio (v/c) of less than one during the weekday morning and weekday evening peak hours. This lower level of service is common and expected when a minor road intersects a major roadway such as Butterfield Road. The eastbound and westbound left-turn movements are projected to continue operating at LOS B or better during all three peak hours. As such, this intersection has adequate reserve capacity to accommodate the traffic estimated to be generated by the proposed development and no roadway improvements or traffic control adjustments will be required.

Barkley Avenue with Estes Street

The results of the capacity analysis indicate that all the approaches and their critical movements currently operate at LOS A during the weekday morning, weekday evening, and Saturday midday peak hours and will continue to do so under Year 2031 no-build and total projected conditions with increases in delay of less than one second over the existing conditions. The 95th percentile queues for the westbound and eastbound approaches are projected to be one to two vehicles and will not interrupt the traffic flow on Estes Street. As such, this intersection has adequate reserve capacity to accommodate the traffic estimated to be generated by the proposed development and no roadway improvements or traffic control adjustments will be required.

Barkley Avenue with Duke Parkway

The results of the capacity analysis indicate that the northbound and southbound approaches currently operate at LOS B or better during the weekday morning, weekday evening, and Saturday midday peak hours while the eastbound and westbound approaches operate at LOS A during all three peak hours.

Under Year 2031 no-build and total projected conditions, all the approaches are their critical movements are projected to continue operating at the same existing levels of service during the peak hours with increases in delay of less than one second over the existing conditions. The 95th percentile queues for the westbound and eastbound approaches are projected to be one to two vehicles and will not interrupt the traffic flow on Duke Parkway. As such, this intersection has adequate reserve capacity to accommodate the traffic estimated to be generated by the proposed development and no roadway improvements or traffic control adjustments will be required.

IL 59 with Estes Street

The results of the capacity analysis indicate that currently the eastbound approach operates at LOS B during the weekday morning, weekday evening, and Saturday midday peak hours and will continue to do so under Year 2031 no-build and total projected conditions with increases in delay of less than two seconds over the existing conditions. The 95th percentile queue for the eastbound approach is projected to be one to vehicles during all three peak hours and will not extend to the location of the proposed access drive. As such, this intersection has adequate reserve capacity to accommodate the traffic estimated to be generated by the proposed development and no roadway improvements or traffic control adjustments will be required.

Barkley Avenue with Proposed Full Movement Access Drive

The results of the capacity analysis indicate that under Year 2031 total projected conditions, the westbound approach and the southbound left-turn movement are projected to operate at LOS A during the weekday morning, weekday evening, and Saturday midday peak hours. The 95th percentile queue for the southbound left-turn movement is projected to be one to two vehicles during all three peak hours and will not interrupt the traffic flow along Barkley Avenue. As such this access drive is projected to provide flexible and efficient access to the site and no additional roadway or traffic control measures are required.

Estes Street with Proposed Full Movement Access Drive

The results of the capacity analysis indicate that under Year 2031 total projected conditions, the northbound approach and the westbound left-turn movement are projected to operate at LOS A during the weekday morning, weekday evening, and Saturday midday peak hours. The 95th percentile queue for the westbound left turn movement is projected to be one to two vehicles during all three peak hours and will not interrupt the traffic flow along Estes Street. As such this access drive is projected to provide flexible and efficient access to the site and no additional roadway or traffic control measures are required.

Duke Parkway with Proposed Right-In/Right-Out Access Drive

The results of the capacity analysis indicate that under Year 2031 total projected conditions, the southbound approach is projected to operate at LOS A during the weekday morning, weekday evening, and Saturday midday peak hours. As such this access drive is projected to provide efficient access to the site and no additional roadway or traffic control measures are required.

6. Conclusion

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

- The site will be developed into an automatic car wash with one car wash tunnel with 20 vacuum stalls and six employee parking spaces and a Starbucks coffee shop with drive-through and 22 parking spaces.

- The results of the capacity analysis indicated that the existing roadway system will not be significantly impacted by the proposed development and no additional roadway improvements or traffic control modifications are required.

- Access to the proposed development will be provided via the following:

    - A proposed full-movement access drive off Estes Street located approximately 205 feet west of IL 59. This access drive will provide one inbound lane and one outbound lane with the outbound movements under stop sign control. It should be noted that this access drive will provide direct access to Starbucks and indirect access to the car wash via an internal shared driveway.

    - A proposed full-movement access drive off Barkley Avenue approximately 170 feet south of Estes Street. This access drive will provide one inbound lane and one outbound lane with the outbound movements under stop sign control.

    - A proposed right-in/right-out access drive located approximately 505 feet west of IL 59. This access drive will provide one inbound lane and one outbound lane with the outbound movement under stop sign control. This access drive will provide direct access to the car wash and indirect access to Starbucks via an internal shared driveway.

- The results of the capacity analysis indicated that the existing roadway system will not be significantly impacted by the proposed car wash and no additional roadway improvements or traffic control modifications are required.

- In order to enhance the flow of traffic through the car wash site on peak days, the operator should consider implementing the following recommendations:

    - Increase the service rate of the tunnel to the maximum it can process.

    - Provide staff at critical locations within the circulation system during peak periods at the car wash to help direct and manage the flow of traffic through the site. Critical internal locations where staff should be located include at the pay stations and at the exit of the car wash.

Appendix

Traffic Count Summary Sheets
Site Plan
ITE Trip Generation Summary Sheets
CMAP 2050 Projections Letter
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 sainkeshavarzi@kloainc.com

Count Name: Barkley Avenue with Duke Pkwy
TMC
Site Code:
Start Date: 01/25/2025

Turning Movement Data

Start Time	Duke Pkwy Eastbound						Duke Pkwy Westbound						Barkley Avenue Northbound						Barkley Avenue 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	
12:00 PM	0	1	2	2	0	5	0	12	4	5	0	21	0	1	0	1	0	2	0	3	1	1	0	5	33
12:15 PM	0	0	1	0	0	1	2	7	1	3	0	13	0	2	0	2	0	4	0	2	0	0	0	2	20
12:30 PM	0	0	2	0	0	2	0	9	2	2	0	13	0	0	1	1	0	2	0	3	0	0	0	3	20
12:45 PM	0	0	4	0	0	4	1	5	2	6	0	14	0	0	0	0	1	0	0	2	0	0	0	2	20
Hourly Total	0	1	9	2	0	12	3	33	9	16	0	61	0	3	1	4	1	8	0	10	1	1	0	12	93
1:00 PM	0	0	5	1	2	6	0	6	2	2	0	10	0	0	0	1	0	1	0	8	0	1	0	9	26
1:15 PM	0	2	4	0	0	6	0	5	1	5	0	11	0	2	0	1	0	3	0	2	0	1	0	3	23
1:30 PM	0	0	1	0	0	1	0	9	4	6	0	19	0	0	0	0	0	0	0	3	0	0	0	3	23
1:45 PM	0	0	5	1	2	6	1	6	3	5	0	15	0	0	0	1	0	1	0	6	2	0	0	8	30
Hourly Total	0	2	15	2	4	19	1	26	10	18	0	55	0	2	0	3	0	5	0	19	2	2	0	23	102
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
7:00 AM	0	0	6	1	0	7	0	6	26	1	0	33	0	3	0	2	0	5	0	4	1	5	0	10	55
7:15 AM	0	1	4	2	0	7	0	12	29	1	0	42	0	3	0	4	0	7	0	10	0	5	0	15	71
7:30 AM	0	0	5	3	1	8	0	9	11	0	0	20	0	2	1	4	0	7	0	4	1	2	0	7	42
7:45 AM	0	0	3	1	0	4	0	11	9	3	1	23	0	1	0	2	0	3	0	7	0	0	0	7	37
Hourly Total	0	1	18	7	1	26	0	38	75	5	1	118	0	9	1	12	0	22	0	25	2	12	0	39	205
8:00 AM	0	1	9	0	0	10	0	7	16	2	0	25	0	3	1	2	0	6	0	4	2	0	0	6	47
8:15 AM	0	0	2	2	0	4	0	17	15	3	0	35	0	1	0	2	0	3	0	2	0	0	0	2	44
8:30 AM	0	0	3	1	0	4	0	10	15	2	0	27	0	1	1	3	0	5	0	6	0	1	0	7	43
8:45 AM	1	0	3	2	0	6	0	9	10	3	0	22	0	1	0	4	0	5	0	2	0	0	0	2	35
Hourly Total	1	1	17	5	0	24	0	43	56	10	0	109	0	6	2	11	0	19	0	14	2	1	0	17	169
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4:00 PM	0	0	16	2	0	18	0	10	4	7	0	21	0	0	0	4	0	4	0	3	0	0	0	3	46
4:15 PM	0	1	4	0	0	5	0	10	3	5	0	18	0	1	0	1	0	2	0	0	0	0	0	0	25
4:30 PM	0	0	12	3	0	15	1	8	2	8	0	19	0	1	0	1	0	2	0	1	0	0	0	1	37
4:45 PM	0	3	2	0	0	5	0	4	5	8	0	17	0	1	1	0	0	2	0	3	0	0	0	3	27
Hourly Total	0	4	34	5	0	43	1	32	14	28	0	75	0	3	1	6	0	10	0	7	0	0	0	7	135
5:00 PM	0	1	11	1	0	13	0	15	12	7	0	34	0	0	0	3	0	3	0	8	0	3	1	11	61
5:15 PM	0	0	12	2	1	14	0	6	14	5	0	25	0	1	0	3	0	4	0	1	0	2	1	3	46
5:30 PM	1	0	36	1	0	38	0	6	15	9	0	30	0	1	0	4	0	5	0	3	0	1	0	4	77
5:45 PM	0	2	13	0	0	15	0	8	21	10	0	39	0	2	1	0	0	3	0	4	0	0	0	4	61
Hourly Total	1	3	72	4	1	80	0	35	62	31	0	128	0	4	1	10	0	15	0	16	0	6	2	22	245
Grand Total	2	12	165	25	6	204	5	207	226	108	1	546	0	27	6	46	1	79	0	91	7	22	2	120	949
Approach %	1.0	5.9	80.9	12.3	-	-	0.9	37.9	41.4	19.8	-	-	0.0	34.2	7.6	58.2	-	-	0.0	75.8	5.8	18.3	-	-	-
Total %	0.2	1.3	17.4	2.6	-	21.5	0.5	21.8	23.8	11.4	-	57.5	0.0	2.8	0.6	4.8	-	8.3	0.0	9.6	0.7	2.3	-	12.6	-

Lights	0	12	144	10	-	166	5	136	205	104	-	450	0	15	6	6	-	27	0	90	7	22	-	119	762
% Lights	0.0	100.0	87.3	40.0	-	81.4	100.0	65.7	90.7	96.3	-	82.4	-	55.6	100.0	13.0	-	34.2	-	98.9	100.0	100.0	-	99.2	80.3
Buses	0	0	0	0	-	0	0	1	0	1	-	2	0	0	0	0	-	0	0	0	0	0	-	0	2
% Buses	0.0	0.0	0.0	0.0	-	0.0	0.0	0.5	0.0	0.9	-	0.4	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	0.2
Single-Unit Trucks	1	0	6	8	-	15	0	19	3	2	-	24	0	6	0	6	-	12	0	1	0	0	-	1	52
% Single-Unit Trucks	50.0	0.0	3.6	32.0	-	7.4	0.0	9.2	1.3	1.9	-	4.4	-	22.2	0.0	13.0	-	15.2	-	1.1	0.0	0.0	-	0.8	5.5
Articulated Trucks	1	0	15	7	-	23	0	51	18	0	-	69	0	6	0	34	-	40	0	0	0	0	-	0	132
% Articulated Trucks	50.0	0.0	9.1	28.0	-	11.3	0.0	24.6	8.0	0.0	-	12.6	-	22.2	0.0	73.9	-	50.6	-	0.0	0.0	0.0	-	0.0	13.9
Bicycles on Road	0	0	0	0	-	0	0	0	0	1	-	1	0	0	0	0	-	0	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	0.9	-	0.2	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	0.1
Pedestrians	-	-	-	-	6	-	-	-	-	-	1	-	-	-	-	-	1	-	-	-	-	-	2	-	-
% Pedestrians	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-

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9575 W. Higgins Rd., Suite 400

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

Count Name: Barkley Avenue with Duke Pkwy
TMC
Site Code:
Start Date: 01/25/2025

Turning Movement Peak Hour Data (1:00 PM)

Start Time	Duke Pkwy Eastbound						Duke Pkwy Westbound						Barkley Avenue Northbound						Barkley Avenue 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
1:00 PM	0	0	5	1	2	6	0	6	2	2	0	10	0	0	0	1	0	1	0	8	0	1	0	9	26
1:15 PM	0	2	4	0	0	6	0	5	1	5	0	11	0	2	0	1	0	3	0	2	0	1	0	3	23
1:30 PM	0	0	1	0	0	1	0	9	4	6	0	19	0	0	0	0	0	0	0	3	0	0	0	3	23
1:45 PM	0	0	5	1	2	6	1	6	3	5	0	15	0	0	0	1	0	1	0	6	2	0	0	8	30
Total	0	2	15	2	4	19	1	26	10	18	0	55	0	2	0	3	0	5	0	19	2	2	0	23	102
Approach %	0.0	10.5	78.9	10.5	-	-	1.8	47.3	18.2	32.7	-	-	0.0	40.0	0.0	60.0	-	-	0.0	82.6	8.7	8.7	-	-	-
Total %	0.0	2.0	14.7	2.0	-	18.6	1.0	25.5	9.8	17.6	-	53.9	0.0	2.0	0.0	2.9	-	4.9	0.0	18.6	2.0	2.0	-	22.5	-
PHF	0.000	0.250	0.750	0.500	-	0.792	0.250	0.722	0.625	0.750	-	0.724	0.000	0.250	0.000	0.750	-	0.417	0.000	0.594	0.250	0.500	-	0.639	0.850
Lights	0	2	11	0	-	13	1	18	8	18	-	45	0	1	0	1	-	2	0	18	2	2	-	22	82
% Lights	-	100.0	73.3	0.0	-	68.4	100.0	69.2	80.0	100.0	-	81.8	-	50.0	-	33.3	-	40.0	-	94.7	100.0	100.0	-	95.7	80.4
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	-	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	0.0
Single-Unit Trucks	0	0	2	1	-	3	0	6	0	0	-	6	0	0	0	0	-	0	0	1	0	0	-	1	10
% Single-Unit Trucks	-	0.0	13.3	50.0	-	15.8	0.0	23.1	0.0	0.0	-	10.9	-	0.0	-	0.0	-	0.0	-	5.3	0.0	0.0	-	4.3	9.8
Articulated Trucks	0	0	2	1	-	3	0	2	2	0	-	4	0	1	0	2	-	3	0	0	0	0	-	0	10
% Articulated Trucks	-	0.0	13.3	50.0	-	15.8	0.0	7.7	20.0	0.0	-	7.3	-	50.0	-	66.7	-	60.0	-	0.0	0.0	0.0	-	0.0	9.8
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	-	-	-	-	4	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	100.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

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(847)518-9990 sainkeshavarzi@kloainc.com

Count Name: Barkley Avenue with Duke Pkwy
TMC
Site Code:
Start Date: 01/25/2025

Turning Movement Peak Hour Data (7:15 AM)

Start Time	Duke Pkwy Eastbound						Duke Pkwy Westbound						Barkley Avenue Northbound						Barkley Avenue 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	
7:15 AM	0	1	4	2	0	7	0	12	29	1	0	42	0	3	0	4	0	7	0	10	0	5	0	15	71
7:30 AM	0	0	5	3	1	8	0	9	11	0	0	20	0	2	1	4	0	7	0	4	1	2	0	7	42
7:45 AM	0	0	3	1	0	4	0	11	9	3	1	23	0	1	0	2	0	3	0	7	0	0	0	7	37
8:00 AM	0	1	9	0	0	10	0	7	16	2	0	25	0	3	1	2	0	6	0	4	2	0	0	6	47
Total	0	2	21	6	1	29	0	39	65	6	1	110	0	9	2	12	0	23	0	25	3	7	0	35	197
Approach %	0.0	6.9	72.4	20.7	-	-	0.0	35.5	59.1	5.5	-	-	0.0	39.1	8.7	52.2	-	-	0.0	71.4	8.6	20.0	-	-	-
Total %	0.0	1.0	10.7	3.0	-	14.7	0.0	19.8	33.0	3.0	-	55.8	0.0	4.6	1.0	6.1	-	11.7	0.0	12.7	1.5	3.6	-	17.8	-
PHF	0.000	0.500	0.583	0.500	-	0.725	0.000	0.813	0.560	0.500	-	0.655	0.000	0.750	0.500	0.750	-	0.821	0.000	0.625	0.375	0.350	-	0.583	0.694
Lights	0	2	18	2	-	22	0	18	61	4	-	83	0	8	2	0	-	10	0	25	3	7	-	35	150
% Lights	-	100.0	85.7	33.3	-	75.9	-	46.2	93.8	66.7	-	75.5	-	88.9	100.0	0.0	-	43.5	-	100.0	100.0	100.0	-	100.0	76.1
Buses	0	0	0	0	-	0	0	1	0	1	-	2	0	0	0	0	-	0	0	0	0	0	-	0	2
% Buses	-	0.0	0.0	0.0	-	0.0	-	2.6	0.0	16.7	-	1.8	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	1.0
Single-Unit Trucks	0	0	2	3	-	5	0	4	1	0	-	5	0	0	0	2	-	2	0	0	0	0	-	0	12
% Single-Unit Trucks	-	0.0	9.5	50.0	-	17.2	-	10.3	1.5	0.0	-	4.5	-	0.0	0.0	16.7	-	8.7	-	0.0	0.0	0.0	-	0.0	6.1
Articulated Trucks	0	0	1	1	-	2	0	16	3	0	-	19	0	1	0	10	-	11	0	0	0	0	-	0	32
% Articulated Trucks	-	0.0	4.8	16.7	-	6.9	-	41.0	4.6	0.0	-	17.3	-	11.1	0.0	83.3	-	47.8	-	0.0	0.0	0.0	-	0.0	16.2
Bicycles on Road	0	0	0	0	-	0	0	0	0	1	-	1	0	0	0	0	-	0	0	0	0	0	-	0	1
% Bicycles on Road	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	16.7	-	0.9	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	0.5
Pedestrians	-	-	-	-	1	-	-	-	-	-	1	-	-	-	-	-	0	-	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-

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Count Name: Barkley Avenue with Duke Pkwy
TMC
Site Code:
Start Date: 01/25/2025

Turning Movement Peak Hour Data (4:30 PM)

Start Time	Duke Pkwy Eastbound						Duke Pkwy Westbound						Barkley Avenue Northbound						Barkley Avenue 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
4:30 PM	0	0	12	3	0	15	1	8	2	8	0	19	0	1	0	1	0	2	0	1	0	0	0	1	37
4:45 PM	0	3	2	0	0	5	0	4	5	8	0	17	0	1	1	0	0	2	0	3	0	0	0	3	27
5:00 PM	0	1	11	1	0	13	0	15	12	7	0	34	0	0	0	3	0	3	0	8	0	3	1	11	61
5:15 PM	0	0	12	2	1	14	0	6	14	5	0	25	0	1	0	3	0	4	0	1	0	2	1	3	46
Total	0	4	37	6	1	47	1	33	33	28	0	95	0	3	1	7	0	11	0	13	0	5	2	18	171
Approach %	0.0	8.5	78.7	12.8	-	-	1.1	34.7	34.7	29.5	-	-	0.0	27.3	9.1	63.6	-	-	0.0	72.2	0.0	27.8	-	-	-
Total %	0.0	2.3	21.6	3.5	-	27.5	0.6	19.3	19.3	16.4	-	55.6	0.0	1.8	0.6	4.1	-	6.4	0.0	7.6	0.0	2.9	-	10.5	-
PHF	0.000	0.333	0.771	0.500	-	0.783	0.250	0.550	0.589	0.875	-	0.699	0.000	0.750	0.250	0.583	-	0.688	0.000	0.406	0.000	0.417	-	0.409	0.701
Lights	0	4	32	4	-	40	1	19	25	27	-	72	0	0	1	1	-	2	0	13	0	5	-	18	132
% Lights	-	100.0	86.5	66.7	-	85.1	100.0	57.6	75.8	96.4	-	75.8	-	0.0	100.0	14.3	-	18.2	-	100.0	-	100.0	-	100.0	77.2
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	0.0	0.0	-	0.0	-	0.0	-	0.0	-	0.0	0.0
Single-Unit Trucks	0	0	1	1	-	2	0	1	2	1	-	4	0	2	0	0	-	2	0	0	0	0	-	0	8
% Single-Unit Trucks	-	0.0	2.7	16.7	-	4.3	0.0	3.0	6.1	3.6	-	4.2	-	66.7	0.0	0.0	-	18.2	-	0.0	-	0.0	-	0.0	4.7
Articulated Trucks	0	0	4	1	-	5	0	13	6	0	-	19	0	1	0	6	-	7	0	0	0	0	-	0	31
% Articulated Trucks	-	0.0	10.8	16.7	-	10.6	0.0	39.4	18.2	0.0	-	20.0	-	33.3	0.0	85.7	-	63.6	-	0.0	-	0.0	-	0.0	18.1
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	-	-	-	-	1	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	2	-	-
% Pedestrians	-	-	-	-	100.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	100.0	-	-

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9575 W. Higgins Rd., Suite 400

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Count Name:
Butterfield+Road+and+Barkley+Avenue TMC
Site Code:
Start Date: 01/25/2025

Turning Movement Data

Start Time	Butterfield Road Eastbound						Butterfield Road Westbound						Barley Avenue Northbound						Barkley Avenue 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	
12:00 PM	0	2	150	2	2	154	1	2	175	2	0	180	0	2	0	0	2	2	0	6	1	5	0	12	348
12:15 PM	0	3	158	1	0	162	0	0	176	4	0	180	0	1	0	2	0	3	0	9	1	3	0	13	358
12:30 PM	0	2	149	2	0	153	0	3	179	1	0	183	0	0	0	0	0	0	0	5	0	2	0	7	343
12:45 PM	0	2	163	0	0	165	0	1	183	5	0	189	0	1	0	2	0	3	0	2	0	2	0	4	361
Hourly Total	0	9	620	5	2	634	1	6	713	12	0	732	0	4	0	4	2	8	0	22	2	12	0	36	1410
1:00 PM	0	3	163	0	0	166	0	0	173	0	0	173	0	0	0	0	0	0	0	6	1	2	0	9	348
1:15 PM	0	3	180	2	0	185	0	0	193	4	0	197	0	0	0	4	2	4	0	9	0	2	0	11	397
1:30 PM	0	1	167	0	0	168	0	2	207	3	0	212	0	0	0	1	0	1	0	6	1	1	0	8	389
1:45 PM	0	1	162	1	0	164	2	2	197	6	0	207	0	0	0	1	0	1	0	7	0	1	0	8	380
Hourly Total	0	8	672	3	0	683	2	4	770	13	0	789	0	0	0	6	2	6	0	28	2	6	0	36	1514
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
7:00 AM	0	3	228	3	0	234	0	0	164	9	0	173	0	0	0	6	0	6	0	5	0	1	0	6	419
7:15 AM	0	7	239	2	0	248	0	1	190	12	0	203	0	0	0	4	0	4	0	9	1	4	0	14	469
7:30 AM	0	10	296	1	0	307	1	2	187	8	0	198	0	0	0	7	0	7	0	8	1	1	0	10	522
7:45 AM	0	30	242	0	0	272	0	3	199	12	0	214	0	0	2	5	0	7	0	15	0	2	0	17	510
Hourly Total	0	50	1005	6	0	1061	1	6	740	41	0	788	0	0	2	22	0	24	0	37	2	8	0	47	1920
8:00 AM	1	18	219	1	0	239	1	2	171	20	0	194	0	0	0	5	0	5	0	16	0	2	0	18	456
8:15 AM	0	8	260	1	0	269	1	2	176	9	0	188	0	0	0	5	0	5	0	8	0	3	0	11	473
8:30 AM	0	9	237	0	0	246	0	1	156	16	0	173	0	2	0	3	0	5	0	17	0	0	0	17	441
8:45 AM	0	9	197	0	0	206	1	0	147	18	0	166	0	1	0	3	0	4	0	13	0	2	0	15	391
Hourly Total	1	44	913	2	0	960	3	5	650	63	0	721	0	3	0	16	0	19	0	54	0	7	0	61	1761
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4:00 PM	0	6	222	1	0	229	0	1	296	6	0	303	0	0	0	1	0	1	0	11	2	4	0	17	550
4:15 PM	0	4	212	0	0	216	0	4	296	3	0	303	0	0	0	1	0	1	0	14	0	3	0	17	537
4:30 PM	1	5	230	0	0	236	2	3	278	3	0	286	0	0	0	4	0	4	0	12	0	3	0	15	541
4:45 PM	0	3	216	0	0	219	1	1	297	3	0	302	0	1	0	0	0	1	0	7	0	1	0	8	530
Hourly Total	1	18	880	1	0	900	3	9	1167	15	0	1194	0	1	0	6	0	7	0	44	2	11	0	57	2158
5:00 PM	0	4	185	1	0	190	1	3	358	7	0	369	0	2	0	1	0	3	0	8	0	4	0	12	574
5:15 PM	0	1	239	2	0	242	0	4	295	2	0	301	0	0	0	3	0	3	0	13	0	1	0	14	560
5:30 PM	0	2	203	1	0	206	0	4	274	2	0	280	0	0	0	5	0	5	0	8	0	4	0	12	503
5:45 PM	0	3	169	2	0	174	0	6	240	2	0	248	0	0	0	3	0	3	0	6	0	0	0	6	431
Hourly Total	0	10	796	6	0	812	1	17	1167	13	0	1198	0	2	0	12	0	14	0	35	0	9	0	44	2068
Grand Total	2	139	4886	23	2	5050	11	47	5207	157	0	5422	0	10	2	66	4	78	0	220	8	53	0	281	10831
Approach %	0.0	2.8	96.8	0.5	-	-	0.2	0.9	96.0	2.9	-	-	0.0	12.8	2.6	84.6	-	-	0.0	78.3	2.8	18.9	-	-	-
Total %	0.0	1.3	45.1	0.2	-	46.6	0.1	0.4	48.1	1.4	-	50.1	0.0	0.1	0.0	0.6	-	0.7	0.0	2.0	0.1	0.5	-	2.6	-

Lights	2	132	4743	23	-	4900	11	47	5070	142	-	5270	0	10	1	66	-	77	0	198	8	51	-	257	10504
% Lights	100.0	95.0	97.1	100.0	-	97.0	100.0	100.0	97.4	90.4	-	97.2	-	100.0	50.0	100.0	-	98.7	-	90.0	100.0	96.2	-	91.5	97.0
Buses	0	1	10	0	-	11	0	0	11	2	-	13	0	0	0	0	-	0	0	0	0	0	-	0	24
% Buses	0.0	0.7	0.2	0.0	-	0.2	0.0	0.0	0.2	1.3	-	0.2	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	0.2
Single-Unit Trucks	0	4	66	0	-	70	0	0	59	10	-	69	0	0	0	0	-	0	0	12	0	2	-	14	153
% Single-Unit Trucks	0.0	2.9	1.4	0.0	-	1.4	0.0	0.0	1.1	6.4	-	1.3	-	0.0	0.0	0.0	-	0.0	-	5.5	0.0	3.8	-	5.0	1.4
Articulated Trucks	0	2	67	0	-	69	0	0	67	3	-	70	0	0	0	0	-	0	0	10	0	0	-	10	149
% Articulated Trucks	0.0	1.4	1.4	0.0	-	1.4	0.0	0.0	1.3	1.9	-	1.3	-	0.0	0.0	0.0	-	0.0	-	4.5	0.0	0.0	-	3.6	1.4
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	0.0	-	0.0	-	0.0	50.0	0.0	-	1.3	-	0.0	0.0	0.0	-	0.0	0.0
Pedestrians	-	-	-	-	2	-	-	-	-	-	0	-	-	-	-	-	4	-	-	-	-	-	0	-	-
% 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 sainkeshavarzi@kloainc.com

Count Name: Butterfield+Road+and+Barkley+Avenue TMC
Site Code:
Start Date: 01/25/2025

Turning Movement Peak Hour Data (1:00 PM)

Start Time	Butterfield Road Eastbound						Butterfield Road Westbound						Barley Avenue Northbound						Barkley Avenue 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
1:00 PM	0	3	163	0	0	166	0	0	173	0	0	173	0	0	0	0	0	0	0	6	1	2	0	9	348
1:15 PM	0	3	180	2	0	185	0	0	193	4	0	197	0	0	0	4	2	4	0	9	0	2	0	11	397
1:30 PM	0	1	167	0	0	168	0	2	207	3	0	212	0	0	0	1	0	1	0	6	1	1	0	8	389
1:45 PM	0	1	162	1	0	164	2	2	197	6	0	207	0	0	0	1	0	1	0	7	0	1	0	8	380
Total	0	8	672	3	0	683	2	4	770	13	0	789	0	0	0	6	2	6	0	28	2	6	0	36	1514
Approach %	0.0	1.2	98.4	0.4	-	-	0.3	0.5	97.6	1.6	-	-	0.0	0.0	0.0	100.0	-	-	0.0	77.8	5.6	16.7	-	-	-
Total %	0.0	0.5	44.4	0.2	-	45.1	0.1	0.3	50.9	0.9	-	52.1	0.0	0.0	0.0	0.4	-	0.4	0.0	1.8	0.1	0.4	-	2.4	-
PHF	0.000	0.667	0.933	0.375	-	0.923	0.250	0.500	0.930	0.542	-	0.930	0.000	0.000	0.000	0.375	-	0.375	0.000	0.778	0.500	0.750	-	0.818	0.953
Lights	0	8	656	3	-	667	2	4	759	12	-	777	0	0	0	6	-	6	0	28	2	6	-	36	1486
% Lights	-	100.0	97.6	100.0	-	97.7	100.0	100.0	98.6	92.3	-	98.5	-	-	-	100.0	-	100.0	-	100.0	100.0	100.0	-	100.0	98.2
Buses	0	0	3	0	-	3	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	3
% Buses	-	0.0	0.4	0.0	-	0.4	0.0	0.0	0.0	0.0	-	0.0	-	-	-	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	0.2
Single-Unit Trucks	0	0	9	0	-	9	0	0	9	0	-	9	0	0	0	0	-	0	0	0	0	0	-	0	18
% Single-Unit Trucks	-	0.0	1.3	0.0	-	1.3	0.0	0.0	1.2	0.0	-	1.1	-	-	-	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	1.2
Articulated Trucks	0	0	4	0	-	4	0	0	2	1	-	3	0	0	0	0	-	0	0	0	0	0	-	0	7
% Articulated Trucks	-	0.0	0.6	0.0	-	0.6	0.0	0.0	0.3	7.7	-	0.4	-	-	-	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	-	-	-	-	-	2	-	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	100.0	-	-	-	-	-	-	-	-

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Count Name: Butterfield+Road+and+Barkley+Avenue TMC
Site Code:
Start Date: 01/25/2025

Turning Movement Peak Hour Data (7:15 AM)

Start Time	Butterfield Road Eastbound						Butterfield Road Westbound						Barley Avenue Northbound						Barkley Avenue 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
7:15 AM	0	7	239	2	0	248	0	1	190	12	0	203	0	0	0	4	0	4	0	9	1	4	0	14	469
7:30 AM	0	10	296	1	0	307	1	2	187	8	0	198	0	0	0	7	0	7	0	8	1	1	0	10	522
7:45 AM	0	30	242	0	0	272	0	3	199	12	0	214	0	0	2	5	0	7	0	15	0	2	0	17	510
8:00 AM	1	18	219	1	0	239	1	2	171	20	0	194	0	0	0	5	0	5	0	16	0	2	0	18	456
Total	1	65	996	4	0	1066	2	8	747	52	0	809	0	0	2	21	0	23	0	48	2	9	0	59	1957
Approach %	0.1	6.1	93.4	0.4	-	-	0.2	1.0	92.3	6.4	-	-	0.0	0.0	8.7	91.3	-	-	0.0	81.4	3.4	15.3	-	-	-
Total %	0.1	3.3	50.9	0.2	-	54.5	0.1	0.4	38.2	2.7	-	41.3	0.0	0.0	0.1	1.1	-	1.2	0.0	2.5	0.1	0.5	-	3.0	-
PHF	0.250	0.542	0.841	0.500	-	0.868	0.500	0.667	0.938	0.650	-	0.945	0.000	0.000	0.250	0.750	-	0.821	0.000	0.750	0.500	0.563	-	0.819	0.937
Lights	1	65	963	4	-	1033	2	8	711	52	-	773	0	0	1	21	-	22	0	36	2	8	-	46	1874
% Lights	100.0	100.0	96.7	100.0	-	96.9	100.0	100.0	95.2	100.0	-	95.6	-	-	50.0	100.0	-	95.7	-	75.0	100.0	88.9	-	78.0	95.8
Buses	0	0	2	0	-	2	0	0	4	0	-	4	0	0	0	0	-	0	0	0	0	0	-	0	6
% Buses	0.0	0.0	0.2	0.0	-	0.2	0.0	0.0	0.5	0.0	-	0.5	-	-	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	0.3
Single-Unit Trucks	0	0	17	0	-	17	0	0	13	0	-	13	0	0	0	0	-	0	0	5	0	1	-	6	36
% Single-Unit Trucks	0.0	0.0	1.7	0.0	-	1.6	0.0	0.0	1.7	0.0	-	1.6	-	-	0.0	0.0	-	0.0	-	10.4	0.0	11.1	-	10.2	1.8
Articulated Trucks	0	0	14	0	-	14	0	0	19	0	-	19	0	0	0	0	-	0	0	7	0	0	-	7	40
% Articulated Trucks	0.0	0.0	1.4	0.0	-	1.3	0.0	0.0	2.5	0.0	-	2.3	-	-	0.0	0.0	-	0.0	-	14.6	0.0	0.0	-	11.9	2.0
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	-	0.0	0.0	0.0	0.0	0.0	-	0.0	-	-	50.0	0.0	-	4.3	-	0.0	0.0	0.0	-	0.0	0.1
Pedestrians	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

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Count Name: Butterfield+Road+and+Barkley+Avenue TMC
Site Code:
Start Date: 01/25/2025

Turning Movement Peak Hour Data (4:30 PM)

Start Time	Butterfield Road Eastbound						Butterfield Road Westbound						Barley Avenue Northbound						Barkley Avenue 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
4:30 PM	1	5	230	0	0	236	2	3	278	3	0	286	0	0	0	4	0	4	0	12	0	3	0	15	541
4:45 PM	0	3	216	0	0	219	1	1	297	3	0	302	0	1	0	0	0	1	0	7	0	1	0	8	530
5:00 PM	0	4	185	1	0	190	1	3	358	7	0	369	0	2	0	1	0	3	0	8	0	4	0	12	574
5:15 PM	0	1	239	2	0	242	0	4	295	2	0	301	0	0	0	3	0	3	0	13	0	1	0	14	560
Total	1	13	870	3	0	887	4	11	1228	15	0	1258	0	3	0	8	0	11	0	40	0	9	0	49	2205
Approach %	0.1	1.5	98.1	0.3	-	-	0.3	0.9	97.6	1.2	-	-	0.0	27.3	0.0	72.7	-	-	0.0	81.6	0.0	18.4	-	-	-
Total %	0.0	0.6	39.5	0.1	-	40.2	0.2	0.5	55.7	0.7	-	57.1	0.0	0.1	0.0	0.4	-	0.5	0.0	1.8	0.0	0.4	-	2.2	-
PHF	0.250	0.650	0.910	0.375	-	0.916	0.500	0.688	0.858	0.536	-	0.852	0.000	0.375	0.000	0.500	-	0.688	0.000	0.769	0.000	0.563	-	0.817	0.960
Lights	1	13	846	3	-	863	4	11	1204	11	-	1230	0	3	0	8	-	11	0	37	0	9	-	46	2150
% Lights	100.0	100.0	97.2	100.0	-	97.3	100.0	100.0	98.0	73.3	-	97.8	-	100.0	-	100.0	-	100.0	-	92.5	-	100.0	-	93.9	97.5
Buses	0	0	0	0	-	0	0	0	3	0	-	3	0	0	0	0	-	0	0	0	0	0	-	0	3
% Buses	0.0	0.0	0.0	0.0	-	0.0	0.0	0.0	0.2	0.0	-	0.2	-	0.0	-	0.0	-	0.0	-	0.0	-	0.0	-	0.0	0.1
Single-Unit Trucks	0	0	9	0	-	9	0	0	4	4	-	8	0	0	0	0	-	0	0	1	0	0	-	1	18
% Single-Unit Trucks	0.0	0.0	1.0	0.0	-	1.0	0.0	0.0	0.3	26.7	-	0.6	-	0.0	-	0.0	-	0.0	-	2.5	-	0.0	-	2.0	0.8
Articulated Trucks	0	0	15	0	-	15	0	0	17	0	-	17	0	0	0	0	-	0	0	2	0	0	-	2	34
% Articulated Trucks	0.0	0.0	1.7	0.0	-	1.7	0.0	0.0	1.4	0.0	-	1.4	-	0.0	-	0.0	-	0.0	-	5.0	-	0.0	-	4.1	1.5
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	-	-	-	-	-	0	-	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

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9575 W. Higgins Rd., Suite 400

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

Count Name: Estes Street with Barley Avenue
TMC
Site Code:
Start Date: 01/25/2025

Turning Movement Data

Start Time	Estes Street Eastbound						Estes Street Westbound						Barkley Avenue Northbound						Barkley Avenue 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	
12:00 PM	0	1	1	2	0	4	0	0	0	0	0	0	0	3	4	0	0	7	0	1	2	0	2	3	14
12:15 PM	0	0	1	2	0	3	0	0	1	0	0	1	0	1	2	0	0	3	0	2	2	0	0	4	11
12:30 PM	0	0	1	1	0	2	0	0	0	1	0	1	0	0	2	0	0	2	0	0	2	0	1	2	7
12:45 PM	0	0	1	0	0	1	0	0	0	0	0	0	0	1	6	0	0	7	0	0	2	0	0	2	10
Hourly Total	0	1	4	5	0	10	0	0	1	1	0	2	0	5	14	0	0	19	0	3	8	0	3	11	42
1:00 PM	0	1	1	3	2	5	0	1	1	2	0	4	0	1	0	0	0	1	0	0	5	0	0	5	15
1:15 PM	0	0	0	1	0	1	0	0	0	0	0	0	0	3	2	0	0	5	0	0	2	0	0	2	8
1:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	2	7	0	0	9	0	1	2	1	0	4	13
1:45 PM	0	0	1	2	0	3	0	2	1	0	0	3	0	0	3	0	0	3	0	0	5	0	0	5	14
Hourly Total	0	1	2	6	2	9	0	3	2	2	0	7	0	6	12	0	0	18	0	1	14	1	0	16	50
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
7:00 AM	0	0	1	4	0	5	0	0	0	0	0	0	0	1	1	0	0	2	0	0	5	0	1	5	12
7:15 AM	0	0	0	6	0	6	0	0	1	0	0	1	0	1	1	0	0	2	0	1	7	0	0	8	17
7:30 AM	0	1	1	3	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	0	0	6	11
7:45 AM	0	0	1	2	0	3	0	0	0	0	0	0	0	1	3	0	0	4	0	0	6	0	0	6	13
Hourly Total	0	1	3	15	0	19	0	0	1	0	0	1	0	3	5	0	0	8	0	1	24	0	1	25	53
8:00 AM	0	0	2	1	0	3	0	0	1	0	0	1	0	1	3	0	0	4	0	0	5	0	0	5	13
8:15 AM	0	1	3	1	0	5	0	0	0	1	0	1	0	1	2	0	0	3	0	0	1	0	0	1	10
8:30 AM	0	0	1	1	0	2	0	0	0	0	0	0	0	2	1	0	0	3	0	0	5	0	1	5	10
8:45 AM	0	1	3	2	0	6	0	0	0	1	0	1	0	0	2	0	0	2	0	0	1	0	1	1	10
Hourly Total	0	2	9	5	0	16	0	0	1	2	0	3	0	4	8	0	0	12	0	0	12	0	2	12	43
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4:00 PM	0	0	0	1	0	1	0	0	2	0	0	2	0	2	5	0	0	7	0	2	1	0	0	3	13
4:15 PM	0	0	0	1	0	1	0	0	0	0	0	0	0	3	3	0	0	6	0	0	0	0	0	0	7
4:30 PM	0	0	0	1	0	1	0	0	0	0	0	0	0	3	5	0	0	8	0	0	0	0	2	0	9
4:45 PM	0	0	0	1	0	1	0	0	0	0	0	0	0	4	8	0	0	12	0	1	3	0	0	4	17
Hourly Total	0	0	0	4	0	4	0	0	2	0	0	2	0	12	21	0	0	33	0	3	4	0	2	7	46
5:00 PM	0	1	1	1	0	3	0	0	2	0	1	2	0	3	4	0	0	7	0	0	10	1	0	11	23
5:15 PM	0	0	1	2	0	3	0	0	1	0	0	1	0	2	1	0	0	3	0	0	0	0	0	0	7
5:30 PM	0	1	0	1	0	2	0	0	1	2	0	3	0	9	4	0	0	13	0	0	2	1	0	3	21
5:45 PM	0	0	2	3	0	5	0	0	1	0	0	1	0	4	8	0	0	12	0	0	3	0	0	3	21
Hourly Total	0	2	4	7	0	13	0	0	5	2	1	7	0	18	17	0	0	35	0	0	15	2	0	17	72
Grand Total	0	7	22	42	2	71	0	3	12	7	1	22	0	48	77	0	0	125	0	8	77	3	8	88	306
Approach %	0.0	9.9	31.0	59.2	-	-	0.0	13.6	54.5	31.8	-	-	0.0	38.4	61.6	0.0	-	-	0.0	9.1	87.5	3.4	-	-	-
Total %	0.0	2.3	7.2	13.7	-	23.2	0.0	1.0	3.9	2.3	-	7.2	0.0	15.7	25.2	0.0	-	40.8	0.0	2.6	25.2	1.0	-	28.8	-

Lights	0	7	22	41	-	70	0	3	12	7	-	22	0	47	74	0	-	121	0	8	77	3	-	88	301
% Lights	-	100.0	100.0	97.6	-	98.6	-	100.0	100.0	100.0	-	100.0	-	97.9	96.1	-	-	96.8	-	100.0	100.0	100.0	-	100.0	98.4
Buses	0	0	0	0	-	0	0	0	0	0	-	0	0	1	0	0	-	1	0	0	0	0	-	0	1
% Buses	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	-	2.1	0.0	-	-	0.8	-	0.0	0.0	0.0	-	0.0	0.3
Single-Unit Trucks	0	0	0	1	-	1	0	0	0	0	-	0	0	0	2	0	-	2	0	0	0	0	-	0	3
% Single-Unit Trucks	-	0.0	0.0	2.4	-	1.4	-	0.0	0.0	0.0	-	0.0	-	0.0	2.6	-	-	1.6	-	0.0	0.0	0.0	-	0.0	1.0
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	-	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	-	0.0	0.0	0.0	-	0.0	-	0.0	1.3	-	-	0.8	-	0.0	0.0	0.0	-	0.0	0.3
Pedestrians	-	-	-	-	2	-	-	-	-	-	1	-	-	-	-	-	0	-	-	-	-	-	8	-	-
% 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 sainkeshavarzi@kloainc.com

Count Name: Estes Street with Barley Avenue
TMC
Site Code:
Start Date: 01/25/2025

Turning Movement Peak Hour Data (1:00 PM)

Start Time	Estes Street Eastbound						Estes Street Westbound						Barkley Avenue Northbound						Barkley Avenue 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
1:00 PM	0	1	1	3	2	5	0	1	1	2	0	4	0	1	0	0	0	1	0	0	5	0	0	5	15
1:15 PM	0	0	0	1	0	1	0	0	0	0	0	0	0	3	2	0	0	5	0	0	2	0	0	2	8
1:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	2	7	0	0	9	0	1	2	1	0	4	13
1:45 PM	0	0	1	2	0	3	0	2	1	0	0	3	0	0	3	0	0	3	0	0	5	0	0	5	14
Total	0	1	2	6	2	9	0	3	2	2	0	7	0	6	12	0	0	18	0	1	14	1	0	16	50
Approach %	0.0	11.1	22.2	66.7	-	-	0.0	42.9	28.6	28.6	-	-	0.0	33.3	66.7	0.0	-	-	0.0	6.3	87.5	6.3	-	-	-
Total %	0.0	2.0	4.0	12.0	-	18.0	0.0	6.0	4.0	4.0	-	14.0	0.0	12.0	24.0	0.0	-	36.0	0.0	2.0	28.0	2.0	-	32.0	-
PHF	0.000	0.250	0.500	0.500	-	0.450	0.000	0.375	0.500	0.250	-	0.438	0.000	0.500	0.429	0.000	-	0.500	0.000	0.250	0.700	0.250	-	0.800	0.833
Lights	0	1	2	5	-	8	0	3	2	2	-	7	0	6	12	0	-	18	0	1	14	1	-	16	49
% Lights	-	100.0	100.0	83.3	-	88.9	-	100.0	100.0	100.0	-	100.0	-	100.0	100.0	-	-	100.0	-	100.0	100.0	100.0	-	100.0	98.0
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	-	-	0.0	-	0.0	0.0	0.0	-	0.0	0.0
Single-Unit Trucks	0	0	0	1	-	1	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	1
% Single-Unit Trucks	-	0.0	0.0	16.7	-	11.1	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	-	-	0.0	-	0.0	0.0	0.0	-	0.0	2.0
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	-	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	-	-	0.0	-	0.0	0.0	0.0	-	0.0	0.0
Pedestrians	-	-	-	-	2	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	100.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

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9575 W. Higgins Rd., Suite 400

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

Count Name: Estes Street with Barley Avenue
TMC
Site Code:
Start Date: 01/25/2025

Turning Movement Peak Hour Data (7:15 AM)

Start Time	Estes Street Eastbound						Estes Street Westbound						Barkley Avenue Northbound						Barkley Avenue 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	
7:15 AM	0	0	0	6	0	6	0	0	1	0	0	1	0	1	1	0	0	2	0	1	7	0	0	8	17
7:30 AM	0	1	1	3	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	0	0	6	11
7:45 AM	0	0	1	2	0	3	0	0	0	0	0	0	0	1	3	0	0	4	0	0	6	0	0	6	13
8:00 AM	0	0	2	1	0	3	0	0	1	0	0	1	0	1	3	0	0	4	0	0	5	0	0	5	13
Total	0	1	4	12	0	17	0	0	2	0	0	2	0	3	7	0	0	10	0	1	24	0	0	25	54
Approach %	0.0	5.9	23.5	70.6	-	-	0.0	0.0	100.0	0.0	-	-	0.0	30.0	70.0	0.0	-	-	0.0	4.0	96.0	0.0	-	-	-
Total %	0.0	1.9	7.4	22.2	-	31.5	0.0	0.0	3.7	0.0	-	3.7	0.0	5.6	13.0	0.0	-	18.5	0.0	1.9	44.4	0.0	-	46.3	-
PHF	0.000	0.250	0.500	0.500	-	0.708	0.000	0.000	0.500	0.000	-	0.500	0.000	0.750	0.583	0.000	-	0.625	0.000	0.250	0.857	0.000	-	0.781	0.794
Lights	0	1	4	12	-	17	0	0	2	0	-	2	0	2	6	0	-	8	0	1	24	0	-	25	52
% Lights	-	100.0	100.0	100.0	-	100.0	-	-	100.0	-	-	100.0	-	66.7	85.7	-	-	80.0	-	100.0	100.0	-	-	100.0	96.3
Buses	0	0	0	0	-	0	0	0	0	0	-	0	0	1	0	0	-	1	0	0	0	0	-	0	1
% Buses	-	0.0	0.0	0.0	-	0.0	-	-	0.0	-	-	0.0	-	33.3	0.0	-	-	10.0	-	0.0	0.0	-	-	0.0	1.9
Single-Unit Trucks	0	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	-	-	0.0	-	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
% 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
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	14.3	-	-	10.0	-	0.0	0.0	-	-	0.0	1.9
Pedestrians	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

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

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

Count Name: Estes Street with Barley Avenue
TMC
Site Code:
Start Date: 01/25/2025

Turning Movement Peak Hour Data (4:30 PM)

Start Time	Estes Street Eastbound						Estes Street Westbound						Barkley Avenue Northbound						Barkley Avenue 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
4:30 PM	0	0	0	1	0	1	0	0	0	0	0	0	0	3	5	0	0	8	0	0	0	0	2	0	9
4:45 PM	0	0	0	1	0	1	0	0	0	0	0	0	0	4	8	0	0	12	0	1	3	0	0	4	17
5:00 PM	0	1	1	1	0	3	0	0	2	0	1	2	0	3	4	0	0	7	0	0	10	1	0	11	23
5:15 PM	0	0	1	2	0	3	0	0	1	0	0	1	0	2	1	0	0	3	0	0	0	0	0	0	7
Total	0	1	2	5	0	8	0	0	3	0	1	3	0	12	18	0	0	30	0	1	13	1	2	15	56
Approach %	0.0	12.5	25.0	62.5	-	-	0.0	0.0	100.0	0.0	-	-	0.0	40.0	60.0	0.0	-	-	0.0	6.7	86.7	6.7	-	-	-
Total %	0.0	1.8	3.6	8.9	-	14.3	0.0	0.0	5.4	0.0	-	5.4	0.0	21.4	32.1	0.0	-	53.6	0.0	1.8	23.2	1.8	-	26.8	-
PHF	0.000	0.250	0.500	0.625	-	0.667	0.000	0.000	0.375	0.000	-	0.375	0.000	0.750	0.563	0.000	-	0.625	0.000	0.250	0.325	0.250	-	0.341	0.609
Lights	0	1	2	5	-	8	0	0	3	0	-	3	0	12	17	0	-	29	0	1	13	1	-	15	55
% Lights	-	100.0	100.0	100.0	-	100.0	-	-	100.0	-	-	100.0	-	100.0	94.4	-	-	96.7	-	100.0	100.0	100.0	-	100.0	98.2
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	0.0	0.0	-	0.0	0.0
Single-Unit Trucks	0	0	0	0	-	0	0	0	0	0	-	0	0	0	1	0	-	1	0	0	0	0	-	0	1
% Single-Unit Trucks	-	0.0	0.0	0.0	-	0.0	-	-	0.0	-	-	0.0	-	0.0	5.6	-	-	3.3	-	0.0	0.0	0.0	-	0.0	1.8
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	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	0.0	0.0	-	0.0	0.0
Pedestrians	-	-	-	-	0	-	-	-	-	-	1	-	-	-	-	-	0	-	-	-	-	-	2	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	100.0	-	-	-	-	-	-	-	-	-	-	-	100.0	-	-

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9575 W. Higgins Rd., Suite 400

Rosemont, Illinois, United States 60018
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Count Name: IL 59 with Duke Pkwy/Everton Drive TMC
Site Code:
Start Date: 01/25/2025

Turning Movement Data

Start Time	Duke Pkwy Eastbound						Everton Drive Westbound						IL 59 Northbound						IL 59 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	
12:00 PM	0	4	0	7	0	11	0	7	1	1	0	9	0	14	208	11	0	233	0	14	218	5	0	237	490
12:15 PM	0	3	2	6	0	11	0	11	2	1	0	14	3	10	230	12	0	255	0	4	246	4	0	254	534
12:30 PM	0	6	1	5	0	12	0	15	1	0	0	16	1	7	256	9	1	273	0	4	227	2	0	233	534
12:45 PM	0	4	0	4	0	8	0	17	1	3	0	21	0	10	216	12	0	238	0	9	248	3	0	260	527
Hourly Total	0	17	3	22	0	42	0	50	5	5	0	60	4	41	910	44	1	999	0	31	939	14	0	984	2085
1:00 PM	0	4	0	13	0	17	0	11	0	1	0	12	1	9	239	5	0	254	1	9	265	3	0	278	561
1:15 PM	0	3	1	5	0	9	0	20	0	0	0	20	2	10	260	7	0	279	0	7	212	2	0	221	529
1:30 PM	0	2	2	6	0	10	0	16	1	3	0	20	1	16	239	9	0	265	0	5	225	2	0	232	527
1:45 PM	0	7	2	9	0	18	0	12	0	1	0	13	2	8	215	13	0	238	0	10	267	7	0	284	553
Hourly Total	0	16	5	33	0	54	0	59	1	5	0	65	6	43	953	34	0	1036	1	31	969	14	0	1015	2170
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
7:00 AM	0	1	0	11	0	12	0	7	0	2	0	9	3	19	254	4	0	280	0	2	315	15	0	332	633
7:15 AM	0	4	1	13	0	18	0	12	0	2	0	14	0	23	321	1	0	345	0	2	321	19	0	342	719
7:30 AM	0	12	0	13	0	25	0	24	1	3	0	28	2	9	318	2	0	331	0	1	315	9	0	325	709
7:45 AM	0	5	0	13	0	18	0	21	0	2	0	23	0	13	283	3	0	299	0	0	384	14	0	398	738
Hourly Total	0	22	1	50	0	73	0	64	1	9	0	74	5	64	1176	10	0	1255	0	5	1335	57	0	1397	2799
8:00 AM	0	9	0	12	0	21	0	20	0	2	0	22	1	12	314	5	0	332	0	2	304	10	0	316	691
8:15 AM	0	8	1	7	0	16	0	11	0	2	0	13	1	22	244	3	0	270	0	4	323	13	0	340	639
8:30 AM	0	5	0	16	0	21	0	8	0	2	0	10	2	14	301	7	0	324	0	2	276	13	0	291	646
8:45 AM	0	5	0	8	0	13	0	18	1	1	0	20	0	12	233	1	0	246	0	3	272	9	0	284	563
Hourly Total	0	27	1	43	0	71	0	57	1	7	0	65	4	60	1092	16	0	1172	0	11	1175	45	0	1231	2539
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4:00 PM	0	13	0	13	0	26	0	2	1	1	0	4	2	17	300	10	0	329	0	8	313	3	0	324	683
4:15 PM	0	11	2	4	0	17	1	14	0	4	1	19	2	15	274	14	0	305	0	9	310	2	0	321	662
4:30 PM	0	10	0	6	0	16	0	6	0	0	0	6	1	14	345	11	0	371	0	5	375	7	0	387	780
4:45 PM	0	3	0	5	0	8	0	8	1	3	0	12	0	11	281	16	0	308	0	4	323	7	0	334	662
Hourly Total	0	37	2	28	0	67	1	30	2	8	1	41	5	57	1200	51	0	1313	0	26	1321	19	0	1366	2787
5:00 PM	0	13	0	18	0	31	0	12	0	3	0	15	0	24	327	24	0	375	1	15	318	12	0	346	767
5:15 PM	0	11	1	6	0	18	0	5	0	6	0	11	2	11	369	28	0	410	1	8	365	13	0	387	826
5:30 PM	0	16	1	33	0	50	0	13	0	2	1	15	2	22	295	17	0	336	1	16	262	9	0	288	689
5:45 PM	0	5	1	11	0	17	0	6	4	3	0	13	2	19	281	16	0	318	0	18	291	13	0	322	670
Hourly Total	0	45	3	68	0	116	0	36	4	14	1	54	6	76	1272	85	0	1439	3	57	1236	47	0	1343	2952
Grand Total	0	164	15	244	0	423	1	296	14	48	2	359	30	341	6603	240	1	7214	4	161	6975	196	0	7336	15332
Approach %	0.0	38.8	3.5	57.7	-	-	0.3	82.5	3.9	13.4	-	-	0.4	4.7	91.5	3.3	-	-	0.1	2.2	95.1	2.7	-	-	-
Total %	0.0	1.1	0.1	1.6	-	2.8	0.0	1.9	0.1	0.3	-	2.3	0.2	2.2	43.1	1.6	-	47.1	0.0	1.1	45.5	1.3	-	47.8	-

Lights	0	140	15	171	-	326	1	294	14	48	-	357	30	289	6194	236	-	6749	4	157	6591	155	-	6907	14339
% Lights	-	85.4	100.0	70.1	-	77.1	100.0	99.3	100.0	100.0	-	99.4	100.0	84.8	93.8	98.3	-	93.6	100.0	97.5	94.5	79.1	-	94.2	93.5
Buses	0	2	0	0	-	2	0	0	0	0	-	0	0	2	9	1	-	12	0	3	12	0	-	15	29
% Buses	-	1.2	0.0	0.0	-	0.5	0.0	0.0	0.0	0.0	-	0.0	0.0	0.6	0.1	0.4	-	0.2	0.0	1.9	0.2	0.0	-	0.2	0.2
Single-Unit Trucks	0	6	0	20	-	26	0	2	0	0	-	2	0	18	137	1	-	156	0	1	99	5	-	105	289
% Single-Unit Trucks	-	3.7	0.0	8.2	-	6.1	0.0	0.7	0.0	0.0	-	0.6	0.0	5.3	2.1	0.4	-	2.2	0.0	0.6	1.4	2.6	-	1.4	1.9
Articulated Trucks	0	16	0	53	-	69	0	0	0	0	-	0	0	32	263	2	-	297	0	0	273	36	-	309	675
% Articulated Trucks	-	9.8	0.0	21.7	-	16.3	0.0	0.0	0.0	0.0	-	0.0	0.0	9.4	4.0	0.8	-	4.1	0.0	0.0	3.9	18.4	-	4.2	4.4
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	-	0.0	0.0
Pedestrians	-	-	-	-	0	-	-	-	-	-	2	-	-	-	-	-	1	-	-	-	-	-	0	-	-
% 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 sainkeshavarzi@kloainc.com

Count Name: IL 59 with Duke Pkwy/Everton Drive TMC
Site Code:
Start Date: 01/25/2025

Turning Movement Peak Hour Data (1:00 PM)

Start Time	Duke Pkwy Eastbound						Everton Drive Westbound						IL 59 Northbound						IL 59 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	
1:00 PM	0	4	0	13	0	17	0	11	0	1	0	12	1	9	239	5	0	254	1	9	265	3	0	278	561
1:15 PM	0	3	1	5	0	9	0	20	0	0	0	20	2	10	260	7	0	279	0	7	212	2	0	221	529
1:30 PM	0	2	2	6	0	10	0	16	1	3	0	20	1	16	239	9	0	265	0	5	225	2	0	232	527
1:45 PM	0	7	2	9	0	18	0	12	0	1	0	13	2	8	215	13	0	238	0	10	267	7	0	284	553
Total	0	16	5	33	0	54	0	59	1	5	0	65	6	43	953	34	0	1036	1	31	969	14	0	1015	2170
Approach %	0.0	29.6	9.3	61.1	-	-	0.0	90.8	1.5	7.7	-	-	0.6	4.2	92.0	3.3	-	-	0.1	3.1	95.5	1.4	-	-	-
Total %	0.0	0.7	0.2	1.5	-	2.5	0.0	2.7	0.0	0.2	-	3.0	0.3	2.0	43.9	1.6	-	47.7	0.0	1.4	44.7	0.6	-	46.8	-
PHF	0.000	0.571	0.625	0.635	-	0.750	0.000	0.738	0.250	0.417	-	0.813	0.750	0.672	0.916	0.654	-	0.928	0.250	0.775	0.907	0.500	-	0.893	0.967
Lights	0	14	5	23	-	42	0	59	1	5	-	65	6	36	926	34	-	1002	1	30	941	11	-	983	2092
% Lights	-	87.5	100.0	69.7	-	77.8	-	100.0	100.0	100.0	-	100.0	100.0	83.7	97.2	100.0	-	96.7	100.0	96.8	97.1	78.6	-	96.8	96.4
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	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	-	0.0	0.0
Single-Unit Trucks	0	2	0	3	-	5	0	0	0	0	-	0	0	6	18	0	-	24	0	1	8	0	-	9	38
% Single-Unit Trucks	-	12.5	0.0	9.1	-	9.3	-	0.0	0.0	0.0	-	0.0	0.0	14.0	1.9	0.0	-	2.3	0.0	3.2	0.8	0.0	-	0.9	1.8
Articulated Trucks	0	0	0	7	-	7	0	0	0	0	-	0	0	1	9	0	-	10	0	0	20	3	-	23	40
% Articulated Trucks	-	0.0	0.0	21.2	-	13.0	-	0.0	0.0	0.0	-	0.0	0.0	2.3	0.9	0.0	-	1.0	0.0	0.0	2.1	21.4	-	2.3	1.8
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	0.0
Pedestrians	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

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(847)518-9990 sainkeshavarzi@kloainc.com

Count Name: IL 59 with Duke Pkwy/Everton Drive TMC
Site Code:
Start Date: 01/25/2025

Turning Movement Peak Hour Data (7:15 AM)

Start Time	Duke Pkwy Eastbound						Everton Drive Westbound						IL 59 Northbound						IL 59 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	
7:15 AM	0	4	1	13	0	18	0	12	0	2	0	14	0	23	321	1	0	345	0	2	321	19	0	342	719
7:30 AM	0	12	0	13	0	25	0	24	1	3	0	28	2	9	318	2	0	331	0	1	315	9	0	325	709
7:45 AM	0	5	0	13	0	18	0	21	0	2	0	23	0	13	283	3	0	299	0	0	384	14	0	398	738
8:00 AM	0	9	0	12	0	21	0	20	0	2	0	22	1	12	314	5	0	332	0	2	304	10	0	316	691
Total	0	30	1	51	0	82	0	77	1	9	0	87	3	57	1236	11	0	1307	0	5	1324	52	0	1381	2857
Approach %	0.0	36.6	1.2	62.2	-	-	0.0	88.5	1.1	10.3	-	-	0.2	4.4	94.6	0.8	-	-	0.0	0.4	95.9	3.8	-	-	-
Total %	0.0	1.1	0.0	1.8	-	2.9	0.0	2.7	0.0	0.3	-	3.0	0.1	2.0	43.3	0.4	-	45.7	0.0	0.2	46.3	1.8	-	48.3	-
PHF	0.000	0.625	0.250	0.981	-	0.820	0.000	0.802	0.250	0.750	-	0.777	0.375	0.620	0.963	0.550	-	0.947	0.000	0.625	0.862	0.684	-	0.867	0.968
Lights	0	20	1	31	-	52	0	77	1	9	-	87	3	44	1136	9	-	1192	0	5	1231	39	-	1275	2606
% Lights	-	66.7	100.0	60.8	-	63.4	-	100.0	100.0	100.0	-	100.0	100.0	77.2	91.9	81.8	-	91.2	-	100.0	93.0	75.0	-	92.3	91.2
Buses	0	2	0	0	-	2	0	0	0	0	-	0	0	2	3	1	-	6	0	0	2	0	-	2	10
% Buses	-	6.7	0.0	0.0	-	2.4	-	0.0	0.0	0.0	-	0.0	0.0	3.5	0.2	9.1	-	0.5	-	0.0	0.2	0.0	-	0.1	0.4
Single-Unit Trucks	0	1	0	6	-	7	0	0	0	0	-	0	0	1	19	1	-	21	0	0	33	3	-	36	64
% Single-Unit Trucks	-	3.3	0.0	11.8	-	8.5	-	0.0	0.0	0.0	-	0.0	0.0	1.8	1.5	9.1	-	1.6	-	0.0	2.5	5.8	-	2.6	2.2
Articulated Trucks	0	7	0	14	-	21	0	0	0	0	-	0	0	10	78	0	-	88	0	0	58	10	-	68	177
% Articulated Trucks	-	23.3	0.0	27.5	-	25.6	-	0.0	0.0	0.0	-	0.0	0.0	17.5	6.3	0.0	-	6.7	-	0.0	4.4	19.2	-	4.9	6.2
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: IL 59 with Duke Pkwy/Everton Drive TMC
Site Code:
Start Date: 01/25/2025

Turning Movement Peak Hour Data (4:30 PM)

Start Time	Duke Pkwy Eastbound						Everton Drive Westbound						IL 59 Northbound						IL 59 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
4:30 PM	0	10	0	6	0	16	0	6	0	0	0	6	1	14	345	11	0	371	0	5	375	7	0	387	780
4:45 PM	0	3	0	5	0	8	0	8	1	3	0	12	0	11	281	16	0	308	0	4	323	7	0	334	662
5:00 PM	0	13	0	18	0	31	0	12	0	3	0	15	0	24	327	24	0	375	1	15	318	12	0	346	767
5:15 PM	0	11	1	6	0	18	0	5	0	6	0	11	2	11	369	28	0	410	1	8	365	13	0	387	826
Total	0	37	1	35	0	73	0	31	1	12	0	44	3	60	1322	79	0	1464	2	32	1381	39	0	1454	3035
Approach %	0.0	50.7	1.4	47.9	-	-	0.0	70.5	2.3	27.3	-	-	0.2	4.1	90.3	5.4	-	-	0.1	2.2	95.0	2.7	-	-	-
Total %	0.0	1.2	0.0	1.2	-	2.4	0.0	1.0	0.0	0.4	-	1.4	0.1	2.0	43.6	2.6	-	48.2	0.1	1.1	45.5	1.3	-	47.9	-
PHF	0.000	0.712	0.250	0.486	-	0.589	0.000	0.646	0.250	0.500	-	0.733	0.375	0.625	0.896	0.705	-	0.893	0.500	0.533	0.921	0.750	-	0.939	0.919
Lights	0	30	1	27	-	58	0	31	1	12	-	44	3	47	1261	79	-	1390	2	32	1305	29	-	1368	2860
% Lights	-	81.1	100.0	77.1	-	79.5	-	100.0	100.0	100.0	-	100.0	100.0	78.3	95.4	100.0	-	94.9	100.0	100.0	94.5	74.4	-	94.1	94.2
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	-	0.0	-	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	0.0
Single-Unit Trucks	0	0	0	1	-	1	0	0	0	0	-	0	0	3	17	0	-	20	0	0	10	1	-	11	32
% Single-Unit Trucks	-	0.0	0.0	2.9	-	1.4	-	0.0	0.0	0.0	-	0.0	0.0	5.0	1.3	0.0	-	1.4	0.0	0.0	0.7	2.6	-	0.8	1.1
Articulated Trucks	0	7	0	7	-	14	0	0	0	0	-	0	0	10	43	0	-	53	0	0	66	9	-	75	142
% Articulated Trucks	-	18.9	0.0	20.0	-	19.2	-	0.0	0.0	0.0	-	0.0	0.0	16.7	3.3	0.0	-	3.6	0.0	0.0	4.8	23.1	-	5.2	4.7
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	-	0.0	0.0
Pedestrians	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

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(847)518-9990 sainkeshavarzi@kloainc.com

Count Name: IL 59 with Estes Street TMC
Site Code:
Start Date: 01/25/2025

Turning Movement Data

Start Time	Estes Street Eastbound					IL 59 Northbound					IL 59 Southbound					
	U-Turn	Left	Right	Peds	App. Total	U-Turn	Left	Thru	Peds	App. Total	U-Turn	Thru	Right	Peds	App. Total	Int. Total
12:00 PM	0	0	2	0	2	0	0	196	0	196	0	244	1	0	245	443
12:15 PM	0	0	2	0	2	0	0	251	0	251	0	252	1	0	253	506
12:30 PM	0	0	1	0	1	0	0	250	0	250	0	241	0	0	241	492
12:45 PM	0	0	1	0	1	0	0	203	0	203	0	240	0	0	240	444
Hourly Total	0	0	6	0	6	0	0	900	0	900	0	977	2	0	979	1885
1:00 PM	0	0	1	0	1	0	0	274	0	274	0	277	4	0	281	556
1:15 PM	0	0	0	0	0	0	0	257	0	257	0	233	0	0	233	490
1:30 PM	0	0	1	0	1	0	0	295	0	295	0	224	0	0	224	520
1:45 PM	0	0	0	0	0	0	0	287	0	287	0	281	3	0	284	571
Hourly Total	0	0	2	0	2	0	0	1113	0	1113	0	1015	7	0	1022	2137
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
7:00 AM	0	0	1	0	1	0	0	283	0	283	0	296	0	0	296	580
7:15 AM	0	0	1	0	1	0	0	348	0	348	0	353	1	0	354	703
7:30 AM	0	0	2	0	2	0	0	360	0	360	0	312	0	0	312	674
7:45 AM	0	0	1	0	1	0	0	322	0	322	0	365	0	0	365	688
Hourly Total	0	0	5	0	5	0	0	1313	0	1313	0	1326	1	0	1327	2645
8:00 AM	0	0	2	0	2	0	0	312	0	312	0	349	1	0	350	664
8:15 AM	0	0	2	0	2	0	0	279	0	279	0	328	1	0	329	610
8:30 AM	0	0	1	0	1	0	0	310	0	310	0	283	0	0	283	594
8:45 AM	0	0	3	0	3	0	0	243	0	243	0	296	1	0	297	543
Hourly Total	0	0	8	0	8	0	0	1144	0	1144	0	1256	3	0	1259	2411
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4:00 PM	0	0	2	0	2	0	0	298	0	298	0	311	1	0	312	612
4:15 PM	0	0	0	1	0	0	0	300	0	300	0	330	0	0	330	630
4:30 PM	0	0	0	0	0	0	0	394	0	394	0	355	1	0	356	750
4:45 PM	0	0	1	0	1	0	0	304	0	304	0	331	0	0	331	636
Hourly Total	0	0	3	1	3	0	0	1296	0	1296	0	1327	2	0	1329	2628
5:00 PM	0	0	1	0	1	0	0	355	0	355	0	355	1	0	356	712
5:15 PM	0	0	1	0	1	0	0	360	0	360	0	370	1	0	371	732
5:30 PM	0	0	0	0	0	0	0	321	0	321	0	326	3	0	329	650
5:45 PM	0	0	2	0	2	0	0	305	0	305	0	293	1	0	294	601
Hourly Total	0	0	4	0	4	0	0	1341	0	1341	0	1344	6	0	1350	2695
Grand Total	0	0	28	1	28	0	0	7107	0	7107	0	7245	21	0	7266	14401
Approach %	0.0	0.0	100.0	-	-	0.0	0.0	100.0	-	-	0.0	99.7	0.3	-	-	-
Total %	0.0	0.0	0.2	-	0.2	0.0	0.0	49.4	-	49.4	0.0	50.3	0.1	-	50.5	-
Lights	0	0	28	-	28	0	0	6688	-	6688	0	6824	21	-	6845	13561

% Lights	-	-	100.0	-	100.0	-	-	94.1	-	94.1	-	94.2	100.0	-	94.2	94.2
Buses	0	0	0	-	0	0	0	13	-	13	0	15	0	-	15	28
% Buses	-	-	0.0	-	0.0	-	-	0.2	-	0.2	-	0.2	0.0	-	0.2	0.2
Single-Unit Trucks	0	0	0	-	0	0	0	118	-	118	0	109	0	-	109	227
% Single-Unit Trucks	-	-	0.0	-	0.0	-	-	1.7	-	1.7	-	1.5	0.0	-	1.5	1.6
Articulated Trucks	0	0	0	-	0	0	0	288	-	288	0	297	0	-	297	585
% Articulated Trucks	-	-	0.0	-	0.0	-	-	4.1	-	4.1	-	4.1	0.0	-	4.1	4.1
Bicycles on Road	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
Pedestrians	-	-	-	1	-	-	-	-	0	-	-	-	-	0	-	-
% Pedestrians	-	-	-	100.0	-	-	-	-	-	-	-	-	-	-	-	-

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Rosemont, Illinois, United States 60018
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Count Name: IL 59 with Estes Street TMC
Site Code:
Start Date: 01/25/2025

Turning Movement Peak Hour Data (1:00 PM)

Start Time	Estes Street Eastbound					IL 59 Northbound					IL 59 Southbound					
	U-Turn	Left	Right	Peds	App. Total	U-Turn	Left	Thru	Peds	App. Total	U-Turn	Thru	Right	Peds	App. Total	Int. Total
1:00 PM	0	0	1	0	1	0	0	274	0	274	0	277	4	0	281	556
1:15 PM	0	0	0	0	0	0	0	257	0	257	0	233	0	0	233	490
1:30 PM	0	0	1	0	1	0	0	295	0	295	0	224	0	0	224	520
1:45 PM	0	0	0	0	0	0	0	287	0	287	0	281	3	0	284	571
Total	0	0	2	0	2	0	0	1113	0	1113	0	1015	7	0	1022	2137
Approach %	0.0	0.0	100.0	-	-	0.0	0.0	100.0	-	-	0.0	99.3	0.7	-	-	-
Total %	0.0	0.0	0.1	-	0.1	0.0	0.0	52.1	-	52.1	0.0	47.5	0.3	-	47.8	-
PHF	0.000	0.000	0.500	-	0.500	0.000	0.000	0.943	-	0.943	0.000	0.903	0.438	-	0.900	0.936
Lights	0	0	2	-	2	0	0	1079	-	1079	0	989	7	-	996	2077
% Lights	-	-	100.0	-	100.0	-	-	96.9	-	96.9	-	97.4	100.0	-	97.5	97.2
Buses	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
Single-Unit Trucks	0	0	0	-	0	0	0	19	-	19	0	8	0	-	8	27
% Single-Unit Trucks	-	-	0.0	-	0.0	-	-	1.7	-	1.7	-	0.8	0.0	-	0.8	1.3
Articulated Trucks	0	0	0	-	0	0	0	15	-	15	0	18	0	-	18	33
% Articulated Trucks	-	-	0.0	-	0.0	-	-	1.3	-	1.3	-	1.8	0.0	-	1.8	1.5
Bicycles on Road	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
Pedestrians	-	-	-	0	-	-	-	-	0	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

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

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

Count Name: IL 59 with Estes Street TMC
Site Code:
Start Date: 01/25/2025

Turning Movement Peak Hour Data (7:15 AM)

Start Time	Estes Street Eastbound					IL 59 Northbound					IL 59 Southbound					
	U-Turn	Left	Right	Peds	App. Total	U-Turn	Left	Thru	Peds	App. Total	U-Turn	Thru	Right	Peds	App. Total	Int. Total
7:15 AM	0	0	1	0	1	0	0	348	0	348	0	353	1	0	354	703
7:30 AM	0	0	2	0	2	0	0	360	0	360	0	312	0	0	312	674
7:45 AM	0	0	1	0	1	0	0	322	0	322	0	365	0	0	365	688
8:00 AM	0	0	2	0	2	0	0	312	0	312	0	349	1	0	350	664
Total	0	0	6	0	6	0	0	1342	0	1342	0	1379	2	0	1381	2729
Approach %	0.0	0.0	100.0	-	-	0.0	0.0	100.0	-	-	0.0	99.9	0.1	-	-	-
Total %	0.0	0.0	0.2	-	0.2	0.0	0.0	49.2	-	49.2	0.0	50.5	0.1	-	50.6	-
PHF	0.000	0.000	0.750	-	0.750	0.000	0.000	0.932	-	0.932	0.000	0.945	0.500	-	0.946	0.970
Lights	0	0	6	-	6	0	0	1231	-	1231	0	1277	2	-	1279	2516
% Lights	-	-	100.0	-	100.0	-	-	91.7	-	91.7	-	92.6	100.0	-	92.6	92.2
Buses	0	0	0	-	0	0	0	4	-	4	0	2	0	-	2	6
% Buses	-	-	0.0	-	0.0	-	-	0.3	-	0.3	-	0.1	0.0	-	0.1	0.2
Single-Unit Trucks	0	0	0	-	0	0	0	21	-	21	0	38	0	-	38	59
% Single-Unit Trucks	-	-	0.0	-	0.0	-	-	1.6	-	1.6	-	2.8	0.0	-	2.8	2.2
Articulated Trucks	0	0	0	-	0	0	0	86	-	86	0	62	0	-	62	148
% Articulated Trucks	-	-	0.0	-	0.0	-	-	6.4	-	6.4	-	4.5	0.0	-	4.5	5.4
Bicycles on Road	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
Pedestrians	-	-	-	0	-	-	-	-	0	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

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

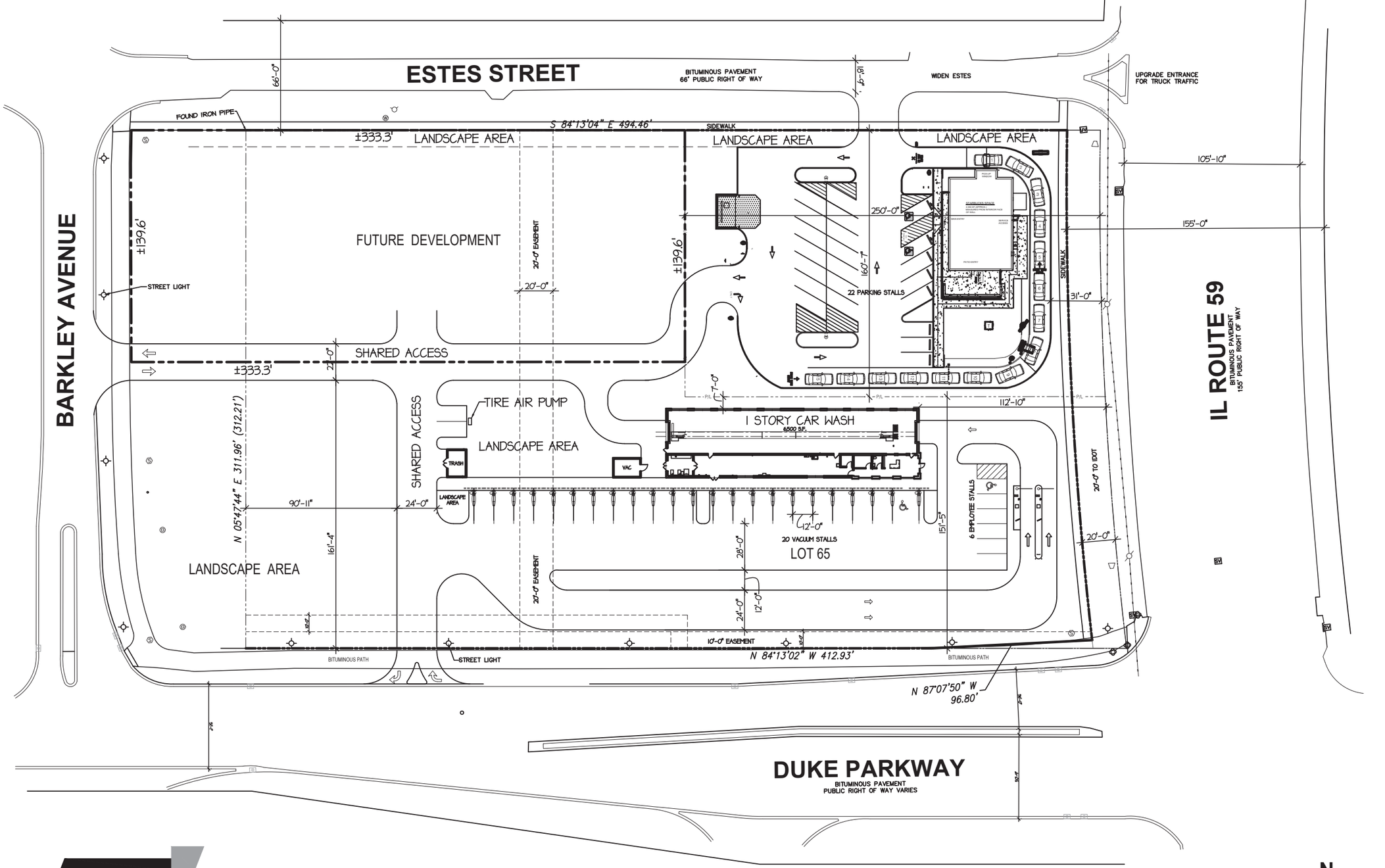
Rosemont, Illinois, United States 60018
(847)518-9990 sainkeshavarzi@kloainc.com

Count Name: IL 59 with Estes Street TMC
Site Code:
Start Date: 01/25/2025

Turning Movement Peak Hour Data (4:30 PM)

Start Time	Estes Street Eastbound					IL 59 Northbound					IL 59 Southbound					
	U-Turn	Left	Right	Peds	App. Total	U-Turn	Left	Thru	Peds	App. Total	U-Turn	Thru	Right	Peds	App. Total	Int. Total
4:30 PM	0	0	0	0	0	0	0	394	0	394	0	355	1	0	356	750
4:45 PM	0	0	1	0	1	0	0	304	0	304	0	331	0	0	331	636
5:00 PM	0	0	1	0	1	0	0	355	0	355	0	355	1	0	356	712
5:15 PM	0	0	1	0	1	0	0	360	0	360	0	370	1	0	371	732
Total	0	0	3	0	3	0	0	1413	0	1413	0	1411	3	0	1414	2830
Approach %	0.0	0.0	100.0	-	-	0.0	0.0	100.0	-	-	0.0	99.8	0.2	-	-	-
Total %	0.0	0.0	0.1	-	0.1	0.0	0.0	49.9	-	49.9	0.0	49.9	0.1	-	50.0	-
PHF	0.000	0.000	0.750	-	0.750	0.000	0.000	0.897	-	0.897	0.000	0.953	0.750	-	0.953	0.943
Lights	0	0	3	-	3	0	0	1351	-	1351	0	1327	3	-	1330	2684
% Lights	-	-	100.0	-	100.0	-	-	95.6	-	95.6	-	94.0	100.0	-	94.1	94.8
Buses	0	0	0	-	0	0	0	2	-	2	0	0	0	-	0	2
% Buses	-	-	0.0	-	0.0	-	-	0.1	-	0.1	-	0.0	0.0	-	0.0	0.1
Single-Unit Trucks	0	0	0	-	0	0	0	13	-	13	0	11	0	-	11	24
% Single-Unit Trucks	-	-	0.0	-	0.0	-	-	0.9	-	0.9	-	0.8	0.0	-	0.8	0.8
Articulated Trucks	0	0	0	-	0	0	0	47	-	47	0	73	0	-	73	120
% Articulated Trucks	-	-	0.0	-	0.0	-	-	3.3	-	3.3	-	5.2	0.0	-	5.2	4.2
Bicycles on Road	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
Pedestrians	-	-	-	0	-	-	-	-	0	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Site Plan



ARCHAMERICA
34121 N. US 45, Suite 213
Grayslake, Illinois 60030
Phone 847-336-6600
Fax 847-336-6601

Car Wash

WARRENVILLE, ILLINOIS

DECEMBER 11, 2024

Archamerica Job No. 24086

Site Plan

0 15' 30' 60' 120'

N

ITE Trip Generation Summary Sheets

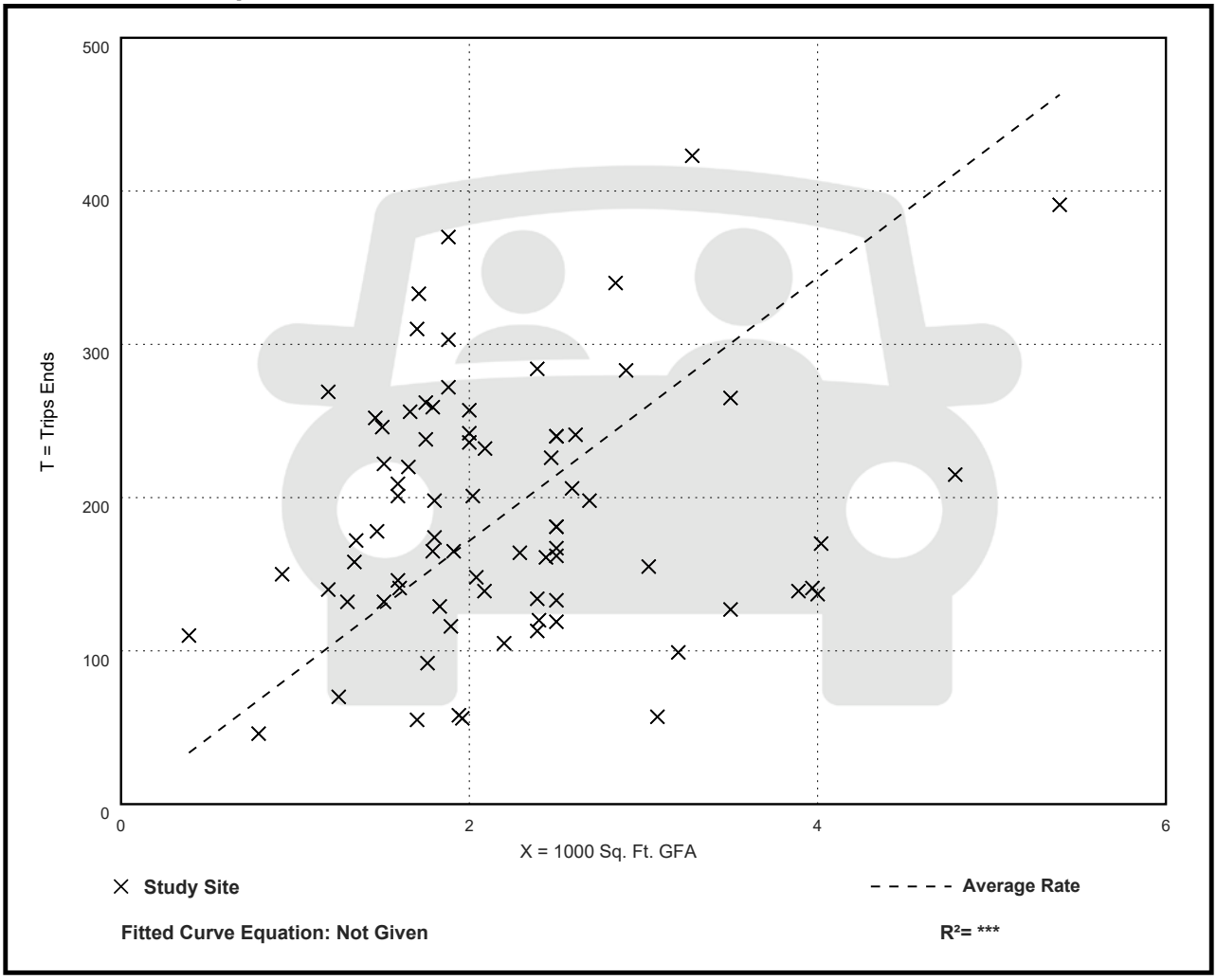
Coffee/Donut Shop with Drive-Through Window (937)

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: 78
Avg. 1000 Sq. Ft. GFA: 2
Directional Distribution: 51% entering, 49% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
85.88	18.51 - 282.05	44.92

Data Plot and Equation



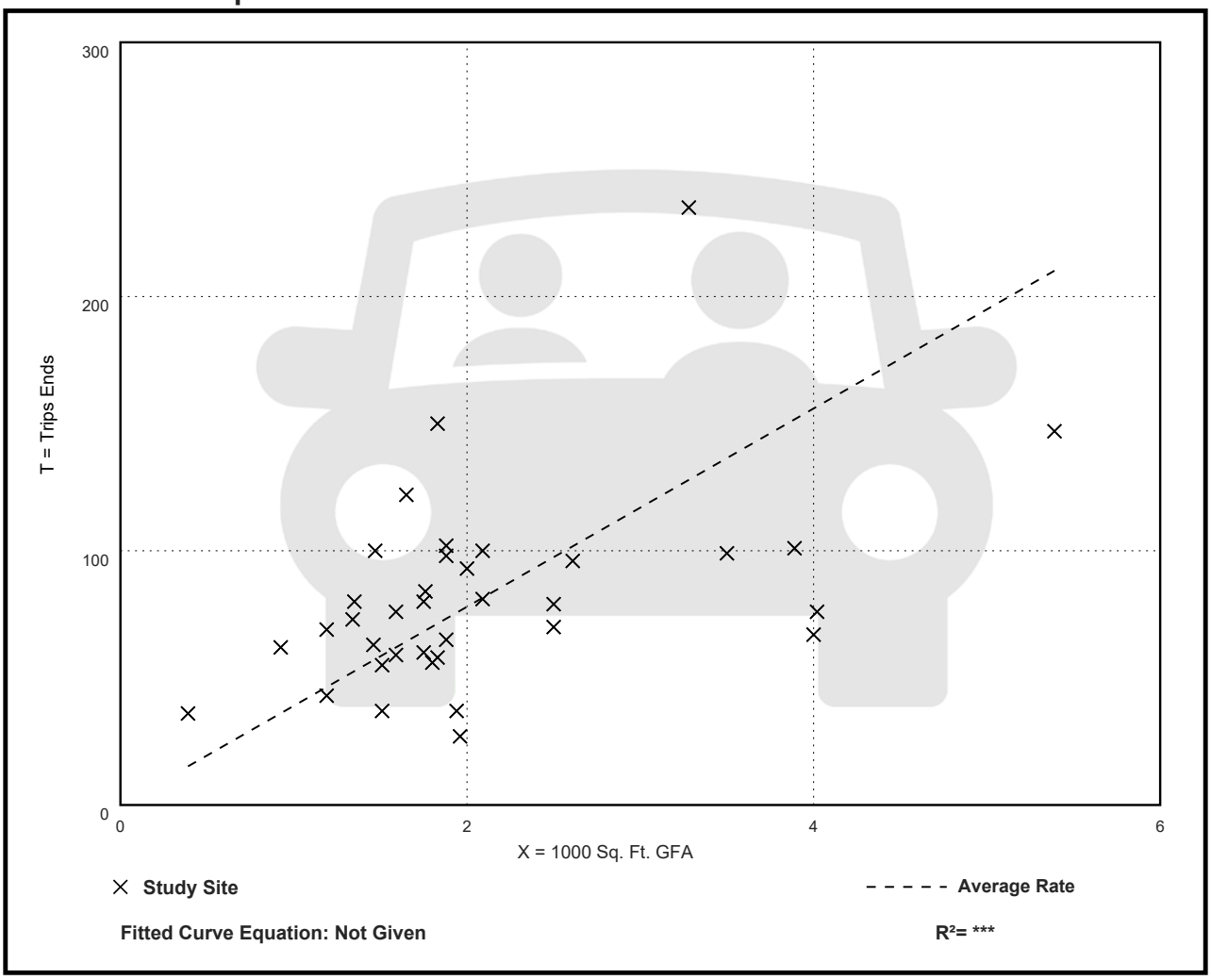
Coffee/Donut Shop with Drive-Through Window (937)

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: 36
Avg. 1000 Sq. Ft. GFA: 2
Directional Distribution: 50% entering, 50% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
38.99	13.78 - 92.31	17.79

Data Plot and Equation



Coffee/Donut Shop with Drive-Through Window (937)

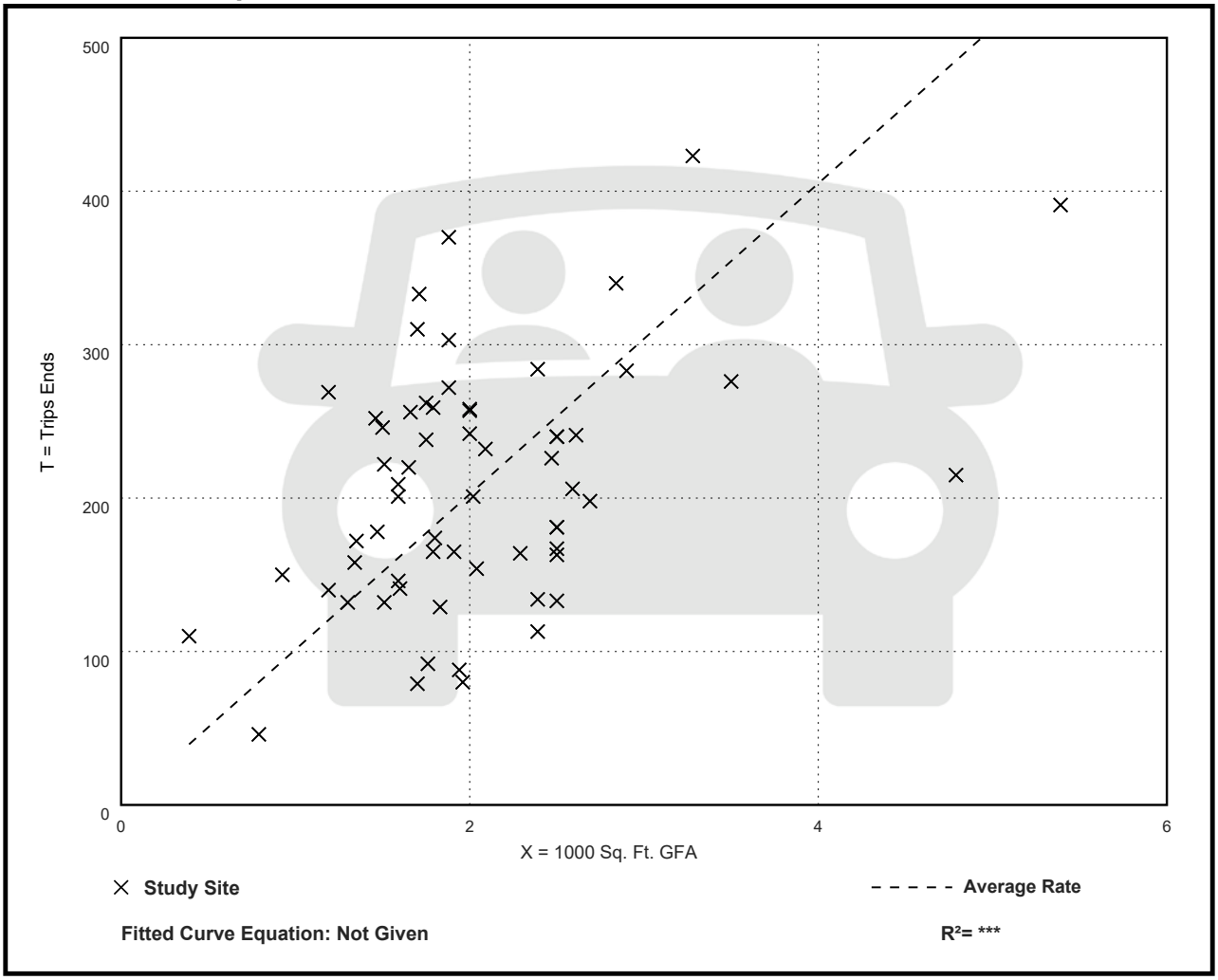
Vehicle Trip Ends vs: 1000 Sq. Ft. GFA
On a: Weekday,
AM Peak Hour of Generator

Setting/Location: General Urban/Suburban
Number of Studies: 62
Avg. 1000 Sq. Ft. GFA: 2
Directional Distribution: 50% entering, 50% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
101.27	40.82 - 282.05	41.74

Data Plot and Equation



Coffee/Donut Shop with Drive-Through Window (937)

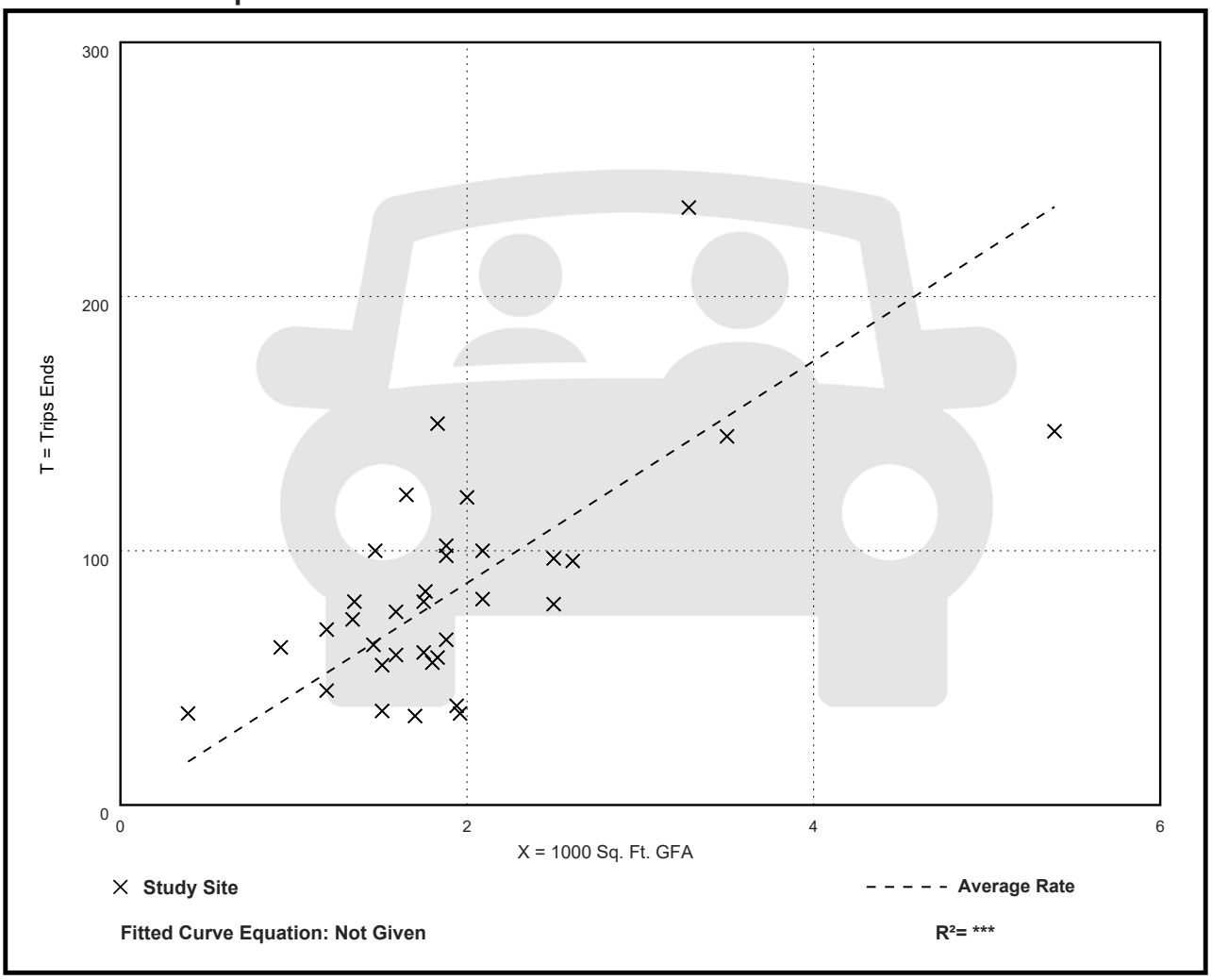
Vehicle Trip Ends vs: 1000 Sq. Ft. GFA
On a: Weekday,
PM Peak Hour of Generator

Setting/Location: General Urban/Suburban
Number of Studies: 34
Avg. 1000 Sq. Ft. GFA: 2
Directional Distribution: 50% entering, 50% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
43.65	18.37 - 92.31	16.74

Data Plot and Equation



Coffee/Donut Shop with Drive-Through Window (937)

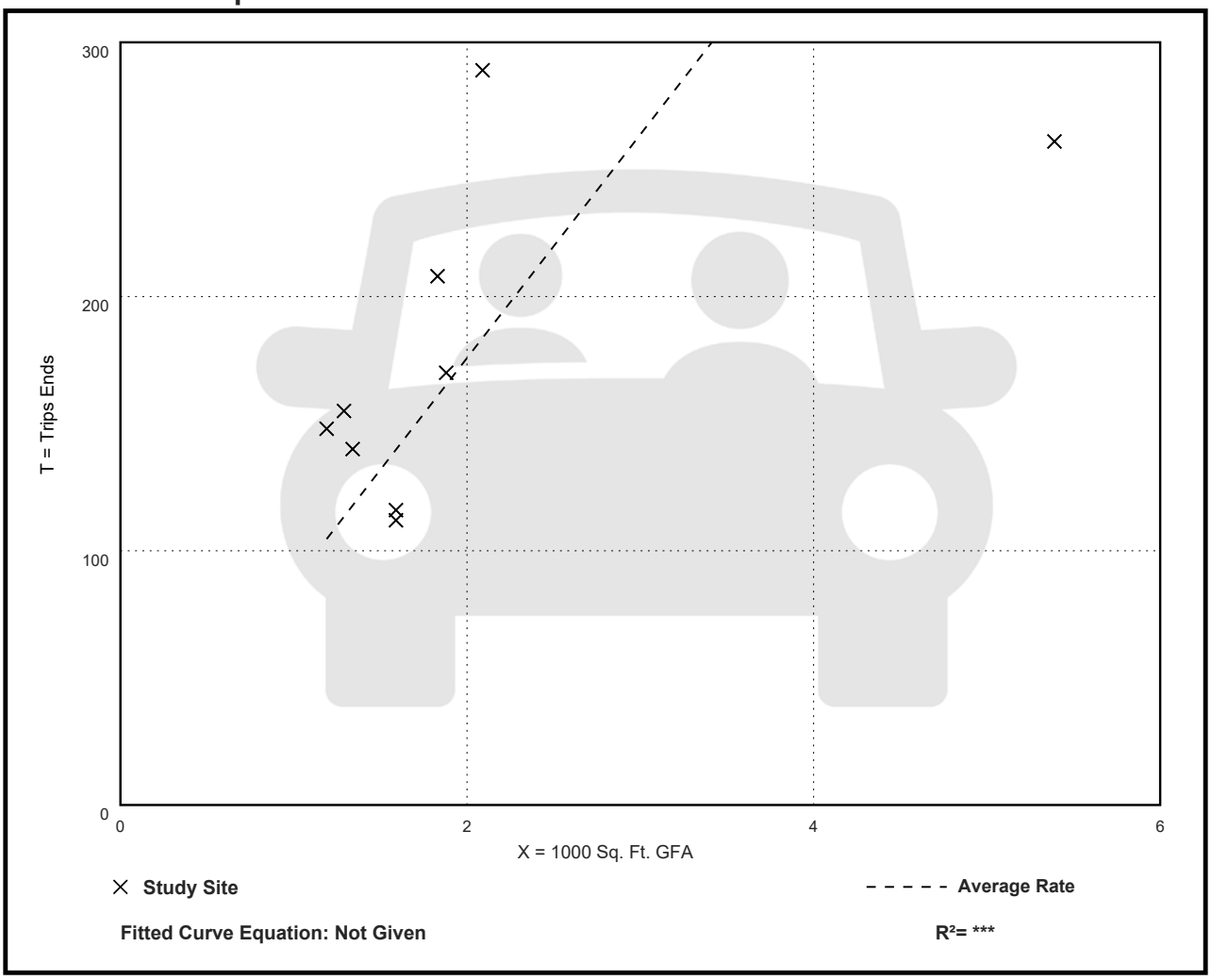
Vehicle Trip Ends vs: 1000 Sq. Ft. GFA
On a: Saturday, Peak Hour of Generator

Setting/Location: General Urban/Suburban
Number of Studies: 9
Avg. 1000 Sq. Ft. GFA: 2
Directional Distribution: 50% entering, 50% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
87.91	48.42 - 138.28	34.34

Data Plot and Equation



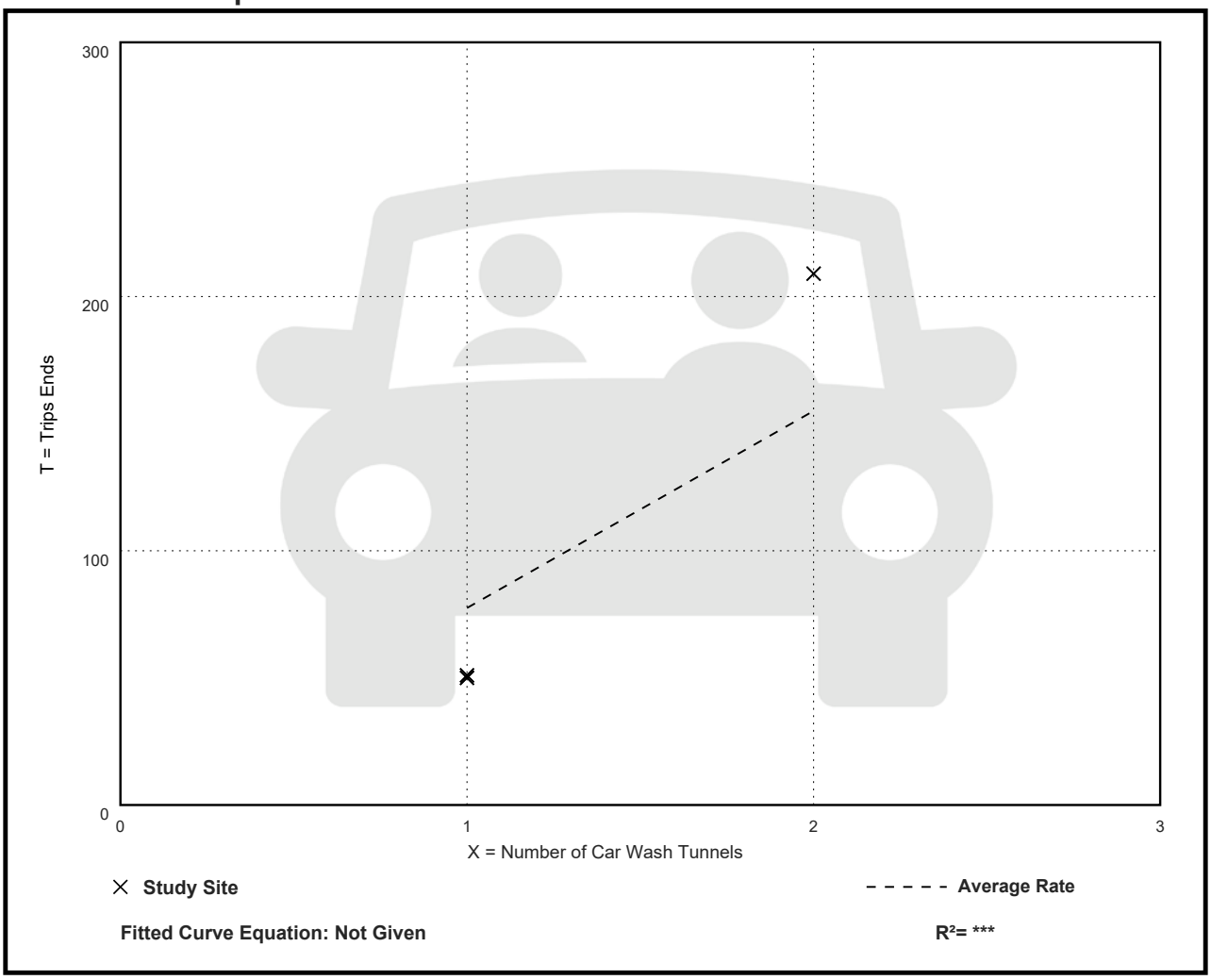
Automated Car Wash
(948)

Vehicle Trip Ends vs: Car Wash Tunnels
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: 3
Avg. Num. of Car Wash Tunnels: 1
Directional Distribution: 50% entering, 50% exiting

Vehicle Trip Generation per Car Wash Tunnel

Average Rate	Range of Rates	Standard Deviation
77.50	50.00 - 104.50	33.07

Data Plot and Equation



Automated Car Wash
(948)

Vehicle Trip Ends vs: Car Wash Tunnels
On a: Saturday, Peak Hour of Generator

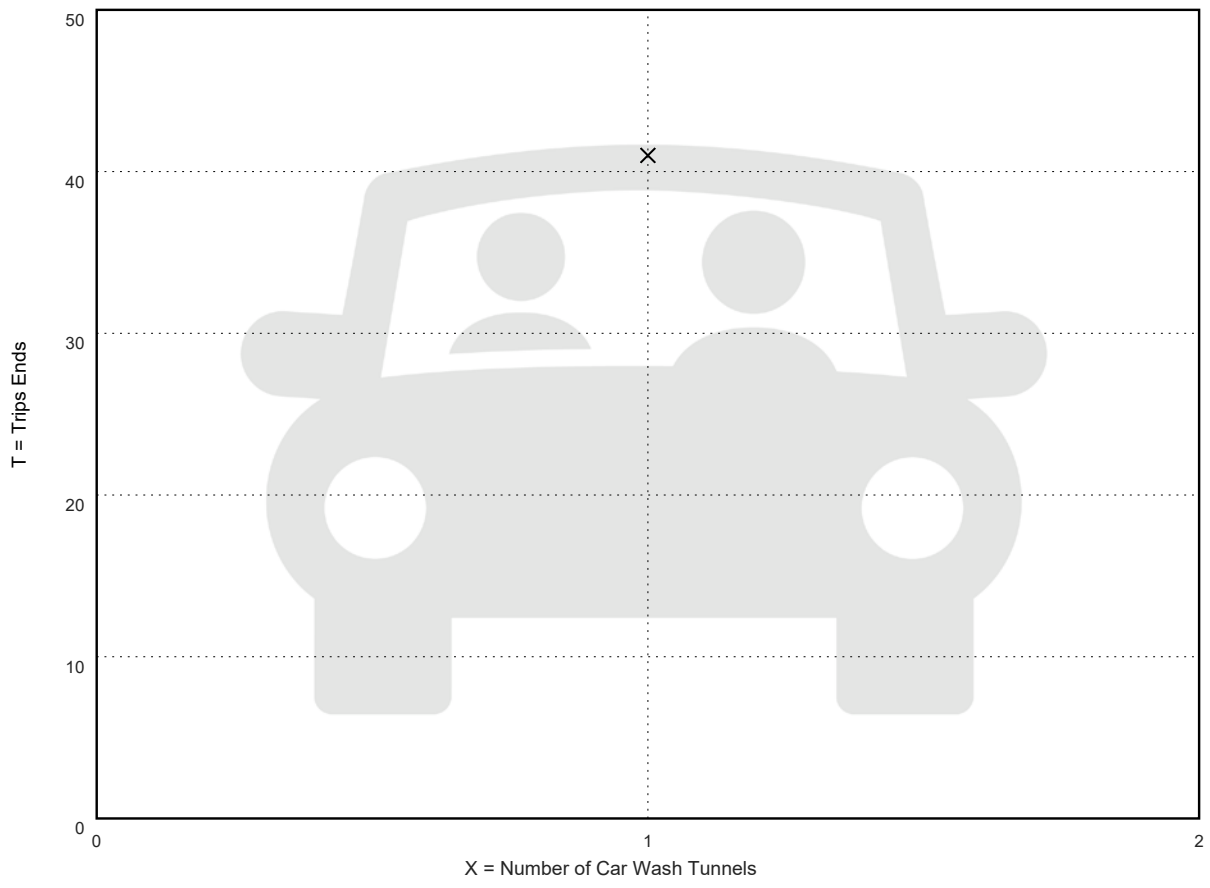
Setting/Location: General Urban/Suburban
Number of Studies: 1
Avg. Num. of Car Wash Tunnels: 1
Directional Distribution: 46% entering, 54% exiting

Vehicle Trip Generation per Car Wash Tunnel

Average Rate	Range of Rates	Standard Deviation
41.00	41.00 - 41.00	***

Data Plot and Equation

Caution – Small Sample Size



Fitted Curve Equation: Not Given

R^2= *

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

January 8, 2025

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

Subject: IL 56 at Barley Avenue // IL 59 at Duke Parkway/Everton Drive
IDOT

Dear Ms. May

In response to a request made on your behalf and dated January 8, 2025, we have developed year 2050 average daily traffic (ADT) projections for the subject location.

ROAD SEGMENT	Current ADT	Year 2050 ADT
IL 56, at Barkley Ave	22,600	29,100
IL 59, at Duke Pky/Everton Dr	34,300	44,100

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)
2025_TrafficcForecasts\Warrenville\du-01-25\du-01-25.docx

Level of Service Criteria

LEVEL OF SERVICE CRITERIA

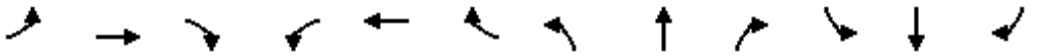
Signalized Intersections		
Level of Service	**Interpretation**	**Average Control Delay (seconds per vehicle)**
A	Favorable progression. Most vehicles arrive during the green indication and travel through the intersection without stopping.	≤10
B	Good progression, with more vehicles stopping than for Level 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

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

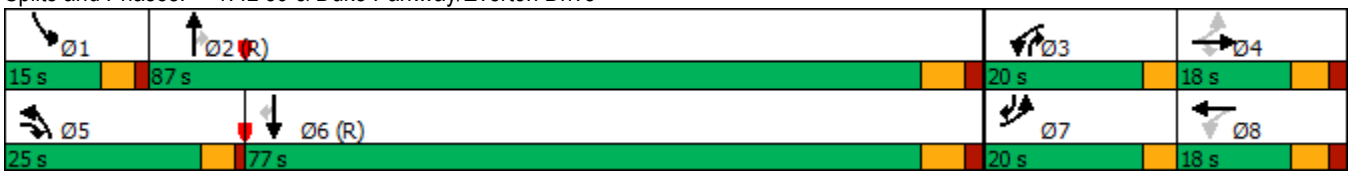


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	30	1	51	77	1	9	60	1303	11	5	1334	52
Future Volume (vph)	30	1	51	77	1	9	60	1303	11	5	1334	52
Ideal Flow (vphpl)	1900	2000	1900	1900	1900	1900	1900	2000	1900	1900	2000	1900
Storage Length (ft)	375		230	0		0	230		245	215		0
Storage Lanes	1		1	1		0	2		1	1		1
Taper Length (ft)	120			25			300			230		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.97	0.95	1.00	1.00	0.95	1.00
Frt			0.850		0.865				0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1357	2000	1162	1805	1644	0	2870	3519	1369	1805	3551	1292
Flt Permitted				0.930			0.950			0.950		
Satd. Flow (perm)	1429	2000	1162	1767	1644	0	2870	3519	1369	1805	3551	1292
Right Turn on Red			Yes			No			No			Yes
Satd. Flow (RTOR)			55									97
Link Speed (mph)		25			30			50			50	
Link Distance (ft)		713			332			2388			366	
Travel Time (s)		19.4			7.5			32.6			5.0	
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Heavy Vehicles (%)	33%	0%	39%	0%	0%	0%	22%	8%	18%	0%	7%	25%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	31	1	53	79	10	0	62	1343	11	5	1375	54
Turn Type	pm+pt	NA	pm+ov	pm+pt	NA		Prot	NA	pm+ov	Prot	NA	pm+ov
Protected Phases	7	4	5	3	8		5	2	3	1	6	7
Permitted Phases	4		4	8					2			6
Detector Phase	7	4	5	3	8		5	2	3	1	6	7
Switch Phase												
Minimum Initial (s)	3.0	8.0	3.0	3.0	8.0		3.0	15.0	3.0	3.0	15.0	3.0
Minimum Split (s)	9.5	18.0	14.0	9.5	18.0		14.0	35.5	9.5	9.5	43.5	9.5
Total Split (s)	20.0	18.0	25.0	20.0	18.0		25.0	87.0	20.0	15.0	77.0	20.0
Total Split (%)	14.3%	12.9%	17.9%	14.3%	12.9%		17.9%	62.1%	14.3%	10.7%	55.0%	14.3%
Yellow Time (s)	3.5	4.0	3.5	3.5	4.0		3.5	4.5	3.5	3.5	4.5	3.5
All-Red Time (s)	0.0	2.0	1.0	0.0	2.0		1.0	2.0	0.0	1.5	2.0	0.0
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
Total Lost Time (s)	3.5	6.0	4.5	3.5	6.0		4.5	6.5	3.5	5.0	6.5	3.5
Lead/Lag	Lead	Lag	Lead	Lead	Lag		Lead	Lag	Lead	Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes		Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None		None	C-Min	None	None	C-Min	None
Act Effct Green (s)	12.4	8.0	12.2	14.7	8.9		9.4	112.9	134.1	6.0	103.7	120.4
Actuated g/C Ratio	0.09	0.06	0.09	0.10	0.06		0.07	0.81	0.96	0.04	0.74	0.86
v/c Ratio	0.26	0.01	0.35	0.42	0.10		0.32	0.47	0.01	0.06	0.52	0.05
Control Delay	59.5	63.0	18.4	63.4	63.0		66.2	6.5	1.6	65.6	10.2	0.2
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	59.5	63.0	18.4	63.4	63.0		66.2	6.5	1.6	65.6	10.2	0.2
LOS	E	E	B	E	E		E	A	A	E	B	A
Approach Delay		33.9			63.4			9.1			10.0	
Approach LOS		C			E			A			B	
Queue Length 50th (ft)	27	1	0	70	9		28	123	0	5	241	0
Queue Length 95th (ft)	53	7	38	109	28		52	418	6	20	473	2

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (ft)		633			252			2308			286	
Turn Bay Length (ft)	375		230				230		245	215		
Base Capacity (vph)	181	171	239	243	140		420	2836	1314	128	2629	1174
Starvation Cap Reductn	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
Storage Cap Reductn	0	0	0	0	0		0	0	0	0	0	0
Reduced v/c Ratio	0.17	0.01	0.22	0.33	0.07		0.15	0.47	0.01	0.04	0.52	0.05

Intersection Summary			
Area Type:	Other		
Cycle Length: 140			
Actuated Cycle Length: 140			
Offset: 138.6 (99%), Referenced to phase 2:NBT and 6:SBT, Start of Green			
Natural Cycle: 85			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.52			
Intersection Signal Delay: 11.8		Intersection LOS: B	
Intersection Capacity Utilization 56.4%		ICU Level of Service B	
Analysis Period (min) 15			

Splits and Phases: 1: IL 59 & Duke Parkway/Everton Drive



Intersection	
Int Delay, s/veh	4.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	2	45	6	39	68	6	9	2	12	25	4	7
Future Vol, veh/h	2	45	6	39	68	6	9	2	12	25	4	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	100	-	-	130	-	120	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	69	69	69	69	69	69	69	69	69	69	69	69
Heavy Vehicles, %	0	14	67	54	6	17	11	0	100	0	0	0
Mvmt Flow	3	65	9	57	99	9	13	3	17	36	6	10

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	108	0	0	74	0	0	302	298	70	299	293	99
Stage 1	-	-	-	-	-	-	76	76	-	213	213	-
Stage 2	-	-	-	-	-	-	226	222	-	86	80	-
Critical Hdwy	4.1	-	-	4.64	-	-	7.21	6.5	7.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.21	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.21	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.686	-	-	3.599	4	4.2	3.5	4	3.3
Pot Cap-1 Maneuver	1495	-	-	1252	-	-	633	617	776	657	621	962
Stage 1	-	-	-	-	-	-	911	836	-	794	730	-
Stage 2	-	-	-	-	-	-	757	723	-	927	832	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1495	-	-	1252	-	-	599	587	776	617	591	962
Mov Cap-2 Maneuver	-	-	-	-	-	-	599	587	-	617	591	-
Stage 1	-	-	-	-	-	-	909	834	-	792	696	-
Stage 2	-	-	-	-	-	-	709	690	-	901	830	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.3	2.8	10.6	10.9
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	679	1495	-	-	1252	-	-	660
HCM Lane V/C Ratio	0.049	0.002	-	-	0.045	-	-	0.079
HCM Control Delay (s)	10.6	7.4	-	-	8	-	-	10.9
HCM Lane LOS	B	A	-	-	A	-	-	B
HCM 95th %tile Q(veh)	0.2	0	-	-	0.1	-	-	0.3

Intersection	
Int Delay, s/veh	6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	1	4	12	0	2	0	0	3	7	1	24	0
Future Vol, veh/h	1	4	12	0	2	0	0	3	7	1	24	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	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	79	79	79	79	79	79	79	79	79	79	79	79
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	2
Mvmt Flow	1	5	15	0	3	0	0	4	9	1	30	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	3	0	0	20	0	0	33	18	13	24	25	3
Stage 1	-	-	-	-	-	-	15	15	-	3	3	-
Stage 2	-	-	-	-	-	-	18	3	-	21	22	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.22
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	3.318
Pot Cap-1 Maneuver	1632	-	-	1609	-	-	979	880	1073	993	872	1081
Stage 1	-	-	-	-	-	-	1010	887	-	1025	897	-
Stage 2	-	-	-	-	-	-	1006	897	-	1003	881	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1632	-	-	1609	-	-	953	879	1073	981	871	1081
Mov Cap-2 Maneuver	-	-	-	-	-	-	953	879	-	981	871	-
Stage 1	-	-	-	-	-	-	1009	886	-	1024	897	-
Stage 2	-	-	-	-	-	-	972	897	-	989	880	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.4	0	8.6	9.3
HCM LOS			A	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	1006	1632	-	-	1609	-	-	875
HCM Lane V/C Ratio	0.013	0.001	-	-	-	-	-	0.036
HCM Control Delay (s)	8.6	7.2	0	-	0	-	-	9.3
HCM Lane LOS	A	A	A	-	A	-	-	A
HCM 95th %tile Q(veh)	0	0	-	-	0	-	-	0.1

Intersection	
Int Delay, s/veh	0.1

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	12	0	1342	1379	2
Future Vol, veh/h	0	12	0	1342	1379	2
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	85
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	97	97	97	97	97	97
Heavy Vehicles, %	0	0	0	8	7	0
Mvmt Flow	0	12	0	1384	1422	2

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	-	711	-	0	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.9	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.3	-	-	-	-
Pot Cap-1 Maneuver	0	*509	0	-	-	-
Stage 1	0	-	0	-	-	-
Stage 2	0	-	0	-	-	-
Platoon blocked, %		1		-	-	-
Mov Cap-1 Maneuver	-	*509	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	12.2	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	-	509	-	-
HCM Lane V/C Ratio	-	0.024	-	-
HCM Control Delay (s)	-	12.2	-	-
HCM Lane LOS	-	B	-	-
HCM 95th %tile Q(veh)	-	0.1	-	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	1.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	66	996	4	10	474	52	0	2	21	48	2	9
Future Vol, veh/h	66	996	4	10	474	52	0	2	21	48	2	9
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	215	-	-	355	-	-	-	-	50	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	94	94	94	94	94	94	94	94	94	94	94	94
Heavy Vehicles, %	0	3	0	8	0	0	0	0	0	25	0	0
Mvmt Flow	70	1060	4	11	504	55	0	2	22	51	2	10

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	559	0	0	1064	0	0	1477	1783	532	1225	1758	280
Stage 1	-	-	-	-	-	-	1202	1202	-	554	554	-
Stage 2	-	-	-	-	-	-	275	581	-	671	1204	-
Critical Hdwy	4.1	-	-	4.26	-	-	7.5	6.5	6.9	8	6.5	6.9
Critical Hdwy Stg 1	-	-	-	-	-	-	6.5	5.5	-	7	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.5	5.5	-	7	5.5	-
Follow-up Hdwy	2.2	-	-	2.28	-	-	3.5	4	3.3	3.75	4	3.3
Pot Cap-1 Maneuver	1283	-	-	616	-	-	*124	97	497	175	101	*909
Stage 1	-	-	-	-	-	-	*199	260	-	727	703	-
Stage 2	-	-	-	-	-	-	*857	681	-	362	259	-
Platoon blocked, %	1	-	-		-	-	1	1		1	1	1
Mov Cap-1 Maneuver	1283	-	-	616	-	-	*114	90	497	155	94	*909
Mov Cap-2 Maneuver	-	-	-	-	-	-	*114	90	-	155	94	-
Stage 1	-	-	-	-	-	-	*188	246	-	687	690	-
Stage 2	-	-	-	-	-	-	*830	669	-	324	245	-

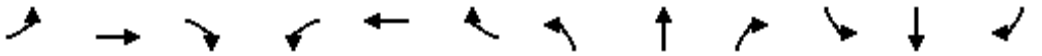
Approach	EB	WB	NB	SB
HCM Control Delay, s	0.5	0.2	15.5	37.2
HCM LOS			C	E

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	90	497	1283	-	-	616	-	-	173
HCM Lane V/C Ratio	0.024	0.045	0.055	-	-	0.017	-	-	0.363
HCM Control Delay (s)	46	12.6	8	-	-	10.9	-	-	37.2
HCM Lane LOS	E	B	A	-	-	B	-	-	E
HCM 95th %tile Q(veh)	0.1	0.1	0.2	-	-	0.1	-	-	1.5

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Capacity Analysis Summary Sheets

Existing Weekday Evening Peak Hour

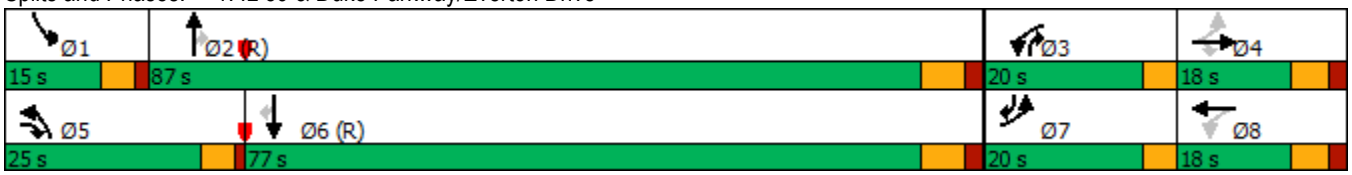


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	37	1	35	31	1	12	63	1364	79	34	1381	39
Future Volume (vph)	37	1	35	31	1	12	63	1364	79	34	1381	39
Ideal Flow (vphpl)	1900	2000	1900	1900	1900	1900	1900	2000	1900	1900	2000	1900
Storage Length (ft)	375		230	0		0	230		245	215		0
Storage Lanes	1		1	1		0	2		1	1		1
Taper Length (ft)	120			25			300			230		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.97	0.95	1.00	1.00	0.95	1.00
Frt			0.850		0.861				0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1517	2000	1313	1805	1636	0	2894	3619	1615	1805	3585	1538
Flt Permitted				0.678			0.950			0.950		
Satd. Flow (perm)	1597	2000	1313	1288	1636	0	2894	3619	1615	1805	3585	1538
Right Turn on Red			Yes			No			No			Yes
Satd. Flow (RTOR)			55									97
Link Speed (mph)		25			30			50			50	
Link Distance (ft)		713			332			2388			366	
Travel Time (s)		19.4			7.5			32.6			5.0	
Peak Hour Factor	0.97	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	19%	0%	23%	0%	0%	0%	21%	5%	0%	0%	6%	5%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	38	1	38	34	14	0	68	1483	86	37	1501	42
Turn Type	pm+pt	NA	pm+ov	pm+pt	NA		Prot	NA	pm+ov	Prot	NA	pm+ov
Protected Phases	7	4	5	3	8		5	2	3	1	6	7
Permitted Phases	4		4	8					2			6
Detector Phase	7	4	5	3	8		5	2	3	1	6	7
Switch Phase												
Minimum Initial (s)	3.0	8.0	3.0	3.0	8.0		3.0	15.0	3.0	3.0	15.0	3.0
Minimum Split (s)	9.5	18.0	14.0	9.5	18.0		14.0	35.5	9.5	9.5	43.5	9.5
Total Split (s)	20.0	18.0	25.0	20.0	18.0		25.0	87.0	20.0	15.0	77.0	20.0
Total Split (%)	14.3%	12.9%	17.9%	14.3%	12.9%		17.9%	62.1%	14.3%	10.7%	55.0%	14.3%
Yellow Time (s)	3.5	4.0	3.5	3.5	4.0		3.5	4.5	3.5	3.5	4.5	3.5
All-Red Time (s)	0.0	2.0	1.0	0.0	2.0		1.0	2.0	0.0	1.5	2.0	0.0
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
Total Lost Time (s)	3.5	6.0	4.5	3.5	6.0		4.5	6.5	3.5	5.0	6.5	3.5
Lead/Lag	Lead	Lag	Lead	Lead	Lag		Lead	Lag	Lead	Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes		Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None		None	C-Min	None	None	C-Min	None
Act Effct Green (s)	11.7	8.8	13.3	15.2	8.9		9.7	102.6	122.3	8.3	102.0	117.3
Actuated g/C Ratio	0.08	0.06	0.10	0.11	0.06		0.07	0.73	0.87	0.06	0.73	0.84
v/c Ratio	0.30	0.01	0.22	0.18	0.13		0.34	0.56	0.06	0.35	0.57	0.03
Control Delay	62.1	60.0	8.1	54.0	64.3		66.3	11.6	2.7	71.2	12.2	0.1
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	62.1	60.0	8.1	54.0	64.3		66.3	11.6	2.7	71.2	12.2	0.1
LOS	E	E	A	D	E		E	B	A	E	B	A
Approach Delay		35.4			57.0			13.4			13.3	
Approach LOS		D			E			B			B	
Queue Length 50th (ft)	34	1	0	30	12		30	241	7	33	256	0
Queue Length 95th (ft)	62	7	18	57	36		56	523	36	70	542	0

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (ft)		633			252			2308			286	
Turn Bay Length (ft)	375		230				230		245	215		
Base Capacity (vph)	205	172	272	258	140		423	2652	1464	131	2611	1378
Starvation Cap Reductn	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
Storage Cap Reductn	0	0	0	0	0		0	0	0	0	0	0
Reduced v/c Ratio	0.19	0.01	0.14	0.13	0.10		0.16	0.56	0.06	0.28	0.57	0.03

Intersection Summary			
Area Type:	Other		
Cycle Length: 140			
Actuated Cycle Length: 140			
Offset: 7 (5%), Referenced to phase 2:NBT and 6:SBT, Start of Green			
Natural Cycle: 85			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.57			
Intersection Signal Delay: 14.5		Intersection LOS: B	
Intersection Capacity Utilization 55.4%		ICU Level of Service B	
Analysis Period (min) 15			

Splits and Phases: 1: IL 59 & Duke Parkway/Everton Drive



Intersection	
Int Delay, s/veh	3.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	4	53	6	34	41	28	3	1	7	13	0	5
Future Vol, veh/h	4	53	6	34	41	28	3	1	7	13	0	5
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	100	-	-	130	-	120	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	70	70	70	70	70	70	70	70	70	70	70	70
Heavy Vehicles, %	0	14	33	41	24	4	100	0	86	0	0	0
Mvmt Flow	6	76	9	49	59	40	4	1	10	19	0	7

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	99	0	0	85	0	0	274	290	81	255	254	59
Stage 1	-	-	-	-	-	-	93	93	-	157	157	-
Stage 2	-	-	-	-	-	-	181	197	-	98	97	-
Critical Hdwy	4.1	-	-	4.51	-	-	8.1	6.5	7.06	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	7.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	7.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.569	-	-	4.4	4	4.074	3.5	4	3.3
Pot Cap-1 Maneuver	1507	-	-	1298	-	-	520	624	789	702	653	1012
Stage 1	-	-	-	-	-	-	721	822	-	850	772	-
Stage 2	-	-	-	-	-	-	638	742	-	913	819	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1507	-	-	1298	-	-	500	598	789	670	626	1012
Mov Cap-2 Maneuver	-	-	-	-	-	-	500	598	-	670	626	-
Stage 1	-	-	-	-	-	-	718	819	-	847	743	-
Stage 2	-	-	-	-	-	-	610	714	-	896	816	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.5	2.6	10.5	10
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	665	1507	-	-	1298	-	-	739
HCM Lane V/C Ratio	0.024	0.004	-	-	0.037	-	-	0.035
HCM Control Delay (s)	10.5	7.4	-	-	7.9	-	-	10
HCM Lane LOS	B	A	-	-	A	-	-	B
HCM 95th %tile Q(veh)	0.1	0	-	-	0.1	-	-	0.1

Intersection	
Int Delay, s/veh	7.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	1	2	5	0	3	0	12	21	0	1	13	1
Future Vol, veh/h	1	2	5	0	3	0	12	21	0	1	13	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	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	61	61	61	61	61	61	61	61	61	61	61	61
Heavy Vehicles, %	0	0	0	0	0	0	0	6	0	0	0	0
Mvmt Flow	2	3	8	0	5	0	20	34	0	2	21	2

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	5	0	0	11	0	0	28	16	7	33	20	5
Stage 1	-	-	-	-	-	-	11	11	-	5	5	-
Stage 2	-	-	-	-	-	-	17	5	-	28	15	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.56	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.56	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.56	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4.054	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1630	-	-	1621	-	-	987	870	1081	979	878	1084
Stage 1	-	-	-	-	-	-	1015	878	-	1022	896	-
Stage 2	-	-	-	-	-	-	1008	884	-	994	887	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1630	-	-	1621	-	-	966	869	1081	949	877	1084
Mov Cap-2 Maneuver	-	-	-	-	-	-	966	869	-	949	877	-
Stage 1	-	-	-	-	-	-	1014	877	-	1021	896	-
Stage 2	-	-	-	-	-	-	983	884	-	954	886	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.9	0	9.2	9.1
HCM LOS			A	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	902	1630	-	-	1621	-	-	893
HCM Lane V/C Ratio	0.06	0.001	-	-	-	-	-	0.028
HCM Control Delay (s)	9.2	7.2	0	-	0	-	-	9.1
HCM Lane LOS	A	A	A	-	A	-	-	A
HCM 95th %tile Q(veh)	0.2	0	-	-	0	-	-	0.1

Intersection	
Int Delay, s/veh	0

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	3	0	1413	1451	3
Future Vol, veh/h	0	3	0	1413	1451	3
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	85
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	0	0	0	4	6	2
Mvmt Flow	0	3	0	1503	1544	3

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	-	772	-	0	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.9	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.3	-	-	-	-
Pot Cap-1 Maneuver	0	*487	0	-	-	-
Stage 1	0	-	0	-	-	-
Stage 2	0	-	0	-	-	-
Platoon blocked, %		1		-	-	-
Mov Cap-1 Maneuver	-	*487	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	12.4	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	-	487	-	-
HCM Lane V/C Ratio	-	0.007	-	-
HCM Control Delay (s)	-	12.4	-	-
HCM Lane LOS	-	B	-	-
HCM 95th %tile Q(veh)	-	0	-	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	0.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	14	870	3	15	1228	15	3	0	8	40	0	9
Future Vol, veh/h	14	870	3	15	1228	15	3	0	8	40	0	9
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	215	-	-	355	-	-	-	-	50	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	96	96	96	96	96	96	96	96	96	96	96	96
Heavy Vehicles, %	0	3	0	0	2	27	0	0	0	8	0	2
Mvmt Flow	15	906	3	16	1279	16	3	0	8	42	0	9

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1295	0	0	909	0	0	1610	2265	455	1802	2258	648
Stage 1	-	-	-	-	-	-	938	938	-	1319	1319	-
Stage 2	-	-	-	-	-	-	672	1327	-	483	939	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.5	6.5	6.9	7.66	6.5	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.5	5.5	-	6.66	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.5	5.5	-	6.66	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.58	4	3.32
Pot Cap-1 Maneuver	*869	-	-	757	-	-	*294	*56	558	*155	*57	*575
Stage 1	-	-	-	-	-	-	*288	*346	-	*533	*478	-
Stage 2	-	-	-	-	-	-	*546	*478	-	*518	*345	-
Platoon blocked, %	1	-	-		-	-	1	1		1	1	1
Mov Cap-1 Maneuver	*869	-	-	757	-	-	*281	*54	558	*148	*55	*575
Mov Cap-2 Maneuver	-	-	-	-	-	-	*281	*54	-	*148	*55	-
Stage 1	-	-	-	-	-	-	*283	*340	-	*524	*468	-
Stage 2	-	-	-	-	-	-	*525	*468	-	*501	*339	-

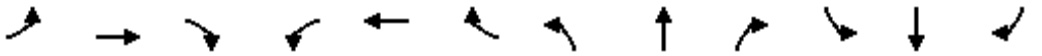
Approach	EB	WB	NB	SB
HCM Control Delay, s	0.1	0.1	13.3	34.8
HCM LOS			B	D

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	281	558	* 869	-	-	757	-	-	171
HCM Lane V/C Ratio	0.011	0.015	0.017	-	-	0.021	-	-	0.298
HCM Control Delay (s)	18	11.5	9.2	-	-	9.9	-	-	34.8
HCM Lane LOS	C	B	A	-	-	A	-	-	D
HCM 95th %tile Q(veh)	0	0	0.1	-	-	0.1	-	-	1.2

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Capacity Analysis Summary Sheets

Existing Saturday Midday Peak Hour

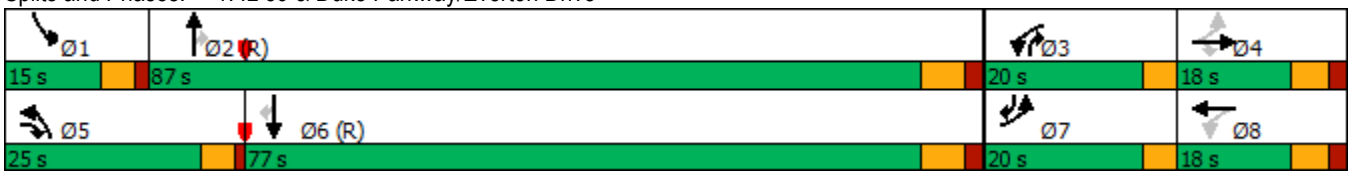


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	16	5	33	59	1	5	49	1092	34	32	972	14
Future Volume (vph)	16	5	33	59	1	5	49	1092	34	32	972	14
Ideal Flow (vphpl)	1900	2000	1900	1900	1900	1900	1900	2000	1900	1900	2000	1900
Storage Length (ft)	375		230	0		0	230		245	215		0
Storage Lanes	1		1	1		0	2		1	1		1
Taper Length (ft)	120			25			300			230		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.97	0.95	1.00	1.00	0.95	1.00
Frt			0.850		0.875				0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1597	2000	1242	1805	1662	0	3072	3689	1615	1752	3689	1335
Flt Permitted				0.851			0.950			0.950		
Satd. Flow (perm)	1681	2000	1242	1617	1662	0	3072	3689	1615	1752	3689	1335
Right Turn on Red			Yes			No			No			Yes
Satd. Flow (RTOR)			55									97
Link Speed (mph)		25			30			50			50	
Link Distance (ft)		713			332			2388			366	
Travel Time (s)		19.4			7.5			32.6			5.0	
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Heavy Vehicles (%)	13%	0%	30%	0%	0%	0%	14%	3%	0%	3%	3%	21%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	16	5	34	61	6	0	51	1126	35	33	1002	14
Turn Type	pm+pt	NA	pm+ov	pm+pt	NA		Prot	NA	pm+ov	Prot	NA	pm+ov
Protected Phases	7	4	5	3	8		5	2	3	1	6	7
Permitted Phases	4		4	8					2			6
Detector Phase	7	4	5	3	8		5	2	3	1	6	7
Switch Phase												
Minimum Initial (s)	3.0	8.0	3.0	3.0	8.0		3.0	15.0	3.0	3.0	15.0	3.0
Minimum Split (s)	9.5	18.0	14.0	9.5	18.0		14.0	35.5	9.5	9.5	43.5	9.5
Total Split (s)	20.0	18.0	25.0	20.0	18.0		25.0	87.0	20.0	15.0	77.0	20.0
Total Split (%)	14.3%	12.9%	17.9%	14.3%	12.9%		17.9%	62.1%	14.3%	10.7%	55.0%	14.3%
Yellow Time (s)	3.5	4.0	3.5	3.5	4.0		3.5	4.5	3.5	3.5	4.5	3.5
All-Red Time (s)	0.0	2.0	1.0	0.0	2.0		1.0	2.0	0.0	1.5	2.0	0.0
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
Total Lost Time (s)	3.5	6.0	4.5	3.5	6.0		4.5	6.5	3.5	5.0	6.5	3.5
Lead/Lag	Lead	Lag	Lead	Lead	Lag		Lead	Lag	Lead	Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes		Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None		None	C-Min	None	None	C-Min	None
Act Effct Green (s)	10.6	8.2	11.7	13.2	9.1		8.7	111.4	126.3	8.1	109.0	121.4
Actuated g/C Ratio	0.08	0.06	0.08	0.09	0.06		0.06	0.80	0.90	0.06	0.78	0.87
v/c Ratio	0.13	0.04	0.22	0.37	0.06		0.27	0.38	0.02	0.33	0.35	0.01
Control Delay	56.2	63.0	7.9	62.9	61.0		65.5	7.2	2.4	71.1	7.4	0.0
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	56.2	63.0	7.9	62.9	61.0		65.5	7.2	2.4	71.1	7.4	0.0
LOS	E	E	A	E	E		E	A	A	E	A	A
Approach Delay		27.0			62.8			9.5			9.3	
Approach LOS		C			E			A			A	
Queue Length 50th (ft)	14	4	0	54	5		23	160	3	29	137	0
Queue Length 95th (ft)	33	19	15	89	20		45	335	16	65	282	0

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (ft)		633			252			2308			286	
Turn Bay Length (ft)	375		230				230		245	215		
Base Capacity (vph)	215	171	253	238	145		449	2934	1491	127	2872	1223
Starvation Cap Reductn	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
Storage Cap Reductn	0	0	0	0	0		0	0	0	0	0	0
Reduced v/c Ratio	0.07	0.03	0.13	0.26	0.04		0.11	0.38	0.02	0.26	0.35	0.01

Intersection Summary			
Area Type:	Other		
Cycle Length: 140			
Actuated Cycle Length: 140			
Offset: 135.8 (97%), Referenced to phase 2:NBT and 6:SBT, Start of Green			
Natural Cycle: 85			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.38			
Intersection Signal Delay: 11.3		Intersection LOS: B	
Intersection Capacity Utilization 49.0%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 1: IL 59 & Duke Parkway/Everton Drive



Intersection	
Int Delay, s/veh	3.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	2	32	2	27	19	18	2	0	3	19	2	2
Future Vol, veh/h	2	32	2	27	19	18	2	0	3	19	2	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	100	-	-	130	-	120	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	85	85	85	85	85	85	85	85	85	85	85	85
Heavy Vehicles, %	0	27	100	30	20	0	50	0	67	5	0	0
Mvmt Flow	2	38	2	32	22	21	2	0	4	22	2	2

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	43	0	0	40	0	0	142	150	39	131	130	22
Stage 1	-	-	-	-	-	-	43	43	-	86	86	-
Stage 2	-	-	-	-	-	-	99	107	-	45	44	-
Critical Hdwy	4.1	-	-	4.4	-	-	7.6	6.5	6.87	7.15	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.6	5.5	-	6.15	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.6	5.5	-	6.15	5.5	-
Follow-up Hdwy	2.2	-	-	2.47	-	-	3.95	4	3.903	3.545	4	3.3
Pot Cap-1 Maneuver	1579	-	-	1407	-	-	729	745	874	834	764	1061
Stage 1	-	-	-	-	-	-	862	863	-	914	827	-
Stage 2	-	-	-	-	-	-	802	811	-	961	862	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1579	-	-	1407	-	-	712	727	874	816	746	1061
Mov Cap-2 Maneuver	-	-	-	-	-	-	712	727	-	816	746	-
Stage 1	-	-	-	-	-	-	861	862	-	913	808	-
Stage 2	-	-	-	-	-	-	780	792	-	956	861	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.4	3.2	9.5	9.5
HCM LOS			A	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	801	1579	-	-	1407	-	-	826
HCM Lane V/C Ratio	0.007	0.001	-	-	0.023	-	-	0.033
HCM Control Delay (s)	9.5	7.3	-	-	7.6	-	-	9.5
HCM Lane LOS	A	A	-	-	A	-	-	A
HCM 95th %tile Q(veh)	0	0	-	-	0.1	-	-	0.1

Intersection	
Int Delay, s/veh	7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	1	2	6	3	2	2	6	15	0	1	15	1
Future Vol, veh/h	1	2	6	3	2	2	6	15	0	1	15	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	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	83	83	83	83	83	83	83	83	83	83	83	83
Heavy Vehicles, %	0	0	17	0	0	0	0	0	0	0	0	0
Mvmt Flow	1	2	7	4	2	2	7	18	0	1	18	1

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	4	0	0	9	0	0	29	20	6	28	22	3
Stage 1	-	-	-	-	-	-	8	8	-	11	11	-
Stage 2	-	-	-	-	-	-	21	12	-	17	11	-
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	1631	-	-	1624	-	-	985	878	1083	987	876	1087
Stage 1	-	-	-	-	-	-	1019	893	-	1015	890	-
Stage 2	-	-	-	-	-	-	1003	890	-	1008	890	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1631	-	-	1624	-	-	966	875	1083	969	873	1087
Mov Cap-2 Maneuver	-	-	-	-	-	-	966	875	-	969	873	-
Stage 1	-	-	-	-	-	-	1018	892	-	1014	888	-
Stage 2	-	-	-	-	-	-	980	888	-	987	889	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.8	3.1	9.1	9.2
HCM LOS			A	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	899	1631	-	-	1624	-	-	888
HCM Lane V/C Ratio	0.028	0.001	-	-	0.002	-	-	0.023
HCM Control Delay (s)	9.1	7.2	0	-	7.2	0	-	9.2
HCM Lane LOS	A	A	A	-	A	A	-	A
HCM 95th %tile Q(veh)	0.1	0	-	-	0	-	-	0.1

Intersection	
Int Delay, s/veh	0

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	3	0	1113	1015	7
Future Vol, veh/h	0	3	0	1113	1015	7
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	85
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	0	0	0	3	3	0
Mvmt Flow	0	3	0	1184	1080	7

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	-	540	-	0	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.9	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.3	-	-	-	-
Pot Cap-1 Maneuver	0	*664	0	-	-	-
Stage 1	0	-	0	-	-	-
Stage 2	0	-	0	-	-	-
Platoon blocked, %		1		-	-	-
Mov Cap-1 Maneuver	-	*664	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	10.4	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	-	664	-	-
HCM Lane V/C Ratio	-	0.005	-	-
HCM Control Delay (s)	-	10.4	-	-
HCM Lane LOS	-	B	-	-
HCM 95th %tile Q(veh)	-	0	-	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	0.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	8	672	3	6	770	13	0	0	6	28	2	6
Future Vol, veh/h	8	672	3	6	770	13	0	0	6	28	2	6
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	215	-	-	355	-	-	-	-	50	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	0	2	0	0	1	8	0	0	0	0	0	0
Mvmt Flow	8	707	3	6	811	14	0	0	6	29	2	6

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	825	0	0	710	0	0	1144	1562	355	1200	1556	413
Stage 1	-	-	-	-	-	-	725	725	-	830	830	-
Stage 2	-	-	-	-	-	-	419	837	-	370	726	-
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	*1166	-	-	899	-	-	*387	*179	647	*340	*180	*777
Stage 1	-	-	-	-	-	-	*387	*433	-	*732	*641	-
Stage 2	-	-	-	-	-	-	*732	*641	-	*628	*433	-
Platoon blocked, %	1	-	-		-	-	1	1		1	1	1
Mov Cap-1 Maneuver	*1166	-	-	899	-	-	*376	*176	647	*333	*178	*777
Mov Cap-2 Maneuver	-	-	-	-	-	-	*376	*176	-	*333	*178	-
Stage 1	-	-	-	-	-	-	*384	*430	-	*727	*637	-
Stage 2	-	-	-	-	-	-	*719	*637	-	*618	*430	-

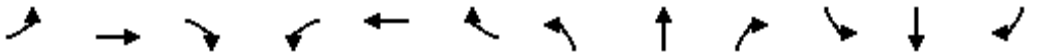
Approach	EB	WB	NB	SB
HCM Control Delay, s	0.1	0.1	10.6	16.6
HCM LOS			B	C

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	-	647	* 1166	-	-	899	-	-	349
HCM Lane V/C Ratio	-	0.01	0.007	-	-	0.007	-	-	0.109
HCM Control Delay (s)	0	10.6	8.1	-	-	9	-	-	16.6
HCM Lane LOS	A	B	A	-	-	A	-	-	C
HCM 95th %tile Q(veh)	-	0	0	-	-	0	-	-	0.4

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Capacity Analysis Summary Sheets

Year 2031 No-Build Weekday Morning Peak Hour

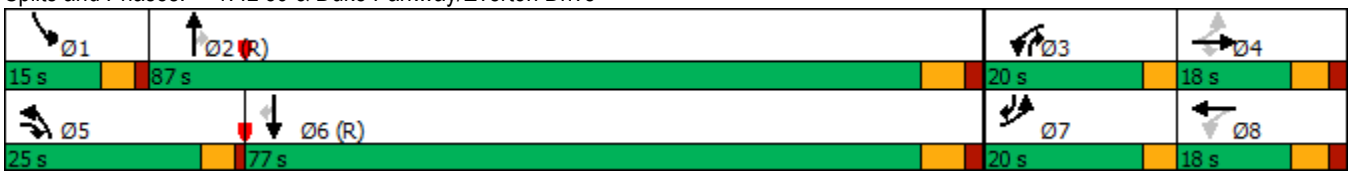


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	32	1	55	82	1	10	64	1394	12	5	1432	56
Future Volume (vph)	32	1	55	82	1	10	64	1394	12	5	1432	56
Ideal Flow (vphpl)	1900	2000	1900	1900	1900	1900	1900	2000	1900	1900	2000	1900
Storage Length (ft)	375		230	0		0	230		245	215		0
Storage Lanes	1		1	1		0	2		1	1		1
Taper Length (ft)	120			25			300			230		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.97	0.95	1.00	1.00	0.95	1.00
Frt			0.850		0.864				0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1357	2000	1162	1805	1642	0	2870	3519	1369	1805	3551	1292
Flt Permitted				0.784			0.950			0.950		
Satd. Flow (perm)	1429	2000	1162	1490	1642	0	2870	3519	1369	1805	3551	1292
Right Turn on Red			Yes			No			No			Yes
Satd. Flow (RTOR)			57									97
Link Speed (mph)		25			30			50			50	
Link Distance (ft)		713			332			2388			366	
Travel Time (s)		19.4			7.5			32.6			5.0	
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Heavy Vehicles (%)	33%	0%	39%	0%	0%	0%	22%	8%	18%	0%	7%	25%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	33	1	57	85	11	0	66	1437	12	5	1476	58
Turn Type	pm+pt	NA	pm+ov	pm+pt	NA		Prot	NA	pm+ov	Prot	NA	pm+ov
Protected Phases	7	4	5	3	8		5	2	3	1	6	7
Permitted Phases	4		4	8					2			6
Detector Phase	7	4	5	3	8		5	2	3	1	6	7
Switch Phase												
Minimum Initial (s)	3.0	8.0	3.0	3.0	8.0		3.0	15.0	3.0	3.0	15.0	3.0
Minimum Split (s)	9.5	18.0	14.0	9.5	18.0		14.0	35.5	9.5	9.5	43.5	9.5
Total Split (s)	20.0	18.0	25.0	20.0	18.0		25.0	87.0	20.0	15.0	77.0	20.0
Total Split (%)	14.3%	12.9%	17.9%	14.3%	12.9%		17.9%	62.1%	14.3%	10.7%	55.0%	14.3%
Yellow Time (s)	3.5	4.0	3.5	3.5	4.0		3.5	4.5	3.5	3.5	4.5	3.5
All-Red Time (s)	0.0	2.0	1.0	0.0	2.0		1.0	2.0	0.0	1.5	2.0	0.0
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
Total Lost Time (s)	3.5	6.0	4.5	3.5	6.0		4.5	6.5	3.5	5.0	6.5	3.5
Lead/Lag	Lead	Lag	Lead	Lead	Lag		Lead	Lag	Lead	Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes		Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None		None	C-Min	None	None	C-Min	None
Act Effct Green (s)	12.0	8.0	12.4	17.4	9.0		9.6	110.2	134.1	6.0	98.5	114.9
Actuated g/C Ratio	0.09	0.06	0.09	0.12	0.06		0.07	0.79	0.96	0.04	0.70	0.82
v/c Ratio	0.28	0.01	0.37	0.39	0.10		0.34	0.52	0.01	0.06	0.59	0.05
Control Delay	61.1	63.0	19.3	59.0	63.0		66.3	8.0	1.6	65.6	13.3	0.3
Queue Delay	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	63.0	19.3	59.0	63.0		66.3	8.0	1.6	65.6	13.3	0.3
LOS	E	E	B	E	E		E	A	A	E	B	A
Approach Delay		34.9			59.5			10.5			13.0	
Approach LOS		C			E			B			B	
Queue Length 50th (ft)	29	1	0	76	10		29	142	0	5	277	0
Queue Length 95th (ft)	56	7	40	116	30		55	473	6	20	540	3

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (ft)		633			252			2308			286	
Turn Bay Length (ft)	375		230				230		245	215		
Base Capacity (vph)	181	171	240	262	140		420	2769	1314	128	2498	1134
Starvation Cap Reductn	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
Storage Cap Reductn	0	0	0	0	0		0	0	0	0	0	0
Reduced v/c Ratio	0.18	0.01	0.24	0.32	0.08		0.16	0.52	0.01	0.04	0.59	0.05

Intersection Summary			
Area Type:	Other		
Cycle Length: 140			
Actuated Cycle Length: 140			
Offset: 138.6 (99%), Referenced to phase 2:NBT and 6:SBT, Start of Green			
Natural Cycle: 85			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.59			
Intersection Signal Delay: 13.8		Intersection LOS: B	
Intersection Capacity Utilization 59.2%		ICU Level of Service B	
Analysis Period (min) 15			

Splits and Phases: 1: IL 59 & Duke Parkway/Everton Drive



Intersection	
Int Delay, s/veh	4.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	2	48	6	42	73	6	10	2	13	27	5	7
Future Vol, veh/h	2	48	6	42	73	6	10	2	13	27	5	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	100	-	-	130	-	120	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	69	69	69	69	69	69	69	69	69	69	69	69
Heavy Vehicles, %	0	14	67	54	6	17	11	0	100	0	0	0
Mvmt Flow	3	70	9	61	106	9	14	3	19	39	7	10

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	115	0	0	79	0	0	322	318	75	320	313	106
Stage 1	-	-	-	-	-	-	81	81	-	228	228	-
Stage 2	-	-	-	-	-	-	241	237	-	92	85	-
Critical Hdwy	4.1	-	-	4.64	-	-	7.21	6.5	7.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.21	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.21	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.686	-	-	3.599	4	4.2	3.5	4	3.3
Pot Cap-1 Maneuver	1487	-	-	1247	-	-	614	602	770	637	606	954
Stage 1	-	-	-	-	-	-	906	832	-	779	719	-
Stage 2	-	-	-	-	-	-	743	713	-	920	828	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1487	-	-	1247	-	-	578	571	770	595	575	954
Mov Cap-2 Maneuver	-	-	-	-	-	-	578	571	-	595	575	-
Stage 1	-	-	-	-	-	-	904	830	-	777	684	-
Stage 2	-	-	-	-	-	-	692	678	-	893	826	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.3	2.8	10.7	11.2
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	663	1487	-	-	1247	-	-	635
HCM Lane V/C Ratio	0.055	0.002	-	-	0.049	-	-	0.089
HCM Control Delay (s)	10.7	7.4	-	-	8	-	-	11.2
HCM Lane LOS	B	A	-	-	A	-	-	B
HCM 95th %tile Q(veh)	0.2	0	-	-	0.2	-	-	0.3

Intersection	
Int Delay, s/veh	5.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		⇕			⇕			⇕			⇕	
Traffic Vol, veh/h	1	5	13	0	2	0	0	3	7	1	26	0
Future Vol, veh/h	1	5	13	0	2	0	0	3	7	1	26	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	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	79	79	79	79	79	79	79	79	79	79	79	79
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	2
Mvmt Flow	1	6	16	0	3	0	0	4	9	1	33	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	3	0	0	22	0	0	36	19	14	26	27	3
Stage 1	-	-	-	-	-	-	16	16	-	3	3	-
Stage 2	-	-	-	-	-	-	20	3	-	23	24	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.22
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	3.318
Pot Cap-1 Maneuver	1632	-	-	1607	-	-	975	879	1072	990	870	1081
Stage 1	-	-	-	-	-	-	1009	886	-	1025	897	-
Stage 2	-	-	-	-	-	-	1004	897	-	1000	879	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1632	-	-	1607	-	-	946	878	1072	978	869	1081
Mov Cap-2 Maneuver	-	-	-	-	-	-	946	878	-	978	869	-
Stage 1	-	-	-	-	-	-	1008	885	-	1024	897	-
Stage 2	-	-	-	-	-	-	967	897	-	986	878	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.4	0	8.6	9.3
HCM LOS			A	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	1005	1632	-	-	1607	-	-	873
HCM Lane V/C Ratio	0.013	0.001	-	-	-	-	-	0.039
HCM Control Delay (s)	8.6	7.2	0	-	0	-	-	9.3
HCM Lane LOS	A	A	A	-	A	-	-	A
HCM 95th %tile Q(veh)	0	0	-	-	0	-	-	0.1

Intersection	
Int Delay, s/veh	0.1

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	13	0	1436	1480	2
Future Vol, veh/h	0	13	0	1436	1480	2
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	85
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	97	97	97	97	97	97
Heavy Vehicles, %	0	0	0	8	7	0
Mvmt Flow	0	13	0	1480	1526	2

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	-	763	-	0	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.9	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.3	-	-	-	-
Pot Cap-1 Maneuver	0	*487	0	-	-	-
Stage 1	0	-	0	-	-	-
Stage 2	0	-	0	-	-	-
Platoon blocked, %		1		-	-	-
Mov Cap-1 Maneuver	-	*487	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	12.6	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	-	487	-	-
HCM Lane V/C Ratio	-	0.028	-	-
HCM Control Delay (s)	-	12.6	-	-
HCM Lane LOS	-	B	-	-
HCM 95th %tile Q(veh)	-	0.1	-	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	2.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	71	1066	4	11	507	56	0	2	22	51	2	9
Future Vol, veh/h	71	1066	4	11	507	56	0	2	22	51	2	9
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	215	-	-	355	-	-	-	-	50	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	94	94	94	94	94	94	94	94	94	94	94	94
Heavy Vehicles, %	0	3	0	8	0	0	0	0	0	25	0	0
Mvmt Flow	76	1134	4	12	539	60	0	2	23	54	2	10

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	599	0	0	1138	0	0	1583	1911	569	1313	1883	300
Stage 1	-	-	-	-	-	-	1288	1288	-	593	593	-
Stage 2	-	-	-	-	-	-	295	623	-	720	1290	-
Critical Hdwy	4.1	-	-	4.26	-	-	7.5	6.5	6.9	8	6.5	6.9
Critical Hdwy Stg 1	-	-	-	-	-	-	6.5	5.5	-	7	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.5	5.5	-	7	5.5	-
Follow-up Hdwy	2.2	-	-	2.28	-	-	3.5	4	3.3	3.75	4	3.3
Pot Cap-1 Maneuver	1277	-	-	576	-	-	*105	80	470	155	84	*887
Stage 1	-	-	-	-	-	-	*176	237	-	734	703	-
Stage 2	-	-	-	-	-	-	*836	677	-	337	236	-
Platoon blocked, %	1	-	-		-	-	1	1		1	1	1
Mov Cap-1 Maneuver	1277	-	-	576	-	-	*96	73	470	135	77	*887
Mov Cap-2 Maneuver	-	-	-	-	-	-	*96	73	-	135	77	-
Stage 1	-	-	-	-	-	-	*165	223	-	690	688	-
Stage 2	-	-	-	-	-	-	*807	663	-	298	222	-

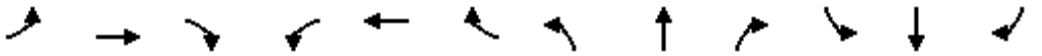
Approach	EB	WB	NB	SB
HCM Control Delay, s	0.5	0.2	16.7	46.6
HCM LOS			C	E

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	73	470	1277	-	-	576	-	-	150
HCM Lane V/C Ratio	0.029	0.05	0.059	-	-	0.02	-	-	0.44
HCM Control Delay (s)	55.8	13.1	8	-	-	11.4	-	-	46.6
HCM Lane LOS	F	B	A	-	-	B	-	-	E
HCM 95th %tile Q(veh)	0.1	0.2	0.2	-	-	0.1	-	-	2

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Capacity Analysis Summary Sheets

Year 2031 No-Build Weekday Evening Peak Hour

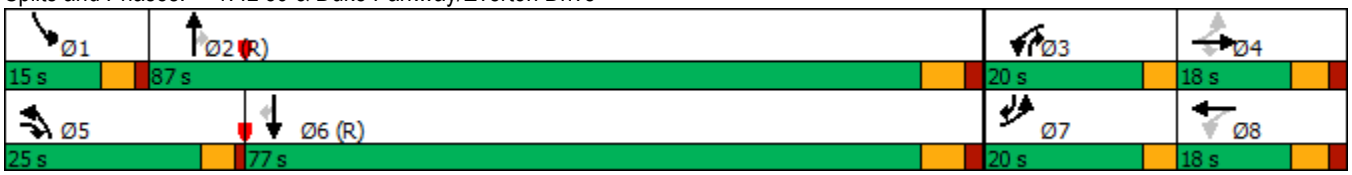


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	40	1	37	33	1	13	67	1459	85	36	1478	42
Future Volume (vph)	40	1	37	33	1	13	67	1459	85	36	1478	42
Ideal Flow (vphpl)	1900	2000	1900	1900	1900	1900	1900	2000	1900	1900	2000	1900
Storage Length (ft)	375		230	0		0	230		245	215		0
Storage Lanes	1		1	1		0	2		1	1		1
Taper Length (ft)	120			25			300			230		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.97	0.95	1.00	1.00	0.95	1.00
Frt			0.850		0.860				0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1517	2000	1313	1805	1634	0	2894	3619	1615	1805	3585	1282
Flt Permitted				0.667			0.950			0.950		
Satd. Flow (perm)	1597	2000	1313	1267	1634	0	2894	3619	1615	1805	3585	1282
Right Turn on Red			Yes			No			No			Yes
Satd. Flow (RTOR)			55									97
Link Speed (mph)		25			30			50			50	
Link Distance (ft)		713			332			2388			366	
Travel Time (s)		19.4			7.5			32.6			5.0	
Peak Hour Factor	0.97	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	19%	0%	23%	0%	0%	0%	21%	5%	0%	0%	6%	26%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	41	1	40	36	15	0	73	1586	92	39	1607	46
Turn Type	pm+pt	NA	pm+ov	pm+pt	NA		Prot	NA	pm+ov	Prot	NA	pm+ov
Protected Phases	7	4	5	3	8		5	2	3	1	6	7
Permitted Phases	4		4	8					2			6
Detector Phase	7	4	5	3	8		5	2	3	1	6	7
Switch Phase												
Minimum Initial (s)	3.0	8.0	3.0	3.0	8.0		3.0	15.0	3.0	3.0	15.0	3.0
Minimum Split (s)	9.5	18.0	14.0	9.5	18.0		14.0	35.5	9.5	9.5	43.5	9.5
Total Split (s)	20.0	18.0	25.0	20.0	18.0		25.0	87.0	20.0	15.0	77.0	20.0
Total Split (%)	14.3%	12.9%	17.9%	14.3%	12.9%		17.9%	62.1%	14.3%	10.7%	55.0%	14.3%
Yellow Time (s)	3.5	4.0	3.5	3.5	4.0		3.5	4.5	3.5	3.5	4.5	3.5
All-Red Time (s)	0.0	2.0	1.0	0.0	2.0		1.0	2.0	0.0	1.5	2.0	0.0
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
Total Lost Time (s)	3.5	6.0	4.5	3.5	6.0		4.5	6.5	3.5	5.0	6.5	3.5
Lead/Lag	Lead	Lag	Lead	Lead	Lag		Lead	Lag	Lead	Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes		Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None		None	C-Min	None	None	C-Min	None
Act Effct Green (s)	12.0	8.9	13.6	15.4	9.0		9.9	102.2	122.1	8.4	101.5	117.0
Actuated g/C Ratio	0.09	0.06	0.10	0.11	0.06		0.07	0.73	0.87	0.06	0.72	0.84
v/c Ratio	0.31	0.01	0.23	0.19	0.14		0.36	0.60	0.07	0.36	0.62	0.04
Control Delay	62.2	60.0	9.1	53.8	64.4		66.4	12.7	2.7	71.5	13.4	0.1
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	62.2	60.0	9.1	53.8	64.4		66.4	12.7	2.7	71.5	13.4	0.1
LOS	E	E	A	D	E		E	B	A	E	B	A
Approach Delay		36.3			57.0			14.4			14.4	
Approach LOS		D			E			B			B	
Queue Length 50th (ft)	37	1	0	32	13		33	275	7	35	294	0
Queue Length 95th (ft)	66	7	21	59	37		59	596	39	73	622	0

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (ft)		633			252			2308			286	
Turn Bay Length (ft)	375		230				230		245	215		
Base Capacity (vph)	207	173	272	259	140		423	2641	1460	132	2598	1146
Starvation Cap Reductn	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
Storage Cap Reductn	0	0	0	0	0		0	0	0	0	0	0
Reduced v/c Ratio	0.20	0.01	0.15	0.14	0.11		0.17	0.60	0.06	0.30	0.62	0.04

Intersection Summary			
Area Type:	Other		
Cycle Length: 140			
Actuated Cycle Length: 140			
Offset: 7 (5%), Referenced to phase 2:NBT and 6:SBT, Start of Green			
Natural Cycle: 85			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.62			
Intersection Signal Delay: 15.5		Intersection LOS: B	
Intersection Capacity Utilization 58.1%		ICU Level of Service B	
Analysis Period (min) 15			

Splits and Phases: 1: IL 59 & Duke Parkway/Everton Drive



Intersection	
Int Delay, s/veh	3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	4	57	6	36	44	30	3	1	7	14	0	5
Future Vol, veh/h	4	57	6	36	44	30	3	1	7	14	0	5
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	100	-	-	130	-	120	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	70	70	70	70	70	70	70	70	70	70	70	70
Heavy Vehicles, %	0	14	33	41	24	4	100	0	86	0	0	0
Mvmt Flow	6	81	9	51	63	43	4	1	10	20	0	7

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	106	0	0	90	0	0	288	306	86	268	267	63
Stage 1	-	-	-	-	-	-	98	98	-	165	165	-
Stage 2	-	-	-	-	-	-	190	208	-	103	102	-
Critical Hdwy	4.1	-	-	4.51	-	-	8.1	6.5	7.06	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	7.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	7.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.569	-	-	4.4	4	4.074	3.5	4	3.3
Pot Cap-1 Maneuver	1498	-	-	1293	-	-	508	611	783	689	642	1007
Stage 1	-	-	-	-	-	-	716	818	-	842	766	-
Stage 2	-	-	-	-	-	-	630	734	-	908	815	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1498	-	-	1293	-	-	488	585	783	657	614	1007
Mov Cap-2 Maneuver	-	-	-	-	-	-	488	585	-	657	614	-
Stage 1	-	-	-	-	-	-	713	815	-	839	736	-
Stage 2	-	-	-	-	-	-	601	705	-	891	812	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.4	2.6	10.6	10.2
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	655	1498	-	-	1293	-	-	723
HCM Lane V/C Ratio	0.024	0.004	-	-	0.04	-	-	0.038
HCM Control Delay (s)	10.6	7.4	-	-	7.9	-	-	10.2
HCM Lane LOS	B	A	-	-	A	-	-	B
HCM 95th %tile Q(veh)	0.1	0	-	-	0.1	-	-	0.1

Intersection	
Int Delay, s/veh	7.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	1	2	5	0	3	0	13	22	0	1	14	1
Future Vol, veh/h	1	2	5	0	3	0	13	22	0	1	14	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	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	61	61	61	61	61	61	61	61	61	61	61	61
Heavy Vehicles, %	0	0	0	0	0	0	0	6	0	0	0	0
Mvmt Flow	2	3	8	0	5	0	21	36	0	2	23	2

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	5	0	0	11	0	0	29	16	7	34	20	5
Stage 1	-	-	-	-	-	-	11	11	-	5	5	-
Stage 2	-	-	-	-	-	-	18	5	-	29	15	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.56	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.56	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.56	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4.054	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1630	-	-	1621	-	-	985	870	1081	978	878	1084
Stage 1	-	-	-	-	-	-	1015	878	-	1022	896	-
Stage 2	-	-	-	-	-	-	1006	884	-	993	887	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1630	-	-	1621	-	-	963	869	1081	947	877	1084
Mov Cap-2 Maneuver	-	-	-	-	-	-	963	869	-	947	877	-
Stage 1	-	-	-	-	-	-	1014	877	-	1021	896	-
Stage 2	-	-	-	-	-	-	979	884	-	951	886	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.9	0	9.3	9.2
HCM LOS			A	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	902	1630	-	-	1621	-	-	892
HCM Lane V/C Ratio	0.064	0.001	-	-	-	-	-	0.029
HCM Control Delay (s)	9.3	7.2	0	-	0	-	-	9.2
HCM Lane LOS	A	A	A	-	A	-	-	A
HCM 95th %tile Q(veh)	0.2	0	-	-	0	-	-	0.1

Intersection	
Int Delay, s/veh	0

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	3	0	1512	1553	3
Future Vol, veh/h	0	3	0	1512	1553	3
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	85
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	0	0	0	4	6	2
Mvmt Flow	0	3	0	1609	1652	3

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	-	826	-	0	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.9	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.3	-	-	-	-
Pot Cap-1 Maneuver	0	*443	0	-	-	-
Stage 1	0	-	0	-	-	-
Stage 2	0	-	0	-	-	-
Platoon blocked, %		1		-	-	-
Mov Cap-1 Maneuver	-	*443	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	13.2	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	-	443	-	-
HCM Lane V/C Ratio	-	0.007	-	-
HCM Control Delay (s)	-	13.2	-	-
HCM Lane LOS	-	B	-	-
HCM 95th %tile Q(veh)	-	0	-	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	1.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	15	931	3	16	1314	16	3	0	9	43	0	9
Future Vol, veh/h	15	931	3	16	1314	16	3	0	9	43	0	9
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	215	-	-	355	-	-	-	-	50	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	96	96	96	96	96	96	96	96	96	96	96	96
Heavy Vehicles, %	0	3	0	0	2	27	0	0	0	8	0	2
Mvmt Flow	16	970	3	17	1369	17	3	0	9	45	0	9

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1386	0	0	973	0	0	1723	2424	487	1929	2417	693
Stage 1	-	-	-	-	-	-	1004	1004	-	1412	1412	-
Stage 2	-	-	-	-	-	-	719	1420	-	517	1005	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.5	6.5	6.9	7.66	6.5	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.5	5.5	-	6.66	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.5	5.5	-	6.66	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.58	4	3.32
Pot Cap-1 Maneuver	*836	-	-	717	-	-	*234	*37	532	*114	*38	*553
Stage 1	-	-	-	-	-	-	*263	*322	-	*513	*459	-
Stage 2	-	-	-	-	-	-	*525	*459	-	*494	*322	-
Platoon blocked, %	1	-	-		-	-	1	1		1	1	1
Mov Cap-1 Maneuver	*836	-	-	717	-	-	*222	*36	532	*108	*36	*553
Mov Cap-2 Maneuver	-	-	-	-	-	-	*222	*36	-	*108	*36	-
Stage 1	-	-	-	-	-	-	*258	*316	-	*503	*448	-
Stage 2	-	-	-	-	-	-	*504	*448	-	*476	*316	-

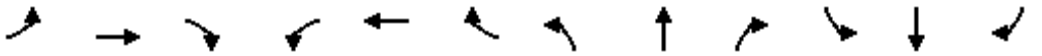
Approach	EB	WB	NB	SB
HCM Control Delay, s	0.1	0.1	14.3	54.2
HCM LOS			B	F

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	222	532	* 836	-	-	717	-	-	125
HCM Lane V/C Ratio	0.014	0.018	0.019	-	-	0.023	-	-	0.433
HCM Control Delay (s)	21.4	11.9	9.4	-	-	10.1	-	-	54.2
HCM Lane LOS	C	B	A	-	-	B	-	-	F
HCM 95th %tile Q(veh)	0	0.1	0.1	-	-	0.1	-	-	1.9

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Capacity Analysis Summary Sheets

Year 2031 No-Build Saturday Midday Peak Hour

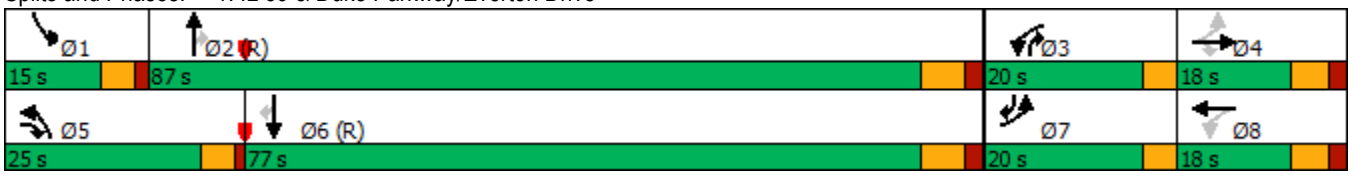


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	17	5	35	63	1	5	52	1169	36	34	1040	15
Future Volume (vph)	17	5	35	63	1	5	52	1169	36	34	1040	15
Ideal Flow (vphpl)	1900	2000	1900	1900	1900	1900	1900	2000	1900	1900	2000	1900
Storage Length (ft)	375		230	0		0	230		245	215		0
Storage Lanes	1		1	1		0	2		1	1		1
Taper Length (ft)	120			25			300			230		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.97	0.95	1.00	1.00	0.95	1.00
Frt			0.850		0.875				0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1597	2000	1242	1805	1662	0	3072	3689	1615	1752	3689	1335
Flt Permitted				0.833			0.950			0.950		
Satd. Flow (perm)	1681	2000	1242	1583	1662	0	3072	3689	1615	1752	3689	1335
Right Turn on Red			Yes			No			No			Yes
Satd. Flow (RTOR)			55									97
Link Speed (mph)		25			30			50			50	
Link Distance (ft)		713			332			2388			366	
Travel Time (s)		19.4			7.5			32.6			5.0	
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Heavy Vehicles (%)	13%	0%	30%	0%	0%	0%	14%	3%	0%	3%	3%	21%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	18	5	36	65	6	0	54	1205	37	35	1072	15
Turn Type	pm+pt	NA	pm+ov	pm+pt	NA		Prot	NA	pm+ov	Prot	NA	pm+ov
Protected Phases	7	4	5	3	8		5	2	3	1	6	7
Permitted Phases	4		4	8					2			6
Detector Phase	7	4	5	3	8		5	2	3	1	6	7
Switch Phase												
Minimum Initial (s)	3.0	8.0	3.0	3.0	8.0		3.0	15.0	3.0	3.0	15.0	3.0
Minimum Split (s)	9.5	18.0	14.0	9.5	18.0		14.0	35.5	9.5	9.5	43.5	9.5
Total Split (s)	20.0	18.0	25.0	20.0	18.0		25.0	87.0	20.0	15.0	77.0	20.0
Total Split (%)	14.3%	12.9%	17.9%	14.3%	12.9%		17.9%	62.1%	14.3%	10.7%	55.0%	14.3%
Yellow Time (s)	3.5	4.0	3.5	3.5	4.0		3.5	4.5	3.5	3.5	4.5	3.5
All-Red Time (s)	0.0	2.0	1.0	0.0	2.0		1.0	2.0	0.0	1.5	2.0	0.0
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
Total Lost Time (s)	3.5	6.0	4.5	3.5	6.0		4.5	6.5	3.5	5.0	6.5	3.5
Lead/Lag	Lead	Lag	Lead	Lead	Lag		Lead	Lag	Lead	Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes		Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None		None	C-Min	None	None	C-Min	None
Act Effct Green (s)	10.8	8.2	11.8	13.5	9.1		8.8	108.7	123.1	8.2	108.7	121.4
Actuated g/C Ratio	0.08	0.06	0.08	0.10	0.06		0.06	0.78	0.88	0.06	0.78	0.87
v/c Ratio	0.15	0.04	0.23	0.39	0.06		0.28	0.42	0.03	0.34	0.37	0.01
Control Delay	56.4	63.0	8.7	63.4	61.0		65.6	8.3	2.5	71.4	7.7	0.0
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	56.4	63.0	8.7	63.4	61.0		65.6	8.3	2.5	71.4	7.7	0.0
LOS	E	E	A	E	E		E	A	A	E	A	A
Approach Delay		27.8			63.2			10.5			9.6	
Approach LOS		C			E			B			A	
Queue Length 50th (ft)	16	4	0	58	5		24	180	3	31	153	0
Queue Length 95th (ft)	36	19	17	94	20		47	373	16	68	313	0

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (ft)		633			252			2308			286	
Turn Bay Length (ft)	375		230				230		245	215		
Base Capacity (vph)	215	171	253	238	145		449	2863	1466	128	2865	1221
Starvation Cap Reductn	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
Storage Cap Reductn	0	0	0	0	0		0	0	0	0	0	0
Reduced v/c Ratio	0.08	0.03	0.14	0.27	0.04		0.12	0.42	0.03	0.27	0.37	0.01

Intersection Summary			
Area Type:	Other		
Cycle Length: 140			
Actuated Cycle Length: 140			
Offset: 135.8 (97%), Referenced to phase 2:NBT and 6:SBT, Start of Green			
Natural Cycle: 85			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.42			
Intersection Signal Delay: 12.0		Intersection LOS: B	
Intersection Capacity Utilization 51.3%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 1: IL 59 & Duke Parkway/Everton Drive



Intersection	
Int Delay, s/veh	3.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	2	34	2	29	20	19	2	0	3	20	2	2
Future Vol, veh/h	2	34	2	29	20	19	2	0	3	20	2	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	100	-	-	130	-	120	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	85	85	85	85	85	85	85	85	85	85	85	85
Heavy Vehicles, %	0	27	100	30	20	0	50	0	67	5	0	0
Mvmt Flow	2	40	2	34	24	22	2	0	4	24	2	2

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	46	0	0	42	0	0	150	159	41	139	138	24
Stage 1	-	-	-	-	-	-	45	45	-	92	92	-
Stage 2	-	-	-	-	-	-	105	114	-	47	46	-
Critical Hdwy	4.1	-	-	4.4	-	-	7.6	6.5	6.87	7.15	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.6	5.5	-	6.15	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.6	5.5	-	6.15	5.5	-
Follow-up Hdwy	2.2	-	-	2.47	-	-	3.95	4	3.903	3.545	4	3.3
Pot Cap-1 Maneuver	1575	-	-	1405	-	-	720	737	872	824	757	1058
Stage 1	-	-	-	-	-	-	860	861	-	908	823	-
Stage 2	-	-	-	-	-	-	796	805	-	959	861	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1575	-	-	1405	-	-	703	719	872	805	738	1058
Mov Cap-2 Maneuver	-	-	-	-	-	-	703	719	-	805	738	-
Stage 1	-	-	-	-	-	-	859	860	-	907	803	-
Stage 2	-	-	-	-	-	-	773	786	-	954	860	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.4	3.3	9.6	9.6
HCM LOS			A	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	796	1575	-	-	1405	-	-	815
HCM Lane V/C Ratio	0.007	0.001	-	-	0.024	-	-	0.035
HCM Control Delay (s)	9.6	7.3	-	-	7.6	-	-	9.6
HCM Lane LOS	A	A	-	-	A	-	-	A
HCM 95th %tile Q(veh)	0	0	-	-	0.1	-	-	0.1

Intersection	
Int Delay, s/veh	7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		⇕			⇕			⇕			⇕	
Traffic Vol, veh/h	1	2	6	3	2	2	6	15	0	1	15	1
Future Vol, veh/h	1	2	6	3	2	2	6	15	0	1	15	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	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	83	83	83	83	83	83	83	83	83	83	83	83
Heavy Vehicles, %	0	0	17	0	0	0	0	0	0	0	0	0
Mvmt Flow	1	2	7	4	2	2	7	18	0	1	18	1

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	4	0	0	9	0	0	29	20	6	28	22	3
Stage 1	-	-	-	-	-	-	8	8	-	11	11	-
Stage 2	-	-	-	-	-	-	21	12	-	17	11	-
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	1631	-	-	1624	-	-	985	878	1083	987	876	1087
Stage 1	-	-	-	-	-	-	1019	893	-	1015	890	-
Stage 2	-	-	-	-	-	-	1003	890	-	1008	890	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1631	-	-	1624	-	-	966	875	1083	969	873	1087
Mov Cap-2 Maneuver	-	-	-	-	-	-	966	875	-	969	873	-
Stage 1	-	-	-	-	-	-	1018	892	-	1014	888	-
Stage 2	-	-	-	-	-	-	980	888	-	987	889	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.8	3.1	9.1	9.2
HCM LOS			A	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	899	1631	-	-	1624	-	-	888
HCM Lane V/C Ratio	0.028	0.001	-	-	0.002	-	-	0.023
HCM Control Delay (s)	9.1	7.2	0	-	7.2	0	-	9.2
HCM Lane LOS	A	A	A	-	A	A	-	A
HCM 95th %tile Q(veh)	0.1	0	-	-	0	-	-	0.1

Intersection	
Int Delay, s/veh	0

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	3	0	1191	1086	7
Future Vol, veh/h	0	3	0	1191	1086	7
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	85
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	0	0	0	3	3	0
Mvmt Flow	0	3	0	1267	1155	7

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	-	578	-	0	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.9	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.3	-	-	-	-
Pot Cap-1 Maneuver	0	*642	0	-	-	-
Stage 1	0	-	0	-	-	-
Stage 2	0	-	0	-	-	-
Platoon blocked, %		1		-	-	-
Mov Cap-1 Maneuver	-	*642	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	10.6	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	-	642	-	-
HCM Lane V/C Ratio	-	0.005	-	-
HCM Control Delay (s)	-	10.6	-	-
HCM Lane LOS	-	B	-	-
HCM 95th %tile Q(veh)	-	0	-	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	0.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	9	719	3	6	824	14	0	0	6	30	2	6
Future Vol, veh/h	9	719	3	6	824	14	0	0	6	30	2	6
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	215	-	-	355	-	-	-	-	50	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	0	2	0	0	1	8	0	0	0	0	0	0
Mvmt Flow	9	757	3	6	867	15	0	0	6	32	2	6

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	882	0	0	760	0	0	1224	1671	380	1284	1665	441
Stage 1	-	-	-	-	-	-	777	777	-	887	887	-
Stage 2	-	-	-	-	-	-	447	894	-	397	778	-
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	*1133	-	-	861	-	-	*352	*152	624	*306	*154	*755
Stage 1	-	-	-	-	-	-	*360	*410	-	*712	*623	-
Stage 2	-	-	-	-	-	-	*712	*623	-	*605	*410	-
Platoon blocked, %	1	-	-		-	-	1	1		1	1	1
Mov Cap-1 Maneuver	*1133	-	-	861	-	-	*341	*149	624	*299	*152	*755
Mov Cap-2 Maneuver	-	-	-	-	-	-	*341	*149	-	*299	*152	-
Stage 1	-	-	-	-	-	-	*357	*407	-	*706	*619	-
Stage 2	-	-	-	-	-	-	*698	*619	-	*594	*407	-

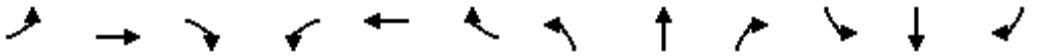
Approach	EB	WB	NB	SB
HCM Control Delay, s	0.1	0.1	10.8	18.2
HCM LOS			B	C

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	-	624	* 1133	-	-	861	-	-	313
HCM Lane V/C Ratio	-	0.01	0.008	-	-	0.007	-	-	0.128
HCM Control Delay (s)	0	10.8	8.2	-	-	9.2	-	-	18.2
HCM Lane LOS	A	B	A	-	-	A	-	-	C
HCM 95th %tile Q(veh)	-	0	0	-	-	0	-	-	0.4

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Capacity Analysis Summary Sheets

Year 2031 Total Projected Weekday Morning Peak Hour

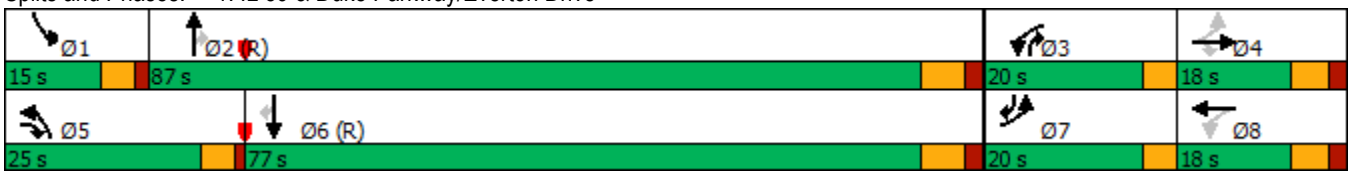


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	55	1	57	82	1	10	94	1376	12	5	1442	60
Future Volume (vph)	55	1	57	82	1	10	94	1376	12	5	1442	60
Ideal Flow (vphpl)	1900	2000	1900	1900	1900	1900	1900	2000	1900	1900	2000	1900
Storage Length (ft)	375		230	0		0	230		245	215		0
Storage Lanes	1		1	1		0	2		1	1		1
Taper Length (ft)	120			25			300			230		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.97	0.95	1.00	1.00	0.95	1.00
Frt			0.850		0.864				0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1517	2000	1170	1805	1642	0	3045	3519	1369	1805	3551	1313
Flt Permitted				0.784			0.950			0.950		
Satd. Flow (perm)	1597	2000	1170	1490	1642	0	3045	3519	1369	1805	3551	1313
Right Turn on Red			Yes			No			No			Yes
Satd. Flow (RTOR)			59									97
Link Speed (mph)		25			30			50			50	
Link Distance (ft)		367			332			2388			366	
Travel Time (s)		10.0			7.5			32.6			5.0	
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Heavy Vehicles (%)	19%	0%	38%	0%	0%	0%	15%	8%	18%	0%	7%	23%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	57	1	59	85	11	0	97	1419	12	5	1487	62
Turn Type	pm+pt	NA	pm+ov	pm+pt	NA		Prot	NA	pm+ov	Prot	NA	pm+ov
Protected Phases	7	4	5	3	8		5	2	3	1	6	7
Permitted Phases	4		4	8					2			6
Detector Phase	7	4	5	3	8		5	2	3	1	6	7
Switch Phase												
Minimum Initial (s)	3.0	8.0	3.0	3.0	8.0		3.0	15.0	3.0	3.0	15.0	3.0
Minimum Split (s)	9.5	18.0	14.0	9.5	18.0		14.0	35.5	9.5	9.5	43.5	9.5
Total Split (s)	20.0	18.0	25.0	20.0	18.0		25.0	87.0	20.0	15.0	77.0	20.0
Total Split (%)	14.3%	12.9%	17.9%	14.3%	12.9%		17.9%	62.1%	14.3%	10.7%	55.0%	14.3%
Yellow Time (s)	3.5	4.0	3.5	3.5	4.0		3.5	4.5	3.5	3.5	4.5	3.5
All-Red Time (s)	0.0	2.0	1.0	0.0	2.0		1.0	2.0	0.0	1.5	2.0	0.0
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
Total Lost Time (s)	3.5	6.0	4.5	3.5	6.0		4.5	6.5	3.5	5.0	6.5	3.5
Lead/Lag	Lead	Lag	Lead	Lead	Lag		Lead	Lag	Lead	Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes		Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None		None	C-Min	None	None	C-Min	None
Act Effct Green (s)	13.4	8.2	13.8	16.9	8.7		10.8	110.2	133.9	6.0	97.3	114.9
Actuated g/C Ratio	0.10	0.06	0.10	0.12	0.06		0.08	0.79	0.96	0.04	0.70	0.82
v/c Ratio	0.39	0.01	0.35	0.40	0.11		0.41	0.51	0.01	0.06	0.60	0.06
Control Delay	63.4	62.0	17.6	58.9	63.8		66.4	8.1	1.7	65.6	14.5	0.4
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	63.4	62.0	17.6	58.9	63.8		66.4	8.1	1.7	65.6	14.5	0.4
LOS	E	E	B	E	E		E	A	A	E	B	A
Approach Delay		40.3			59.4			11.8			14.1	
Approach LOS		D			E			B			B	
Queue Length 50th (ft)	50	1	0	76	10		44	139	0	5	292	0
Queue Length 95th (ft)	84	7	40	115	31		73	471	6	20	573	4

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (ft)		287			252			2308			286	
Turn Bay Length (ft)	375		230				230		245	215		
Base Capacity (vph)	204	171	245	268	140		445	2770	1312	128	2468	1141
Starvation Cap Reductn	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
Storage Cap Reductn	0	0	0	0	0		0	0	0	0	0	0
Reduced v/c Ratio	0.28	0.01	0.24	0.32	0.08		0.22	0.51	0.01	0.04	0.60	0.05

Intersection Summary			
Area Type:	Other		
Cycle Length: 140			
Actuated Cycle Length: 140			
Offset: 138.6 (99%), Referenced to phase 2:NBT and 6:SBT, Start of Green			
Natural Cycle: 85			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.60			
Intersection Signal Delay: 15.3		Intersection LOS: B	
Intersection Capacity Utilization 61.9%		ICU Level of Service B	
Analysis Period (min) 15			

Splits and Phases: 1: IL 59 & Duke Parkway/Everton Drive



Intersection	
Int Delay, s/veh	5.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	2	48	6	42	73	7	10	2	13	52	5	7
Future Vol, veh/h	2	48	6	42	73	7	10	2	13	52	5	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	100	-	-	130	-	120	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	69	69	69	69	69	69	69	69	69	69	69	69
Heavy Vehicles, %	0	14	67	54	6	17	11	0	100	0	0	0
Mvmt Flow	3	70	9	61	106	10	14	3	19	75	7	10

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	116	0	0	79	0	0	323	319	75	320	313	106
Stage 1	-	-	-	-	-	-	81	81	-	228	228	-
Stage 2	-	-	-	-	-	-	242	238	-	92	85	-
Critical Hdwy	4.1	-	-	4.64	-	-	7.21	6.5	7.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.21	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.21	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.686	-	-	3.599	4	4.2	3.5	4	3.3
Pot Cap-1 Maneuver	1485	-	-	1247	-	-	613	601	770	637	606	954
Stage 1	-	-	-	-	-	-	906	832	-	779	719	-
Stage 2	-	-	-	-	-	-	742	712	-	920	828	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1485	-	-	1247	-	-	577	570	770	595	575	954
Mov Cap-2 Maneuver	-	-	-	-	-	-	577	570	-	595	575	-
Stage 1	-	-	-	-	-	-	904	830	-	777	684	-
Stage 2	-	-	-	-	-	-	691	677	-	893	826	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.3	2.8	10.7	11.8
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	663	1485	-	-	1247	-	-	619
HCM Lane V/C Ratio	0.055	0.002	-	-	0.049	-	-	0.15
HCM Control Delay (s)	10.7	7.4	-	-	8	-	-	11.8
HCM Lane LOS	B	A	-	-	A	-	-	B
HCM 95th %tile Q(veh)	0.2	0	-	-	0.2	-	-	0.5

Intersection	
Int Delay, s/veh	3.1

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	13	5	11	0	19	51
Future Vol, veh/h	13	5	11	0	19	51
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	14	5	12	0	20	54

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	106	12	0	0	12	0
Stage 1	12	-	-	-	-	-
Stage 2	94	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	897	1074	-	-	1620	-
Stage 1	1016	-	-	-	-	-
Stage 2	935	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	885	1074	-	-	1620	-
Mov Cap-2 Maneuver	885	-	-	-	-	-
Stage 1	1016	-	-	-	-	-
Stage 2	923	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9	0	2
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	930	1620	-
HCM Lane V/C Ratio	-	-	0.02	0.012	-
HCM Control Delay (s)	-	-	9	7.2	0
HCM Lane LOS	-	-	A	A	A
HCM 95th %tile Q(veh)	-	-	0.1	0	-

Intersection	
Int Delay, s/veh	6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		⇕			⇕			⇕			⇕	
Traffic Vol, veh/h	1	5	13	13	2	29	0	9	7	15	44	0
Future Vol, veh/h	1	5	13	13	2	29	0	9	7	15	44	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	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	79	79	79	79	79	79	79	79	79	79	79	79
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	2
Mvmt Flow	1	6	16	16	3	37	0	11	9	19	56	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	40	0	0	22	0	0	98	88	14	80	78	22
Stage 1	-	-	-	-	-	-	16	16	-	54	54	-
Stage 2	-	-	-	-	-	-	82	72	-	26	24	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.22
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	3.318
Pot Cap-1 Maneuver	1583	-	-	1607	-	-	889	806	1072	913	816	1055
Stage 1	-	-	-	-	-	-	1009	886	-	963	854	-
Stage 2	-	-	-	-	-	-	931	839	-	997	879	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1583	-	-	1607	-	-	835	797	1072	888	807	1055
Mov Cap-2 Maneuver	-	-	-	-	-	-	835	797	-	888	807	-
Stage 1	-	-	-	-	-	-	1008	885	-	962	845	-
Stage 2	-	-	-	-	-	-	861	831	-	975	878	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.4	2.1	9.1	9.8
HCM LOS			A	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	898	1583	-	-	1607	-	-	826
HCM Lane V/C Ratio	0.023	0.001	-	-	0.01	-	-	0.09
HCM Control Delay (s)	9.1	7.3	0	-	7.3	0	-	9.8
HCM Lane LOS	A	A	A	-	A	A	-	A
HCM 95th %tile Q(veh)	0.1	0	-	-	0	-	-	0.3

Intersection	
Int Delay, s/veh	0.2

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	44	0	1441	1463	39
Future Vol, veh/h	0	44	0	1441	1463	39
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	85
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	97	97	97	97	97	97
Heavy Vehicles, %	0	0	0	8	7	0
Mvmt Flow	0	45	0	1486	1508	40

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	-	754	-	0	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.9	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.3	-	-	-	-
Pot Cap-1 Maneuver	0	*487	0	-	-	-
Stage 1	0	-	0	-	-	-
Stage 2	0	-	0	-	-	-
Platoon blocked, %		1		-	-	-
Mov Cap-1 Maneuver	-	*487	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	13.2	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	-	487	-	-
HCM Lane V/C Ratio	-	0.093	-	-
HCM Control Delay (s)	-	13.2	-	-
HCM Lane LOS	-	B	-	-
HCM 95th %tile Q(veh)	-	0.3	-	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	71	1051	30	17	501	56	16	2	48	51	2	10
Future Vol, veh/h	71	1051	30	17	501	56	16	2	48	51	2	10
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	215	-	-	355	-	-	-	-	50	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	94	94	94	94	94	94	94	94	94	94	94	94
Heavy Vehicles, %	0	3	0	0	8	0	0	0	0	25	0	11
Mvmt Flow	76	1118	32	18	533	60	17	2	51	54	2	11

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	593	0	0	1150	0	0	1590	1915	575	1311	1901	297
Stage 1	-	-	-	-	-	-	1286	1286	-	599	599	-
Stage 2	-	-	-	-	-	-	304	629	-	712	1302	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.5	6.5	6.9	8	6.5	7.12
Critical Hdwy Stg 1	-	-	-	-	-	-	6.5	5.5	-	7	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.5	5.5	-	7	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.75	4	3.41
Pot Cap-1 Maneuver	1285	-	-	615	-	-	*103	79	466	156	81	*858
Stage 1	-	-	-	-	-	-	*177	237	-	727	697	-
Stage 2	-	-	-	-	-	-	*836	673	-	341	233	-
Platoon blocked, %	1	-	-		-	-	1	1		1	1	1
Mov Cap-1 Maneuver	1285	-	-	615	-	-	*93	72	466	126	74	*858
Mov Cap-2 Maneuver	-	-	-	-	-	-	*93	72	-	126	74	-
Stage 1	-	-	-	-	-	-	*167	223	-	684	677	-
Stage 2	-	-	-	-	-	-	*799	653	-	283	219	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.5	0.3	25.1	51.2
HCM LOS			D	F

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	90	466	1285	-	-	615	-	-	142
HCM Lane V/C Ratio	0.213	0.11	0.059	-	-	0.029	-	-	0.472
HCM Control Delay (s)	55.5	13.7	8	-	-	11	-	-	51.2
HCM Lane LOS	F	B	A	-	-	B	-	-	F
HCM 95th %tile Q(veh)	0.7	0.4	0.2	-	-	0.1	-	-	2.2

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	6.6

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	13	14	36	3	41	31
Future Vol, veh/h	13	14	36	3	41	31
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	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	14	15	38	3	43	33

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	29	0	101	22
Stage 1	-	-	-	-	22	-
Stage 2	-	-	-	-	79	-
Critical Hdwy	-	-	4.1	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	1597	-	902	1061
Stage 1	-	-	-	-	1006	-
Stage 2	-	-	-	-	949	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1597	-	880	1061
Mov Cap-2 Maneuver	-	-	-	-	880	-
Stage 1	-	-	-	-	1006	-
Stage 2	-	-	-	-	926	-

Approach	EB	WB	NB
HCM Control Delay, s	0	6.7	9.1
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	950	-	-	1597	-
HCM Lane V/C Ratio	0.08	-	-	0.024	-
HCM Control Delay (s)	9.1	-	-	7.3	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0.3	-	-	0.1	-

Intersection	
Int Delay, s/veh	0

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	0	113	121	34	0	1
Future Vol, veh/h	0	113	121	34	0	1
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	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	0	119	127	36	0	1

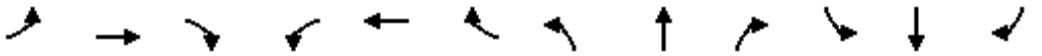
Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	-	0	-	0	-	145
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.3
Pot Cap-1 Maneuver	0	-	-	-	0	908
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	-	-	-	-	-	908
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	9
HCM LOS			A

Minor Lane/Major Mvmt	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	908
HCM Lane V/C Ratio	-	-	-	0.001
HCM Control Delay (s)	-	-	-	9
HCM Lane LOS	-	-	-	A
HCM 95th %tile Q(veh)	-	-	-	0

Capacity Analysis Summary Sheets

Year 2031 Total Projected Weekday Evening Peak Hour

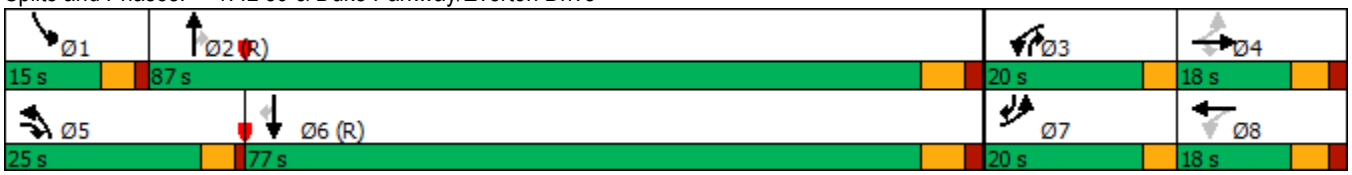


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	57	1	43	33	1	13	91	1451	85	36	1488	53
Future Volume (vph)	57	1	43	33	1	13	91	1451	85	36	1488	53
Ideal Flow (vphpl)	1900	2000	1900	1900	1900	1900	1900	2000	1900	1900	2000	1900
Storage Length (ft)	375		230	0		0	230		245	215		0
Storage Lanes	1		1	1		0	2		1	1		1
Taper Length (ft)	120			25			300			230		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.97	0.95	1.00	1.00	0.95	1.00
Frt			0.850		0.860				0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1597	2000	1346	1805	1634	0	3045	3619	1615	1805	3619	1346
Flt Permitted				0.625			0.950			0.950		
Satd. Flow (perm)	1681	2000	1346	1188	1634	0	3045	3619	1615	1805	3619	1346
Right Turn on Red			Yes			No			No			Yes
Satd. Flow (RTOR)			55									97
Link Speed (mph)		25			30			50			50	
Link Distance (ft)		367			332			2388			366	
Travel Time (s)		10.0			7.5			32.6			5.0	
Peak Hour Factor	0.97	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	13%	0%	20%	0%	0%	0%	15%	5%	0%	0%	5%	20%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	59	1	47	36	15	0	99	1577	92	39	1617	58
Turn Type	pm+pt	NA	pm+ov	pm+pt	NA		Prot	NA	pm+ov	Prot	NA	pm+ov
Protected Phases	7	4	5	3	8		5	2	3	1	6	7
Permitted Phases	4		4	8					2			6
Detector Phase	7	4	5	3	8		5	2	3	1	6	7
Switch Phase												
Minimum Initial (s)	3.0	8.0	3.0	3.0	8.0		3.0	15.0	3.0	3.0	15.0	3.0
Minimum Split (s)	9.5	18.0	14.0	9.5	18.0		14.0	35.5	9.5	9.5	43.5	9.5
Total Split (s)	20.0	18.0	25.0	20.0	18.0		25.0	87.0	20.0	15.0	77.0	20.0
Total Split (%)	14.3%	12.9%	17.9%	14.3%	12.9%		17.9%	62.1%	14.3%	10.7%	55.0%	14.3%
Yellow Time (s)	3.5	4.0	3.5	3.5	4.0		3.5	4.5	3.5	3.5	4.5	3.5
All-Red Time (s)	0.0	2.0	1.0	0.0	2.0		1.0	2.0	0.0	1.5	2.0	0.0
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
Total Lost Time (s)	3.5	6.0	4.5	3.5	6.0		4.5	6.5	3.5	5.0	6.5	3.5
Lead/Lag	Lead	Lag	Lead	Lead	Lag		Lead	Lag	Lead	Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes		Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None		None	C-Min	None	None	C-Min	None
Act Effct Green (s)	13.7	9.3	15.0	16.2	9.0		10.9	101.0	121.8	8.4	96.9	113.8
Actuated g/C Ratio	0.10	0.07	0.11	0.12	0.06		0.08	0.72	0.87	0.06	0.69	0.81
v/c Ratio	0.37	0.01	0.24	0.18	0.14		0.42	0.60	0.07	0.36	0.65	0.05
Control Delay	62.6	59.0	12.0	52.3	64.4		66.5	13.4	2.9	71.5	15.5	0.3
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	62.6	59.0	12.0	52.3	64.4		66.5	13.4	2.9	71.5	15.5	0.3
LOS	E	E	B	D	E		E	B	A	E	B	A
Approach Delay		40.3			55.9			15.8			16.3	
Approach LOS		D			E			B			B	
Queue Length 50th (ft)	53	1	0	32	13		45	286	7	35	320	0
Queue Length 95th (ft)	85	7	28	58	37		74	611	41	73	661	3

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (ft)		287			252			2308			286	
Turn Bay Length (ft)	375		230				230		245	215		
Base Capacity (vph)	222	178	282	264	140		445	2610	1450	132	2505	1166
Starvation Cap Reductn	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
Storage Cap Reductn	0	0	0	0	0		0	0	0	0	0	0
Reduced v/c Ratio	0.27	0.01	0.17	0.14	0.11		0.22	0.60	0.06	0.30	0.65	0.05

Intersection Summary			
Area Type:	Other		
Cycle Length: 140			
Actuated Cycle Length: 140			
Offset: 7 (5%), Referenced to phase 2:NBT and 6:SBT, Start of Green			
Natural Cycle: 85			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.65			
Intersection Signal Delay: 17.3		Intersection LOS: B	
Intersection Capacity Utilization 59.3%		ICU Level of Service B	
Analysis Period (min) 15			

Splits and Phases: 1: IL 59 & Duke Parkway/Everton Drive



Intersection	
Int Delay, s/veh	3.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	4	57	6	36	44	33	3	1	7	37	0	5
Future Vol, veh/h	4	57	6	36	44	33	3	1	7	37	0	5
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	100	-	-	130	-	120	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	70	70	70	70	70	70	70	70	70	70	70	70
Heavy Vehicles, %	0	14	33	41	24	4	100	0	86	0	0	0
Mvmt Flow	6	81	9	51	63	47	4	1	10	53	0	7

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	110	0	0	90	0	0	290	310	86	268	267	63
Stage 1	-	-	-	-	-	-	98	98	-	165	165	-
Stage 2	-	-	-	-	-	-	192	212	-	103	102	-
Critical Hdwy	4.1	-	-	4.51	-	-	8.1	6.5	7.06	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	7.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	7.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.569	-	-	4.4	4	4.074	3.5	4	3.3
Pot Cap-1 Maneuver	1493	-	-	1293	-	-	506	608	783	689	642	1007
Stage 1	-	-	-	-	-	-	716	818	-	842	766	-
Stage 2	-	-	-	-	-	-	629	731	-	908	815	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1493	-	-	1293	-	-	486	582	783	657	614	1007
Mov Cap-2 Maneuver	-	-	-	-	-	-	486	582	-	657	614	-
Stage 1	-	-	-	-	-	-	713	815	-	839	736	-
Stage 2	-	-	-	-	-	-	600	702	-	891	812	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.4	2.5	10.6	10.8
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	654	1493	-	-	1293	-	-	685
HCM Lane V/C Ratio	0.024	0.004	-	-	0.04	-	-	0.088
HCM Control Delay (s)	10.6	7.4	-	-	7.9	-	-	10.8
HCM Lane LOS	B	A	-	-	A	-	-	B
HCM 95th %tile Q(veh)	0.1	0	-	-	0.1	-	-	0.3

Intersection	
Int Delay, s/veh	3.9

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	18	15	38	0	21	24
Future Vol, veh/h	18	15	38	0	21	24
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	19	16	40	0	22	25

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	109	40	0	0	40	0
Stage 1	40	-	-	-	-	-
Stage 2	69	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	893	1037	-	-	1583	-
Stage 1	988	-	-	-	-	-
Stage 2	959	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	880	1037	-	-	1583	-
Mov Cap-2 Maneuver	880	-	-	-	-	-
Stage 1	988	-	-	-	-	-
Stage 2	946	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9	0	3.4
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	945	1583	-
HCM Lane V/C Ratio	-	-	0.037	0.014	-
HCM Control Delay (s)	-	-	9	7.3	0
HCM Lane LOS	-	-	A	A	A
HCM 95th %tile Q(veh)	-	-	0.1	0	-

Intersection	
Int Delay, s/veh	7.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	1	2	5	8	3	17	13	40	0	8	32	1
Future Vol, veh/h	1	2	5	8	3	17	13	40	0	8	32	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	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	61	61	61	61	61	61	61	61	61	61	61	61
Heavy Vehicles, %	0	0	0	0	0	0	0	6	0	0	0	0
Mvmt Flow	2	3	8	13	5	28	21	66	0	13	52	2

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	33	0	0	11	0	0	83	70	7	89	60	19
Stage 1	-	-	-	-	-	-	11	11	-	45	45	-
Stage 2	-	-	-	-	-	-	72	59	-	44	15	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.56	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.56	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.56	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4.054	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1592	-	-	1621	-	-	909	813	1081	901	835	1065
Stage 1	-	-	-	-	-	-	1015	878	-	974	861	-
Stage 2	-	-	-	-	-	-	943	838	-	975	887	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1592	-	-	1621	-	-	858	806	1081	839	827	1065
Mov Cap-2 Maneuver	-	-	-	-	-	-	858	806	-	839	827	-
Stage 1	-	-	-	-	-	-	1014	877	-	973	854	-
Stage 2	-	-	-	-	-	-	877	831	-	901	886	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.9	2.1	9.9	9.7
HCM LOS			A	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	818	1592	-	-	1621	-	-	834
HCM Lane V/C Ratio	0.106	0.001	-	-	0.008	-	-	0.081
HCM Control Delay (s)	9.9	7.3	0	-	7.2	0	-	9.7
HCM Lane LOS	A	A	A	-	A	A	-	A
HCM 95th %tile Q(veh)	0.4	0	-	-	0	-	-	0.3

Intersection	
Int Delay, s/veh	0.1

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	21	0	1521	1556	22
Future Vol, veh/h	0	21	0	1521	1556	22
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	85
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	0	0	0	4	6	0
Mvmt Flow	0	22	0	1618	1655	23

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	-	828	-	0	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.9	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.3	-	-	-	-
Pot Cap-1 Maneuver	0	*443	0	-	-	-
Stage 1	0	-	0	-	-	-
Stage 2	0	-	0	-	-	-
Platoon blocked, %		1		-	-	-
Mov Cap-1 Maneuver	-	*443	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	13.6	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	-	443	-	-
HCM Lane V/C Ratio	-	0.05	-	-
HCM Control Delay (s)	-	13.6	-	-
HCM Lane LOS	-	B	-	-
HCM 95th %tile Q(veh)	-	0.2	-	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	1.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	15	927	20	24	1306	16	24	0	26	43	0	10
Future Vol, veh/h	15	927	20	24	1306	16	24	0	26	43	0	10
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	215	-	-	355	-	-	-	-	50	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	96	96	96	96	96	96	96	96	96	96	96	96
Heavy Vehicles, %	0	3	0	0	2	27	0	0	0	8	0	0
Mvmt Flow	16	966	21	25	1360	17	25	0	27	45	0	10

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1377	0	0	987	0	0	1739	2436	494	1934	2438	689
Stage 1	-	-	-	-	-	-	1009	1009	-	1419	1419	-
Stage 2	-	-	-	-	-	-	730	1427	-	515	1019	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.5	6.5	6.9	7.66	6.5	6.9
Critical Hdwy Stg 1	-	-	-	-	-	-	6.5	5.5	-	6.66	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.5	5.5	-	6.66	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.58	4	3.3
Pot Cap-1 Maneuver	*836	-	-	708	-	-	*222	*36	526	*112	*36	*557
Stage 1	-	-	-	-	-	-	*261	*320	-	*513	*459	-
Stage 2	-	-	-	-	-	-	*525	*459	-	*496	*317	-
Platoon blocked, %	1	-	-		-	-	1	1		1	1	1
Mov Cap-1 Maneuver	*836	-	-	708	-	-	*209	*34	526	*102	*34	*557
Mov Cap-2 Maneuver	-	-	-	-	-	-	*209	*34	-	*102	*34	-
Stage 1	-	-	-	-	-	-	*256	*314	-	*503	*443	-
Stage 2	-	-	-	-	-	-	*497	*443	-	*461	*311	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.1	0.2	18.2	57.6
HCM LOS			C	F

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	209	526	* 836	-	-	708	-	-	121
HCM Lane V/C Ratio	0.12	0.051	0.019	-	-	0.035	-	-	0.456
HCM Control Delay (s)	24.6	12.2	9.4	-	-	10.3	-	-	57.6
HCM Lane LOS	C	B	A	-	-	B	-	-	F
HCM 95th %tile Q(veh)	0.4	0.2	0.1	-	-	0.1	-	-	2

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	6.5

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	3	7	16	6	22	18
Future Vol, veh/h	3	7	16	6	22	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	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	3	7	17	6	23	19

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	10	0	47	7
Stage 1	-	-	-	-	7	-
Stage 2	-	-	-	-	40	-
Critical Hdwy	-	-	4.1	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	1623	-	968	1081
Stage 1	-	-	-	-	1021	-
Stage 2	-	-	-	-	988	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1623	-	957	1081
Mov Cap-2 Maneuver	-	-	-	-	957	-
Stage 1	-	-	-	-	1021	-
Stage 2	-	-	-	-	977	-

Approach	EB	WB	NB
HCM Control Delay, s	0	5.3	8.7
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	1009	-	-	1623	-
HCM Lane V/C Ratio	0.042	-	-	0.01	-
HCM Control Delay (s)	8.7	-	-	7.2	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0.1	-	-	0	-

Intersection	
Int Delay, s/veh	0.1

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	0	101	110	35	0	3
Future Vol, veh/h	0	101	110	35	0	3
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	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	0	106	116	37	0	3

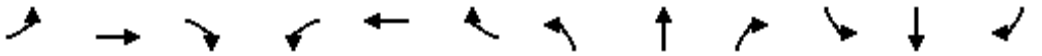
Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	-	0	-	0	-	135
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.3
Pot Cap-1 Maneuver	0	-	-	-	0	919
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	-	-	-	-	-	919
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	8.9
HCM LOS			A

Minor Lane/Major Mvmt	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	919
HCM Lane V/C Ratio	-	-	-	0.003
HCM Control Delay (s)	-	-	-	8.9
HCM Lane LOS	-	-	-	A
HCM 95th %tile Q(veh)	-	-	-	0

Capacity Analysis Summary Sheets

Year 2031 Total Projected Saturday Midday Peak Hour

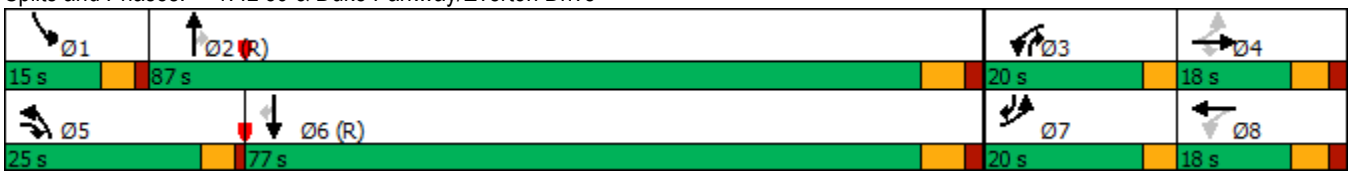


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	42	5	38	63	1	5	85	1150	36	34	1052	20
Future Volume (vph)	42	5	38	63	1	5	85	1150	36	34	1052	20
Ideal Flow (vphpl)	1900	2000	1900	1900	1900	1900	1900	2000	1900	1900	2000	1900
Storage Length (ft)	375		230	0		0	230		245	215		0
Storage Lanes	1		1	1		0	2		1	1		1
Taper Length (ft)	120			25			300			230		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.97	0.95	1.00	1.00	0.95	1.00
Frt			0.850		0.875				0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1719	2000	1262	1805	1662	0	3213	3689	1615	1752	3689	1392
Flt Permitted							0.950			0.950		
Satd. Flow (perm)	1810	2000	1262	1900	1662	0	3213	3689	1615	1752	3689	1392
Right Turn on Red			Yes			No			No			Yes
Satd. Flow (RTOR)			55									97
Link Speed (mph)		25			30			50			50	
Link Distance (ft)		367			332			2388			366	
Travel Time (s)		10.0			7.5			32.6			5.0	
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Heavy Vehicles (%)	5%	0%	28%	0%	0%	0%	9%	3%	0%	3%	3%	16%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	43	5	39	65	6	0	88	1186	37	35	1085	21
Turn Type	pm+pt	NA	pm+ov	pm+pt	NA		Prot	NA	pm+ov	Prot	NA	pm+ov
Protected Phases	7	4	5	3	8		5	2	3	1	6	7
Permitted Phases	4		4	8					2			6
Detector Phase	7	4	5	3	8		5	2	3	1	6	7
Switch Phase												
Minimum Initial (s)	3.0	8.0	3.0	3.0	8.0		3.0	15.0	3.0	3.0	15.0	3.0
Minimum Split (s)	9.5	18.0	14.0	9.5	18.0		14.0	35.5	9.5	9.5	43.5	9.5
Total Split (s)	20.0	18.0	25.0	20.0	18.0		25.0	87.0	20.0	15.0	77.0	20.0
Total Split (%)	14.3%	12.9%	17.9%	14.3%	12.9%		17.9%	62.1%	14.3%	10.7%	55.0%	14.3%
Yellow Time (s)	3.5	4.0	3.5	3.5	4.0		3.5	4.5	3.5	3.5	4.5	3.5
All-Red Time (s)	0.0	2.0	1.0	0.0	2.0		1.0	2.0	0.0	1.5	2.0	0.0
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
Total Lost Time (s)	3.5	6.0	4.5	3.5	6.0		4.5	6.5	3.5	5.0	6.5	3.5
Lead/Lag	Lead	Lag	Lead	Lead	Lag		Lead	Lag	Lead	Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes		Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None		None	C-Min	None	None	C-Min	None
Act Effct Green (s)	11.9	8.2	13.1	12.8	8.6		10.2	109.0	123.1	8.2	104.2	120.3
Actuated g/C Ratio	0.08	0.06	0.09	0.09	0.06		0.07	0.78	0.88	0.06	0.74	0.86
v/c Ratio	0.29	0.04	0.23	0.39	0.06		0.38	0.41	0.03	0.34	0.40	0.02
Control Delay	60.7	63.0	9.4	63.8	62.5		66.0	8.1	2.5	71.4	8.5	0.1
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	60.7	63.0	9.4	63.8	62.5		66.0	8.1	2.5	71.4	8.5	0.1
LOS	E	E	A	E	E		E	A	A	E	A	A
Approach Delay		37.8			63.7			11.8			10.3	
Approach LOS		D			E			B			B	
Queue Length 50th (ft)	38	4	0	58	5		40	176	3	31	163	0
Queue Length 95th (ft)	68	19	20	93	20		67	365	16	68	330	0

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (ft)		287			252			2308			286	
Turn Bay Length (ft)	375		230				230		245	215		
Base Capacity (vph)	231	171	257	243	142		470	2872	1470	128	2745	1265
Starvation Cap Reductn	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
Storage Cap Reductn	0	0	0	0	0		0	0	0	0	0	0
Reduced v/c Ratio	0.19	0.03	0.15	0.27	0.04		0.19	0.41	0.03	0.27	0.40	0.02

Intersection Summary			
Area Type:	Other		
Cycle Length: 140			
Actuated Cycle Length: 140			
Offset: 135.8 (97%), Referenced to phase 2:NBT and 6:SBT, Start of Green			
Natural Cycle: 85			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.41			
Intersection Signal Delay: 13.4		Intersection LOS: B	
Intersection Capacity Utilization 56.9%		ICU Level of Service B	
Analysis Period (min) 15			

Splits and Phases: 1: IL 59 & Duke Parkway/Everton Drive



Intersection	
Int Delay, s/veh	4.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	2	34	2	29	20	21	2	0	3	48	2	2
Future Vol, veh/h	2	34	2	29	20	21	2	0	3	48	2	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	100	-	-	130	-	120	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	85	85	85	85	85	85	85	85	85	85	85	85
Heavy Vehicles, %	0	27	100	30	20	0	50	0	67	2	0	0
Mvmt Flow	2	40	2	34	24	25	2	0	4	56	2	2

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	49	0	0	42	0	0	152	162	41	139	138	24
Stage 1	-	-	-	-	-	-	45	45	-	92	92	-
Stage 2	-	-	-	-	-	-	107	117	-	47	46	-
Critical Hdwy	4.1	-	-	4.4	-	-	7.6	6.5	6.87	7.12	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.6	5.5	-	6.12	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.6	5.5	-	6.12	5.5	-
Follow-up Hdwy	2.2	-	-	2.47	-	-	3.95	4	3.903	3.518	4	3.3
Pot Cap-1 Maneuver	1571	-	-	1405	-	-	718	734	872	831	757	1058
Stage 1	-	-	-	-	-	-	860	861	-	915	823	-
Stage 2	-	-	-	-	-	-	794	803	-	967	861	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1571	-	-	1405	-	-	701	716	872	812	738	1058
Mov Cap-2 Maneuver	-	-	-	-	-	-	701	716	-	812	738	-
Stage 1	-	-	-	-	-	-	859	860	-	914	803	-
Stage 2	-	-	-	-	-	-	771	784	-	962	860	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.4	3.2	9.6	9.8
HCM LOS			A	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	794	1571	-	-	1405	-	-	816
HCM Lane V/C Ratio	0.007	0.001	-	-	0.024	-	-	0.075
HCM Control Delay (s)	9.6	7.3	-	-	7.6	-	-	9.8
HCM Lane LOS	A	A	-	-	A	-	-	A
HCM 95th %tile Q(veh)	0	0	-	-	0.1	-	-	0.2

Intersection	
Int Delay, s/veh	3.6

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	16	8	23	0	23	36
Future Vol, veh/h	16	8	23	0	23	36
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	17	8	24	0	24	38

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	110	24	0	0	24	0
Stage 1	24	-	-	-	-	-
Stage 2	86	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	892	1058	-	-	1604	-
Stage 1	1004	-	-	-	-	-
Stage 2	942	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	879	1058	-	-	1604	-
Mov Cap-2 Maneuver	879	-	-	-	-	-
Stage 1	1004	-	-	-	-	-
Stage 2	928	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9	0	2.8
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	932	1604	-
HCM Lane V/C Ratio	-	-	0.027	0.015	-
HCM Control Delay (s)	-	-	9	7.3	0
HCM Lane LOS	-	-	A	A	A
HCM 95th %tile Q(veh)	-	-	0.1	0	-

Intersection	
Int Delay, s/veh	6.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	1	2	6	16	2	38	6	25	0	16	37	1
Future Vol, veh/h	1	2	6	16	2	38	6	25	0	16	37	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	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	83	83	83	83	83	83	83	83	83	83	83	83
Heavy Vehicles, %	0	0	17	0	0	0	0	0	0	0	0	0
Mvmt Flow	1	2	7	19	2	46	7	30	0	19	45	1

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	48	0	0	9	0	0	94	94	6	86	74	25
Stage 1	-	-	-	-	-	-	8	8	-	63	63	-
Stage 2	-	-	-	-	-	-	86	86	-	23	11	-
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	1572	-	-	1624	-	-	894	800	1083	905	820	1057
Stage 1	-	-	-	-	-	-	1019	893	-	953	846	-
Stage 2	-	-	-	-	-	-	927	827	-	1000	890	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1572	-	-	1624	-	-	847	790	1083	870	809	1057
Mov Cap-2 Maneuver	-	-	-	-	-	-	847	790	-	870	809	-
Stage 1	-	-	-	-	-	-	1018	892	-	952	836	-
Stage 2	-	-	-	-	-	-	866	817	-	965	889	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.8	2.1	9.7	9.7
HCM LOS			A	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	800	1572	-	-	1624	-	-	830
HCM Lane V/C Ratio	0.047	0.001	-	-	0.012	-	-	0.078
HCM Control Delay (s)	9.7	7.3	0	-	7.2	0	-	9.7
HCM Lane LOS	A	A	A	-	A	A	-	A
HCM 95th %tile Q(veh)	0.1	0	-	-	0	-	-	0.3

Intersection	
Int Delay, s/veh	0.2

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	34	0	1197	1072	41
Future Vol, veh/h	0	34	0	1197	1072	41
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	85
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	0	0	0	3	3	0
Mvmt Flow	0	36	0	1273	1140	44

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	-	570	-	0	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.9	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.3	-	-	-	-
Pot Cap-1 Maneuver	0	*642	0	-	-	-
Stage 1	0	-	0	-	-	-
Stage 2	0	-	0	-	-	-
Platoon blocked, %		1		-	-	-
Mov Cap-1 Maneuver	-	*642	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	10.9	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	-	642	-	-
HCM Lane V/C Ratio	-	0.056	-	-
HCM Control Delay (s)	-	10.9	-	-
HCM Lane LOS	-	B	-	-
HCM 95th %tile Q(veh)	-	0.2	-	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	1.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	9	710	24	22	808	14	29	0	30	30	2	6
Future Vol, veh/h	9	710	24	22	808	14	29	0	30	30	2	6
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	215	-	-	355	-	-	-	-	50	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	0	2	0	0	1	8	0	0	0	0	0	0
Mvmt Flow	9	747	25	23	851	15	31	0	32	32	2	6

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	866	0	0	772	0	0	1251	1690	386	1297	1695	433
Stage 1	-	-	-	-	-	-	778	778	-	905	905	-
Stage 2	-	-	-	-	-	-	473	912	-	392	790	-
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	*1133	-	-	852	-	-	*331	*146	618	*297	*145	*755
Stage 1	-	-	-	-	-	-	*360	*410	-	*712	*623	-
Stage 2	-	-	-	-	-	-	*712	*623	-	*610	*404	-
Platoon blocked, %	1	-	-		-	-	1	1		1	1	1
Mov Cap-1 Maneuver	*1133	-	-	852	-	-	*315	*141	618	*274	*140	*755
Mov Cap-2 Maneuver	-	-	-	-	-	-	*315	*141	-	*274	*140	-
Stage 1	-	-	-	-	-	-	*357	*407	-	*706	*606	-
Stage 2	-	-	-	-	-	-	*684	*606	-	*574	*401	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.1	0.2	14.3	19.5
HCM LOS			B	C

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	315	618	* 1133	-	-	852	-	-	288
HCM Lane V/C Ratio	0.097	0.051	0.008	-	-	0.027	-	-	0.139
HCM Control Delay (s)	17.7	11.1	8.2	-	-	9.3	-	-	19.5
HCM Lane LOS	C	B	A	-	-	A	-	-	C
HCM 95th %tile Q(veh)	0.3	0.2	0	-	-	0.1	-	-	0.5

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	7

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	3	15	33	8	48	31
Future Vol, veh/h	3	15	33	8	48	31
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	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	3	16	35	8	51	33

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	19	0	89	11
Stage 1	-	-	-	-	11	-
Stage 2	-	-	-	-	78	-
Critical Hdwy	-	-	4.1	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	1611	-	917	1076
Stage 1	-	-	-	-	1017	-
Stage 2	-	-	-	-	950	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1611	-	897	1076
Mov Cap-2 Maneuver	-	-	-	-	897	-
Stage 1	-	-	-	-	1017	-
Stage 2	-	-	-	-	929	-

Approach	EB	WB	NB
HCM Control Delay, s	0	5.9	9.1
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	960	-	-	1611	-
HCM Lane V/C Ratio	0.087	-	-	0.022	-
HCM Control Delay (s)	9.1	-	-	7.3	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0.3	-	-	0.1	-

Intersection	
Int Delay, s/veh	0.1

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑	↱			↗
Traffic Vol, veh/h	0	85	68	38	0	2
Future Vol, veh/h	0	85	68	38	0	2
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	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	0	89	72	40	0	2

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	-	0	-	0	-	92
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.3
Pot Cap-1 Maneuver	0	-	-	-	0	971
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	-	-	-	-	-	971
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	8.7
HCM LOS			A

Minor Lane/Major Mvmt	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	971
HCM Lane V/C Ratio	-	-	-	0.002
HCM Control Delay (s)	-	-	-	8.7
HCM Lane LOS	-	-	-	A
HCM 95th %tile Q(veh)	-	-	-	0

Attachment L

City of Warrenville
3S258 Manning Avenue
Warrenville, IL 60555

(630) 836 3050 tel
(630) 393 1531 fax
www.warrenville.il.us

MEMORANDUM

Date: March 11, 2025

To: Dream Clean Holdings, LLC

From: Kristine Hocking, P.E., CFM
Assistant Community Development Director
City of Warrenville

Re: Dream Clean Carwash / Starbucks
Engineering/SWM/Public Works Review #1

We have completed our 1st review for the Dream Clean and Starbucks with regards to the DuPage County Stormwater and Flood Plain Ordinance, Warrenville's Subdivision Control and Ordinance, and Public Works requirements. We have reviewed the following documents related to this project:

1. Preliminary Civil Plan, prepared by WMA, dated February 10, 2025.
2. Site Plan, prepared by WMA, dated February 10, 2025.
3. Plat of Resubdivision, prepared by WMA, dated February 2, 2025.
4. Photometric Plan, prepared by PG Enlighten, dated February 18, 2025.
5. Landscape Plan, prepared by WMA, dated February 10, 2025.
6. Auto Turn Exhibit, prepared by WMA, dated February 10, 2025.

ENGINEERING SUMMARY

ACCESS: Access is provided to the site via Estes, Barkley and Duke Parkway. The Estes right-in and right-out will be upgraded to account for commercial traffic. A new right-in, right-out is proposed on Duke Parkway. A full access is proposed on Barkley Avenue. ***See comments.***

STORMWATER DETENTION: Detention has been provided for in the regional stormwater detention pond to the south of Thorton's Gas Station. All storm sewers onsite should be designed to convey the 100-year flow.

BEST MANAGEMENT PRACTICES: The regional stormwater detention pond was planted with native vegetation, which satisfies the Stormwater Ordinance requirement for Best Management Practices.

SPECIAL MANAGEMENT AREAS: There are no special management areas on the site.

SEWER & WATER: There is an existing sanitary sewer and watermain around the site. ***See comments.***

EROSION CONTROL: Erosion control measures are required for this development. The Applicant should provide proposed erosion control measures on the final engineering plans with the building permit. Standard City Notes shall be incorporated.

PERMITS: A City of Warrenville Stormwater and Flood Plain Certification is required due to the site disturbance. City of Warrenville Building Permits will be required as each building is constructed. A Notice of Intent (NOI) must be submitted to the Illinois Environmental Protection Agency (IEPA) before the start of construction. A Notice of Termination must be submitted to the IEPA once the site is fully restored. IEPA sanitary sewer and watermain permits will be required.

SITE LIGHTING: A photometric plan was submitted for the entire site including the shared access drive. The fixtures conform to the Zoning Ordinance requirements, however the average footcandles for the shared access drive, parking area, and waiting area all **exceed** the requirements and will have to be updated. ***See comments.***

REVIEW COMMENTS

The reviewed documents have been stamped **"NOT APPROVED**". Please submit final Engineering plans and a disposition of the comments. The following comments should be addressed ***prior to the Plan Commission recommendation.***

GENERAL:

1. Provide Final Engineering Plans which would include but not limited to layout, utilities, grading, erosion control/SWPP, ADA parking spot and access aisle grades, ADA driveway crossing detail and construction details. Plans shall be stamped by Professional Engineer.
2. Provide a stormwater memo that compares the impervious area assumed in the original stormwater detention calculations to the impervious area of the proposed Starbucks/Dream Clean site plan and make an assumption for the Lot 1 plan.
3. Provide storm sewer calculations for the 100-year flow.
4. Public sidewalk shall be Class SI with a minimum 6.1 bag mix in accordance with Section 1020 of IDOT Standard Specification and shall include fibrous reinforcement of one-half inch length synthetic fiber added at a rate of 1.5 pounds per cubic yard of concrete.
5. Include Estes Street Cross Section detail.
6. Submit a Stormwater Certification Application (attached)
7. Submit any submittal/correspondence with IDOT permitting.
8. Submit any correspondence with Aurora for the RinRout on Duke Parkway (Permit).

PRELIMINARY CIVIL PLAN:

9. Provide pedestrian access from the sidewalk along Estes Street into the Starbucks. This access should be concrete through the drive aisle to ensure ADA compliance and to delineate the walkway.
10. Review the ADA parking spots, access aisle, and route to ensure compliance with IAC.

11. There is an excessive amount of pavement onsite. Similar roads in the area (Camden) have a face-to-face width of 22'.
    a. Justify the need for 300' of double lane car wash. Reduce double lanes.
    b. Reduce the width of all of the the internal shared access roads to 22' face-to-face.
    c. Reduce the width of the car wash double drive aisles to 22' face-to-face
    d. Reduce the width of the drive aisle in front of the vacuums to 24' from 28'.
12. Include revise striping on Route 59 for the right turn lane. Currently it is confusing and will have to get updated with the new configuration.
13. Install the City's 16' decorative street lights along Barkley Avenue and Estes Street, spaced approximately every 125' (staggered) consistent with the lights installed on Barkley Avenue.
14. Install the City' 12' decorative street lights along the Duke Parkway path within private property as well as Route 59 along the west side of the sidewalk. These would be owned by Dream Clean/Starbucks.
15. During the building permit, provide a lighting plan with details, conduit, wiring, and connection point to the existing system.
16. To be consistent with the City's Standard Specifications (attached), Mac Wrap and external chimney seals will be required on all sanitary manholes, public or private and the water main should be PVC.
17. The valve for the car wash water service should be located as close to the connection to the main as possible.
18. There should not be any 90-degree bends on the proposed City water main. Those 90-degree turns should be main with a pair of 45-degree bends.
19. Eliminate the segment of 12" diameter water main on the west side of Barkley, between the proposed connection and Estes Street. This will require relocation of a fire hydrant and the proper abandonment / partial removal of a 12" valve in vault.
20. Replace the existing 8" diameter main on Estes Street east of Barkley with a 12" diameter main.
21. Increase the size of the proposed 8" diameter main to a 12" diameter main. See attached exhibit.
22. The City could potentially pay for the increased costs (upsizing water main, moving a fire hydrant, abandoning main, replacing existing 8" main with 12" main, etc) with TIF funds, if necessary.
23. Submit gap analysis for TIF assistance.

TRAFFIC IMPACT AND CIRCULATION:

24. See the Traffic, Circulation, and Parking comments provided by the City's Traffic Consultant Kimley Horn, dated March 10, 2025.

PHOTOMETRIC PLAN:

25. The photometric calculation summary should include labels for the Starbucks parking lot and drive through lane.
26. Update the photometric plan to conformation of Zoning Ordinance Performance Standards for Illumination. These uses are considered a 'medium' level of activity and require the average to not exceed 2.0 F/C, with average to minimums between 3:1 and 4:1 and the max to min ratio of around 15:1.

27. Provide cut sheets for the fixtures to ensure full cutoff lenses and horizontal 90 degrees with no option to tilt.
28. Illumination level at north lot line not to exceed 0.1 f/c except at drive aisle.
29. Mounting heights shall have a maximum of 26-feet

SUBDIVISION PLAT:

30. Include a City Easement for the looped watermain.

ESTIMATED FEES:

31. Submit an EOPCC. This includes roadway improvements, storm sewer, erosion control, public utilities (watermain), street lighting and landscaping.
32. Stormwater Management Review Fee: $1,500 is required per City code section 8-5-3. This has been paid.
33. Stormwater Inspection Fee: $500 plus 2.5% of EOPCC for Public Improvements (Stormwater Management & Erosion Control).
34. Final Engineering Review and Inspection: Based upon the EOPCC for Public Improvements (Non-Stormwater Management/Erosion Control).
35. Development Security: 110% of the total EOPCC for Public and Stormwater Improvements. This can be a cash bond, Letter of Credit, or a Performance and Payment Surety Bond.
36. Satisfy the recapture agreement obligations under City Ordinance O2017-11. This amount is $71,726.08 for the Duke Sewer and Water Recapture and $63,804.81 for the Duke Roadway Improvement Recapture.

ATTACHMENTS

1. City Traffic Consultant Review Memo
2. Utility Markup
3. City Standard Specifications
4. City Erosion Control Notes
5. 12’ and 16’ City Decorative Light Details
6. Stormwater Certification Application
7. City Easement Provision Language

Kimley»Horn

MEMORANDUM

To: Kristine Hocking, PE, CFM – City of Warrenville

From: Rory Fancler, AICP, PTP – Kimley-Horn

Date: March 10, 2025

Subject: Starbucks/Dream Clean Development – IL Route 59/Duke Parkway
Warrenville, IL

Kimley-Horn and Associates, Inc. (Kimley-Horn) has completed a review of the following documents submitted for the Starbucks/Dream Clean Development proposed on the northwest quadrant of IL Route 59/Duke Parkway.

- City of Warrenville General Application Information Form
- Preliminary Civil Plan, prepared by Webster, McGrath & Ahlberg, Ltd. (dated 02-10-25)
- Site Plan for Dream Clean, prepared by Webster, McGrath & Ahlberg, Ltd. (dated 02-10-25)
- Plat of Resubdivision, prepared by Webster, McGrath & Ahlberg, Ltd. (dated 2-4-2025)
- AutoTurn Exhibit, prepared by Webster, McGrath & Ahlberg, Ltd. (dated 02-10-25)
- Traffic Impact Study Proposed Car Wash, prepared by KLOA (dated February 14, 2025)

Based on a review of the aforementioned documents, a summary of site plan and traffic impact study review comments is outlined below.

Site Plan Review

1. The City of Warrenville has executed an Intergovernmental Agreement (IGA) with the City of Aurora to allow two driveways to Duke Parkway:
    a. One (1) full-access driveway for the Barkley Avenue Connection; and
    b. One (1) right-in/right-out driveway for the private development site to the south. The right-in/right-out driveway shall be restricted to no less than 350 feet from the west right-of-way line of IL Route 59 (Duke Parkway is not constructed with a barrier median).

    The proposed right-in/right-out driveway satisfies the 350-foot spacing requirement. A raised channelizing island is provided to discourage left-turn movements. The site plan also includes "No Left Turn" signage for eastbound traffic on Duke Parkway and outbound site traffic.
2. Per Table 5E (Required Number of Off-Street Parking Spaces for Non-Residential and Non-Lodging Uses) of the *City of Warrenville Code of Ordinances*, the following off-street parking is required:
    a. Lot 1: Minimum parking requirements are not defined for a car wash; the minimum requirement for an Automotive Service Station is 1 space per employee; 6 spaces are proposed for employees which is considered sufficient. In addition, a total of 20 vacuum spaces would be provided.
    b. Lot 2: Minimum parking requirements for a Drive In and Eat In Restaurant is 10 spaces per 1,000 square feet. Therefore, the proposed 2,242 square-foot coffee

shop with drive-through window is required to provide 22 spaces. A total of 22 parking spaces would be provided, which satisfies local requirements.

3. Per Table 5E of the *City of Warrenville Code of Ordinances*, a minimum of 10 stacking spaces are required for Drive In and Eat In uses. Lot 2 provides stacking for a total of 15 vehicles between the pick-up window and parking lot; a total of 8 stacking spaces are provided between the pick-up window and order board. The proposed stacking is considered sufficient.
4. The *City of Warrenville Code of Ordinances* does not define minimum stacking for car wash uses. The site plan reflects stacking for a total of 30 vehicles before the two pay stations. The traffic impact study indicates that peak operational conditions typically occur 12-15 days per year. Under peak operational conditions, supplemental procedures are implemented including increased service rate and additional staff.
    a. Please clarify total staff headcount under typical and peak operational conditions. A total of six (6) employee parking spaces are shown for Lot 3.
    b. Please specify operational procedures should the queue approach Duke Parkway under peak conditions.
    c. Is empirical queue data available for peak conditions to verify the proposed stacking is sufficient to accommodate demand onsite.
5. For Lot 2, review the perpendicular spaces located immediately north of the drive-through lane. Consider signing these spaces for employees only in order to minimize turnover due to conflicts between outbound parked vehicles and the inbound drive-through queue.
6. New sidewalk is shown along the Estes Street and IL Route 59 frontages (existing multi-use path along Duke Parkway and Barkley Avenue frontages); however, there is no connection provided between the sidewalk and the site. A sidewalk connection should be provided to Lot 2. Lot 3 is a vehicle-focused use and so the lack of sidewalk connectivity is reasonable.
7. Based on the site proximity to residential uses and the Illinois Prairie Path Trail (located 0.2 mile south), consider bicycle parking on Lot 2.

Traffic Impact Study Review

1. The traffic impact study reflects an automatic car wash with 20 vacuum stalls (Lot 3) and a 2,050 square-foot Starbucks coffee shop on Lot 2. No assumptions were included for Lot 1. Note that the site plan reflects a 2,242 square-foot Starbucks. The traffic study should be updated for consistency; however, no material changes to the analysis are anticipated.
2. Please review the site boundaries included in the exhibits – it appears Lot 1 was included in the traffic study; however, the traffic study was prepared for development proposed on Lot 2 and Lot 3 only.
3. Page 10 and Page 29 – the narrative indicates the right-in/right-out driveway is approximately 505 west of IL Route 59, which is measured from centerline-to-centerline. For consistency with the IGA between the City of Warrenville and City of Aurora, please add a reference to the spacing distance as measured from the west right-of-way line of IL Route 59.
4. Site trip generation weas estimated using data presented in the Institute of Transportation Engineers (ITE) *Trip Generation Manual*, 11th Edition. We concur with the trip generation methodology with additional information requested below.

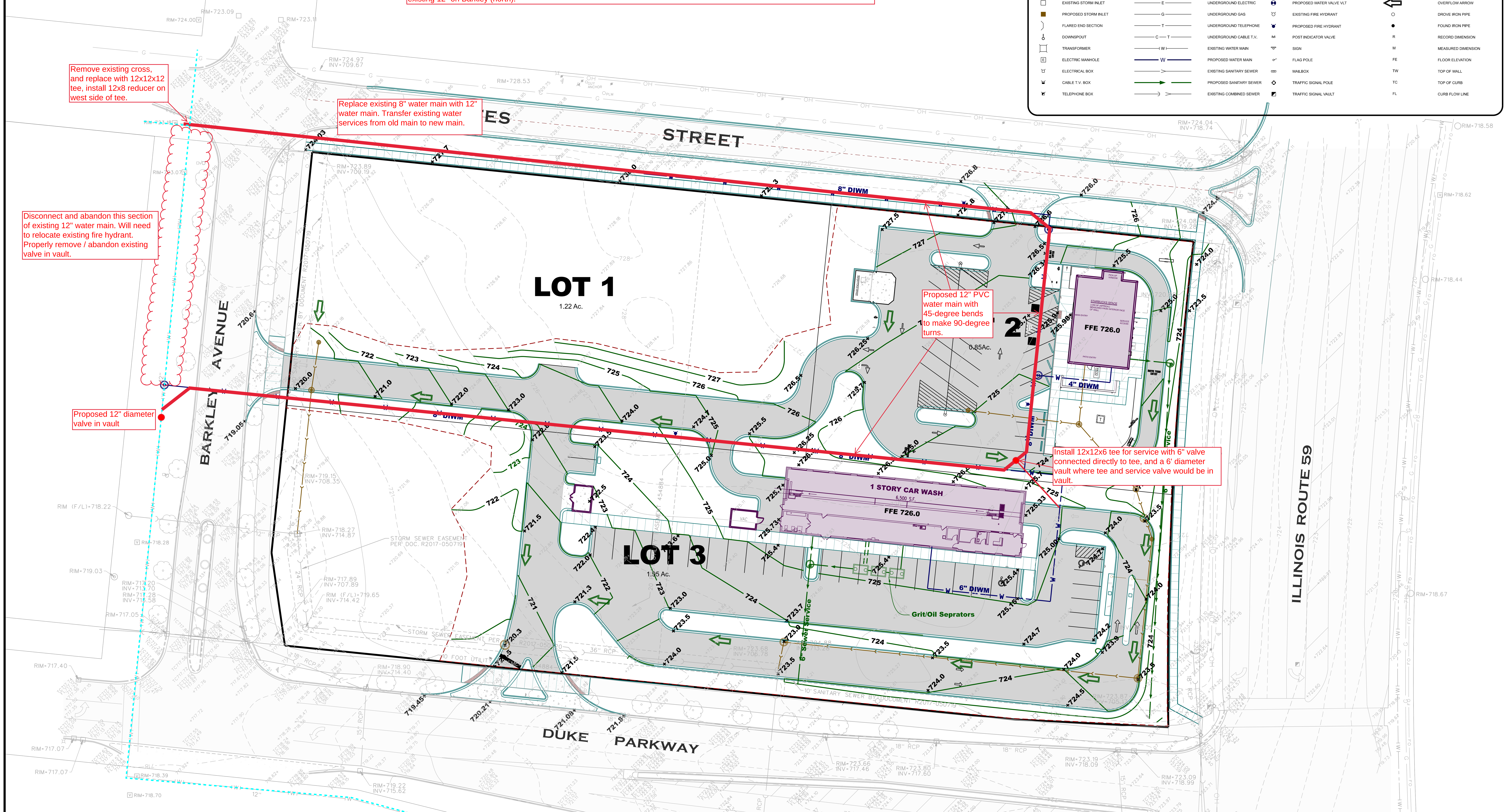
   a. The traffic study indicates 70% of trips generated by the coffee should with drive-through window are diverted from the existing traffic on the roadway network per ITE survey data. The ITE *Trip Generation Manual* does not provide pass-by data for LUC 937, Coffee Shop with Drive-Through Window. Please clarify the pass-by trip assumption applied to this land use.
5. Background traffic projections were developed using a 0.94 percent annual growth rate obtained from CMAP. Site traffic assumptions were not developed for Lot 1. Based on proximity to the site, development assumptions should be considered based on parcel size and zoning.
6. Page 21 – clarify the existing conditions analysis was prepared for Year 2025; counts were conducted in January 2025.
7. Page 26 – correct the future year analysis was completed for Year 2031; text references Year 2030.
8. We generally concur with the analysis and recommendations presented in the traffic impact study.
   a. Please specify existing and projected queues for the southbound approach of Barkley Avenue at Butterfield Road, which is projected to operate at LOS F in the weekday peak hours.
   b. Specify projected outbound queues at the site access driveways in order to evaluate onsite circulation.
9. Please provide the technical appendices in the next submittal.

Additional comments may be provided on future resubmittals. Please contact City staff should you have any questions regarding this review.

Anticipated sequence of water main construction to be finalized during final engineering:
1. Shut down existing valve in Barkley, just south of Estes.
2. Shut existing valve south on Barkley south of proposed valve.
3. Install new 12" valve in vault on Barkley, as proposed. A plug will be necessary on existing 12" water main to north of new valve.
4. Install new 12" water main through site and on south side of Estes, stopping short of existing cross at Estes and Barkley.
5. New 12" water main that will replace existing 8" water main to be installed on north side of existing 8" water main as close together as possible.
6. Test new 12" water main and chlorinate.
7. Once samples pass, transfer water services townhomes on Estes from existing 8" to new 12".
8. Remove existing cross, install tee and reducer, and connect the new 12" on Estes (east) to the existing 8" on Estes (west) and existing 12" on Barkley (north).

Legend

EXISTING SANITARY MANHOLE	EXISTING LIGHT POLE	TELEPHONE MANHOLE	PROPOSED COMBINED SEWER
PROPOSED SANITARY MANHOLE	PROPOSED LIGHT POLE	ELECTRIC METER	EXISTING STORM SEWER
SANITARY CLEANOUT	OVERHEAD LIGHT POLE	GAS METER	PROPOSED STORM SEWER
EXISTING STORM MANHOLE	RAILROAD SIGNAL POLE	GAS VALVE	FENCE LINE
PROPOSED STORM MANHOLE	RAILROAD SIGNAL VAULT	B-BOX	GUARD RAIL
EXISTING STORM CATCH BASIN	UTILITY POLE	WATER VALVE	DECIDUOUS TREE
PROPOSED STORM CATCH BASIN	OH — OVERHEAD WIRES	EXISTING WATER VALVE VAULT	PINE TREE
EXISTING STORM INLET	E — UNDERGROUND ELECTRIC	PROPOSED WATER VALVE VLT	OVERFLOW ARROW
PROPOSED STORM INLET	G — UNDERGROUND GAS	EXISTING FIRE HYDRANT	DROVE IRON PIPE
FLARED END SECTION	T — UNDERGROUND TELEPHONE	PROPOSED FIRE HYDRANT	FOUND IRON PIPE
DOWNSPOUT	C — T — UNDERGROUND CABLE T.V.	POST INDICATOR VALVE	R — RECORD DIMENSION
TRANSFORMER	W — EXISTING WATER MAIN	SIGN	M — MEASURED DIMENSION
ELECTRIC MANHOLE	W — PROPOSED WATER MAIN	FLAG POLE	FE — FLOOR ELEVATION
ELECTRICAL BOX	EXISTING SANITARY SEWER	MAILBOX	TW — TOP OF WALL
CABLE T.V. BOX	PROPOSED SANITARY SEWER	TRAFFIC SIGNAL POLE	TC — TOP OF CURB
TELEPHONE BOX	EXISTING COMBINED SEWER	TRAFFIC SIGNAL VAULT	FL — CURB FLOW LINE



0 30 60
GRAPHIC SCALE - FEET

STORMWATER MANAGEMENT SUMMARY

DETENTION PROVIDED AS PART OF DUKE UNIT 6 BASIN	6.95 ac-ft
DETENTION REQUIRED FOR THORNTONS DEVELOPMENT + BASIN	4.42 ac-ft
DETENTION VOLUME AVAILABLE FOR DREAM CLEAN/STARBUCKS	2.53 ac-ft
PROPOSED PROJECT CN VALUE = (OUTSIDE OF DETENTION EASEMENT)	84
BASIN DESIGN CN VALUE =	87
EXISTING CONDITION IMPERVIOUS AREA =	0 AC.
DISTURBED AREA =	2.79 AC.

Dream Clean
R. 59 and Duke Parkway Warrenville, IL 60555

Prepared For:
Dream Clean Operating Company
625 Greenleaf Ave.
Wilmette, IL 60091
email: mzaveduk@dreamcleancw.com

ARCH AMERICA
34121 North US 45, Suite 213
Grayslake, Illinois 60030
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DREAM CLEAN CAR WASH

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REV#	DATE	REVISION DESCRIPTION	BY

Section-Township-Range
DuPage: 33/34 T 39N R 09E

JOB #	41516	SURV:	CB
DRAWN:	BMB	REVIEW:	SMR
SCALE:	1"=30'	DATE:	02-10-25

SHEET NAME
Preliminary Civil Plan

SHEET # C-1

CITY OF WARRENVILLE STANDARD SPECIFICATIONS

WATER MAIN, SANITARY SEWER AND STORM SEWER

WATER MAIN

1. All open cut water main shall be polyvinyl chloride plastic (PVC) pressure pipe per AWWA specification C-900, Class 150 (DR-18). The above pipe and fittings shall be furnished with elastomeric gasket joints conforming to ASTM F477. Trench Backfill shall be utilized to twelve inches (12") above the top of the PVC water main.

2. All water main installed by horizontal directional drilling shall be PVC per AWWA specification C-900 with CertaLok joints. Assembly and installation of pipe shall be in accordance with the manufacturer's instructions. All material specifications shall be submitted to the City and approved prior to installation.

3. Copper clad steel (SSC) blue tracer wire shall be installed directly over the center of the water main in the trench with a maximum separation of four inches (4") above the pipe. The tracer wire will be installed with the water main and attached to all in-line valves, hydrant valves, hydrants and service lines to insure signal conductivity along all portions of the new main. Connections shall be DryConn 3-way Direct Bury Lug OR Copperhead Mainline-to-Service Connector 3WB-01.

    a. For open trench, a Copperhead High Strength 1230 wire shall be used.
    b. For directional boring, a Copperhead Extra High Strength 1245 shall be used.
    c. For pipe bursting, a Copperhead SoloShot Xtreme Strength 7x7 stranded PBX-50 shall be used.
    d. For fire hydrants, tracer wire shall terminate at trace wire access box. Copperhead T3-75-F shall be used.

4. Fittings shall be ductile iron, 250 psi pressure rating, cement mortar lined with restrained push-on joint or mechanical joint with MEGALUG retainer glands, or approved equal.

5. Water Main Bolts shall be stainless steel ASTM 304.

6. Restrained Joints - All fittings shall have restrained joints. All water main piping in casing shall have restrained joints. Restrained joints shall be push joint with a field lock gasket or a mechanical joint with MEGALUG retainer glands, or approved equal. All bends, tees, and dead end piping must be restrained a minimum of 24' in both directions of the fitting. Thrust cement blocking of all fittings, hydrants, and dead end piping is required.

7. Pressure connections - Pressure tapping sleeves shall be all stainless steel.

8. All valves shall be resilient wedge gate valves installed in a precast concrete vault. Valves shall be Mueller, Waterous, or Clow manufacture. All bolts shall be stainless steel.

9. Valve vaults shall be pre-cast concrete units. For water mains 8-inch diameter or less, the vault shall be 48-inch inside diameter. For water mains 10-inch diameter and greater, the vault shall be 60-inch inside diameter.

10. Frames and lids shall conform to Neenah Foundry R-1713 or approved equal and the word "WATER" shall be cast in the cover.

11. Casing - Spacers All joints within the casing shall be restrained. Spacers shall be installed on all pipe in casing. Spacers shall be bolt on style with a shell made in two sections of heavy t-304 stainless steel. Casing shall be filled with pea gravel or sand and sealed at both ends.

12. All ductile iron pipes and fittings are required to be encased in 8-mil polyethylene conforming to AWWA C-105.

13. It shall be the responsibility of the contractor to obtain and supply certification for all materials. Shop drawings shall be submitted to and approved by the City before installation.

14. Depth of bury for water main to be 5'-6" (minimum).

15. Installation shall conform to "Standard Specifications for Water and Sewer Main Construction in Illinois" latest edition.

FIRE HYDRANTS

1. Hydrant shall be FM approved and UL listed, shall conform to AWWA C-502, and shall have breakaway safety flanges.
2. Hydrants shall be Mueller Centurion, Waterous WB67-250, or Clow Medallion.
3. All bolts shall be stainless steel from and including the breakaway flange to the inlet on the hydrant shoe.
4. All hydrants shall have a bronze cross arm / top plate.
5. Connecting piping shall be six-inch (6") diameter shall be polyvinyl chloride plastic (PVC) pressure pipe per AWWA specification C-900, Class 150 (DR-18). The above pipe and fittings shall be furnished with elastomeric gasket joints conforming to ASTM F477.
6. Main Valve opening shall be five and one quarter inch (5-1/4") in diameter, compression type, with a brass drain valve.
7. Nozzles shall have threaded male ends conforming to "American National Standard Fire Hose Connection Screw Threads. The hydrant shall have two nozzles of 63 mm which are 2-1/2" and one pumper nozzle of 114 mm (4-1/2") with caps and chains.
8. Hydrants shall have a minimum working pressure of 175 psi.
9. Hydrants shall open in a counter-clockwise direction, as indicated by an arrow and the word "OPEN" on the dome.
10. Hydrants shall be painted a high visibility red, factory applied paint. Hydrants shall have a six-inch (6") auxiliary valve with box on the inlet piping. Valve shall meet water main piping

specifications for the City of Warrenville. Auxiliary valve attached to hydrant shall have stainless steel bolts at the flange inlet.

11. Connection of six-inch (6") piping shall be restrained joints from the tee at the water main to the inlet of the hydrant with field lock gaskets for push joint and MEGALUG retainer glands, or approved equal for mechanical joint.

WATER SERVICES

1. For water services 2-inch diameter and less shall be Type “K” copper OR ADS potable water service tubing (CTS) pipe SDR 9. Pipe requirements of ASTM D2737, AWWA C901 and NSF Standard 14 and 61. Pipe dimensions shall meet Copper Tubing Size (CTS) standards. Minimum service size of one-inch (1”) diameter. Non-copper services will require copper clad steel (SSC) blue tracer wire. See Watermain specifications for types.
2. Brass shall be Mueller or Ford. All brass is to have compression fittings. Compression fittings must be of the stainless full circle ring retainage. No set screws are allowed. Flair fitting are NOT acceptable.
3. B-Boxes shall be of the arch pattern design with a telescoping one and one quarter-inch (1-1/4") iron pipe upper section, pentagon nut access, enlarged base for 1-1/2" roundways and larger, manufactured in the USA.
4. Tapping saddle at minimum shall be epoxy coated ductile with two stainless steel bands. All stainless steel saddles are acceptable. Manufactured in USA.
5. All repair clamps shall be full circle stainless steel.
6. Depth of bury for water services to be 5’-6” (minimum) to 6’-6” (maximum).

SANITARY SEWER

1. All sanitary sewer and sanitary sewer service pipe shall be SDR 26 ASTM D-2241 and fittings shall meet the requirements of ASTM D-3139 or equivalent. Note: This is a pressure rated pipe.
2. Sanitary sewer services shall be a minimum of 6-inches in diameter. Cleanout should be provided (preferred outside of home).
3. All sanitary sewers shall be air and mandrel tested, and televised, including private commercial lines between inspection manhole and the public sanitary sewer. Copies of DVDs and reports shall be provided to the City.
4. Sanitary sewer manholes shall have openings for the pipe connections cast into the wall of the structure. Rubber gasketed coupling (boot) with stainless steel bands / retainers shall be per ASTM C-923.
5. When connecting to an existing manhole, the hole must be cored and a rubber gasketed coupling (boot) with stainless steel bands / retainers shall be per ASTM C-923. The bench

shall be removed and repoured, if necessary. Rubber boots/seals must be used where pipes enter manholes. The internal connection shall be dressed up with non-shrink hydraulic cement. Hydraulic cement, mortar, and concrete must be of the strength and water-tightness quality as specified in the ASTM standards

6. When connecting a new sanitary service to an existing sanitary sewer main without an existing wye, contact Public Works to determine which one of the two following methods shall be used:
   a. A section of the main shall be cut out to install a new wye. Connection between the existing sanitary sewer and the new wye shall be made with non-shear mission couplings with two stainless steel bands to a point where the coupling cannot shift.
   b. Core the existing main and make the connection with an INSERTA TEE connection or an approved equal
7. Sanitary manholes shall be pre-cast concrete units. For sanitary sewers 18-inch diameter or less, the manhole shall be 48-inch inside diameter. For sanitary sewers 21-inch diameter and larger, the manhole shall be 60-inch inside diameter.
8. Frames and lids shall conform to Neenah Foundry R-1713 or approved equal or otherwise noted in plans and the word "SANITARY" shall be cast in the cover. The lid shall be a self-sealing solid lid with watertight gasket and concealed pickhole. Any manhole within a floodplain shall have a watertight, boltdown frame and lid, Neenah R-1916-F1 or approved equal.
9. All commercial buildings shall have an inspection manhole.
10. Manhole sections and adjusting rings shall be sealed with butyl rope.
11. Sanitary manholes shall have a poured concrete bench.
12. Rings / steps shall be installed in manholes unless specifically prohibited.
13. External chimney seals (Cretex or approved equal) and MacWrap will be required with all sanitary manholes. The frame, chimney, and top "lip" of the cone section shall be required to be sealed with a chimney seal. This should be observed by the City prior to backfilling.
14. No ground water will be allowed to enter the sanitary sewer during or after construction.
15. No more than twelve inches (12") of adjusting rings are allowed.

STORM SEWER

1. All storm sewers 18-inch diameter and less shall be PVC SDR26 with pipes and fittings meeting ASTM D-3034.
2. All RCP storm sewers shall be installed with rubber gasket joints.

3. The minimum storm sewer size allowed in the public right-of-way will be 10-inch diameter unless conditions warrant a smaller size.

4. On private property, storm sewer installed to drain an existing depressional area shall generally be six-inch or eight-inch (6” or 8”) diameter, unless a larger size is supported by calculations.

5. Storm manholes and catch basins shall be pre-cast concrete units. For storm sewers 21-inch diameter or less, the manhole shall be 48-inch inside diameter. For storm sewers 24-inch through 42-inch diameter, the manhole shall be 60-inch inside diameter. For storm sewers 48-inch diameter and larger, the manhole shall be 72-inch inside diameter.

6. Rings / steps shall be installed in manholes unless specifically prohibited.

7. The minimum size structure shall be a 2-foot diameter precast concrete inlet, unless conditions warrant a different structure.

8. Frames and lids shall conform to Neenah Foundry R-1713 or approved equal and the word “STORM” shall be cast in the cover.

9. Allowable curb and parkway castings for inlets and catch basins:

    a. When a barrier curb is present, use a Neenah R-3275 frame and grate (for B-6.12 curb and gutter, widen gutter section to accommodate larger grate).

    b. For some slope conditions when a barrier type curb is present, a Neenah R-3065-L frame and grate may be used (for B-6.12 curb and gutter, widen gutter section to accommodate larger grate).

    c. When roll curb is present, use a Neenah R-3501-P frame and grate.

    d. In lawn areas, use beehive type grate, Neenah R-4340-B.

    e. In lawn areas where a lot of trees are present, in public right-of-way and in ditches, use stool type grate, Neenah R-4342.

    f. When applicable in parking lots or lawn areas, use round grate Neenah R-2502-A.

    Round grates will not be allowed in the street. Equivalent substitutions may be permitted, if approved by Public Works.

STANDARD CITY OF WARRENVILLE EROSION CONTROL NOTES

1. Sediment and erosion control devices shall be installed and functional before the site is otherwise disturbed. All runoff from disturbed areas shall be filtered by silt fence. In addition to silt fence, disturbed areas draining more than one acre but fewer than five acres shall incorporate a temporary sediment trap at the outfall and disturbed areas draining more than five acres shall incorporate a temporary sediment basin at the outfall.
2. If a stockpile is to remain in place for more than three days, it shall be surrounded by silt fence. If a stockpile is to remain in place for more than 7 days, it shall be protected with temporary seeding.
3. All flared end sections shall be protected by sediment traps and/or perforated riser pipes until ground cover has been established. Filter fabric or filter baskets shall be installed under all inlet and catch basin grates and shall be maintained until ground cover has been established.
4. Water pumped from the site shall be filtered through the use of a silt bag on the end of the discharge hose.
5. A specific area shall be designated as a concrete wash location and shall be surrounded by silt fence.
6. All soil, mud and construction debris washed, tracked or otherwise deposited on street pavement shall be removed immediately and a wash-down facility shall be provided for all construction vehicles leaving the site.
7. Vehicular access to the site shall be restricted to a temporary gravel construction entrance. The temporary construction entrance shall be installed before the start of construction and shall remain in place until the permanent driveway is installed.
8. Seed with mulch or erosion blanket, or sod, shall be placed on all disturbed areas within 7 days of top soil placement and final grading. Silt fence shall remain in place until a healthy stand of grass has been established.

■ ■ ■

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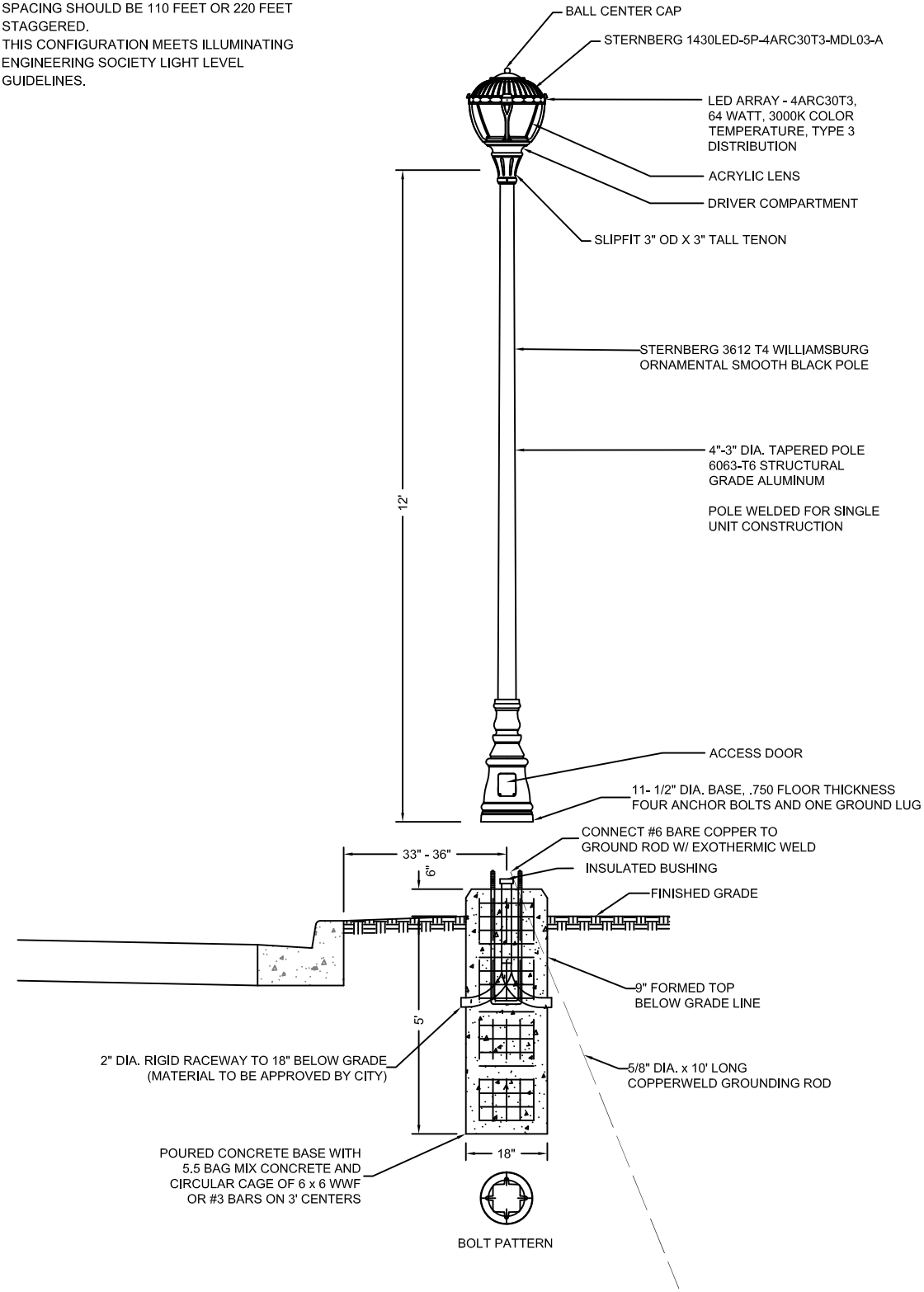
■ ■ ■

NOTES:

1. APPLICABLE FOR COLLECTOR STREET CLASSIFICATION WITH ONE TO TWO LEVEL SINGLE FAMILY OR MULTI-FAMILY.
2. SPACING SHOULD BE 110 FEET OR 220 FEET STAGGERED.
3. THIS CONFIGURATION MEETS ILLUMINATING ENGINEERING SOCIETY LIGHT LEVEL GUIDELINES.



WARRENVILLE

City of Warrenville Standard

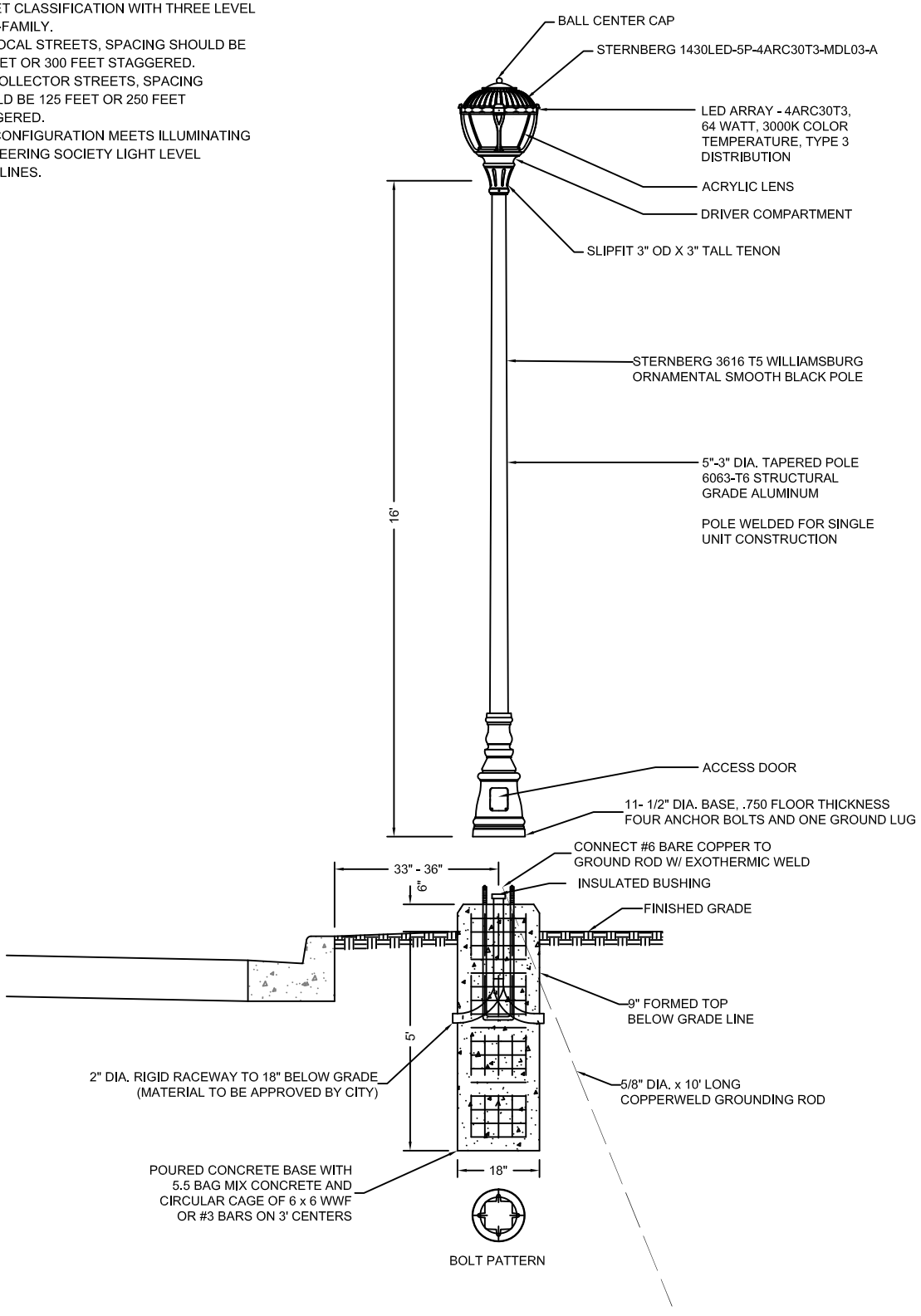
SL-01-12-64W

12' Ornamental Street Light Detail (64W)

DRAWN: KMH
REV:10-05-2018

NOTES:

1. APPLICABLE FOR LOCAL OR COLLECTOR STREET CLASSIFICATION WITH THREE LEVEL MULTI-FAMILY.
2. FOR LOCAL STREETS, SPACING SHOULD BE 150 FEET OR 300 FEET STAGGERED.
3. FOR COLLECTOR STREETS, SPACING SHOULD BE 125 FEET OR 250 FEET STAGGERED.
4. THIS CONFIGURATION MEETS ILLUMINATING ENGINEERING SOCIETY LIGHT LEVEL GUIDELINES.



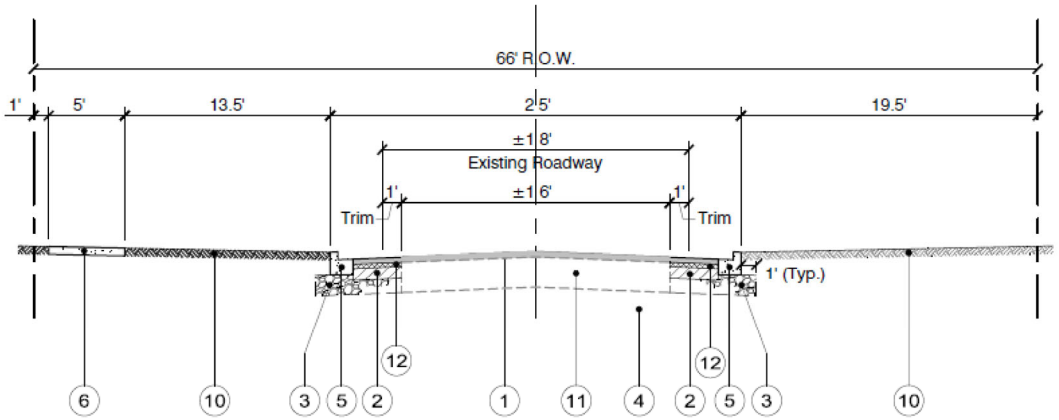
WARRENVILLE

City of Warrenville Standard

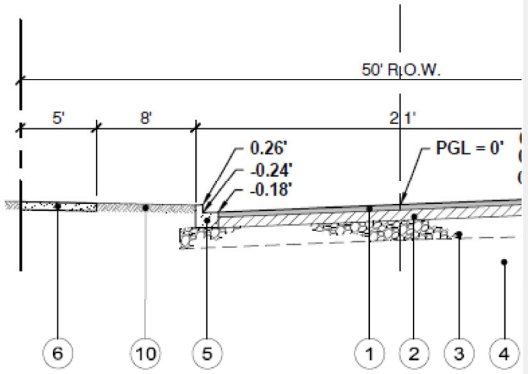
SL-01-16-64W

16' Ornamental Street Light Detail (64W)

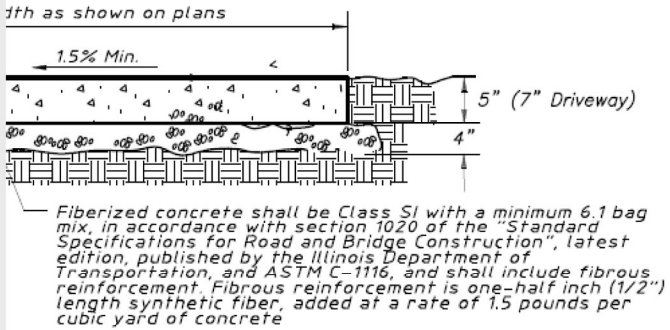
DRAWN: KMH
REV:10-05-2018



ESTES STREET



BRAYMAN COUR



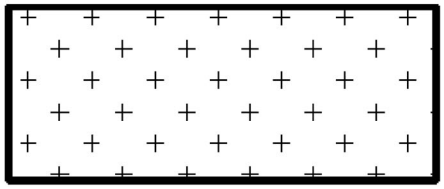
NT CONCRETE SIDEWALK

TYPICAL ROADWAY CROSS SECTIONS

(See Geometry Plans for Exact Depths & Locations)

1. HMA Surface Course, Mix D, IL-9.5, N50
2. HMA Binder Course, IL-19, N50
3. Aggregate Base Course, Type B, CA-6
4. Subgrade
5. B6.12 Curb & Gutter
6. 5' Wide - 5" Thick P.C. Sidewalk (7" thick through driveways)
7. HMA Surface Course, Mix D, N50
8. HMA Binder Course, IL-19, N50
9. Aggregate Base Course, Type B, CA-6
10. 6" Topsoil & Seed (All disturbed areas.)
11. Existing Roadway
12. 1" Leveling Binder

NOTE:
1. Developer shall provide street signs and street lighting in accordance with City of Warrenville requirements.
2. All curb returns at the intersection shall have 25' radius.
3. Landscaping shown is illustrative only. Plans by Gary R. Weber Associates, Inc.



Estes Road Pavement Milling & Widening

-Mill at Least 1" of Existing Surface

-Resurface w/ 2" HMA Surface Course, Mix D, N50

-Pavement Widening Shall Be:

- -1.5" HMA Surface Course, Mix D, N50
- -1" Leveling Binder
- -6.5" HMA Binder Course, IL-19, N50

DUPAGE COUNTY STORMWATER MANAGEMENT CERTIFICATION APPLICATION (1/2)

1. Community and Status	2. Date of Application	3. Stormwater Application No. (to be assigned by community)	4. DuPage County Tracking No.
Warrenville ☐ Non ☐ Partial ☑ Complete		3 2	

5. Applicant:

Name: _____

Company Name: _____

Address: _____

City, ST, Zip: _____

Phone: _____

Email: _____

6. Owner:

Name: _____

Company Name: _____

Address: _____

City, ST, Zip: _____

Phone: _____

Email: _____

7. Description of Proposed Development:

8. Location of Development:

Address: _____

_____

Municipality: Warrenville

Watershed Planning Area & Trib: West Branch DuPage River

9. Legal Description

_____ _____ _____

¼ Section Township Range

PIN _____ - _____ - _____ - _____

PIN _____ - _____ - _____ - _____

10. Check all of the conditions which apply:

☐ Flood Plain ☐ Stormwater Detention ☐ Best Management Practices ☐ Soil Erosion & Sediment Control

☐ Wetland ☐ Wetland Buffer ☐ Riparian Buffer

11. Acknowledgement of On-Site Infiltration PCBMPs

I acknowledge that I have used my best effort to identify zones for which on-site infiltration are prohibited for Post Construction Best Management Practices (PCBMPs) in accordance with the Ordinance (15-63.B)

_____ _____ _____

Signature of Applicant Print Name Date

12. Freedom of Information Act (FOIA)

I acknowledge that all architects' drawings, engineers' technical submissions and other construction-related technical documents containing stormwater management information submitted with this application may be made available for inspection or copying by the County, notwithstanding 5 ILCS 140/7(1)(k), upon the written request for such materials. Such productions will be restricted to the following parties: i) the Applicant ii) any subsequent owner of the subject property; or iii) any governmental unit having planning or drainage jurisdiction within 1 and ½ mile of the subject property.

_____ _____ _____

Signature of Applicant Print Name Date

_____ _____ _____

Signature of Owner Print Name Date

13. Statement of Opinion for Minimum Criteria for Stormwater Management

I am a Professional Engineer under the employment of the Applicant. It is my professional opinion that the development meets the minimum criteria for stormwater management in accordance with the Ordinance (15-36)

_____ _____ _____

Signature of Professional Engineer Print Name Date

_____ Community Copy _____ DuPage County SM Copy _____ Applicant Copy

DUPAGE COUNTY STORMWATER MANAGEMENT CERTIFICATION APPLICATION (2/2)

Community Tracking No: ___ ___ 3 2 ___ ___ ___ ___ ___	**DuPage County Tracking No:**

14. Statement of Opinion for Presence of Flood Plain, Wetlands, and Buffers (15-47-A.5)

☐ I acknowledge the presence of flood plain. ☐ I deny the presence of flood plain.	☐ I acknowledge the presence of wetlands. ☐ I deny the presence of wetlands.	☐ I acknowledge the presence of buffers. ☐ I deny the presence of buffers.
_____ _____ Signature of Qualified Professional Date	_____ _____ Signature of Qualified Professional Date	_____ _____ Signature of Qualified Professional Date
_____ Printed Name	_____ Printed Name	_____ Printed Name

15. Soil Erosion & Sediment Control Submittal Requirements (15-50.B)
(For developments with less than 1 acre of land disturbance that are not part of a larger common plan)

I certify that the development meets the soil erosion and sediment control design criteria found in Article VII have been met.

_____ _____ _____
Signature of Qualified Designer Print Name Date

16. Soil Erosion & Sediment Control Requirements (15-59.W) **(For developments with land disturbing activities greater than 1 acre)**

I acknowledge that the site complies with the IEPA NPDES ILR10 Permit.

_____ _____ _____
Signature of Applicant Print Name Date

17. Acknowledgement of Required As-Built Plans (15-47.B)

I acknowledge that a record drawing signed by either a Professional Engineer or a Professional Land Surveyor depicting the as-constructed size, rim, and invert elevations of pipes, stormwater structures and culverts, and contours and flood storage volumes of all required basins of the major stormwater systems and minor stormwater systems shall be submitted for review and approval upon completion of the stormwater facilities.

_____ _____ _____
Signature of Owner Print Name Date

18. Intentional Misrepresentation Under Penalty of Perjury

I declare that I have examined and/or made this application and rider, and it is true and correct to the best of my knowledge and belief. I realize that the information that I have affirmed hereon forms a basis for the issuance of the stormwater management certification(s) herein applied for and approval of plans in connection therewith shall not be construed to permit any construction upon said premises or use thereof in violation of any provision of any applicable ordinance or to excuse the owner or his successors in title from complying therewith. The Owner and Applicant each understand and agree to construct said improvement in compliance with all provisions of the applicable ordinances.

_____ _____ _____
Signature of Applicant Print Name Date

_____ _____ _____
Signature of Owner Print Name Date

DO NOTWRITE BELOW THIS LINE

19. Security (15-54)

Stormwater Facilities $ _____
Wetlands/Natural Area $ _____
SE/SC $ _____
Total $ _____

20. Stormwater Fees

Community Review $ _____
DCSM Review $ _____
Fee-in-Lieu $_____ Wetland $ _____ BMP

Seal/Stamp
Certifications expire December 31st of the third year of Certification or Authorization. whichever is earlier.

21. Final Approvals (See Certification letter for special conditions and general conditions.)

Community Certification _____ _____
Date Approved by/title

County Authorization _____ _____
Date Approved by/title

_____ Community Copy _____ DuPage County SM Copy _____ Applicant Copy

CITY EASEMENT PROVISIONS

A PERMANENT EXCLUSIVE EASEMENT IS HEREBY EXCLUSIVELY RESERVED FOR AND GRANTED TO THE CITY OF WARRENVILLE, ILLINOIS, AND ITS SUCCESSORS AND ASSIGNS (COLLECTIVELY “GRANTED”) IN, UPON, ACROSS, UNDER AND THROUGH THE AREAS LABELED “CITY EASEMENT” ON THIS PLAT FOR THE PURPOSE OF INSTALLING, CONSTRUCTING, INSPECTING, OPERATING, REPLACING, RENEWING, ALTERING, ENLARGING, REMOVING, REPAIRING, CLEANING AND MAINTAINING THE STORM SEWER, SANITARY SEWER, WATER MAIN AND APPURTENANCES (“UTILITIES”) TO EACH AND SUCH OTHER INSTALLATIONS AND SERVICE CONNECTIONS AS MAY BE REQUIRED TO FURNISH SERVICES TO SUCH PROPERTY AND ADJACENT AREAS, TOGETHER WITH THE RIGHT OF ACCESS ACROSS THE REAL ESTATE PLATTED HEREON FOR THE NECESSARY PERSONNEL AND EQUIPMENT TO DO ANY OR ALL OF THE ABOVE WORK. ALL SUCH UTILITY LINES SHALL BE UNDERGROUND ONLY. OTHER UTILITIES MAY INSTALL THEIR FACILITIES ACROSS THE CITY EASEMENT AREA, PERPENDICULAR, BUT NOT PARALLEL TO THE CITY’S UNDERGROUND UTILITY LINES.

NO PERMANENT BUILDINGS, ACCCESSORY STRUCTURES, FENCES OR ANY OTHER STRUCTURE THAT WOULD IMPEDE ACCESS TO THE UTILITIES OR FUNCTION OF THE SWALE SHALL BE PLACED ON THE EASEMENT, BUT THE PREMISES MAY BE USED FOR PAVED AREAS, DRIVEWAYS AND SIDEWALKS. TREES WITHIN THE EASEMENT SHALL BE PLANTED A MINIMUM OF FIVE FEET (5’) FROM THE CENTERLINE OF THE TREE TO THE CENTERLINE OF THE CITY UTILITY PIPE. THE CITY OF WARRENVILLE RESTORATION OBLIGATIONS SHALL BE LIMITED TO TOPSOIL AND SEED FOR TURF GRASS. THE OWNER SHALL BE RESPONSIBLE FOR THE REPAIR OF ALL PAVEMENT, SIDEWALK, CURB, AND ANY OTHER HARD SURFACE. THE OWNER SHALL BE RESPONSIBLE FOR THE REPLACEMENT OBLIGATIONS WITH RESPECT TO TREES AND SHRUBS AND OTHER LANDSCAPING REFLECTING ON THE ORIGINAL LANDSCAPE PLAN APPROVED BY THE CITY OF WARRENVILLE FOR SUCH LOCATIONS.