Village of Downers Grove

Planning and Zoning Commission – Agenda

Table 1 - Detailed information on the Planning and Zoning Commission Meeting.

Meeting Location	Civic Center – Betty Cheever Council Chambers
Meeting Address	850 Curtiss St., Downers Grove, IL 60515
Meeting Date	May 4, 2026 at 7:00 PM

Call to Order.

Roll Call.

Public Hearings.

26-PZC-0011:

The petitioner is seeking approval of a Special Use to operate a car wash, and associated variances. The property is currently zoned B-3, General Services and Highway Business. The property is located approximately 330 feet southwest of the intersection of Butterfield Road and Downers Drive, commonly known as 1341 Butterfield Road, Downers Grove, IL (PIN: 06-30-409-022). Vincenzo Finazzo, Petitioner and Butterfield Commercial, Owner.

26-PZC-0012:

The petitioner is seeking approval of a Special Use in the Downtown Transition (DT) zoning district to operate a dental office on the first floor of an existing building. The property is located approximately 200 feet southeast of the intersection of Washington Street and Curtiss Street, commonly known as 5145 Washington Street, Downers Grove, IL (PIN: 09-08-307-006). Keith Bram, Petitioner and Bart Two Properties LLC, Owner.

26-PZC-0013:

The petitioner is seeking approval of a Special Use in the Residential Apartment/Condo 6 (R-6) zoning district to construct an accessory structure on a lot of record prior to the construction of a principal structure. The property is located approximately 210 feet west of the intersection of Fairview Avenue and 2nd Street, commonly known as 417 2nd Street, Downers Grove, IL (PIN: 09-08-411-026). Oakley Home Builders, Petitioner and Jeffery Wiklund, Owner.

26-PZC-0015:

The petitioner is seeking approval of a Planned Unit Development Amendment in the General Services and Highway Business/ Planned Development #68 (B-3/P.D. #68) zoning district to construct a new automobile dealership. The property is located directly northwest of the intersection of Florence Avenue and Ogden Avenue, commonly known as 330 Ogden Avenue, Downers Grove, IL (PINs: 09-04-110-023, -024, -026, -027, -028, -029, -030, 09-04-111-012, -027, -028). Axios Architects & Consultants Inc. Petitioner and Patricia Enterprises, Owner.

Public Comments.

Adjournment.

Village of Downers Grove

Planning and Zoning Commission - Report

Table 1 - Detailed information on this Planning and Zoning Commission Report.

Meeting Location	Civic Center – Betty Cheever Council Chambers
Meeting Address	850 Curtiss St., Downers Grove, IL 60515
Meeting Date	May 4, 2026 at 7:00 PM
Subject	25-PZC-0034. 1341 Butterfield Road
Type	Special Use and Variations
Submitted by	Carter Moran, Planner

Request.

The petitioner is requesting approval for a Special Use and Variations to construct and operate a car wash at 1341 Butterfield Road.

Notice.

The application has been filed in conformance with applicable procedural and public notice requirements.

General Information.

Table 2 – Details about the applicant's identity and location.

Applicant Name	**Applicant Address**
Vincenzo Finazzo	555 South Old Woodward Avenue, Suite 12L. Birmingham, Michigan 48009

Table 3 - Property ownership details for primary and additional owner(s).

Owner Name	Owner Address
Butterfield Commercial	32 South La Grange Road, La Grange, Illinois 60525

Property Information.

Table 4 - Detailed subject property summary (parcel identification, size, and zoning)

Existing Zoning	B-3, General Services and Highway Business
Existing Land Use	Regional Commercial
Property Size	47,606 square feet (1.10 acres)
PIN	06-30-409-022

Table 5 - Details regarding the surrounding properties, zoning, and land uses.

Direction	Zoning	Future Land Use
East	B-3, General Services and Highway Business	Regional Commercial
West	B-3, General Services and Highway Business	Regional Commercial
North	B-3, General Services and Highway Business	Regional Commercial
South	B-3, General Services and Highway Business	Regional Commercial

Analysis.

Submittals.

This report is based on the following documents, which are on file with the Department of Community Development:

1. Project Narrative
2. Approval Criteria
3. Plat of Survey
4. Site Plan
5. Engineering Plans
6. Landscape Plans
7. Elevations
8. Traffic Impact Study
9. Photometric Plan

Project Description.

The petitioner is proposing to construct a car wash and related parking lot improvements. The 1.10-acre property is located at the southwest corner of the Butterfield Frontage Road and Downers Drive and is zoned B-3, General Services Highway Business.

The petitioner is requesting the following approvals:

- Special Use for a Car Wash
- Variation to allow the car wash lane to encroach into the street setback
- Variation to allow for a reduction in the number of required drying spaces

The petitioner is proposing to demolish the existing building on the subject property and construct a new 3,720 square foot car wash and twenty (20) associated vacuum-equipped parking stalls. Additional improvements include a freestanding canopy overhanging the two pay stations and proposed canvas attendant hut, as well as a trash enclosure to serve the car wash. The vacuum producer will be located on a central parking lot island with doors opening north towards the main wash building. The car wash building façade will be composed of white and light grey EIFS material, with magenta and blue EIFS accenting the roofline. The proposed building includes two towers at either end of the wash, bringing the overall building height to thirty-five feet.

Landscaping will be provided in and around the site, including along the north side by the proposed building and the south property line, the only side directly abutting another commercial property. Parking lot and site lighting is provided around the proposed development. A photometric plan has been submitted identifying that the proposed lighting complies with the Village requirements.

The proposed building will be served by the existing parking lot access points on Butterfield Frontage Road and Oak Grove Road to the west. The proposed car wash stacking lane includes twenty-six (26) spaces. Pedestrian access is proposed from the sidewalk along the Butterfield Frontage Road and circulates throughout the site. The site will include bicycle parking accessible from this connection.

Compliance with the Comprehensive Plan.

The Guiding DG Comprehensive Plan's Future Land Use Map designates the subject property as Regional Commercial. Regional Commercial uses are defined as commercial uses that provide goods and services that draw patrons from within, and beyond Downers Grove. Retail and service businesses in this area benefit from visibility and access without significantly contributing to traffic along the corridor or impact on nearby residential areas. The petitioner is proposing to redevelop the site with a drive-through car wash. The car wash, being an automotive use, has a

regional draw and will attract commuters driving to, from, and throughout Downers Grove.

Economic Development: Continue Investment in the Butterfield and Finley Road Area.

- Ensure that the Butterfield Road corridor is resilient to changing commercial and office market conditions.
- Continue to require pedestrian connections throughout developments and redevelopments that connect to the public right-of-way.
- Maintain quality of life for the corridor's residents and ensure access to businesses and jobs.
- Leverage the unique location of this corridor adjacent to two highways to attract new retail and office tenants.

Land Use and Development: Land Use Plan.

- Commercial uses should be located in areas with a regional draw of a corridor where they will benefit from access and visibility without significantly contributing to traffic or impact on nearby residential areas.

The proposed request is consistent with the Guiding DG Comprehensive Plan

Compliance with the Zoning Ordinance.

The property is currently zoned B-3, General Services and Highway Business.

Requirements.

Table 6 - Zoning regulations for proposed development.

Zoning Regulation	Required	Proposed
Street Setback: Building North	25 feet	26.2 feet
Street Setback: Building East	25 feet	45.4 feet

Zoning Regulation	Required	Proposed
Street Setback: Building West	25 feet	72.7 feet
Street Setback: Parking North	25 feet	28.7 feet
Street Setback: Car Wash Lane	25 feet	**9.6 feet [1]**
Street Setback: Parking West	25 feet	25 feet
Side Interior Setback: South	0 feet	142 feet
Height: Building Maximum	60 feet	35 feet
Landscape Open Space Minimum	10 %	36.2 %
Floor Area Ratio Maximum	0.75	0.08
Parking Spaces Minimum	1 space	20 spaces
Stacking Spaces Minimum	6 spaces	26 spaces
Drying Spaces Minimum	2 spaces	**1 space [1]**

[1] A variance is required for this zoning regulation as described in the next section.

Variance Requests.

As highlighted in the table above, the petitioner is requesting two (2) variations from the Zoning Ordinance for the car wash lane setback and minimum drying space requirements. The queuing lane for the proposed car wash building will not expand the parking surface farther into the street setback along Downers Drive, so a nonconformity is not being expanded. However, its designation as a drive-through lane for the car wash means that it requires a variation.

As for the single drying space, the petitioner has specified that its standard designs include only one drying space, and that their other locations operate without traffic buildup due to this design feature. If the lanes do back up, the queuing spaces on the south side of the parking area provide adequate space for waiting customers.

Lastly, staff is also supportive of the variation requests noting that the existing lot is at a depth and lot area that is not typical in this corridor, which makes it difficult

place the car wash lane, setback from the right-of-way, that would be afforded on other commercial outlots in the corridor.

The Variations are summarized in the table below:

Table 7 - Zoning Variations Summary

Zoning Regulation	Required	Proposed	Zoning Regulation	Petitioner Reasoning
Street Setback: Parking (East)	25 feet	9.6 feet	28.3.030	Granting the variation preserves the existing spatial relationship between the property and Downers Drive and will not alter the character of the locality in any meaningful way.
Drying Spaces Minimum	2 spaces	1 space	28.7.130(c)	The number of drying spaces is an internal operational detail with no obvious or experiential impact on the surrounding area.

Signage.

Signage is not part of this petition, and any signage proposed for the development shall comply with the Zoning Ordinance requirements through a separate sign permit application.

Engineering and Public Improvements.

The petitioner's proposal complies with the Village's Stormwater and Floodplain Ordinance. The proposal includes the redesign of the existing stormwater management system, whereby the existing parking lot surface stormwater storage basin will be replaced by a new array of drains connected to an underground water storage basin. This catch basin will deposit stormwater into the adjacent storm sewer line along the Butterfield Frontage Road.

Traffic and Parking.

A traffic impact study for the proposed development was completed by the petitioner. The study examined the existing traffic conditions along Butterfield Road, Downers Drive, and Oak Grove Road and the future conditions based on the proposed car wash. Access to the site is provided by access points on Oak Grove Road and Butterfield Frontage Road. Customers will circulate counter-clockwise through the car wash and the vacuum-equipped parking spaces. The quantity of twenty-six stacking spaces in the two proposed lanes more than satisfies the requirement of six stacking spaces as required by the Zoning Ordinance. The traffic study found no significant impacts to the existing road network.

Public Safety Requirements.

The Fire Prevention Division has reviewed the proposed development and determined that sufficient access to and around the site is provided for emergency vehicles. The current proposal will be reviewed for compliance with the Fire Prevention Ordinance during the building permit review.

Neighborhood Comment.

Notice was provided to all property owners 250 feet or less from the property in addition to posting public hearing notice signs and publishing the legal notice in the Daily Herald. Staff received one inquiry by phone which was general in nature.

Standards of Approval.

The petitioner has submitted a narrative that attempts to address all the standards of approval. The Planning and Zoning Commission should consider the petitioner's documentation, the staff report and the discussion at the Planning and Zoning Commission meeting in determining whether the standards for approval have been met.

The petitioner is requesting a Special Use and Variations to construct and operate a car wash at 1341 Butterfield Road. The review and approval criteria for each request are listed below.

Special Uses, Sec 28.12.050(h) Review and Approval Criteria.

(1) that the proposed use is expressly authorized as a special use in the district in which it is to be located;

(2) that the proposed use will not, in the particular case, be detrimental to the health, safety, or general welfare of the community;

(3) that the proposed use will not be injurious to the use and enjoyment of other property in the immediate area for the purposes already permitted, nor substantially diminish or impair property values within the neighborhood;

(4) that the establishment of the special use will not impede the normal and orderly development and improvement of adjacent property for uses permitted in the district.

Variations, Sec 28.12.090(g)(2) Review and Approval Criteria.

a. the subject property cannot yield a reasonable return if required to comply with the regulations that apply to it;

b. the plight of the owner is due to unique circumstances; and

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

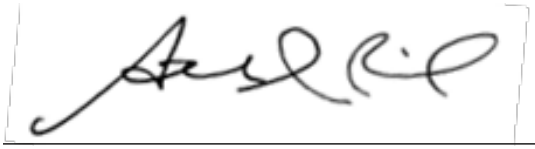
Draft Motion.

Staff will provide a recommendation at the May 4th, 2026 meeting. Should the Planning and Zoning Commission find that the request is consistent with the Comprehensive Plan and meets the requirements of the Zoning Ordinance, staff has prepared a draft motion that the Planning and Zoning Commission may make for a recommendation of approval of 26-PZC-0011:

Based on the petitioner's submittal, the staff report, and the testimony presented, I find that the petitioner has met the standards of approval for a Special Use and two (2) variations to construct and operate a car wash as required by the Village of Downers Grove Zoning Ordinance and is in the public interest and therefore, I move that the Planning and Zoning Commission recommend to the Village Council approval of 26-PZC-0011, subject to the following conditions:

1. The lots commonly known as 1341 Butterfield Road shall be consolidated into one lot of record by the petition.
2. The petitioner shall provide a plat of abrogation and/or modification for private commercial detention basin upon final development of the site.
3. A recorded Hold Harmless agreement shall be filed by the applicant to indemnify the Village from enforcement of a private 15-foot building line along the north property line. The recorded agreement shall be provided by the applicant prior to the issuance of any permit.

Staff Report Approved By:



Stanley J. Popovich, AICP
Director of Community Development



N

210 105 0 210 Feet

1341 Butterfield Road - Location Map

Subject Property

Site Location

STONEFIELD

February 27, 2026

Stan Popovich
Director of Community Development
850 Curtiss Street
Village of Downers Grove, IL 60515

RE: 1341 Butterfield Road
Proposed Auto Wash
1341 Butterfield Road
Village of Downers Grove,
DuPage County, IL 60515

Stan:

Our office is submitting a Project Narrative on behalf of the Applicant to submit plans for site plan & special use review.

The proposed development introduces a modern 120-foot automated car wash facility designed to provide efficient vehicle processing while expanding customer service options on site. The primary wash tunnel is engineered for high-throughput exterior cleaning and is supported by high efficiency blow dryers within the tunnel exit, drying vehicles prior to exiting the wash, removing the need for a post wash drying lane. This operational configuration reduces on-site queuing, improves circulation efficiency, and enhances the overall customer experience.

The site layout incorporates 20 vacuum parking stalls, each equipped for self-service interior / exterior cleaning. These stalls are arranged to promote two-way circulation, and ensure smooth transitions between the wash tunnel, and vacuum stations.

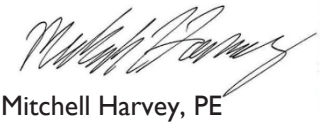
A new domestic water service connection will be installed to supply the wash equipment, restroom facilities, and general building needs. The sanitary system will connect to the existing municipal sewer network and includes a three-stage reverse osmosis water reclamation tank system capable of reusing up to 90% of the water from wash to wash. This significantly reduces potable water demand and limits discharge volumes to the public sewer system. New electrical and natural gas services will be extended to the building to support wash tunnel equipment, mechanical systems, lighting, and overall site operations. All utility routes will be coordinated with local providers to avoid conflicts with existing infrastructure.

The development will also include all required stormwater management facilities in accordance with Municipal Code. These improvements are designed to ensure the proposed project does not overburden the existing stormwater system and that runoff is properly managed, treated, and conveyed.

The proposed car wash facility has been thoughtfully designed to balance operational efficiency, customer convenience, and responsible site engineering. The combination of self-service vacuum stalls, post wash dryers, and two-way circulation supports safe and orderly circulation throughout the site. The planned utility improvements and stormwater infrastructure ensure compliance with all applicable municipal standards while minimizing environmental impacts. Overall, the project will provide a well-organized, high-quality service amenity for the community.

Should you have any questions regarding the submission items or responses above please do not hesitate to contact our office.

Regards,



Mitchell Harvey, PE
Stonefield Engineering and Design, LLC



Vincenzo Finazzo
Stonefield Engineering and Design, LLC

V:\DET\2025\DET-250217 Alrig & El Car Wash - 1 E Rand Road, Mount Prospect, IL\Correspondence\Outgoing\Municipal\2026-02-06_Municipal Response Letter.docx

Special Uses

Review and Approval Criteria

Form #PZC2

Address of Project Site: 1341 Butterfield Road

A detailed response to all of the standards shall be provided, specifying how each standard is or is not met.

Section 28.12.050.H. Approval Criteria (Special Uses)
No special use may be recommended for approval or approved unless the respective review or decision-making body determines that the proposed special use is consistent with and in substantial compliance with all Village Council policies and plans, including, but not limited to, the Comprehensive Plan and the Downtown Design Guidelines and that the applicant has presented evidence to support each of the following conclusions:

1. That the proposed use is expressly authorized as a Special Use in the district in which it is to be located.

   The proposed car wash meets this standard. Pursuant to Table 5-1 of the Zoning Code, a car wash is a special use in the B-3 District. Pursuant to Section 28.5.050 of the Zoning Code, a car wash falls under the definition of "Personal Vehicle Repair and Maintenance," which is defined as "[u]ses engaged in repairing, installing or maintaining the mechanical components of autos, small trucks or vans, motorcycles, motor homes or recreational vehicles including recreational boats. Also includes uses that wash, clean or otherwise protect the exterior or interior surfaces of these vehicles. Does not include vehicle body or paint finishing shops."

2. That the proposed use will not, in the particular case, be detrimental to the health, safety, or general welfare of the community.

   The proposed car wash meets this standard. The proposed car wash has been designed to minimize operational impacts on surrounding properties and the environment. The facility uses biodegradable cleaning products and a comprehensive on-site waste management process that removes solids before directing remaining liquids to the sanitary sewer system for proper treatment in accordance with Village regulations. A PurWater Reclaim System recycles nearly 90% of water used during operations, significantly reducing consumption and preventing contaminated runoff from entering the storm sewer, consistent with local sustainability goals and environmental protection standards.
   All washing equipment is enclosed within the tunnel structure, and vacuum stations are canopied to limit noise. Hours of operation are confined to daytime and early evening, and on-site circulation is designed to prevent vehicle stacking onto adjacent roadways. The facility is professionally managed and continuously supervised. Notably, the El Car Wash corporate headquarters is located above an active car wash in Doral, Florida, a reflection of our confidence in the clean, quiet, and non-nuisance nature of the use.

3. That the proposed use will not be injurious to the use and enjoyment of other property in the immediate area for the purposes already permitted, nor substantially diminish or impair property values within the neighborhood.

   The proposed car wash meets this standard. The proposed car wash will not generate odors, smoke, noise, or other nuisances at levels that would interfere with the use or enjoyment of neighboring properties. Car wash equipment is housed within an enclosed tunnel structure, which contains and attenuates any operational noise at the source. Vehicle traffic associated with the car wash is contained within the site's internal drive aisles and stacking lanes, and the site's access via Frontage Road and Oak Grove Drive channels customers away from Butterfield Road in a manner that minimizes any impact on the broader circulation network. The use does not generate the kind of sustained or late-night activity that may affect nearby properties. The proposed car wash will draw brief, transactional visits rather than extended congregating.
   The aesthetic and professionally operated car wash will serve as a stabilizing commercial use within the Butterfield Road corridor. It will activate an underutilized commercial parcel and provide a service that benefits surrounding businesses and residents alike. The proposed car wash includes architectural improvements and site enhancements that will upgrade the appearance of the subject property relative to its current condition, which supports surrounding property values. The proposed car wash will not impair the enjoyment of neighboring properties or diminish values within the neighborhood.

4. That the establishment of the special use will not impede the normal and orderly development and improvement of adjacent property for uses permitted in the district.

   The proposed car wash meets this standard. The establishment of a car wash at this location will not impede the normal and orderly development or improvement of any adjacent property. The car wash is a self-contained use, with all activity occurring within the site. Traffic is internalized through on-site circulation and stacking.
   The Butterfield Road corridor is already developed with a variety of commercial uses that are consistent with their respective zoning district, and the introduction of a car wash does not foreclose or discourage any permitted use on neighboring properties. If anything, the redevelopment of this parcel with an active, professionally operated commercial use supports the continued vitality of the Butterfield Road corridor and is more likely to encourage investment in adjacent properties than to impede it.

Variations

Review and Approval Criteria

Address of Project Site: 1341 Butterfield Road

A detailed response to all of the standards shall be provided, specifying how each standard is or is not met.

Section 28.12.090.G. Approval Criteria (Variations)
Variations require evaluation per Section 28.12.090 of the Municipal Code, *Standards and Review Criteria*: "No variation may be approved unless the variation to be approved is consistent with the spirit and intent of this zoning ordinance and that strict compliance with the subject provisions would result in practical difficulties or particular hardships for the subject property owner. The consideration of whether a variation request has met the standards of practical difficulties or particular hardships must include all of the following findings from the evidence presented:"

1. The subject property cannot yield a reasonable return if required to comply with the regulations that apply to it.

Drying space: The proposed car wash meets this standard. A car wash's financial viability depends directly on vehicle throughput. The drying area is critical to maintain operational flow: if vehicles cannot clear the exit efficiently, the entire operation slows or stops. On this parcel, accommodating two drying spaces would compromise internal circulation, creating conflicts that would undermine the operation. A car wash that cannot achieve functional throughput cannot generate the return necessary to justify the investment required to construct and operate the facility. One properly dimensioned drying space allows the facility to operate efficiently within the physical limits of the site and yield a reasonable return without any adverse impacts on any of the surrounding properties and without creating any adverse impacts on traffic, parking, or other circulation issues. Further, the car wash does not need a second drying space as there are no employees physically drying vehicles, vehicles are dried as they exit with the high efficiency blow dryers.
Stacking lane: The proposed car wash meets this standard. The stacking lane at the tunnel entrance on the east side of the subject property is proposed at a setback of 9.6 feet from the eastern property line, matching the existing curb location already established along the site's frontage. The 25-foot setback requirement, if strictly enforced, would push the tunnel entrance and associated stacking lane so far into the interior of the site that the car wash tunnel itself could not be accommodated at a viable length or orientation. Compliance with the 25-foot stacking setback would make it impossible to construct a functionally adequate car wash on the subject property, effectively eliminating any reasonable economic return from the proposed car wash.

2. The plight of the owner is due to unique circumstances.

Drying space: The proposed car wash meets this standard. The unique circumstance here is the location of the existing ingress/egress point on Frontage Road that will remain in place. The proposed car wash tunnel must be positioned in a way that considers the traffic pattern of the subject property. A second drying space is not feasible due to the compact size of the subject property.
Stacking lane: The proposed car wash meets this standard. The unique circumstance here is the location of the existing curb line at 9.6 feet from the eastern property line, a condition that predates the current ownership and the development proposal. The curb was established as part of the existing parking lot and drive aisle within the subject property. This is not a circumstance of the owner or applicant's making, nor is it a condition shared generally by other properties in the B-3 zoning district.

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

Drying space: The proposed car wash meets this standard. The essential character of the Butterfield Road corridor is defined by commercially developed properties serving retail and service uses. A car wash is entirely consistent with this character regardless of whether it operates with one or two drying spaces. The number of drying spaces is an internal operational detail with no obvious or experiential impact on the surrounding area. It is imperceptible to adjacent property owners, neighboring businesses, or the traveling public. Granting this variation will not change what the facility looks like or how it relates to the broader commercial character of the area.
Stacking lane: The proposed car wash meets this standard. The stacking lane setback variation relates to the tunnel entrance along the site's interior frontage on Downers Drive. The proposed 9.6-foot setback does not introduce a new or incompatible condition; it simply aligns the stacking lane with the existing curb line that was established prior to the proposed development of the site. The proposed development does nothing to push any element closer to the road than what already exists. Granting the variation preserves the existing spatial relationship between the property and Downers Drive and will not alter the character of the locality in any meaningful way.

"In addition, the hearing body must also take into consideration the extent to which the following facts, favorable to the property owner, have been established by the evidence:"

1. That the particular physical surroundings, shape, or topographical conditions of the subject property would result in a particular hardship upon the owner, as distinguished from a mere inconvenience, if the strict letter of the regulations were carried out.

Drying space: The evidence establishes that the physical characteristics of the subject property impose a hardship on the owner. The request to reduce the required end-of-lane drying spaces from two to one is driven by the parcel's limited buildable area and the need to safely accommodate internal circulation, stacking, and access drives. Strict compliance would require a relocation of the access points to the subject property and reallocation of circulation space, which would affect traffic within the greater commercial area and inefficient vehicle maneuvering about the subject property.
Stacking lane: The evidence establishes that the physical characteristics of the subject property impose a hardship on the owner. The proposed stacking lane at the tunnel entrance is set back 9.6 feet, consistent with the existing curb line along Downers Drive. The required 25-foot setback cannot reasonably be achieved due to the parcel's buildable area. Pushing the stacking lane further into the site to meet the 25-foot requirement would materially reduce internal circulation space, compromise safe vehicle maneuvering, and potentially reduce the stacking capacity necessary to prevent vehicles from backing up toward Oak Grove Road or Frontage Road.

2. That the conditions leading to the need of the requested variation are not applicable, generally, to other properties within the same zoning classification.

Drying space: The evidence establishes that the conditions necessitating the requested variation are not applicable to other properties within the B-3 zoning district. The requested reduction from two to one end-of-lane drying spaces is tied directly to the parcel's size and the necessary alignment of the wash tunnel and internal drive aisles. Many other properties within the B-3 zoning district are either larger or have alternative access points that would allow strict compliance without impairing circulation. The need for relief here is specific to how this particular lot must accommodate stacking, tunnel orientation, and interior drives within a confined footprint.
Stacking lane: The evidence establishes that the conditions necessitating the requested variation are not applicable to other properties within the B-3 zoning district. The stacking lane setback variation results from the relationship between the required stacking length, the tunnel entrance location, and the parcel's limited depth. Shifting the stacking lane to achieve the full 25-foot setback would materially reduce on-site maneuvering space and compromise safe vehicle circulation. Not all properties in the B-3 zoning district are constrained by the same combination of shallow lot depth and limited ability to accommodate internal site circulation.

3. That the alleged difficulty or hardship was not created by the current property owner.

Drying space: The hardship was not created by the property owner or applicant. The need to reduce the end-of-lane drying spaces from two to one arises from the parcel's size and required internal circulation, not from any action of the applicant. Strict compliance would impair safe maneuvering and stacking within the confines of the lot. The hardship results from the subject property's physical configuration and the application of the ordinance standards, rather than any self-created condition.
Stacking lane: The hardship was not created by the property owner or applicant. The requested reduction of the stacking lane setback from 25 feet to 9.6 feet is driven by fixed site conditions, including the existing curb line, right-of-way, and lot size. Relocating the stacking lane to meet the full setback would compromise internal circulation and stacking capacity. The hardship stems from inherent site constraints, not from any action of the applicant.

4. That the proposed variation will not impair an adequate supply of air to adjacent property, or substantially increase the danger of fire, or otherwise endanger the public safety, or substantially diminish or impair property values within the neighborhood.

Drying space: The proposed variation will not impair the above qualities. The reduction from two to one end-of-lane drying spaces will not affect building height or lot coverage and therefore will not impair light or air to adjacent properties. The drying area will not alter fire access, building separation, or emergency vehicle maneuvering. Operations will be fully contained on-site, with modern drying equipment that minimizes congestion and time spent on the subject property. As such, the variation will not endanger public safety or negatively impact surrounding property values.
Stacking lane: The proposed variation will not impair the above qualities. The reduced stacking lane setback from 25 feet to 9.6 feet does not involve any change to building height or intensity and will not affect air circulation or fire safety. The stacking lane is designed to safely accommodate anticipated vehicle volumes without spillback onto adjacent streets. The configuration maintains adequate access for emergency vehicles and preserves orderly site circulation. Because the overall scale and appearance of the development remain consistent with surrounding commercial uses, the variation will not diminish or impair neighborhood property values.

5. That the proposed variation will not alter the essential character of the area.

Drying space: The proposed variation will not alter the essential character of the area. The proposed car wash, including a single drying space, maintains the commercial character by providing a service-oriented use that complements surrounding businesses. The reduction does not change intensity, scale, or design compatibility and therefore is consistent with the existing development pattern.
Stacking lane: The requested stacking lane setback variation will not alter the essential character of the area because the existing parking and interior drive area on the subject property are set back the same distance as proposed for the car wash.

6. That the granting of the variation will not confer on the subject property owner any special privilege that is not available to other properties or structures in the same district.

Drying space: The granting of the variation will not confer a special privilege onto the owner or applicant. The requested reduction from two to one end-of-lane drying spaces applies only to car wash operations and does not otherwise confer a special privilege, but rather allows reasonable operational functionality given the site's physical constraints.
Stacking lane: The granting of the variation will not confer a special privilege onto the owner or applicant. The requested reduction of the stacking lane setback does not provide a unique benefit unavailable to similarly situated properties. The relief is limited and site-specific, addressing the parcel's depth and internal circulation needs without expanding development rights or increasing operational intensity.

ALTA/NSPS LAND TITLE
AND TOPOGRAPHIC SURVEY

LEGAL DESCRIPTION:

LOT 17 (EXCEPT THE SOUTH 83 FEET THEREOF) AND LOT 18 (EXCEPT THE SOUTH 83 FEET THEREOF) IN OAK GROVE CENTRE OF COMMERCE UNIT THREE, BEING A SUBDIVISION OF PART OF THE SOUTH EAST 1/4 OF SECTION 30, TOWNSHIP 39 NORTH, RANGE 11 EAST OF THE THIRD PRINCIPAL MERIDIAN, ACCORDING TO THE PLAT THEREOF RECORDED FEBRUARY 1, 1978 AS DOCUMENT R78-09661 AND CORRECTED BY DOCUMENTS R78-27328, R78-94193 AND R78-123102 RESPECTIVELY, IN DUPAGE COUNTY, ILLINOIS.



VICINITY MAP
NO SCALE

SCHEDULE B EXCEPTIONS:

28. BUILDING SETBACK LINE(S) AS SHOWN ON THE PLAT OF SUBDIVISION RECORDED AS DOCUMENT NO. R78–09661.

(AFFECTS THE WEST 8 FEET OF LOT 17, AND THE NORTH 15 FEET OF LOTS 17 AND 18)

29. EASEMENTS FOR SIDEWALK AND SEWER, AS SHOWN ON THE PLAT OF SUBDIVISION RECORED AS DOCUMENT NO. R78–09661.

(AFFECTS THE WEST 8 FEET OF LOT 17)

30. EASEMENTS FOR SEWER AND WATER, AS SHOWN ON THE PLAT OF SUBDIVISION RECORDED AS DOCUMENT NO. R78– 09661.

(AFFECTS THE NORTH 15 FEET OF LOTS 17 AND 18)

31. EASEMENTS FOR PUBLIC UTILITIES, AS SHOWN ON THE PLAT OF SUBDIVISION RECORDED AS DOCUMENT NO. R78– 09661.

(AFFECTS THE EAST 10 FEET OF LOT 18)

32. EASEMENTS FOR PUBLIC UTILITIES, AS SHOWN ON THE GRANT OF EASEMENT RECORDED FEBRUARY 06, 1979 AS DOCUMENT NO. R79–011244.

(AFFECTS THE NORTH 10 FEET OF THE SOUTH 88 FEET OF LOTS 17 AND 18)

33. TERMS AND CONDITIONS OF THE EASEMENT PROVISIONS NOTED ON THE PLAT OF SUBDIVISON.

34. TERMS, PROVISIONS AND CONDITIONS OF THE DECLARATION OF RESTRICTIVE COVENANTS AS SET FORTH ON THE PLAT OF OAK GROVE CENTRE OF COMMERCE UNIT THREE, RECORDED FEBRUARY 02, 1978 AS DOCUMENT R78–09661.

35. TERMS, PROVISIONS AND CONDITIONS OF THE DRAINAGE COVENANTS AS SHOWN ON THE PLAT OF OAK GROVE CENTRE OF COMMERCE UNIT THREE, RECORDED FEBRUARY 02, 1978 AS DOCUMENT R78–09661.

36. COVENANTS, CONDITIONS AND RESTRICTIONS CONTAINED IN THE PLAT OF SUBDIVISION RECORDED FEBRUARY 02, 1978 AS DOCUMENT NO. R78–09661 RELATING TO AMONG OTHER THINGS: USE OF THE PREMISES, LOADING DOCKS, PARKING, LANDSCAPING, STORAGE FACILITIES, AND STORM WATER DETENTION.

NOTES:

REGARDING SCHEDULE A:

LOT 17 (EXCEPT THE SOUTH 83 FEET THEREOF) AND LOT 18 (EXCEPT THE SOUTH 83 FEET THEREOF) IN OAK GROVE CENTRE OF COMMERCE UNIT THREE, PER DOCUMENT R78–09661, SHOWN HEREON.

REGARDING SCHEDULE B:
SCHEDULE B EXCEPTIONS 1 THROUGH 27, 37, 38, 39, 40 AND 41 ARE NOT SURVEY RELATED AND THEREFORE NOT SHOWN.

28. BUILDING SETBACK LINES ON THE SURVEYED PROPERTY PER PLAT OF SUBDIVISION DOCUMENT NO. R78–09661, SHOWN HEREON.

29. EASEMENTS FOR SIDEWALK AND SEWER ON THE SURVEYED PROPERTY, PER PLAT OF SUBMISION DOCUMENT NO. R78–09661, SHOWN HEREON.

30. EASEMENTS FOR SEWER AND WATER ON THE SURVEYED PROPERTY, PER PLAT OF SUBDIVISION DOCUMENT NO. R78–09661, SHOWN HEREON.

31. EASEMENTS FOR PUBLIC UTILITIES ON THE SURVEYED PROPERTY, PER PLAT OF SUBDIVISION DOCUMENT NO. R78–09661, SHOWN HEREON.

32. EASEMENTS FOR PUBLIC UTILITIES ON THE SURVEYED PROPERTY, ON THE NORTH 10 FEET OF THE SOUTH 88 FEET OF LOTS 17 AND 18, PER GRANT DOCUMENT NO. R79–011244. SHOWN HEREON

33. TERMS AND CONDITIONS OF THE EASEMENT PROVISIONS NOTED ON THE PLAT OF SUBDIVISON. SEE DOCUMENT FOR DETAILS. NOT PLOTTABLE.

34. TERMS, PROVISIONS AND CONDITIONS OF THE DECLARATION OF RESTRICTIVE COVENANTS AS SET FORTH ON THE PLAT OF OAK GROVE CENTRE OF COMMERCE UNIT THREE, RECORDED FEBRUARY 02, 1978 AS DOCUMENT R78–09661. SEE DOCUMENT FOR TERMS, PROVISIONS, AND CONDITIONS. BLANKET IN NATURE, NOT SHOWN.

35. TERMS, PROVISIONS AND CONDITIONS OF THE DRAINAGE COVENANTS AS SHOWN ON THE PLAT OF OAK GROVE CENTRE OF COMMERCE UNIT THREE, RECORDED FEBRUARY 02, 1978 AS DOCUMENT R78–09661. SEE DOCUMENT FOR TERMS, PROVISIONS, AND CONDITIONS. BLANKET IN NATURE, NOT SHOWN.

36. COVENANTS, CONDITIONS AND RESTRICTIONS CONTAINED IN THE PLAT OF SUBDIVISION REORDED FEBRUARY 02, 1978 AS DOCUMENT NO. R78–09661 RELATING TO AMONG OTHER THINGS: USE OF THE PREMISES, LOADING DOCKS, PARKING, LANDSCAPING, STORAGE FACILITIES, AND STORM WATER DETENTION. SEE DOCUMENT FOR TERMS, PROVISIONS, AND CONDITIONS. BLANKET IN NATURE, NOT SHOWN.

UTILIY CONTACTS

Design Dig #X253390230 / Locate Dig #X253390237

Cable
Comcast (Xfinity) Martha Gieras
224-229-5862
Martha_gieras@cable.comcast.com

Electric
ComEd
Design - Privately Funded
PrtLf@uscllc.com
Design - Publicly Funded
PlanSubmittalsandMapRequests@exeloncorp.com

Gas
Nicor Gas
630-388-2362
gasmaps@nicor.com

Communications
AT&T / Distribution
gj1629@att.com

Level 3 (Lumen) - Network Relocations
877-366-83445x2
nationalrelo@centurylink.com

MCI-Verizon
investigations@verizon.com

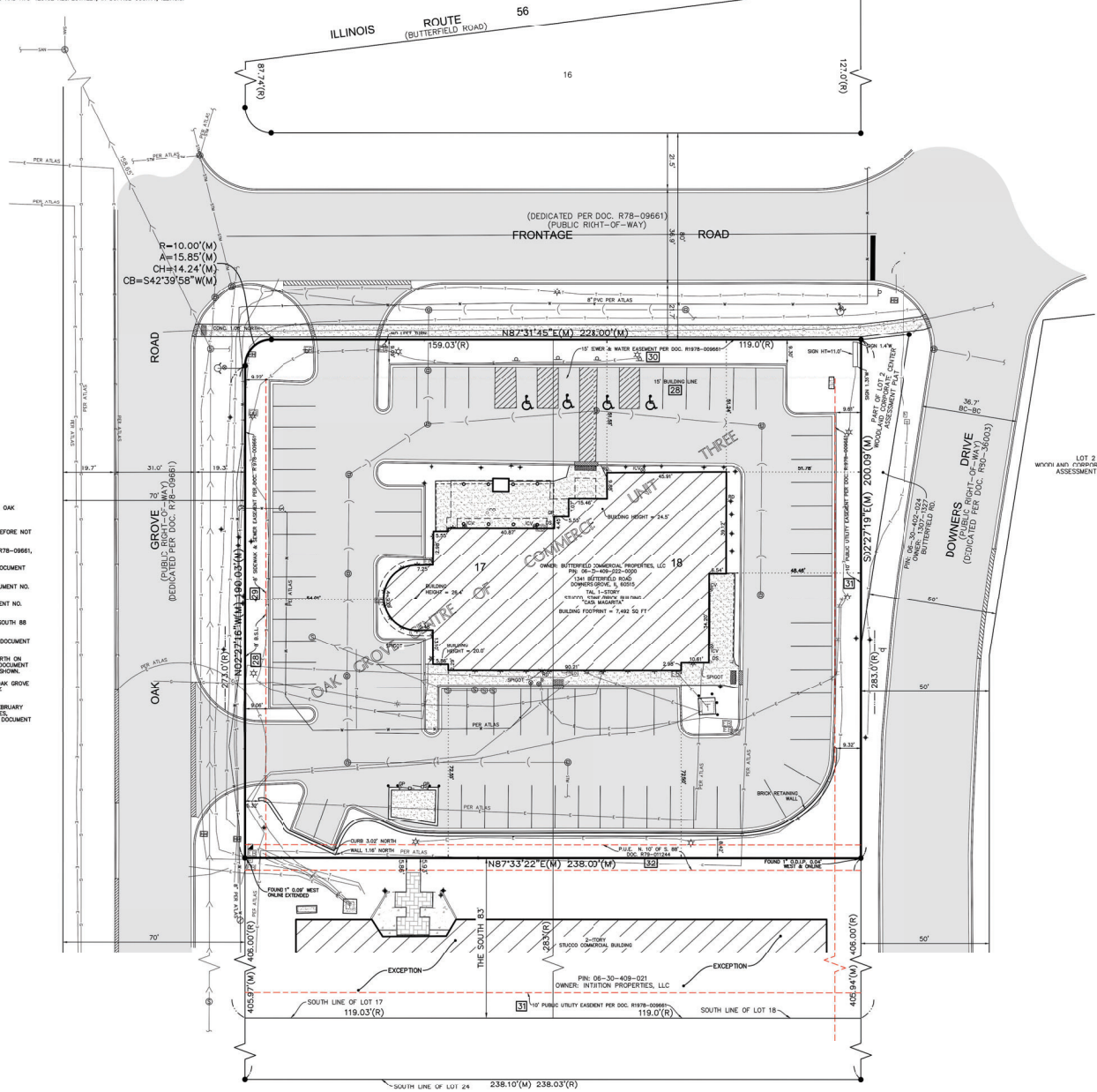
Zayo Fiber Solutions - John Ferraresi
847-417-9609
John.ferraresi@zayo.com

Vinakom Communications - Issam M.
847-592-5785
Issam.M@vinakom.com

Water / Sanitary / Storm
Downers Grove Sanitary District - Keith Shaffner
630-353-3610
kshaffner@dgsd.org

DuPage Water Commission - Jeff Loster
630-516-1912
pipeline@dpwc.org

Village of Downers Grove - Scott Vasko
630-434-5804
630 878 7498
svasko@downers.us



GRAPHIC SCALE

20 0 10 20 40 80
(IN FEET)
1 inch = 20 ft.

STRPED PARKING DATA
REGULAR SPACES = 72
ACCESSIBLE SPACES = 4
TOTAL SPACES = 76

AREA SUMMARY
(TO HEAVY LINES)
47,606 SQUARE FEET
OR
1.093 ACRES
(BASED ON MEASURED VALUES)

ABBREVIATIONS

O.D.I.P. = OUTSIDE DIAMETER IRON PIPE
TF = TOP OF FOUNDATION
FF = FINISHED FLOOR
FES = FLARED END SECTION
VCP = VITRIFIED CLAY PIPE
DIP – DUCTILE IRON PIPE
PVC = POLYVINYL CHLORIDE
RCP = REINFORCED CONCRETE PIPE
CMP = CORRUGATED METAL PIPE
(R) = RECORD BEARING OR DISTANCE
(M) = MEASURED BEARING OR DISTANCE
(C) = CALCULATED BEARING OR DISTANCE
(V) = VIEED BEARING OR DISTANCE
A = ARC LENGTH
R = RADIUS
CH = CHORD
CB = CHORD BEARING
B.S.L. = BUILDING SETBACK LINE
U.E. = UTILITY EASEMENT
D.E. – DRAINAGE EASEMENT
P.U.E. = PUBLIC UTILITY EASEMENT
P.O.C. = POINT OF COMMENCEMENT
P.O.B. = POINT OF BEGINNING
P.U. & D.E. = PUBLIC UTILITY AND DRAINAGE EASEMENT
L.E. & F.E. = LOW EMITTING AND FUEL EFFICIENT VEHICULAR PARKING ONLY

LINE LEGEND

LIMITS OF LAND PER LEGAL DESCRIPTION
ADJACENT LAND
PARCEL LINE
EASEMENT LINE
CENTERLINE
BUILDING SETBACK LINE
SECTION LINE

LEGEND

- FOUND 1" O.D.I.P. AT CORNER UNLESS OTHERWISE NOTED (FIELD LOCATION)
- ▲ SET MAG NAIL
- ■ CONCRETE MONUMENT
- + CUT CROSS

GENERAL NOTES

1. THIS SURVEY IS BASED ON THE LEGAL DESCRIPTION AND EASEMENTS OF RECORD AS IDENTIFIED IN TITLE COMMITMENT NUMBER AF1056823 ISSUED BY FIRST AMERICAN TITLE INSURANCE COMPANY HAVING AN EFFECTIVE DATE OF NOVEMBER 19, 2025.
2. THE BASIS OF BEARINGS FOR THIS SURVEY IS THE ILLINOIS STATE PLANE COORDINATE SYSTEM, NAD 83 (2011), ZONI 1201 (ILLINOIS EAST)
3. THIS SITE FALLS WITHIN 'OTHER AREAS: ZONE X' (AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN) AS DEFINED BY THE FLOOD INSURANCE RATE MAP NUMBER 17043C0227J WITH AN EFFECTIVE DATE OF AUGUST 1, 2019.
4. THIS PROFESSIONAL SERVICE CONFORMS TO THE CURRENT ILLINOIS MINIMUM STANDARDS FOR TOPOGRAPHIC SURVEYS, AND IS BASED ON FIELD WORK PERFORMED ON 12/11/2025.
5. THE SURVEYOR CONTACTED J.U.L.I.E. (JOINT UTILITY LOCATING INFORMATION FOR EXCAVATORS) FOR AN 811 LOCATE WHICH WAS ASSIGNED A DIG NUMBER OF X253390237. THE UTILITIES AS MARKED ON–SITE AT THE TIME OF THE SURVEY ARE SHOWN HEREON. ADDITIONALLY, THE SURVEYOR CONTACTED J.U.L.I.E. FOR A DESIGN STAGE REQUEST FOR THIS SITE WHICH WAS ASSIGNED A DIG NUMBER OF X253390230. INQUIRIES WERE SENT OUT TO THE VARIOUS UTILITY COMPANIES REQUESTING MAPS AND/OR ATLASES OF THEIR RSPECTIVE FACILITIES. THE INFORMATION RECEIVED TO DATE IS SHOWN HEREON. ALSA, PRIOR TO FIELD WORK ON THIS SITE, THE UNDERGROUND DETECTIVE PROVIDED UTILITY LOCATING SERVICES ON SITE AND THE INFORMATION OBTAINED BY THE SURVEYOR FROM THESE MARKS ARE SHOWN HEREON.
6. THE UNDERGROUND UTILITIES SHOWN HAVE BEEN LOCATED FROM OBSERVED FIELD EVIDENCE AND EXISTING DRAWINGS, MAPS AND RECORDS SUPPLIED TO SURVEYOR AND MARKINGS PROVIDED BY A THIRD–PARTY. DUE TO THE UNCERTAINTY AND LIMITATIONS INHERENT TO LOCATING UNDERGROUND UTILITY FACILITIES FOR NON–CONSTRUCTION PURPOSES, INCLUDING THOSE THAT ARE PLASTIC, NON–CONDUCTIVE, OR OTHERWISE UNABLE TO BE LOCATED, THERE MAY BE BURIED UTILITIES WITHIN THE SURVEY AREA THAT ARE NOT SHOWN. THE SURVEYOR THEREFORE INDICATES THAT THE LOCATIONS ARE BASED ON THIRD–PARTY UTILITY MARKINGS, SURVEYED UNDER–GROUND UTILITY MARKINGS, AND/OR OTHER SURVEYED EVIDENCE. SUCH INFORMATION IS NEITHER IN SERVICE OR ABANDONED. THE SURVEYOR FURTHER DOES NOT WARRANT THAT THE UNDERGROUND UTILITIES SHOWN ARE IN THE EXACT LOCATION INDICATED, ALTHOUGH THEY ARE LOCATE AS ACCURATELY AS POSSIBLE FROM AVAILABLE INFORMATION. THE SURVEYOR HAS PHYSICALLY LOCATED OBSERVED STRUCTURES AND MARKINGS, HOWEVER, HE HAS NOT PHYSICALLY LOCATED THE UNDERGROUND LINES.
7. THE SURVEYOR LOCATED THE OBSERVED IMPROVEMENTS ON THIS SITE, HOWEVER, DUE TO HEAVY SNOW COVERAGE AT THE TIME OF THE SURVEY, SOME IMPROVEMENTS MAY NOT HAVE BEEN VISIBLE. THEREFORE, THE IMPROVEMENTS SHOWN HEREON MAY OR MAY NOT COMPRISE ALL SUCH IMPROVEMENTS FOR THIS SITE. ADDITIONALLY, SOME HIGH POINTS OR LOW POINTS AYT NOT HAVE BEEN VISIBLE DUE TO DRIFTED SNOW.
8. IN REFERENCE TO TABLE A ITMS 6(A) AND 6(B), A ZONING REPORT OR LETTER WAS NOT PROVIDED TO THE SURVEYOR.
9. ADJOINING OWNER INFORMATION SHOWN HEREON IS FROM AVAILABLE TAX RECORDS.
10. NO EVIDENCE OF RECENT EARTH MOVING WORK, BUILDING CONSTRUCTION, OR BUILDING ADDITIONS OBSERVED IN THE PROCESS OF CONDUCTING THE FIELD WORK.
11. NO PROPOSED CHANGES IN STREET RIGHT OF WAY LINES BASED ON INFORMATION RECEIVED FROM THE CONTROLING JURISDICTION AT THE TIME OF THE SURVEY. NO OBSERVED EVDENCE OF RECEST STREET OR SIDEWALK CONSTRUCTION OR REPAIRS.
12. IN REFERENCE TO TABLE A ITM 18, NO PLOTTABLE OFFSITE APPURTENANT EASEMENTS WERE DISCLOSED IN SCHEDULE A OF THE TITLE COMMITMENT.
13. THE SURVEYED SITE IS ONE PARCEL THAT CLOSES WITHOUT GAPS, GORES OR OVERLAPS.
14. THE PROPERTY HAS DIRECT PYSICAL VEHICULAR ACCESS TO OAK GROVE ROAD AND FRONTAGE ROAD, BOTH PUBLIC ROADWAYS.

SURVEYOR'S CERTIFICATION

SURVEYOR'S CERTIFICATION

TO: FIRST AMERICAN TITLE INSURANCE COMPANY

THIS IS TO CERTIFY THAT THIS AAP OR PLAT AND THE SURVEY ON WHICH IT IS BASED WERE MADE IN ACCORDANCE WITH THE 2021 MINIMUM STANDARD DETAIL REQUIREMENTS FOR ALTA/NSPS LAND TITLE SURVEYS, JOINTLY ESTABLISHED AND ADOPTED BY ALTA AND NSPS, AND INCLUDES ITEMS 1, 2, 3, 4, 5, 6(A), 6(B), 7(A), 7(B1), 7(C), 8, 9, 11(A), 11(B), 13, 14, 16, 17, 18 AND 19 OF TABLE A THEREOF. THE FIELD WORK WAS COMPLETED ON 12/11/2025.

COMPASS SURVEYING LTD
PROFESSIONAL DESIGN FIRM
LAND SURVEYOR CORPORATION NO. 184–002778
ICENSE EXPIRES 4/30/2027

DATE OF PLAT OR MAP: 12/19/2025

BY: _____
DAVID P. FILIPSKI
IL PROFESSIONAL LAND SURVEYOR NO. 3352
LICENSE EXPIRES 11/30/26

DAVID P. FILIPSKI 35-3352 AURORA, ILLINOIS STATE OF ILLINOIS

2/19/2026 3:15 PM – J:\PSDATA\2025 PROJECTS\25.0324\25.0324_LTS.DWG

NO.	DATE	REVISIONS	DRAWN BY	CHECKED BY	BOOK 717 PG 64
1	12/19/25	PC TK/JC	DN	DW	
		PER EMAIL DATED 2–10–26			DATE 2/17/26 BY DN

CLIENT
National Express Wash II, LLC
2753 NW 87th Avenue
Doral, FL 33172

PROJECT
CASA MARGARITA
1341 BUTTERFIELD ROAD
DOWNERS GROVE, IL 60515

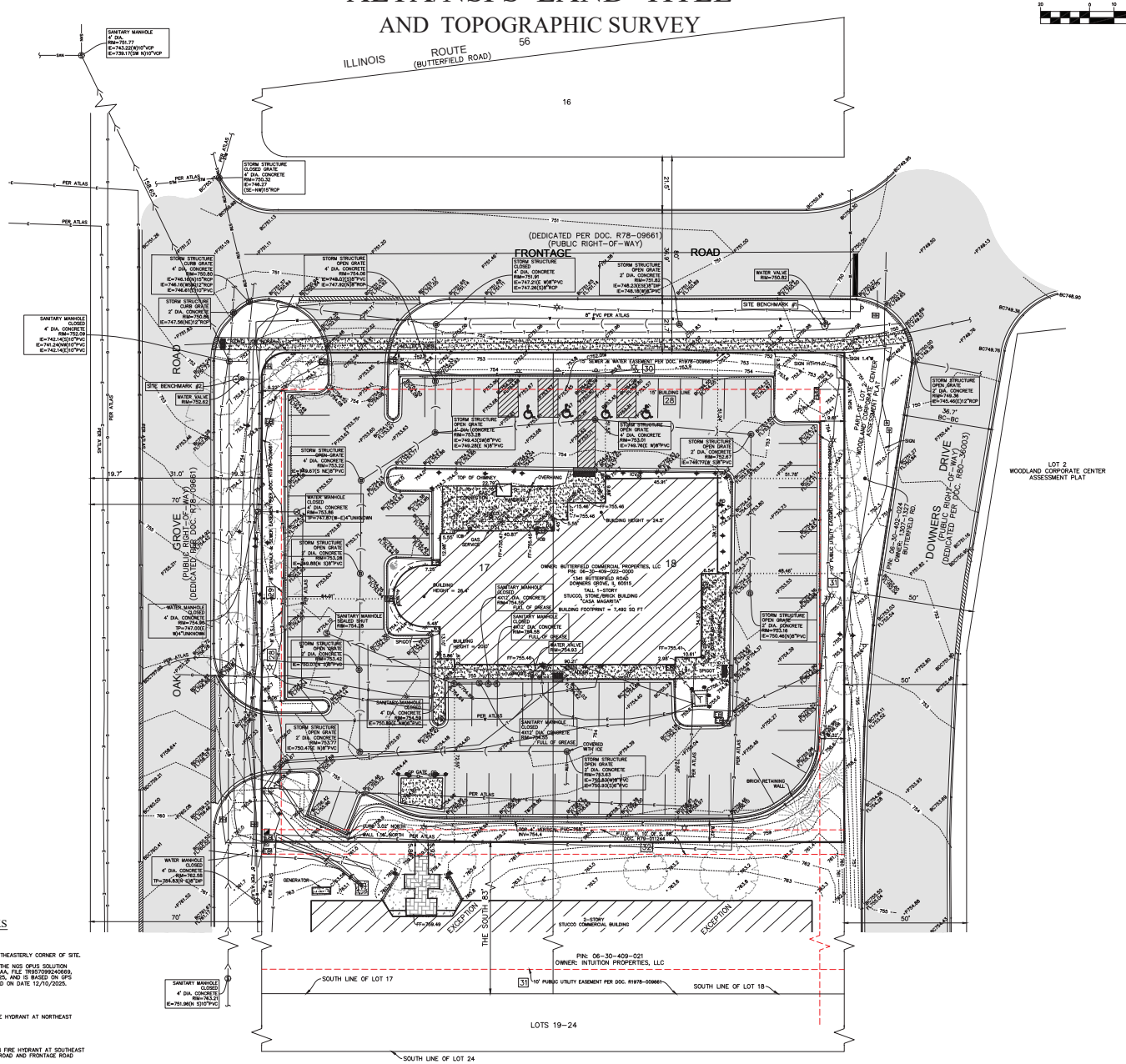
COMPASS SURVEYING LTD
ALTA, SURVEYS ● TOPOGRAPHY ● CONSTRUCTION STAKING
2631 GINGER WOODS PARKWAY, STE. 100
AURORA, IL 60502
PHONE: (630)820-9100 FAX: (630) 820-7030 EMAIL: ADMIN@CLSURVEYING.COM

SCALE: 1" = 20'

1 OF 2

PROJ. NO.: 25.0324

ALTA/NSPS LAND TITLE
AND TOPOGRAPHIC SURVEY



ABBREVIATIONS

O.D.I.P. = OUTSIDE DIAMETER IRON PIPE
TF = TOP OF FOUNDATION
FF = FINISHED FLOOR
FES = FLARED END SECTION
VCP = VITRIFIED CLAY PIPE
DIP = DUCTILE IRON PIPE
PVC = POLYVINYL CHLORIDE
RCP = REINFORCED CONCRETE PIPE
CMP = CORRUGATED METAL PIPE
HDPE = HIGH-DENSITY POLYETHYLENE PIPE
(R) = RECORD BEARING OR DISTANCE
(M) = MEASURED BEARING OR DISTANCE
(C) = CALCULATED BEARING OR DISTANCE
(D) = DEED BEARING OR DISTANCE
N = NORTH
S = SOUTH
E = EAST
W = WEST
A = ARC LENGTH
R = RADIUS
CH = CHORD
CB = CHORD BEARING
ICB = IRRIGATION CONTROL BOX
B.S.L. = BUILDING SETBACK LINE
U.E. = UTILITY EASEMENT
D.E. = DRAINAGE EASEMENT
P.U.E. = PUBLIC UTILITY EASEMENT
P.O.C. = POINT OF COMMENCEMENT
P.O.B. = POINT OF BEGINNING
P.U. & D.E. = PUBLIC UTILITY AND DRAINAGE EASEMENT
BC = BACK OF CURB
BDC = BACK OF DEPRESSED
FL = FLOW LINE
C = CONCRETE
P = PAVEMENT
G = GRAVEL
EW = EDGE OF WALK
TW = TOP OF WALL
TP = TOP OF PIPE
IE = INVERT ELEVATION
PL = PROPERTY LINE
DS = DOWN SPOUT
S.F. = SQUARE FEET
O.H. = OVERHEAD LINE
TSF = TRANSFORMER
B = PAVERS
MS = MULTI-STEM TREE

LINE LEGEND

- LIMITS OF LAND PER LEGAL DESCRIPTION
- ADJACENT LAND PARCEL LINE
- EASEMENT LINE
- CENTERLINE
- BUILDING SETBACK LINE
- SECTION LINE
- EXISTING CONTOUR
- FLOOD ZONE DIVISION LINE

LEGEND

- FOUND 1" O.D.I.P. AT CORNER UNLESS OTHERWISE NOTED (HELD LOCATION)
- SET MAG NAIL
- CONCRETE MONUMENT
- CROSS IN CONCRETE
- MANHOLE
- STORM STRUCTURE
- SANITARY MANHOLE
- CLEANOUT
- FLARED END SECTION
- TRANSFORMER PAD
- ELECTRIC MANHOLE
- ELECTRIC BOX
- ELECTRIC PEDESTAL
- ELECTRIC MARKER
- ELECTRIC METER
- UTILITY POLE
- UTILITY POLE W/LIGHT
- UTILITY POLE W/TSF
- GUY POLE
- OVERHEAD TRAFFIC SIGNAL
- TRAFFIC SIGNAL MANHOLE
- LIGHT
- LIGHT POLE
- HAND HOLE
- VALVE VAULT
- FIRE HYDRANT
- IRRIGATION CONTROL VALVE
- POST INDICATOR VALVE
- SIAMESE WATER CONNECTION
- WATER MARKER
- WATER METER
- VALVE BOX
- B/BOX
- TELEPHONE MANHOLE
- TELEPHONE NETWORK INTERFACE
- TELEPHONE MARKER
- TELEPHONE PEDESTAL
- CABLE TELEVISION PEDESTAL
- GAS METER
- GAS VALVE
- GAS MARKER
- DOWN SPOUT
- BORING HOLE
- MONITORING WELL
- GATE POST
- BOLLARD POLE
- SIGN
- FLAG POLE
- MAILBOX
- SANITARY SEWER
- STORM SEWER
- WATER MAIN
- GAS MAIN
- ELECTRIC LINE
- OVERHEAD WIRES
- TELEPHONE LINE
- CONIFEROUS TREE W/APPROX. DIAMETER
- DECIDUOUS TREE W/APPROX. DIAMETER MS=MULTI-STEM (DRIP LINE SHOWN IS APPROXIMATE)
- ELEVATION
- BITUMINOUS PAVEMENT
- CONCRETE SURFACE
- DEPRESSED CURB
- GRAVEL SURFACE
- LANDSCAPE AREA
- STONE SURFACE
- DETECTABLE TACTILE WARNING SURFACE
- BRICK PAVERS
- WOOD FENCE
- CHAIN LINK FENCE
- METAL FENCE
- METAL GUARDRAIL
- OVERHEAD TRAFFIC ARM

BENCHMARKS

REFERENCE BENCHMARK

DESCRIPTION/LOCATION:
IRON PIPE WITH CAP NORTHEASTERLY CORNER OF SITE.

THE ELEVATION IS FROM THE NOS OPUS SOLUTION REPORT PROVIDED BY NOAA, FILE 19357099240069, DATED DECEMBER 12, 2025, AND IS BASED ON GPS OBSERVATIONS PERFORMED ON DATE 12/10/2025.

DATUM: NAVD88
ELEVATION = 751.42

SITE BENCHMARK #1
SOUTHWEST BOLT ON FIRE HYDRANT AT NORTHEAST CORNER OF SITE

ELEVATION = 752.01

SITE BENCHMARK #2
NORTHEAST TAG BOLT ON FIRE HYDRANT AT SOUTHEAST CORNER OF OAK GROVE ROAD AND FRONTAGE ROAD

ELEVATION = 754.00

NO.	DATE: 12/19/25	PC: TK/JC	DRAWN BY: DN	CHECKED BY: DW	BOOK 717 PG 64
	REVISIONS			DATE	BY
1	PER EMAIL DATED 2-10-26			2/17/26	DN

CLIENT
National Express Wash II, LLC
2753 NW 87th Avenue
Doral, FL 33172

PROJECT
CASA MARGARITA
1341 BUTTERFIELD ROAD
DOWNERS GROVE, IL 60515

COMPASS SURVEYING LTD
ALTA SURVEYS ● TOPOGRAPHY ● CONSTRUCTION STAKING
2631 GINGER WOODS PARKWAY, STE. 100
AURORA, ILLINOIS 60502
PHONE: (630) 820-9100 FAX: (630) 820-7030 EMAIL: ADMIN@CLSURVEYING.COM

SCALE: 1" = 20'

2 OF 2

PROJ. NO.: 25.0324

2/19/2026 3:15 PM – J:\PSDATA\2025 PROJECTS\25.0324\25.0324_1TS.DWG

SITE DEVELOPMENT PLANS

FOR

1341 BUTTERFIELD ROAD

PROPOSED AUTO WASH

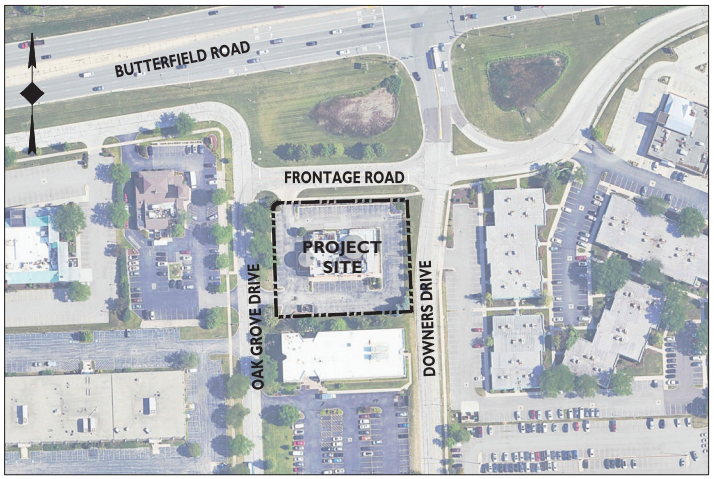


SOURCE: USGS ONLINE MAPS

LOCATION MAP

SCALE: 1" = 2,000'±

PARCEL ID: 06-30-409-022-0000
1341 BUTTERFIELD ROAD
VILLAGE OF DOWNERS GROVE, DUPAGE COUNTY, IL 60515



SOURCE: GOOGLE EARTH PRO

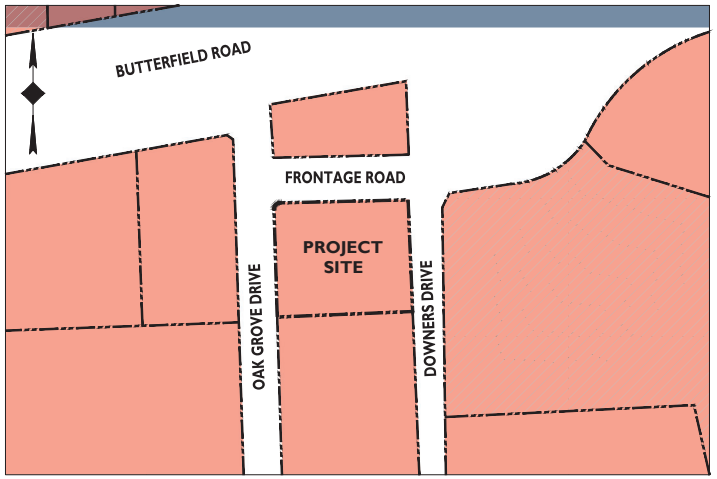
AERIAL MAP

SCALE: 1" = 100'±

ZONING KEY

B-2, GENERAL BUSINESS

PD, PLANNED DEVELOPMENT OVERLAY



SOURCE: DUPAGE COUNTY GIS AND VILLAGE OF DOWNERS GROVE ZONING MAP

ZONING MAP

SCALE: 1" = 100'±

ENGINEER'S CERTIFICATION

"I HEREBY PRESENT THIS STATEMENT OF OPINION DENYING THE PRESENCE OF LOCALIZED POOR DRAINAGE AREA (LPDA), FLOODPLAIN, WETLANDS AND/OR BUFFERS"

MITCHELL HARVEY , P.E.
LICENSE No. 062077753 - Expiration Date: 11/30/2027

APPLICANT

EL CARWASH MID-WEST, LLC
2753 NW 87THY AVENUE
DORAL, FL 33172
413-464-2267
SBURGNER@ELCARWASH.COM

BENCHMARKS

REFERENCE BENCHMARK

DESCRIPTION/LOCATION.
IRON PIPE WITH CAP NORTHEASTERLY CORNER OF SITE.

THE ELEVATION IS FROM THE NGS OPUS SOLUTION REPORT PROVIDED BY NOAA, FILE TR957099240669, DATED DECEMBER 12, 2025, AND IS BASED ON GPS OBSERVATIONS PERFORMED ON DATE 12/10/2025.

DATUM: NAVD88
ELEVATION = 751.42

SITE BENCHMARK #1
SOUTHWEST BOLT ON FIRE HYDRANT AT NORTHEAST CORNER OF SITE

ELEVATION = 752.01

SITE BENCHMARK #2
NORTHEAST TAG BOLT ON FIRE HYDRANT AT SOUTHEAST CORNER OF OAK GROVE ROAD AND FRONTAGE ROAD

ELEVATION = 754.00

811 Know what's **below** **Call** before you dig.

PLANS PREPARED BY:

STONEFIELD engineering & design

Birmingham, MI · New York, NY · Salem, MA
Princeton, NJ · Tampa, FL · Rutherford, NJ
www.stonefieldeng.com

555 S. Old Woodward Avenue, Suite 12L, Birmingham, MI 48009
Phone 248.247.1115

PLAN REFERENCE MATERIALS:

1. THIS PLAN SET REFERENCES THE FOLLOWING DOCUMENTS INCLUDING, BUT NOT LIMITED TO:
   - ALTA/TOPOGRAPHIC SURVEY BY COMPASS SURVEYING LTD DATED 12/19/2025
   - ARCHITECTURAL PLANS BY KREIGER KLATT ARCHITECTS DATED 03/24/2026
   - AERIAL MAP PER GOOGLE EARTH PRO
   - LOCATION MAP OBTAINED FROM USGS ONLINE MAPS
2. ALL REFERENCE MATERIAL LISTED ABOVE SHALL BE CONSIDERED A PART OF THIS PLAN SET AND ALL INFORMATION CONTAINED WITHIN THESE MATERIALS SHALL BE UTILIZED IN CONJUNCTION WITH THIS PLAN SET. THE CONTRACTOR IS RESPONSIBLE TO OBTAIN A COPY OF EACH REFERENCE AND REVIEW IT THOROUGHLY PRIOR TO THE START OF CONSTRUCTION.

SHEET INDEX

DRAWING TITLE	SHEET #
COVER SHEET	C-1
DEMOLITION PLAN	C-2
SITE PLAN	C-3
GRADING PLAN	C-4
STORMWATER MANAGEMENT PLAN	C-5 & C-5.1
UTILITY PLAN	C-6
LIGHTING PLAN	C-7
LANDSCAPING PLAN	C-8 & C-8.1
SOIL EROSION & SEDIMENT CONTROL PLAN	C-9
CONSTRUCTION DETAILS	C-10 & C-10.3
VEHICLE STACKING EXHIBIT	EX-1

ADDITIONAL SHEET INDEX

DRAWING TITLE	SHEET #
ALTA/TOPOGRAPHIC SURVEY	1 OF 1

ISSUE	DATE	BY	DESCRIPTION
2	04/01/2026	VF	REVISED PER PLANNING AND ZONING COMMENTS
1	03/24/2026	VF	FOR PLANNING AND ZONING SUBMISSION

NOT APPROVED FOR CONSTRUCTION

STONEFIELD engineering & design
Birmingham, MI · New York, NY · Salem, MA
Princeton, NJ · Tampa, FL · Rutherford, NJ
www.stonefieldeng.com
555 S. Old Woodward Avenue, Suite 12L, Birmingham, MI 48009
Phone 248.247.1115

SITE DEVELOPMENT PLANS

1341 BUTTERFIELD RD.

PROPOSED AUTO WASH

PARCEL ID: 06-30-409-022-0000
1341 BUTTERFIELD ROAD
VILLAGE OF DOWNERS GROVE
DUPAGE COUNTY, IL 60515

STONEFIELD engineering & design

SCALE: AS SHOWN | PROJECT ID: DET-250340

TITLE: COVER SHEET

DRAWING: C-1

C:\STEELCASE\DOWNLOADS\ELCAR WASH - 1341 BUTTERFIELD RD DOWNERS GROVE, IL\CAD\PLOT\PLOT STAMP.DWG

LAND USE AND ZONING

PID: 0630409022		
GENERAL SERVICES AND HIGHWAY BUSINESS (B-3) DISTRICT		
PROPOSED USE		
AUTO WASH	SPECIAL USE	
ZONING REQUIREMENT	**REQUIRED**	**PROPOSED**
MINIMUM B-3 OVERALL DISTRICT AREA	174,240 SF (4.0 AC)	EXISTING
MINIMUM LOT AREA	N/A	47,606 SF (1.09 AC)
MINIMUM LOT WIDTH	N/A	238.1 FT
MINIMUM FLOOR AREA RATIO	0.75 (35,468 SF)	0.08 (3,720 SF)
MAXIMUM BUILDING HEIGHT	60 FT	<60 FT
MINIMUM STREET SETBACK[1]	25.0 FT	23.0 FT
MINIMUM PARKING SETBACK (NORTH)	25.0 FT	29.5 FT
MINIMUM PARKING SETBACK (EAST)	25.0 FT	9.6 FT (V)
MINIMUM PARKING SETBACK (WEST)	25.0 FT	25.0 FT
MINIMUM CORNER VISIBILITY TRIANGLE	10 FT X 10 FT	1.0 (EN)
MINIMUM ACCESSORY BUILDING FROM PRINCIPAL	10.0 FT	52.5 FT
MINIMUM ACCESSORY BUILDING STREET SETBACK	25.0 FT	25.0 FT
MINIMUM BICYCLE PARKING SETBACK (ALL LOT LINES)	6.0 FT	62.0 FT
MINIMUM RETAINING WALL SETBACK (ALL LOT LINES)	1.0 FT	1.2 FT
MINIMUM FLAGPOLE SETBACK	35 FT[3]	35.0 FT
MINIMUM LANDSCAPE OPEN SPACE	10% (4,729 SF)	36.2% (17,250 SF)
MINIMUM STREET YARD LANDSCAPE[2]	50% (2,365 SF)[2]	12,196 SF

(V) VARIANCE
(1) TABLE 14-1 - AWNINGS IN NONRESIDENTIAL DISTRICTS ALLOWED 2.5 FT OF ENCROACHMENT INTO STREET SETBACK
(2) § 28.3.030.10 - AT LEAST 50% OF THE REQUIRED LANDSCAPED OPEN SPACE MUST BE LOCATED IN THE STREET YARD
(3) § 28.6.010.H - FLAG POLES MUST BE SETBACK FROM LOT LINES A MINIMUM DISTANCE EQUAL TO THE HEIGHT OF THE POLE AND SITED SO THE FLAG WILL NOT EXTEND BEYOND ANY LOT LINE

OFF-STREET PARKING REQUIREMENTS

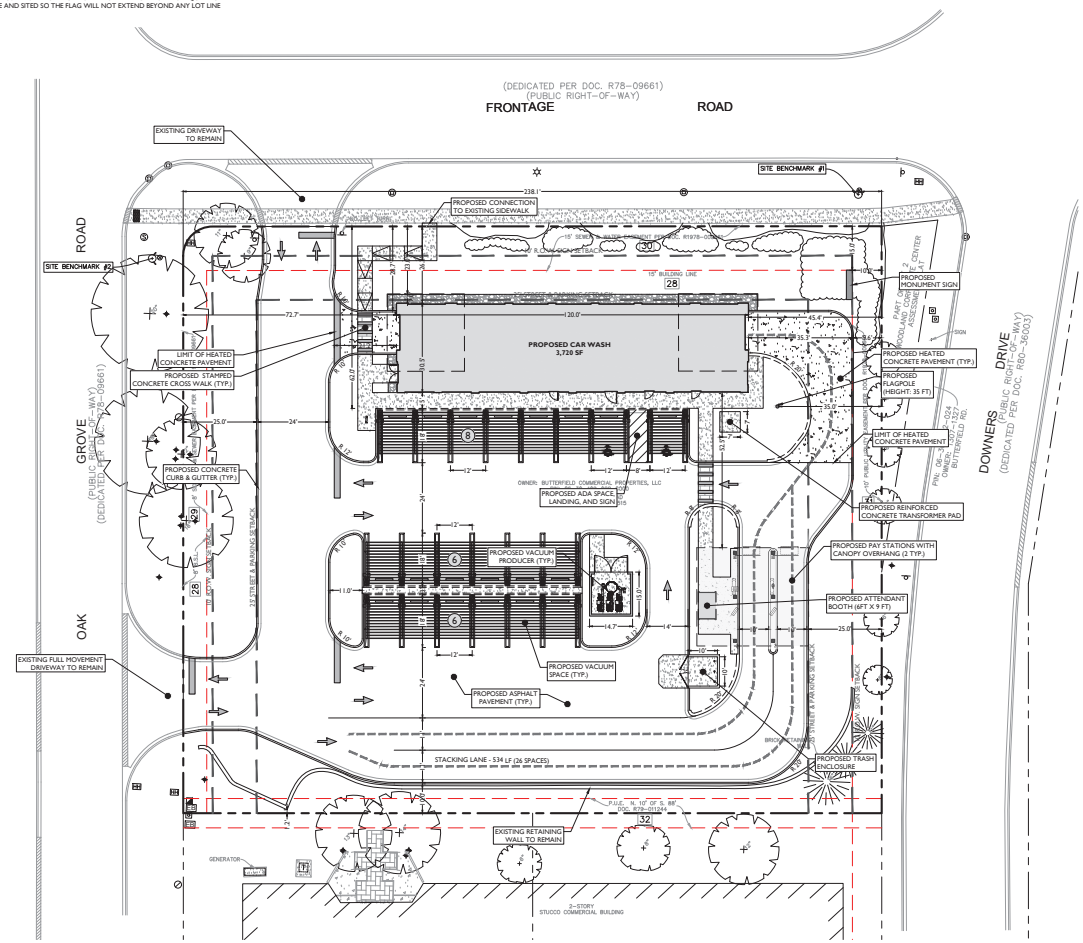
CODE SECTION	REQUIRED	PROPOSED
TABLE 7-1	**CAR WASH:** 1 SPACE PER WASH BAY (1 BAY)(1 SPACE/1 BAY) = 1 SPACE	20 SPACES
TABLE 7-4	**90° PARKING:** 9 FT X 18 FT W/ 24 FT AISLE	12 FT X 18 FT W/ 24 FT AISLE
TABLE 7-5	**STACKING:** 2 SPACES PER APPROACH LANE (3 LANES)(2 SPACES/ LANE) = 6 SPACES 2 END OF BAY DRYING SPACES	26 SPACES 1 DRYING SPACE (V)
§ 28.7.130.D.1	**MINIMUM STACKING WIDTH:** 10 FT	11 FT
TABLE 7-3	**BICYCLE PARKING:** NONE FOR THE FIRST 19 SPACES THEN 10% OR 2 SPACES (GREATER GOVERNS) (20 SPACES)(0.10) = 2 SPACES	2 SPACES
§ 28.8.030(b)(2)	**LANDSCAPE ISLANDS:** MINIMUM 7 FT WIDTH; MINIMUM 150 SF AREA	11.0 FT 377 SF
§ 28.8.030(b)(1)	**MAXIMUM PARKING SPACES IN A ROW:** 20	8 SPACES

(V) VARIANCE

SIGNAGE REQUIREMENTS[1]

CODE SECTION	REQUIRED	PROPOSED
§ 28.9.050(b)(1) b	MINIMUM R.O.W. MONUMENT SIGN SETBACK: 10 FT [2]	10.0 FT

(1) § 28.9.050(b)(1) b - TABLE APPLIES TO MONUMENT SIGNS THAT ARE 10 FT IN HEIGHT OR LESS. REQUIREMENTS DIFFER FOR SIGNS GREATER THAN 10 FT.



SYMBOL / DESCRIPTION

- PROPERTY LINE
- SETBACK LINE
- PROPOSED CURB
- PROPOSED FLUSH CURB
- PROPOSED MOUNTABLE CURB
- PROPOSED SIGNS / BOLLARDS
- PROPOSED BUILDING
- PROPOSED CONCRETE
- PROPOSED HEATED CONCRETE
- PROPOSED BUILDING DOORS

GENERAL NOTES

1. THE CONTRACTOR SHALL VERIFY AND FAMILIARIZE THEMSELVES WITH THE EXISTING SITE CONDITIONS AND THE PROPOSED SCOPE OF WORK (INCLUDING DIMENSIONS, LAYOUT, ETC.) PRIOR TO INITIATING THE IMPROVEMENTS IDENTIFIED WITHIN THESE DOCUMENTS. SHOULD ANY DISCREPANCY BE FOUND BETWEEN THE EXISTING SITE CONDITIONS AND THE PROPOSED WORK, THE CONTRACTOR SHALL NOTIFY STONEFIELD ENGINEERING & DESIGN, LLC. PRIOR TO THE START OF CONSTRUCTION.
2. THE CONTRACTOR SHALL OBTAIN ALL NECESSARY PERMITS AND ENSURE THAT ALL REQUIRED APPROVALS HAVE BEEN OBTAINED PRIOR TO THE START OF CONSTRUCTION. COPIES OF ALL REQUIRED PERMITS AND APPROVALS SHALL BE KEPT ON SITE AT ALL TIMES DURING CONSTRUCTION.
3. ALL CONTRACTORS WILL, TO THE FULLEST EXTENT PERMITTED BY LAW, INDEMNIFY AND HOLD HARMLESS STONEFIELD ENGINEERING & DESIGN, LLC. AND ITS SUB-CONSULTANTS FROM AND AGAINST ANY DAMAGES AND LIABILITIES INCLUDING ATTORNEY'S FEES ARISING OUT OF CLAIMS BY EMPLOYEES OF THE CONTRACTOR IN ADDITION TO CLAIMS CONNECTED TO THE PROJECT AS A RESULT OF NOT CARRYING THE PROPER INSURANCE FOR WORKERS COMPENSATION, LIABILITY INSURANCE, AND LIMITS OF COMMERCIAL GENERAL LIABILITY INSURANCE.
4. THE CONTRACTOR SHALL NOT DEVIATE FROM THE PROPOSED IMPROVEMENTS IDENTIFIED WITHIN THIS PLAN SET UNLESS APPROVAL IS PROVIDED IN WRITING BY STONEFIELD ENGINEERING & DESIGN, LLC.
5. THE CONTRACTOR IS RESPONSIBLE TO DETERMINE THE MEANS AND METHODS OF CONSTRUCTION.
6. THE CONTRACTOR SHALL NOT PERFORM ANY WORK OR CAUSE DISTURBANCE ON A PRIVATE PROPERTY NOT CONTROLLED BY THE PERSON OR ENTITY WHO HAS AUTHORIZED THE WORK WITHOUT PRIOR WRITTEN CONSENT FROM THE OWNER OF THE PRIVATE PROPERTY.
7. THE CONTRACTOR IS RESPONSIBLE TO RESTORE ANY DAMAGED OR UNDERMINED STRUCTURE OR SITE FEATURE THAT IS IDENTIFIED TO REMAIN ON THE PLAN SET. ALL REPAIRS SHALL USE NEW MATERIALS TO RESTORE THE FEATURE TO ITS EXISTING CONDITION AT THE CONTRACTORS EXPENSE.
8. CONTRACTOR IS RESPONSIBLE TO PROVIDE THE APPROPRIATE SHOP DRAWINGS, PRODUCT DATA, AND OTHER REQUIRED SUBMITTALS FOR REVIEW. STONEFIELD ENGINEERING & DESIGN, LLC. WILL REVIEW THE SUBMITTALS IN ACCORDANCE WITH THE DESIGN INTENT AS REFLECTED WITHIN THE PLAN SET.
9. THE CONTRACTOR IS RESPONSIBLE FOR TRAFFIC CONTROL IN ACCORDANCE WITH MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, LATEST EDITION.
10. THE CONTRACTOR IS REQUIRED TO PERFORM ALL WORK IN THE PUBLIC RIGHT-OF-WAY IN ACCORDANCE WITH THE APPROPRIATE GOVERNING AUTHORITY AND SHALL BE RESPONSIBLE FOR THE PROCUREMENT OF STREET OPENING PERMITS.
11. THE CONTRACTOR IS REQUIRED TO RETAIN AN OSHA CERTIFIED SAFETY INSPECTOR TO BE PRESENT ON SITE AT ALL TIMES DURING CONSTRUCTION & DEMOLITION ACTIVITIES.
12. SHOULD AN EMPLOYEE OF STONEFIELD ENGINEERING & DESIGN, LLC. BE PRESENT ON SITE AT ANY TIME DURING CONSTRUCTION, IT DOES NOT RELIEVE THE CONTRACTOR OF ANY OF THE RESPONSIBILITIES AND REQUIREMENTS LISTED IN THE NOTES WITHIN THIS PLAN SET.

20' 0' 20' 40'
GRAPHIC SCALE IN FEET
1" = 20'

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SITE DEVELOPMENT PLANS

1341 BUTTERFIELD RD.

PROPOSED AUTO WASH

PARCEL ID: 06-30-409-022-0000
1341 BUTTERFIELD ROAD
VILLAGE OF DOWNERS GROVE
DUPAGE COUNTY, IL 60515

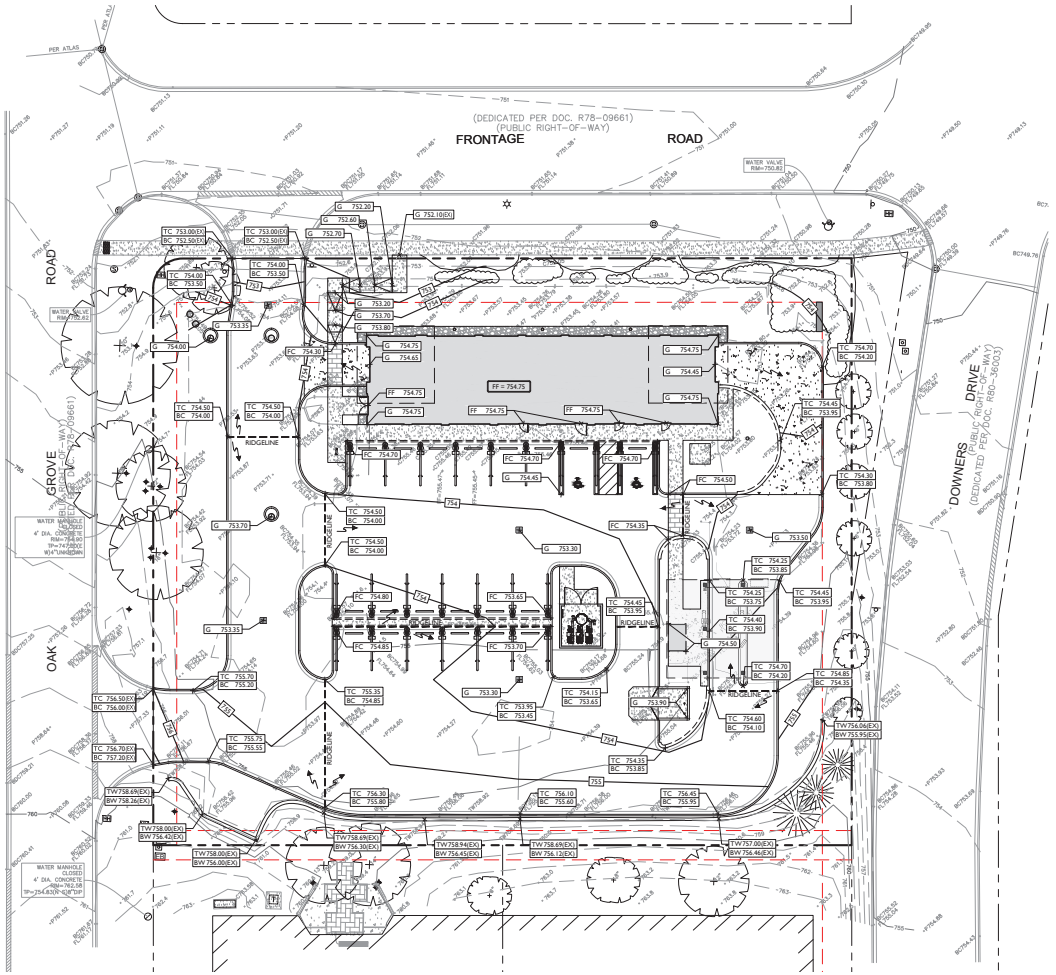
STONEFIELD engineering & design

SCALE: 1" = 20' | PROJECT ID: DET-250340

TITLE: SITE PLAN

DRAWING: C-3

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SYMBOL / DESCRIPTION

SYMBOL	DESCRIPTION
	PROPERTY LINE
100	PROPOSED GRADING CONTOUR
RIDGELINE	PROPOSED GRADING RIDGELINE
	PROPOSED DIRECTION OF DRAINAGE FLOW
G 100.00	PROPOSED GRADE SPOT SHOT
TC 100.50 BC 100.00	PROPOSED TOP OF CURB / BOTTOM OF CURB SPOT SHOT
FC 100.00	PROPOSED FLUSH CURB SPOT SHOT
FF 100.00	PROPOSED FINISHED FLOOR SPOT SHOT

GRADING NOTES

1. ALL SOIL AND MATERIAL REMOVED FROM THE SITE SHALL BE DISPOSED OF IN ACCORDANCE WITH LOCAL, STATE AND FEDERAL REQUIREMENTS. ANY GROUNDWATER DE-WATERING PRACTICES SHALL BE PERFORMED UNDER THE SUPERVISION OF A QUALIFIED PROFESSIONAL. THE CONTRACTOR IS REQUIRED TO OBTAIN ALL NECESSARY PERMITS FOR THE DISCHARGE OF DE-WATERED GROUNDWATER. ALL SOIL IMPORTED TO THE SITE SHALL BE CERTIFIED CLEAN FILL. CONTRACTOR SHALL MAINTAIN RECORDS OF ALL FILL MATERIALS BROUGHT TO THE SITE.
2. THE CONTRACTOR IS REQUIRED TO PROVIDE TEMPORARY AND/OR PERMANENT SHORING WHERE REQUIRED DURING EXCAVATION ACTIVITIES, INCLUDING BUT NOT LIMITED TO UTILITY TRENCHES, TO ENSURE THE STRUCTURAL INTEGRITY OF NEARBY STRUCTURES AND STABILITY OF THE SURROUNDING SOILS.
3. PROPOSED TOP OF CURB ELEVATIONS ARE GENERALLY 4 INCHES TO 7 INCHES ABOVE EXISTING GRADES UNLESS OTHERWISE NOTED. THE CONTRACTOR WILL SUPPLY ALL STAKEOUT CURB GRADE SHEETS TO STONEFIELD ENGINEERING & DESIGN, LLC. FOR REVIEW AND APPROVAL PRIOR TO POURING CURBS.
4. THE CONTRACTOR IS RESPONSIBLE TO SET ALL PROPOSED UTILITY COVERS AND RESET ALL EXISTING UTILITY COVERS WITHIN THE PROJECT LIMITS TO PROPOSED GRADE IN ACCORDANCE WITH ANY APPLICABLE MUNICIPAL, COUNTY, STATE AND/OR UTILITY AUTHORITY REGULATIONS.
5. MINIMUM SLOPE REQUIREMENTS TO PREVENT PONDING SHALL BE AS FOLLOWS:
   - CURB GUTTER: 0.50%
   - CONCRETE SURFACES: 1.00%
   - ASPHALT SURFACES: 1.00%
6. A MINIMUM SLOPE OF 1.00% SHALL BE PROVIDED AWAY FROM ALL BUILDINGS. THE CONTRACTOR SHALL ENSURE POSITIVE DRAINAGE FROM THE BUILDING IS ACHIEVED AND SHALL NOTIFY STONEFIELD ENGINEERING & DESIGN, LLC IF THIS CONDITION CANNOT BE MET.
7. FOR PROJECTS WHERE BASEMENTS ARE PROPOSED, THE DEVELOPER IS RESPONSIBLE TO DETERMINE THE DEPTH TO GROUNDWATER AT THE LOCATION OF THE PROPOSED STRUCTURE. IF GROUNDWATER IS ENCOUNTERED WITHIN THE BASEMENT AREA, SPECIAL CONSTRUCTION METHODS SHALL BE UTILIZED AND REVIEWED/APPROVED BY THE CONSTRUCTION CODE OFFICIAL. IF SUMP PUMPS ARE UTILIZED, ALL DISCHARGES SHALL BE CONNECTED DIRECTLY TO THE PUBLIC STORM SEWER SYSTEM WITH APPROVAL FROM THE GOVERNING STORM SEWER SYSTEM AUTHORITY.

ADA NOTES

1. THE CONTRACTOR SHALL MAINTAIN A MAXIMUM 2.00% SLOPE IN ANY DIRECTION WITHIN THE ADA PARKING SPACES AND ACCESS AISLES.
2. THE CONTRACTOR SHALL PROVIDE COMPLIANT SIGNAGE AT ALL ADA PARKING AREAS IN ACCORDANCE WITH STATE GUIDELINES.
3. THE CONTRACTOR SHALL MAINTAIN A MAXIMUM 5.00% RUNNING SLOPE AND A MAXIMUM OF 2.00% CROSS SLOPE ALONG WALKWAYS WITHIN THE ACCESSIBLE PATH OF TRAVEL (SEE THE SITE PLAN FOR THE LOCATION OF THE ACCESSIBLE PATH). THE CONTRACTOR IS RESPONSIBLE TO ENSURE THE ACCESSIBLE PATH OF TRAVEL IS 36 INCHES WIDE OR GREATER UNLESS INDICATED OTHERWISE WITHIN THE PLAN SET.
4. THE CONTRACTOR SHALL MAINTAIN A MAXIMUM 2.00% SLOPE IN ANY DIRECTION AT ALL LANDINGS. LANDINGS INCLUDE, BUT ARE NOT LIMITED TO, THE TOP AND BOTTOM OF AN ACCESSIBLE RAMP, AT ACCESSIBLE BUILDING ENTRANCES, AT AN AREA IN FRONT OF A WALK-UP ATM, AND AT TURNING SPACES ALONG THE ACCESSIBLE PATH OF TRAVEL. THE LANDING AREA SHALL HAVE A MINIMUM CLEAR AREA OF 60 INCHES BY 60 INCHES UNLESS INDICATED OTHERWISE WITHIN THE PLAN SET.
5. THE CONTRACTOR SHALL MAINTAIN A MAXIMUM 8.33% RUNNING SLOPE AND A MAXIMUM 2.00% CROSS SLOPE ON ANY CURB RAMPS ALONG THE ACCESSIBLE PATH OF TRAVEL. WHERE PROVIDED, CURB RAMP FLARES SHALL NOT HAVE A SLOPE GREATER THAN 10.00% IF A LANDING AREA IS PROVIDED AT THE TOP OF THE RAMP. FOR ALTERATIONS, A CURB RAMP FLARES SHALL NOT HAVE A SLOPE GREATER THAN 8.33% IF A LANDING AREA IS NOT PROVIDED AT THE TOP OF THE RAMP. CURB RAMPS SHALL NOT RISE MORE THAN 6 INCHES IN ELEVATION WITHOUT A HANDRAIL. THE CLEAR WIDTH OF A CURB RAMP SHALL BE NO LESS THAN 36 INCHES WIDE.
6. ACCESSIBLE RAMPS WITH A RISE GREATER THAN 6 INCHES SHALL CONTAIN COMPLIANT HANDRAILS ON BOTH SIDES OF THE RAMP AND SHALL NOT RISE MORE THAN 30" IN ELEVATION WITHOUT A LANDING AREA IN BETWEEN RAMP RUNS. LANDING AREAS SHALL ALSO BE PROVIDED AT THE TOP AND BOTTOM OF THE RAMP.
7. A SLIP RESISTANT SURFACE SHALL BE CONSTRUCTED ALONG THE ACCESSIBLE PATH AND WITHIN ADA PARKING AREAS.
8. THE CONTRACTOR SHALL ENSURE A MAXIMUM OF ½ INCHES VERTICAL CHANGE IN LEVEL ALONG THE ACCESSIBLE PATH. WHERE A CHANGE IN LEVEL BETWEEN ¼ INCHES AND ½ INCHES EXISTS, CONTRACTOR SHALL ENSURE THAT THE TOP ½ INCH CHANGE IN LEVEL IS BEVELED WITH A SLOPE NOT STEEPER THAN 1 UNIT VERTICAL AND 2 UNITS HORIZONTAL (2:1 SLOPE).
9. THE CONTRACTOR SHALL ENSURE THAT ANY OPENINGS (GAPS OR HORIZONTAL SEPARATION) ALONG THE ACCESSIBLE PATH SHALL NOT ALLOW PASSAGE OF A SPHERE GREATER THAN ½ INCH.

20' 0' 20' 40'
GRAPHIC SCALE IN FEET
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SITE DEVELOPMENT PLANS

1341 BUTTERFIELD RD.

PROPOSED AUTO WASH

PARCEL ID: 06-30-409-022-0000
LOT 1 IN BUTTERFIELD ROAD
VILLAGE OF DOWNERS GROVE
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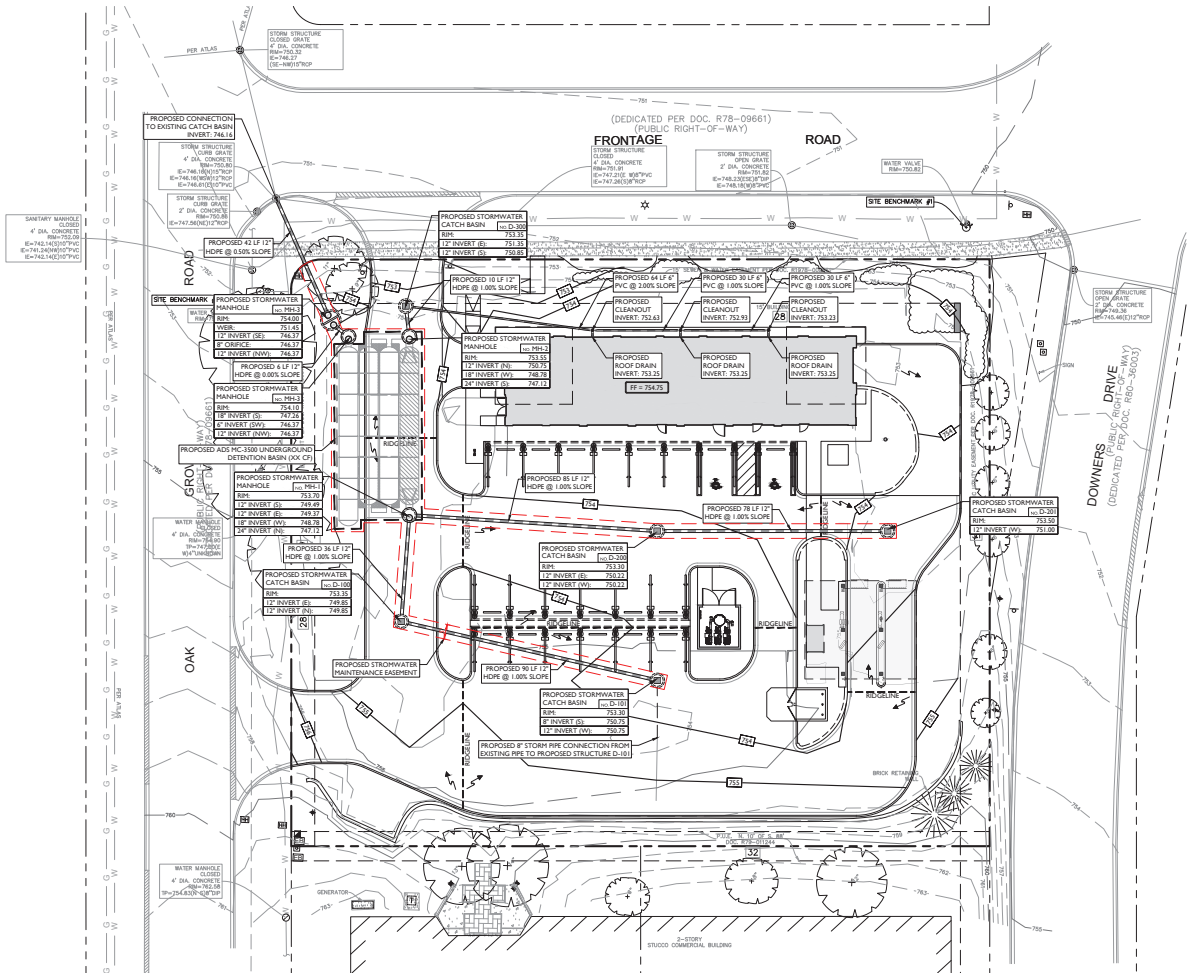
STONEFIELD engineering & design

SCALE: 1" = 20' | PROJECT ID: DET-250340

TITLE: GRADING PLAN

DRAWING: C-4

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SYMBOL / DESCRIPTION

- PROPERTY LINE
- PROPOSED GRADING CONTOUR
- RIDGELINE — PROPOSED GRADING RIDGELINE
- PROPOSED STORMWATER STRUCTURES
- PROPOSED STORMWATER PIPING
- PROPOSED UNDERGROUND OUTLET STRUCTURE

DRAINAGE AND UTILITY NOTES

1. THE CONTRACTOR TO PERFORM A TEST PIT PRIOR TO CONSTRUCTION (RECOMMEND 30 DAYS PRIOR) AT LOCATIONS OF EXISTING UTILITY CROSSINGS FOR STORMWATER IMPROVEMENTS. SHOULD A CONFLICT EXIST, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY STONEFIELD ENGINEERING & DESIGN, LLC. IN WRITING.
2. CONTRACTOR SHALL START CONSTRUCTION OF STORM LINES AT THE LOWEST INVERT AND WORK UP-GRADIENT.
3. THE CONTRACTOR IS REQUIRED TO CALL THE APPROPRIATE AUTHORITY FOR NOTICE OF CONSTRUCTION/EXCAVATION AND UTILITY MARK OUT PRIOR TO THE START OF CONSTRUCTION IN ACCORDANCE WITH STATE LAW. CONTRACTOR IS REQUIRED TO CONFIRM THE HORIZONTAL AND VERTICAL LOCATION OF UTILITIES IN THE FIELD. SHOULD A DISCREPANCY EXIST BETWEEN THE FIELD LOCATION OF A UTILITY AND THE LOCATION SHOWN ON THE PLAN SET OR SURVEY, THE CONTRACTOR SHALL NOTIFY STONEFIELD ENGINEERING & DESIGN, LLC. IMMEDIATELY IN WRITING.
4. THE CONTRACTOR IS RESPONSIBLE TO MAINTAIN A RECORD OF THE AS-BUILT LOCATIONS OF ALL PROPOSED UNDERGROUND INFRASTRUCTURE. THE CONTRACTOR SHALL NOTE ANY DISCREPANCIES BETWEEN THE AS-BUILT LOCATIONS AND THE LOCATIONS DEPICTED WITHIN THE PLAN SET. THIS RECORD SHALL BE PROVIDED TO THE OWNER FOLLOWING COMPLETION OF WORK.

EXCAVATION, SOIL PREPARATION, AND DEWATERING NOTES

1. THE CONTRACTOR IS REQUIRED TO REVIEW THE REFERENCED GEOTECHNICAL DOCUMENTS PRIOR TO CONSTRUCTION. THESE DOCUMENTS SHALL BE CONSIDERED A PART OF THE PLAN SET.
2. THE CONTRACTOR IS REQUIRED TO PREPARE SUBGRADE SOILS BENEATH ALL PROPOSED IMPROVEMENTS AND BACKFILL ALL EXCAVATIONS IN ACCORDANCE WITH RECOMMENDATIONS BY THE GEOTECHNICAL ENGINEER OF RECORD.
3. THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING SHORING FOR ALL EXCAVATIONS AS REQUIRED. CONTRACTOR SHALL HAVE THE SHORING DESIGN PREPARED BY A QUALIFIED PROFESSIONAL. SHORING DESIGNS SHALL BE SUBMITTED TO STONEFIELD ENGINEERING & DESIGN, LLC. AND THE OWNER PRIOR TO THE START OF CONSTRUCTION.
4. THE CONTRACTOR IS RESPONSIBLE FOR ENSURING THAT ALL OPEN EXCAVATIONS ARE PERFORMED AND PROTECTED IN ACCORDANCE WITH THE LATEST OSHA REGULATIONS.
5. THE CONTRACTOR IS RESPONSIBLE FOR ANY DEWATERING DESIGN AND OPERATIONS, AS REQUIRED, TO CONSTRUCT THE PROPOSED IMPROVEMENTS. THE CONTRACTOR SHALL OBTAIN ANY REQUIRED PERMITS FOR DEWATERING OPERATIONS AND GROUNDWATER DISPOSAL.

STORMWATER INFILTRATION BMP CONSTRUCTION NOTES

1. PRIOR TO THE START OF CONSTRUCTION, ANY AREA DESIGNATED TO BE USED FOR AN INFILTRATION BMP (E.G. BASIN, BIORETENTION AREA, ETC.) SHALL BE FENCED OFF AND SHALL NOT BE UTILIZED AS STORAGE FOR CONSTRUCTION EQUIPMENT OR AS A STOCKPILE AREA FOR CONSTRUCTION MATERIALS. NO ACTIVITY SHALL BE PERMITTED WITHIN THE INFILTRATION BASIN AREA UNLESS RELATED TO THE CONSTRUCTION OF THE INFILTRATION BASIN. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO NOTIFY ALL SUBCONTRACTORS OF BASIN AREA RESTRICTIONS.
2. THE CONTRACTOR SHALL MAKE EVERY EFFORT, WHERE PRACTICAL, TO AVOID SUBGRADE SOIL COMPACTION IN THE AREAS DESIGNATED TO BE USED FOR AN INFILTRATION BMP.
3. ALL EXCAVATION WITHIN THE LIMITS OF ANY INFILTRATION BMP SHALL BE PERFORMED WITH THE LIGHTEST PRACTICAL EXCAVATION EQUIPMENT. ALL EXCAVATION EQUIPMENT SHALL BE PLACED OUTSIDE THE LIMITS OF THE BASIN WHERE FEASIBLE. THE USE OF LIGHT-WEIGHT, RUBBER-TIRED EQUIPMENT (LESS THAN 8 PSI APPLIED TO THE GROUND SURFACE) IS RECOMMENDED WITHIN THE BASIN LIMITS.
4. THE SEQUENCE OF SITE CONSTRUCTION SHALL BE COORDINATED WITH BASIN CONSTRUCTION TO ADHERE TO SEQUENCING LIMITATIONS.
5. DURING THE FINAL GRADING OF AN INFILTRATION BASIN, THE BOTTOM OF THE BASIN SHALL BE DEEPLY TILLED WITH A ROTARY TILLER OR DISC HARROW AND THEN SHOOTHED OUT WITH A LEVELING DRAW OR EQUIVALENT GRADING EQUIPMENT. ALL GRADING EQUIPMENT SHALL BE LOCATED OUTSIDE OF THE BASIN BOTTOM WHERE FEASIBLE.
6. FOLLOWING CONSTRUCTION OF AN INFILTRATION BASIN, SOIL INFILTRATION TESTING BY A LICENSED GEOTECHNICAL ENGINEER IS REQUIRED TO CERTIFY COMPLIANCE WITH THE DESIGN INFILTRATION RATES IN ACCORDANCE WITH APPENDIX E OF THE NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION'S BEST MANAGEMENT PRACTICES MANUAL, LATEST EDITION. IF THE FIELD INFILTRATION RATES ARE LOWER THAN THE RATE USED DURING DESIGN, THE CONTRACTOR SHALL NOTIFY STONEFIELD ENGINEERING & DESIGN, LLC. IN WRITING IMMEDIATELY TO DETERMINE THE APPROPRIATE COURSE OF ACTION.
7. THE CONTRACTOR SHALL NOTIFY THE MUNICIPALITY TO DETERMINE IF WITNESS TESTING IS REQUIRED DURING INFILTRATION BASIN EXCAVATION AND/OR SOIL INFILTRATION TESTING.

STORMWATER UNDERGROUND BMP CONSTRUCTION NOTES

1. THE CONTRACTOR SHALL INSTALL AND BACKFILL THE UNDERGROUND BMP IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS.
2. UNDERGROUND BASINS SHALL UTILIZE A STONE BACKFILL WITH A MINIMUM VOID RATIO OF 40%.
3. NO CONSTRUCTION LOADING OVER UNDERGROUND BASINS IS PERMITTED UNTIL BACKFILL IS COMPLETE PER THE MANUFACTURER'S SPECIFICATIONS. NO VEHICLES SHALL BE STAGED OR OPERATE FROM A FIXED POSITION OVER THE BASIN.

20' 0' 20' 40'
GRAPHIC SCALE IN FEET
1" = 20'

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SITE DEVELOPMENT PLANS

1341 BUTTERFIELD RD.

PROPOSED AUTO WASH

PARCEL ID: 06-30-409-022-0000
LOT 1 OF BUTTERFIELD RD.
VILLAGE OF DOWNERS GROVE
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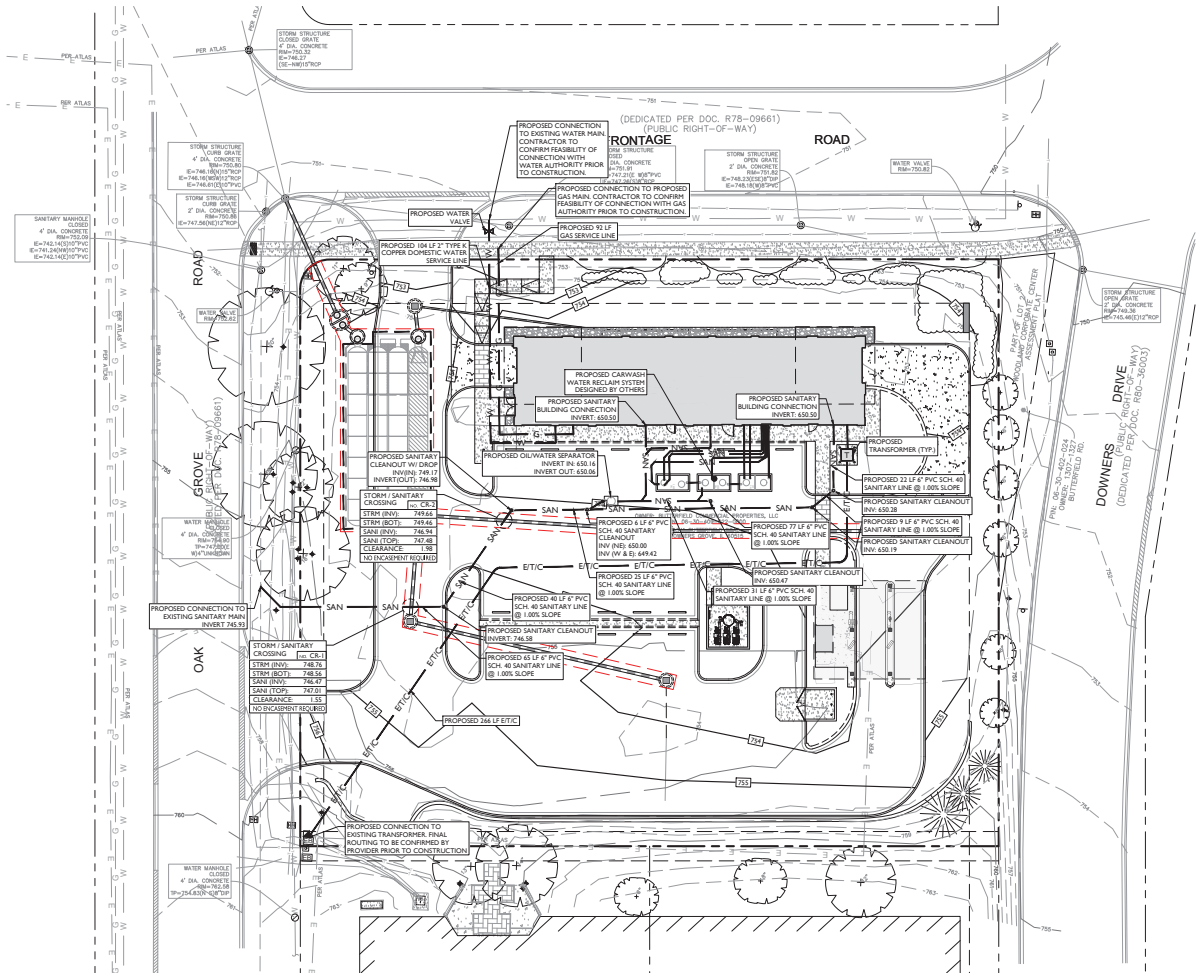
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SCALE: 1" = 20' | PROJECT ID: DET-250340

TITLE: STORMWATER MANAGEMENT PLAN

DRAWING: C-5

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DRAINAGE AND UTILITY NOTES

1. THE CONTRACTOR IS REQUIRED TO CALL THE APPROPRIATE AUTHORITY FOR NOTICE OF CONSTRUCTION/EXCAVATION AND UTILITY MARK OUT PRIOR TO THE START OF CONSTRUCTION IN ACCORDANCE WITH STATE LAW. CONTRACTOR IS REQUIRED TO CONFIRM THE HORIZONTAL AND VERTICAL LOCATION OF UTILITIES IN THE FIELD. SHOULD A DISCREPANCY EXIST BETWEEN THE FIELD LOCATION OF A UTILITY AND THE LOCATION SHOWN ON THE PLAN SET OR SURVEY, THE CONTRACTOR SHALL NOTIFY STONEFIELD ENGINEERING & DESIGN, LLC IMMEDIATELY IN WRITING.
2. THE CONTRACTOR IS RESPONSIBLE TO PROTECT AND MAINTAIN IN OPERATION ALL UTILITIES NOT DESIGNATED TO BE REMOVED.
3. THE CONTRACTOR IS RESPONSIBLE FOR REPAIRING ANY DAMAGE TO ANY EXISTING UTILITY IDENTIFIED TO REMAIN WITHIN THE LIMITS OF THE PROPOSED WORK DURING CONSTRUCTION.
4. A MINIMUM HORIZONTAL SEPARATION OF 10 FEET IS REQUIRED BETWEEN ANY SANITARY SEWER SERVICE AND ANY WATER LINES. IF THIS SEPARATION CANNOT BE PROVIDED, A CONCRETE ENCASEMENT SHALL BE UTILIZED FOR THE SANITARY SEWER SERVICE AS APPROVED BY STONEFIELD ENGINEERING & DESIGN, LLC.
5. ALL WATER LINES SHALL BE VERTICALLY SEPARATED ABOVE SANITARY SEWER LINES BY A MINIMUM DISTANCE OF 18 INCHES. IF THIS SEPARATION CANNOT BE PROVIDED, A CONCRETE ENCASEMENT SHALL BE UTILIZED FOR THE SANITARY SEWER SERVICE AS APPROVED BY STONEFIELD ENGINEERING & DESIGN, LLC.
6. THE CONTRACTOR TO PERFORM A TEST PIT PRIOR TO CONSTRUCTION (RECOMMEND 30 DAYS PRIOR) AT LOCATIONS OF EXISTING UTILITY CROSSINGS FOR WATER AND SANITARY SEWER CONNECTION IMPROVEMENTS. SHOULD A CONFLICT EXIST, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY STONEFIELD ENGINEERING & DESIGN LLC IN WRITING.
7. THE CONTRACTOR IS RESPONSIBLE FOR COORDINATING GAS, ELECTRIC AND TELECOMMUNICATION CONNECTIONS WITH THE APPROPRIATE GOVERNING AUTHORITY.
8. CONTRACTOR SHALL START CONSTRUCTION OF ANY GRAVITY SEWER AT THE LOWEST INVERT AND WORK UP-GRADIENT.
9. THE CONTRACTOR IS RESPONSIBLE TO MAINTAIN A RECORD SET OF PLANS REFLECTING THE LOCATION OF EXISTING UTILITIES THAT HAVE BEEN CAPPED, ABANDONED, OR RELOCATED BASED ON THE DEMOLITION/REMOVAL ACTIVITIES REQUIRED IN THIS PLAN SET. THIS DOCUMENT SHALL BE PROVIDED TO THE OWNER FOLLOWING COMPLETION OF WORK.
10. THE CONTRACTOR IS RESPONSIBLE TO MAINTAIN A RECORD OF THE AS-BUILT LOCATIONS OF ALL PROPOSED UNDERGROUND INFRASTRUCTURE. THE CONTRACTOR SHALL NOTE ANY DISCREPANCIES BETWEEN THE AS-BUILT LOCATIONS AND THE LOCATIONS DEPICTED WITHIN THE PLAN SET. THIS RECORD SHALL BE PROVIDED TO THE OWNER FOLLOWING COMPLETION OF WORK.

SYMBOL	DESCRIPTION
	PROPERTY LINE
SAN	PROPOSED SANITARY LATERAL
W	PROPOSED DOMESTIC WATER SERVICE
E/T/C	PROPOSED ELECTRICAL/DATA CONDUITS
G	PROPOSED GAS LINE
	PROPOSED SANITARY CLEANOUT
T	PROPOSED TRANSFORMER ON CONCRETE PAD WITH BOLLARDS

20' 0' 20' 40'
GRAPHIC SCALE IN FEET
1" = 20'

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Phone: 248.247.1115

SITE DEVELOPMENT PLANS

1341 BUTTERFIELD RD.

PROPOSED AUTO WASH

PARCEL ID: 06-30-409-022-0000
LOCATED IN THE NORTHEAST 1/4 OF SECTION 30
VILLAGE OF DOWNERS GROVE
DUPAGE COUNTY, IL 60515

STONEFIELD engineering & design

SCALE: 1" = 20' | PROJECT ID: DET-250340

TITLE: UTILITY PLAN

DRAWING: C-6

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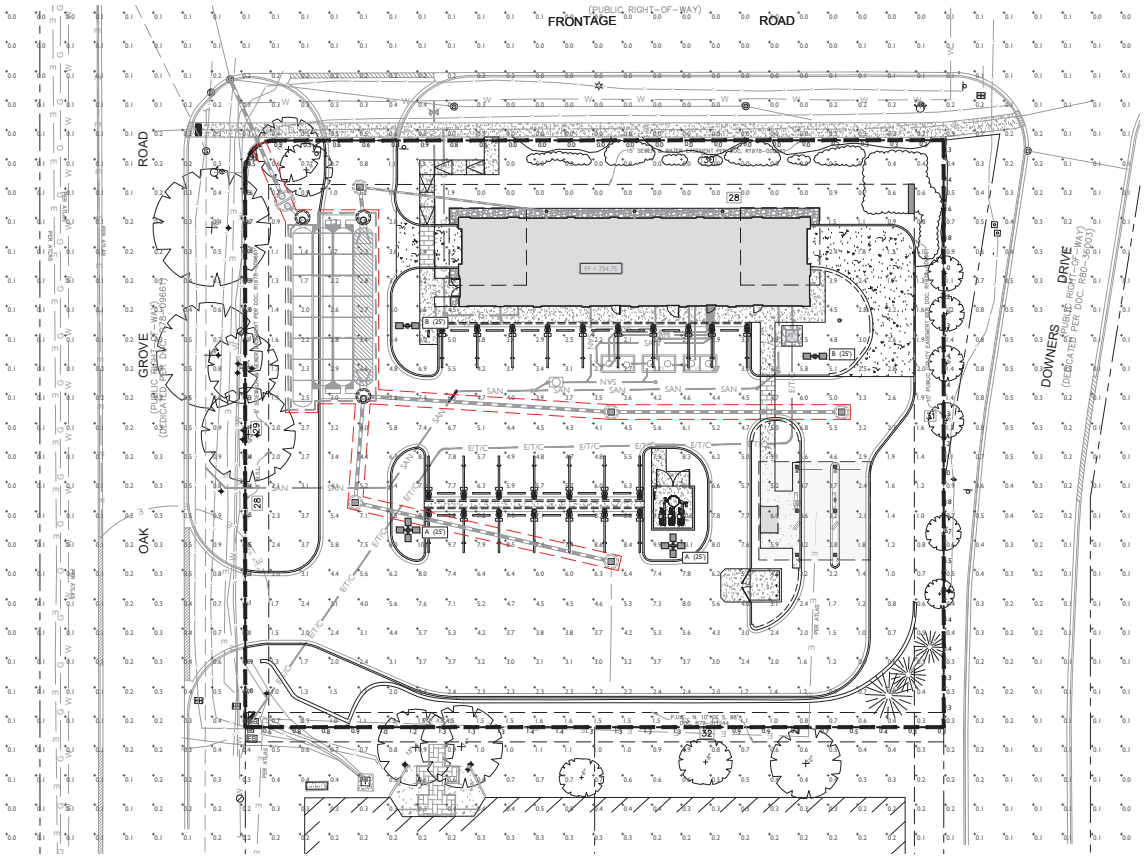
LIGHTING REQUIREMENTS		
CODE SECTION	REQUIRED	PROPOSED
TABLE 10-1	MAXIMUM AVERAGE FC AT LOT LINES: 2.00 FC	0.76 FC
§ 428.10.030.H	MAXIMUM LIGHT FIXTURE HEIGHT: 30 FT	25 FT

§ 28.10.030.G - ALL OUTDOOR LIGHTING MUST BE DESIGNED, INSTALLED AND MAINTAINED TO AVOID THE ADVERSE IMPACTS OF GLARE AND LIGHT TRESPASS ASSOCIATED WITH POORLY SHIELDED OR INAPPROPRIATELY DIRECTED LIGHTING FIXTURES.

LIGHTING STATISTICS				
DESCRIPTION	AVERAGE	MINIMUM	MAXIMUM	(AVERAGE/MINIMUM) UNIFORMITY RATIO
OVERALL PARCEL	3.1 FC	0.0 FC	10.1 FC	12.1 FC
PROPERTY LINE	0.7 FC	0.0 FC	1.5 FC	7.6 FC
5 FT OUTSIDE PARCEL	0.7 FC	0.0 FC	1.4 FC	7.3 FC

(1) § 28.10.030.D - LIGHTING PLANS MUST INCLUDE A SUMMARY CALCULATION TABLE SHOWING AVERAGE FOOT-CANDLES, MINIMUM FOOT-CANDLES, MAXIMUM FOOT-CANDLES, AVERAGE-MINIMUM UNIFORMITY RATIO, AND FOOTCANDLES AT PROPERTY LINES AND AT LEAST 5 FT BEYOND

PROPOSED LUMINAIRE SCHEDULE							
SYMBOL	LABEL	QUANTITY	SECURITY LIGHTING	DISTRIBUTION	LLF	MANUFACTURER	IES FILE
	A	2	EATON LUMARK PREVAIL AND FIXTURE COMBO AREA LIGHT - QUAD @ 90°	IV	0.9	EATON	PRV-C40-D-UNV-T4-BZ-7030.ies
	B	2	EATON LUMARK PREVAIL AND FIXTURE COMBO AREA LIGHT - DOUBLE @180°	IV	0.9	EATON	PRV-C40-D-UNV-T4-BZ-7030.ies



SYMBOL — **DESCRIPTION**

- PROPERTY LINE
- A (XX') — PROPOSED LIGHTING FIXTURE (MOUNTING HEIGHT)

GENERAL LIGHTING NOTES

1. THE LIGHTING LEVELS DEPICTED WITHIN THE PLAN SET ARE CALCULATED UTILIZING DATA OBTAINED FROM THE LISTED MANUFACTURER. ACTUAL ILLUMINATION LEVELS AND PERFORMANCE OF ANY PROPOSED LIGHTING FIXTURE MAY VARY DUE TO UNCONTROLLABLE VARIABLES SUCH ARE WEATHER, VOLTAGE SUPPLY, LAMP TOLERANCE, EQUIPMENT SERVICE LIFE AND OTHER VARIABLE FIELD CONDITIONS.
2. WHERE APPLICABLE, THE EXISTING LIGHT LEVELS DEPICTED WITHIN THE PLAN SET SHALL BE CONSIDERED APPROXIMATE. THE EXISTING LIGHT LEVELS ARE BASED ON FIELD OBSERVATIONS AND THE MANUFACTURER'S DATA OF THE ASSUMED OR MOST SIMILAR LIGHTING FIXTURE MODEL.
3. UNLESS NOTED ELSEWHERE WITHIN THIS PLAN SET, THE LIGHT LOSS FACTORS USED IN THE LIGHTING ANALYSIS ARE AS FOLLOWS:
   - LIGHT EMITTING DIODES (LED): 0.90
   - HIGH PRESSURE SODIUM: 0.72
   - METAL HALIDE: 0.72
4. THE CONTRACTOR SHALL NOTIFY STONEFIELD ENGINEERING & DESIGN, LLC. IN WRITING, PRIOR TO THE START OF CONSTRUCTION, OF ANY PROPOSED LIGHTING LOCATIONS THAT CONFLICT WITH EXISTING/ PROPOSED DRAINAGE, UTILITY, OR OTHER IMPROVEMENTS.
5. THE CONTRACTOR IS RESPONSIBLE TO PREPARE A WIRING PLAN AND PROVIDE ELECTRIC SERVICE TO ALL PROPOSED LIGHTING FIXTURES. THE CONTRACTOR IS REQUIRED TO PREPARE AN AS-BUILT PLAN OF WIRING AND PROVIDE COPIES TO THE OWNER AND STONEFIELD ENGINEERING & DESIGN, LLC.

20' 0' 20' 40'
GRAPHIC SCALE IN FEET
1" = 20'

ISSUE	DATE	BY	DESCRIPTION
1	03/26/2015	VF	FOR PLANNING AND ZONING SUBMISSION
2	04/01/2015	VF	REVISED PER PLANNING AND ZONING COMMENTS

NOT APPROVED FOR CONSTRUCTION

STONEFIELD engineering & design
Birmingham, MI · New York, NY · Salem, MA
Princeton, NJ · Tampa, FL · Rutherford, NJ
www.stonefieldeng.com
555 S. Old Woodward Avenue, Suite 120, Birmingham, MI 48009
Phone: 248.247.1115

SITE DEVELOPMENT PLANS

1341 BUTTERFIELD RD.

PROPOSED AUTO WASH

PARCEL ID: 06-30-409-022-0000
1341 BUTTERFIELD ROAD
VILLAGE OF DOWNERS GROVE
DUPAGE COUNTY, IL 60515

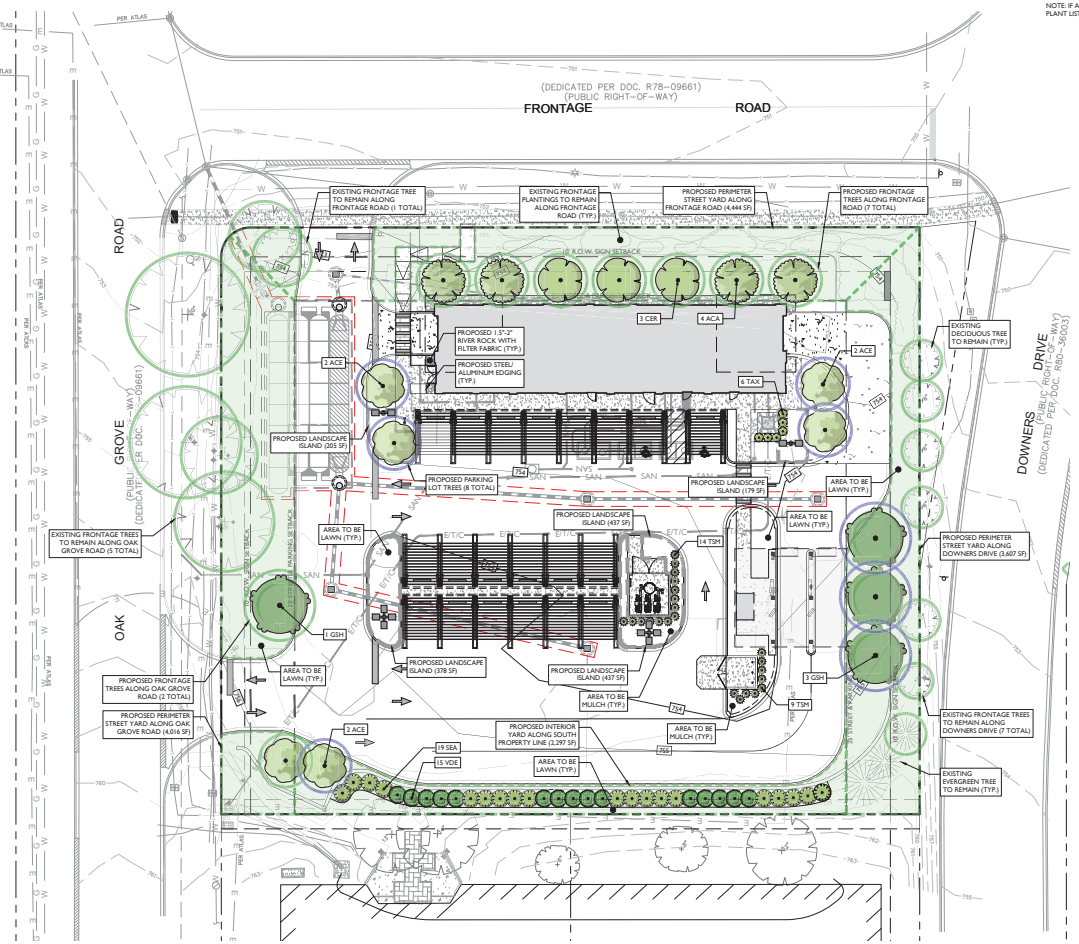
STONEFIELD engineering & design

SCALE: 1" = 20' | PROJECT ID: DET-250340

TITLE: LIGHTING PLAN

DRAWING: C-7

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PLANT SCHEDULE

SYMBOL	CODE	QTY	BOTANICAL NAME	COMMON NAME	SIZE	CONTAINER
DECIDUOUS TREES						
	ACE	5	ACER X FREEMANII	FREEMAN MAPLE	2.5" - 3" CAL	B&B
	GSH	4	GLEDITSIA TRIACANTHOS INERMIS 'SHADEMASTER'	SHADEMASTER HONEY LOCUST	2.5" - 3" CAL	B&B
EVERGREEN TREES						
	TSM	23	THUJA OCCIDENTALIS 'SMARAGD'	EMERALD GREEN ARBORVITAE	6' - 8' HT	B&B
ORNAMENTAL TREES (SINGLE-STEM)						
	ACA	4	AMELANCHIER CANADENSIS	CANADIAN SERVICEBERRY	4' - 5' HT	B&B
	CER	3	CERCIS CANADENSIS	EASTERN REDBUD	4' - 5' HT	B&B
SHRUBS						
	VDE	15	VIBURNUM DENTATUM	VIBURNUM	18" - 24"	POT
EVERGREEN SHRUBS						
	SEA	19	JUNIPERUS X PFITZERIANA 'SEA GREEN'	SEA GREEN PFITZER JUNIPER	18" - 24"	POT
	TAX	6	TAXUS X MEDIA 'DENSIFORMIS'	DENSE ANGLO-JAPANESE YEW	18" - 24"	POT

NOTE: IF ANY DISCREPANCIES OCCUR BETWEEN AMOUNTS SHOWN ON THE LANDSCAPE PLAN AND WITHIN THE PLANT LIST, THE PLAN SHALL DICTATE.

LANDSCAPING AND BUFFER REQUIREMENTS

CODE SECTION	REQUIRED	PROPOSED
	PERIMETER PARKING LOT LANDSCAPING - STREET YARDS	
§ 28.8.020.(b)(2)	PARKING ACROSS THE STREET FROM NON-RESIDENTIAL: 75% OF PERIMETER SHALL BE LANDSCAPED	
	OAK GROVE ROAD PERIMETER: 4,678 SF	
	(4,678 SF) * (0.75) = 3,509 SF	4,016 SF (85.8%)
	FRONTAGE ROAD PERIMETER: 5,316 SF	
	(5,316 SF) * (0.75) = 3,987 SF	4,444 SF (83.6%)
	DOWNERS DRIVE PERIMETER: 4,693 SF	
	(4,693 SF) * (0.75) = 3,520 SF	3,607 SF (76.9%)
§ 28.8.020.(b)(3)	PARKING LOT PERIMETER LANDSCAPING MUST BE PROVIDED IN PLANT GROUPINGS OF MINIMUM 3 LIVE PLANTS	COMPLIES
§ 28.8.020.(b)(4)	PARKING LOT PERIMETER MAY CONSIST OF SHRUBS, ORNAMENTAL GRASSES, TREES, AND PERENNIALS	COMPLIES
§ 28.8.020.(b)(5)	1 SHADE/ORNAMENTAL TREE FOR EVERY 30 LF OF STREET FRONTAGE	
	OAK GROVE ROAD PERIMETER: 200 FT	
	(200 FT) * (1 TREE / 30 FT) = 7 TREES	5 EXISTING TREES 2 PROPOSED TREES
	FRONTAGE ROAD PERIMETER: 238 FT	
	(238 FT) * (1 TREE / 30 FT) = 8 TREES	1 EXISTING TREE 7 PROPOSED TREES
	DOWNERS DRIVE PERIMETER: 200 FT	
	(200 FT) * (1 TREE / 30 FT) = 7 TREES	7 EXISTING TREES
	PERIMETER PARKING LOT LANDSCAPING - INTERIOR YARDS	
§ 28.8.020.(c)(1)a.	PARKING LOCATED IN SIDE/REAR YARD ABUTTING ANOTHER LOT: 50% OF PERIMETER SHALL BE LANDSCAPED WITH PLANT GROUPINGS OF MINIMUM 3 LIVE PLANTS	
	SOUTH PERIMETER: 2,297 SF	
	(2,297 SF) * (0.50) = 1,149 SF	2,297 SF (100.0%)
§ 28.8.020.(c)(1)b.	PARKING LOT PERIMETER MAY CONSIST OF SHRUBS, ORNAMENTAL GRASSES, TREES, AND PERENNIALS	COMPLIES
	LANDSCAPE ISLANDS	
§ 28.8.030.(b)(1)	LANDSCAPE ISLANDS MUST BE LOCATED AT THE END OF EACH PARKING ROW	COMPLIES
§ 28.8.030.(b)(2)	MAXIMUM DISTANCE BETWEEN ISLANDS: 20 SPACES	COMPLIES
	MINIMUM AREA (SINGLE ROW): 150 SF	COMPLIES
§ 28.8.030.(b)(3)	MINIMUM AREA (DOUBLE ROW): 300 SF	COMPLIES
	MINIMUM WITH: 7 FT	COMPLIES
	1 TREE FOR EVERY 150 SF OF LANDSCAPE ISLAND	
	(1,197 FT) * (1 TREE / 150 SF) = 8 TREES	8 TREES(1)
	SCREENING	
§ 28.8.040.(a)(1)	GROUND-MOUNTED MECHANICAL EQUIPMENT SHALL BE SCREENED FROM R.O.W.	COMPLIES
§ 28.8.040.(a)(3)	REFUSE CONTAINERS SHALL BE SCREENED FROM R.O.W.	COMPLIES

(1) PARKING LOT TREES ARE PROPOSED ADJACENT TO THE PARKING AREA WHERE PLANTING SPACE IS LIMITED WITHIN LANDSCAPE ISLANDS DUE TO UTILITIES.

SYMBOL / **DESCRIPTION**

- PROPOSED PERIMETER STREET YARD
- PROPOSED PERIMETER STREET YARD TREES
- PROPOSED PARKING LOT TREES
- PROPOSED LANDSCAPED ISLANDS

Know what's **below** **Call** before you dig.

HERBICIDE WEED CONTROL NOTE:

MULCH AND DECORATIVE STONE PLANTING BEDS TO RECEIVE PRE-EMERGENT HERBICIDE.

- PREEN EXTENDED CONTROL WEED PREVENTOR
- HERBICIDE OR APPROVED EQUAL TO BE UTILIZED.
- APPLICATION SHALL BE ON AS-NEEDED BASIS PER MANUFACTURER SPECIFICATION.



LANDSCAPING NOTES

1. THE CONTRACTOR SHALL RESTORE ALL DISTURBED GRASS AND LANDSCAPED AREAS TO MATCH EXISTING CONDITIONS UNLESS INDICATED OTHERWISE WITHIN THE PLAN SET.
2. THE CONTRACTOR SHALL RESTORE ALL DISTURBED LAWN AREAS WITH A MINIMUM 4 INCH LAYER OF TOPSOIL AND SEED.
3. THE CONTRACTOR SHALL RESTORE MULCH AREAS WITH A MINIMUM 3 INCH LAYER OF MULCH .
4. THE MAXIMUM SLOPE ALLOWABLE IN LANDSCAPE RESTORATION AREAS SHALL BE 3 FEET HORIZONTAL TO 1 FOOT VERTICAL (3:1 SLOPE) UNLESS INDICATED OTHERWISE WITHIN THE PLAN SET.
5. THE CONTRACTOR IS REQUIRED TO LOCATE ALL SPRINKLER HEADS IN AREA OF LANDSCAPING DISTURBANCE PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL RELOCATE SPRINKLER HEADS AND LINES IN ACCORDANCE WITH OWNER'S DIRECTION WITHIN AREAS OF DISTURBANCE.
6. THE CONTRACTOR SHALL ENSURE THAT ALL DISTURBED LANDSCAPED AREAS ARE GRADED TO MEET FLUSH AT THE ELEVATION OF WALKWAYS AND TOP OF CURB ELEVATIONS EXCEPT UNLESS INDICATED OTHERWISE WITHIN THE PLAN SET. NO ABRUPT CHANGES IN GRADE ARE PERMITTED IN DISTURBED LANDSCAPING AREAS.

20' 0' 20' 40'
GRAPHIC SCALE IN FEET
1" = 20'

ISSUE	DATE	BY	DESCRIPTION
2	04/01/2016	VF	REVISED PER PLANNING AND ZONING COMMENTS
1	02/26/2016	VF	FOR PLANNING AND ZONING SUBMISSION

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SITE DEVELOPMENT PLANS

1341 BUTTERFIELD RD.

PROPOSED AUTO WASH

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VILLAGE OF DOWNERS GROVE
DUPAGE COUNTY, IL 60515

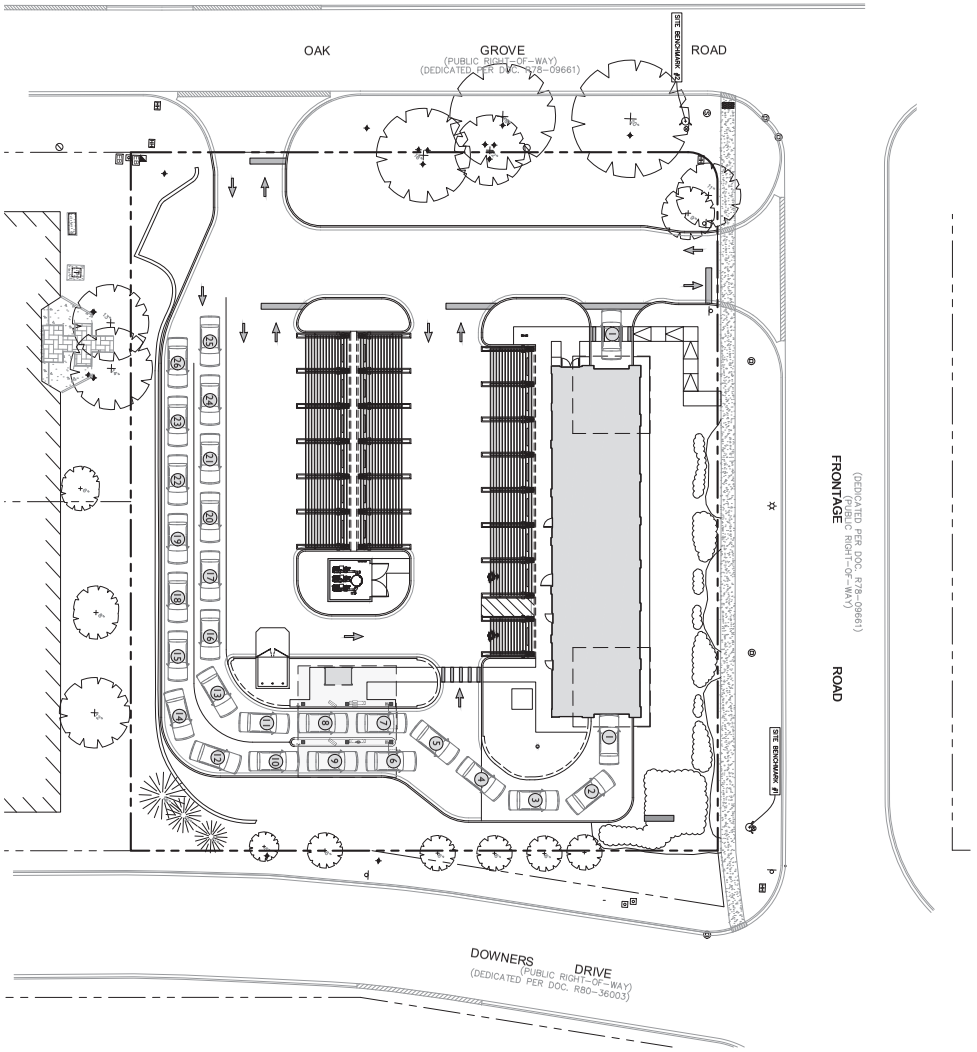
STONEFIELD engineering & design

SCALE: 1" = 20' | PROJECT ID: DET-250340

TITLE: LANDSCAPING PLAN

DRAWING: C-8

V:\DET\2025\DET-250340 ALKIG & ELCAR WASH - 1341 BUTTERFIELD RD, DOWNERS GROVE, IL\CAD\PLOT\DP-EX-01-STACK.DWG



GRAPHIC SCALE IN FEET
1" = 20'

2	04/01/2026	VF	REVISED PER PLANNING AND ZONING COMMENTS
1	02/26/2026	VF	FOR PLANNING AND ZONING SUBMISSION
ISSUE	DATE	BY	DESCRIPTION

NOT APPROVED FOR CONSTRUCTION

SITE DEVELOPMENT PLANS

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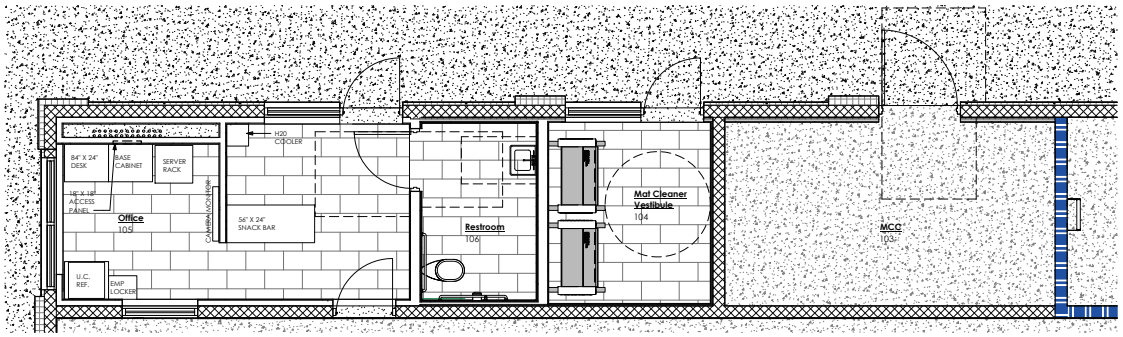
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TITLE: VEHICLE STACKING EXHIBIT

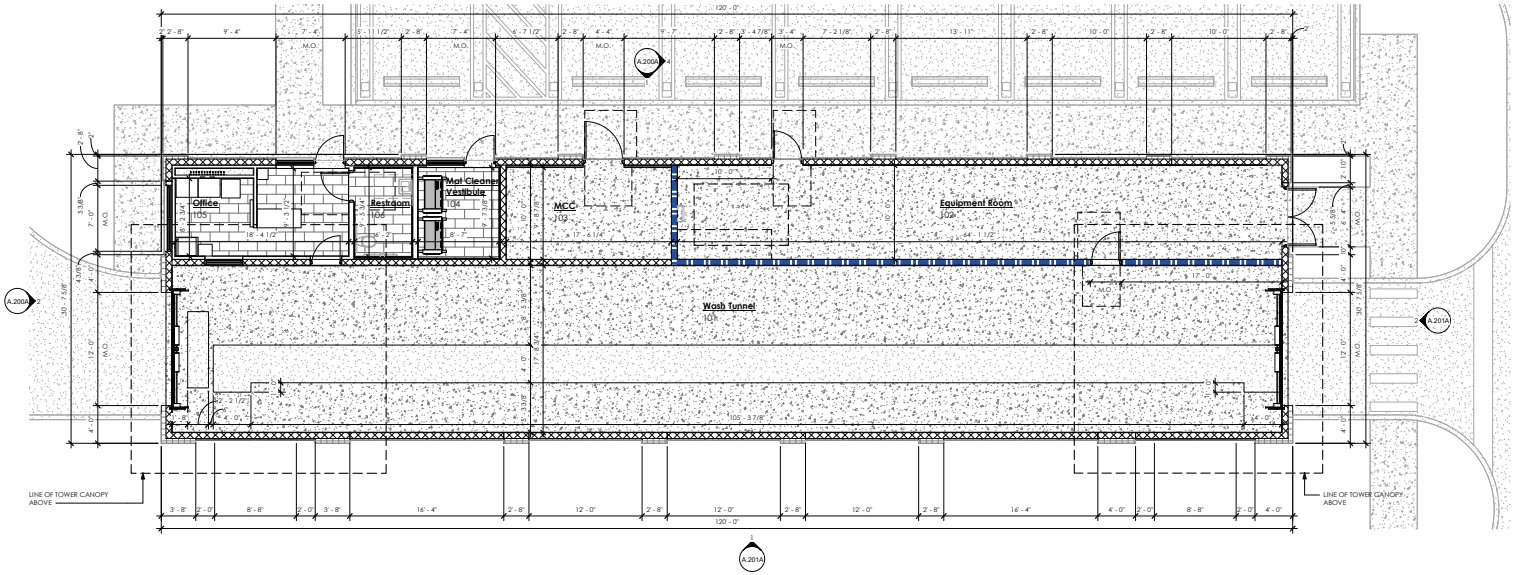
SCALE: 1" = 20'

PROJECT ID: DET-250340

STONEFIELD engineering & design



1 Enlarged Floor Plan - Site Plan Approval
3/8" = 1'-0"



Floor Plan - Site Plan Approval
3/16" = 1'-0"

KRIEGER KLATT ARCHITECTS
400 E. Lincoln Ave, Ste. A | Royal Oak, MI 48067
P: 248.414.9270
www.kriegerklatt.com

Client:
El Car Wash - Downers Grove
30200 Telegraph Rd, Suite 205
Bingham Farms, MI 48025

Project:
El Car Wash - Downers Grove
1341 Butterfield Road
Downers Grove, IL

Issued	Description	By
01-21-2026	Site Plan Approval	
02-20-2026	SPA Update	
03-24-2026	SPA Update	

Seal:

Note:
Do not scale drawings. Use calculated dimensions only. Verify existing conditions in field.

North Arrow:

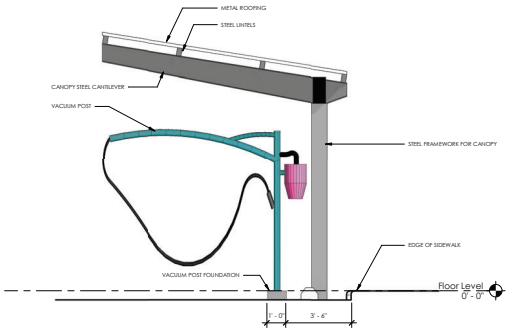
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Floor Plan - Site Plan Approval

Project Number:
25-XXX

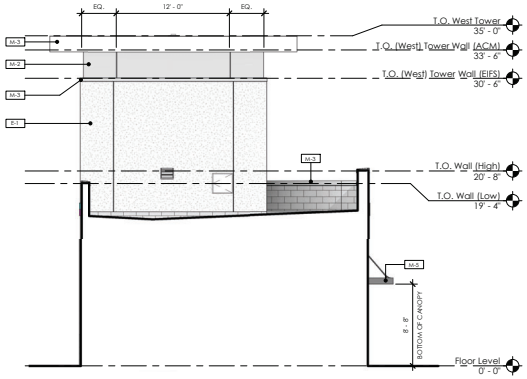
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Sheet Number:
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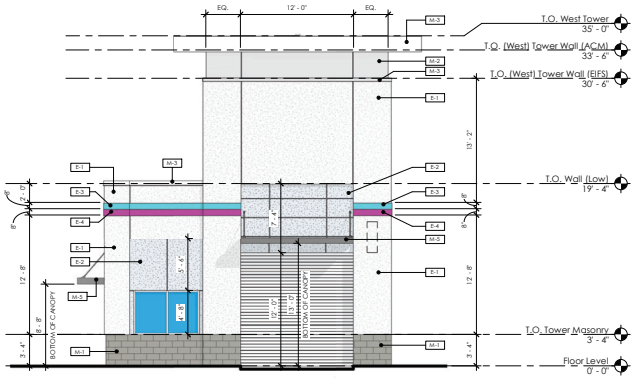
PRELIMINARY NOT FOR CONSTRUCTION



4 A.101A Canopy Section - Site Plan Approval
3/8" = 1'-0"



3 West Exterior Elevation (@ East Tower) - Site Plan Approval
3/16" = 1'-0"

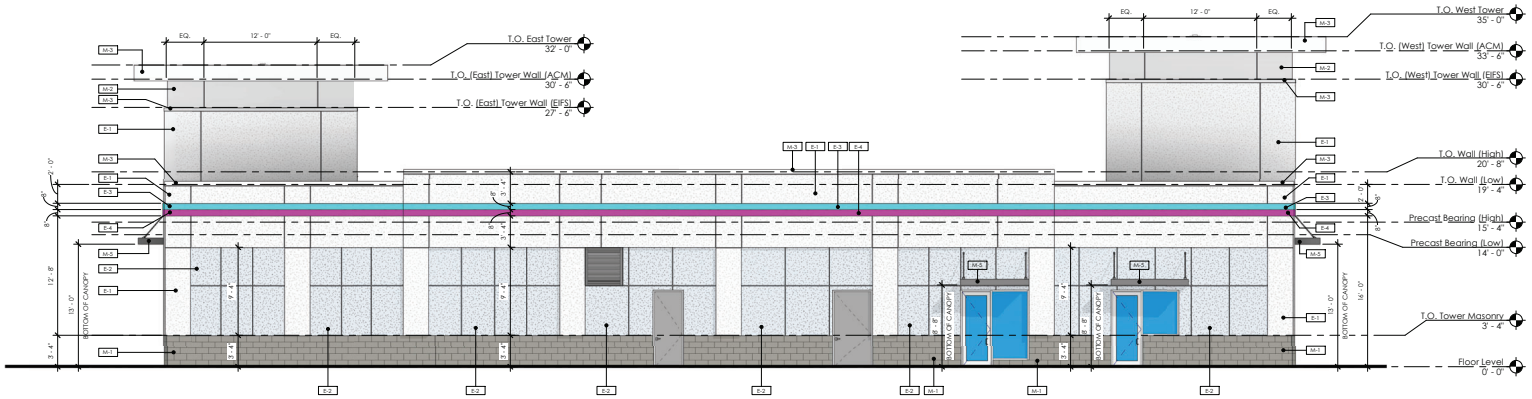


2 A.101A East Exterior Elevation - Site Plan Approval
3/16" = 1'-0"

EXTERIOR MATERIAL SCHEDULE:

M-1	DESCRIPTION:	SPLIT FACE CMU
	BASIS OF DESIGN:	TRI-COUNTY BLOCK & BRICK
	FINISH / COLOR:	STORMY
M-2	DESCRIPTION:	ALUM. COMPOSITE PANEL
	BASIS OF DESIGN:	APOLLIC
	FINISH / COLOR:	REFLECTIVE MIRROR
M-3	DESCRIPTION:	METAL FLASHINGS
	BASIS OF DESIGN:	PAC-CLAD (24 GA)
	FINISH / COLOR:	SILVER
M-4	DESCRIPTION:	HORIZONTAL, FLAT PW METAL SIDING PANELS
	BASIS OF DESIGN:	MCELROY
	FINISH / COLOR:	SLATE GRAY
M-5	DESCRIPTION:	PRE-FAB CANOPY
	BASIS OF DESIGN:	MAEA
	FINISH / COLOR:	EXTRUDECK 8" J 3MA FLAT POPPY FEDERAL STANDARD GREY
E-1	DESCRIPTION:	EIFS
	BASIS OF DESIGN:	STO CORP.
	FINISH / COLOR:	HIGH REFLECTIVE WHITE SW 7757 (WHITE)
E-2	DESCRIPTION:	EIFS
	BASIS OF DESIGN:	STO CORP.
	FINISH / COLOR:	EVENING SHADOW SW 7662 (MEDIUM GREY)
E-3	DESCRIPTION:	EIFS
	BASIS OF DESIGN:	STO CORP.
	FINISH / COLOR:	PANTONE 3252 (CYAN)
E-4	DESCRIPTION:	EIFS
	BASIS OF DESIGN:	STO CORP.
	FINISH / COLOR:	PAINTED LOGO COLOR (MAGENTA)

NOTE: SUBMIT SAMPLES OF ALL SELECTED MAERIALS TO OWNER & ARCHITECT FOR APPROVAL PRIOR TO ORDERING.



1 A.101A South Exterior Elevation - Site Plan Approval
3/16" = 1'-0"

PRELIMINARY NOT FOR CONSTRUCTION

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400 E. Lincoln Ave, Ste. A | Royal Oak, MI 48067
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Project:
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Downers Grove, IL

Issued	Description	By
01-21-2026	Site Plan Approval	
02-20-2026	SPA Update	
03-24-2026	SPA Update	

Seal:

Note:
Do not scale drawings. Use calculated dimensions only. Verify existing conditions in field.

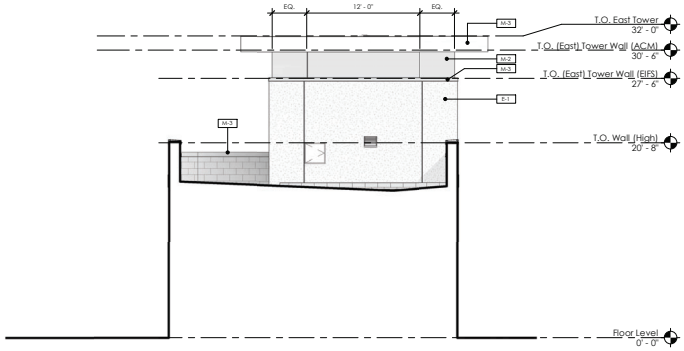
North Arrow:

Sheet Title:
Exterior Elevations

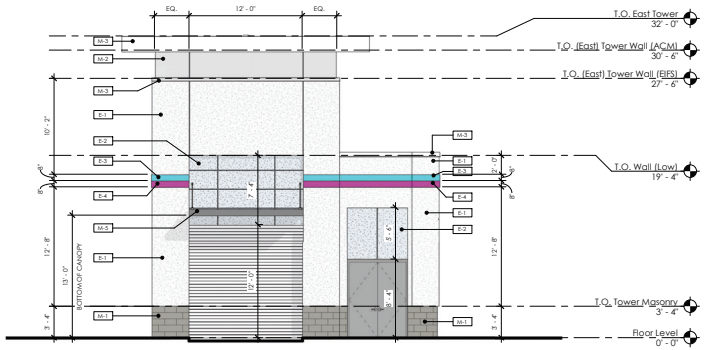
Project Number:
25-XXX

Scale:
As indicated

Sheet Number:
A.200A



3 East Exterior Elevation (@ West Tower) - Site Plan Approval
3/16" = 1'-0"

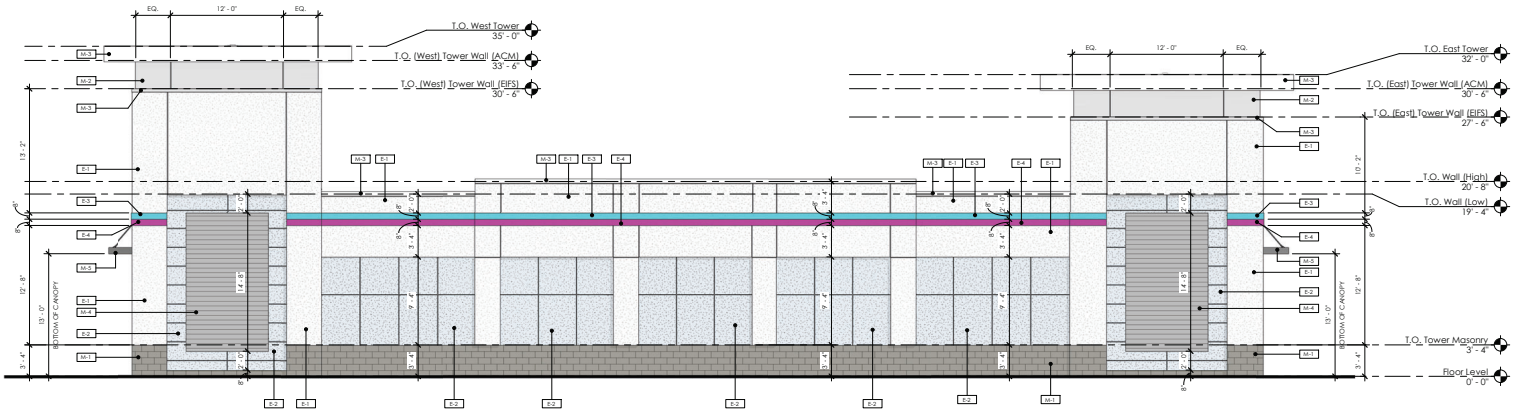


2 A.101A West Exterior Elevation - Site Plan Approval
3/16" = 1'-0"

EXTERIOR MATERIAL SCHEDULE:

M-1	DESCRIPTION:	SPLIT FACE CMU
	BASIS OF DESIGN:	TRI-COUNTY BLOCK & BRICK
	FINISH / COLOR:	STORMY
M-2	DESCRIPTION:	ALUM. COMPOSITE PANEL
	BASIS OF DESIGN:	APOLIC
	FINISH / COLOR:	REFLECTIVE MIRROR
M-3	DESCRIPTION:	METAL FLASHINGS
	BASIS OF DESIGN:	PAC-CLAD (24 GA)
	FINISH / COLOR:	SILVER
M-4	DESCRIPTION:	HORIZONTAL, FLAT PW METAL SIDING PANELS
	BASIS OF DESIGN:	MCELROY
	FINISH / COLOR:	SLATE GRAY
M-5	DESCRIPTION:	PRE-FAB CANOPY
	BASIS OF DESIGN:	MAEA
	FINISH / COLOR:	EXTRUDECK 8" J 3MA FLAT POPPIT FEDERAL STANDARD GREY
E-1	DESCRIPTION:	EIFS
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	FINISH / COLOR:	HIGH REFLECTIVE WHITE SW 7757 (WHITE)
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	BASIS OF DESIGN:	STO CORP
	FINISH / COLOR:	EVENING SHADOW SW 7662 (MEDIUM GREY)
E-3	DESCRIPTION:	EIFS
	BASIS OF DESIGN:	STO CORP
	FINISH / COLOR:	PANTONE 3252 (CYAN)
E-4	DESCRIPTION:	EIFS
	BASIS OF DESIGN:	STO CORP
	FINISH / COLOR:	PAINTED LOGO COLOR (MAGENTA)

NOTE: SUBMIT SAMPLES OF ALL SELECTED MATERIALS TO OWNER & ARCHITECT FOR APPROVAL PRIOR TO ORDERING.



1 A.101A North Exterior Elevation - Site Plan Approval
3/16" = 1'-0"

KRIEGER KLATT ARCHITECTS
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30200 Telegraph Rd, Suite 205
Bingham Farms, MI 48025

Project:
El Car Wash - Downers Grove
1341 Butterfield Road
Downers Grove, IL

Issued	Description	By
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03-24-2026	SPA Update	

Seal:

Note:
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North Arrow:

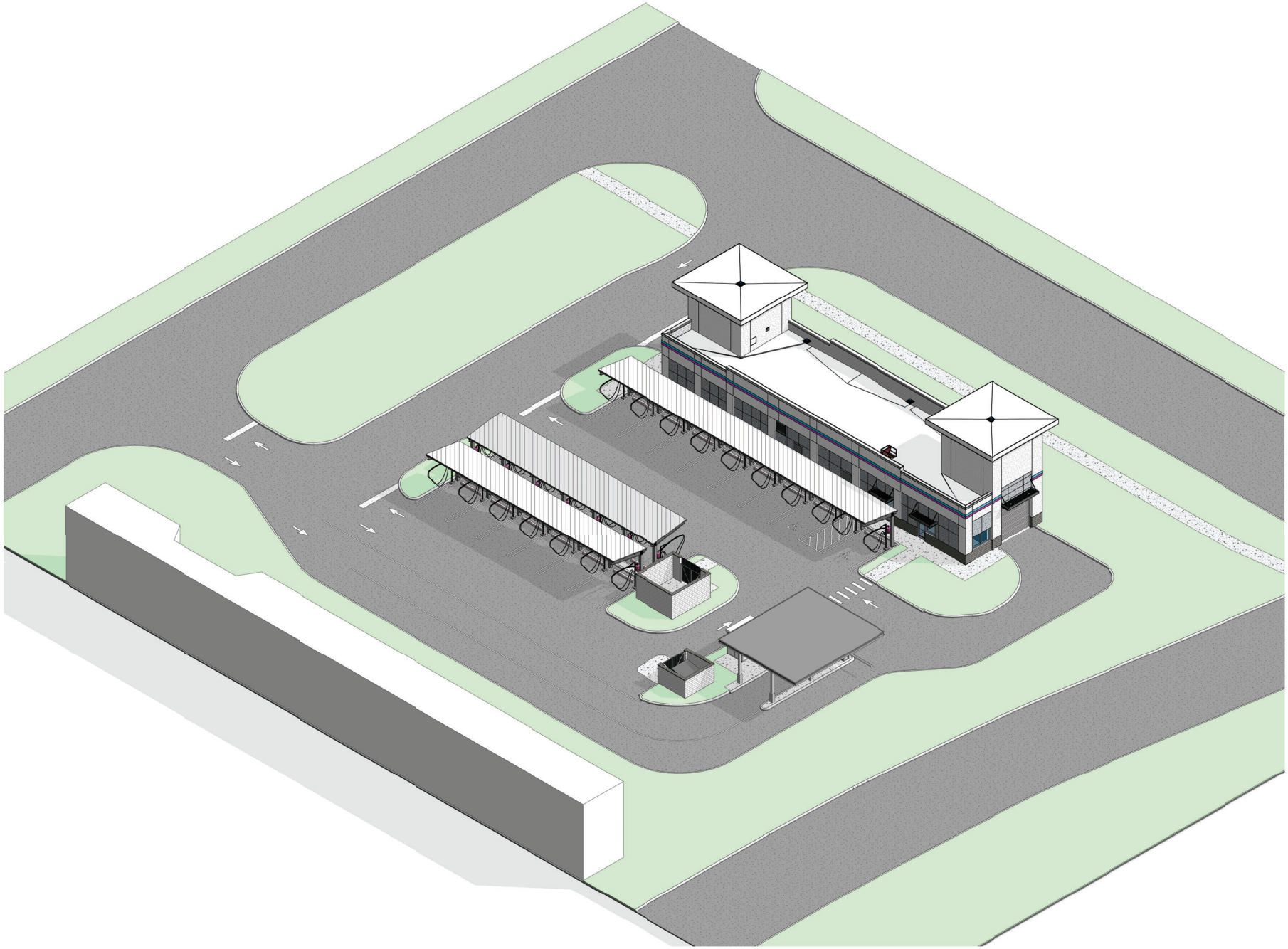
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Sheet Title:
Exterior Elevations

Project Number:
25-XXX

Scale:
As indicated

Sheet Number:
A.201A



Southeast Isometric

KRIEGER KLATT ARCHITECTS
400 E. Lincoln Ave, Ste. A | Royal Oak, MI 48067
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Client:
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30200 Telegraph Rd, Suite 205
Bingham Farms, MI 48025

Project:
El Car Wash - Downers Grove
1341 Butterfield Road
Downers Grove, IL

Issued	Description	By
01-21-2026	Site Plan Approval	
02-20-2026	SPA Update	
03-24-2026	SPA Update	

Seal:

PRELIMINARY NOT FOR CONSTRUCTION

Note:
Do not scale drawings. Use calculated dimensions only. Verify existing conditions in field.

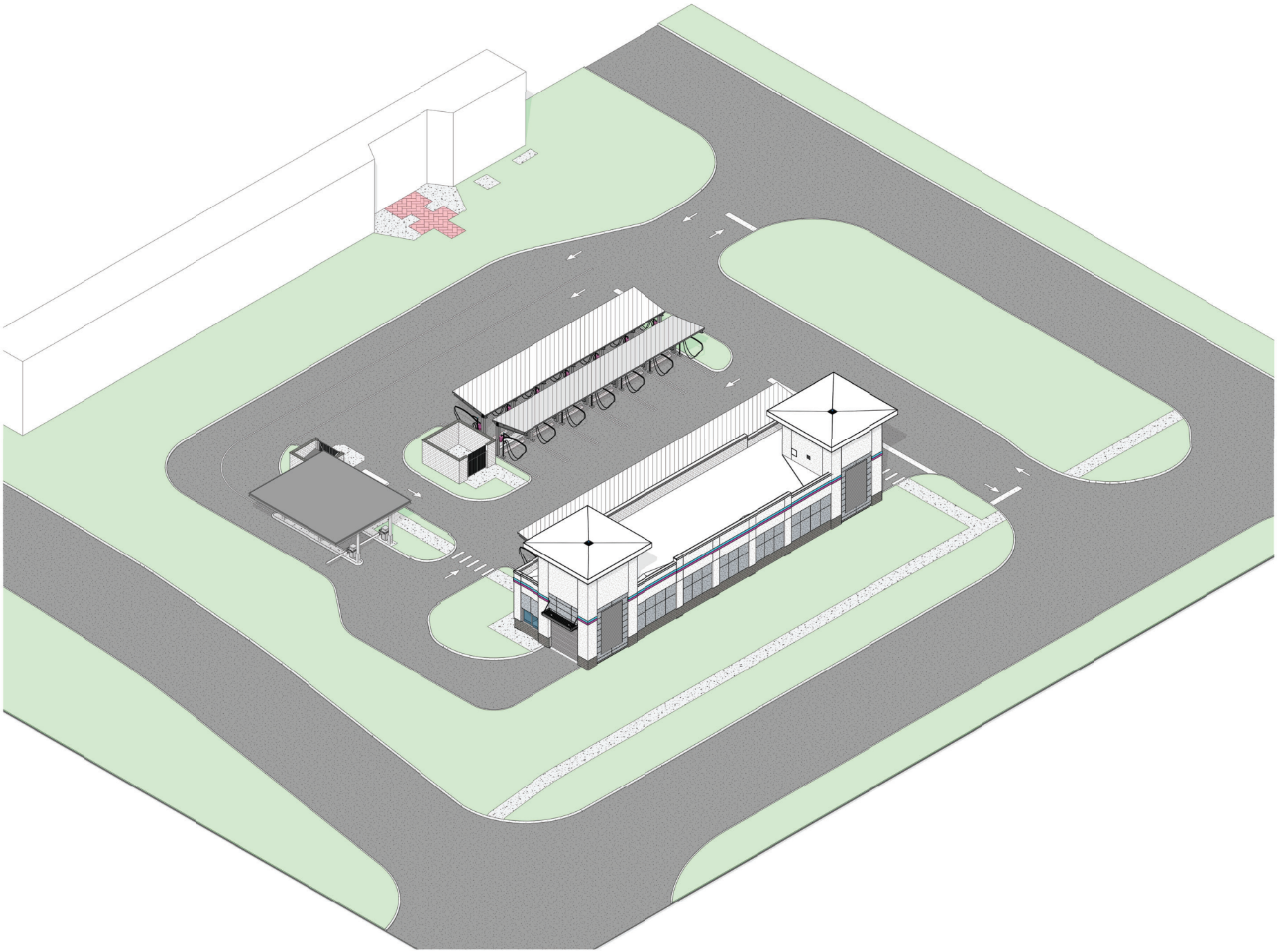
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Sheet Title:
Southeast Isometric

Project Number:
25-XXX

Scale:

Sheet Number:
A.202A



Northeast Isometric

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P: 248.414.9270
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Client:
El Car Wash - Downers Grove
30200 Telegraph Rd, Suite 205
Bingham Farms, MI 48025

Project:
El Car Wash - Downers Grove
1341 Butterfield Road
Downers Grove, IL

Issued	Description	By
01-21-2026	Site Plan Approval	
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Seal:

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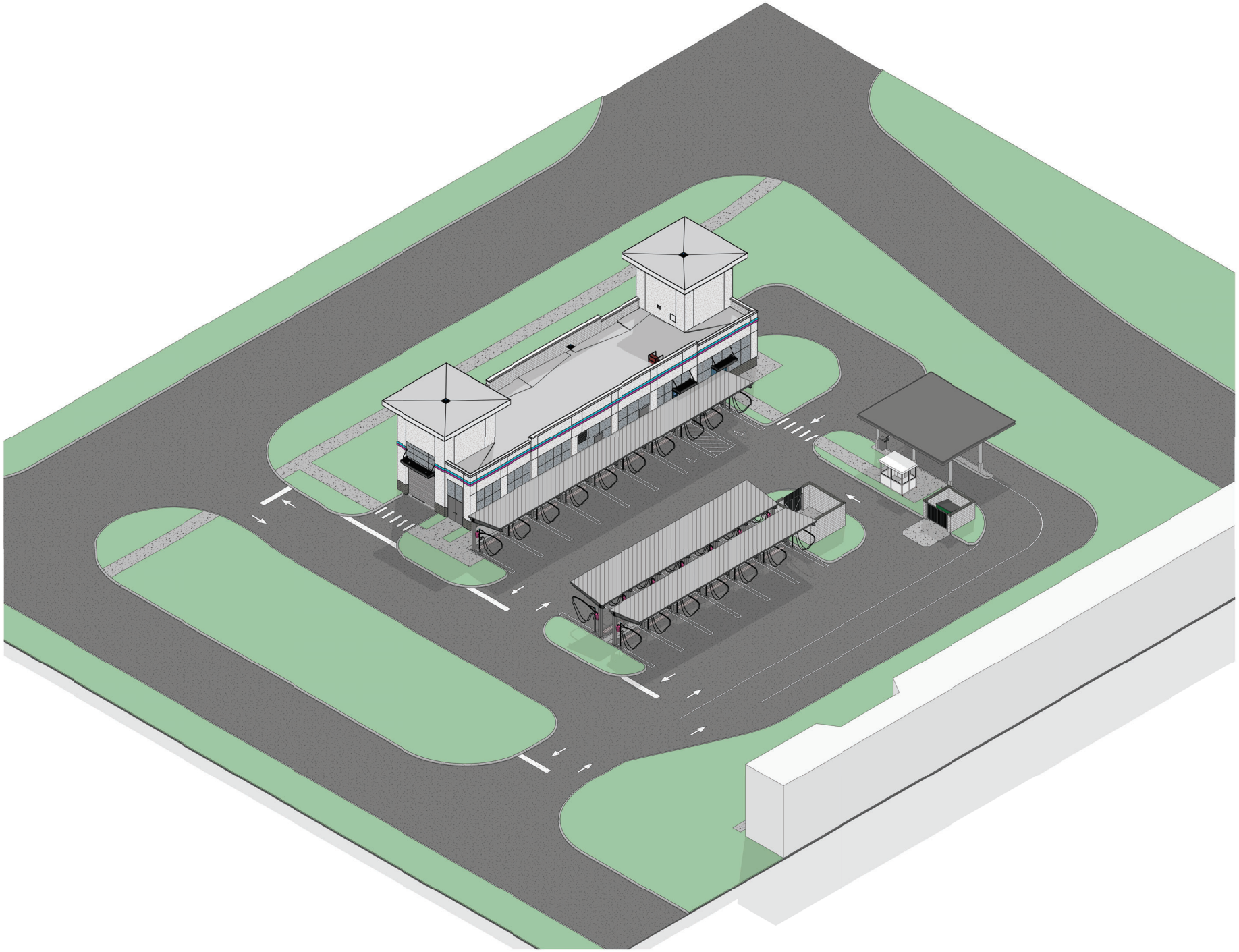
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Sheet Title:
Northeast Isometric

Project Number:
25-XXX

Scale:

Sheet Number:
A.203A



Southwest Isometric

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Project:
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1341 Butterfield Road
Downers Grove, IL

Issued	Description	By
01-21-2026	Site Plan Approval	
02-20-2026	SPA Update	
03-24-2026	SPA Update	

Seal:

PRELIMINARY NOT FOR CONSTRUCTION

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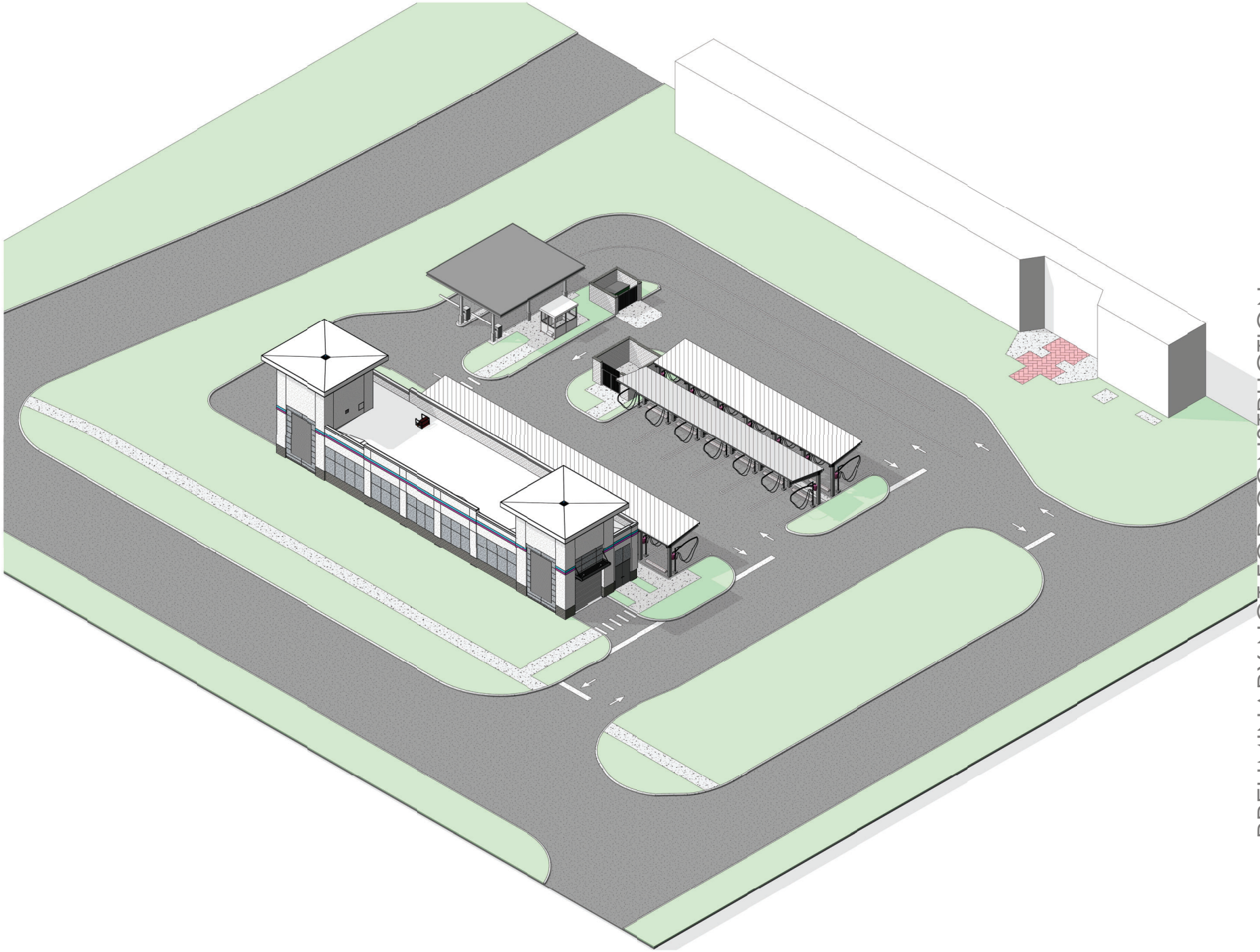
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Sheet Title:
Southwest Isometric

Project Number:
25-XXX

Scale:

Sheet Number:
A.204A



Northwest Isometric

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03-24-2026	SPA Update	

Seal:

PRELIMINARY NOT FOR CONSTRUCTION

Note:
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North Arrow:

Sheet Title:
Northwest Isometric

Project Number:
25-XXX

Scale:

Sheet Number:
A.205A

Traffic Impact Study
Proposed Car Wash
Downers Grove, Illinois



Prepared For:

ALRIG USA

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

March 20, 2026

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 car wash to be located at 1341 Butterfield Road in Downers Grove, Illinois. The plans call for a tunnel car wash with vacuum stalls. Access to the car wash will be provided off Oak Grove Drive and the frontage road.

The purpose of this study was to examine background traffic conditions, assess the impact that the proposed car wash 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 car wash. **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:

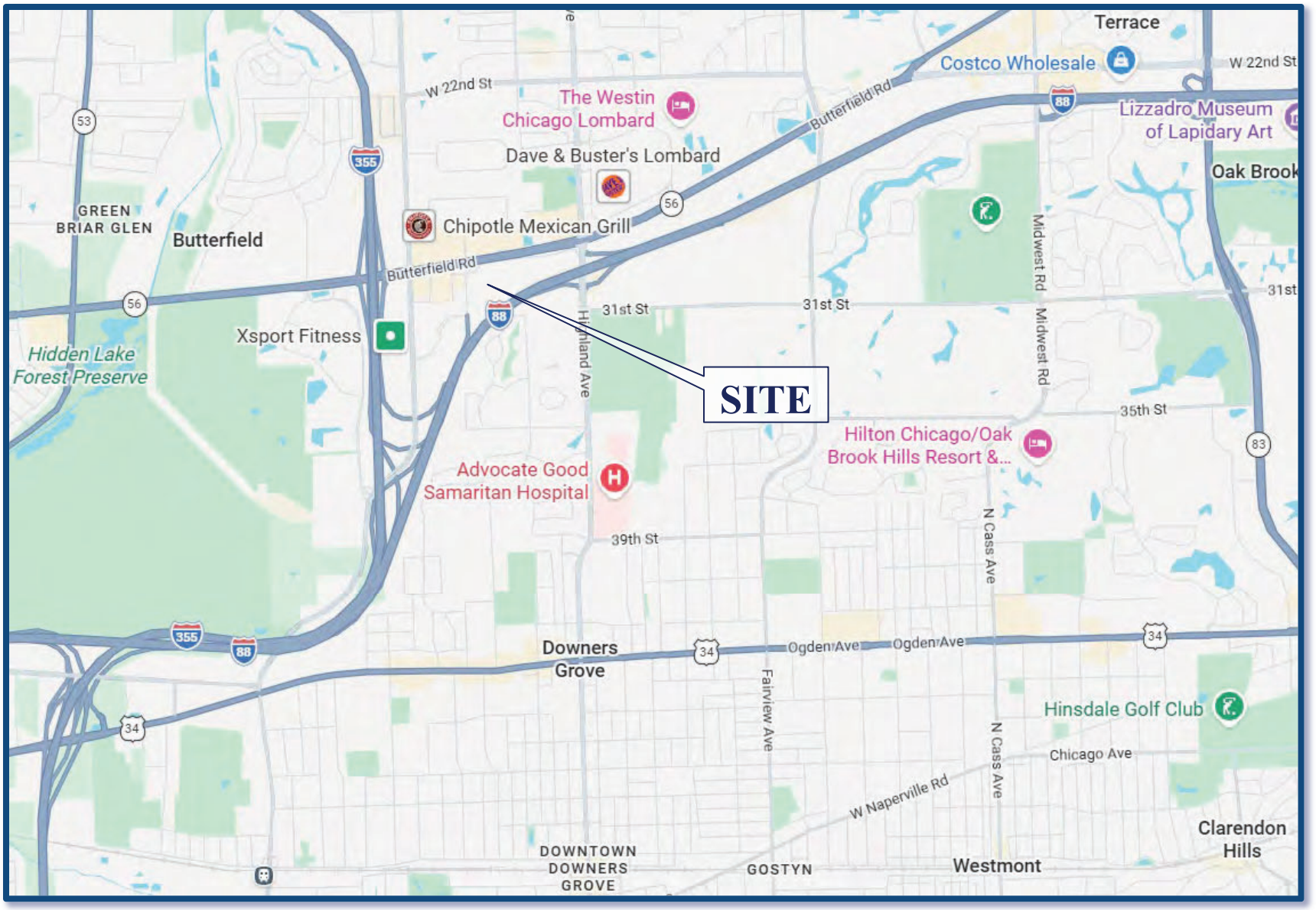
- Existing roadway conditions
- A description of the car wash
- Directional distribution of the car wash traffic
- Vehicle trip generation for the car wash
- Future traffic conditions including access to the car wash
- Traffic analyses for the weekday morning, evening, and Saturday midday peak hours
- 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:

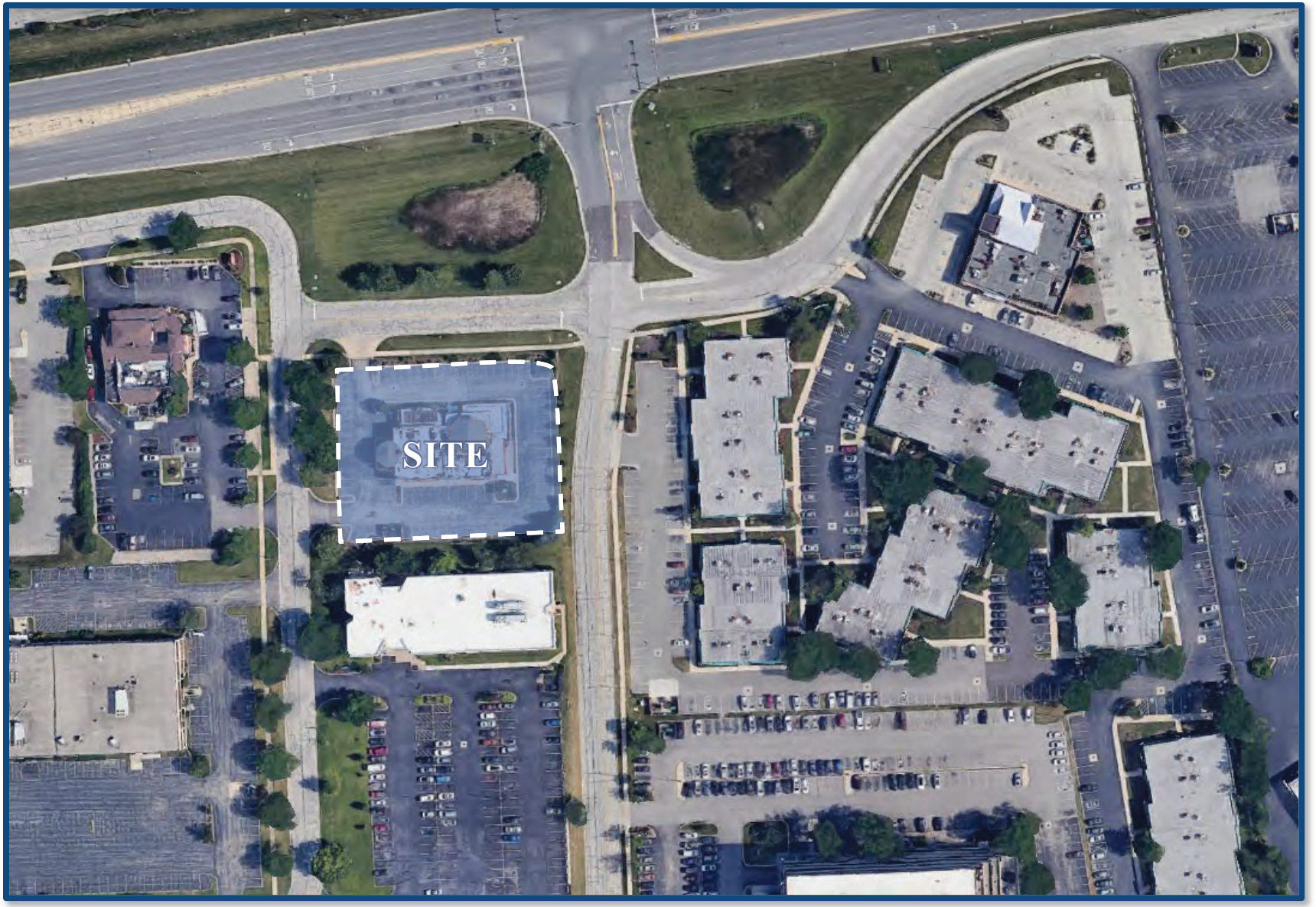
1. Existing Conditions – Analyzes the capacity of the existing roadway system using existing peak hour traffic volumes in the surrounding area.

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 car wash.

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 car wash.



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.

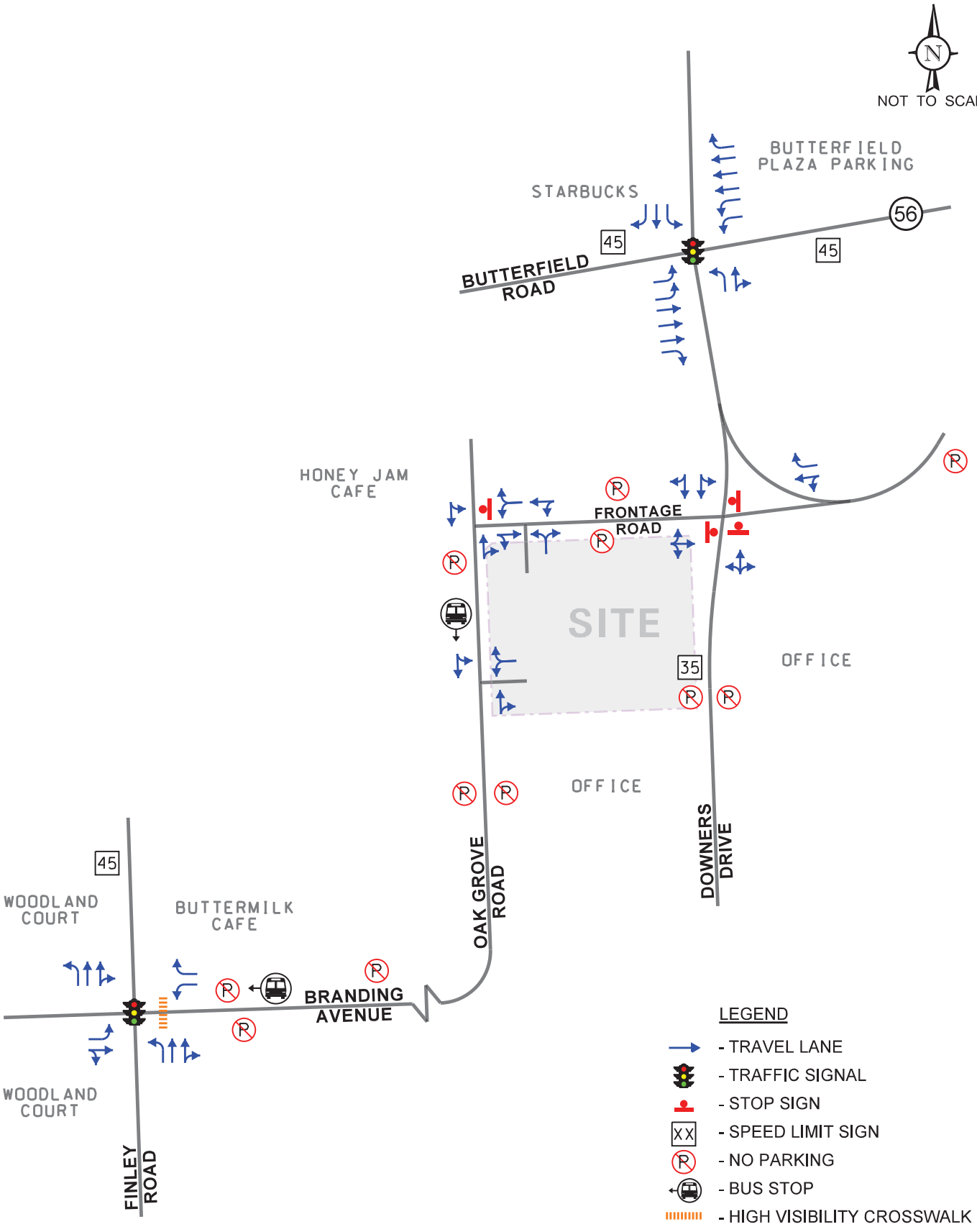
Site Location

The site, which is currently occupied by the vacant Casa Margarita restaurant, is located at 1341 Butterfield Road in Downers Grove, Illinois. The site is bordered by the frontage road to the north, Downers Drive to the east, an office building to the south, and Oak Grove Road to the west. Land uses in the vicinity of the site are primarily retail along Butterfield Road and to the west of the site and primarily office uses to the east and south. The characteristics of the existing roadways near the site are described below and illustrated in **Figure 3**.

Existing Roadway System Characteristics

IL 56 (Butterfield Road) is an east-west other principal arterial roadway that in the vicinity of the site provides two travel lanes in each direction east of Downers Drive and three travel lanes in each direction west of Downers Drive. At its signalized intersection with Downers Drive, Butterfield Road provides two exclusive left-turn lanes, three through lanes, and an exclusive right-turn lane on the eastbound and westbound approaches. Butterfield Road is designated as a Strategic Regional Arterial (SRA), is under the jurisdiction of the Illinois Department of Transportation (IDOT) and carries an Annual Average Daily Traffic (AADT) volume of 40,800 vehicles (IDOT 2023). Butterfield Road has a posted speed limit of 45 miles per hour.

Downers Drive is a north-south minor collector roadway north of Butterfield Road and minor arterial roadway south of Butterfield Road that provides two travel lanes in each direction except on the northbound approach south of the frontage road where it provides one travel lane. At its signalized intersection with Butterfield Road, Downers Drive provides an exclusive left-turn lane and a shared through/right-turn lane on the northbound approach and an exclusive left-turn lane, a through lane, and an exclusive right-turn lane on the southbound approach. At its unsignalized intersection with the frontage road, Downers Drive provides a shared left-turn/through/right-turn lane on the northbound approach and a shared left-turn/through lane and a shared through/right-turn lane on the southbound approach. The northbound approach is under stop sign control. Downers Drive is under the jurisdiction of the Village of Downers Grove, carries an AADT volume of 1,450 vehicles (IDOT 2024), and has a posted speed limit of 25 miles per hour.



Car Wash
Downers Grove,
Illinois

Existing Roadway Characteristics

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Job No: 26-045 Figure: 3

Finley Road is a north-south minor arterial roadway that in the vicinity of the site provides two travel lanes in each direction. At its unsignalized intersection with Branding Avenue/Woodland Court access drive, Finley Road provides an exclusive left-turn lane, a through lane, and a shared through/right-turn lane on the northbound and southbound approaches. Finley Road is under the jurisdiction of the DuPage County Division of Transportation (DuDOT), carries an AADT of 17,400 vehicles (IDOT 2024), and has a posted speed limit of 45 miles per hour.

Oak Grove Road is a north-south local roadway that provides one travel lane in each direction. At its unsignalized intersection with the frontage road, Oak Grove Road provides a shared through/right-turn lane on the northbound approach and a shared left-turn/through lane on the southbound approach. Oak Grove Road is under the jurisdiction of the Village of Downers Grove.

Branding Avenue is an east-west local roadway that provides one travel lane in each direction. At its unsignalized intersection with Finley Road, Branding Avenue provides an exclusive left-turn lane and an exclusive right-turn lane on the westbound approach and is under stop sign control. Branding Avenue is under the jurisdiction of the Village of Downers Grove.

Frontage Road is an east-west local roadway that provides one travel lane in each direction. At its unsignalized intersection with Downers Drive, the frontage road provides a shared left-turn/through lane and a free-flow channelized right-turn lane on the eastbound approach and a shared left-turn/through/right-turn lane on the westbound approach. Both approaches are under stop sign control. At its unsignalized intersection with Oak Grove Road, the frontage road provides a shared left-turn/right-turn lane on the westbound approach. The frontage road is under the jurisdiction of the Village of Downers Grove.

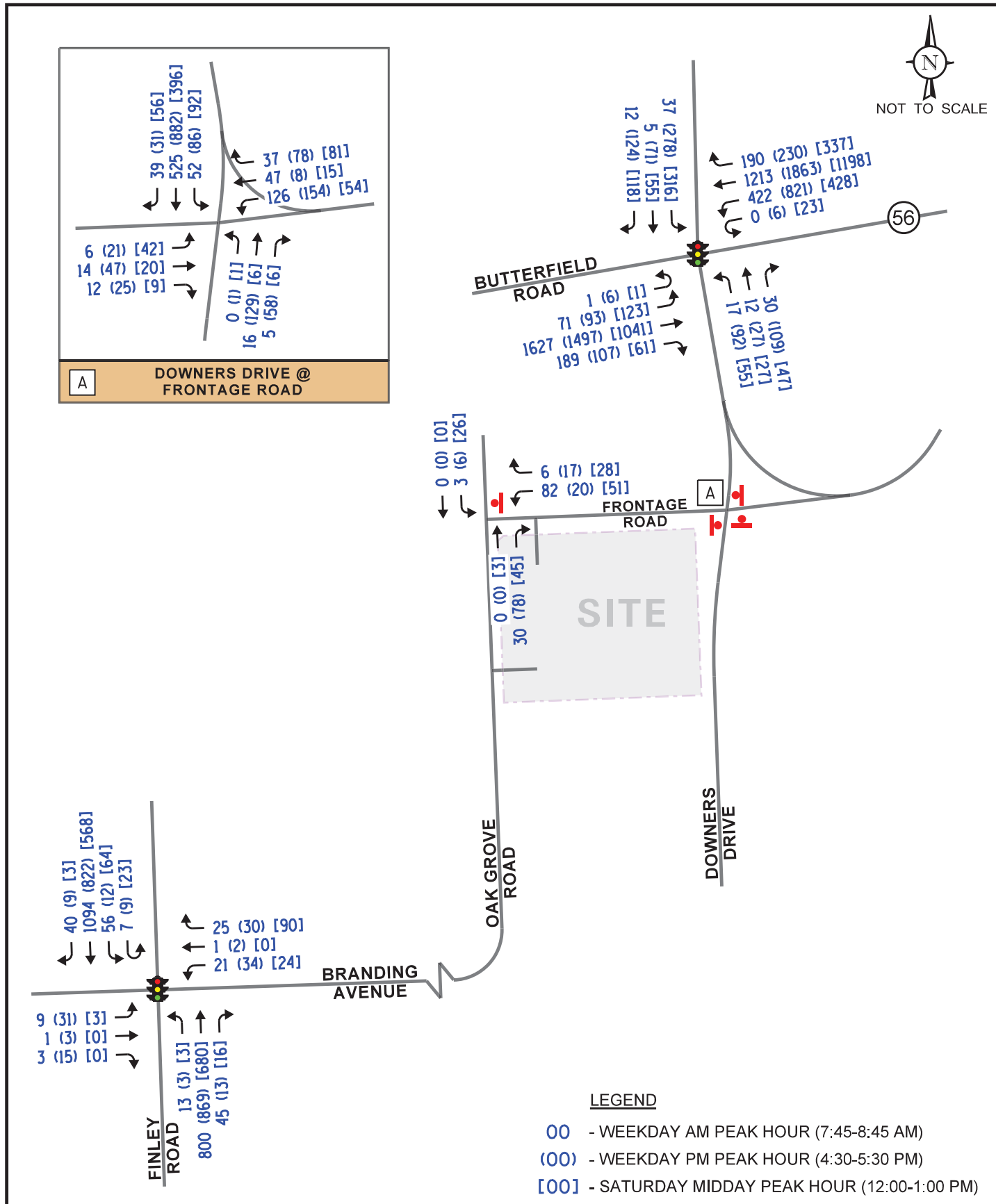
Existing Traffic Volumes

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 on Tuesday, February 17, 2026, during the weekday morning (7:00 to 9:00 A.M.), weekday evening (4:00 to 6:00 P.M.), and on Saturday, February 14, 2026, during the Saturday midday (12:00 to 2:00 P.M.) peak periods at the following intersections:

- Downers Drive with the frontage road
- Oak Grove Road with the frontage road
- Finely Road with Branding Avenue

The results of the traffic counts showed that the weekday morning peak hour of traffic generally occurs from 7:45 A.M. to 8:45 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 12:00 P.M. to 1:00 P.M. These counts were supplemented with traffic counts conducted at the intersection of Butterfield Road with Downers Drive on Tuesday, August 7, 2025, and Saturday, August 9, 2025.

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



Car Wash
Downers Grove,
Illinois

Existing Traffic Volumes

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Job No: 26-045 Figure: 4

Crash Data Summary

KLOA, Inc. obtained crash data[1] for the most recent available past five years (2020 to 2024) for the intersections within the study area. It should be noted that the intersections of Downers Drive with the frontage road, Oak Grove Road with the frontage road, and Finley Road with Branding Avenue experienced an average of less than one crash per year over the study period. The crash data for the intersection of Butterfield Road with Downers Drive is summarized in **Table 1**. A review of the crash data revealed that no fatalities were reported at the intersections during the reviewed period.

Table 1
BUTTERFIELD ROAD WITH DOWNERS DRIVE – CRASH SUMMARY

Year	Type of Crash								Severity		
	A	HO	O	RE	S	T	Other	Total	PD	I	F
2020	1	0	0	6	0	0	0	7	4	3	0
2021	2	0	0	0	0	4	0	6	3	3	0
2022	1	0	0	5	0	3	0	9	6	3	0
2023	1	0	0	3	0	6	1	11	5	6	0
2024	0	0	0	2	1	3	1	7	3	4	0
Total	**5**	**0**	**0**	**16**	**1**	**16**	**2**	**40**	**21**	**19**	**0**
Avg	**1.0**	**--**	**--**	**3.2**	**<1.0**	**3.2**	**<1.0**	**8.0**	**4.2**	**3.8**	**--**

A – Angle; HO – Head On; O – Object; RE – Rear End; S – Sideswipe; T – Turning
PD – Property Damage; I – Injury; F - Fatal

[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).

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 car wash, including the directional distribution and volumes of traffic that it generates.

Proposed Site and Development Plan

As proposed, the site will be developed with an approximate 3,600 square foot automatic car wash tunnel with 20 vacuum stalls. Access will continue to be provided via the full movement access drives located off the frontage road and Oak Grove Drive.

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

Car Wash Operations and Circulation

The automated car wash tunnel will be located on the north side of the site, oriented east-west with vacuum stalls located on the south side of the tunnel and in the middle of the site. Access to the car wash tunnel entrance will be provided via the southern east-west drive aisle and will provide two approach lanes with the northern approach lane splitting into two in the southeast corner of the site and three pay stations. Immediately after the pay stations, the three 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. 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 then perform a left-turn to face 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.

Circulation through the vacuum stalls will be provided via two two-way drive aisles. All vehicles will have access to the vacuum stalls before and after utilizing the car wash.

Car Wash Stacking

Based on a review of the site plan, there will be stacking for a total of approximately 36 vehicles to queue in the three approach lanes from the drive aisle to the entrance of the drive-through system. In addition, approximately five vehicles can be stacked inside the tunnel and an additional eight vehicles can be stacked internally for a total internal stacking of 49 vehicles without impacting or blocking external drive aisles.

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 aisles in order to promote free-flow movement for vehicles entering and exiting the site.

Vacuum Stalls

Eight of the vacuum stalls will be located on the south side of the tunnel and 12 will be located in the middle of the site. Two two-way drive aisles will be provided, allowing flexibility for vehicles to access the 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.

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 car wash.

Car Wash-Generated Traffic Volumes

The number of peak hour trips estimated to be generated by the proposed car wash was based on vehicle trip generation rates contained in *Trip Generation Manual*, 12th 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.

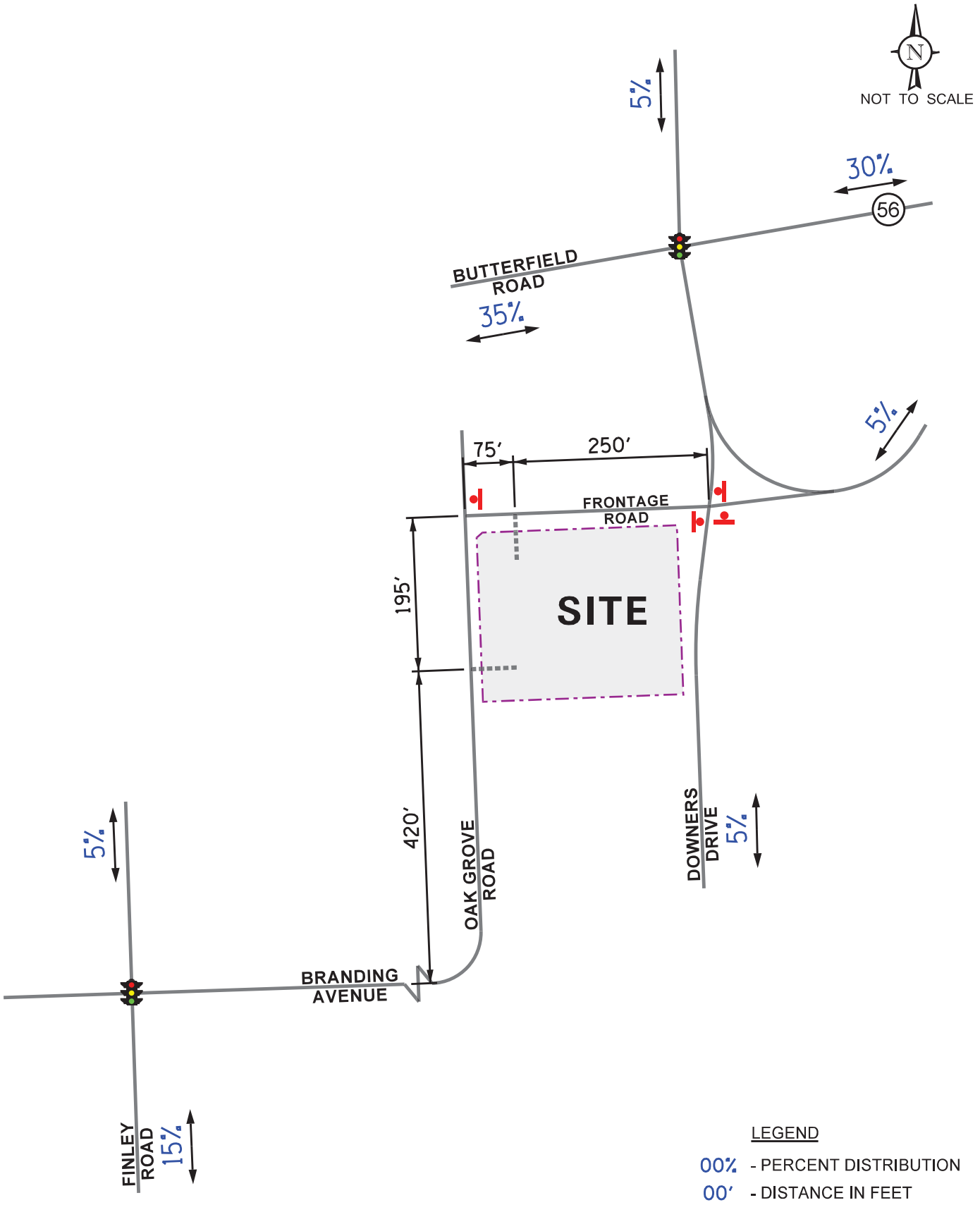
It is important to note that trips made to car washes are typically diverted from the existing traffic on the roadway system. This is particularly true during the weekday morning and evening peak hours when traffic is diverted from the home-to-work and work-to-home trips. Such diverted trips are referred to as pass-by traffic. However, in order to present a worst-case scenario, no reduction in the site-generated traffic was assumed for this study.

Table 2 summarizes the estimated peak hour trips.

Table 2
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 (3,600 s.f.)	29	25	54	43	45	88	58	58	116

As previously mentioned, the site is currently occupied by a Casa Margarita restaurant. The "High-Turnover (Sit-Down) Restaurant" (Land-Use Code 932 was utilized to estimate the number of peak hour trips currently generated by the restaurant. It should be noted that the restaurant is open from 11:00 A.M. to 10:30 P.M. As such, no trips are generated during the weekday morning peak hour. **Table 3** shows a comparison of the estimated traffic to be generated by the existing restaurant and the proposed car wash. From the table, it can be seen that the proposed car wash will generate approximately 13 and 23 percent more trips during the weekday evening peak hour and the Saturday midday peak hours, respectively. As such, the proposed car wash is projected to have a similar impact on the adjacent roadway system compared to the existing restaurant.



Car Wash
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Directional Distribution

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Job No: 26-045 Figure: 5

Table 3
COMPARISON OF ESTIMATED PEAK HOUR TRIPS

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 (3,600 s.f.)	29	25	54	43	45	88	58	58	116
932	High-Turnover (Sit-Down) Restaurant (~8,500 s.f.)	--	--	--	48	30	78	48	46	94
	Difference	**+29**	**+25**	**+54**	**-5**	**+15**	**+10**	**+10**	**+12**	**+22**

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 car wash.

Site-Generated Traffic Assignment

The estimated weekday morning, weekday evening, and Saturday midday peak hour traffic volumes that will be generated by the proposed car wash were assigned to the roadway system in accordance with the previously described directional distribution (Figure 5). The traffic assignment for the proposed car wash is illustrated in **Figure 6**.

Background (No-Build) Traffic Conditions

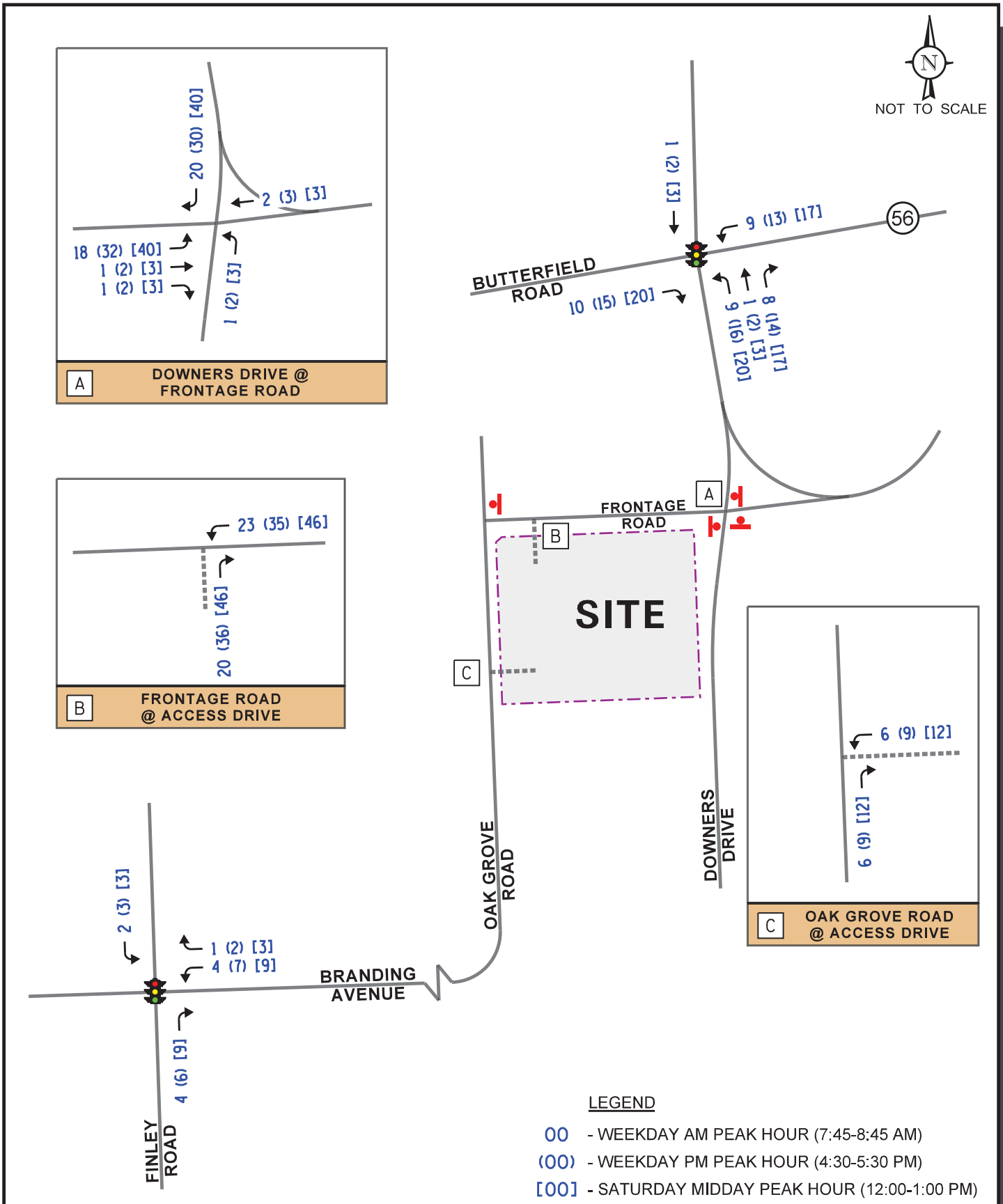
The existing traffic volumes (Figure 4) were increased by a regional growth factor to account for the increase in existing traffic related to regional growth in the area (i.e., not attributable to any particular planned development). Based on Average Daily Traffic (ADT) projections provided by the Chicago Metropolitan Agency for Planning (CMAP), the existing traffic volumes were increased by an annually compounded growth rate of 0.25 percent per year for six years (buildout year plus five years) for a total of approximately 1.5 percent to project Year 2032 background conditions. A copy of the CMAP 2050 projections letter is included in the Appendix.

In addition, the traffic estimated to be generated by the proposed 7-Brew coffee shop located at 1432 Butterfield Road. The traffic estimated to be generated by this coffee shop was based on a traffic impact study conducted by KLOA, Inc. dated December 11, 2025.

Figure 7 illustrates the Year 2032 no-build conditions.

Year 2032 Total Projected Traffic Volumes

The Year 2032 total projected traffic volumes include the no-build traffic volumes, and the traffic estimated to be generated by the proposed car wash. **Figure 8** shows the Year 2032 total projected traffic volumes.

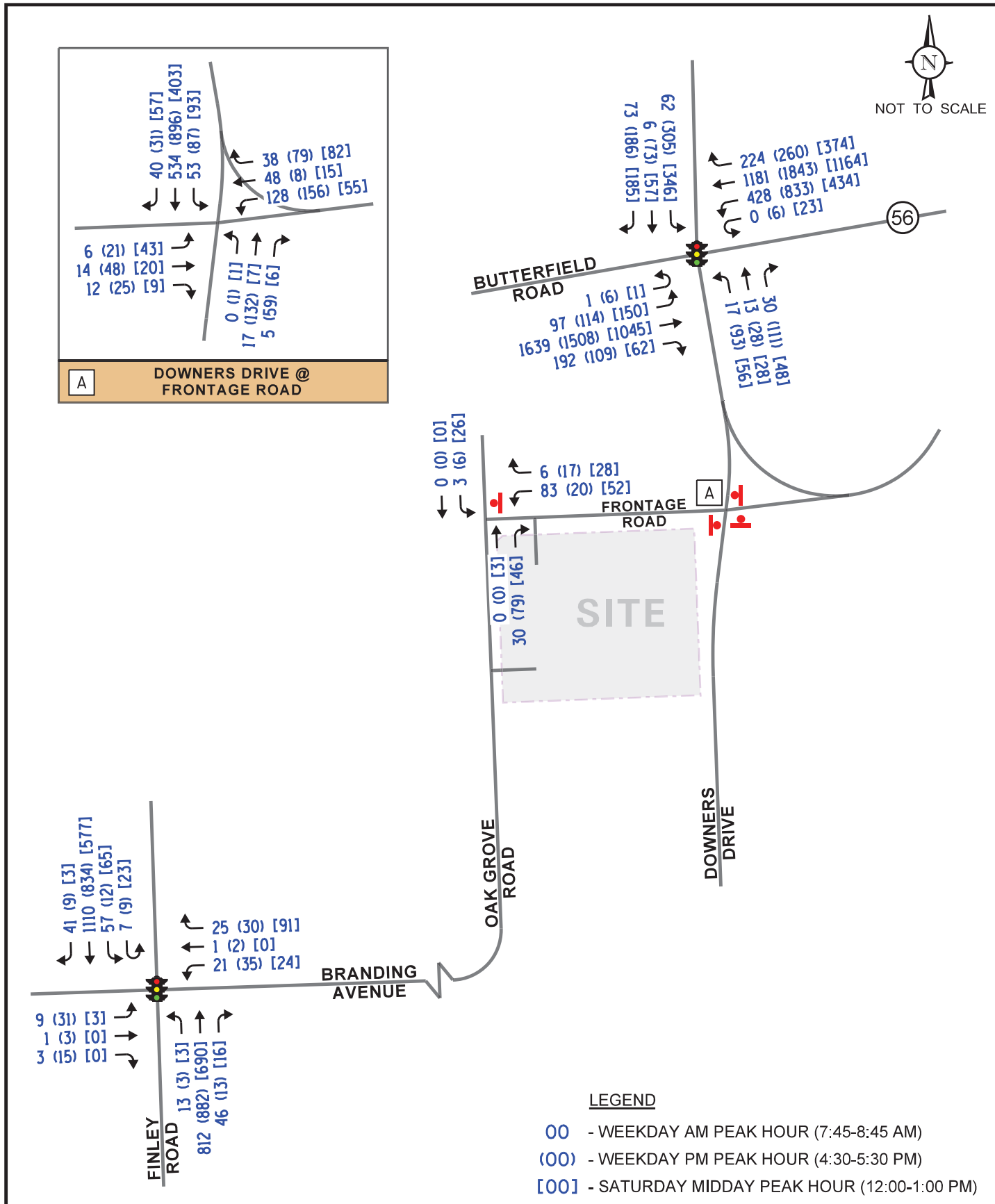


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New Site Traffic Assignment

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Job No: 26-045 Figure: 6

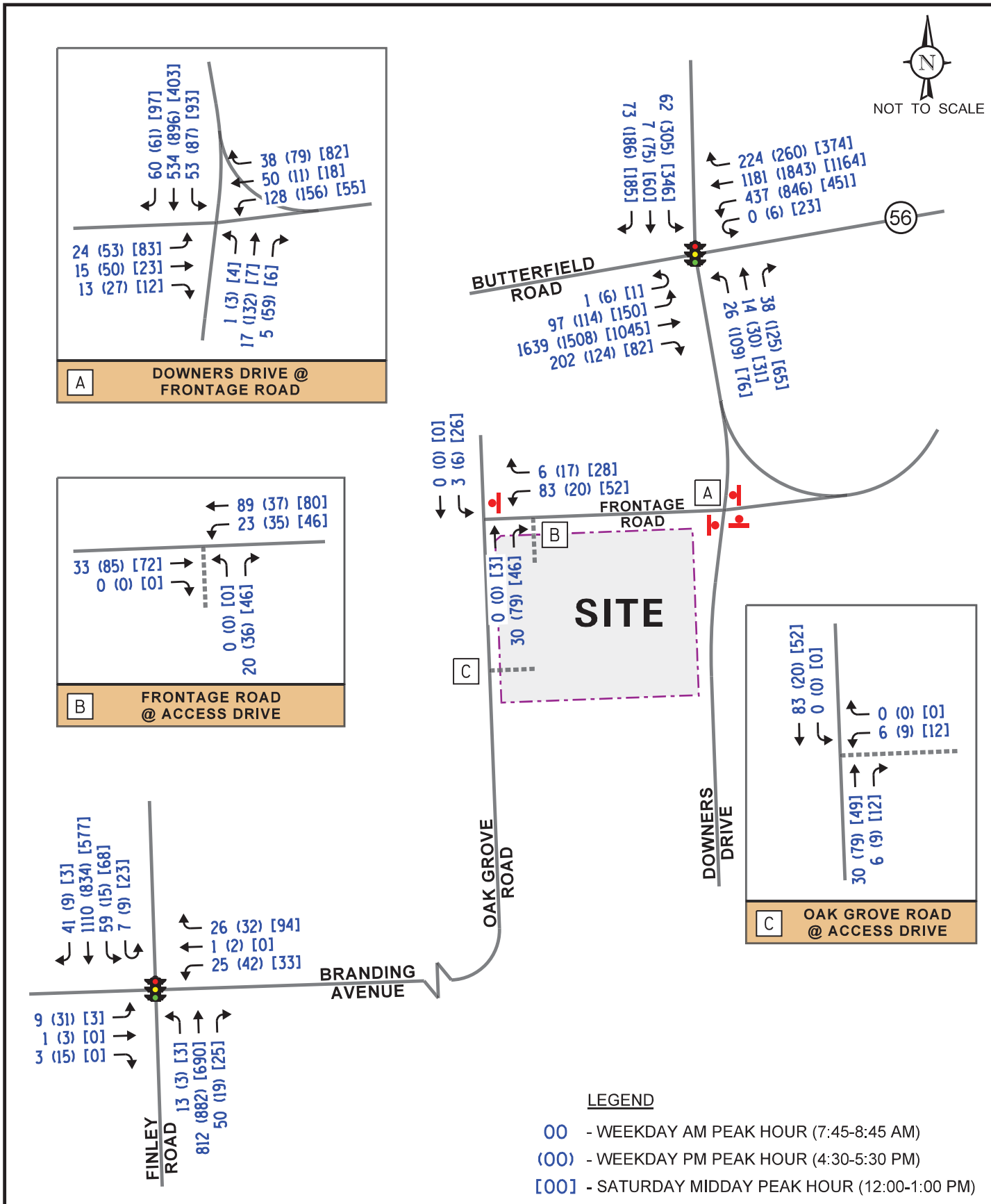


Car Wash
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Year 2032 No-Build Traffic Volumes

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Job No: 26-045 Figure: 7



Car Wash
Downers Grove,
Illinois

Year 2032 Total Traffic Volumes

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Job No: 26-045 Figure: 8

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 2026), no-build, and future projected (Year 2032) traffic volumes.

The traffic analyses were performed using the methodologies outlined in the Transportation Research Board's *Highway Capacity Manual (HCM), 7*th Edition and analyzed using the Synchro/SimTraffic 12 software. The analysis for the traffic-signal controlled intersection of Butterfield Road with Downers Drive was 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 2032 no-build, and Year 2032 total projected conditions are presented in **Tables 4** through **7**. A discussion of the intersections follows. Summary sheets for the capacity analyses are included in the Appendix.

Table 4
CAPACITY ANALYSIS RESULTS - BUTTERFIELD ROAD WITH DOWNERS DRIVE – SIGNALIZED

	Peak Hour	Eastbound			Westbound			Northbound		Southbound			Overall
			T	R	L	T	R	L	T/R	L	T	R	
Existing Conditions	Weekday Morning	E 59.6	B 19.1	A 2.7	E 58.9	A 9.8	A 1.7	D 42.4	C 30.8	D 48.7	D 52.2	A 0.3	C 20.2
		B – 19.0			C – 20.3			C – 34.1		D – 38.0			
	Weekday Evening	E 68.0	D 44.4	A 2.1	E 58.2	C 20.7	A 2.3	D 42.4	C 29.4	F 84.9	E 56.0	B 16.1	D 37.2
		D – 43.1			C – 29.9			C – 34.6		E – 62.6			
	Saturday Midday	D 48.2	C 26.5	A 0.2	D 50.6	C 20.8	A 3.4	C 23.8	C 22.2	D 37.4	C 33.2	A 4.8	C 26.0
		C – 27.4			C – 24.6			C – 22.8		C – 29.0			
No-Build Conditions	Weekday Morning	E 60.0	B 19.6	A 2.7	E 59.0	B 10.7	A 1.8	D 42.2	C 31.2	D 51.7	D 52.2	A 6.3	C 20.9
		B – 20.0			C – 20.9			C – 34.3		C – 27.9			
	Weekday Evening	E 69.7	D 45.1	A 2.3	E 58.5	C 20.9	A 2.3	D 42.4	C 29.7	F 99+	E 56.2	C 26.0	D 39.1
		D – 44.1			C – 30.0			C – 34.8		E – 73.3			
	Saturday Midday	D 49.5	C 26.7	A 0.2	D 50.9	C 21.0	A 3.5	C 23.8	C 22.3	D 40.9	C 33.3	A 4.4	C 26.3
		C – 28.2			C – 24.6			C – 22.9		C – 28.7			
Projected Conditions	Weekday Morning	E 60.0	B 19.8	A 2.7	E 59.2	B 10.7	A 1.8	D 42.7	C 29.6	E 56.0	D 54.0	A 7.0	C 21.2
		C – 20.1			C – 21.2			C – 33.9		C – 30.6			
	Weekday Evening	E 70.4	D 45.7	A 3.5	E 59.4	C 21.0	A 2.3	D 45.5	C 32.1	F 91.4	D 54.6	C 24.6	D 38.7
		D – 44.4			C – 30.4			D – 37.7		E – 64.6			
	Saturday Midday	D 49.8	C 27.0	A 0.3	D 51.8	C 21.0	A 3.5	C 24.9	C 20-.9	D 41.0	C 34.2	A 4.5	C 26.4
		C – 28.0			C – 25.0			C – 22.7		C – 28.9			

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

Table 5
CAPACITY ANALYSIS RESULTS - EXISTING CONDITIONS – UNSIGNALIZED

Intersection	Weekday Morning Peak Hour		Weekday Evening Peak Hour		Saturday Midday Peak Hour	
	LOS	Delay	LOS	Delay	LOS	Delay
Downers Drive with Frontage Road[3]						
• Intersection Capacity Utilization (ICU)	A	43.4%	B	63.9%	A	36.0%
Oak Grove Road with Frontage Road[1]						
• Westbound Approach	A	9.1	A	9.0	A	9.2
• Southbound Left Turn	A	7.3	A	7.5	A	7.4
Finley Road with Branding Avenue[2]						
• Northbound Left Turn	B	11.5	A	9.9	A	8.6
• Eastbound Approach	D	33.4	C	23.7	C	21.7
• Westbound Approach	C	21.9	C	21.5	B	13.6
• Southbound Left Turn	B	11.1	B	13.4	B	11.0

LOS = Level of Service
Delay is measured in seconds.

1 – All-way stop control
2 – Two-way stop control
3 – Three-way stop control

Table 6
CAPACITY ANALYSIS RESULTS – YEAR 2032 NO-BUILD CONDITIONS - UNSIGNALIZED

Intersection	Weekday Morning Peak Hour		Weekday Evening Peak Hour		Saturday Midday Peak Hour	
	LOS	Delay	LOS	Delay	LOS	Delay
Downers Drive with Frontage Road[3]						
• Intersection Capacity Utilization (ICU)	A	43.8%	C	64.6%	A	36.3%
Oak Grove Road with Frontage Road[1]						
• Westbound Approach	A	9.1	A	9.1	A	9.2
• Southbound Left Turn	A	7.3	A	7.5	A	7.4
Finley Road with Branding Avenue[2]						
• Northbound Left Turn	B	11.6	A	9.9	A	8.7
• Eastbound Approach	D	34.4	C	24.2	C	22.0
• Westbound Approach	C	22.3	C	22.2	B	13.7
• Southbound Left Turn	B	11.2	B	13.5	B	11.1

LOS = Level of Service
Delay is measured in seconds.

1 – All-way stop control
2 – Two-way stop control
3 – Three-way stop control

Table 7
CAPACITY ANALYSIS RESULTS – YEAR 2032 PROJECTED CONDITIONS - UNSIGNALIZED

Intersection	Weekday Morning Peak Hour		Weekday Evening Peak Hour		Saturday Midday Peak Hour	
	LOS	Delay	LOS	Delay	LOS	Delay
Downers Drive with Frontage Road[3]						
• Intersection Capacity Utilization (ICU)	A	43.3%	C	65.8%	A	38.1%
Oak Grove Road with Frontage Road[1]						
• Westbound Approach	A	9.1	A	9.1	A	9.2
• Southbound Left Turn	A	7.3	A	7.5	A	7.4
Finley Road with Branding Avenue[2]						
• Northbound Left Turn	B	11.6	A	9.9	A	8.7
• Eastbound Approach	D	34.7	C	24.5	C	22.3
• Westbound Approach	C	23.6	C	23.6	B	14.5
• Southbound Left Turn	B	11.2	B	13.4	B	11.2
Frontage Road with Access Drive[1]						
• Northbound Approach	A	8.5	A	8.8	A	8.8
• Westbound Left Turn	A	7.3	A	7.4	A	7.4
Oak Grove Road with Access Drive[1]						
• Westbound Approach	A	9.1	A	9.1	A	9.1
• Southbound Left Turn	--	--	--	--	--	--

LOS = Level of Service
Delay is measured in seconds.

1 – All-way stop control
2 – Two-way stop control
3 – Three-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 car wash-generated traffic.

Butterfield Road with Downers Drive

The results of the capacity analysis indicate the following:

- The intersection overall currently operates at Level of Service (LOS) D or better during the weekday morning, weekday evening, and Saturday midday peak hours.

- Through movements on the eastbound and westbound approaches currently operate at LOS D or better and through movements on the northbound and southbound approaches currently operate at LOS E or better. However, this is due to the limited green time given to the northbound and southbound approaches.

- Left-turn movements on all approaches currently operate at LOS E or better during the peak hours except the southbound left turn during the weekday evening peak hour which operates at LOS F.

    - The high delay for eastbound and westbound movements is to be expected as they operate under a protected phase.

- Under no-build and total projected conditions, the intersection overall is projected to continue operating at existing levels of service during the peak hours. All approaches are projected to continue operating at existing LOS except the eastbound and westbound approaches which are projected to operate at LOS C during the weekday morning peak hour.

As such, this intersection has sufficient reserve capacity to accommodate the traffic estimated to be generated by the proposed car wash and no roadway or traffic control improvements are required.

Downers Drive with Frontage Road

Because of the traffic control configuration of this intersection where the eastbound traffic is under stop sign control and the other three approaches are free, the intersection could not be analyzed using HCM procedures. Given this traffic control configuration and the limitations of the HCM procedures, the intersection was analyzed using the intersection capacity utilization (ICU) level of service. The ICU indicates how much reserve capacity is available or how much an intersection is over capacity.

Based on the ICU analysis, the intersection currently utilizes approximately 43 percent of the capacity of the intersection during the weekday morning peak hour, approximately 64 percent of its capacity during the weekday evening peak hour, and approximately 36 percent of its capacity during the Saturday midday peak hour. Under future conditions it is projected that the intersection will utilize approximately 43 percent of its capacity during the weekday morning peak hour and 66 percent of its capacity during the weekday evening peak hour and approximately 38 percent of its capacity during the Saturday midday peak hour. As a result, the intersection will continue to operate efficiently and with minimal delays.

Oak Grove Road with Frontage Road

The results of the capacity analyses indicate that the westbound approach and southbound left-turn movement at this intersection operate at LOS A during the weekday morning, weekday evening, and Saturday midday peak hours.

Under no-build and total projected conditions, the westbound approach and southbound left-turn movement are projected to continue to operate at existing levels of service during all three peak hour. As such, this intersection has sufficient reserve capacity to accommodate the traffic estimated to be generated by the proposed car wash and no roadway or traffic control improvements are required.

Finley Road with Branding Avenue

The results of the capacity analyses indicate that all of the approaches and critical movements at this intersection operate at LOS D or better during the weekday morning, weekday evening, and Saturday midday peak hours. Under no-build and total projected conditions, the approaches and critical movements are projected to continue to operate at existing levels of service during all three peak hours. As such, this intersection has sufficient reserve capacity to accommodate the traffic estimated to be generated by the proposed car wash and no roadway or traffic control improvements are required.

Frontage Road with Access Drive

Access to the car wash will be provided via the existing full-movement access drive off the frontage road which provides one inbound lane and one outbound lane. It is recommended that outbound movements be under stop sign control.

The results of the capacity analyses indicate that the northbound approach and westbound left-turn movement are projected to operate at LOS A during the weekday morning, weekday evening, and Saturday midday peak hours. As such, this access drive will be sufficient in accommodating the traffic estimated to be generated by the proposed car wash.

Oak Grove Road with Access Drive

Access to the car wash will be provided via the existing full-movement access drive off Oak Grove Road which provides one inbound lane and one outbound lane. It is recommended that outbound movements be under stop sign control.

The results of the capacity analyses indicate that westbound approach is projected to operate at LOS A during the weekday morning, weekday evening, and Saturday midday peak hours. As such, this access drive will be sufficient in accommodating the traffic estimated to be generated by the proposed development.

6. Conclusion

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

- The site will be developed into an automatic car wash that consists of one car wash tunnel with 20 vacuum stalls.
- Access will continue to be provided via the existing access system serving the Casa Margarita restaurant, which currently occupies the site.
- The results of the capacity analysis indicated that the existing roadway system and access drives have adequate reserve capacity to accommodate the estimated traffic to be generated by the car wash and no 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 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

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(847)518-9990 dfreeman@kloainc.com

Count Name: Butterfield Road with Downers Drive TMC
Site Code:
Start Date: 08/07/2025

Turning Movement Data

Start Time	Butterfield Road Eastbound						Butterfield Road Westbound						Downers Drive Northbound						Downers Drive Southbound						Int. Total
	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	
7:00 AM	0	20	284	12	0	316	1	47	202	33	0	283	0	5	1	1	0	7	0	11	3	10	0	24	630
7:15 AM	0	9	348	14	0	371	1	70	259	28	0	358	0	4	6	0	0	10	0	18	11	8	0	37	776
7:30 AM	0	24	369	28	0	421	0	79	270	38	0	387	0	3	2	6	0	11	0	17	9	8	0	34	853
7:45 AM	0	26	416	37	0	479	0	91	335	58	1	484	0	2	2	13	0	17	0	13	11	4	0	28	1008
Hourly Total	0	79	1417	91	0	1587	2	287	1066	157	1	1512	0	14	11	20	0	45	0	59	34	30	0	123	3267
8:00 AM	1	16	397	40	0	454	0	77	303	62	0	442	0	4	2	7	0	13	0	21	9	8	0	38	947
8:15 AM	0	16	408	47	0	471	0	104	271	36	2	411	0	5	3	4	0	12	0	15	8	10	0	33	927
8:30 AM	0	13	406	34	0	453	0	80	304	34	0	418	0	8	6	9	0	23	0	37	4	12	0	53	947
8:45 AM	2	25	363	30	0	420	2	99	287	38	0	426	0	11	4	6	0	21	0	31	6	14	0	51	918
Hourly Total	3	70	1574	151	0	1798	2	360	1165	170	2	1697	0	28	15	26	0	69	0	104	27	44	0	175	3739
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4:00 PM	4	27	360	29	0	420	2	210	429	52	0	693	0	17	6	18	0	41	0	64	28	45	0	137	1291
4:15 PM	0	24	354	24	0	402	1	179	482	56	0	718	0	21	10	15	0	46	0	67	24	29	1	120	1286
4:30 PM	2	25	315	29	0	371	0	177	442	60	0	679	0	18	5	31	0	54	0	89	23	40	0	152	1256
4:45 PM	0	12	385	34	0	431	1	168	487	67	0	723	0	23	11	30	0	64	0	70	17	31	0	118	1336
Hourly Total	6	88	1414	116	0	1624	4	734	1840	235	0	2813	0	79	32	94	0	205	0	290	92	145	1	527	5169
5:00 PM	3	21	427	12	0	463	3	214	484	39	0	740	0	36	5	29	0	70	0	58	9	30	0	97	1370
5:15 PM	1	35	370	27	0	433	2	218	450	64	0	734	0	22	8	24	0	54	0	61	17	23	0	101	1322
5:30 PM	2	18	400	11	2	431	1	131	385	50	0	567	0	12	6	12	0	30	0	71	13	28	0	112	1140
5:45 PM	2	31	431	25	0	489	2	145	417	52	0	616	0	16	2	14	0	32	0	71	3	30	0	104	1241
Hourly Total	8	105	1628	75	2	1816	8	708	1736	205	0	2657	0	86	21	79	0	186	0	261	42	111	0	414	5073
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
12:00 PM	0	34	272	21	0	327	6	93	299	99	0	497	0	9	7	11	0	27	0	78	13	25	0	116	967
12:15 PM	1	28	250	16	0	295	4	112	351	77	0	544	0	14	7	10	0	31	0	84	16	28	0	128	998
12:30 PM	0	35	282	13	0	330	6	109	278	65	0	458	0	8	3	15	0	26	0	62	12	31	0	105	919
12:45 PM	0	26	237	13	0	276	7	127	270	96	0	500	0	19	7	7	0	33	0	92	16	34	0	142	951
Hourly Total	1	123	1041	63	0	1228	23	441	1198	337	0	1999	0	50	24	43	0	117	0	316	57	118	0	491	3835
1:00 PM	0	41	304	8	0	353	6	95	336	85	1	522	0	8	8	7	0	23	0	64	17	34	0	115	1013
1:15 PM	0	38	274	11	0	323	3	107	345	88	0	543	0	14	7	9	0	30	0	70	17	40	0	127	1023
1:30 PM	2	25	280	4	0	311	5	97	331	89	0	522	0	12	11	6	0	29	1	72	16	48	0	137	999
1:45 PM	0	38	299	5	0	342	4	93	335	77	0	509	0	18	8	16	0	42	0	76	15	39	0	130	1023
Hourly Total	2	142	1157	28	0	1329	18	392	1347	339	1	2096	0	52	34	38	0	124	1	282	65	161	0	509	4058
Grand Total	20	607	8231	524	2	9382	57	2922	8352	1443	4	12774	0	309	137	300	0	746	1	1312	317	609	1	2239	25141
Approach %	0.2	6.5	87.7	5.6	-	-	0.4	22.9	65.4	11.3	-	-	0.0	41.4	18.4	40.2	-	-	0.0	58.6	14.2	27.2	-	-	-
Total %	0.1	2.4	32.7	2.1	-	37.3	0.2	11.6	33.2	5.7	-	50.8	0.0	1.2	0.5	1.2	-	3.0	0.0	5.2	1.3	2.4	-	8.9	-

Lights	20	597	8095	521	-	9233	55	2858	8228	1436	-	12577	0	309	136	298	-	743	1	1299	313	600	-	2213	24766
% Lights	100.0	98.4	98.3	99.4	-	98.4	96.5	97.8	98.5	99.5	-	98.5	-	100.0	99.3	99.3	-	99.6	100.0	99.0	98.7	98.5	-	98.8	98.5
Buses	0	0	31	0	-	31	0	29	7	1	-	37	0	0	0	0	-	0	0	0	0	0	-	0	68
% Buses	0.0	0.0	0.4	0.0	-	0.3	0.0	1.0	0.1	0.1	-	0.3	-	0.0	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	-	0.0	0.3
Single-Unit Trucks	0	6	78	1	-	85	1	24	88	4	-	117	0	0	1	1	-	2	0	9	1	2	-	12	216
% Single-Unit Trucks	0.0	1.0	0.9	0.2	-	0.9	1.8	0.8	1.1	0.3	-	0.9	-	0.0	0.7	0.3	-	0.3	0.0	0.7	0.3	0.3	-	0.5	0.9
Articulated Trucks	0	4	27	2	-	33	1	11	29	2	-	43	0	0	0	1	-	1	0	4	3	6	-	13	90
% Articulated Trucks	0.0	0.7	0.3	0.4	-	0.4	1.8	0.4	0.3	0.1	-	0.3	-	0.0	0.0	0.3	-	0.1	0.0	0.3	0.9	1.0	-	0.6	0.4
Bicycles on Road	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	1	-	1	1
% Bicycles on Road	0.0	0.0	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	0.0	0.0	0.0	0.2	-	0.0	0.0
Pedestrians	-	-	-	-	2	-	-	-	-	-	4	-	-	-	-	-	0	-	-	-	-	-	1	-	-
% Pedestrians	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	-	-	-	-	-	-	100.0	-	-

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9575 W. Higgins Rd., Suite 400

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

Count Name: Butterfield Road with Downers Drive TMC
Site Code:
Start Date: 08/07/2025

Turning Movement Peak Hour Data (7:45 AM)

Start Time	Butterfield Road Eastbound						Butterfield Road Westbound						Downers Drive Northbound						Downers Drive 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	
7:45 AM	0	26	416	37	0	479	0	91	335	58	1	484	0	2	2	13	0	17	0	13	11	4	0	28	1008
8:00 AM	1	16	397	40	0	454	0	77	303	62	0	442	0	4	2	7	0	13	0	21	9	8	0	38	947
8:15 AM	0	16	408	47	0	471	0	104	271	36	2	411	0	5	3	4	0	12	0	15	8	10	0	33	927
8:30 AM	0	13	406	34	0	453	0	80	304	34	0	418	0	8	6	9	0	23	0	37	4	12	0	53	947
Total	1	71	1627	158	0	1857	0	352	1213	190	3	1755	0	19	13	33	0	65	0	86	32	34	0	152	3829
Approach %	0.1	3.8	87.6	8.5	-	-	0.0	20.1	69.1	10.8	-	-	0.0	29.2	20.0	50.8	-	-	0.0	56.6	21.1	22.4	-	-	-
Total %	0.0	1.9	42.5	4.1	-	48.5	0.0	9.2	31.7	5.0	-	45.8	0.0	0.5	0.3	0.9	-	1.7	0.0	2.2	0.8	0.9	-	4.0	-
PHF	0.250	0.683	0.978	0.840	-	0.969	0.000	0.846	0.905	0.766	-	0.907	0.000	0.594	0.542	0.635	-	0.707	0.000	0.581	0.727	0.708	-	0.717	0.950
Lights	1	69	1595	157	-	1822	0	340	1175	186	-	1701	0	19	12	32	-	63	0	83	31	31	-	145	3731
% Lights	100.0	97.2	98.0	99.4	-	98.1	-	96.6	96.9	97.9	-	96.9	-	100.0	92.3	97.0	-	96.9	-	96.5	96.9	91.2	-	95.4	97.4
Buses	0	0	6	0	-	6	0	8	0	0	-	8	0	0	0	0	-	0	0	0	0	0	-	0	14
% Buses	0.0	0.0	0.4	0.0	-	0.3	-	2.3	0.0	0.0	-	0.5	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	0.4
Single-Unit Trucks	0	1	19	0	-	20	0	3	29	3	-	35	0	0	1	0	-	1	0	3	0	1	-	4	60
% Single-Unit Trucks	0.0	1.4	1.2	0.0	-	1.1	-	0.9	2.4	1.6	-	2.0	-	0.0	7.7	0.0	-	1.5	-	3.5	0.0	2.9	-	2.6	1.6
Articulated Trucks	0	1	7	1	-	9	0	1	9	1	-	11	0	0	0	1	-	1	0	0	1	2	-	3	24
% Articulated Trucks	0.0	1.4	0.4	0.6	-	0.5	-	0.3	0.7	0.5	-	0.6	-	0.0	0.0	3.0	-	1.5	-	0.0	3.1	5.9	-	2.0	0.6
Bicycles on Road	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0
% Bicycles on Road	0.0	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	0.0
Pedestrians	-	-	-	-	0	-	-	-	-	-	3	-	-	-	-	-	0	-	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	100.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-

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

Rosemont, Illinois, United States 60018
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Count Name: Butterfield Road with Downers Drive TMC
Site Code:
Start Date: 08/07/2025

Turning Movement Peak Hour Data (4:30 PM)

Start Time	Butterfield Road Eastbound						Butterfield Road Westbound						Downers Drive Northbound						Downers Drive Southbound						Int. Total
	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	
4:30 PM	2	25	315	29	0	371	0	177	442	60	0	679	0	18	5	31	0	54	0	89	23	40	0	152	1256
4:45 PM	0	12	385	34	0	431	1	168	487	67	0	723	0	23	11	30	0	64	0	70	17	31	0	118	1336
5:00 PM	3	21	427	12	0	463	3	214	484	39	0	740	0	36	5	29	0	70	0	58	9	30	0	97	1370
5:15 PM	1	35	370	27	0	433	2	218	450	64	0	734	0	22	8	24	0	54	0	61	17	23	0	101	1322
Total	6	93	1497	102	0	1698	6	777	1863	230	0	2876	0	99	29	114	0	242	0	278	66	124	0	468	5284
Approach %	0.4	5.5	88.2	6.0	-	-	0.2	27.0	64.8	8.0	-	-	0.0	40.9	12.0	47.1	-	-	0.0	59.4	14.1	26.5	-	-	-
Total %	0.1	1.8	28.3	1.9	-	32.1	0.1	14.7	35.3	4.4	-	54.4	0.0	1.9	0.5	2.2	-	4.6	0.0	5.3	1.2	2.3	-	8.9	-
PHF	0.500	0.664	0.876	0.750	-	0.917	0.500	0.891	0.956	0.858	-	0.972	0.000	0.688	0.659	0.919	-	0.864	0.000	0.781	0.717	0.775	-	0.770	0.964
Lights	6	90	1466	101	-	1663	6	762	1845	230	-	2843	0	99	29	114	-	242	0	276	64	123	-	463	5211
% Lights	100.0	96.8	97.9	99.0	-	97.9	100.0	98.1	99.0	100.0	-	98.9	-	100.0	100.0	100.0	-	100.0	-	99.3	97.0	99.2	-	98.9	98.6
Buses	0	0	7	0	-	7	0	9	0	0	-	9	0	0	0	0	-	0	0	0	0	0	-	0	16
% Buses	0.0	0.0	0.5	0.0	-	0.4	0.0	1.2	0.0	0.0	-	0.3	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	0.3
Single-Unit Trucks	0	3	19	0	-	22	0	4	12	0	-	16	0	0	0	0	-	0	0	1	1	0	-	2	40
% Single-Unit Trucks	0.0	3.2	1.3	0.0	-	1.3	0.0	0.5	0.6	0.0	-	0.6	-	0.0	0.0	0.0	-	0.0	-	0.4	1.5	0.0	-	0.4	0.8
Articulated Trucks	0	0	5	1	-	6	0	2	6	0	-	8	0	0	0	0	-	0	0	1	1	1	-	3	17
% Articulated Trucks	0.0	0.0	0.3	1.0	-	0.4	0.0	0.3	0.3	0.0	-	0.3	-	0.0	0.0	0.0	-	0.0	-	0.4	1.5	0.8	-	0.6	0.3
Bicycles on Road	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0
% 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	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

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

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

Count Name: Butterfield Road with Downers Drive TMC
Site Code:
Start Date: 08/07/2025

Turning Movement Peak Hour Data (12:00 PM)

Start Time	Butterfield Road Eastbound						Butterfield Road Westbound						Downers Drive Northbound						Downers Drive 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	34	272	21	0	327	6	93	299	99	0	497	0	9	7	11	0	27	0	78	13	25	0	116	967
12:15 PM	1	28	250	16	0	295	4	112	351	77	0	544	0	14	7	10	0	31	0	84	16	28	0	128	998
12:30 PM	0	35	282	13	0	330	6	109	278	65	0	458	0	8	3	15	0	26	0	62	12	31	0	105	919
12:45 PM	0	26	237	13	0	276	7	127	270	96	0	500	0	19	7	7	0	33	0	92	16	34	0	142	951
Total	1	123	1041	63	0	1228	23	441	1198	337	0	1999	0	50	24	43	0	117	0	316	57	118	0	491	3835
Approach %	0.1	10.0	84.8	5.1	-	-	1.2	22.1	59.9	16.9	-	-	0.0	42.7	20.5	36.8	-	-	0.0	64.4	11.6	24.0	-	-	-
Total %	0.0	3.2	27.1	1.6	-	32.0	0.6	11.5	31.2	8.8	-	52.1	0.0	1.3	0.6	1.1	-	3.1	0.0	8.2	1.5	3.1	-	12.8	-
PHF	0.250	0.879	0.923	0.750	-	0.930	0.821	0.868	0.853	0.851	-	0.919	0.000	0.658	0.857	0.717	-	0.886	0.000	0.859	0.891	0.868	-	0.864	0.961
Lights	1	122	1031	62	-	1216	23	436	1185	337	-	1981	0	50	24	43	-	117	0	315	57	118	-	490	3804
% Lights	100.0	99.2	99.0	98.4	-	99.0	100.0	98.9	98.9	100.0	-	99.1	-	100.0	100.0	100.0	-	100.0	-	99.7	100.0	100.0	-	99.8	99.2
Buses	0	0	2	0	-	2	0	3	3	0	-	6	0	0	0	0	-	0	0	0	0	0	-	0	8
% Buses	0.0	0.0	0.2	0.0	-	0.2	0.0	0.7	0.3	0.0	-	0.3	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	0.2
Single-Unit Trucks	0	0	6	1	-	7	0	1	8	0	-	9	0	0	0	0	-	0	0	1	0	0	-	1	17
% Single-Unit Trucks	0.0	0.0	0.6	1.6	-	0.6	0.0	0.2	0.7	0.0	-	0.5	-	0.0	0.0	0.0	-	0.0	-	0.3	0.0	0.0	-	0.2	0.4
Articulated Trucks	0	1	2	0	-	3	0	1	2	0	-	3	0	0	0	0	-	0	0	0	0	0	-	0	6
% Articulated Trucks	0.0	0.8	0.2	0.0	-	0.2	0.0	0.2	0.2	0.0	-	0.2	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	0.2
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	0.0
Pedestrians	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

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9575 W. Higgins Rd., Suite 400

Rosemont, Illinois, United States 60018
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Count Name: finley rd and branding ave TMC
Site Code:
Start Date: 02/14/2026

Turning Movement Data

Start Time	access dr Eastbound						Branding ave Westbound						finley rd Northbound						finley rd 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	0	0	0	1	0	7	0	27	0	34	0	1	160	5	0	166	3	18	126	0	1	147	348
12:15 PM	0	2	0	0	0	2	0	9	0	22	0	31	0	0	167	5	0	172	5	17	152	1	0	175	380
12:30 PM	0	0	0	0	0	0	0	7	0	28	1	35	0	2	165	2	0	169	8	17	132	1	0	158	362
12:45 PM	0	0	0	0	1	0	0	1	0	13	0	14	0	0	188	4	0	192	7	12	158	1	0	178	384
Hourly Total	0	3	0	0	1	3	0	24	0	90	1	114	0	3	680	16	0	699	23	64	568	3	1	658	1474
1:00 PM	0	0	0	0	0	0	0	6	0	22	0	28	0	0	126	2	0	128	1	18	151	0	0	170	326
1:15 PM	0	3	0	0	0	3	0	6	1	10	0	17	0	1	132	4	0	137	4	6	170	1	0	181	338
1:30 PM	0	2	0	0	1	2	0	3	0	20	0	23	0	1	140	5	0	146	8	8	163	2	1	181	352
1:45 PM	0	1	0	0	0	1	0	5	0	17	0	22	1	0	125	4	0	130	6	8	174	2	0	190	343
Hourly Total	0	6	0	0	1	6	0	20	1	69	0	90	1	2	523	15	0	541	19	40	658	5	1	722	1359
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
7:00 AM	0	2	0	0	0	2	0	1	0	3	0	4	0	0	159	5	0	164	3	7	177	1	0	188	358
7:15 AM	0	0	0	0	0	0	0	3	1	2	0	6	0	2	192	9	0	203	3	5	165	0	0	173	382
7:30 AM	0	1	0	0	0	1	0	3	0	2	0	5	0	1	186	5	0	192	3	11	236	1	0	251	449
7:45 AM	0	2	0	0	0	2	0	6	1	7	0	14	0	1	224	16	0	241	1	19	292	5	0	317	574
Hourly Total	0	5	0	0	0	5	0	13	2	14	0	29	0	4	761	35	0	800	10	42	870	7	0	929	1763
8:00 AM	0	1	0	1	0	2	0	4	0	2	0	6	0	2	203	10	0	215	2	16	276	6	1	300	523
8:15 AM	0	4	0	0	1	4	0	4	0	9	0	13	1	3	198	11	0	213	3	13	273	18	0	307	537
8:30 AM	0	2	1	2	1	5	0	7	0	7	1	14	2	7	175	8	0	192	1	8	253	11	2	273	484
8:45 AM	0	2	0	3	0	5	0	5	0	3	0	8	0	6	193	6	0	205	1	10	210	13	0	234	452
Hourly Total	0	9	1	6	2	16	0	20	0	21	1	41	3	18	769	35	0	825	7	47	1012	48	3	1114	1996
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4:00 PM	0	5	0	3	0	8	0	6	0	7	1	13	0	1	194	4	0	199	2	6	249	3	0	260	480
4:15 PM	0	5	0	1	2	6	0	3	0	3	0	6	0	1	175	3	0	179	4	4	227	5	2	240	431
4:30 PM	0	13	1	5	1	19	0	11	0	9	0	20	0	0	205	6	0	211	2	3	200	2	1	207	457
4:45 PM	0	3	1	1	0	5	0	4	2	6	0	12	0	1	197	2	0	200	1	3	198	1	0	203	420
Hourly Total	0	26	2	10	3	38	0	24	2	25	1	51	0	3	771	15	0	789	9	16	874	11	3	910	1788
5:00 PM	0	10	1	6	0	17	0	12	0	9	0	21	0	2	242	2	0	246	4	4	226	3	0	237	521
5:15 PM	0	5	0	3	0	8	0	7	0	6	0	13	0	0	225	3	0	228	2	2	198	3	0	205	454
5:30 PM	0	3	2	1	0	6	0	0	0	3	0	3	0	0	168	4	0	172	5	4	205	0	0	214	395
5:45 PM	0	6	1	2	0	9	0	4	0	3	0	7	0	1	152	3	0	156	3	5	159	2	0	169	341
Hourly Total	0	24	4	12	0	40	0	23	0	21	0	44	0	3	787	12	0	802	14	15	788	8	0	825	1711
Grand Total	0	73	7	28	7	108	0	124	5	240	3	369	4	33	4291	128	0	4456	82	224	4770	82	8	5158	10091
Approach %	0.0	67.6	6.5	25.9	-	-	0.0	33.6	1.4	65.0	-	-	0.1	0.7	96.3	2.9	-	-	1.6	4.3	92.5	1.6	-	-	-
Total %	0.0	0.7	0.1	0.3	-	1.1	0.0	1.2	0.0	2.4	-	3.7	0.0	0.3	42.5	1.3	-	44.2	0.8	2.2	47.3	0.8	-	51.1	-

Lights	0	73	7	28	-	108	0	121	5	210	-	336	4	33	4244	123	-	4404	82	216	4692	81	-	5071	9919
% Lights	-	100.0	100.0	100.0	-	100.0	-	97.6	100.0	87.5	-	91.1	100.0	100.0	98.9	96.1	-	98.8	100.0	96.4	98.4	98.8	-	98.3	98.3
Buses	0	0	0	0	-	0	0	0	0	26	-	26	0	0	9	3	-	12	0	1	8	0	-	9	47
% Buses	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	10.8	-	7.0	0.0	0.0	0.2	2.3	-	0.3	0.0	0.4	0.2	0.0	-	0.2	0.5
Single-Unit Trucks	0	0	0	0	-	0	0	3	0	2	-	5	0	0	31	2	-	33	0	5	48	1	-	54	92
% Single-Unit Trucks	-	0.0	0.0	0.0	-	0.0	-	2.4	0.0	0.8	-	1.4	0.0	0.0	0.7	1.6	-	0.7	0.0	2.2	1.0	1.2	-	1.0	0.9
Articulated Trucks	0	0	0	0	-	0	0	0	0	2	-	2	0	0	7	0	-	7	0	2	21	0	-	23	32
% Articulated Trucks	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.8	-	0.5	0.0	0.0	0.2	0.0	-	0.2	0.0	0.9	0.4	0.0	-	0.4	0.3
Bicycles on Road	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	1	0	-	1	1
% Bicycles on Road	-	0.0	0.0	0.0	-	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	-	-	-	-	7	-	-	-	-	-	3	-	-	-	-	-	0	-	-	-	-	-	8	-	-
% Pedestrians	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	-	-	-	-	-	-	100.0	-	-

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9575 W. Higgins Rd., Suite 400

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

Count Name: finley rd and branding ave TMC
Site Code:
Start Date: 02/14/2026

Turning Movement Peak Hour Data (12:00 PM)

Start Time	access dr Eastbound						Branding ave Westbound						finley rd Northbound						finley rd 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	0	0	0	1	0	7	0	27	0	34	0	1	160	5	0	166	3	18	126	0	1	147	348
12:15 PM	0	2	0	0	0	2	0	9	0	22	0	31	0	0	167	5	0	172	5	17	152	1	0	175	380
12:30 PM	0	0	0	0	0	0	0	7	0	28	1	35	0	2	165	2	0	169	8	17	132	1	0	158	362
12:45 PM	0	0	0	0	1	0	0	1	0	13	0	14	0	0	188	4	0	192	7	12	158	1	0	178	384
Total	0	3	0	0	1	3	0	24	0	90	1	114	0	3	680	16	0	699	23	64	568	3	1	658	1474
Approach %	0.0	100.0	0.0	0.0	-	-	0.0	21.1	0.0	78.9	-	-	0.0	0.4	97.3	2.3	-	-	3.5	9.7	86.3	0.5	-	-	-
Total %	0.0	0.2	0.0	0.0	-	0.2	0.0	1.6	0.0	6.1	-	7.7	0.0	0.2	46.1	1.1	-	47.4	1.6	4.3	38.5	0.2	-	44.6	-
PHF	0.000	0.375	0.000	0.000	-	0.375	0.000	0.667	0.000	0.804	-	0.814	0.000	0.375	0.904	0.800	-	0.910	0.719	0.889	0.899	0.750	-	0.924	0.960
Lights	0	3	0	0	-	3	0	24	0	85	-	109	0	3	677	15	-	695	23	63	561	3	-	650	1457
% Lights	-	100.0	-	-	-	100.0	-	100.0	-	94.4	-	95.6	-	100.0	99.6	93.8	-	99.4	100.0	98.4	98.8	100.0	-	98.8	98.8
Buses	0	0	0	0	-	0	0	0	0	5	-	5	0	0	0	1	-	1	0	1	2	0	-	3	9
% Buses	-	0.0	-	-	-	0.0	-	0.0	-	5.6	-	4.4	-	0.0	0.0	6.3	-	0.1	0.0	1.6	0.4	0.0	-	0.5	0.6
Single-Unit Trucks	0	0	0	0	-	0	0	0	0	0	-	0	0	0	2	0	-	2	0	0	5	0	-	5	7
% Single-Unit Trucks	-	0.0	-	-	-	0.0	-	0.0	-	0.0	-	0.0	-	0.0	0.3	0.0	-	0.3	0.0	0.0	0.9	0.0	-	0.8	0.5
Articulated Trucks	0	0	0	0	-	0	0	0	0	0	-	0	0	0	1	0	-	1	0	0	0	0	-	0	1
% Articulated Trucks	-	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	0.1
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
Pedestrians	-	-	-	-	1	-	-	-	-	-	1	-	-	-	-	-	0	-	-	-	-	-	1	-	-
% Pedestrians	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	-	-	-	-	-	-	100.0	-	-

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9575 W. Higgins Rd., Suite 400

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

Count Name: finley rd and branding ave TMC
Site Code:
Start Date: 02/14/2026

Turning Movement Peak Hour Data (7:45 AM)

Start Time	access dr Eastbound						Branding ave Westbound						finley rd Northbound						finley rd 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	
7:45 AM	0	2	0	0	0	2	0	6	1	7	0	14	0	1	224	16	0	241	1	19	292	5	0	317	574
8:00 AM	0	1	0	1	0	2	0	4	0	2	0	6	0	2	203	10	0	215	2	16	276	6	1	300	523
8:15 AM	0	4	0	0	1	4	0	4	0	9	0	13	1	3	198	11	0	213	3	13	273	18	0	307	537
8:30 AM	0	2	1	2	1	5	0	7	0	7	1	14	2	7	175	8	0	192	1	8	253	11	2	273	484
Total	0	9	1	3	2	13	0	21	1	25	1	47	3	13	800	45	0	861	7	56	1094	40	3	1197	2118
Approach %	0.0	69.2	7.7	23.1	-	-	0.0	44.7	2.1	53.2	-	-	0.3	1.5	92.9	5.2	-	-	0.6	4.7	91.4	3.3	-	-	-
Total %	0.0	0.4	0.0	0.1	-	0.6	0.0	1.0	0.0	1.2	-	2.2	0.1	0.6	37.8	2.1	-	40.7	0.3	2.6	51.7	1.9	-	56.5	-
PHF	0.000	0.563	0.250	0.375	-	0.650	0.000	0.750	0.250	0.694	-	0.839	0.375	0.464	0.893	0.703	-	0.893	0.583	0.737	0.937	0.556	-	0.944	0.922
Lights	0	9	1	3	-	13	0	19	1	18	-	38	3	13	788	44	-	848	7	55	1074	39	-	1175	2074
% Lights	-	100.0	100.0	100.0	-	100.0	-	90.5	100.0	72.0	-	80.9	100.0	100.0	98.5	97.8	-	98.5	100.0	98.2	98.2	97.5	-	98.2	97.9
Buses	0	0	0	0	-	0	0	0	0	4	-	4	0	0	3	0	-	3	0	0	4	0	-	4	11
% Buses	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	16.0	-	8.5	0.0	0.0	0.4	0.0	-	0.3	0.0	0.0	0.4	0.0	-	0.3	0.5
Single-Unit Trucks	0	0	0	0	-	0	0	2	0	2	-	4	0	0	7	1	-	8	0	1	12	1	-	14	26
% Single-Unit Trucks	-	0.0	0.0	0.0	-	0.0	-	9.5	0.0	8.0	-	8.5	0.0	0.0	0.9	2.2	-	0.9	0.0	1.8	1.1	2.5	-	1.2	1.2
Articulated Trucks	0	0	0	0	-	0	0	0	0	1	-	1	0	0	2	0	-	2	0	0	4	0	-	4	7
% Articulated Trucks	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	4.0	-	2.1	0.0	0.0	0.3	0.0	-	0.2	0.0	0.0	0.4	0.0	-	0.3	0.3
Bicycles on Road	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0
% 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	-	-	-	-	2	-	-	-	-	-	1	-	-	-	-	-	0	-	-	-	-	-	3	-	-
% Pedestrians	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	-	-	-	-	-	-	100.0	-	-

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

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

Count Name: finley rd and branding ave TMC
Site Code:
Start Date: 02/14/2026

Turning Movement Peak Hour Data (4:30 PM)

Start Time	access dr Eastbound						Branding ave Westbound						finley rd Northbound						finley rd Southbound						Int. Total
	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	
4:30 PM	0	13	1	5	1	19	0	11	0	9	0	20	0	0	205	6	0	211	2	3	200	2	1	207	457
4:45 PM	0	3	1	1	0	5	0	4	2	6	0	12	0	1	197	2	0	200	1	3	198	1	0	203	420
5:00 PM	0	10	1	6	0	17	0	12	0	9	0	21	0	2	242	2	0	246	4	4	226	3	0	237	521
5:15 PM	0	5	0	3	0	8	0	7	0	6	0	13	0	0	225	3	0	228	2	2	198	3	0	205	454
Total	0	31	3	15	1	49	0	34	2	30	0	66	0	3	869	13	0	885	9	12	822	9	1	852	1852
Approach %	0.0	63.3	6.1	30.6	-	-	0.0	51.5	3.0	45.5	-	-	0.0	0.3	98.2	1.5	-	-	1.1	1.4	96.5	1.1	-	-	-
Total %	0.0	1.7	0.2	0.8	-	2.6	0.0	1.8	0.1	1.6	-	3.6	0.0	0.2	46.9	0.7	-	47.8	0.5	0.6	44.4	0.5	-	46.0	-
PHF	0.000	0.596	0.750	0.625	-	0.645	0.000	0.708	0.250	0.833	-	0.786	0.000	0.375	0.898	0.542	-	0.899	0.563	0.750	0.909	0.750	-	0.899	0.889
Lights	0	31	3	15	-	49	0	34	2	26	-	62	0	3	865	12	-	880	9	11	812	9	-	841	1832
% Lights	-	100.0	100.0	100.0	-	100.0	-	100.0	100.0	86.7	-	93.9	-	100.0	99.5	92.3	-	99.4	100.0	91.7	98.8	100.0	-	98.7	98.9
Buses	0	0	0	0	-	0	0	0	0	4	-	4	0	0	0	0	-	0	0	0	0	0	-	0	4
% Buses	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	13.3	-	6.1	-	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	0	0	-	0	0	0	0	0	-	0	0	0	2	1	-	3	0	1	8	0	-	9	12
% Single-Unit Trucks	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	-	0.0	0.2	7.7	-	0.3	0.0	8.3	1.0	0.0	-	1.1	0.6
Articulated Trucks	0	0	0	0	-	0	0	0	0	0	-	0	0	0	2	0	-	2	0	0	2	0	-	2	4
% Articulated Trucks	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	-	0.0	0.2	0.0	-	0.2	0.0	0.0	0.2	0.0	-	0.2	0.2
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	-	-	-	-	1	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	1	-	-
% Pedestrians	-	-	-	-	100.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	100.0	-	-

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

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

Count Name: frontage rd and downers dr
Site Code:
Start Date: 02/21/2026

Turning Movement Data

Start Time	frontage rd Eastbound						frontage rd Westbound						downers dr Northbound						downers dr Southbound						
	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	Int. Total
12:00 PM	0	10	2	2	0	14	0	15	3	19	0	37	0	1	0	0	0	1	0	31	95	13	0	139	191
12:15 PM	0	7	7	3	0	17	0	14	3	18	0	35	0	0	2	2	0	4	0	23	91	19	0	133	189
12:30 PM	0	17	5	3	0	25	0	17	6	25	0	48	0	0	2	4	1	6	1	15	97	10	0	123	202
12:45 PM	0	8	6	1	0	15	0	8	3	19	0	30	0	0	2	0	1	2	0	23	113	14	0	150	197
Hourly Total	0	42	20	9	0	71	0	54	15	81	0	150	0	1	6	6	2	13	1	92	396	56	0	545	779
1:00 PM	0	6	3	1	0	10	0	17	5	34	0	56	0	1	3	0	0	4	1	42	91	11	0	145	215
1:15 PM	0	10	0	2	0	12	0	11	2	14	0	27	0	0	0	0	0	0	0	30	118	11	0	159	198
1:30 PM	0	8	4	3	0	15	0	14	6	13	0	33	0	0	0	1	2	1	0	32	115	6	0	153	202
1:45 PM	0	8	5	1	0	14	0	14	2	17	0	33	0	0	3	0	1	3	1	27	102	8	0	138	188
Hourly Total	0	32	12	7	0	51	0	56	15	78	0	149	0	1	6	1	3	8	2	131	426	36	0	595	803
Grand Total	0	74	32	16	0	122	0	110	30	159	0	299	0	2	12	7	5	21	3	223	822	92	0	1140	1582
Approach %	0.0	60.7	26.2	13.1	-	-	0.0	36.8	10.0	53.2	-	-	0.0	9.5	57.1	33.3	-	-	0.3	19.6	72.1	8.1	-	-	-
Total %	0.0	4.7	2.0	1.0	-	7.7	0.0	7.0	1.9	10.1	-	18.9	0.0	0.1	0.8	0.4	-	1.3	0.2	14.1	52.0	5.8	-	72.1	-
Lights	0	73	31	14	-	118	0	108	30	158	-	296	0	2	12	7	-	21	3	223	815	83	-	1124	1559
% Lights	-	98.6	96.9	87.5	-	96.7	-	98.2	100.0	99.4	-	99.0	-	100.0	100.0	100.0	-	100.0	100.0	100.0	99.1	90.2	-	98.6	98.5
Buses	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	7	-	7	7
% 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	7.6	-	0.6	0.4
Single-Unit Trucks	0	1	1	1	-	3	0	1	0	1	-	2	0	0	0	0	-	0	0	0	7	2	-	9	14
% Single-Unit Trucks	-	1.4	3.1	6.3	-	2.5	-	0.9	0.0	0.6	-	0.7	-	0.0	0.0	0.0	-	0.0	0.0	0.0	0.9	2.2	-	0.8	0.9
Articulated Trucks	0	0	0	0	-	0	0	1	0	0	-	1	0	0	0	0	-	0	0	0	0	0	-	0	1
% Articulated Trucks	-	0.0	0.0	0.0	-	0.0	-	0.9	0.0	0.0	-	0.3	-	0.0	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	-	0.0	0.1
Bicycles on Road	0	0	0	1	-	1	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	1
% Bicycles on Road	-	0.0	0.0	6.3	-	0.8	-	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	0.1
Pedestrians	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	5	-	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	100.0	-	-	-	-	-	-	-	-

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

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

Count Name: frontage rd and downers dr
Site Code:
Start Date: 02/21/2026

Turning Movement Peak Hour Data (12:00 PM)

Start Time	frontage rd Eastbound						frontage rd Westbound						downers dr Northbound						downers dr Southbound						
	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	Int. Total
12:00 PM	0	10	2	2	0	14	0	15	3	19	0	37	0	1	0	0	0	1	0	31	95	13	0	139	191
12:15 PM	0	7	7	3	0	17	0	14	3	18	0	35	0	0	2	2	0	4	0	23	91	19	0	133	189
12:30 PM	0	17	5	3	0	25	0	17	6	25	0	48	0	0	2	4	1	6	1	15	97	10	0	123	202
12:45 PM	0	8	6	1	0	15	0	8	3	19	0	30	0	0	2	0	1	2	0	23	113	14	0	150	197
Total	0	42	20	9	0	71	0	54	15	81	0	150	0	1	6	6	2	13	1	92	396	56	0	545	779
Approach %	0.0	59.2	28.2	12.7	-	-	0.0	36.0	10.0	54.0	-	-	0.0	7.7	46.2	46.2	-	-	0.2	16.9	72.7	10.3	-	-	-
Total %	0.0	5.4	2.6	1.2	-	9.1	0.0	6.9	1.9	10.4	-	19.3	0.0	0.1	0.8	0.8	-	1.7	0.1	11.8	50.8	7.2	-	70.0	-
PHF	0.000	0.618	0.714	0.750	-	0.710	0.000	0.794	0.625	0.810	-	0.781	0.000	0.250	0.750	0.375	-	0.542	0.250	0.742	0.876	0.737	-	0.908	0.964
Lights	0	42	19	9	-	70	0	54	15	81	-	150	0	1	6	6	-	13	1	92	390	51	-	534	767
% Lights	-	100.0	95.0	100.0	-	98.6	-	100.0	100.0	100.0	-	100.0	-	100.0	100.0	100.0	-	100.0	100.0	100.0	98.5	91.1	-	98.0	98.5
Buses	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	4	-	4	4
% 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	7.1	-	0.7	0.5
Single-Unit Trucks	0	0	1	0	-	1	0	0	0	0	-	0	0	0	0	0	-	0	0	0	6	1	-	7	8
% Single-Unit Trucks	-	0.0	5.0	0.0	-	1.4	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	0.0	0.0	1.5	1.8	-	1.3	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	-	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	-	0.0	0.0
Pedestrians	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	2	-	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	100.0	-	-	-	-	-	-	-	-

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

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

Count Name: Frontage Rd and downers dr TMC
Site Code:
Start Date: 02/17/2026

Turning Movement Data

Start Time	frontage rd Eastbound						frontage rd Westbound						downers dr Northbound						downers dr 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
7:00 AM	0	1	5	0	0	6	0	13	3	1	0	17	0	1	2	2	0	5	0	5	69	8	0	82	110
7:15 AM	0	2	3	2	0	7	0	19	3	3	0	25	0	0	1	0	0	1	0	6	89	4	0	99	132
7:30 AM	0	2	1	1	0	4	0	32	3	7	0	42	0	0	6	0	0	6	0	14	127	4	0	145	197
7:45 AM	0	1	5	2	0	8	0	25	13	6	0	44	0	0	3	1	0	4	0	16	139	13	0	168	224
Hourly Total	0	6	14	5	0	25	0	89	22	17	0	128	0	1	12	3	0	16	0	41	424	29	0	494	663
8:00 AM	0	2	4	3	0	9	0	29	14	7	0	50	0	0	6	1	1	7	0	16	128	10	0	154	220
8:15 AM	0	3	1	2	0	6	0	35	13	12	0	60	0	0	1	1	1	2	0	7	138	10	0	155	223
8:30 AM	0	0	4	5	0	9	0	37	7	12	0	56	0	0	6	2	0	8	0	13	120	6	0	139	212
8:45 AM	0	1	7	2	0	10	0	28	11	1	0	40	0	0	2	0	2	2	0	14	109	9	0	132	184
Hourly Total	0	6	16	12	0	34	0	129	45	32	0	206	0	0	15	4	4	19	0	50	495	35	0	580	839
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4:00 PM	0	4	4	2	0	10	0	46	2	18	0	66	0	0	30	15	0	45	0	17	233	6	0	256	377
4:15 PM	0	5	7	2	0	14	0	42	1	14	0	57	0	0	18	11	0	29	0	15	215	6	0	236	336
4:30 PM	0	8	26	14	0	48	0	40	1	13	0	54	0	0	30	22	0	52	0	13	219	7	0	239	393
4:45 PM	0	6	6	2	0	14	0	39	4	17	0	60	0	1	24	12	0	37	0	27	197	4	0	228	339
Hourly Total	0	23	43	20	0	86	0	167	8	62	0	237	0	1	102	60	0	163	0	72	864	23	0	959	1445
5:00 PM	0	4	9	6	0	19	0	33	2	23	0	58	0	0	40	16	1	56	0	21	223	8	0	252	385
5:15 PM	0	3	6	3	0	12	0	42	1	25	0	68	0	0	35	8	0	43	0	25	243	12	0	280	403
5:30 PM	0	9	2	8	0	19	0	28	2	17	0	47	0	0	22	8	0	30	0	20	195	7	0	222	318
5:45 PM	0	2	4	2	0	8	0	21	4	13	0	38	0	0	10	5	0	15	0	18	121	5	0	144	205
Hourly Total	0	18	21	19	0	58	0	124	9	78	0	211	0	0	107	37	1	144	0	84	782	32	0	898	1311
Grand Total	0	53	94	56	0	203	0	509	84	189	0	782	0	2	236	104	5	342	0	247	2565	119	0	2931	4258
Approach %	0.0	26.1	46.3	27.6	-	-	0.0	65.1	10.7	24.2	-	-	0.0	0.6	69.0	30.4	-	-	0.0	8.4	87.5	4.1	-	-	-
Total %	0.0	1.2	2.2	1.3	-	4.8	0.0	12.0	2.0	4.4	-	18.4	0.0	0.0	5.5	2.4	-	8.0	0.0	5.8	60.2	2.8	-	68.8	-
Lights	0	52	90	55	-	197	0	499	80	185	-	764	0	2	236	104	-	342	0	244	2545	102	-	2891	4194
% Lights	-	98.1	95.7	98.2	-	97.0	-	98.0	95.2	97.9	-	97.7	-	100.0	100.0	100.0	-	100.0	-	98.8	99.2	85.7	-	98.6	98.5
Buses	0	0	2	0	-	2	0	2	0	1	-	3	0	0	0	0	-	0	0	2	2	16	-	20	25
% Buses	-	0.0	2.1	0.0	-	1.0	-	0.4	0.0	0.5	-	0.4	-	0.0	0.0	0.0	-	0.0	-	0.8	0.1	13.4	-	0.7	0.6
Single-Unit Trucks	0	0	2	1	-	3	0	7	3	2	-	12	0	0	0	0	-	0	0	1	14	1	-	16	31
% Single-Unit Trucks	-	0.0	2.1	1.8	-	1.5	-	1.4	3.6	1.1	-	1.5	-	0.0	0.0	0.0	-	0.0	-	0.4	0.5	0.8	-	0.5	0.7
Articulated Trucks	0	1	0	0	-	1	0	0	1	1	-	2	0	0	0	0	-	0	0	0	4	0	-	4	7
% Articulated Trucks	-	1.9	0.0	0.0	-	0.5	-	0.0	1.2	0.5	-	0.3	-	0.0	0.0	0.0	-	0.0	-	0.0	0.2	0.0	-	0.1	0.2
Bicycles on Road	0	0	0	0	-	0	0	1	0	0	-	1	0	0	0	0	-	0	0	0	0	0	-	0	1

% Bicycles on Road	-	0.0	0.0	0.0	-	0.0	-	0.2	0.0	0.0	-	0.1	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	0.0
Pedestrians	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	5	-	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	100.0	-	-	-	-	-	-	-	-

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

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

Count Name: Frontage Rd and downers dr TMC
Site Code:
Start Date: 02/17/2026

Turning Movement Peak Hour Data (7:45 AM)

Start Time	frontage rd Eastbound						frontage rd Westbound						downers dr Northbound						downers dr 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
7:45 AM	0	1	5	2	0	8	0	25	13	6	0	44	0	0	3	1	0	4	0	16	139	13	0	168	224
8:00 AM	0	2	4	3	0	9	0	29	14	7	0	50	0	0	6	1	1	7	0	16	128	10	0	154	220
8:15 AM	0	3	1	2	0	6	0	35	13	12	0	60	0	0	1	1	1	2	0	7	138	10	0	155	223
8:30 AM	0	0	4	5	0	9	0	37	7	12	0	56	0	0	6	2	0	8	0	13	120	6	0	139	212
Total	0	6	14	12	0	32	0	126	47	37	0	210	0	0	16	5	2	21	0	52	525	39	0	616	879
Approach %	0.0	18.8	43.8	37.5	-	-	0.0	60.0	22.4	17.6	-	-	0.0	0.0	76.2	23.8	-	-	0.0	8.4	85.2	6.3	-	-	-
Total %	0.0	0.7	1.6	1.4	-	3.6	0.0	14.3	5.3	4.2	-	23.9	0.0	0.0	1.8	0.6	-	2.4	0.0	5.9	59.7	4.4	-	70.1	-
PHF	0.000	0.500	0.700	0.600	-	0.889	0.000	0.851	0.839	0.771	-	0.875	0.000	0.000	0.667	0.625	-	0.656	0.000	0.813	0.944	0.750	-	0.917	0.981
Lights	0	6	14	12	-	32	0	122	44	35	-	201	0	0	16	5	-	21	0	51	518	32	-	601	855
% Lights	-	100.0	100.0	100.0	-	100.0	-	96.8	93.6	94.6	-	95.7	-	-	100.0	100.0	-	100.0	-	98.1	98.7	82.1	-	97.6	97.3
Buses	0	0	0	0	-	0	0	2	0	0	-	2	0	0	0	0	-	0	0	1	0	6	-	7	9
% Buses	-	0.0	0.0	0.0	-	0.0	-	1.6	0.0	0.0	-	1.0	-	-	0.0	0.0	-	0.0	-	1.9	0.0	15.4	-	1.1	1.0
Single-Unit Trucks	0	0	0	0	-	0	0	1	2	1	-	4	0	0	0	0	-	0	0	0	5	1	-	6	10
% Single-Unit Trucks	-	0.0	0.0	0.0	-	0.0	-	0.8	4.3	2.7	-	1.9	-	-	0.0	0.0	-	0.0	-	0.0	1.0	2.6	-	1.0	1.1
Articulated Trucks	0	0	0	0	-	0	0	0	1	1	-	2	0	0	0	0	-	0	0	0	2	0	-	2	4
% Articulated Trucks	-	0.0	0.0	0.0	-	0.0	-	0.0	2.1	2.7	-	1.0	-	-	0.0	0.0	-	0.0	-	0.0	0.4	0.0	-	0.3	0.5
Bicycles on Road	0	0	0	0	-	0	0	1	0	0	-	1	0	0	0	0	-	0	0	0	0	0	-	0	1
% Bicycles on Road	-	0.0	0.0	0.0	-	0.0	-	0.8	0.0	0.0	-	0.5	-	-	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	0.1
Pedestrians	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	2	-	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	100.0	-	-	-	-	-	-	-	-

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9575 W. Higgins Rd., Suite 400

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

Count Name: Frontage Rd and downers dr TMC
Site Code:
Start Date: 02/17/2026

Turning Movement Peak Hour Data (4:30 PM)

Start Time	frontage rd Eastbound						frontage rd Westbound						downers dr Northbound						downers dr 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	8	26	14	0	48	0	40	1	13	0	54	0	0	30	22	0	52	0	13	219	7	0	239	393
4:45 PM	0	6	6	2	0	14	0	39	4	17	0	60	0	1	24	12	0	37	0	27	197	4	0	228	339
5:00 PM	0	4	9	6	0	19	0	33	2	23	0	58	0	0	40	16	1	56	0	21	223	8	0	252	385
5:15 PM	0	3	6	3	0	12	0	42	1	25	0	68	0	0	35	8	0	43	0	25	243	12	0	280	403
Total	0	21	47	25	0	93	0	154	8	78	0	240	0	1	129	58	1	188	0	86	882	31	0	999	1520
Approach %	0.0	22.6	50.5	26.9	-	-	0.0	64.2	3.3	32.5	-	-	0.0	0.5	68.6	30.9	-	-	0.0	8.6	88.3	3.1	-	-	-
Total %	0.0	1.4	3.1	1.6	-	6.1	0.0	10.1	0.5	5.1	-	15.8	0.0	0.1	8.5	3.8	-	12.4	0.0	5.7	58.0	2.0	-	65.7	-
PHF	0.000	0.656	0.452	0.446	-	0.484	0.000	0.917	0.500	0.780	-	0.882	0.000	0.250	0.806	0.659	-	0.839	0.000	0.796	0.907	0.646	-	0.892	0.943
Lights	0	21	46	25	-	92	0	153	8	77	-	238	0	1	129	58	-	188	0	86	879	27	-	992	1510
% Lights	-	100.0	97.9	100.0	-	98.9	-	99.4	100.0	98.7	-	99.2	-	100.0	100.0	100.0	-	100.0	-	100.0	99.7	87.1	-	99.3	99.3
Buses	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	4	-	4	4
% 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	12.9	-	0.4	0.3
Single-Unit Trucks	0	0	1	0	-	1	0	1	0	1	-	2	0	0	0	0	-	0	0	0	3	0	-	3	6
% Single-Unit Trucks	-	0.0	2.1	0.0	-	1.1	-	0.6	0.0	1.3	-	0.8	-	0.0	0.0	0.0	-	0.0	-	0.0	0.3	0.0	-	0.3	0.4
Articulated Trucks	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0
% Articulated Trucks	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	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	0.0
Pedestrians	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	1	-	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	100.0	-	-	-	-	-	-	-	-

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9575 W. Higgins Rd., Suite 400

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

Count Name: oak grove dr and frontage rd TMC
Site Code:
Start Date: 02/14/2026

Turning Movement Data

Start Time	frontage rd Westbound					oak grove rd Northbound					oak grove rd Southbound					
	U-Turn	Left	Right	Peds	App. Total	U-Turn	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Peds	App. Total	Int. Total
12:00 PM	0	16	4	0	20	0	0	11	1	11	0	4	0	0	4	35
12:15 PM	0	14	10	0	24	0	0	9	0	9	0	6	0	0	6	39
12:30 PM	0	8	5	0	13	0	3	19	3	22	0	7	0	0	7	42
12:45 PM	0	13	9	0	22	0	0	6	0	6	0	9	0	0	9	37
Hourly Total	0	51	28	0	79	0	3	45	4	48	0	26	0	0	26	153
1:00 PM	0	12	4	0	16	0	0	18	0	18	0	2	0	0	2	36
1:15 PM	0	7	6	0	13	0	1	17	0	18	0	7	1	0	8	39
1:30 PM	0	10	8	0	18	0	0	16	0	16	0	10	0	0	10	44
1:45 PM	0	7	11	0	18	0	1	7	0	8	0	7	0	0	7	33
Hourly Total	0	36	29	0	65	0	2	58	0	60	0	26	1	0	27	152
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
7:00 AM	0	13	0	0	13	0	0	5	0	5	0	0	0	0	0	18
7:15 AM	0	6	1	0	7	0	0	7	0	7	0	1	0	0	1	15
7:30 AM	0	7	0	0	7	0	1	4	0	5	0	1	0	0	1	13
7:45 AM	0	27	1	0	28	0	0	7	0	7	0	1	0	0	1	36
Hourly Total	0	53	2	0	55	0	1	23	0	24	0	3	0	0	3	82
8:00 AM	0	21	2	0	23	0	0	8	0	8	0	1	0	0	1	32
8:15 AM	0	21	1	0	22	0	0	6	1	6	0	1	0	0	1	29
8:30 AM	0	13	2	0	15	0	0	9	0	9	0	0	0	0	0	24
8:45 AM	0	14	7	0	21	0	1	8	0	9	0	0	1	0	1	31
Hourly Total	0	69	12	0	81	0	1	31	1	32	0	2	1	0	3	116
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4:00 PM	0	4	1	0	5	0	0	9	0	9	0	3	0	0	3	17
4:15 PM	0	3	1	0	4	0	1	17	0	18	0	2	0	0	2	24
4:30 PM	2	5	4	0	11	0	0	38	0	38	0	3	0	0	3	52
4:45 PM	0	4	2	0	6	0	0	16	0	16	0	1	0	0	1	23
Hourly Total	2	16	8	0	26	0	1	80	0	81	0	9	0	0	9	116
5:00 PM	0	5	5	0	10	0	0	12	0	12	0	1	0	0	1	23
5:15 PM	0	6	6	0	12	0	0	12	1	12	0	1	0	0	1	25
5:30 PM	0	3	3	0	6	0	2	11	0	13	0	2	0	0	2	21
5:45 PM	0	6	3	0	9	0	0	6	0	6	0	2	0	0	2	17
Hourly Total	0	20	17	0	37	0	2	41	1	43	0	6	0	0	6	86
Grand Total	2	245	96	0	343	0	10	278	6	288	0	72	2	0	74	705
Approach %	0.6	71.4	28.0	-	-	0.0	3.5	96.5	-	-	0.0	97.3	2.7	-	-	-
Total %	0.3	34.8	13.6	-	48.7	0.0	1.4	39.4	-	40.9	0.0	10.2	0.3	-	10.5	-
Lights	2	220	92	-	314	0	9	270	-	279	0	70	2	-	72	665

% Lights	100.0	89.8	95.8	-	91.5	-	90.0	97.1	-	96.9	-	97.2	100.0	-	97.3	94.3
Buses	0	21	2	-	23	0	0	2	-	2	0	0	0	-	0	25
% Buses	0.0	8.6	2.1	-	6.7	-	0.0	0.7	-	0.7	-	0.0	0.0	-	0.0	3.5
Single-Unit Trucks	0	2	2	-	4	0	0	4	-	4	0	2	0	-	2	10
% Single-Unit Trucks	0.0	0.8	2.1	-	1.2	-	0.0	1.4	-	1.4	-	2.8	0.0	-	2.7	1.4
Articulated Trucks	0	2	0	-	2	0	1	2	-	3	0	0	0	-	0	5
% Articulated Trucks	0.0	0.8	0.0	-	0.6	-	10.0	0.7	-	1.0	-	0.0	0.0	-	0.0	0.7
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	0.0	-	0.0	0.0
Pedestrians	-	-	-	0	-	-	-	-	6	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	-	-	-	-	100.0	-	-	-	-	-	-	-

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9575 W. Higgins Rd., Suite 400

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

Count Name: oak grove dr and frontage rd TMC
Site Code:
Start Date: 02/14/2026

Turning Movement Peak Hour Data (12:00 PM)

Start Time	frontage rd Westbound					oak grove rd Northbound					oak grove rd Southbound					
	U-Turn	Left	Right	Peds	App. Total	U-Turn	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Peds	App. Total	Int. Total
12:00 PM	0	16	4	0	20	0	0	11	1	11	0	4	0	0	4	35
12:15 PM	0	14	10	0	24	0	0	9	0	9	0	6	0	0	6	39
12:30 PM	0	8	5	0	13	0	3	19	3	22	0	7	0	0	7	42
12:45 PM	0	13	9	0	22	0	0	6	0	6	0	9	0	0	9	37
Total	0	51	28	0	79	0	3	45	4	48	0	26	0	0	26	153
Approach %	0.0	64.6	35.4	-	-	0.0	6.3	93.8	-	-	0.0	100.0	0.0	-	-	-
Total %	0.0	33.3	18.3	-	51.6	0.0	2.0	29.4	-	31.4	0.0	17.0	0.0	-	17.0	-
PHF	0.000	0.797	0.700	-	0.823	0.000	0.250	0.592	-	0.545	0.000	0.722	0.000	-	0.722	0.911
Lights	0	48	27	-	75	0	3	45	-	48	0	25	0	-	25	148
% Lights	-	94.1	96.4	-	94.9	-	100.0	100.0	-	100.0	-	96.2	-	-	96.2	96.7
Buses	0	3	0	-	3	0	0	0	-	0	0	0	0	-	0	3
% Buses	-	5.9	0.0	-	3.8	-	0.0	0.0	-	0.0	-	0.0	-	-	0.0	2.0
Single-Unit Trucks	0	0	1	-	1	0	0	0	-	0	0	1	0	-	1	2
% Single-Unit Trucks	-	0.0	3.6	-	1.3	-	0.0	0.0	-	0.0	-	3.8	-	-	3.8	1.3
Articulated Trucks	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
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	0.0
Pedestrians	-	-	-	0	-	-	-	-	4	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	-	-	-	-	100.0	-	-	-	-	-	-	-

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Count Name: oak grove dr and frontage rd TMC
Site Code:
Start Date: 02/14/2026

Turning Movement Peak Hour Data (7:45 AM)

Start Time	frontage rd Westbound					oak grove rd Northbound					oak grove rd Southbound					
	U-Turn	Left	Right	Peds	App. Total	U-Turn	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Peds	App. Total	Int. Total
7:45 AM	0	27	1	0	28	0	0	7	0	7	0	1	0	0	1	36
8:00 AM	0	21	2	0	23	0	0	8	0	8	0	1	0	0	1	32
8:15 AM	0	21	1	0	22	0	0	6	1	6	0	1	0	0	1	29
8:30 AM	0	13	2	0	15	0	0	9	0	9	0	0	0	0	0	24
Total	0	82	6	0	88	0	0	30	1	30	0	3	0	0	3	121
Approach %	0.0	93.2	6.8	-	-	0.0	0.0	100.0	-	-	0.0	100.0	0.0	-	-	-
Total %	0.0	67.8	5.0	-	72.7	0.0	0.0	24.8	-	24.8	0.0	2.5	0.0	-	2.5	-
PHF	0.000	0.759	0.750	-	0.786	0.000	0.000	0.833	-	0.833	0.000	0.750	0.000	-	0.750	0.840
Lights	0	74	5	-	79	0	0	29	-	29	0	3	0	-	3	111
% Lights	-	90.2	83.3	-	89.8	-	-	96.7	-	96.7	-	100.0	-	-	100.0	91.7
Buses	0	5	1	-	6	0	0	0	-	0	0	0	0	-	0	6
% Buses	-	6.1	16.7	-	6.8	-	-	0.0	-	0.0	-	0.0	-	-	0.0	5.0
Single-Unit Trucks	0	1	0	-	1	0	0	1	-	1	0	0	0	-	0	2
% Single-Unit Trucks	-	1.2	0.0	-	1.1	-	-	3.3	-	3.3	-	0.0	-	-	0.0	1.7
Articulated Trucks	0	2	0	-	2	0	0	0	-	0	0	0	0	-	0	2
% Articulated Trucks	-	2.4	0.0	-	2.3	-	-	0.0	-	0.0	-	0.0	-	-	0.0	1.7
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	-	-	-	-	1	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	-	-	-	-	100.0	-	-	-	-	-	-	-

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

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

Count Name: oak grove dr and frontage rd TMC
Site Code:
Start Date: 02/14/2026

Turning Movement Peak Hour Data (4:30 PM)

Start Time	frontage rd Westbound					oak grove rd Northbound					oak grove rd Southbound					
	U-Turn	Left	Right	Peds	App. Total	U-Turn	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Peds	App. Total	Int. Total
4:30 PM	2	5	4	0	11	0	0	38	0	38	0	3	0	0	3	52
4:45 PM	0	4	2	0	6	0	0	16	0	16	0	1	0	0	1	23
5:00 PM	0	5	5	0	10	0	0	12	0	12	0	1	0	0	1	23
5:15 PM	0	6	6	0	12	0	0	12	1	12	0	1	0	0	1	25
Total	2	20	17	0	39	0	0	78	1	78	0	6	0	0	6	123
Approach %	5.1	51.3	43.6	-	-	0.0	0.0	100.0	-	-	0.0	100.0	0.0	-	-	-
Total %	1.6	16.3	13.8	-	31.7	0.0	0.0	63.4	-	63.4	0.0	4.9	0.0	-	4.9	-
PHF	0.250	0.833	0.708	-	0.813	0.000	0.000	0.513	-	0.513	0.000	0.500	0.000	-	0.500	0.591
Lights	2	16	17	-	35	0	0	77	-	77	0	6	0	-	6	118
% Lights	100.0	80.0	100.0	-	89.7	-	-	98.7	-	98.7	-	100.0	-	-	100.0	95.9
Buses	0	4	0	-	4	0	0	0	-	0	0	0	0	-	0	4
% Buses	0.0	20.0	0.0	-	10.3	-	-	0.0	-	0.0	-	0.0	-	-	0.0	3.3
Single-Unit Trucks	0	0	0	-	0	0	0	1	-	1	0	0	0	-	0	1
% Single-Unit Trucks	0.0	0.0	0.0	-	0.0	-	-	1.3	-	1.3	-	0.0	-	-	0.0	0.8
Articulated Trucks	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
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	0.0
Pedestrians	-	-	-	0	-	-	-	-	1	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	-	-	-	-	100.0	-	-	-	-	-	-	-

Site Plan

LAND USE AND ZONING

PID: 0630409022

GENERAL SERVICES AND HIGHWAY BUSINESS (B-3) DISTRICT

PROPOSED USE		
AUTO WASH	SPECIAL USE	
ZONING REQUIREMENT	**REQUIRED**	**PROPOSED**
MINIMUM B-3 OVERALL DISTRICT AREA	174,240 SF (4.0 AC)	EXISTING
MINIMUM LOT AREA	N/A	47,606 SF (1.09 AC)
MINIMUM LOT WIDTH	N/A	238.1 FT
MINIMUM FLOOR AREA RATIO	0.75 (35,468 SF)	0.08 (3,720 SF)
MAXIMUM BUILDING HEIGHT	60 FT	<60 FT
MINIMUM STREET SETBACK[1]	25.0 FT	23.0 FT
MINIMUM PARKING SETBACK (NORTH)	25.0 FT	29.5 FT
MINIMUM PARKING SETBACK (WEST)	25.0 FT	96 FT (V)
MINIMUM PARKING SETBACK (EAST)	25.0 FT	25.0 FT
MINIMUM CORNER VISIBILITY TRIANGLE	10 FT X 10 FT	10 (IBN)
MINIMUM ACCESSORY BUILDING FROM PRINCIPAL	10.0 FT	52.5 FT
MINIMUM ACCESSORY BUILDING STREET SETBACK	25.0 FT	25.0 FT
MINIMUM BICYCLE PARKING SETBACK (ALL LOT LINES)	6.0 FT	62.0 FT
MINIMUM RETAINING WALL SETBACK (ALL LOT LINES)	1.0 FT	1.2 FT
MINIMUM FLAGPOLE SETBACK	35 FT[3]	35.0 FT
MINIMUM LANDSCAPE OPEN SPACE	10% (4,729 SF)	36.2% (17,250 SF)
MINIMUM STREET YARD LANDSCAPE[2]	50% (2,365 SF)[2]	12,196 SF

(V) VARIANCE

(1) TABLE 14-1 - AWNINGS IN NONRESIDENTIAL DISTRICTS ALLOWED 2.5 FT OF ENCROACHMENT INTO STREET SETBACK

(2) § 283.030.10 - AT LEAST 50% OF THE REQUIRED LANDSCAPED OPEN SPACE MUST BE LOCATED IN THE STREET YARD

(3) § 286.010.H - FLAG POLES MUST BE SETBACK FROM LOT LINES A MINIMUM DISTANCE EQUAL TO THE HEIGHT OF THE POLE AND SITED SO THE FLAG WILL NOT EXTEND BEYOND ANY LOT LINE

OFF-STREET PARKING REQUIREMENTS

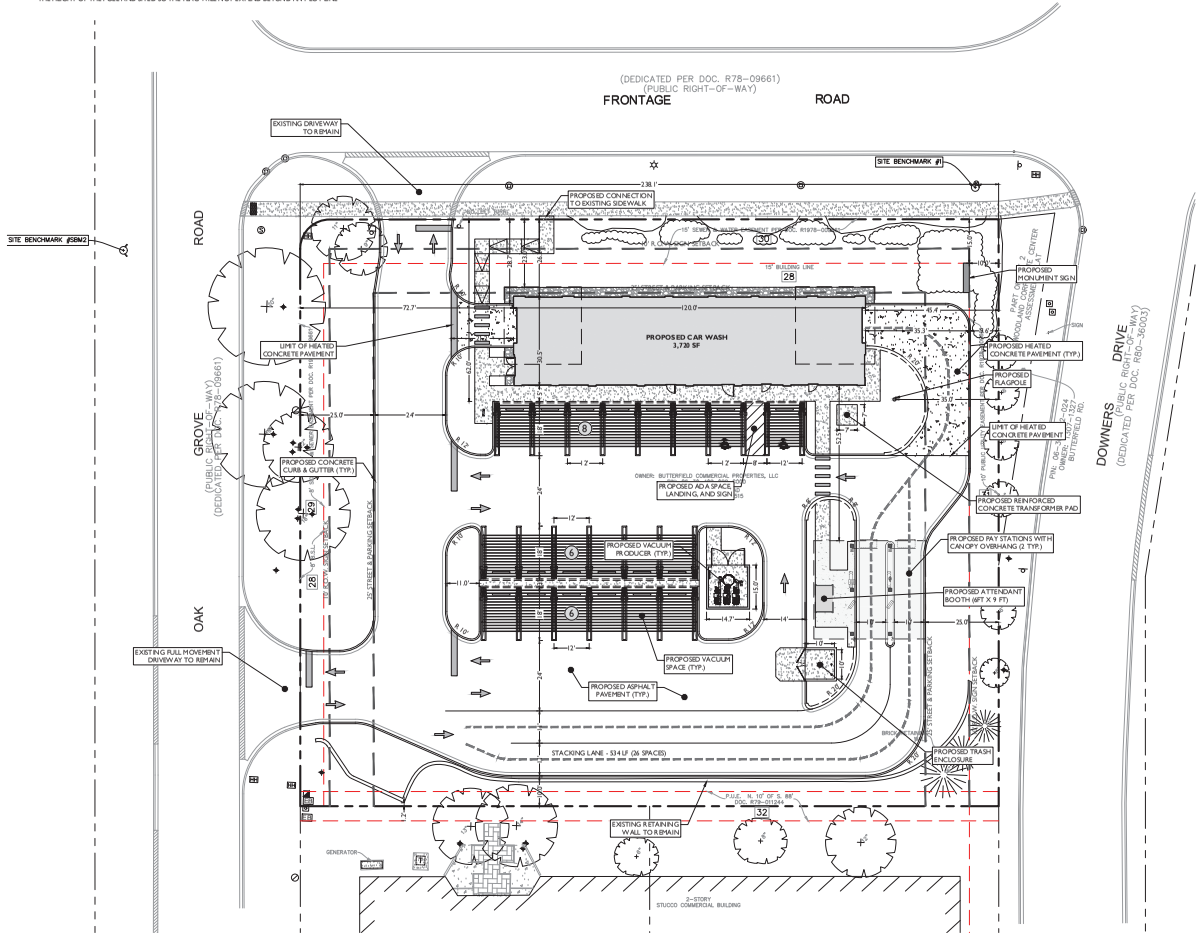
CODE SECTION	REQUIRED	PROPOSED
TABLE 7-1	**CAR WASH:** 1 SPACE PER WASH BAY (1 BAY) (1 SPACE/1 BAY) = 1 SPACE	20 SPACES
TABLE 7-4	**90° PARKING:** 9 FT X 18 FT W/ 24 FT AISLE	12 FT X 18 FT W/ 24 FT AISLE
TABLE 7-5	**STACKING:** 2 SPACES PER APPROACH LANE (3 LANES) (2 SPACES/1 LANE) = 6 SPACES 2 END OF BAY DRYING SPACES	26 SPACES 1 DRYING SPACE (V)
§ 287.130.D.1	**MINIMUM STACKING WIDTH:** 10 FT	11 FT
TABLE 7-3	**BICYCLE PARKING:** NONE FOR THE FIRST 19 SPACES THEN 10% OR 2 SPACES (GREATER GOVERNS) (20 SPACES)(0.10) = 2 SPACES	2 SPACES
§ 288.030.b)(2)	**LANDSCAPE ISLANDS:** MINIMUM 7 FT WIDTH; MINIMUM 150 SF AREA	11.0 FT 377 SF
§ 288.030.b)(1)	**MAXIMUM PARKING SPACES IN A ROW:** 20	8 SPACES

(V) VARIANCE

SIGNAGE REQUIREMENTS[1]

CODE SECTION	REQUIRED	PROPOSED
§ 28.9.050.b)(1).b	MINIMUM R.O.W. MONUMENT SIGN SETBACK: 10 FT[1]	10.0 FT

(1) § 28.9.050.b)(1).b - TABLE A(PPLIES TO MONUMENT SIGNS THAT ARE 10 FT IN HEIGHT OR LESS. REQUIRMENTS DIFFER FOR SIGNS GREATER THAN 10 FT.



SYMBOL / DESCRIPTION

- PROPERTY LINE
- SETBACK LINE
- PROPOSED CURB
- PROPOSED FLUSH CURB
- PROPOSED MOUNTABLE CURB
- PROPOSED SIGNS / BOLLARDS
- PROPOSED BUILDING
- PROPOSED CONCRETE
- PROPOSED HEATED CONCRETE
- PROPOSED BUILDING DOORS

GENERAL NOTES

1. THE CONTRACTOR SHALL VERIFY AND FAMILIARIZE THEMSELVES WITH THE EXISTING SITE CONDITIONS AND THE PROPOSED SCOPE OF WORK (INCLUDING DIMENSIONS, LAYOUT, ETC.) PRIOR TO INITIATING THE IMPROVEMENTS IDENTIFIED WITHIN THESE DOCUMENTS. SHOULD ANY DISCREPANCY BE FOUND BETWEEN THE EXISTING SITE CONDITIONS AND THE PROPOSED WORK THE CONTRACTOR SHALL NOTIFY STONEFIELD ENGINEERING & DESIGN, LLC. PRIOR TO THE START OF CONSTRUCTION.
2. THE CONTRACTOR SHALL OBTAIN ALL NECESSARY PERMITS AND ENSURE THAT ALL REQUIRED APPROVALS HAVE BEEN OBTAINED PRIOR TO THE START OF CONSTRUCTION. COPIES OF ALL REQUIRED PERMITS AND APPROVALS SHALL BE KEPT ON SITE AT ALL TIMES DURING CONSTRUCTION.
3. ALL CONTRACTORS WILL, TO THE FULLEST EXTENT PERMITTED BY LAW, INDEMNIFY AND HOLD HARMLESS STONEFIELD ENGINEERING & DESIGN, LLC. AND IT'S SUB-CONSULTANTS FROM AND AGAINST ANY DAMAGES AND LIABILITIES INCLUDING ATTORNEY'S FEES ARISING OUT OF CLAIMS BY EMPLOYEES OF THE CONTRACTOR IN ADDITION TO CLAIMS CONNECTED TO THE PROJECT AS A RESULT OF NOT CARRYING THE PROPER INSURANCE FOR WORKERS COMPENSATION, LIABILITY INSURANCE, AND LIMITS OF COMMERCIAL GENERAL LIABILITY INSURANCE.
4. THE CONTRACTOR SHALL NOT DEVIATE FROM THE PROPOSED IMPROVEMENTS IDENTIFIED WITHIN THIS PLAN SET UNLESS APPROVAL IS PROVIDED IN WRITING BY STONEFIELD ENGINEERING & DESIGN, LLC.
5. THE CONTRACTOR IS RESPONSIBLE TO DETERMINE THE MEANS AND METHODS OF CONSTRUCTION.
6. THE CONTRACTOR SHALL NOT PERFORM ANY WORK OR CAUSE DISTURBANCE ON A PRIVATE PROPERTY NOT CONTROLLED BY THE PERSON OR ENTITY WHO HAS AUTHORIZED THE WORK WITHOUT PRIOR WRITTEN CONSENT FROM THE OWNER OF THE PRIVATE PROPERTY.
7. THE CONTRACTOR IS RESPONSIBLE TO RESTORE ANY DAMAGED OR UNDERMINED STRUCTURE OR SITE FEATURE THAT IS IDENTIFIED TO REMAIN ON THE PLAN SET. ALL REPAIRS SHALL USE NEW MATERIALS TO RESTORE THE FEATURE TO ITS EXISTING CONDITION AT THE CONTRACTORS EXPENSE.
8. CONTRACTOR IS RESPONSIBLE TO PROVIDE THE APPROPRIATE SHOP DRAWINGS, PRODUCT DATA, AND OTHER REQUIRED SUBMITTALS FOR REVIEW. STONEFIELD ENGINEERING & DESIGN, LLC. WILL REVIEW THE SUBMITTALS IN ACCORDANCE WITH THE DESIGN INTENT AS REFLECTED WITHIN THE PLAN SET.
9. THE CONTRACTOR IS RESPONSIBLE FOR TRAFFIC CONTROL IN ACCORDANCE WITH MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, LATEST EDITION.
10. THE CONTRACTOR IS REQUIRED TO PERFORM ALL WORK IN THE PUBLIC RIGHT-OF-WAY IN ACCORDANCE WITH THE APPROPRIATE GOVERNING AUTHORITY AND SHALL BE RESPONSIBLE FOR THE PROCUREMENT OF STREET OPENING PERMITS.
11. THE CONTRACTOR IS REQUIRED TO RETAIN AN OSHA CERTIFIED SAFETY INSPECTOR TO BE PRESENT ON SITE AT ALL TIMES DURING CONSTRUCTION & DEMOLITION ACTIVITIES.
12. SHOULD AN EMPLOYEE OF STONEFIELD ENGINEERING & DESIGN, LLC. BE PRESENT ON SITE AT ANY TIME DURING CONSTRUCTION, IT DOES NOT RELIEVE THE CONTRACTOR OF ANY OF THE RESPONSIBILITIES AND REQUIREMENTS LISTED IN THE NOTES WITHIN THIS PLAN SET.

20' 0' 20' 40'
GRAPHIC SCALE IN FEET
1" = 20'

ISSUE	DATE	BY	DESCRIPTION
1	02/26/2024	VF	FOR PLANNING AND ZONING SUBMISSION

NOT APPROVED FOR CONSTRUCTION

STONEFIELD engineering & design
Birmingham, MI · New York, NY · Salem, MA
Princeton, NJ · Tampa, FL · Rutherford, NJ
www.stonefieldeng.com
555 S. Old Woodward Avenue, Suite 12L, Birmingham, MI 48009
Phone: 248.247.1115

SITE DEVELOPMENT PLANS

1341 BUTTERFIELD RD.

PROPOSED AUTO WASH

PARCEL ID: 06-30-409-022-0000
LOT 1 OF BUTTERFIELD RD. SUB
VILLAGE OF DOWNERS GROVE
DUPAGE COUNTY, IL 60515

JONATHAN REID COOKSEY 062-049141 LICENSED PROFESSIONAL ENGINEER STATE OF ILLINOIS

STONEFIELD engineering & design

SCALE: 1" = 20' | PROJECT ID: DET-250340

TITLE: SITE PLAN

DRAWING: C-3

C:\STONEFIELD\DOWNERS GROVE\BUTTERFIELD RD. DOWNERS GROVE, IL\DOWNERS GROVE, IL\DOWNERS GROVE, IL.DWG

ITE Trip Generation Sheets

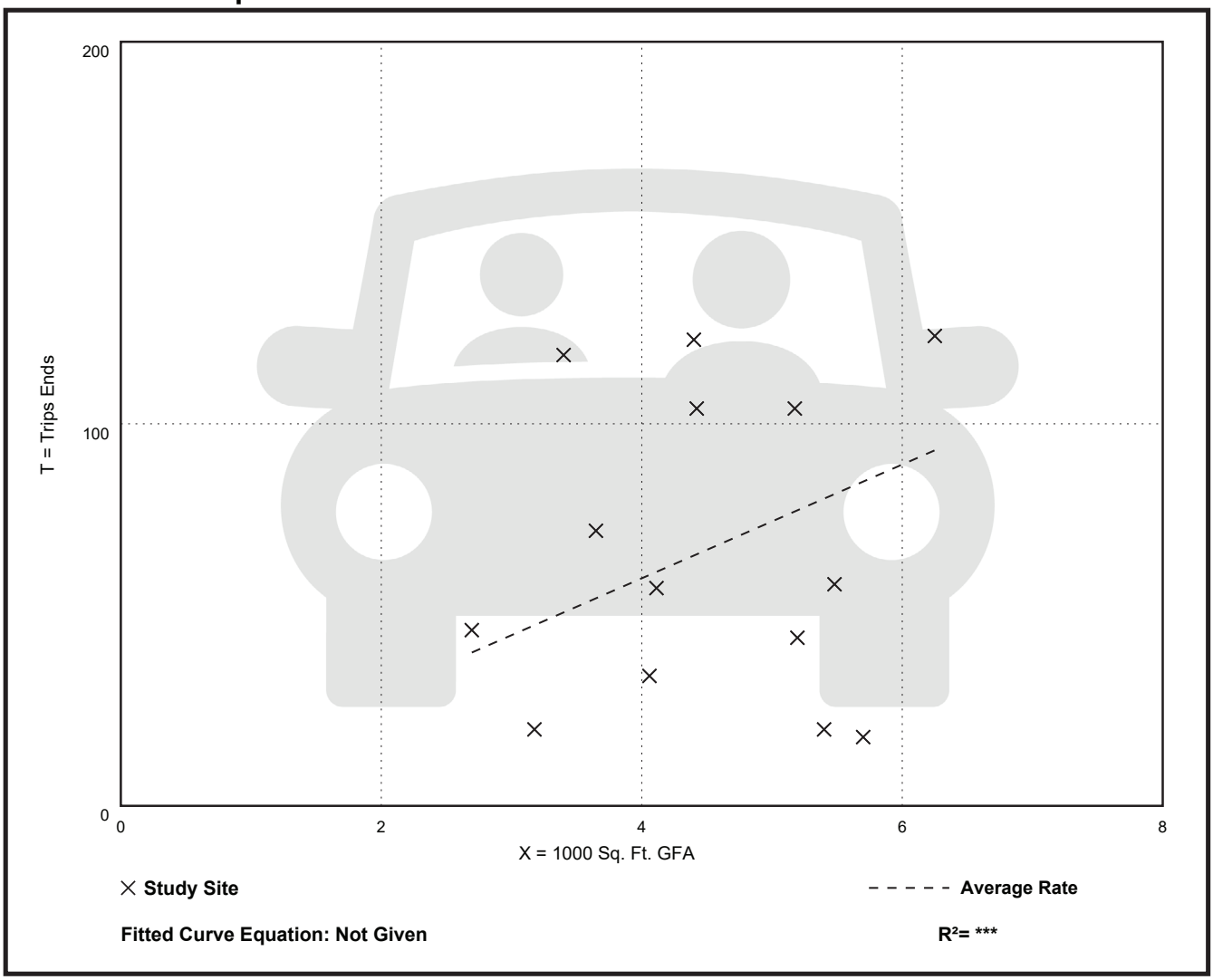
Automated Car Wash
(948)

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:	14
Avg. 1000 Sq. Ft. GFA:	5
Directional Distribution:	55% entering, 45% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
14.89	3.16 - 34.71	9.20

Data Plot and Equation



Fitted Curve Equation: Not Given

R^2= ***

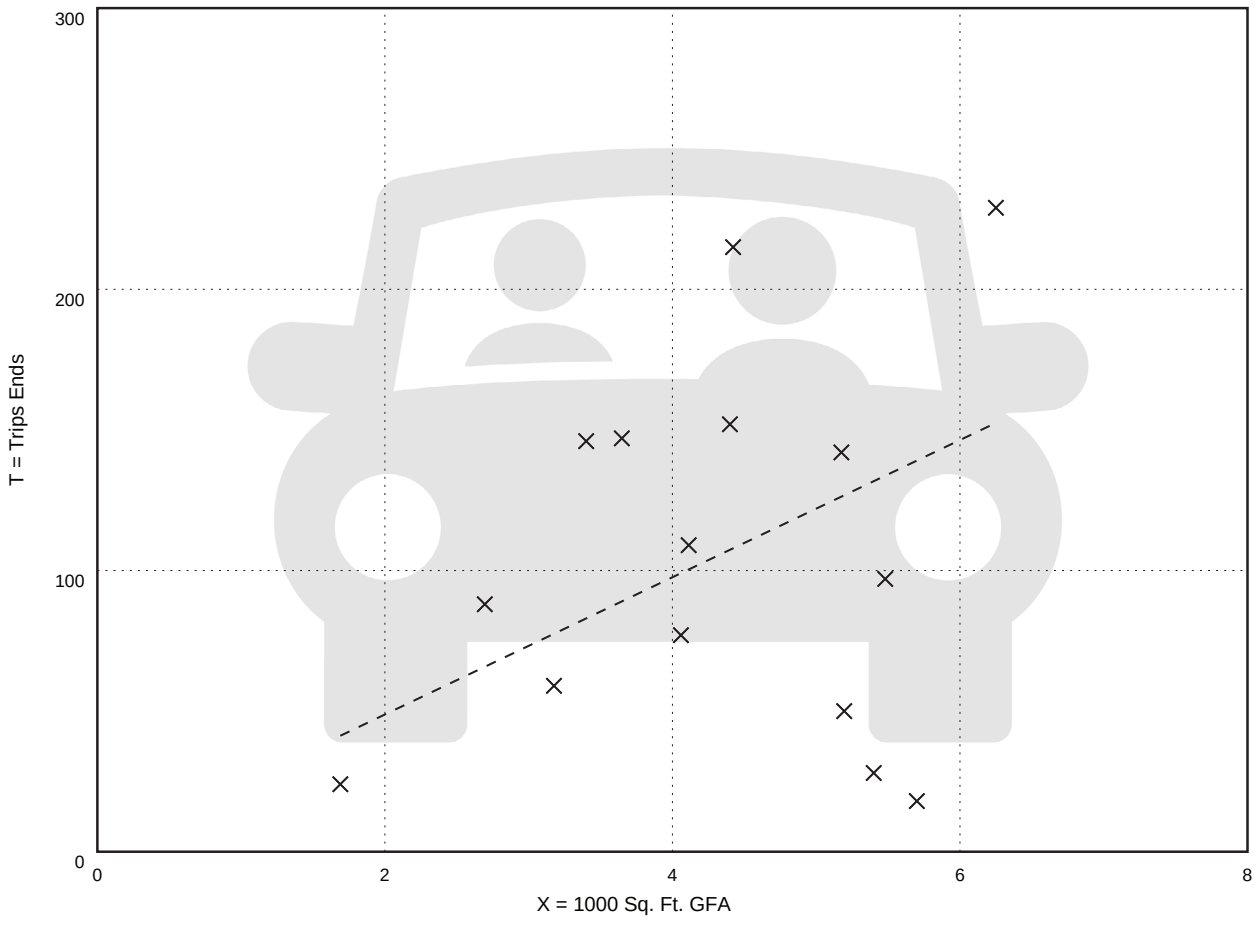
Automated Car Wash
(948)

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:	15
Avg. 1000 Sq. Ft. GFA:	4
Directional Distribution:	49% entering, 51% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
24.40	3.16 - 48.62	14.47

Data Plot and Equation



Fitted Curve Equation: Not Given

R^2= *

Automated Car Wash
(948)

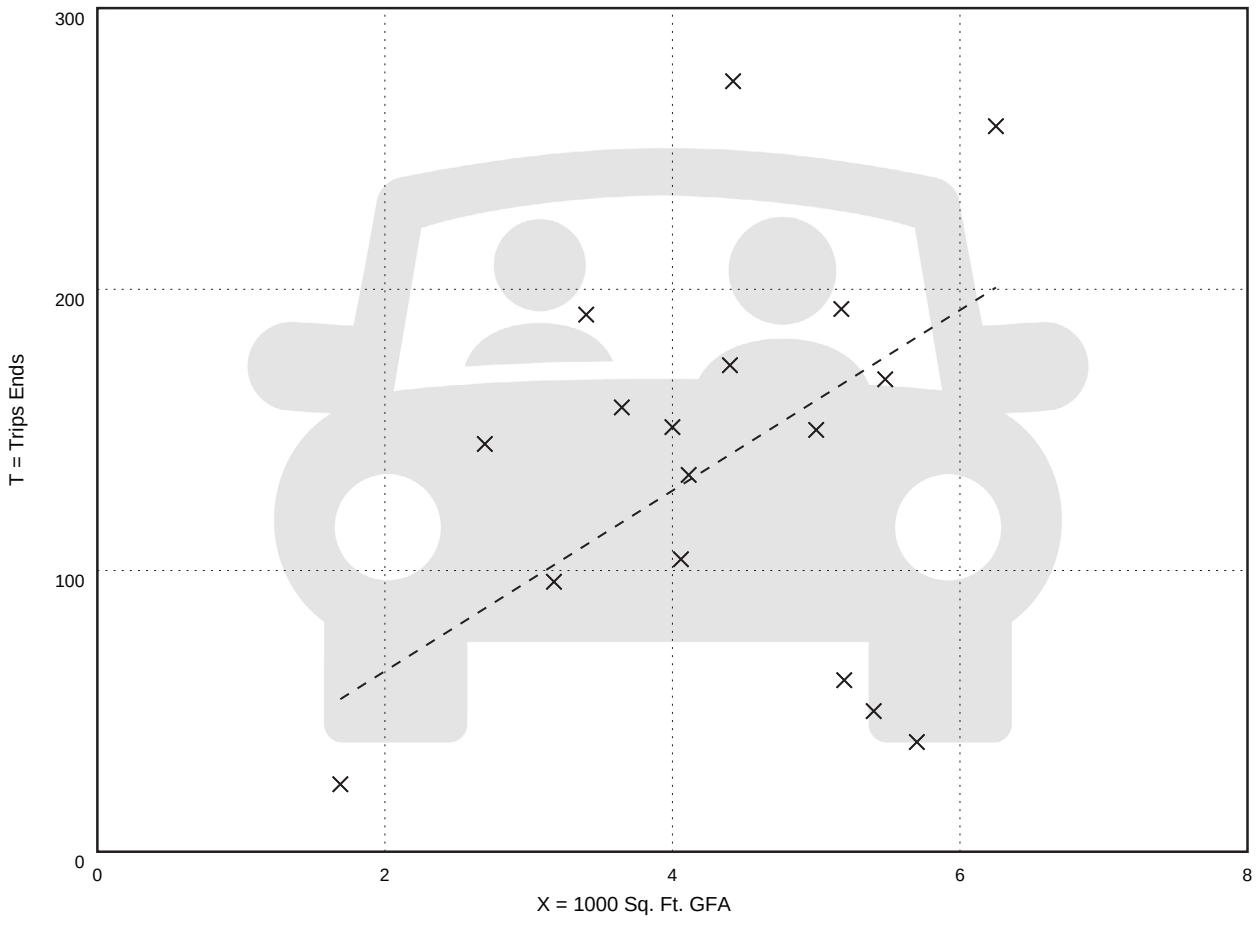
Vehicle Trip Ends vs: **1000 Sq. Ft. GFA**
On a: **Saturday, Peak Hour of Generator**

Setting/Location: **General Urban/Suburban**
Number of Studies: 17
Avg. 1000 Sq. Ft. GFA: 4
Directional Distribution: 50% entering, 50% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
32.10	6.84 - 61.96	16.11

Data Plot and Equation



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

February 12, 2026

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

Subject: Finley Road - Butterfield Road - Downers Drive
IDOT

Dear Ms. May:

In response to a request made on your behalf and dated February 10, 2026, we have developed year 2050 average daily traffic (ADT) projections for the subject location.

ROAD SEGMENT	Current ADT	Year 2050 ADT
Finley Road at Branding Avenue	17,400	18,900
Butterfield Road at Downers Drive	45,000	48,900
Downers Drive at Butterfield Road	1,450	1,500

Traffic projections are developed using existing ADT data provided in the request letter and the results from the December 2025 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)
S:\AdminGroups\ResearchAnalysis\2026_TrafficForecasts\DownersGrove\du-10-26\du-10-26.docx

TRAFFIC FORECAST RECORD

Record Number: du-10-26
Type of Report: Projection
Year Sought: 2050
Analyst: JAR
Organization Requestion Forecast: KLOA
Contact: Ryan May
Email or Phone: rmay@kloainc.com
Sponsor: IDOT
Date request was received: 46063
Date that response was emailed: 2/12/2026
Facility Location: Finley Road - Butterfield Road - Downers Drive
Municipality: Downers Grove

Level of Service Criteria

LEVEL OF SERVICE CRITERIA

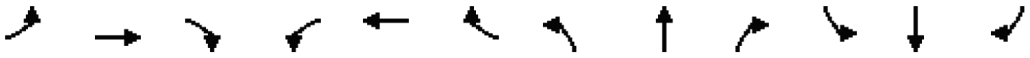
Signalized Intersections		
Level of Service	**Interpretation**	**Average Control Delay (seconds per vehicle)**
A	Favorable progression. Most vehicles arrive during the green indication and travel through the intersection without stopping.	≤10
B	Good progression, with more vehicles stopping than for Level 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*, 7th Edition.

Capacity Analysis Summary Sheets

Existing Weekday Morning Peak Hour



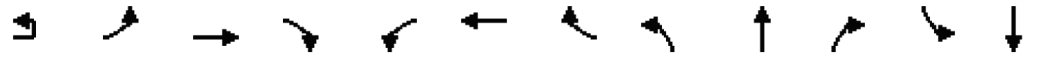
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	6	14	12	126	47	37	0	16	5	52	525	39
Pedestrians												
Ped Button												
Pedestrian Timing (s)												
Free Right			No			No			No			No
Ideal Flow	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Green (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Refr Cycle Length (s)	120	120	120	120	120	120	120	120	120	120	120	120
Volume Combined (vph)	0	32	0	0	173	37	0	21	0	0	616	0
Lane Utilization Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	1.00
Turning Factor (vph)	0.95	0.93	0.85	0.95	0.96	0.85	0.95	0.96	0.85	0.95	0.99	0.85
Saturated Flow (vph)	0	1776	0	0	1831	1615	0	1832	0	0	3568	0
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)		0.00			0.00			0.00			0.00	
Protected Option Allowed		No			No			No			No	
Reference Time (s)			0.0			2.7			0.0			0.0
Adj Reference Time (s)			0.0			8.0			0.0			0.0
Permitted Option												
Adj Saturation A (vph)	0	462		0	607		0	1832		0	363	
Reference Time A (s)	0.0	8.3		0.0	34.2		0.0	1.4		0.0	67.5	
Adj Saturation B (vph	0	0		0	0		NA	NA		0	1790	
Reference Time B (s)	8.4	10.2		16.4	19.3		NA	NA		11.5	24.7	
Reference Time (s)		8.3			19.3			1.4			24.7	
Adj Reference Time (s)		12.3			23.3			8.0			28.7	
Split Option												
Ref Time Combined (s)	0.0	2.2		0.0	11.3		0.0	1.4		0.0	20.7	
Ref Time Seperate (s)	0.4	0.9		8.4	3.0		0.0	1.0		3.5	17.6	
Reference Time (s)	2.2	2.2		11.3	11.3		1.4	1.4		20.7	20.7	
Adj Reference Time (s)	8.0	8.0		15.3	15.3		8.0	8.0		24.7	24.7	

Summary	EB WB	NB SB	Combined
Protected Option (s)	NA	NA	
Permitted Option (s)	23.3	28.7	
Split Option (s)	23.3	32.7	
Minimum (s)	23.3	28.7	52.0

Right Turns	WBR
Adj Reference Time (s)	8.0
Cross Thru Ref Time (s)	8.0
Oncoming Left Ref Time (s)	8.0
Combined (s)	24.0

Intersection Summary			
Intersection Capacity Utilization	43.4%	ICU Level of Service	A

Reference Times and Phasing Options do not represent an optimized timing plan.



Lane Group	EBU	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations												
Traffic Volume (vph)	1	71	1627	189	422	1213	190	17	12	30	37	5
Future Volume (vph)	1	71	1627	189	422	1213	190	17	12	30	37	5
Ideal Flow (vphpl)	1900	1900	2000	1900	1900	2000	1900	1900	1900	1900	1900	1900
Storage Length (ft)		230		280	350		335	0		0	0	
Storage Lanes		2		1	2		1	1		0	1	
Taper Length (ft)		300			300			25			0	
Lane Util. Factor	0.91	0.97	0.91	1.00	0.97	0.91	1.00	1.00	1.00	1.00	1.00	1.00
Frt				0.850			0.850		0.893			
Flt Protected		0.950			0.950			0.950			0.950	
Satd. Flow (prot)	0	3401	5353	1599	3467	5301	1583	1805	1625	0	1736	1845
Flt Permitted		0.950			0.950			0.754			0.720	
Satd. Flow (perm)	0	3401	5353	1599	3467	5301	1583	1433	1625	0	1315	1845
Right Turn on Red				Yes			Yes			Yes		
Satd. Flow (RTOR)				199			200		32			
Link Speed (mph)			45			45			25			25
Link Distance (ft)			967			657			246			235
Travel Time (s)			14.7			10.0			6.7			6.4
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	0%	3%	2%	1%	1%	3%	2%	0%	8%	3%	4%	3%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	76	1713	199	444	1277	200	18	45	0	39	5
Turn Type	Prot	Prot	NA	Perm	Prot	NA	Perm	pm+pt	NA		pm+pt	NA
Protected Phases	5!	5	2		1	6		3	8		7	4
Permitted Phases				2			6	8			4	
Detector Phase	5	5	2	2	1	6	6	3	8		7	4
Switch Phase												
Minimum Initial (s)	3.0	3.0	15.0	15.0	3.0	15.0	15.0	3.0	8.0		3.0	8.0
Minimum Split (s)	7.5	7.5	21.0	21.0	7.5	21.0	21.0	6.5	14.0		6.5	14.0
Total Split (s)	13.0	13.0	68.0	68.0	24.0	79.0	79.0	12.0	21.0		12.0	21.0
Total Split (%)	10.4%	10.4%	54.4%	54.4%	19.2%	63.2%	63.2%	9.6%	16.8%		9.6%	16.8%
Yellow Time (s)	3.5	3.5	4.5	4.5	3.5	4.5	4.5	3.5	4.5		3.5	4.5
All-Red Time (s)	1.0	1.0	1.5	1.5	1.0	1.5	1.5	0.0	1.5		0.0	1.5
Lost Time Adjust (s)		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0
Total Lost Time (s)		4.5	6.0	6.0	4.5	6.0	6.0	3.5	6.0		3.5	6.0
Lead/Lag	Lead	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag		Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		Yes	Yes
Recall Mode	None	None	C-Min	C-Min	None	C-Min	C-Min	None	None		None	None
Act Effct Green (s)		8.2	72.4	72.4	20.9	88.4	88.4	16.7	8.8		15.9	13.1
Actuated g/C Ratio		0.07	0.58	0.58	0.17	0.71	0.71	0.13	0.07		0.13	0.10
v/c Ratio		0.34	0.55	0.20	0.77	0.34	0.17	0.08	0.31		0.20	0.03
Control Delay (s/veh)		59.6	19.1	2.7	58.9	9.8	1.7	42.4	30.8		48.7	52.2
Queue Delay		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0
Total Delay (s/veh)		59.6	19.1	2.7	58.9	9.8	1.7	42.4	30.8		48.7	52.2
LOS		E	B	A	E	A	A	D	C		D	D
Approach Delay (s/veh)			19.0			20.3			34.1			38.0
Approach LOS			B			C			C			D
Queue Length 50th (ft)		31	336	0	179	168	0	12	11		28	4
Queue Length 95th (ft)		57	423	39	233	223	31	33	52		60	18

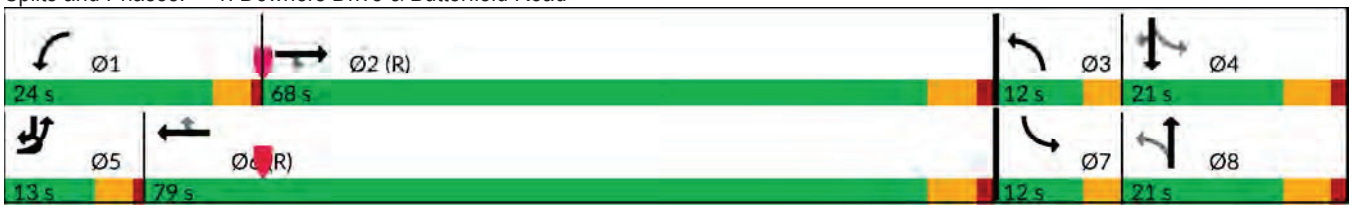


Lane Group	SBR
Lane Configurations	
Traffic Volume (vph)	12
Future Volume (vph)	12
Ideal Flow (vphpl)	1900
Storage Length (ft)	150
Storage Lanes	1
Taper Length (ft)	
Lane Util. Factor	1.00
Frt	0.850
Flt Protected	
Satd. Flow (prot)	1482
Flt Permitted	
Satd. Flow (perm)	1482
Right Turn on Red	Yes
Satd. Flow (RTOR)	96
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	0.95
Heavy Vehicles (%)	9%
Shared Lane Traffic (%)	
Lane Group Flow (vph)	13
Turn Type	pm+ov
Protected Phases	5!
Permitted Phases	4
Detector Phase	5
Switch Phase	
Minimum Initial (s)	3.0
Minimum Split (s)	7.5
Total Split (s)	13.0
Total Split (%)	10.4%
Yellow Time (s)	3.5
All-Red Time (s)	1.0
Lost Time Adjust (s)	0.0
Total Lost Time (s)	4.5
Lead/Lag	Lead
Lead-Lag Optimize?	Yes
Recall Mode	None
Act Effct Green (s)	21.7
Actuated g/C Ratio	0.17
v/c Ratio	0.04
Control Delay (s/veh)	0.3
Queue Delay	0.0
Total Delay (s/veh)	0.3
LOS	A
Approach Delay (s/veh)	
Approach LOS	
Queue Length 50th (ft)	0
Queue Length 95th (ft)	0

Lane Group	EBU	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Internal Link Dist (ft)			887			577			166			155
Turn Bay Length (ft)		230		280	350		335					
Base Capacity (vph)		244	3101	1009	596	3750	1178	244	223		202	245
Starvation Cap Reductn		0	0	0	0	0	0	0	0		0	0
Spillback Cap Reductn		0	0	0	0	0	0	0	0		0	0
Storage Cap Reductn		0	0	0	0	0	0	0	0		0	0
Reduced v/c Ratio		0.31	0.55	0.20	0.74	0.34	0.17	0.07	0.20		0.19	0.02

Intersection Summary			
Area Type:	Other		
Cycle Length: 125			
Actuated Cycle Length: 125			
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Green			
Natural Cycle: 65			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.77			
Intersection Signal Delay (s/veh): 20.2		Intersection LOS: C	
Intersection Capacity Utilization 64.4%		ICU Level of Service C	
Analysis Period (min) 15			
! Phase conflict between lane groups.			

Splits and Phases: 1: Downers Drive & Butterfield Road





Lane Group	SBR
Internal Link Dist (ft)	
Turn Bay Length (ft)	150
Base Capacity (vph)	345
Starvation Cap Reductn	0
Spillback Cap Reductn	0
Storage Cap Reductn	0
Reduced v/c Ratio	0.04

Intersection Summary

Intersection	
Int Delay, s/veh	6.8

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	82	6	0	30	3	0
Future Vol, veh/h	82	6	0	30	3	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	84	84	84	84	84	84
Heavy Vehicles, %	4	0	0	3	0	0
Mvmt Flow	98	7	0	36	4	0

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	25	18	0	0	36	0
Stage 1	18	-	-	-	-	-
Stage 2	7	-	-	-	-	-
Critical Hdwy	6.44	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.44	-	-	-	-	-
Critical Hdwy Stg 2	5.44	-	-	-	-	-
Follow-up Hdwy	3.536	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	986	1067	-	-	1588	-
Stage 1	1000	-	-	-	-	-
Stage 2	1011	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	983	1067	-	-	1588	-
Mov Cap-2 Maneuver	983	-	-	-	-	-
Stage 1	1000	-	-	-	-	-
Stage 2	1008	-	-	-	-	-

Approach	WB	NB	SB
HCM Ctrl Dly, s/v	9.07	0	7.27
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	989	1588	-
HCM Lane V/C Ratio	-	-	0.106	0.002	-
HCM Ctrl Dly (s/v)	-	-	9.1	7.3	0
HCM Lane LOS	-	-	A	A	A
HCM 95th %tile Q(veh)	-	-	0.4	0	-

Intersection	
Int Delay, s/veh	1.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Lane Configurations													
Traffic Vol, veh/h	9	1	3	21	1	25	13	800	45	7	56	1094	40
Future Vol, veh/h	9	1	3	21	1	25	13	800	45	7	56	1094	40
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	-	None
Storage Length	0	-	-	370	-	-	205	-	-	-	160	-	-
Veh in Median Storage, #	-	1	-	-	1	-	-	0	-	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	10	0	12	0	1	2	0	2	2	3
Mvmt Flow	10	1	3	23	1	27	14	870	49	8	61	1189	43

Major/Minor	Minor2			Minor1			Major1			Major2			
Conflicting Flow All	1811	2295	616	1654	2292	459	1233	0	0	918	918	0	0
Stage 1	1348	1348	-	922	922	-	-	-	-	-	-	-	-
Stage 2	464	947	-	732	1370	-	-	-	-	-	-	-	-
Critical Hdwy	7.5	6.5	6.9	7.7	6.5	7.14	4.1	-	-	6.4	4.14	-	-
Critical Hdwy Stg 1	6.5	5.5	-	6.7	5.5	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.5	5.5	-	6.7	5.5	-	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.6	4	3.42	2.2	-	-	2.5	2.22	-	-
Pot Cap-1 Maneuver	50	40	438	59	40	522	572	-	-	381	739	-	-
Stage 1	162	221	-	275	352	-	-	-	-	-	-	-	-
Stage 2	553	342	-	361	216	-	-	-	-	-	-	-	-
Platoon blocked, %								-	-			-	-
Mov Cap-1 Maneuver	41	35	438	51	35	522	572	-	-	662	662	-	-
Mov Cap-2 Maneuver	113	119	-	154	122	-	-	-	-	-	-	-	-
Stage 1	145	199	-	268	343	-	-	-	-	-	-	-	-
Stage 2	510	334	-	320	194	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	33.43	21.85	0.17	0.58
HCM LOS	D	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	572	-	-	113	262	154	464	662	-	-
HCM Lane V/C Ratio	0.025	-	-	0.087	0.017	0.149	0.061	0.104	-	-
HCM Ctrl Dly (s/v)	11.5	-	-	39.9	19	32.5	13.3	11.1	-	-
HCM Lane LOS	B	-	-	E	C	D	B	B	-	-
HCM 95th %tile Q(veh)	0.1	-	-	0.3	0.1	0.5	0.2	0.3	-	-

Capacity Analysis Summary Sheets

Existing Weekday Evening Peak Hour



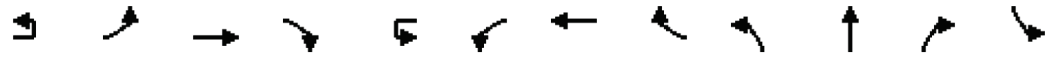
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	21	47	25	154	8	78	1	129	58	86	882	31
Pedestrians												
Ped Button												
Pedestrian Timing (s)												
Free Right			No			No			No			No
Ideal Flow	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Green (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Refr Cycle Length (s)	120	120	120	120	120	120	120	120	120	120	120	120
Volume Combined (vph)	0	93	0	0	162	78	0	188	0	0	999	0
Lane Utilization Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	1.00
Turning Factor (vph)	0.95	0.95	0.85	0.95	0.95	0.85	0.95	0.95	0.85	0.95	0.99	0.85
Saturated Flow (vph)	0	1803	0	0	1810	1615	0	1812	0	0	3585	0
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)		0.00			0.00			0.00			0.00	
Protected Option Allowed		No			No			No			No	
Reference Time (s)			0.0			5.8			0.0			0.0
Adj Reference Time (s)			0.0			9.8			0.0			0.0
Permitted Option												
Adj Saturation A (vph)	0	405		0	551		0	1686		0	393	
Reference Time A (s)	0.0	27.6		0.0	35.3		0.0	13.4		0.0	99.9	
Adj Saturation B (vph	0	0		0	0		NA	NA		NA	NA	
Reference Time B (s)	9.4	14.2		18.2	18.7		NA	NA		NA	NA	
Reference Time (s)		14.2			18.7			13.4			99.9	
Adj Reference Time (s)		18.2			22.7			17.4			103.9	
Split Option												
Ref Time Combined (s)	0.0	6.2		0.0	10.7		0.0	12.5		0.0	33.4	
Ref Time Seperate (s)	1.4	3.1		10.2	0.5		0.1	8.5		5.7	29.4	
Reference Time (s)	6.2	6.2		10.7	10.7		12.5	12.5		33.4	33.4	
Adj Reference Time (s)	10.2	10.2		14.7	14.7		16.5	16.5		37.4	37.4	

Summary	EB WB	NB SB	Combined
Protected Option (s)	NA	NA	
Permitted Option (s)	22.7	103.9	
Split Option (s)	24.9	53.9	
Minimum (s)	22.7	53.9	76.6

Right Turns	WBR
Adj Reference Time (s)	9.8
Cross Thru Ref Time (s)	16.5
Oncoming Left Ref Time (s)	10.2
Combined (s)	36.4

Intersection Summary			
Intersection Capacity Utilization	63.9%	ICU Level of Service	B

Reference Times and Phasing Options do not represent an optimized timing plan.



Lane Group	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL
Lane Configurations												
Traffic Volume (vph)	6	93	1497	107	6	821	1863	230	92	27	109	278
Future Volume (vph)	6	93	1497	107	6	821	1863	230	92	27	109	278
Ideal Flow (vphpl)	1900	1900	2000	1900	1900	1900	2000	1900	1900	1900	1900	1900
Storage Length (ft)		230		280		350		335	0		0	0
Storage Lanes		2		1		2		1	1		0	1
Taper Length (ft)		300				300			25			0
Lane Util. Factor	0.91	0.97	0.91	1.00	0.91	0.97	0.91	1.00	1.00	1.00	1.00	1.00
Frt				0.850				0.850		0.880		
Flt Protected		0.950				0.950			0.950			0.950
Satd. Flow (prot)	0	3405	5353	1599	0	3467	5406	1615	1805	1672	0	1787
Flt Permitted		0.950				0.950			0.709			0.284
Satd. Flow (perm)	0	3405	5353	1599	0	3467	5406	1615	1347	1672	0	534
Right Turn on Red				Yes				Yes			Yes	
Satd. Flow (RTOR)				154				240		114		
Link Speed (mph)			45				45			25		
Link Distance (ft)			967				412			246		
Travel Time (s)			14.7				6.2			6.7		
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles (%)	0%	3%	2%	1%	0%	1%	1%	0%	0%	0%	0%	1%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	103	1559	111	0	861	1941	240	96	142	0	290
Turn Type	Prot	Prot	NA	Perm	Prot	Prot	NA	Perm	pm+pt	NA		pm+pt
Protected Phases	5!	5	2		1	1	6		3	8		7
Permitted Phases				2				6	8			4
Detector Phase	5	5	2	2	1	1	6	6	3	8		7
Switch Phase												
Minimum Initial (s)	3.0	3.0	15.0	15.0	3.0	3.0	15.0	15.0	3.0	8.0		3.0
Minimum Split (s)	7.5	7.5	21.0	21.0	7.5	7.5	21.0	21.0	6.5	14.0		6.5
Total Split (s)	13.0	13.0	49.0	49.0	44.0	44.0	80.0	80.0	14.0	19.0		23.0
Total Split (%)	9.6%	9.6%	36.3%	36.3%	32.6%	32.6%	59.3%	59.3%	10.4%	14.1%		17.0%
Yellow Time (s)	3.5	3.5	4.5	4.5	3.5	3.5	4.5	4.5	3.5	4.5		3.5
All-Red Time (s)	1.0	1.0	1.5	1.5	1.0	1.0	1.5	1.5	0.0	1.5		0.0
Lost Time Adjust (s)		0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0
Total Lost Time (s)		4.5	6.0	6.0		4.5	6.0	6.0	3.5	6.0		3.5
Lead/Lag	Lead	Lead	Lag	Lag	Lead	Lead	Lag	Lag	Lead	Lag		Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		Yes
Recall Mode	None	None	C-Min	C-Min	None	None	C-Min	C-Min	None	None		None
Act Effct Green (s)		8.7	48.2	48.2		37.8	77.3	77.3	24.8	9.5		32.2
Actuated g/C Ratio		0.06	0.36	0.36		0.28	0.57	0.57	0.18	0.07		0.24
v/c Ratio		0.47	0.82	0.17		0.89	0.63	0.23	0.32	0.64		0.94
Control Delay (s/veh)		68.0	44.4	2.1		58.2	20.7	2.3	42.4	29.4		84.9
Queue Delay		0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0
Total Delay (s/veh)		68.0	44.4	2.1		58.2	20.7	2.3	42.4	29.4		84.9
LOS		E	D	A		E	C	A	D	C		F
Approach Delay (s/veh)			43.1				29.9			34.6		
Approach LOS			D				C			C		
Queue Length 50th (ft)		46	460	0		370	395	0	67	24		232
Queue Length 95th (ft)		78	556	16		453	478	39	111	92		#343

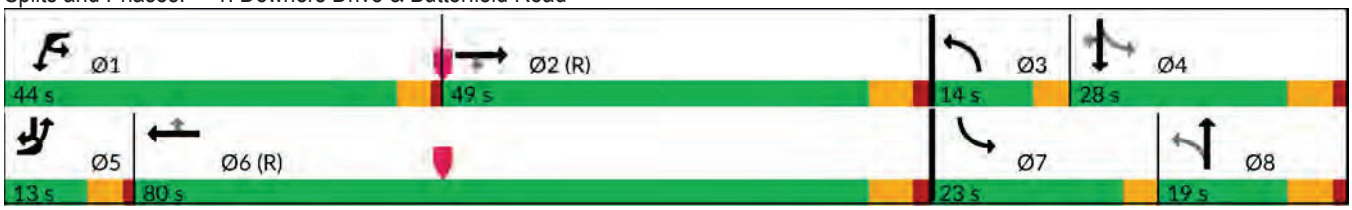


Lane Group	SBT	SBR
Lane Configurations		
Traffic Volume (vph)	71	124
Future Volume (vph)	71	124
Ideal Flow (vphpl)	1900	1900
Storage Length (ft)		150
Storage Lanes		1
Taper Length (ft)		
Lane Util. Factor	1.00	1.00
Frt		0.850
Flt Protected		
Satd. Flow (prot)	1845	1599
Flt Permitted		
Satd. Flow (perm)	1845	1599
Right Turn on Red		Yes
Satd. Flow (RTOR)		89
Link Speed (mph)	25	
Link Distance (ft)	235	
Travel Time (s)	6.4	
Peak Hour Factor	0.96	0.96
Heavy Vehicles (%)	3%	1%
Shared Lane Traffic (%)		
Lane Group Flow (vph)	74	129
Turn Type	NA	pm+ov
Protected Phases	4	5!
Permitted Phases		4
Detector Phase	4	5
Switch Phase		
Minimum Initial (s)	8.0	3.0
Minimum Split (s)	14.0	7.5
Total Split (s)	28.0	13.0
Total Split (%)	20.7%	9.6%
Yellow Time (s)	4.5	3.5
All-Red Time (s)	1.5	1.0
Lost Time Adjust (s)	0.0	0.0
Total Lost Time (s)	6.0	4.5
Lead/Lag	Lag	Lead
Lead-Lag Optimize?	Yes	Yes
Recall Mode	None	None
Act Effct Green (s)	16.9	28.8
Actuated g/C Ratio	0.13	0.21
v/c Ratio	0.32	0.31
Control Delay (s/veh)	56.0	16.1
Queue Delay	0.0	0.0
Total Delay (s/veh)	56.0	16.1
LOS	E	B
Approach Delay (s/veh)	62.6	
Approach LOS	E	
Queue Length 50th (ft)	61	28
Queue Length 95th (ft)	108	80

Lane Group	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL
Internal Link Dist (ft)			887				332			166		
Turn Bay Length (ft)		230		280		350		335				
Base Capacity (vph)		229	1909	669		1027	3094	1026	300	264		308
Starvation Cap Reductn		0	0	0		0	0	0	0	0		0
Spillback Cap Reductn		0	0	0		0	0	0	0	0		0
Storage Cap Reductn		0	0	0		0	0	0	0	0		0
Reduced v/c Ratio		0.45	0.82	0.17		0.84	0.63	0.23	0.32	0.54		0.94

Intersection Summary			
Area Type:	Other		
Cycle Length: 135			
Actuated Cycle Length: 135			
Offset: 63 (47%), Referenced to phase 2:EBT and 6:WBT, Start of Green			
Natural Cycle: 90			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.94			
Intersection Signal Delay (s/veh): 37.2		Intersection LOS: D	
Intersection Capacity Utilization 91.7%		ICU Level of Service F	
Analysis Period (min) 15			
# 95th percentile volume exceeds capacity, queue may be longer.			
Queue shown is maximum after two cycles.			
! Phase conflict between lane groups.			

Splits and Phases: 1: Downers Drive & Butterfield Road





Lane Group	SBT	SBR
Internal Link Dist (ft)	155	
Turn Bay Length (ft)		150
Base Capacity (vph)	300	415
Starvation Cap Reductn	0	0
Spillback Cap Reductn	0	0
Storage Cap Reductn	0	0
Reduced v/c Ratio	0.25	0.31

Intersection Summary

Intersection	
Int Delay, s/veh	3.1

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	20	17	0	78	6	0
Future Vol, veh/h	20	17	0	78	6	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	59	59	59	59	59	59
Heavy Vehicles, %	0	0	0	1	0	0
Mvmt Flow	34	29	0	132	10	0

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	86	66	0	0	132	0
Stage 1	66	-	-	-	-	-
Stage 2	20	-	-	-	-	-
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	920	1003	-	-	1465	-
Stage 1	962	-	-	-	-	-
Stage 2	1008	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	913	1003	-	-	1465	-
Mov Cap-2 Maneuver	913	-	-	-	-	-
Stage 1	962	-	-	-	-	-
Stage 2	1001	-	-	-	-	-

Approach	WB	NB	SB
HCM Ctrl Dly, s/v	9.05	0	7.47
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	953	1465	-
HCM Lane V/C Ratio	-	-	0.066	0.007	-
HCM Ctrl Dly (s/v)	-	-	9	7.5	0
HCM Lane LOS	-	-	A	A	A
HCM 95th %tile Q(veh)	-	-	0.2	0	-

Intersection	
Int Delay, s/veh	1.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Lane Configurations													
Traffic Vol, veh/h	31	3	15	34	2	30	3	869	13	9	12	822	9
Future Vol, veh/h	31	3	15	34	2	30	3	869	13	9	12	822	9
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	-	None
Storage Length	0	-	-	370	-	-	205	-	-	-	160	-	-
Veh in Median Storage, #	-	1	-	-	1	-	-	0	-	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	-	0	-
Peak Hour Factor	89	89	89	89	89	89	89	89	89	89	89	89	89
Heavy Vehicles, %	0	0	0	0	0	0	0	0	8	0	8	1	0
Mvmt Flow	35	3	17	38	2	34	3	976	15	10	13	924	10

Major/Minor	Minor2			Minor1			Major1			Major2			
Conflicting Flow All	1472	1974	467	1501	1971	496	934	0	0	991	991	0	0
Stage 1	976	976	-	990	990	-	-	-	-	-	-	-	-
Stage 2	496	998	-	511	981	-	-	-	-	-	-	-	-
Critical Hdwy	7.5	6.5	6.9	7.5	6.5	6.9	4.1	-	-	6.4	4.26	-	-
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	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.5	2.28	-	-
Pot Cap-1 Maneuver	90	63	548	86	63	525	741	-	-	342	658	-	-
Stage 1	273	332	-	268	327	-	-	-	-	-	-	-	-
Stage 2	529	324	-	519	330	-	-	-	-	-	-	-	-
Platoon blocked, %								-	-			-	-
Mov Cap-1 Maneuver	79	59	548	77	60	525	741	-	-	453	453	-	-
Mov Cap-2 Maneuver	184	167	-	187	172	-	-	-	-	-	-	-	-
Stage 1	259	315	-	267	325	-	-	-	-	-	-	-	-
Stage 2	490	323	-	472	313	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	23.72	21.5	0.03	0.33
HCM LOS	C	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	741	-	-	184	397	187	465	453	-	-
HCM Lane V/C Ratio	0.005	-	-	0.189	0.051	0.204	0.077	0.052	-	-
HCM Ctrl Dly (s/v)	9.9	-	-	29	14.6	29.1	13.4	13.4	-	-
HCM Lane LOS	A	-	-	D	B	D	B	B	-	-
HCM 95th %tile Q(veh)	0	-	-	0.7	0.2	0.7	0.3	0.2	-	-

Capacity Analysis Summary Sheets

Existing Saturday Midday Peak Hour



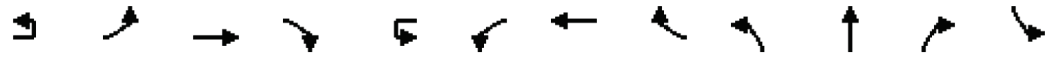
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	42	20	9	54	15	81	1	6	6	92	396	56
Pedestrians												
Ped Button												
Pedestrian Timing (s)												
Free Right			No			No			No			No
Ideal Flow	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Green (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Refr Cycle Length (s)	120	120	120	120	120	120	120	120	120	120	120	120
Volume Combined (vph)	0	71	0	0	69	81	0	13	0	0	544	0
Lane Utilization Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	1.00
Turning Factor (vph)	0.95	0.95	0.85	0.95	0.96	0.85	0.95	0.93	0.85	0.95	0.98	0.85
Saturated Flow (vph)	0	1809	0	0	1826	1615	0	1762	0	0	3532	0
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)		0.00			0.00			0.00			0.00	
Protected Option Allowed		No			No			No			No	
Reference Time (s)			0.0			6.0			0.0			0.0
Adj Reference Time (s)			0.0			10.0			0.0			0.0
Permitted Option												
Adj Saturation A (vph)	0	179		0	1352		0	830		0	254	
Reference Time A (s)	0.0	47.5		0.0	6.1		0.0	1.9		0.0	43.5	
Adj Saturation B (vph	0	0		0	0		NA	NA		0	1775	
Reference Time B (s)	10.8	12.7		11.6	12.5		NA	NA		14.1	22.5	
Reference Time (s)		12.7			6.1			1.9			22.5	
Adj Reference Time (s)		16.7			10.1			8.0			26.5	
Split Option												
Ref Time Combined (s)	0.0	4.7		0.0	4.5		0.0	0.9		0.0	18.5	
Ref Time Seperate (s)	2.8	1.3		3.6	0.9		0.1	0.4		6.1	13.4	
Reference Time (s)	4.7	4.7		4.5	4.5		0.9	0.9		18.5	18.5	
Adj Reference Time (s)	8.7	8.7		8.5	8.5		8.0	8.0		22.5	22.5	

Summary	EB WB	NB SB	Combined
Protected Option (s)	NA	NA	
Permitted Option (s)	16.7	26.5	
Split Option (s)	17.2	30.5	
Minimum (s)	16.7	26.5	43.2

Right Turns	WBR
Adj Reference Time (s)	10.0
Cross Thru Ref Time (s)	8.0
Oncoming Left Ref Time (s)	8.7
Combined (s)	26.7

Intersection Summary			
Intersection Capacity Utilization	36.0%	ICU Level of Service	A

Reference Times and Phasing Options do not represent an optimized timing plan.



Lane Group	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL
Lane Configurations												
Traffic Volume (vph)	1	123	1041	61	23	428	1198	337	55	27	47	316
Future Volume (vph)	1	123	1041	61	23	428	1198	337	55	27	47	316
Ideal Flow (vphpl)	1900	1900	2000	1900	1900	1900	2000	1900	1900	1900	1900	1900
Storage Length (ft)		230		280		350		335	0		0	0
Storage Lanes		2		1		2		1	1		0	1
Taper Length (ft)		300				300			25			0
Lane Util. Factor	0.91	0.97	0.91	1.00	0.91	0.97	0.91	1.00	1.00	1.00	1.00	1.00
Frt				0.850				0.850		0.905		
Flt Protected		0.950				0.950			0.950			0.950
Satd. Flow (prot)	0	3467	5460	1615	0	3469	5406	1615	1805	1687	0	1787
Flt Permitted		0.950				0.950			0.720			0.517
Satd. Flow (perm)	0	3467	5460	1615	0	3469	5406	1615	1368	1687	0	973
Right Turn on Red				Yes				Yes			Yes	
Satd. Flow (RTOR)				207				340		47		
Link Speed (mph)			45				45			25		
Link Distance (ft)			967				412			246		
Travel Time (s)			14.7				6.2			6.7		
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Heavy Vehicles (%)	0%	1%	0%	0%	0%	1%	1%	0%	0%	0%	3%	1%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	125	1052	62	0	455	1210	340	56	74	0	319
Turn Type	Prot	Prot	NA	Perm	Prot	Prot	NA	Perm	pm+pt	NA		pm+pt
Protected Phases	5!	5	2		1	1	6		3	8		7
Permitted Phases				2				6	8			4
Detector Phase	5	5	2	2	1	1	6	6	3	8		7
Switch Phase												
Minimum Initial (s)	3.0	3.0	15.0	15.0	3.0	3.0	15.0	15.0	3.0	8.0		3.0
Minimum Split (s)	7.5	7.5	21.0	21.0	7.5	7.5	21.0	21.0	6.5	14.0		6.5
Total Split (s)	13.0	13.0	38.0	38.0	21.0	21.0	46.0	46.0	15.0	20.0		21.0
Total Split (%)	13.0%	13.0%	38.0%	38.0%	21.0%	21.0%	46.0%	46.0%	15.0%	20.0%		21.0%
Yellow Time (s)	3.5	3.5	4.5	4.5	3.5	3.5	4.5	4.5	3.5	4.5		3.5
All-Red Time (s)	1.0	1.0	1.5	1.5	1.0	1.0	1.5	1.5	0.0	1.5		0.0
Lost Time Adjust (s)		0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0
Total Lost Time (s)		4.5	6.0	6.0		4.5	6.0	6.0	3.5	6.0		3.5
Lead/Lag	Lead	Lead	Lag	Lag	Lead	Lead	Lag	Lag	Lead	Lag		Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		Yes
Recall Mode	None	None	C-Min	C-Min	None	None	C-Min	C-Min	None	None		None
Act Effct Green (s)		8.4	37.9	37.9		16.7	46.3	46.3	19.0	11.3		31.3
Actuated g/C Ratio		0.08	0.38	0.38		0.17	0.46	0.46	0.19	0.11		0.31
v/c Ratio		0.43	0.51	0.08		0.79	0.48	0.37	0.19	0.32		0.72
Control Delay (s/veh)		48.2	26.5	0.2		50.6	20.8	3.4	23.8	22.2		37.4
Queue Delay		0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0
Total Delay (s/veh)		48.2	26.5	0.2		50.6	20.8	3.4	23.8	22.2		37.4
LOS		D	C	A		D	C	A	C	C		D
Approach Delay (s/veh)			27.4				24.6			22.8		
Approach LOS			C				C			C		
Queue Length 50th (ft)		39	202	0		142	205	0	24	16		162
Queue Length 95th (ft)		69	251	0		#217	261	53	49	57		235

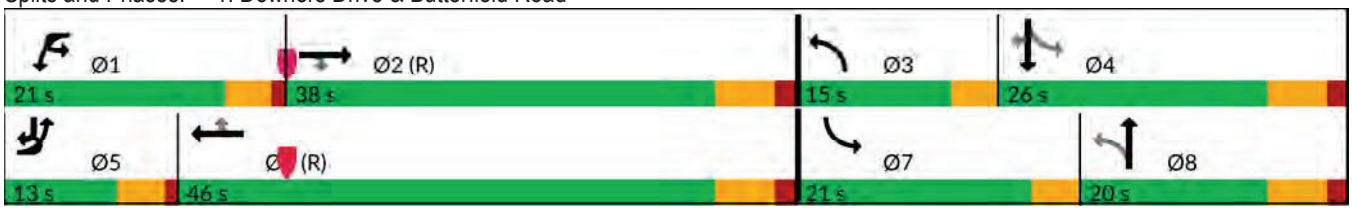


Lane Group	SBT	SBR
Lane Configurations		
Traffic Volume (vph)	55	118
Future Volume (vph)	55	118
Ideal Flow (vphpl)	1900	1900
Storage Length (ft)		150
Storage Lanes		1
Taper Length (ft)		
Lane Util. Factor	1.00	1.00
Frt		0.850
Flt Protected		
Satd. Flow (prot)	1863	1615
Flt Permitted		
Satd. Flow (perm)	1863	1615
Right Turn on Red		Yes
Satd. Flow (RTOR)		120
Link Speed (mph)	25	
Link Distance (ft)	235	
Travel Time (s)	6.4	
Peak Hour Factor	0.99	0.99
Heavy Vehicles (%)	2%	0%
Shared Lane Traffic (%)		
Lane Group Flow (vph)	56	119
Turn Type	NA	pm+ov
Protected Phases	4	5!
Permitted Phases		4
Detector Phase	4	5
Switch Phase		
Minimum Initial (s)	8.0	3.0
Minimum Split (s)	14.0	7.5
Total Split (s)	26.0	13.0
Total Split (%)	26.0%	13.0%
Yellow Time (s)	4.5	3.5
All-Red Time (s)	1.5	1.0
Lost Time Adjust (s)	0.0	0.0
Total Lost Time (s)	6.0	4.5
Lead/Lag	Lag	Lead
Lead-Lag Optimize?	Yes	Yes
Recall Mode	None	None
Act Effct Green (s)	19.6	33.9
Actuated g/C Ratio	0.20	0.34
v/c Ratio	0.15	0.19
Control Delay (s/veh)	33.2	4.8
Queue Delay	0.0	0.0
Total Delay (s/veh)	33.2	4.8
LOS	C	A
Approach Delay (s/veh)	29.0	
Approach LOS	C	
Queue Length 50th (ft)	30	0
Queue Length 95th (ft)	64	36

Lane Group	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL
Internal Link Dist (ft)			887				332			166		
Turn Bay Length (ft)		230		280		350		335				
Base Capacity (vph)		307	2071	741		597	2502	930	363	276		450
Starvation Cap Reductn		0	0	0		0	0	0	0	0		0
Spillback Cap Reductn		0	0	0		0	0	0	0	0		0
Storage Cap Reductn		0	0	0		0	0	0	0	0		0
Reduced v/c Ratio		0.41	0.51	0.08		0.76	0.48	0.37	0.15	0.27		0.71

Intersection Summary			
Area Type:	Other		
Cycle Length: 100			
Actuated Cycle Length: 100			
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Green			
Natural Cycle: 60			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.79			
Intersection Signal Delay (s/veh): 26.0		Intersection LOS: C	
Intersection Capacity Utilization 69.9%		ICU Level of Service C	
Analysis Period (min) 15			
# 95th percentile volume exceeds capacity, queue may be longer.			
Queue shown is maximum after two cycles.			
! Phase conflict between lane groups.			

Splits and Phases: 1: Downers Drive & Butterfield Road





Lane Group	SBT	SBR
Internal Link Dist (ft)	155	
Turn Bay Length (ft)		150
Base Capacity (vph)	389	634
Starvation Cap Reductn	0	0
Spillback Cap Reductn	0	0
Storage Cap Reductn	0	0
Reduced v/c Ratio	0.14	0.19

Intersection Summary

Intersection	
Int Delay, s/veh	6

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	51	28	3	45	26	0
Future Vol, veh/h	51	28	3	45	26	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	91	91	91	91	91	91
Heavy Vehicles, %	0	4	0	0	4	0
Mvmt Flow	56	31	3	49	29	0

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	85	28	0	0	53	0
Stage 1	28	-	-	-	-	-
Stage 2	57	-	-	-	-	-
Critical Hdwy	6.4	6.24	-	-	4.14	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.336	-	-	2.236	-
Pot Cap-1 Maneuver	921	1041	-	-	1540	-
Stage 1	1000	-	-	-	-	-
Stage 2	971	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	904	1041	-	-	1540	-
Mov Cap-2 Maneuver	904	-	-	-	-	-
Stage 1	1000	-	-	-	-	-
Stage 2	953	-	-	-	-	-

Approach	WB	NB	SB
HCM Ctrl Dly, s/v	9.18	0	7.38
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	948	1540	-
HCM Lane V/C Ratio	-	-	0.092	0.019	-
HCM Ctrl Dly (s/v)	-	-	9.2	7.4	0
HCM Lane LOS	-	-	A	A	A
HCM 95th %tile Q(veh)	-	-	0.3	0.1	-

Intersection	
Int Delay, s/veh	1.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Lane Configurations													
Traffic Vol, veh/h	3	0	0	24	0	90	3	680	16	23	64	568	3
Future Vol, veh/h	3	0	0	24	0	90	3	680	16	23	64	568	3
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	-	None
Storage Length	0	-	-	370	-	-	205	-	-	-	160	-	-
Veh in Median Storage, #	-	1	-	-	1	-	-	0	-	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	-	0	-
Peak Hour Factor	96	96	96	96	96	96	96	96	96	92	96	96	96
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	1	0
Mvmt Flow	3	0	0	25	0	94	3	708	17	25	67	592	3

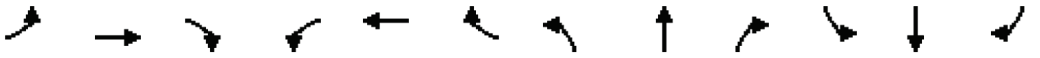
Major/Minor	Minor2			Minor1			Major1			Major2			
Conflicting Flow All	1137	1508	297	1202	1501	363	595	0	0	725	725	0	0
Stage 1	777	777	-	723	723	-	-	-	-	-	-	-	-
Stage 2	360	731	-	479	778	-	-	-	-	-	-	-	-
Critical Hdwy	7.5	6.5	6.9	7.5	6.5	6.9	4.1	-	-	6.4	4.1	-	-
Critical Hdwy Stg 1	6.5	5.5	-	6.5	5.5	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.5	5.5	-	6.5	5.5	-	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.5	2.2	-	-
Pot Cap-1 Maneuver	159	122	705	143	123	640	991	-	-	505	887	-	-
Stage 1	361	410	-	388	434	-	-	-	-	-	-	-	-
Stage 2	636	430	-	542	409	-	-	-	-	-	-	-	-
Platoon blocked, %								-	-			-	-
Mov Cap-1 Maneuver	117	105	705	123	106	640	991	-	-	688	688	-	-
Mov Cap-2 Maneuver	219	206	-	249	225	-	-	-	-	-	-	-	-
Stage 1	313	356	-	387	433	-	-	-	-	-	-	-	-
Stage 2	541	429	-	470	355	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	21.65	13.59	0.04	1.47
HCM LOS	C	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	991	-	-	219	-	249	640	688	-	-
HCM Lane V/C Ratio	0.003	-	-	0.014	-	0.101	0.146	0.133	-	-
HCM Ctrl Dly (s/v)	8.6	-	-	21.7	0	21.1	11.6	11	-	-
HCM Lane LOS	A	-	-	C	A	C	B	B	-	-
HCM 95th %tile Q(veh)	0	-	-	0	-	0.3	0.5	0.5	-	-

Capacity Analysis Summary Sheets

Year 2032 No-Build Weekday Morning Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	6	14	12	128	48	38	0	17	5	53	534	40
Pedestrians												
Ped Button												
Pedestrian Timing (s)												
Free Right			No			No			No			No
Ideal Flow	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Green (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Refr Cycle Length (s)	120	120	120	120	120	120	120	120	120	120	120	120
Volume Combined (vph)	0	32	0	0	176	38	0	22	0	0	627	0
Lane Utilization Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	1.00
Turning Factor (vph)	0.95	0.93	0.85	0.95	0.96	0.85	0.95	0.97	0.85	0.95	0.99	0.85
Saturated Flow (vph)	0	1776	0	0	1831	1615	0	1835	0	0	3568	0
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)		0.00			0.00			0.00			0.00	
Protected Option Allowed		No			No			No			No	
Reference Time (s)			0.0			2.8			0.0			0.0
Adj Reference Time (s)			0.0			8.0			0.0			0.0
Permitted Option												
Adj Saturation A (vph)	0	462		0	608		0	1835		0	362	
Reference Time A (s)	0.0	8.3		0.0	34.7		0.0	1.4		0.0	68.7	
Adj Saturation B (vph	0	0		0	0		NA	NA		0	1790	
Reference Time B (s)	8.4	10.2		16.5	19.5		NA	NA		11.5	25.1	
Reference Time (s)		8.3			19.5			1.4			25.1	
Adj Reference Time (s)		12.3			23.5			8.0			29.1	
Split Option												
Ref Time Combined (s)	0.0	2.2		0.0	11.5		0.0	1.4		0.0	21.1	
Ref Time Seperate (s)	0.4	0.9		8.5	3.0		0.0	1.1		3.5	17.9	
Reference Time (s)	2.2	2.2		11.5	11.5		1.4	1.4		21.1	21.1	
Adj Reference Time (s)	8.0	8.0		15.5	15.5		8.0	8.0		25.1	25.1	

Summary	EB WB	NB SB	Combined
Protected Option (s)	NA	NA	
Permitted Option (s)	23.5	29.1	
Split Option (s)	23.5	33.1	
Minimum (s)	23.5	29.1	52.6

Right Turns	WBR
Adj Reference Time (s)	8.0
Cross Thru Ref Time (s)	8.0
Oncoming Left Ref Time (s)	8.0
Combined (s)	24.0

Intersection Summary			
Intersection Capacity Utilization	43.8%	ICU Level of Service	A

Reference Times and Phasing Options do not represent an optimized timing plan.

Lane Group	EBU	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations												
Traffic Volume (vph)	1	97	1639	192	428	1181	224	17	13	30	62	5
Future Volume (vph)	1	97	1639	192	428	1181	224	17	13	30	62	5
Ideal Flow (vphpl)	1900	1900	2000	1900	1900	2000	1900	1900	1900	1900	1900	1900
Storage Length (ft)		230		280	350		335	0		0	0	
Storage Lanes		2		1	2		1	1		0	1	
Taper Length (ft)		300			300			25			0	
Lane Util. Factor	0.91	0.97	0.91	1.00	0.97	0.91	1.00	1.00	1.00	1.00	1.00	1.00
Frt				0.850			0.850		0.896			
Flt Protected		0.950			0.950			0.950			0.950	
Satd. Flow (prot)	0	3401	5353	1599	3467	5301	1583	1805	1629	0	1736	1845
Flt Permitted		0.950			0.950			0.754			0.692	
Satd. Flow (perm)	0	3401	5353	1599	3467	5301	1583	1433	1629	0	1264	1845
Right Turn on Red				Yes			Yes			Yes		
Satd. Flow (RTOR)				202			236		32			
Link Speed (mph)			45			45			25			25
Link Distance (ft)			967			657			246			235
Travel Time (s)			14.7			10.0			6.7			6.4
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	0%	3%	2%	1%	1%	3%	2%	0%	8%	3%	4%	3%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	103	1725	202	451	1243	236	18	46	0	65	5
Turn Type	Prot	Prot	NA	Perm	Prot	NA	Perm	pm+pt	NA		pm+pt	NA
Protected Phases	5!	5	2		1	6		3	8		7	4
Permitted Phases				2			6	8			4	
Detector Phase	5	5	2	2	1	6	6	3	8		7	4
Switch Phase												
Minimum Initial (s)	3.0	3.0	15.0	15.0	3.0	15.0	15.0	3.0	8.0		3.0	8.0
Minimum Split (s)	7.5	7.5	21.0	21.0	7.5	21.0	21.0	6.5	14.0		6.5	14.0
Total Split (s)	13.0	13.0	68.0	68.0	24.0	79.0	79.0	12.0	21.0		12.0	21.0
Total Split (%)	10.4%	10.4%	54.4%	54.4%	19.2%	63.2%	63.2%	9.6%	16.8%		9.6%	16.8%
Yellow Time (s)	3.5	3.5	4.5	4.5	3.5	4.5	4.5	3.5	4.5		3.5	4.5
All-Red Time (s)	1.0	1.0	1.5	1.5	1.0	1.5	1.5	0.0	1.5		0.0	1.5
Lost Time Adjust (s)		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0
Total Lost Time (s)		4.5	6.0	6.0	4.5	6.0	6.0	3.5	6.0		3.5	6.0
Lead/Lag	Lead	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag		Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		Yes	Yes
Recall Mode	None	None	C-Min	C-Min	None	C-Min	C-Min	None	None		None	None
Act Effct Green (s)		9.1	71.8	71.8	21.1	83.8	83.8	16.8	8.8		16.4	13.5
Actuated g/C Ratio		0.07	0.57	0.57	0.17	0.67	0.67	0.13	0.07		0.13	0.11
v/c Ratio		0.42	0.56	0.20	0.77	0.35	0.21	0.08	0.32		0.33	0.03
Control Delay (s/veh)		60.0	19.6	2.7	59.0	10.7	1.8	42.2	31.2		51.7	52.2
Queue Delay		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0
Total Delay (s/veh)		60.0	19.6	2.7	59.0	10.7	1.8	42.2	31.2		51.7	52.2
LOS		E	B	A	E	B	A	D	C		D	D
Approach Delay (s/veh)			20.0			20.9			34.3			27.9
Approach LOS			B			C			C			C
Queue Length 50th (ft)		42	344	0	181	167	0	12	12		47	4
Queue Length 95th (ft)		72	428	39	237	224	34	33	52		88	18

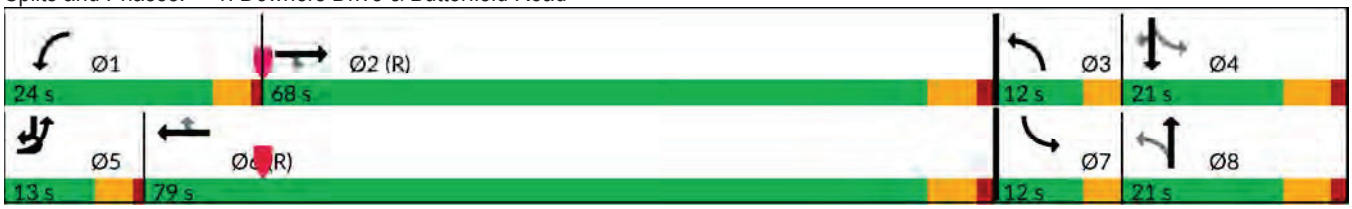


Lane Group	SBR
Lane Configurations	
Traffic Volume (vph)	73
Future Volume (vph)	73
Ideal Flow (vphpl)	1900
Storage Length (ft)	150
Storage Lanes	1
Taper Length (ft)	
Lane Util. Factor	1.00
Frt	0.850
Flt Protected	
Satd. Flow (prot)	1482
Flt Permitted	
Satd. Flow (perm)	1482
Right Turn on Red	Yes
Satd. Flow (RTOR)	96
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	0.95
Heavy Vehicles (%)	9%
Shared Lane Traffic (%)	
Lane Group Flow (vph)	77
Turn Type	pm+ov
Protected Phases	5!
Permitted Phases	4
Detector Phase	5
Switch Phase	
Minimum Initial (s)	3.0
Minimum Split (s)	7.5
Total Split (s)	13.0
Total Split (%)	10.4%
Yellow Time (s)	3.5
All-Red Time (s)	1.0
Lost Time Adjust (s)	0.0
Total Lost Time (s)	4.5
Lead/Lag	Lead
Lead-Lag Optimize?	Yes
Recall Mode	None
Act Effct Green (s)	23.0
Actuated g/C Ratio	0.18
v/c Ratio	0.22
Control Delay (s/veh)	6.3
Queue Delay	0.0
Total Delay (s/veh)	6.3
LOS	A
Approach Delay (s/veh)	
Approach LOS	
Queue Length 50th (ft)	0
Queue Length 95th (ft)	30

Lane Group	EBU	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Internal Link Dist (ft)			887			577			166			155
Turn Bay Length (ft)		230		280	350		335					
Base Capacity (vph)		261	3075	1004	600	3552	1138	245	223		202	250
Starvation Cap Reductn		0	0	0	0	0	0	0	0		0	0
Spillback Cap Reductn		0	0	0	0	0	0	0	0		0	0
Storage Cap Reductn		0	0	0	0	0	0	0	0		0	0
Reduced v/c Ratio		0.39	0.56	0.20	0.75	0.35	0.21	0.07	0.21		0.32	0.02

Intersection Summary			
Area Type:	Other		
Cycle Length: 125			
Actuated Cycle Length: 125			
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Green			
Natural Cycle: 65			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.77			
Intersection Signal Delay (s/veh): 20.9		Intersection LOS: C	
Intersection Capacity Utilization 66.1%		ICU Level of Service C	
Analysis Period (min) 15			
! Phase conflict between lane groups.			

Splits and Phases: 1: Downers Drive & Butterfield Road





Lane Group	SBR
Internal Link Dist (ft)	
Turn Bay Length (ft)	150
Base Capacity (vph)	356
Starvation Cap Reductn	0
Spillback Cap Reductn	0
Storage Cap Reductn	0
Reduced v/c Ratio	0.22

Intersection Summary

Intersection	
Int Delay, s/veh	6.8

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	83	6	0	30	3	0
Future Vol, veh/h	83	6	0	30	3	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	84	84	84	84	84	84
Heavy Vehicles, %	4	0	0	3	0	0
Mvmt Flow	99	7	0	36	4	0

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	25	18	0	0	36	0
Stage 1	18	-	-	-	-	-
Stage 2	7	-	-	-	-	-
Critical Hdwy	6.44	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.44	-	-	-	-	-
Critical Hdwy Stg 2	5.44	-	-	-	-	-
Follow-up Hdwy	3.536	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	986	1067	-	-	1588	-
Stage 1	1000	-	-	-	-	-
Stage 2	1011	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	983	1067	-	-	1588	-
Mov Cap-2 Maneuver	983	-	-	-	-	-
Stage 1	1000	-	-	-	-	-
Stage 2	1008	-	-	-	-	-

Approach	WB	NB	SB
HCM Ctrl Dly, s/v	9.08	0	7.27
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	989	1588	-
HCM Lane V/C Ratio	-	-	0.107	0.002	-
HCM Ctrl Dly (s/v)	-	-	9.1	7.3	0
HCM Lane LOS	-	-	A	A	A
HCM 95th %tile Q(veh)	-	-	0.4	0	-

Intersection	
Int Delay, s/veh	1.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Lane Configurations													
Traffic Vol, veh/h	9	1	3	21	1	25	13	812	46	7	57	1110	41
Future Vol, veh/h	9	1	3	21	1	25	13	812	46	7	57	1110	41
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	-	None
Storage Length	0	-	-	370	-	-	205	-	-	-	160	-	-
Veh in Median Storage, #	-	1	-	-	1	-	-	0	-	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	10	0	12	0	1	2	0	2	2	3
Mvmt Flow	10	1	3	23	1	27	14	883	50	8	62	1207	45

Major/Minor	Minor2			Minor1			Major1			Major2			
Conflicting Flow All	1838	2329	626	1679	2326	466	1251	0	0	933	933	0	0
Stage 1	1368	1368	-	936	936	-	-	-	-	-	-	-	-
Stage 2	470	961	-	743	1390	-	-	-	-	-	-	-	-
Critical Hdwy	7.5	6.5	6.9	7.7	6.5	7.14	4.1	-	-	6.4	4.14	-	-
Critical Hdwy Stg 1	6.5	5.5	-	6.7	5.5	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.5	5.5	-	6.7	5.5	-	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.6	4	3.42	2.2	-	-	2.5	2.22	-	-
Pot Cap-1 Maneuver	48	38	432	57	38	517	563	-	-	373	730	-	-
Stage 1	157	217	-	270	346	-	-	-	-	-	-	-	-
Stage 2	548	337	-	356	211	-	-	-	-	-	-	-	-
Platoon blocked, %								-	-			-	-
Mov Cap-1 Maneuver	39	33	432	49	33	517	563	-	-	653	653	-	-
Mov Cap-2 Maneuver	109	116	-	150	118	-	-	-	-	-	-	-	-
Stage 1	141	194	-	263	338	-	-	-	-	-	-	-	-
Stage 2	505	329	-	314	189	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	34.37	22.27	0.17	0.59
HCM LOS	D	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	563	-	-	109	257	150	458	653	-	-
HCM Lane V/C Ratio	0.025	-	-	0.089	0.017	0.152	0.062	0.106	-	-
HCM Ctrl Dly (s/v)	11.6	-	-	41.1	19.3	33.3	13.4	11.2	-	-
HCM Lane LOS	B	-	-	E	C	D	B	B	-	-
HCM 95th %tile Q(veh)	0.1	-	-	0.3	0.1	0.5	0.2	0.4	-	-

Capacity Analysis Summary Sheets

Year 2032 No-Build Weekday Evening Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	21	48	25	156	8	79	1	132	59	87	896	31
Pedestrians												
Ped Button												
Pedestrian Timing (s)												
Free Right			No			No			No			No
Ideal Flow	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Green (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Refr Cycle Length (s)	120	120	120	120	120	120	120	120	120	120	120	120
Volume Combined (vph)	0	94	0	0	164	79	0	192	0	0	1014	0
Lane Utilization Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	1.00
Turning Factor (vph)	0.95	0.95	0.85	0.95	0.95	0.85	0.95	0.95	0.85	0.95	0.99	0.85
Saturated Flow (vph)	0	1804	0	0	1810	1615	0	1812	0	0	3586	0
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)		0.00			0.00			0.00			0.00	
Protected Option Allowed		No			No			No			No	
Reference Time (s)			0.0			5.9			0.0			0.0
Adj Reference Time (s)			0.0			9.9			0.0			0.0
Permitted Option												
Adj Saturation A (vph)	0	409		0	546		0	1688		0	394	
Reference Time A (s)	0.0	27.6		0.0	36.0		0.0	13.6		0.0	101.3	
Adj Saturation B (vph	0	0		0	0		NA	NA		NA	NA	
Reference Time B (s)	9.4	14.3		18.4	18.9		NA	NA		NA	NA	
Reference Time (s)		14.3			18.9			13.6			101.3	
Adj Reference Time (s)		18.3			22.9			17.6			105.3	
Split Option												
Ref Time Combined (s)	0.0	6.3		0.0	10.9		0.0	12.7		0.0	33.9	
Ref Time Seperate (s)	1.4	3.2		10.4	0.5		0.1	8.7		5.8	29.9	
Reference Time (s)	6.3	6.3		10.9	10.9		12.7	12.7		33.9	33.9	
Adj Reference Time (s)	10.3	10.3		14.9	14.9		16.7	16.7		37.9	37.9	

Summary	EB WB	NB SB	Combined
Protected Option (s)	NA	NA	
Permitted Option (s)	22.9	105.3	
Split Option (s)	25.1	54.7	
Minimum (s)	22.9	54.7	77.5

Right Turns	WBR
Adj Reference Time (s)	9.9
Cross Thru Ref Time (s)	16.7
Oncoming Left Ref Time (s)	10.3
Combined (s)	36.8

Intersection Summary			
Intersection Capacity Utilization	64.6%	ICU Level of Service	C

Reference Times and Phasing Options do not represent an optimized timing plan.

Lane Group	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL
Lane Configurations												
Traffic Volume (vph)	6	114	1508	109	6	833	1843	260	93	28	111	305
Future Volume (vph)	6	114	1508	109	6	833	1843	260	93	28	111	305
Ideal Flow (vphpl)	1900	1900	2000	1900	1900	1900	2000	1900	1900	1900	1900	1900
Storage Length (ft)		230		280		350		335	0		0	0
Storage Lanes		2		1		2		1	1		0	1
Taper Length (ft)		300				300			25			0
Lane Util. Factor	0.91	0.97	0.91	1.00	0.91	0.97	0.91	1.00	1.00	1.00	1.00	1.00
Frt				0.850				0.850		0.880		
Flt Protected		0.950				0.950			0.950			0.950
Satd. Flow (prot)	0	3404	5353	1599	0	3467	5406	1615	1805	1672	0	1787
Flt Permitted		0.950				0.950			0.708			0.282
Satd. Flow (perm)	0	3404	5353	1599	0	3467	5406	1615	1345	1672	0	530
Right Turn on Red				Yes				Yes			Yes	
Satd. Flow (RTOR)				154				271		116		
Link Speed (mph)			45				45			25		
Link Distance (ft)			967				412			246		
Travel Time (s)			14.7				6.2			6.7		
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles (%)	0%	3%	2%	1%	0%	1%	1%	0%	0%	0%	0%	1%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	125	1571	114	0	874	1920	271	97	145	0	318
Turn Type	Prot	Prot	NA	Perm	Prot	Prot	NA	Perm	pm+pt	NA		pm+pt
Protected Phases	5!	5	2		1	1	6		3	8		7
Permitted Phases				2				6	8			4
Detector Phase	5	5	2	2	1	1	6	6	3	8		7
Switch Phase												
Minimum Initial (s)	3.0	3.0	15.0	15.0	3.0	3.0	15.0	15.0	3.0	8.0		3.0
Minimum Split (s)	7.5	7.5	21.0	21.0	7.5	7.5	21.0	21.0	6.5	14.0		6.5
Total Split (s)	13.0	13.0	49.0	49.0	44.0	44.0	80.0	80.0	14.0	19.0		23.0
Total Split (%)	9.6%	9.6%	36.3%	36.3%	32.6%	32.6%	59.3%	59.3%	10.4%	14.1%		17.0%
Yellow Time (s)	3.5	3.5	4.5	4.5	3.5	3.5	4.5	4.5	3.5	4.5		3.5
All-Red Time (s)	1.0	1.0	1.5	1.5	1.0	1.0	1.5	1.5	0.0	1.5		0.0
Lost Time Adjust (s)		0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0
Total Lost Time (s)		4.5	6.0	6.0		4.5	6.0	6.0	3.5	6.0		3.5
Lead/Lag	Lead	Lead	Lag	Lag	Lead	Lead	Lag	Lag	Lead	Lag		Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		Yes
Recall Mode	None	None	C-Min	C-Min	None	None	C-Min	C-Min	None	None		None
Act Effct Green (s)		9.2	47.8	47.8		38.2	76.7	76.7	24.8	9.5		32.2
Actuated g/C Ratio		0.07	0.35	0.35		0.28	0.57	0.57	0.18	0.07		0.24
v/c Ratio		0.54	0.83	0.17		0.89	0.62	0.26	0.33	0.64		1.03
Control Delay (s/veh)		69.7	45.1	2.3		58.5	20.9	2.3	42.4	29.7		106.2
Queue Delay		0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0
Total Delay (s/veh)		69.7	45.1	2.3		58.5	20.9	2.3	42.4	29.7		106.2
LOS		E	D	A		E	C	A	D	C		F
Approach Delay (s/veh)			44.1				30.0			34.8		
Approach LOS			D				C			C		
Queue Length 50th (ft)		56	468	0		375	395	0	68	25		~264
Queue Length 95th (ft)		92	#568	19		462	470	40	113	93		#399

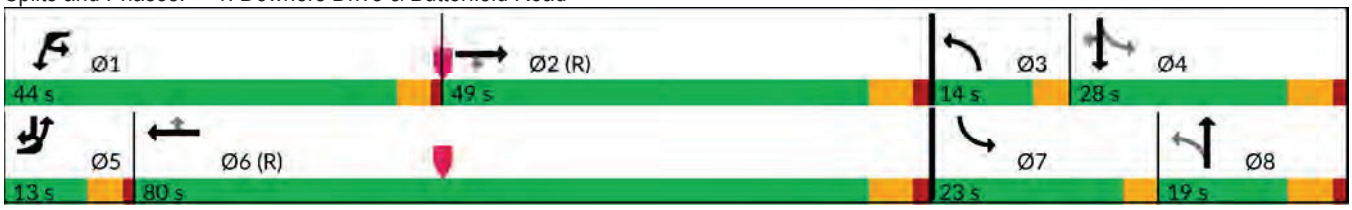


Lane Group	SBT	SBR
Lane Configurations		
Traffic Volume (vph)	73	186
Future Volume (vph)	73	186
Ideal Flow (vphpl)	1900	1900
Storage Length (ft)		150
Storage Lanes		1
Taper Length (ft)		
Lane Util. Factor	1.00	1.00
Frt		0.850
Flt Protected		
Satd. Flow (prot)	1845	1599
Flt Permitted		
Satd. Flow (perm)	1845	1599
Right Turn on Red		Yes
Satd. Flow (RTOR)		89
Link Speed (mph)	25	
Link Distance (ft)	235	
Travel Time (s)	6.4	
Peak Hour Factor	0.96	0.96
Heavy Vehicles (%)	3%	1%
Shared Lane Traffic (%)		
Lane Group Flow (vph)	76	194
Turn Type	NA	pm+ov
Protected Phases	4	5!
Permitted Phases		4
Detector Phase	4	5
Switch Phase		
Minimum Initial (s)	8.0	3.0
Minimum Split (s)	14.0	7.5
Total Split (s)	28.0	13.0
Total Split (%)	20.7%	9.6%
Yellow Time (s)	4.5	3.5
All-Red Time (s)	1.5	1.0
Lost Time Adjust (s)	0.0	0.0
Total Lost Time (s)	6.0	4.5
Lead/Lag	Lag	Lead
Lead-Lag Optimize?	Yes	Yes
Recall Mode	None	None
Act Effct Green (s)	16.9	29.4
Actuated g/C Ratio	0.13	0.22
v/c Ratio	0.33	0.47
Control Delay (s/veh)	56.2	26.0
Queue Delay	0.0	0.0
Total Delay (s/veh)	56.2	26.0
LOS	E	C
Approach Delay (s/veh)	73.3	
Approach LOS	E	
Queue Length 50th (ft)	63	76
Queue Length 95th (ft)	111	146

Lane Group	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL
Internal Link Dist (ft)			887				332			166		
Turn Bay Length (ft)		230		280		350		335				
Base Capacity (vph)		238	1895	665		1028	3073	1034	300	265		308
Starvation Cap Reductn		0	0	0		0	0	0	0	0		0
Spillback Cap Reductn		0	0	0		0	0	0	0	0		0
Storage Cap Reductn		0	0	0		0	0	0	0	0		0
Reduced v/c Ratio		0.53	0.83	0.17		0.85	0.62	0.26	0.32	0.55		1.03

Intersection Summary			
Area Type:	Other		
Cycle Length: 135			
Actuated Cycle Length: 135			
Offset: 63 (47%), Referenced to phase 2:EBT and 6:WBT, Start of Green			
Natural Cycle: 90			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 1.03			
Intersection Signal Delay (s/veh): 39.1		Intersection LOS: D	
Intersection Capacity Utilization 93.9%		ICU Level of Service F	
Analysis Period (min) 15			
~ Volume exceeds capacity, queue is theoretically infinite.			
Queue shown is maximum after two cycles.			
# 95th percentile volume exceeds capacity, queue may be longer.			
Queue shown is maximum after two cycles.			
! Phase conflict between lane groups.			

Splits and Phases: 1: Downers Drive & Butterfield Road





Lane Group	SBT	SBR
Internal Link Dist (ft)	155	
Turn Bay Length (ft)		150
Base Capacity (vph)	300	420
Starvation Cap Reductn	0	0
Spillback Cap Reductn	0	0
Storage Cap Reductn	0	0
Reduced v/c Ratio	0.25	0.46

Intersection Summary

Intersection	
Int Delay, s/veh	3.1

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	20	17	0	79	6	0
Future Vol, veh/h	20	17	0	79	6	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	59	59	59	59	59	59
Heavy Vehicles, %	0	0	0	1	0	0
Mvmt Flow	34	29	0	134	10	0

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	87	67	0	0	134	0
Stage 1	67	-	-	-	-	-
Stage 2	20	-	-	-	-	-
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	919	1002	-	-	1463	-
Stage 1	961	-	-	-	-	-
Stage 2	1008	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	912	1002	-	-	1463	-
Mov Cap-2 Maneuver	912	-	-	-	-	-
Stage 1	961	-	-	-	-	-
Stage 2	1001	-	-	-	-	-

Approach	WB	NB	SB
HCM Ctrl Dly, s/v	9.05	0	7.48
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	951	1463	-
HCM Lane V/C Ratio	-	-	0.066	0.007	-
HCM Ctrl Dly (s/v)	-	-	9.1	7.5	0
HCM Lane LOS	-	-	A	A	A
HCM 95th %tile Q(veh)	-	-	0.2	0	-

Intersection	
Int Delay, s/veh	1.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Lane Configurations													
Traffic Vol, veh/h	31	3	15	35	2	30	3	882	13	9	12	834	9
Future Vol, veh/h	31	3	15	35	2	30	3	882	13	9	12	834	9
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	-	None
Storage Length	0	-	-	370	-	-	205	-	-	-	160	-	-
Veh in Median Storage, #	-	1	-	-	1	-	-	0	-	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	-	0	-
Peak Hour Factor	89	89	89	89	89	89	89	89	89	89	89	89	89
Heavy Vehicles, %	0	0	0	0	0	0	0	0	8	0	8	1	0
Mvmt Flow	35	3	17	39	2	34	3	991	15	10	13	937	10

Major/Minor	Minor2			Minor1			Major1			Major2			
Conflicting Flow All	1493	2002	474	1522	1999	503	947	0	0	1006	1006	0	0
Stage 1	989	989	-	1005	1005	-	-	-	-	-	-	-	-
Stage 2	503	1012	-	517	994	-	-	-	-	-	-	-	-
Critical Hdwy	7.5	6.5	6.9	7.5	6.5	6.9	4.1	-	-	6.4	4.26	-	-
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	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.5	2.28	-	-
Pot Cap-1 Maneuver	87	60	543	83	61	519	733	-	-	335	649	-	-
Stage 1	268	327	-	263	322	-	-	-	-	-	-	-	-
Stage 2	524	319	-	514	325	-	-	-	-	-	-	-	-
Platoon blocked, %								-	-			-	-
Mov Cap-1 Maneuver	76	57	543	74	57	519	733	-	-	445	445	-	-
Mov Cap-2 Maneuver	180	164	-	183	169	-	-	-	-	-	-	-	-
Stage 1	254	310	-	261	320	-	-	-	-	-	-	-	-
Stage 2	484	318	-	467	308	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	24.17	22.11	0.03	0.33
HCM LOS	C	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	733	-	-	180	392	183	460	445	-	-
HCM Lane V/C Ratio	0.005	-	-	0.193	0.052	0.215	0.078	0.053	-	-
HCM Ctrl Dly (s/v)	9.9	-	-	29.7	14.7	30	13.5	13.5	-	-
HCM Lane LOS	A	-	-	D	B	D	B	B	-	-
HCM 95th %tile Q(veh)	0	-	-	0.7	0.2	0.8	0.3	0.2	-	-

Capacity Analysis Summary Sheets

Year 2032 No-Build Saturday Midday Peak Hour



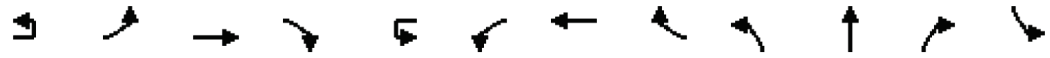
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	43	20	9	55	15	82	1	6	6	93	403	57
Pedestrians												
Ped Button												
Pedestrian Timing (s)												
Free Right			No			No			No			No
Ideal Flow	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Green (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Refr Cycle Length (s)	120	120	120	120	120	120	120	120	120	120	120	120
Volume Combined (vph)	0	72	0	0	70	82	0	13	0	0	553	0
Lane Utilization Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	1.00
Turning Factor (vph)	0.95	0.95	0.85	0.95	0.96	0.85	0.95	0.93	0.85	0.95	0.98	0.85
Saturated Flow (vph)	0	1809	0	0	1825	1615	0	1762	0	0	3532	0
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)		0.00			0.00			0.00			0.00	
Protected Option Allowed		No			No			No			No	
Reference Time (s)			0.0			6.1			0.0			0.0
Adj Reference Time (s)			0.0			10.1			0.0			0.0
Permitted Option												
Adj Saturation A (vph)	0	178		0	1359		0	830		0	254	
Reference Time A (s)	0.0	48.6		0.0	6.2		0.0	1.9		0.0	44.0	
Adj Saturation B (vph	0	0		0	0		NA	NA		0	1775	
Reference Time B (s)	10.9	12.8		11.7	12.6		NA	NA		14.2	22.8	
Reference Time (s)		12.8			6.2			1.9			22.8	
Adj Reference Time (s)		16.8			10.2			8.0			26.8	
Split Option												
Ref Time Combined (s)	0.0	4.8		0.0	4.6		0.0	0.9		0.0	18.8	
Ref Time Seperate (s)	2.9	1.3		3.7	0.9		0.1	0.4		6.2	13.6	
Reference Time (s)	4.8	4.8		4.6	4.6		0.9	0.9		18.8	18.8	
Adj Reference Time (s)	8.8	8.8		8.6	8.6		8.0	8.0		22.8	22.8	

Summary	EB WB	NB SB	Combined
Protected Option (s)	NA	NA	
Permitted Option (s)	16.8	26.8	
Split Option (s)	17.4	30.8	
Minimum (s)	16.8	26.8	43.5

Right Turns	WBR
Adj Reference Time (s)	10.1
Cross Thru Ref Time (s)	8.0
Oncoming Left Ref Time (s)	8.8
Combined (s)	26.9

Intersection Summary			
Intersection Capacity Utilization	36.3%	ICU Level of Service	A

Reference Times and Phasing Options do not represent an optimized timing plan.



Lane Group	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL
Lane Configurations												
Traffic Volume (vph)	1	150	1045	62	23	434	1164	374	56	28	48	346
Future Volume (vph)	1	150	1045	62	23	434	1164	374	56	28	48	346
Ideal Flow (vphpl)	1900	1900	2000	1900	1900	1900	2000	1900	1900	1900	1900	1900
Storage Length (ft)		230		280		350		335	0		0	0
Storage Lanes		2		1		2		1	1		0	1
Taper Length (ft)		300				300			25			0
Lane Util. Factor	0.91	0.97	0.91	1.00	0.91	0.97	0.91	1.00	1.00	1.00	1.00	1.00
Frt				0.850				0.850		0.905		
Flt Protected		0.950				0.950			0.950			0.950
Satd. Flow (prot)	0	3467	5460	1615	0	3469	5406	1615	1805	1688	0	1787
Flt Permitted		0.950				0.950			0.719			0.516
Satd. Flow (perm)	0	3467	5460	1615	0	3469	5406	1615	1366	1688	0	971
Right Turn on Red				Yes				Yes			Yes	
Satd. Flow (RTOR)				207				378		48		
Link Speed (mph)			45				45			25		
Link Distance (ft)			967				412			246		
Travel Time (s)			14.7				6.2			6.7		
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Heavy Vehicles (%)	0%	1%	0%	0%	0%	1%	1%	0%	0%	0%	3%	1%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	153	1056	63	0	461	1176	378	57	76	0	349
Turn Type	Prot	Prot	NA	Perm	Prot	Prot	NA	Perm	pm+pt	NA		pm+pt
Protected Phases	5!	5	2		1	1	6		3	8		7
Permitted Phases				2				6	8			4
Detector Phase	5	5	2	2	1	1	6	6	3	8		7
Switch Phase												
Minimum Initial (s)	3.0	3.0	15.0	15.0	3.0	3.0	15.0	15.0	3.0	8.0		3.0
Minimum Split (s)	7.5	7.5	21.0	21.0	7.5	7.5	21.0	21.0	6.5	14.0		6.5
Total Split (s)	13.0	13.0	38.0	38.0	21.0	21.0	46.0	46.0	15.0	20.0		21.0
Total Split (%)	13.0%	13.0%	38.0%	38.0%	21.0%	21.0%	46.0%	46.0%	15.0%	20.0%		21.0%
Yellow Time (s)	3.5	3.5	4.5	4.5	3.5	3.5	4.5	4.5	3.5	4.5		3.5
All-Red Time (s)	1.0	1.0	1.5	1.5	1.0	1.0	1.5	1.5	0.0	1.5		0.0
Lost Time Adjust (s)		0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0
Total Lost Time (s)		4.5	6.0	6.0		4.5	6.0	6.0	3.5	6.0		3.5
Lead/Lag	Lead	Lead	Lag	Lag	Lead	Lead	Lag	Lag	Lead	Lag		Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		Yes
Recall Mode	None	None	C-Min	C-Min	None	None	C-Min	C-Min	None	None		None
Act Effct Green (s)		8.8	37.6	37.6		16.8	45.6	45.6	19.0	11.3		31.6
Actuated g/C Ratio		0.09	0.38	0.38		0.17	0.46	0.46	0.19	0.11		0.32
v/c Ratio		0.50	0.51	0.09		0.79	0.48	0.40	0.19	0.33		0.78
Control Delay (s/veh)		49.5	26.7	0.2		50.9	21.0	3.5	23.8	22.3		40.9
Queue Delay		0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0
Total Delay (s/veh)		49.5	26.7	0.2		50.9	21.0	3.5	23.8	22.3		40.9
LOS		D	C	A		D	C	A	C	C		D
Approach Delay (s/veh)			28.2				24.6			22.9		
Approach LOS			C				C			C		
Queue Length 50th (ft)		48	204	0		144	201	0	24	16		181
Queue Length 95th (ft)		82	252	0		#221	252	55	50	58		260

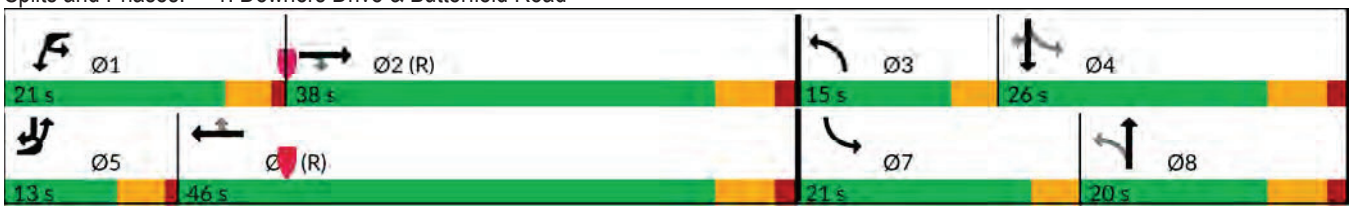


Lane Group	SBT	SBR
Lane Configurations		
Traffic Volume (vph)	57	185
Future Volume (vph)	57	185
Ideal Flow (vphpl)	1900	1900
Storage Length (ft)		150
Storage Lanes		1
Taper Length (ft)		
Lane Util. Factor	1.00	1.00
Frt		0.850
Flt Protected		
Satd. Flow (prot)	1863	1615
Flt Permitted		
Satd. Flow (perm)	1863	1615
Right Turn on Red		Yes
Satd. Flow (RTOR)		187
Link Speed (mph)	25	
Link Distance (ft)	235	
Travel Time (s)	6.4	
Peak Hour Factor	0.99	0.99
Heavy Vehicles (%)	2%	0%
Shared Lane Traffic (%)		
Lane Group Flow (vph)	58	187
Turn Type	NA	pm+ov
Protected Phases	4	5!
Permitted Phases		4
Detector Phase	4	5
Switch Phase		
Minimum Initial (s)	8.0	3.0
Minimum Split (s)	14.0	7.5
Total Split (s)	26.0	13.0
Total Split (%)	26.0%	13.0%
Yellow Time (s)	4.5	3.5
All-Red Time (s)	1.5	1.0
Lost Time Adjust (s)	0.0	0.0
Total Lost Time (s)	6.0	4.5
Lead/Lag	Lag	Lead
Lead-Lag Optimize?	Yes	Yes
Recall Mode	None	None
Act Effct Green (s)	19.8	34.6
Actuated g/C Ratio	0.20	0.35
v/c Ratio	0.16	0.28
Control Delay (s/veh)	33.3	4.4
Queue Delay	0.0	0.0
Total Delay (s/veh)	33.3	4.4
LOS	C	A
Approach Delay (s/veh)	28.7	
Approach LOS	C	
Queue Length 50th (ft)	31	0
Queue Length 95th (ft)	65	44

Lane Group	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL
Internal Link Dist (ft)			887				332			166		
Turn Bay Length (ft)		230		280		350		335				
Base Capacity (vph)		313	2051	735		599	2466	942	363	277		450
Starvation Cap Reductn		0	0	0		0	0	0	0	0		0
Spillback Cap Reductn		0	0	0		0	0	0	0	0		0
Storage Cap Reductn		0	0	0		0	0	0	0	0		0
Reduced v/c Ratio		0.49	0.51	0.09		0.77	0.48	0.40	0.16	0.27		0.78

Intersection Summary			
Area Type:	Other		
Cycle Length: 100			
Actuated Cycle Length: 100			
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Green			
Natural Cycle: 60			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.79			
Intersection Signal Delay (s/veh): 26.3		Intersection LOS: C	
Intersection Capacity Utilization 71.8%		ICU Level of Service C	
Analysis Period (min) 15			
# 95th percentile volume exceeds capacity, queue may be longer.			
Queue shown is maximum after two cycles.			
! Phase conflict between lane groups.			

Splits and Phases: 1: Downers Drive & Butterfield Road





Lane Group	SBT	SBR
Internal Link Dist (ft)	155	
Turn Bay Length (ft)		150
Base Capacity (vph)	389	684
Starvation Cap Reductn	0	0
Spillback Cap Reductn	0	0
Storage Cap Reductn	0	0
Reduced v/c Ratio	0.15	0.27

Intersection Summary

Intersection	
Int Delay, s/veh	6

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	52	28	3	46	26	0
Future Vol, veh/h	52	28	3	46	26	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	91	91	91	91	91	91
Heavy Vehicles, %	0	4	0	0	4	0
Mvmt Flow	57	31	3	51	29	0

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	86	29	0	0	54	0
Stage 1	29	-	-	-	-	-
Stage 2	57	-	-	-	-	-
Critical Hdwy	6.4	6.24	-	-	4.14	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.336	-	-	2.236	-
Pot Cap-1 Maneuver	921	1041	-	-	1539	-
Stage 1	999	-	-	-	-	-
Stage 2	971	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	903	1041	-	-	1539	-
Mov Cap-2 Maneuver	903	-	-	-	-	-
Stage 1	999	-	-	-	-	-
Stage 2	953	-	-	-	-	-

Approach	WB	NB	SB
HCM Ctrl Dly, s/v	9.19	0	7.38
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	947	1539	-
HCM Lane V/C Ratio	-	-	0.093	0.019	-
HCM Ctrl Dly (s/v)	-	-	9.2	7.4	0
HCM Lane LOS	-	-	A	A	A
HCM 95th %tile Q(veh)	-	-	0.3	0.1	-

Intersection	
Int Delay, s/veh	1.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Lane Configurations													
Traffic Vol, veh/h	3	0	0	24	0	91	3	690	16	23	65	577	3
Future Vol, veh/h	3	0	0	24	0	91	3	690	16	23	65	577	3
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	-	None
Storage Length	0	-	-	370	-	-	205	-	-	-	160	-	-
Veh in Median Storage, #	-	1	-	-	1	-	-	0	-	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	-	0	-
Peak Hour Factor	96	96	96	96	96	96	96	96	96	92	96	96	96
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	1	0
Mvmt Flow	3	0	0	25	0	95	3	719	17	25	68	601	3

Major/Minor	Minor2			Minor1			Major1			Major2			
Conflicting Flow All	1154	1530	302	1219	1523	368	604	0	0	735	735	0	0
Stage 1	788	788	-	733	733	-	-	-	-	-	-	-	-
Stage 2	366	742	-	486	790	-	-	-	-	-	-	-	-
Critical Hdwy	7.5	6.5	6.9	7.5	6.5	6.9	4.1	-	-	6.4	4.1	-	-
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	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.5	2.2	-	-
Pot Cap-1 Maneuver	155	118	700	138	119	635	983	-	-	497	879	-	-
Stage 1	355	405	-	383	429	-	-	-	-	-	-	-	-
Stage 2	632	425	-	537	405	-	-	-	-	-	-	-	-
Platoon blocked, %								-	-			-	-
Mov Cap-1 Maneuver	113	102	700	119	103	635	983	-	-	681	681	-	-
Mov Cap-2 Maneuver	215	202	-	244	221	-	-	-	-	-	-	-	-
Stage 1	307	350	-	381	428	-	-	-	-	-	-	-	-
Stage 2	536	424	-	464	350	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	22.02	13.7	0.04	1.48
HCM LOS	C	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	983	-	-	215	-	244	635	681	-	-
HCM Lane V/C Ratio	0.003	-	-	0.015	-	0.102	0.149	0.136	-	-
HCM Ctrl Dly (s/v)	8.7	-	-	22	0	21.4	11.7	11.1	-	-
HCM Lane LOS	A	-	-	C	A	C	B	B	-	-
HCM 95th %tile Q(veh)	0	-	-	0	-	0.3	0.5	0.5	-	-

Capacity Analysis Summary Sheets

Year 2032 Total Projected Weekday Morning Peak Hour



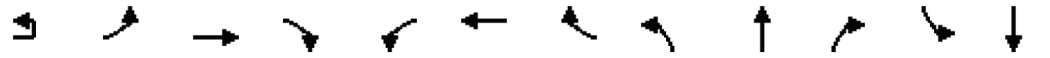
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	24	15	13	128	50	38	1	17	5	53	534	60
Pedestrians												
Ped Button												
Pedestrian Timing (s)												
Free Right			No			No			No			No
Ideal Flow	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Green (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Refr Cycle Length (s)	120	120	120	120	120	120	120	120	120	120	120	120
Volume Combined (vph)	0	52	0	0	178	38	0	23	0	0	647	0
Lane Utilization Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	1.00
Turning Factor (vph)	0.95	0.94	0.85	0.95	0.96	0.85	0.95	0.97	0.85	0.95	0.98	0.85
Saturated Flow (vph)	0	1787	0	0	1832	1615	0	1834	0	0	3553	0
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)		0.00			0.00			0.00			0.00	
Protected Option Allowed		No			No			No			No	
Reference Time (s)			0.0			2.8			0.0			0.0
Adj Reference Time (s)			0.0			8.0			0.0			0.0
Permitted Option												
Adj Saturation A (vph)	0	219		0	1177		0	1129		0	658	
Reference Time A (s)	0.0	28.5		0.0	18.1		0.0	2.4		0.0	39.7	
Adj Saturation B (vph	0	0		0	0		NA	NA		0	1781	
Reference Time B (s)	9.6	11.5		16.5	19.7		NA	NA		11.5	25.8	
Reference Time (s)		11.5			18.1			2.4			25.8	
Adj Reference Time (s)		15.5			22.1			8.0			29.8	
Split Option												
Ref Time Combined (s)	0.0	3.5		0.0	11.7		0.0	1.5		0.0	21.9	
Ref Time Seperate (s)	1.6	1.0		8.5	3.2		0.1	1.1		3.5	18.0	
Reference Time (s)	3.5	3.5		11.7	11.7		1.5	1.5		21.9	21.9	
Adj Reference Time (s)	8.0	8.0		15.7	15.7		8.0	8.0		25.9	25.9	

Summary	EB WB	NB SB	Combined
Protected Option (s)	NA	NA	
Permitted Option (s)	22.1	29.8	
Split Option (s)	23.7	33.9	
Minimum (s)	22.1	29.8	52.0

Right Turns	WBR
Adj Reference Time (s)	8.0
Cross Thru Ref Time (s)	8.0
Oncoming Left Ref Time (s)	8.0
Combined (s)	24.0

Intersection Summary			
Intersection Capacity Utilization	43.3%	ICU Level of Service	A

Reference Times and Phasing Options do not represent an optimized timing plan.



Lane Group	EBU	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations												
Traffic Volume (vph)	1	97	1639	202	437	1181	224	26	14	38	62	7
Future Volume (vph)	1	97	1639	202	437	1181	224	26	14	38	62	7
Ideal Flow (vphpl)	1900	1900	2000	1900	1900	2000	1900	1900	1900	1900	1900	1900
Storage Length (ft)		230		280	350		335	0		0	0	
Storage Lanes		2		1	2		1	1		0	1	
Taper Length (ft)		300			300			25			0	
Lane Util. Factor	0.91	0.97	0.91	1.00	0.97	0.91	1.00	1.00	1.00	1.00	1.00	1.00
Frt				0.850			0.850		0.891			
Flt Protected		0.950			0.950			0.950			0.950	
Satd. Flow (prot)	0	3401	5353	1599	3467	5301	1583	1805	1622	0	1736	1845
Flt Permitted		0.950			0.950			0.484			0.721	
Satd. Flow (perm)	0	3401	5353	1599	3467	5301	1583	920	1622	0	1317	1845
Right Turn on Red				Yes			Yes			Yes		
Satd. Flow (RTOR)				213			236		40			
Link Speed (mph)			45			45			25			25
Link Distance (ft)			967			657			246			235
Travel Time (s)			14.7			10.0			6.7			6.4
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	0%	3%	2%	1%	1%	3%	2%	0%	8%	3%	4%	3%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	103	1725	213	460	1243	236	27	55	0	65	7
Turn Type	Prot	Prot	NA	Perm	Prot	NA	Perm	pm+pt	NA		pm+pt	NA
Protected Phases	5!	5	2		1	6		3	8		7	4
Permitted Phases				2			6	8			4	
Detector Phase	5	5	2	2	1	6	6	3	8		7	4
Switch Phase												
Minimum Initial (s)	3.0	3.0	15.0	15.0	3.0	15.0	15.0	3.0	8.0		3.0	8.0
Minimum Split (s)	7.5	7.5	21.0	21.0	7.5	21.0	21.0	6.5	14.0		6.5	14.0
Total Split (s)	13.0	13.0	68.0	68.0	24.0	79.0	79.0	12.0	21.0		12.0	21.0
Total Split (%)	10.4%	10.4%	54.4%	54.4%	19.2%	63.2%	63.2%	9.6%	16.8%		9.6%	16.8%
Yellow Time (s)	3.5	3.5	4.5	4.5	3.5	4.5	4.5	3.5	4.5		3.5	4.5
All-Red Time (s)	1.0	1.0	1.5	1.5	1.0	1.5	1.5	0.0	1.5		0.0	1.5
Lost Time Adjust (s)		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0
Total Lost Time (s)		4.5	6.0	6.0	4.5	6.0	6.0	3.5	6.0		3.5	6.0
Lead/Lag	Lead	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag		Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		Yes	Yes
Recall Mode	None	None	C-Min	C-Min	None	C-Min	C-Min	None	None		None	None
Act Effct Green (s)		9.1	71.5	71.5	21.3	83.6	83.6	18.2	8.9		13.6	11.1
Actuated g/C Ratio		0.07	0.57	0.57	0.17	0.67	0.67	0.15	0.07		0.11	0.09
v/c Ratio		0.42	0.56	0.21	0.78	0.35	0.21	0.12	0.36		0.38	0.04
Control Delay (s/veh)		60.0	19.8	2.7	59.2	10.7	1.8	42.7	29.6		56.0	54.0
Queue Delay		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0
Total Delay (s/veh)		60.0	19.8	2.7	59.2	10.7	1.8	42.7	29.6		56.0	54.0
LOS		E	B	A	E	B	A	D	C		E	D
Approach Delay (s/veh)			20.1			21.2			33.9			30.6
Approach LOS			C			C			C			C
Queue Length 50th (ft)		42	347	0	185	167	0	18	12		54	6
Queue Length 95th (ft)		72	428	40	243	226	34	44	56		88	21

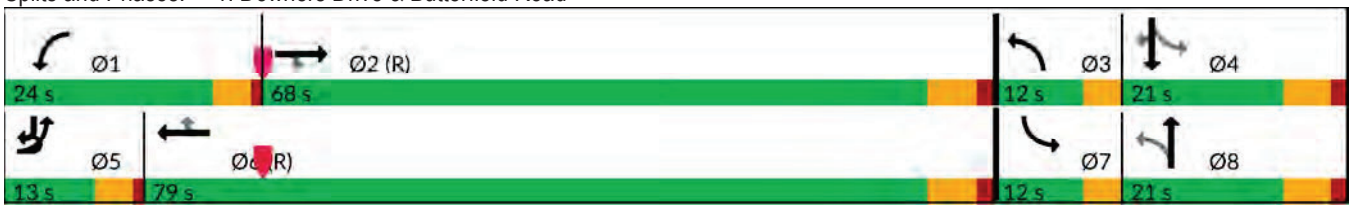


Lane Group	SBR
Lane Configurations	
Traffic Volume (vph)	73
Future Volume (vph)	73
Ideal Flow (vphpl)	1900
Storage Length (ft)	150
Storage Lanes	1
Taper Length (ft)	
Lane Util. Factor	1.00
Frt	0.850
Flt Protected	
Satd. Flow (prot)	1482
Flt Permitted	
Satd. Flow (perm)	1482
Right Turn on Red	Yes
Satd. Flow (RTOR)	96
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	0.95
Heavy Vehicles (%)	9%
Shared Lane Traffic (%)	
Lane Group Flow (vph)	77
Turn Type	pm+ov
Protected Phases	5!
Permitted Phases	4
Detector Phase	5
Switch Phase	
Minimum Initial (s)	3.0
Minimum Split (s)	7.5
Total Split (s)	13.0
Total Split (%)	10.4%
Yellow Time (s)	3.5
All-Red Time (s)	1.0
Lost Time Adjust (s)	0.0
Total Lost Time (s)	4.5
Lead/Lag	Lead
Lead-Lag Optimize?	Yes
Recall Mode	None
Act Effct Green (s)	17.8
Actuated g/C Ratio	0.14
v/c Ratio	0.26
Control Delay (s/veh)	7.0
Queue Delay	0.0
Total Delay (s/veh)	7.0
LOS	A
Approach Delay (s/veh)	
Approach LOS	
Queue Length 50th (ft)	0
Queue Length 95th (ft)	30

Lane Group	EBU	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Internal Link Dist (ft)			887			577			166			155
Turn Bay Length (ft)		230		280	350		335					
Base Capacity (vph)		261	3060	1005	604	3546	1137	243	229		177	235
Starvation Cap Reductn		0	0	0	0	0	0	0	0		0	0
Spillback Cap Reductn		0	0	0	0	0	0	0	0		0	0
Storage Cap Reductn		0	0	0	0	0	0	0	0		0	0
Reduced v/c Ratio		0.39	0.56	0.21	0.76	0.35	0.21	0.11	0.24		0.37	0.03

Intersection Summary			
Area Type:	Other		
Cycle Length: 125			
Actuated Cycle Length: 125			
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Green			
Natural Cycle: 65			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.78			
Intersection Signal Delay (s/veh): 21.2		Intersection LOS: C	
Intersection Capacity Utilization 66.4%		ICU Level of Service C	
Analysis Period (min) 15			
! Phase conflict between lane groups.			

Splits and Phases: 1: Downers Drive & Butterfield Road





Lane Group	SBR
Internal Link Dist (ft)	
Turn Bay Length (ft)	150
Base Capacity (vph)	298
Starvation Cap Reductn	0
Spillback Cap Reductn	0
Storage Cap Reductn	0
Reduced v/c Ratio	0.26

Intersection Summary

Intersection	
Int Delay, s/veh	6.8

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	83	6	0	30	3	0
Future Vol, veh/h	83	6	0	30	3	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	84	84	84	84	84	84
Heavy Vehicles, %	4	0	0	3	0	0
Mvmt Flow	99	7	0	36	4	0

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	25	18	0	0	36	0
Stage 1	18	-	-	-	-	-
Stage 2	7	-	-	-	-	-
Critical Hdwy	6.44	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.44	-	-	-	-	-
Critical Hdwy Stg 2	5.44	-	-	-	-	-
Follow-up Hdwy	3.536	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	986	1067	-	-	1588	-
Stage 1	1000	-	-	-	-	-
Stage 2	1011	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	983	1067	-	-	1588	-
Mov Cap-2 Maneuver	983	-	-	-	-	-
Stage 1	1000	-	-	-	-	-
Stage 2	1008	-	-	-	-	-

Approach	WB	NB	SB
HCM Ctrl Dly, s/v	9.08	0	7.27
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	989	1588	-
HCM Lane V/C Ratio	-	-	0.107	0.002	-
HCM Ctrl Dly (s/v)	-	-	9.1	7.3	0
HCM Lane LOS	-	-	A	A	A
HCM 95th %tile Q(veh)	-	-	0.4	0	-

Intersection	
Int Delay, s/veh	1.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Lane Configurations													
Traffic Vol, veh/h	9	1	3	25	1	26	13	812	50	7	59	1110	41
Future Vol, veh/h	9	1	3	25	1	26	13	812	50	7	59	1110	41
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	-	None
Storage Length	0	-	-	370	-	-	205	-	-	-	160	-	-
Veh in Median Storage, #	-	1	-	-	1	-	-	0	-	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	10	0	12	0	1	2	0	2	2	3
Mvmt Flow	10	1	3	27	1	28	14	883	54	8	64	1207	45

Major/Minor	Minor2			Minor1			Major1			Major2			
Conflicting Flow All	1842	2338	626	1685	2333	468	1251	0	0	937	937	0	0
Stage 1	1372	1372	-	938	938	-	-	-	-	-	-	-	-
Stage 2	470	965	-	747	1395	-	-	-	-	-	-	-	-
Critical Hdwy	7.5	6.5	6.9	7.7	6.5	7.14	4.1	-	-	6.4	4.14	-	-
Critical Hdwy Stg 1	6.5	5.5	-	6.7	5.5	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.5	5.5	-	6.7	5.5	-	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.6	4	3.42	2.2	-	-	2.5	2.22	-	-
Pot Cap-1 Maneuver	48	37	432	56	37	515	563	-	-	370	727	-	-
Stage 1	156	216	-	269	346	-	-	-	-	-	-	-	-
Stage 2	548	336	-	353	210	-	-	-	-	-	-	-	-
Platoon blocked, %								-	-			-	-
Mov Cap-1 Maneuver	39	32	432	48	32	515	563	-	-	652	652	-	-
Mov Cap-2 Maneuver	108	114	-	149	117	-	-	-	-	-	-	-	-
Stage 1	139	192	-	262	337	-	-	-	-	-	-	-	-
Stage 2	504	327	-	310	187	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	34.68	23.56	0.17	0.61
HCM LOS	D	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	563	-	-	108	255	149	458	652	-	-
HCM Lane V/C Ratio	0.025	-	-	0.09	0.017	0.183	0.064	0.11	-	-
HCM Ctrl Dly (s/v)	11.6	-	-	41.5	19.4	34.5	13.4	11.2	-	-
HCM Lane LOS	B	-	-	E	C	D	B	B	-	-
HCM 95th %tile Q(veh)	0.1	-	-	0.3	0.1	0.6	0.2	0.4	-	-

Intersection	
Int Delay, s/veh	2.1

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	33	0	23	89	0	20
Future Vol, veh/h	33	0	23	89	0	20
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	35	0	24	94	0	21

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	35	0	177	35
Stage 1	-	-	-	-	35	-
Stage 2	-	-	-	-	142	-
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	-	-	1590	-	818	1044
Stage 1	-	-	-	-	993	-
Stage 2	-	-	-	-	890	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1590	-	804	1044
Mov Cap-2 Maneuver	-	-	-	-	804	-
Stage 1	-	-	-	-	993	-
Stage 2	-	-	-	-	876	-

Approach	EB	WB	NB
HCM Ctrl Dly, s/v	0	1.5	8.52
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	1044	-	-	370	-
HCM Lane V/C Ratio	0.02	-	-	0.015	-
HCM Ctrl Dly (s/v)	8.5	-	-	7.3	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0.1	-	-	0	-

Intersection	
Int Delay, s/veh	0.4

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	6	0	30	6	0	83
Future Vol, veh/h	6	0	30	6	0	83
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	6	0	32	6	0	87

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	122	35	0	0	38	0
Stage 1	35	-	-	-	-	-
Stage 2	87	-	-	-	-	-
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	878	1044	-	-	1585	-
Stage 1	993	-	-	-	-	-
Stage 2	941	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	878	1044	-	-	1585	-
Mov Cap-2 Maneuver	878	-	-	-	-	-
Stage 1	993	-	-	-	-	-
Stage 2	941	-	-	-	-	-

Approach	WB	NB	SB
HCM Ctrl Dly, s/v	9.13	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	878	1585	-
HCM Lane V/C Ratio	-	-	0.007	-	-
HCM Ctrl Dly (s/v)	-	-	9.1	0	-
HCM Lane LOS	-	-	A	A	-
HCM 95th %tile Q(veh)	-	-	0	0	-

Capacity Analysis Summary Sheets

Year 2032 Total Projected Weekday Evening Peak Hour



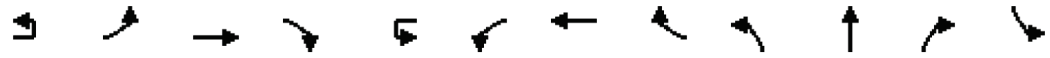
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	53	50	27	156	11	79	3	132	59	87	896	61
Pedestrians												
Ped Button												
Pedestrian Timing (s)												
Free Right			No			No			No			No
Ideal Flow	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Green (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Refr Cycle Length (s)	120	120	120	120	120	120	120	120	120	120	120	120
Volume Combined (vph)	0	130	0	0	167	79	0	194	0	0	1044	0
Lane Utilization Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	1.00
Turning Factor (vph)	0.95	0.95	0.85	0.95	0.95	0.85	0.95	0.95	0.85	0.95	0.99	0.85
Saturated Flow (vph)	0	1803	0	0	1811	1615	0	1812	0	0	3571	0
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)		0.00			0.00			0.00			0.00	
Protected Option Allowed		No			No			No			No	
Reference Time (s)			0.0			5.9			0.0			0.0
Adj Reference Time (s)			0.0			9.9			0.0			0.0
Permitted Option												
Adj Saturation A (vph)	0	246		0	899		0	1487		0	479	
Reference Time A (s)	0.0	63.5		0.0	22.3		0.0	15.7		0.0	87.3	
Adj Saturation B (vph	0	0		0	0		NA	NA		NA	NA	
Reference Time B (s)	11.5	16.7		18.4	19.1		NA	NA		NA	NA	
Reference Time (s)		16.7			19.1			15.7			87.3	
Adj Reference Time (s)		20.7			23.1			19.7			91.3	
Split Option												
Ref Time Combined (s)	0.0	8.7		0.0	11.1		0.0	12.8		0.0	35.1	
Ref Time Seperate (s)	3.5	3.3		10.4	0.7		0.2	8.7		5.8	30.0	
Reference Time (s)	8.7	8.7		11.1	11.1		12.8	12.8		35.1	35.1	
Adj Reference Time (s)	12.7	12.7		15.1	15.1		16.8	16.8		39.1	39.1	

Summary	EB WB	NB SB	Combined
Protected Option (s)	NA	NA	
Permitted Option (s)	23.1	91.3	
Split Option (s)	27.7	55.9	
Minimum (s)	23.1	55.9	79.0

Right Turns	WBR
Adj Reference Time (s)	9.9
Cross Thru Ref Time (s)	16.8
Oncoming Left Ref Time (s)	12.7
Combined (s)	39.4

Intersection Summary			
Intersection Capacity Utilization	65.8%	ICU Level of Service	C

Reference Times and Phasing Options do not represent an optimized timing plan.



Lane Group	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL
Lane Configurations												
Traffic Volume (vph)	6	114	1508	124	6	846	1843	260	109	30	125	305
Future Volume (vph)	6	114	1508	124	6	846	1843	260	109	30	125	305
Ideal Flow (vphpl)	1900	1900	2000	1900	1900	1900	2000	1900	1900	1900	1900	1900
Storage Length (ft)		230		280		350		335	0		0	0
Storage Lanes		2		1		2		1	1		0	1
Taper Length (ft)		300				300			25			0
Lane Util. Factor	0.91	0.97	0.91	1.00	0.91	0.97	0.91	1.00	1.00	1.00	1.00	1.00
Frt				0.850				0.850		0.879		
Flt Protected		0.950				0.950			0.950			0.950
Satd. Flow (prot)	0	3404	5353	1599	0	3467	5406	1615	1805	1670	0	1787
Flt Permitted		0.950				0.950			0.706			0.301
Satd. Flow (perm)	0	3404	5353	1599	0	3467	5406	1615	1341	1670	0	566
Right Turn on Red				Yes				Yes			Yes	
Satd. Flow (RTOR)				154				271		124		
Link Speed (mph)			45				45			25		
Link Distance (ft)			967				412			246		
Travel Time (s)			14.7				6.2			6.7		
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles (%)	0%	3%	2%	1%	0%	1%	1%	0%	0%	0%	0%	1%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	125	1571	129	0	887	1920	271	114	161	0	318
Turn Type	Prot	Prot	NA	Perm	Prot	Prot	NA	Perm	pm+pt	NA		pm+pt
Protected Phases	5!	5	2		1	1	6		3	8		7
Permitted Phases				2				6	8			4
Detector Phase	5	5	2	2	1	1	6	6	3	8		7
Switch Phase												
Minimum Initial (s)	3.0	3.0	15.0	15.0	3.0	3.0	15.0	15.0	3.0	8.0		3.0
Minimum Split (s)	7.5	7.5	21.0	21.0	7.5	7.5	21.0	21.0	6.5	14.0		6.5
Total Split (s)	13.0	13.0	49.0	49.0	44.0	44.0	80.0	80.0	14.0	19.0		23.0
Total Split (%)	9.6%	9.6%	36.3%	36.3%	32.6%	32.6%	59.3%	59.3%	10.4%	14.1%		17.0%
Yellow Time (s)	3.5	3.5	4.5	4.5	3.5	3.5	4.5	4.5	3.5	4.5		3.5
All-Red Time (s)	1.0	1.0	1.5	1.5	1.0	1.0	1.5	1.5	0.0	1.5		0.0
Lost Time Adjust (s)		0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0
Total Lost Time (s)		4.5	6.0	6.0		4.5	6.0	6.0	3.5	6.0		3.5
Lead/Lag	Lead	Lead	Lag	Lag	Lead	Lead	Lag	Lag	Lead	Lag		Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		Yes
Recall Mode	None	None	C-Min	C-Min	None	None	C-Min	C-Min	None	None		None
Act Effct Green (s)		9.1	47.4	47.4		38.3	76.6	76.6	22.3	9.8		35.3
Actuated g/C Ratio		0.07	0.35	0.35		0.28	0.57	0.57	0.17	0.07		0.26
v/c Ratio		0.55	0.84	0.20		0.90	0.63	0.26	0.45	0.68		0.98
Control Delay (s/veh)		70.4	45.7	3.5		59.4	21.0	2.3	45.5	32.1		91.4
Queue Delay		0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0
Total Delay (s/veh)		70.4	45.7	3.5		59.4	21.0	2.3	45.5	32.1		91.4
LOS		E	D	A		E	C	A	D	C		F
Approach Delay (s/veh)			44.4				30.4			37.7		
Approach LOS			D				C			D		
Queue Length 50th (ft)		56	474	0		380	400	0	80	32		257
Queue Length 95th (ft)		92	#568	30		#478	470	40	130	105		#389

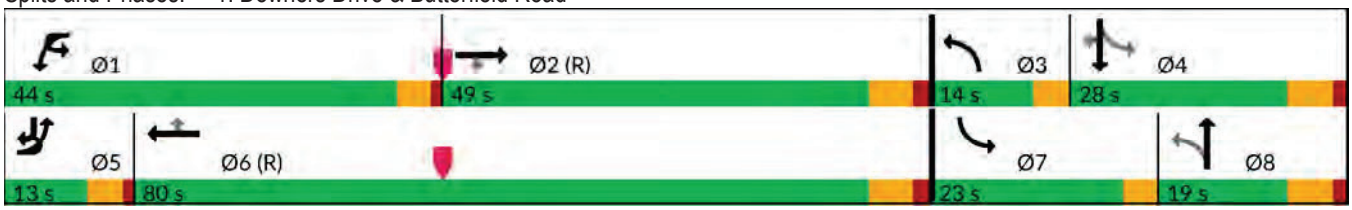


Lane Group	SBT	SBR
Lane Configurations		
Traffic Volume (vph)	75	186
Future Volume (vph)	75	186
Ideal Flow (vphpl)	1900	1900
Storage Length (ft)		150
Storage Lanes		1
Taper Length (ft)		
Lane Util. Factor	1.00	1.00
Frt		0.850
Flt Protected		
Satd. Flow (prot)	1845	1599
Flt Permitted		
Satd. Flow (perm)	1845	1599
Right Turn on Red		Yes
Satd. Flow (RTOR)		89
Link Speed (mph)	25	
Link Distance (ft)	235	
Travel Time (s)	6.4	
Peak Hour Factor	0.96	0.96
Heavy Vehicles (%)	3%	1%
Shared Lane Traffic (%)		
Lane Group Flow (vph)	78	194
Turn Type	NA	pm+ov
Protected Phases	4	5!
Permitted Phases		4
Detector Phase	4	5
Switch Phase		
Minimum Initial (s)	8.0	3.0
Minimum Split (s)	14.0	7.5
Total Split (s)	28.0	13.0
Total Split (%)	20.7%	9.6%
Yellow Time (s)	4.5	3.5
All-Red Time (s)	1.5	1.0
Lost Time Adjust (s)	0.0	0.0
Total Lost Time (s)	6.0	4.5
Lead/Lag	Lag	Lead
Lead-Lag Optimize?	Yes	Yes
Recall Mode	None	None
Act Effct Green (s)	19.3	34.4
Actuated g/C Ratio	0.14	0.25
v/c Ratio	0.30	0.41
Control Delay (s/veh)	54.6	24.6
Queue Delay	0.0	0.0
Total Delay (s/veh)	54.6	24.6
LOS	D	C
Approach Delay (s/veh)	64.6	
Approach LOS	E	
Queue Length 50th (ft)	65	75
Queue Length 95th (ft)	113	146

Lane Group	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL
Internal Link Dist (ft)			887				332			166		
Turn Bay Length (ft)		230		280		350		335				
Base Capacity (vph)		234	1877	660		1027	3068	1033	262	272		324
Starvation Cap Reductn		0	0	0		0	0	0	0	0		0
Spillback Cap Reductn		0	0	0		0	0	0	0	0		0
Storage Cap Reductn		0	0	0		0	0	0	0	0		0
Reduced v/c Ratio		0.53	0.84	0.20		0.86	0.63	0.26	0.44	0.59		0.98

Intersection Summary			
Area Type:	Other		
Cycle Length: 135			
Actuated Cycle Length: 135			
Offset: 63 (47%), Referenced to phase 2:EBT and 6:WBT, Start of Green			
Natural Cycle: 90			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.98			
Intersection Signal Delay (s/veh): 38.7		Intersection LOS: D	
Intersection Capacity Utilization 95.2%		ICU Level of Service F	
Analysis Period (min) 15			
# 95th percentile volume exceeds capacity, queue may be longer.			
Queue shown is maximum after two cycles.			
! Phase conflict between lane groups.			

Splits and Phases: 1: Downers Drive & Butterfield Road





Lane Group	SBT	SBR
Internal Link Dist (ft)	155	
Turn Bay Length (ft)		150
Base Capacity (vph)	300	476
Starvation Cap Reductn	0	0
Spillback Cap Reductn	0	0
Storage Cap Reductn	0	0
Reduced v/c Ratio	0.26	0.41

Intersection Summary

Intersection	
Int Delay, s/veh	3.1

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	20	17	0	79	6	0
Future Vol, veh/h	20	17	0	79	6	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	59	59	59	59	59	59
Heavy Vehicles, %	0	0	0	1	0	0
Mvmt Flow	34	29	0	134	10	0

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	87	67	0	0	134	0
Stage 1	67	-	-	-	-	-
Stage 2	20	-	-	-	-	-
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	919	1002	-	-	1463	-
Stage 1	961	-	-	-	-	-
Stage 2	1008	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	912	1002	-	-	1463	-
Mov Cap-2 Maneuver	912	-	-	-	-	-
Stage 1	961	-	-	-	-	-
Stage 2	1001	-	-	-	-	-

Approach	WB	NB	SB
HCM Ctrl Dly, s/v	9.05	0	7.48
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	951	1463	-
HCM Lane V/C Ratio	-	-	0.066	0.007	-
HCM Ctrl Dly (s/v)	-	-	9.1	7.5	0
HCM Lane LOS	-	-	A	A	A
HCM 95th %tile Q(veh)	-	-	0.2	0	-

Intersection	
Int Delay, s/veh	1.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Lane Configurations													
Traffic Vol, veh/h	31	3	15	42	2	32	3	882	19	9	15	834	9
Future Vol, veh/h	31	3	15	42	2	32	3	882	19	9	15	834	9
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	-	None
Storage Length	0	-	-	370	-	-	205	-	-	-	160	-	-
Veh in Median Storage, #	-	1	-	-	1	-	-	0	-	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	-	0	-
Peak Hour Factor	89	89	89	89	89	89	89	89	89	89	89	89	89
Heavy Vehicles, %	0	0	0	0	0	0	0	0	8	0	8	1	0
Mvmt Flow	35	3	17	47	2	36	3	991	21	10	17	937	10

Major/Minor	Minor2			Minor1			Major1			Major2			
Conflicting Flow All	1499	2015	474	1533	2010	506	947	0	0	1012	1012	0	0
Stage 1	996	996	-	1008	1008	-	-	-	-	-	-	-	-
Stage 2	503	1019	-	524	1001	-	-	-	-	-	-	-	-
Critical Hdwy	7.5	6.5	6.9	7.5	6.5	6.9	4.1	-	-	6.4	4.26	-	-
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	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.5	2.28	-	-
Pot Cap-1 Maneuver	86	59	543	81	60	517	733	-	-	332	646	-	-
Stage 1	266	325	-	261	321	-	-	-	-	-	-	-	-
Stage 2	524	317	-	510	323	-	-	-	-	-	-	-	-
Platoon blocked, %								-	-			-	-
Mov Cap-1 Maneuver	74	56	543	72	56	517	733	-	-	458	458	-	-
Mov Cap-2 Maneuver	178	161	-	181	167	-	-	-	-	-	-	-	-
Stage 1	250	306	-	260	319	-	-	-	-	-	-	-	-
Stage 2	482	315	-	460	304	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	24.51	23.6	0.03	0.37
HCM LOS	C	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	733	-	-	178	389	181	460	458	-	-
HCM Lane V/C Ratio	0.005	-	-	0.196	0.052	0.261	0.083	0.059	-	-
HCM Ctrl Dly (s/v)	9.9	-	-	30.2	14.8	31.7	13.5	13.4	-	-
HCM Lane LOS	A	-	-	D	B	D	B	B	-	-
HCM 95th %tile Q(veh)	0	-	-	0.7	0.2	1	0.3	0.2	-	-

Intersection	
Int Delay, s/veh	3

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	85	0	35	37	0	36
Future Vol, veh/h	85	0	35	37	0	36
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	89	0	37	39	0	38

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	89	0	202	89
Stage 1	-	-	-	-	89	-
Stage 2	-	-	-	-	113	-
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	-	-	1519	-	791	974
Stage 1	-	-	-	-	939	-
Stage 2	-	-	-	-	917	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1519	-	771	974
Mov Cap-2 Maneuver	-	-	-	-	771	-
Stage 1	-	-	-	-	939	-
Stage 2	-	-	-	-	894	-

Approach	EB	WB	NB
HCM Ctrl Dly, s/v	0	3.61	8.85
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	974	-	-	875	-
HCM Lane V/C Ratio	0.039	-	-	0.024	-
HCM Ctrl Dly (s/v)	8.8	-	-	7.4	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0.1	-	-	0.1	-

Intersection	
Int Delay, s/veh	0.7

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	9	0	79	9	0	20
Future Vol, veh/h	9	0	79	9	0	20
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	9	0	83	9	0	21

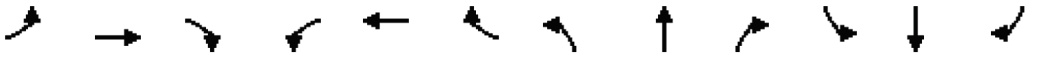
Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	109	88	0	0	93	0
Stage 1	88	-	-	-	-	-
Stage 2	21	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	893	976	-	-	1515	-
Stage 1	941	-	-	-	-	-
Stage 2	1007	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	893	976	-	-	1515	-
Mov Cap-2 Maneuver	893	-	-	-	-	-
Stage 1	941	-	-	-	-	-
Stage 2	1007	-	-	-	-	-

Approach	WB	NB	SB
HCM Ctrl Dly, s/v	9.07	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	893	1515	-
HCM Lane V/C Ratio	-	-	0.011	-	-
HCM Ctrl Dly (s/v)	-	-	9.1	0	-
HCM Lane LOS	-	-	A	A	-
HCM 95th %tile Q(veh)	-	-	0	0	-

Capacity Analysis Summary Sheets

Year 2032 Total Projected Saturday Midday Peak Hour



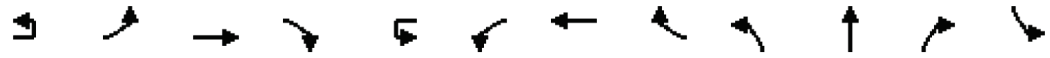
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	83	23	12	55	18	82	4	7	6	93	403	97
Pedestrians												
Ped Button												
Pedestrian Timing (s)												
Free Right			No			No			No			No
Ideal Flow	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Green (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Refr Cycle Length (s)	120	120	120	120	120	120	120	120	120	120	120	120
Volume Combined (vph)	0	118	0	0	73	82	0	17	0	0	593	0
Lane Utilization Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	1.00
Turning Factor (vph)	0.95	0.95	0.85	0.95	0.96	0.85	0.95	0.94	0.85	0.95	0.97	0.85
Saturated Flow (vph)	0	1805	0	0	1828	1615	0	1778	0	0	3501	0
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)		0.00			0.00			0.00			0.00	
Protected Option Allowed		No			No			No			No	
Reference Time (s)			0.0			6.1			0.0			0.0
Adj Reference Time (s)			0.0			10.1			0.0			0.0
Permitted Option												
Adj Saturation A (vph)	0	155		0	1564		0	386		0	607	
Reference Time A (s)	0.0	91.2		0.0	5.6		0.0	5.3		0.0	21.8	
Adj Saturation B (vph	0	0		0	0		NA	NA		0	1756	
Reference Time B (s)	13.5	15.8		11.7	12.8		NA	NA		14.2	24.3	
Reference Time (s)		15.8			5.6			5.3			21.8	
Adj Reference Time (s)		19.8			9.6			9.3			25.8	
Split Option												
Ref Time Combined (s)	0.0	7.8		0.0	4.8		0.0	1.1		0.0	20.3	
Ref Time Seperate (s)	5.5	1.5		3.7	1.1		0.3	0.5		6.2	13.8	
Reference Time (s)	7.8	7.8		4.8	4.8		1.1	1.1		20.3	20.3	
Adj Reference Time (s)	11.8	11.8		8.8	8.8		8.0	8.0		24.3	24.3	

Summary	EB WB	NB SB	Combined
Protected Option (s)	NA	NA	
Permitted Option (s)	19.8	25.8	
Split Option (s)	20.6	32.3	
Minimum (s)	19.8	25.8	45.7

Right Turns	WBR
Adj Reference Time (s)	10.1
Cross Thru Ref Time (s)	8.0
Oncoming Left Ref Time (s)	11.8
Combined (s)	29.9

Intersection Summary			
Intersection Capacity Utilization	38.1%	ICU Level of Service	A

Reference Times and Phasing Options do not represent an optimized timing plan.



Lane Group	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL
Lane Configurations												
Traffic Volume (vph)	1	150	1045	82	23	451	1164	374	76	31	65	346
Future Volume (vph)	1	150	1045	82	23	451	1164	374	76	31	65	346
Ideal Flow (vphpl)	1900	1900	2000	1900	1900	1900	2000	1900	1900	1900	1900	1900
Storage Length (ft)		230		280		350		335	0		0	0
Storage Lanes		2		1		2		1	1		0	1
Taper Length (ft)		300				300			25			0
Lane Util. Factor	0.91	0.97	0.91	1.00	0.91	0.97	0.91	1.00	1.00	1.00	1.00	1.00
Frt				0.850				0.850		0.898		
Flt Protected		0.950				0.950			0.950			0.950
Satd. Flow (prot)	0	3467	5460	1615	0	3469	5406	1615	1805	1672	0	1787
Flt Permitted		0.950				0.950			0.717			0.507
Satd. Flow (perm)	0	3467	5460	1615	0	3469	5406	1615	1362	1672	0	954
Right Turn on Red				Yes				Yes			Yes	
Satd. Flow (RTOR)				207				378		66		
Link Speed (mph)			45				45			25		
Link Distance (ft)			967				412			246		
Travel Time (s)			14.7				6.2			6.7		
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Heavy Vehicles (%)	0%	1%	0%	0%	0%	1%	1%	0%	0%	0%	3%	1%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	153	1056	83	0	479	1176	378	77	97	0	349
Turn Type	Prot	Prot	NA	Perm	Prot	Prot	NA	Perm	pm+pt	NA		pm+pt
Protected Phases	5!	5	2		1	1	6		3	8		7
Permitted Phases				2				6	8			4
Detector Phase	5	5	2	2	1	1	6	6	3	8		7
Switch Phase												
Minimum Initial (s)	3.0	3.0	15.0	15.0	3.0	3.0	15.0	15.0	3.0	8.0		3.0
Minimum Split (s)	7.5	7.5	21.0	21.0	7.5	7.5	21.0	21.0	6.5	14.0		6.5
Total Split (s)	13.0	13.0	38.0	38.0	21.0	21.0	46.0	46.0	15.0	20.0		21.0
Total Split (%)	13.0%	13.0%	38.0%	38.0%	21.0%	21.0%	46.0%	46.0%	15.0%	20.0%		21.0%
Yellow Time (s)	3.5	3.5	4.5	4.5	3.5	3.5	4.5	4.5	3.5	4.5		3.5
All-Red Time (s)	1.0	1.0	1.5	1.5	1.0	1.0	1.5	1.5	0.0	1.5		0.0
Lost Time Adjust (s)		0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0
Total Lost Time (s)		4.5	6.0	6.0		4.5	6.0	6.0	3.5	6.0		3.5
Lead/Lag	Lead	Lead	Lag	Lag	Lead	Lead	Lag	Lag	Lead	Lag		Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		Yes
Recall Mode	None	None	C-Min	C-Min	None	None	C-Min	C-Min	None	None		None
Act Effct Green (s)		8.7	37.2	37.2		17.1	45.6	45.6	19.9	11.4		31.7
Actuated g/C Ratio		0.09	0.37	0.37		0.17	0.46	0.46	0.20	0.11		0.32
v/c Ratio		0.51	0.52	0.11		0.81	0.48	0.40	0.25	0.39		0.78
Control Delay (s/veh)		49.8	27.0	0.3		51.8	21.0	3.5	24.9	20.9		41.0
Queue Delay		0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0
Total Delay (s/veh)		49.8	27.0	0.3		51.8	21.0	3.5	24.9	20.9		41.0
LOS		D	C	A		D	C	A	C	C		D
Approach Delay (s/veh)			28.0				25.0			22.7		
Approach LOS			C				C			C		
Queue Length 50th (ft)		48	206	0		150	202	0	33	18		180
Queue Length 95th (ft)		82	252	0		#235	252	55	63	65		260

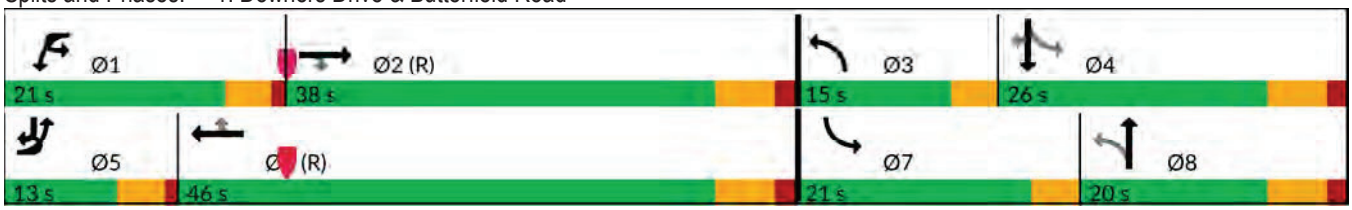


Lane Group	SBT	SBR
Lane Configurations		
Traffic Volume (vph)	60	185
Future Volume (vph)	60	185
Ideal Flow (vphpl)	1900	1900
Storage Length (ft)		150
Storage Lanes		1
Taper Length (ft)		
Lane Util. Factor	1.00	1.00
Frt		0.850
Flt Protected		
Satd. Flow (prot)	1863	1615
Flt Permitted		
Satd. Flow (perm)	1863	1615
Right Turn on Red		Yes
Satd. Flow (RTOR)		187
Link Speed (mph)	25	
Link Distance (ft)	235	
Travel Time (s)	6.4	
Peak Hour Factor	0.99	0.99
Heavy Vehicles (%)	2%	0%
Shared Lane Traffic (%)		
Lane Group Flow (vph)	61	187
Turn Type	NA	pm+ov
Protected Phases	4	5!
Permitted Phases		4
Detector Phase	4	5
Switch Phase		
Minimum Initial (s)	8.0	3.0
Minimum Split (s)	14.0	7.5
Total Split (s)	26.0	13.0
Total Split (%)	26.0%	13.0%
Yellow Time (s)	4.5	3.5
All-Red Time (s)	1.5	1.0
Lost Time Adjust (s)	0.0	0.0
Total Lost Time (s)	6.0	4.5
Lead/Lag	Lag	Lead
Lead-Lag Optimize?	Yes	Yes
Recall Mode	None	None
Act Effct Green (s)	19.2	33.9
Actuated g/C Ratio	0.19	0.34
v/c Ratio	0.17	0.28
Control Delay (s/veh)	34.2	4.5
Queue Delay	0.0	0.0
Total Delay (s/veh)	34.2	4.5
LOS	C	A
Approach Delay (s/veh)	28.9	
Approach LOS	C	
Queue Length 50th (ft)	33	0
Queue Length 95th (ft)	69	45

Lane Group	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL
Internal Link Dist (ft)			887				332			166		
Turn Bay Length (ft)		230		280		350		335				
Base Capacity (vph)		310	2030	730		605	2464	941	364	290		449
Starvation Cap Reductn		0	0	0		0	0	0	0	0		0
Spillback Cap Reductn		0	0	0		0	0	0	0	0		0
Storage Cap Reductn		0	0	0		0	0	0	0	0		0
Reduced v/c Ratio		0.49	0.52	0.11		0.79	0.48	0.40	0.21	0.33		0.78

Intersection Summary			
Area Type:	Other		
Cycle Length: 100			
Actuated Cycle Length: 100			
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Green			
Natural Cycle: 65			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.81			
Intersection Signal Delay (s/veh): 26.4		Intersection LOS: C	
Intersection Capacity Utilization 72.3%		ICU Level of Service C	
Analysis Period (min) 15			
# 95th percentile volume exceeds capacity, queue may be longer.			
Queue shown is maximum after two cycles.			
! Phase conflict between lane groups.			

Splits and Phases: 1: Downers Drive & Butterfield Road





Lane Group	SBT	SBR
Internal Link Dist (ft)	155	
Turn Bay Length (ft)		150
Base Capacity (vph)	380	675
Starvation Cap Reductn	0	0
Spillback Cap Reductn	0	0
Storage Cap Reductn	0	0
Reduced v/c Ratio	0.16	0.28

Intersection Summary

Intersection	
Int Delay, s/veh	6

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	52	28	3	46	26	0
Future Vol, veh/h	52	28	3	46	26	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	91	91	91	91	91	91
Heavy Vehicles, %	0	4	0	0	4	0
Mvmt Flow	57	31	3	51	29	0

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	86	29	0	0	54	0
Stage 1	29	-	-	-	-	-
Stage 2	57	-	-	-	-	-
Critical Hdwy	6.4	6.24	-	-	4.14	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.336	-	-	2.236	-
Pot Cap-1 Maneuver	921	1041	-	-	1539	-
Stage 1	999	-	-	-	-	-
Stage 2	971	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	903	1041	-	-	1539	-
Mov Cap-2 Maneuver	903	-	-	-	-	-
Stage 1	999	-	-	-	-	-
Stage 2	953	-	-	-	-	-

Approach	WB	NB	SB
HCM Ctrl Dly, s/v	9.19	0	7.38
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	947	1539	-
HCM Lane V/C Ratio	-	-	0.093	0.019	-
HCM Ctrl Dly (s/v)	-	-	9.2	7.4	0
HCM Lane LOS	-	-	A	A	A
HCM 95th %tile Q(veh)	-	-	0.3	0.1	-

Intersection	
Int Delay, s/veh	2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Lane Configurations													
Traffic Vol, veh/h	3	0	0	33	0	94	3	690	25	23	68	577	3
Future Vol, veh/h	3	0	0	33	0	94	3	690	25	23	68	577	3
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	-	None
Storage Length	0	-	-	370	-	-	205	-	-	-	160	-	-
Veh in Median Storage, #	-	1	-	-	1	-	-	0	-	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	-	0	-
Peak Hour Factor	96	96	96	96	96	96	96	96	96	92	96	96	96
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	1	0
Mvmt Flow	3	0	0	34	0	98	3	719	26	25	71	601	3

Major/Minor	Minor2			Minor1			Major1			Major2			
Conflicting Flow All	1160	1545	302	1230	1534	372	604	0	0	745	745	0	0
Stage 1	794	794	-	738	738	-	-	-	-	-	-	-	-
Stage 2	366	751	-	492	796	-	-	-	-	-	-	-	-
Critical Hdwy	7.5	6.5	6.9	7.5	6.5	6.9	4.1	-	-	6.4	4.1	-	-
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	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.5	2.2	-	-
Pot Cap-1 Maneuver	153	116	700	136	118	631	983	-	-	491	872	-	-
Stage 1	352	403	-	380	427	-	-	-	-	-	-	-	-
Stage 2	632	421	-	532	402	-	-	-	-	-	-	-	-
Platoon blocked, %								-	-			-	-
Mov Cap-1 Maneuver	111	99	700	116	101	631	983	-	-	677	677	-	-
Mov Cap-2 Maneuver	211	198	-	241	218	-	-	-	-	-	-	-	-
Stage 1	302	346	-	379	426	-	-	-	-	-	-	-	-
Stage 2	532	420	-	457	345	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	22.32	14.52	0.04	1.53
HCM LOS	C	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	983	-	-	211	-	241	631	677	-	-
HCM Lane V/C Ratio	0.003	-	-	0.015	-	0.143	0.155	0.142	-	-
HCM Ctrl Dly (s/v)	8.7	-	-	22.3	0	22.4	11.8	11.2	-	-
HCM Lane LOS	A	-	-	C	A	C	B	B	-	-
HCM 95th %tile Q(veh)	0	-	-	0	-	0.5	0.5	0.5	-	-

Intersection	
Int Delay, s/veh	3.1

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	72	0	46	80	0	46
Future Vol, veh/h	72	0	46	80	0	46
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	76	0	48	84	0	48

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	76	0	257	76
Stage 1	-	-	-	-	76	-
Stage 2	-	-	-	-	181	-
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	-	-	1536	-	736	991
Stage 1	-	-	-	-	952	-
Stage 2	-	-	-	-	855	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1536	-	712	991
Mov Cap-2 Maneuver	-	-	-	-	712	-
Stage 1	-	-	-	-	952	-
Stage 2	-	-	-	-	827	-

Approach	EB	WB	NB
HCM Ctrl Dly, s/v	0	2.71	8.82
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	991	-	-	657	-
HCM Lane V/C Ratio	0.049	-	-	0.032	-
HCM Ctrl Dly (s/v)	8.8	-	-	7.4	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0.2	-	-	0.1	-

Intersection	
Int Delay, s/veh	0.9

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	12	0	49	12	0	52
Future Vol, veh/h	12	0	49	12	0	52
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	13	0	52	13	0	55

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	113	58	0	0	64	0
Stage 1	58	-	-	-	-	-
Stage 2	55	-	-	-	-	-
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	889	1014	-	-	1551	-
Stage 1	970	-	-	-	-	-
Stage 2	973	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	889	1014	-	-	1551	-
Mov Cap-2 Maneuver	889	-	-	-	-	-
Stage 1	970	-	-	-	-	-
Stage 2	973	-	-	-	-	-

Approach	WB	NB	SB
HCM Ctrl Dly, s/v	9.11	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	889	1551	-
HCM Lane V/C Ratio	-	-	0.014	-	-
HCM Ctrl Dly (s/v)	-	-	9.1	0	-
HCM Lane LOS	-	-	A	A	-
HCM 95th %tile Q(veh)	-	-	0	0	-

Village of Downers Grove

Planning and Zoning Commission - Report

Table 1 - Detailed information on this Planning and Zoning Commission Report

Meeting Location	Civic Center – Betty Cheever Council Chambers
Meeting Address	850 Curtiss St., Downers Grove, IL 60515
Meeting Date	May 4th, 2026 at 7:00 PM
Subject	26-PZC-0012 – 5145 Washington Street
Type	Special Use for a Dental Office
Submitted by	Flora León, AICP Senior Planner

Request.

The petitioner is requesting approval of a Special Use in the Downtown Transition (DT) zoning district to operate a dental office on the first floor of an existing building.

Notice.

The application has been filed in conformance with applicable procedural and public notice requirements.

General Information.

Table 2 – Details about the applicant's identity and location.

Applicant Name	**Applicant Address**
Keith Bram	5145 Washington Street, Downers Grove 60515

Table 3 - Property ownership details for primary and additional owner(s).

Owner Name	Owner Address
Bart Two Properties LLC	11976 Crosscreek Court Burr Ridge, IL 60527

Property Information.

Table 4 - Detailed subject property summary (parcel identification, size, and zoning)

Existing Zoning	DT, Downtown Transition
Existing Land Use	Vacant Building
Property Size	0.14 acres (6,285 square feet)
PIN	09-08-307-006

Table 5 - Details regarding the surrounding properties, zoning, and land uses.

Direction	Zoning	Future Land Use
East	DT, Downtown Transition	Downtown
West	DB, Downtown Business	Downtown
North	DB, Downtown Business	Downtown
South	DT, Downtown Transition	Downtown

Analysis.

Submittals.

This report is based on the following documents, which are on file with the Department of Community Development:

1. Project Narrative
2. Approval Criteria

3. Plat of Survey

4. Site Plan

Project Description.

The petitioner is requesting a special use for a dental office on the first floor of the subject property. The subject property at 5145 Washington Street is zoned DT, Downtown Transition. The proposed use is an allowable special use in the DT zoning district.

The previous dental office located on the first floor of the subject property has not been occupied since January of 2025. Per Section 28.12.050(i)(4) of the Municipal Code, if any special use is discontinued or not in operation for a continuous period of six (6) months or more, the special use for such a use is void, and such use may not be reestablished unless and until a new special use is obtained.

The petitioner is not proposing any changes to the formerly occupied dental office. The office will include a lobby, reception area, three exam rooms, a lab, and a vestibule. Access to the dental office is provided by stairs from the entrance off of Washington Street and an accessible ramp along the southern façade. At this time the second floor is proposed to be a professional office. The petitioner is seeking a professional office tenant, which is a permitted use in the DT Zoning District. If another medical or dental office wanted to occupy the second floor, a new special use permit would be required. A new landscaped island with a shade three is proposed along the southwest portion of the lot. No changes are proposed to the facade, with the exception of signage, therefore the building is not required to be reviewed for compliance with the Downtown Design Guidelines.

Compliance with the Comprehensive Plan.

The Guiding DG Comprehensive Plan's Future Land Use Map designates the subject property as downtown. Downtown uses include a mix of commercial service, commercial retail, office, entertainment, civic, multi-family residential, institutional

and related public facilities in a pedestrian-oriented atmosphere. The type and location of land uses within Downtown and in mixed-use areas maintain a pedestrian orientation. The goals associate with each chapter include:

Focus Area Plan – Continued Investment in Downtown.

- Continue efforts to attract local businesses to Downtown to expand and diversity retail, entertainment, and dining options.
- The success of downtown can be attributed to the coordination and combination of these key features: architectural detailing, a mix of land uses, pedestrian-oriented design, appropriate building heights, streetwalls and storefront, a compact street grid, and public spaces and gathering areas. Future development or redevelopment should take into consideration these elements.

Land Use and Development.

- Facilitate the creation and enhancement of mixed-use areas that include housing, offices, commercial and retail space, and other community amenities.
- Downtown should continue to contain a mix of land uses that reinforce its unique character.

Compliance with the Zoning Ordinance.

The property is zoned DT. Per Section 28.5.010 of the Zoning Ordinance dental offices are an allowable Special Use in the DT zoning district. The existing building complies with the DT bulk regulations. Per Municipal Code Section 28.7.030, dental offices in the DT zoning district are required to provide 4.5 parking spaces per 1,000 square feet. The proposed dental office will require a total of six parking stalls and a total of ten parking stalls are provided.

Signage.

Signage is not part of this petition, and any signage proposed for the development shall comply with the Zoning Ordinance requirements through a separate sign permit application.

Engineering and Public Improvements.

Based on the Plat of Survey, the property extends into Washington Street. The petitioner will dedicate a total of thirty-three (33) feet to the Village to provide an 80-foot right-of-way on Washington Street that matches the right-of-way immediately north and south of this property. There are no additional proposed public improvements associated with this application.

Traffic and Parking.

Per Municipal Code Section 28.7.030, dental offices in the Downtown Transition zoning district are required to provide 4.5 parking spaces per 1,000 square feet. As noted above, the proposed dental office will require a total of six (6) parking stalls and a total of ten parking stalls are provided.

Public Safety Requirements.

The Fire Prevention Division reviewed the proposed development as a single tenant and did not have any concerns If future alterations are made to the building further review will be required.

Neighborhood Comment.

Notice was provided to all property owners 250 feet or less from the subject property in addition to posting public hearing signs and publishing a legal notice in the Daily Herald. Staff did not receive any public inquiries.

Standards of Approval.

The petitioner is requesting approval of a Special Use in the Downtown Transition zoning district to operate a dental office on the first floor of an existing building. The petitioner has submitted a narrative that attempts to address all the standards of approval. The Planning and Zoning Commission should consider the petitioner's documentation, the staff report and the discussion at the Planning and Zoning Commission meeting in determining whether the standards for approval have been met.

Special Uses, Sec 28.12.050(h) Review and Approval Criteria

(1) that the proposed use is expressly authorized as a special use in the district in which it is to be located;

(2) that the proposed use will not, in the particular case, be detrimental to the health, safety, or general welfare of the community;

(3) that the proposed use will not be injurious to the use and enjoyment of other property in the immediate area for the purposes already permitted, nor substantially diminish or impair property values within the neighborhood;

(4) that the establishment of the special use will not impede the normal and orderly development and improvement of adjacent property for uses permitted in the district.

Draft Motion.

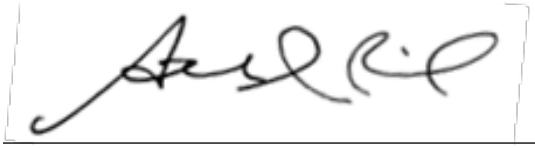
Staff will provide a recommendation at the May 4th, 2026 meeting. Should the Planning and Zoning Commission find that the request meets the standards of approval for a Special Use staff has prepared a draft motion that the Planning and Zoning Commission may make for the recommended approval of 26-PZC-0012, subject to the following conditions:

1. The Special Use shall substantially conform to the staff report, plat of survey with proposed improvements, and architecture floor plans prepared by BR

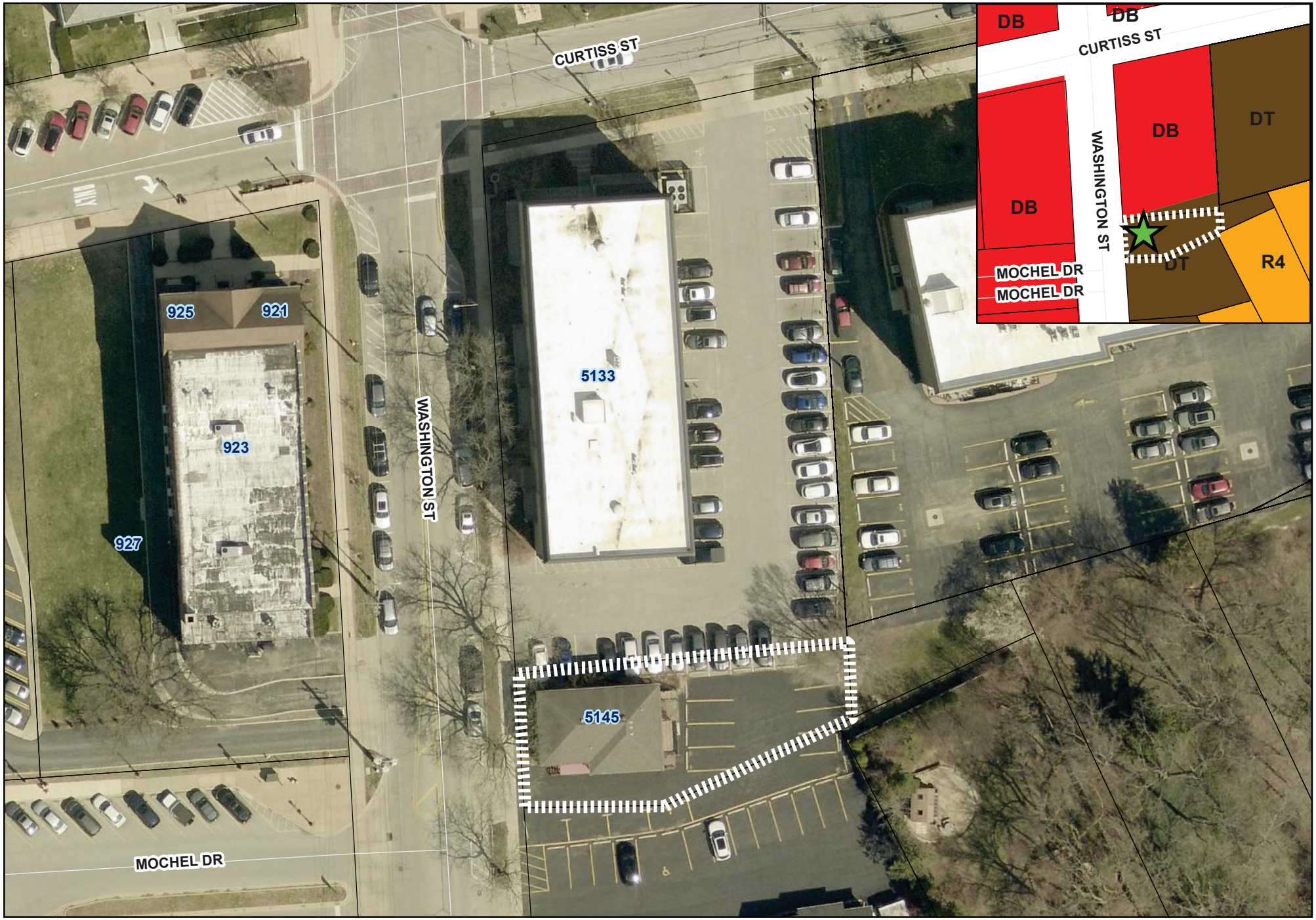
Design and Architecture, dated March 10, 2026, except as such plans may be modified to conform to the Village codes and ordinances.

2. A recorded plat of dedication will be required prior to commercial occupancy issuance.
3. The site improvement (curbed landscape island and shade tree) will be required prior to commercial occupancy issuance.
4. A future second floor tenant will require a separate certificate of occupancy, or building permits as applicable.

Staff Report Approved By:



Stanley J. Popovich, AICP
Director of Community Development



N

100 50 0 100 Feet

5145 Washington Street - Location Map

Subject Property

Site Location

DocBram

Keith M Bram, DDS FICOI PLLC
5145 Washington St.
Downers Grove, IL 60515
info@dentalimplantcenterdownersgrove.com
630 963-9280

Project Summary/ Narrative Letter

3 March, 2026

RE: Special Use Permit

This space will be used as an office of General/Implant Dentistry.

I have been serving the community here in the western suburbs and Cook County for 18 years.

My experience includes traditional and digital dentistry.

I also serve as an election judge in DuPage County and was on the Parent Teacher Advisory Committee in D86 while my son Benjamin attended Hinsdale Central High School.

My practice is driven by on compassion, affordability, and quality

Special Uses

Form #PZC2

Review and Approval Criteria

Address of Project Site: 5145 Washington Street Downers Grove, IL 60515

A detailed response to all of the standards shall be provided, specifying how each standard is or is not met.

Section 28.12.050.H. Approval Criteria (Special Uses)
No special use may be recommended for approval or approved unless the respective review or decision-making body determines that the proposed special use is consistent with and in substantial compliance with all Village Council policies and plans, including, but not limited to, the Comprehensive Plan and the Downtown Design Guidelines and that the applicant has presented evidence to support each of the following conclusions:

1. That the proposed use is expressly authorized as a Special Use in the district in which it is to be located.

   This request is to establish a practice of general dentistry consisitent with the past use of this space

2. That the proposed use will not, in the particular case, be detrimental to the health, safety, or general welfare of the community.

   We have an established contract with Stericycle which manages our disposal of all infectious and contaminated waste products and sharp instruments. Our vacuum system has an amalgam separator to collect metallic waste products mixed with mercury. All of our imaging equipment is collimated reducing scatter radiation

3. That the proposed use will not be injurious to the use and enjoyment of other property in the immediate area for the purposes already permitted, nor substantially diminish or impair property values within the neighborhood.

   Our office is self contained and well insulated keeping in harmony with our neighbors

4. That the establishment of the special use will not impede the normal and orderly development and improvement of adjacent property for uses permitted in the district.

   Our office has modest traffic and sufficient parking not to intrude upon our neigbors

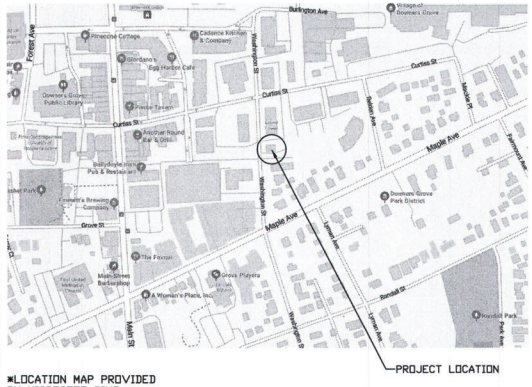
"ALTA/NSPS LAND TITLE SURVEY"

Associated Surveying Group, LLC
Illinois Prof. Design Firm No. 184-004973
P.O. Box 810 Bolingbrook, IL 60440
PH: 630-759-0205 FAX: 630-759-9291

PARCEL 1: THAT PART OF LOTS 6 AND 7 IN BLOCK 3 OF CURTISS' ADDITION TO DOWNERS GROVE, AND THAT PART OF THE SOUTHWEST 1/4 OF SECTION 8, TOWNSHIP 38 NORTH, RANGE 11, EAST OF THE THIRD PRINCIPAL MERIDIAN, DESCRIBED BY COMMENCING AT THE SOUTHWEST CORNER OF SAID BLOCK 3, AFORESAID; THENCE NORTH ALONG THE WEST LINE OF SAID BLOCK 69 LINKS (45.54 FEET) FOR A POINT OF BEGINNING; THENCE SOUTH 88 DEGREES EAST 2 CHAINS (132 FEET); THENCE SOUTH 1.25 DEGREES EAST 81 LINKS (53.96 FEET); THENCE SOUTH 66.5 DEGREES WEST 1.23 CHAINS (81.18 FEET); THENCE NORTH 86 DEGREES WEST 1.38 CHAINS (91.08 FEET) TO THE CENTER OF STREET; THENCE NORTH 1.25 DEGREES WEST IN CENTER OF STREET 1.30 CHAINS (85.8 FEET); THENCE SOUTH 88 DEGREES EAST 50 LINKS (33 FEET) TO THE POINT OF BEGINNING (EXCEPTING THEREFROM A STRIP OF LAND 27 FEET IN WIDTH OFF THE ENTIRE NORTH SIDE OF THE ABOVE DESCRIBED PREMISES), IN DUPAGE COUNTY, ILLINOIS.

PARCEL 2: PART OF THE SOUTHWEST QUARTER OF SECTION 8, TOWNSHIP 38 NORTH, RANGE 11, E ST OF THE THIRD PRINCIPAL MERIDIAN, DESCRIBED AS FOLLOWS: BEGINNING AT THE SOUTHWEST CORNER OF MAPLE WAY CONDOMINIUM DEVELOPMENT PLAT OF SURVEY RECORDED AS DOCUMENT NO. R78-088293 IN DUPAGE COUNTY, ILLINOIS; THENCE NORTHEAST ALONG THE SOUTH LINE OF SAID MAPLE WAY CONDOMINIUM DEVELOPMENT 66.60 FEET TO THE NORTHWEST CORNER OF LOT 8 IN BLOCK 3 IN CURTISS' ADDITION TO THE TOWN OF DOWNERS GROVE RECORDED AS DOCUMENT R1866-007317 IN DUPAGE COUNTY, ILLINOIS; THENCE SOUTH ALONG THE WEST LINE OF SAID LOT 8 TO THE NORTHEAST CORNER OF SAID LOT 13 IN ASSESSOR'S SUBDIVISION RECORDED AS DOCUMENT NO. 14481 IN DUPAGE COUNTY, ILLINOIS; THENCE SOUTHWEST ALONG THE NORTH LINE OF SAID LOT 13 TO A POINT IN THE WEST LINE OF SAID MAPLE WAY CONDOMINIUM DEVELOPMENT, EXTENDED SOUTH, SAID POINT BEING 26.96 FEET SOUTH OF THE SOUTHWEST CORNER OF SAID MAPLE WAY CONDOMINIUM DEVELOPMENT; THENCE NORTH ALONG THE EXTENDED WEST LINE OF SAID MAPLE WAY CONDOMINIUM DEVELOPMENT TO THE POINT OF BEGINNING, IN DUPAGE COUNTY, ILLINOIS.

COMMONLY KNOWN AS: 5145 WASHINGTON ST., DOWNERS GROVE, IL 60515
PARCEL 1 PIN # 09-08-307-006-0000 AND PARCEL 2 PIN # 09-08-307-021



*LOCATION MAP PROVIDED BY MICROSOFT BING

VICINITY MAP

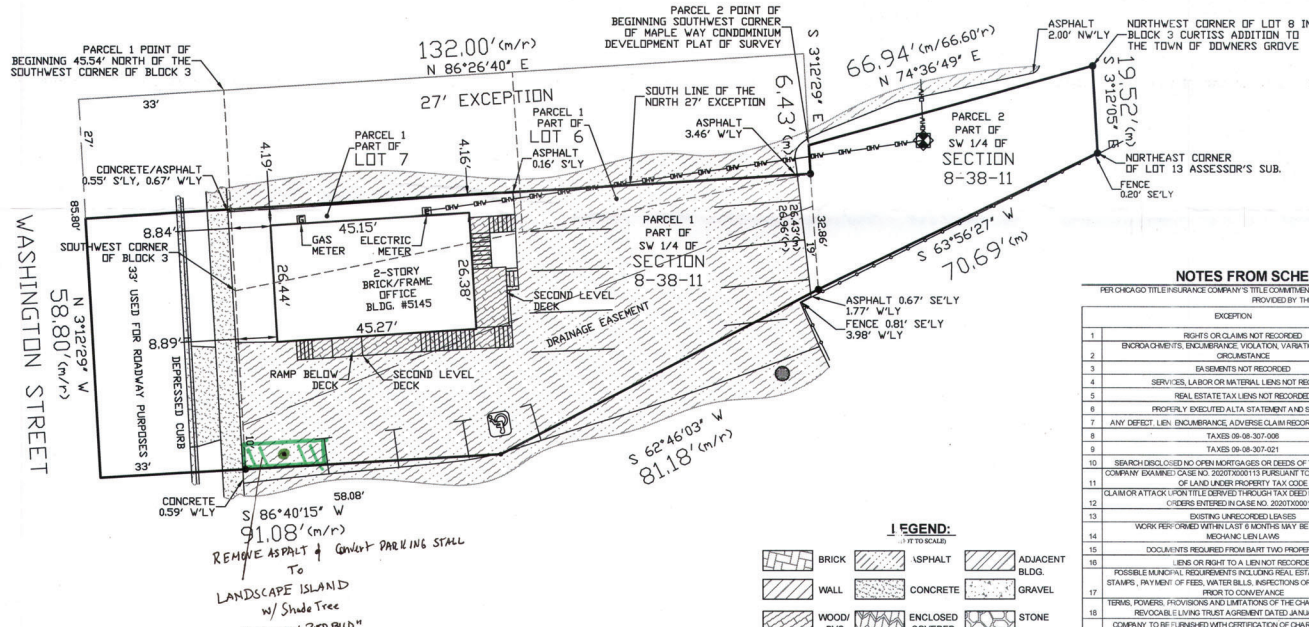
(ASSUMED NORTH)
SCALE 1"= 20'
10 0 10 20
GRAPHIC SCALE
(IN FEET)

BASIS OF BEARINGS

BASIS OF BEARINGS IS THE EASTERLY LINE OF WASHINGTON STREET. GPS INSTRUMENT WAS USED.

AREA

10238.26 SQ. FT.
±0.235 ACRES



LEGEND:
(1" = 1' TO SCALE)

BRICK, ASPHALT, ADJACENT BLDG., WALL, CONCRETE, GRAVEL, WOOD/PVC, ENCLOSED COVERED, STONE

LEGEND:

SET IRON PIPE, IRON PIPE, CROSS, UTILITY POLE, REBAR/ROD, NOTCH, CATCH BASIN, MAG NAIL, PK NAILS AS NOTCH, MANHOLE, LIGHT POLE, EXTERIOR LIGHT, WATER VALVE, DRAINAGE SPOUT

ABBREVIATIONS:

A = ARC LENGTH
R = RADIUS
CH = CHORD LENGTH
(r) = RECORD VALUE
(m) = MEASURED VALUE
B.S.L. = BUILDING SETBACK LINE
P.U.E. = PUBLIC UTILITY EASEMENT
P.U.D.E. = PUBLIC UTILITY & DRAINAGE EASEMENT
V.E.,C.E. = VILLAGE/CITY EASEMENT
N'LY = NORTHERLY
S'LY = SOUTHERLY
E'LY = EASTERLY
W'LY = WESTERLY
TYP = TYPICAL
O.H. = OVERHANG

CHAIN LINK FENCE
WOOD FENCE
ALL OTHER FENCE TYPES
OHW OHW OVERHEAD WIRES

SURVEYOR NOTES

1. COMPARE THE LEGAL DESCRIPTION ON THIS PLAT WITH YOUR DEED, ABSTRACT, OR CERTIFICATE OF TITLE; ALSO, COMPARE ALL FIELD MEASURED LOT CORNERS & BUILDING TIES WITH THIS PLAT BEFORE CONSTRUCTION AND REPORT ANY DIFFERENCE AT ONCE.
2. NO IMPROVEMENTS SHOULD BE CONSTRUCTED ON THE BASIS OF THIS PLAT ALONE. FIELD MONUMENTATION OF CRITICAL POINTS SHOULD BE ESTABLISHED PRIOR TO COMMENCEMENT OF CONSTRUCTION.
3. BUILDING LINES AND EASEMENTS ARE SHOWN ONLY WHERE THEY ARE SO DEPICTED ON THE RECORDED SUBDIVISION PLAT. REFER TO YOUR DEED, ABSTRACT, OR CERTIFICATE OF TITLE FOR ADDITIONAL ENCUMBRANCES.
4. NO CERTIFICATION IS MADE AS TO THE LOCATIONS OF UNDERGROUND UTILITIES SUCH AS, BUT NOT LIMITED TO, ELECTRIC, TELEPHONE, CABLE TV, GAS, WATER, SANITARY AND STORM SEWERS. ONLY ABOVE-GROUND VISIBLE FEATURES ARE SHOWN. OTHER UTILITIES MAY EXIST OF WHICH SURVEYOR HAS NO KNOWLEDGE.
5. ALL LOCATED UTILITIES WERE DONE BY SURFACE OBSERVATION. PLEASE CALL "JULIE" AT 1-800-892-0123 OR (CITY OF CHICAGO) "DIGGER" AT 1-312-744-7000 BEFORE STARTING ANY CONSTRUCTION FOR THE LOCATION OF ANY ADDITIONAL UNDERGROUND UTILITIES NOT SHOWN HEREON.
6. THIS SURVEY MAY NOT REFLECT ALL UTILITIES OR IMPROVEMENTS IF SUCH ITEMS ARE HIDDEN BY LANDSCAPING OR ARE COVERED BY SUCH ITEMS AS DUMPSTERS, TRAILERS, CARS, DIRT, PAVING OR SNOW. LAWN SPRINKLER SYSTEMS, IF ANY, ARE NOT SHOWN ON THIS SURVEY
7. THE LOCATION OF THE PROPERTY LINES SHOWN ON THE FACE OF THIS PLAT ARE BASED UPON THE DESCRIPTION AND INFORMATION FURNISHED BY THE CLIENT, TOGETHER WITH THE TITLE COMMITMENT. THE PARCEL WHICH IS DEFINED MAY NOT REFLECT ACTUAL OWNERSHIP, BUT REFLECTS WHAT WAS SURVEYED. FOR OWNERSHIP, CONSULT YOUR TITLE COMPANY.
8. ALL DISTANCES ARE SHOWN IN FEET AND DECIMALS THEREOF.
9. FOR BUILDING LINES, EASEMENTS AND OTHER RESTRICTIONS NOT SHOWN OR STATED HEREON REFER TO YOUR DEED, TITLE POLICY, ORDINANCES, ETC.
10. COPIES OF THIS SURVEY WITH AN EMBOSSED SEAL SHALL BE DESIGNATED OFFICIAL COPIES. THE SURVEY WAS PREPARED ONLY FOR THE CLIENT AS STATED HEREON AND IS NON-TRANSFERABLE.
11. OBSERVABLE EVIDENCE OF SUBSTANTIAL FEATURES, IF ANY, ARE SHOWN ON SURVEY.

NOTE: THE RECORD DOCUMENTS SHOWN ON THIS ALTA/NSPS SURVEY ARE THOSE DOCUMENTS DETERMINED BY CHICAGO TITLE INSURANCE COMPANY AND SET FORTH IN THE TITLE COMMITMENT NUMBER: 24NW7153335WH DATED NOVEMBER 14, 2024 AS AFFECTING THE PROPERTY DEPICTED ON THIS LAND TITLE SURVEY. BY NOTING SAID DOCUMENTS ON THIS SURVEY PLAT, ASSOCIATED SURVEYING GROUP, LLC, MAKES NO REPRESENTATION AS TO THE EXISTENCE OF ANY OTHER RECORD DOCUMENTS THAT MAY AFFECT THE SURVEYED PROPERTY.

TO: CHICAGO TITLE INSURANCE COMPANY; BART TWO PROPERTIES LLC AND WINTRUST, ISAOA ATRIMA

THIS IS TO CERTIFY THAT THIS MAP OR PLAT AND THE SURVEY ON WHICH IT IS BASED WERE MADE IN ACCORDANCE WITH THE 2021 MINIMUM STANDARD DETAIL REQUIREMENTS FOR ALTA/NSPS LAND TITLE SURVEYS. JOINTLY ESTABLISHED AND ADOPTED BY ALTA AND NSPS, AND INCLUDES ITEMS 1, 4, 7(A) AND 8 OF TABLE A THEREOF. THE FIELD WORK WAS COMPLETED ON DECEMBER 9, 2024.

DATE: JANUARY 6, 2025

MICHAEL G. HERWY, IPLS NO. 35-2900
LICENSE EXPIRES: 11/30/2026.

MICHAEL G. HERWY 35-2900 PROFESSIONAL LAND SURVEYOR STATE OF ILLINOIS BOLINGBROOK, ILLINOIS

Field Date DECEMBER 9, 2024
Client PARCEL 1: 5145 WASHINGTON ST., LLC
PARCEL 2: PATELSKI
Job No. 90558-24

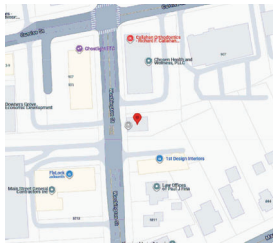
NOTES FROM SCHEDULE B PART II

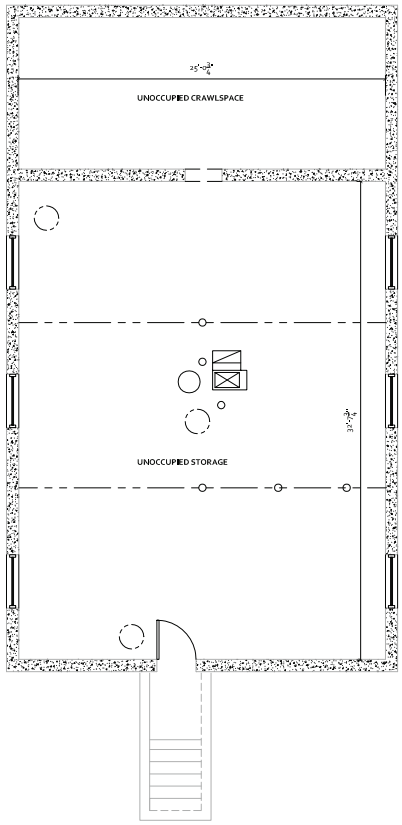
PER CHICAGO TITLE INSURANCE COMPANY'S TITLE COMMITMENT NO. 24NW7153335WH DATE OF NOVEMBER 14, 2024 PROVIDED BY THE CLIENT

	EXCEPTION	AFFECTS PROPERTY	NOTE
1	RIGHTS OR CLAIMS NOT RECORDED	YES	NOT PLOTTABLE
2	ENCROACHMENTS, ENCUMBRANCE, VIOLATION, VARIATION OR ADVERSE CIRCUMSTANCE	YES	IF ANY, PLOTTED
3	EASEMENTS NOT RECORDED	YES	NOT PLOTTABLE
4	SERVICES, LABOR OR MATERIAL LIENS NOT RECORDED	YES	NOT PLOTTABLE
5	REAL ESTATE TAX LIENS NOT RECORDED	YES	NOT PLOTTABLE
6	PROPERLY EXECUTED ALTA STATEMENT AND SURVEY	YES	NOT PLOTTABLE
7	ANY DEFECT, LIEN, ENCUMBRANCE, ADVERSE CLAIM RECORDED FOR FIRST TIME	YES	NOT PLOTTABLE
8	TAXES 09-08-307-006	YES	NOT PLOTTABLE
9	TAXES 09-08-307-021	YES	NOT PLOTTABLE
10	SEARCH DISCLOSED NO OPEN MORTGAGES OR DEEDS OF TRUST OF RECORD	YES	NOT PLOTTABLE
11	COMPANY EXAMINED CASE NO. 2020TX000113 PURSUANT TO TAX DEED TAX SALE OF LAND UNDER PROPERTY TAX CODE	YES	NOT PLOTTABLE
12	CLAIM OR ATTACK UPON TITLE DERIVED THROUGH TAX DEED ISSUED PURSUANT TO ORDERS ENTERED IN CASE NO. 2020TX000113	YES	NOT PLOTTABLE
13	EXISTING UNRECORDED LEASES	YES	NOT PLOTTABLE
14	WORK PERFORMED WITHIN LAST 6 MONTHS MAY BE SUBJECT TO MECHANIC LIEN LAWS	YES	NOT PLOTTABLE
15	DOCUMENTS REQUIRED FROM BART TWO PROPERTIES LLC	YES	NOT PLOTTABLE
16	LIENS OR RIGHT TO A LIEN NOT RECORDED	YES	NOT PLOTTABLE
17	POSSIBLE MUNICIPAL REQUIREMENTS INCLUDING REAL ESTATE TRANSFER TAX STAMPS, PAYMENT OF FEES, WATER BILLS, INSPECTIONS OR OTHER APPROVALS PRIOR TO CONVEYANCE	YES	NOT PLOTTABLE
18	TERMS, POWERS, PROVISIONS AND LIMITATIONS OF THE CHARLENE LEE PATELSKI REVOCABLE LIVING TRUST AGREMENT DATED JANUARY 20, 1999	YES	NOT PLOTTABLE
19	COMPANY TO BE FURNISHED WITH CERTIFICATION OF CHARLENE LEE PATELSKI REVOCABLE LIVING TRUST AGREEMENT DATED JANUARY 20, 1999	YES	NOT PLOTTABLE
20	DOCUMENTS REQUIRED FROM 5145 WASHINGTON STREET LLC	YES	NOT PLOTTABLE
21	PLAT ACT AFFIDAVIT	YES	NOT PLOTTABLE
22	RIGHTS OF THE PUBLIC, THE STATE OF ILLINOIS AND MUNICIPALITY OF LAND, IF ANY, TAKEN OR USED FOR ROAD PURPOSES AND UTILITY RIGHTS, AFFECTS PART IN WASHINGTON STREET	YES	NOT PLOTTABLE
23	RIGHTS OF WAY FOR DRAINAGE TILES, DITCHES, FEEDERS, LATERALS AND UNDERGROUND PIPES	YES	NOT PLOTTABLE
24	DOWNERS GROVE SANITARY DISTRICT REQUIRES USER CHARGE SYSTEM SEPARATE FROM GENERAL AD VALOREM PROPERTY TAXES	YES	NOT PLOTTABLE
25	LAND LIES WITHIN BOUNDARIES OF SPECIAL SERVICE AREA NO. 2 AS DISCLOSED BY ORDINANCE 3984 RECORDED AS DOCUMENT R97-164750, SUBJECT TO ADDITIONAL TAXES	YES	NOT PLOTTABLE
26	EASEMENT RECORDED APRIL 10, 1961 AS DOCUMENT R61-2819 FOR CONSTRUCTION AND MAINTENANCE OF STORM WATER DRAINAGE SYSTEM	YES	PLOTTED
27	LAND LIES WITHIN BOUNDARIES OF SPECIAL SERVICE AREA RECORDED AS DOCUMENT R97-164750, SUBJECT TO ADDITIONAL TAXES	YES	NOT PLOTTABLE
28	LAND LIES WITHIN BOUNDARIES OF SPECIAL SERVICE AREA AS DISCLOSED BY ORDINANCE RECORDED AS DOCUMENT R2005-282559, SUBJECT TO ADDITIONAL TAXES	YES	NOT PLOTTABLE
29	UTILITY POLES AND OVERHEAD WIRES	YES	PLOTTED
30	COPY OF CANCELLED CONTRACT AND PROOF OF ALL EARNEST MONIES RETURNED TO KB PROPERTIES, LLC TO BE FURNISHED	YES	NOT PLOTTABLE
31	ENDORSEMENT REQUESTS SHOULD BE MADE PRIOR TO CLOSING TO ALLOW AMPLE TIME FOR EXAMINATION	YES	NOT PLOTTABLE

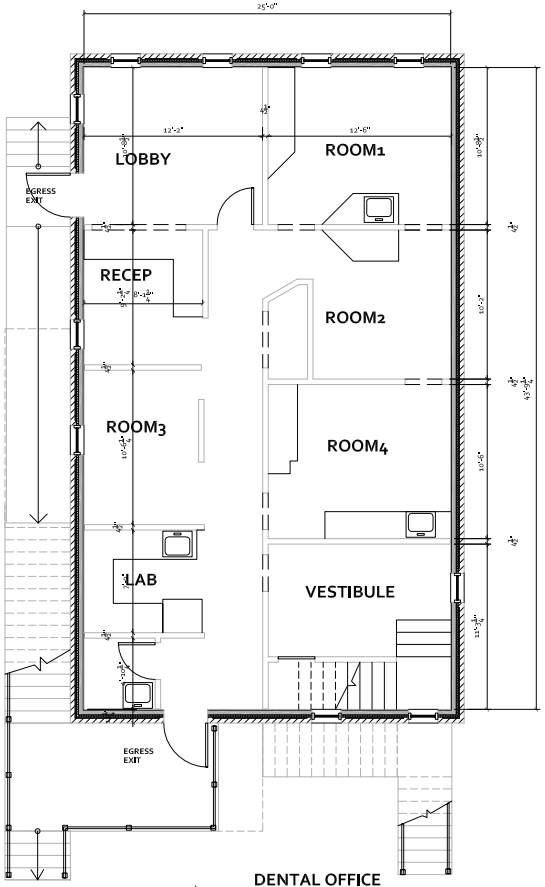
EXISTING OFFICE BUILDING - SPECIAL USE APPLICATION

5145 WASHINGTON STREET DOWNERS GROVE, IL



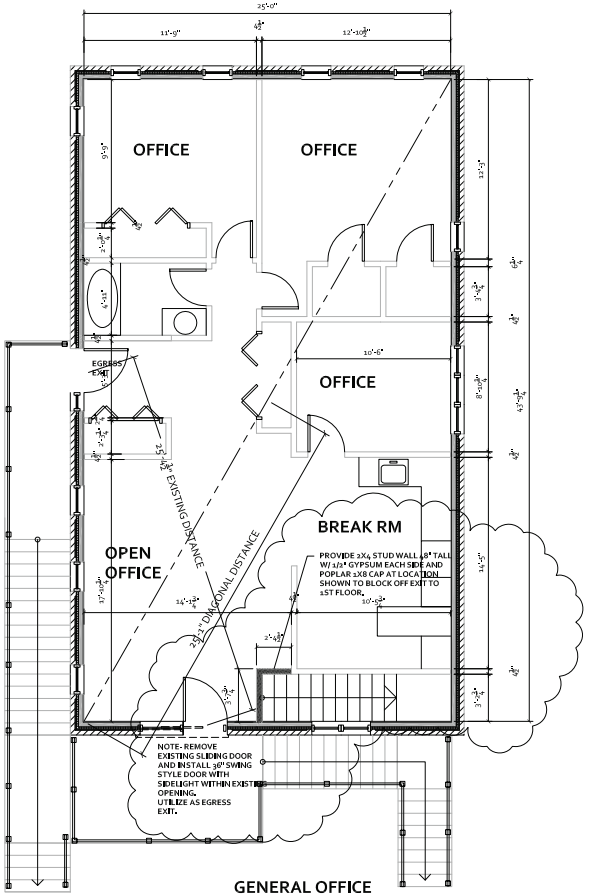


1 BASEMENT PLAN
1/4" = 1'-0"



DENTAL OFFICE

1 1ST FLOOR PLAN
1/4" = 1'-0"
EXISTING DENTAL OFFICE



GENERAL OFFICE

1 2ND FLOOR PLAN
1/4" = 1'-0"
EXISTING OFFICE USE - VACANT

STATEMENT OF COMPLIANCE

I HAVE PREPARED, OR CAUSED TO BE PREPARED UNDER MY DIRECT SUPERVISION, THE ATTACHED PLANS AND SPECIFICATIONS AND STATE THAT, TO THE BEST OF MY KNOWLEDGE AND BELIEF AND TO THE EXTENT OF MY CONTRACTUAL OBLIGATION, THEY ARE IN COMPLIANCE WITH THE CODES LISTED IN THE BUILDING CODE ANALYSIS

SIGNED:
LICENSE EXPIRATION DATE: 11/30/26
DATE: 4-10-26
FIRM LICENSE NUMBER: 184.006610
FIRM EXPIRATION DATE: 04/30/27

ISSUES AND REVISIONS:

NO:	BY:	DESCRIPTION:	DATE:

NO:	BY:	DESCRIPTION:	DATE:

NOTE TO BUILDING DEPARTMENT:
THESE DOCUMENTS (PLANS & SPECIFICATIONS) ARE VALID FOR PERMITS ONLY WHEN THE ARCHITECTS ORIGINAL SEAL AND SIGNATURE APPEARS AND IS AFFIXED, AND UNLESS OTHERWISE PROVIDED IN WRITING ARE INTENDED AS A PERMIT SUBMITTAL FOR ONE (1) BUILDING ONLY.
© BR Design & Architecture 2026

EXISTING OFFICE BUILDING
LOCATED AT
5145 WASHINGTON ST
DOWNERS GROVE

BR DESIGN & ARCHITECTURE
ONE TRANS AM PLAZA DRIVE · SUITE #120
OAKBROOK TERRACE IL 60181
PHONE: 708-508-7281

DRAFTPERSON:
BG
APPROVED:
BG
PREPARED FOR:
SINGLE FAMILY OWNER
LOCATION:
5145 WASHINGTON ST
DOWNERS GROVE, IL
JOB NUMBER: 0602021417
DATE: 4-10-26

BRIAN L. GOULD
LICENSED ARCHITECT
STATE OF ILLINOIS
EXPIRES:

SHEET NUMBER:
A-1.0

Village of Downers Grove

Planning and Zoning Commission - Report

Table 1 - Detailed information on this Planning and Zoning Commission Report.

Meeting Location	Civic Center – Betty Cheever Council Chambers
Meeting Address	850 Curtiss St., Downers Grove, IL 60515
Meeting Date	May 4th, 2026 at 7:00 PM
Subject	26-PZC-0013 – 417 2nd Street
Type	Special Use for an Accessory Structure on a Vacant Lot
Submitted by	Flora León, AICP, Senior Planner

Request.

The petitioner is requesting approval of a Special Use to construct an accessory structure on a lot of record prior to the construction of a principal structure.

Notice.

The application has been filed in conformance with applicable procedural and public notice requirements.

General Information.

Table 2 – Details about the applicant's identity and location.

Applicant Name	**Applicant Address**
Oakley Home Builders	5216 Main Street, Downers Grove, IL 60515

Table 3 - Property ownership details for primary and additional owner(s).

Owner Name	Owner Address
Jeffery Wiklund	417 2nd Street, Downers Grove, IL 60515

Property Information.

Table 4 - Detailed subject property summary (parcel identification, size, and zoning)

Existing Zoning	R-6, Residential Apartment/Condo 6
Existing Land Use	Vacant Single-Family Home
Property Size	0.37 acres (16,182 square feet)
PIN	09-08-411-026

Table 5 - Details regarding the surrounding properties, zoning, and land uses.

Direction	Zoning	Future Land Use
East	R-6, Residential Apartment/Condo 6	Multi-Family Residential
West	R-2, Residential Detached House 2	Single-Family Detached Residential
North	FC, Fairview Core	Mixed Use
South	R-6, Residential Apartment/Condo 6	Multi-Family Residential

Analysis.

Submittals.

This report is based on the following documents, which are on file with the Department of Community Development:

1. Project Narrative

2. Approval Criteria
3. Plat of Survey
4. Civil Plans
5. Architectural Plans

Project Description.

The petitioner owns both 5141 Grand Avenue and 417 2nd Street. The western lot is a single lot of record with a single-family home. The eastern lot is two lots of record with a vacant single-family home and detached garage. The petitioner is proposing to demolish the existing structures on the eastern lot, 417 2nd Street, to build a new pool house that will serve the pool on the 5141 Grand Avenue lot. Per the Zoning Ordinance, residential accessory structures may only be built on a lot with an existing principal structure (e.g. a house), unless a Special Use is granted.

Compliance with the Comprehensive Plan.

The Guiding DG Comprehensive Plan's Future Land Use Map designates the subject property as Multi-Family Residential. The proposal is not consistent with the intent of the Future Land Use Map. Development of this parcel by itself for a multi-family residential use is challenging based on its landlocked location without street frontage. However, the proposed pool house is consistent with the residential uses to the west. The proposal is consistent with the intent of the Comprehensive Plan's Housing and Neighborhoods Recommendations, which include promoting home renovation and enforcement of property maintenance regulations to preserve neighborhood character, supporting housing quality, and maintaining the appeal of established neighborhood.

Compliance with the Zoning Ordinance.

The property is zoned R-6, Residential Apartment/Condo 6. An accessory structure on a lot prior to a principal structure is an allowable special use in the R-6 Zoning District. The property meets the requirements and is eligible for consideration of

this special use. The 417 2nd Street lot will be administratively consolidated during the building permit review process in order to accommodate the proposed accessory structure. The proposed pool house will meet the bulk requirements of the Zoning Ordinance as outline in the table below:

Table 6 - Zoning regulations for proposed development.

Zoning Regulation	**Required**	**Proposed**
Front Setback - North	25 feet	46.4 feet
Side Setback - East	8.7 feet	45.8 feet
Side Setback - West	8.7 feet	13 feet
Rear Setback - South	20 feet	94.6 feet
Maximum Size – Accessory Structures	1,000 square feet	977 square feet
Accessory Structure Height	23 feet maximum	20.5 feet

Engineering and Public Improvements.

The petitioner's proposal complies with the Village's Stormwater and Floodplain Ordinance. The improvements, will result in a net decrease of one hundred and twenty-five (125) square feet in impervious surface area, and therefore no additional stormwater improvements are necessary. The subject property has access to Fairview Avenue, through a cross-access easement with the adjacent private property to the east, that will be maintained.

Neighborhood Comment.

Notice was provided to all property owners two hundred and fifty (250) feet or less from the subject property in addition to posting public hearing signs and publishing a legal notice in the Daily Herald. Staff did not receive any public inquiries.

Standards of Approval.

The petitioner is requesting approval for a Special Use to construct an accessory structure on a lot of record prior to the construction of a principal structure, as required by Section 28.6.010(a)(3). The Planning and Zoning Commission should consider the petitioner's documentation, the staff report and the discussion at the Planning and Zoning Commission meeting in determining whether the standards for approval have been met.

Special Uses, Sec 28.12.050(h) Review and Approval Criteria

(1) that the proposed use is expressly authorized as a special use in the district in which it is to be located;

(2) that the proposed use will not, in the particular case, be detrimental to the health, safety, or general welfare of the community;

(3) that the proposed use will not be injurious to the use and enjoyment of other property in the immediate area for the purposes already permitted, nor substantially diminish or impair property values within the neighborhood;

(4) that the establishment of the special use will not impede the normal and orderly development and improvement of adjacent property for uses permitted in the district.

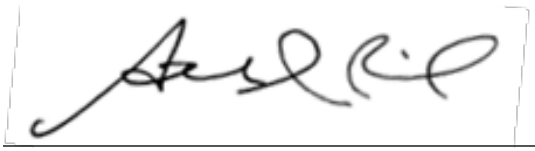
Draft Motion.

Staff will provide a recommendation at the May 4th, 2026 meeting. Should the Planning and Zoning Commission find that the request meets the standards of approval for a Special Use staff has prepared a draft motion that the Planning and Zoning Commission may make for the recommended approval of 26-PZC-0013, subject to the following conditions:

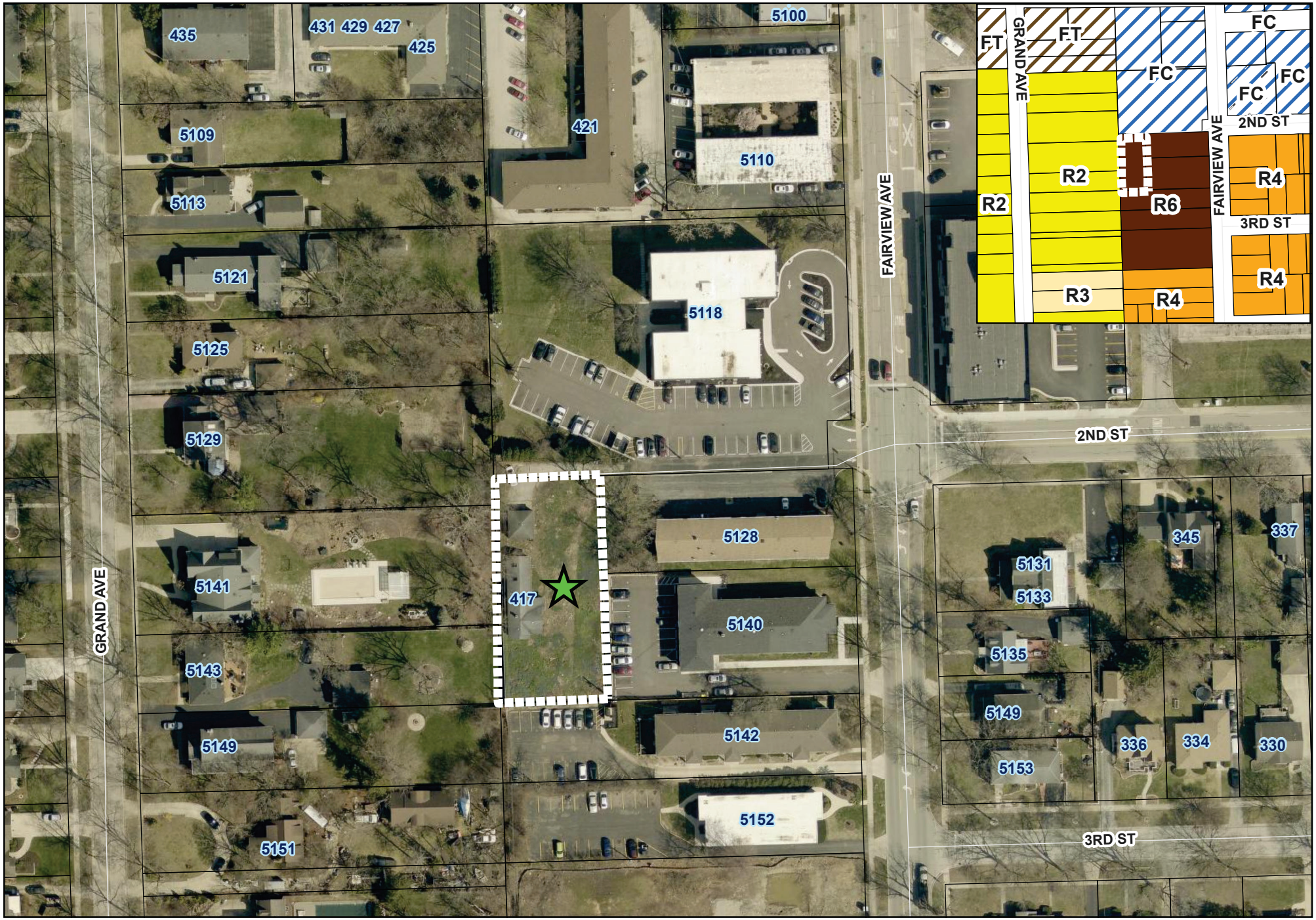
1. The proposed pool house shall substantially conform to the plans and specifications attached to this report except as such plans may be change to conform to the Village codes, ordinances, and policies.

2. A recorded plat of consolidation is required prior to occupancy issuance.
3. A restriction shall be recorded against the properties with the DuPage County Recorder of Deeds that requires demolition of the accessory structure prior to the sale of the properties if they are not transferred simultaneously to a single entity.
4. A direct connection from the pool house at 417 2nd Street to the pool located at 5141 Grand Avenue shall be installed prior to the issuance of a certificate of occupancy. Such connection shall be provided in the form of a sidewalk, stepping stones or similar material as approved by the Community Development Director.

Staff Report Approved By:



Stanley J. Popovich, AICP
Director of Community Development



N

0 50 100 200 Feet

417 2nd Street - Location Map

Subject Property

Site Location

OAKLEY
HOME BUILDERS inc.

March 20, 2026

Village of Downers Grove
850 Curtis Street
Downers Grove IL, 60515

RE: Accessory Structure 417 2nd St

Dear Members of the Downers Grove Planning and Zoning Commission,

This letter serves as a project narrative for the proposed accessory structure located at 417 2nd Street, which is intended to function as a pool house serving the existing single-family residence at 5141 Grand Avenue. The proposed structure is a non-dwelling accessory use and will not be utilized as a separate residence. It is designed solely to support the principal use of the property by providing amenities associated with a private residential pool at 5141 Grand. The structure will be constructed in a manner consistent with the character of the surrounding neighborhood and in compliance with all applicable zoning and building regulations. Furthermore, the project poses no adverse impact to public health, safety, or welfare, and will not generate additional traffic, noise, or utility demand beyond what is typical for a residential accessory use.

Thank you,

Kevin Nelson
Project Manager
Oakley Home Builders

Special Uses

Form #PZC2

Review and Approval Criteria

417 2nd St

Address of Project Site: _____

A detailed response to all of the standards shall be provided, specifying how each standard is or is not met.

Section 28.12.050.H. Approval Criteria (Special Uses)
No special use may be recommended for approval or approved unless the respective review or decision-making body determines that the proposed special use is consistent with and in substantial compliance with all Village Council policies and plans, including, but not limited to, the Comprehensive Plan and the Downtown Design Guidelines and that the applicant has presented evidence to support each of the following conclusions:

1. That the proposed use is expressly authorized as a Special Use in the district in which it is to be located.

   The proposed accessory structure is intended to function as a pool house serving the existing single-family residence located at 5141 Grand Avenue. Accessory structures of this nature are consistent with and contemplated within the Village's zoning framework when reviewed under the Special Use process. The proposed use remains clearly subordinate and incidental to the principal residential use and does not introduce a separate or independent

2. That the proposed use will not, in the particular case, be detrimental to the health, safety, or general welfare of the community.

   The accessory structure is a non-dwelling unit and will not be occupied as a residence. It will not generate additional traffic, public demand, or safety concerns beyond typical residential use. The structure is designed to meet all applicable building codes and zoning requirements, ensuring that it poses no risk to public health, safety, or welfa

3. That the proposed use will not be injurious to the use and enjoyment of other property in the immediate area for the purposes already permitted, nor substantially diminish or impair property values within the neighborhood.

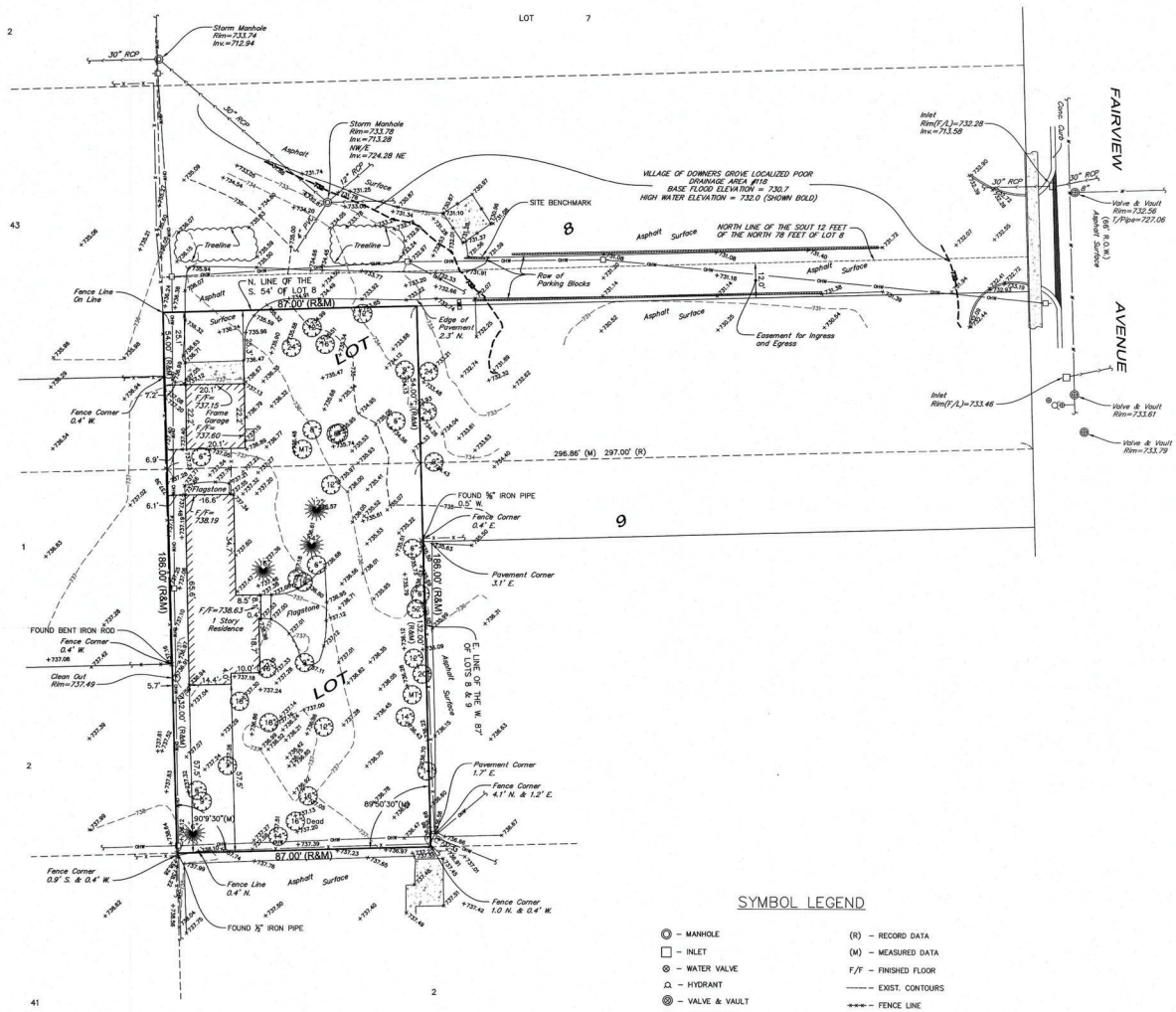
   The pool house will be architecturally compatible with the existing home and surrounding neighborhood. Its scale and use are typical of residential accessory structures and will not create noise, traffic, or visual impacts that would negatively affect neighboring properties. As such, it is not expected to diminish property values and may enhance the overall character of the property.

4. That the establishment of the special use will not impede the normal and orderly development and improvement of adjacent property for uses permitted in the district.

   The proposed accessory structure will not interfere with the development potential of surrounding properties. It maintains appropriate setbacks and conforms to zoning standards, ensuring that adjacent parcels retain full ability to develop or improve in accordance with permitted uses. The project is consistent with the established residential pattern of the area.

BOUNDARY AND TOPOGRAPHIC SURVEY

PROFESSIONAL LAND SURVEYING, INC.
3080 OGDEN AVENUE SUITE 307
LISLE, ILLINOIS 60532
PHONE: 630-778-1757
PROF. DESIGN FIRM # 184-004196
E-MAIL: info@plalisle.com



SCALE: 1" = 20'

PARCEL INDEX NUMBER
09-08-411-026

BENCHMARK

DUPAGE COUNTY BM DK3123 – BRASS DISK IN A CONCRETE TRAFFIC SIGNAL BASE LOCATED AT THE NORTHWEST CORNER OF THE INTERSECTION OF MAPLE AVENUE AND DUNHAM ROAD.

ELEVATION = 743.21 (NAVD 88)
PLSI 01 – NGS OPUS PID BBDM17: CUT CROSS IN TOP OF CURB AT NOSE OF NORTHERLY CURB ISLAND BETWEEN 3080 AND 3060 OGDEN AVE IN LISLE, ILLINOIS.

ELEVATION = 733.51 (NAVD 88)

SITE BENCHMARK – P.K. NAIL SET IN EDGE OF PAVEMENT AS SHOWN HEREON.

ELEVATION = 731.61

LEGAL DESCRIPTION

THE WEST 87 FEET OF THE SOUTH 54 FEET OF LOT 8 AND THE WEST 87 FEET OF LOT 9 OF HIGHLAND ACRES, A SUBDIVISION OF PART OF THE EAST HALF OF SECTION 8, TOWNSHIP 38 NORTH RANGE 11 EAST OF THE THIRD PRINCIPAL MERIDIAN, IN DUPAGE COUNTY, ILLINOIS, WITH AN EASEMENT FOR INGRESS AND EGRESS OVER THE SOUTH 12 FEET OF THE NORTH 78 FEET OF LOT 8 IN THE HIGHLAND ACRES IN THE EAST HALF OF SECTION 8, TOWNSHIP 38 NORTH, RANGE 11 EAST OF THE THIRD PRINCIPAL MERIDIAN, IN DUPAGE COUNTY, ILLINOIS.

NOTES

THE UNDERGROUND UTILITIES SHOWN HAVE BEEN LOCATED FROM FIELD SURVEY INFORMATION AND DRAWINGS IN SURVEYOR'S POSSESSION. THE SURVEYOR MAKES NO GUARANTEE THAT THE UNDERGROUND UTILITIES SHOWN COMPRISE ALL SUCH UTILITIES IN THE AREA, EITHER IN SERVICE OR ABANDONED. THE SURVEYOR FURTHER DOES NOT WARRANT THAT THE UNDERGROUND UTILITIES SHOWN ARE IN THE EXACT LOCATION INDICATED ALTHOUGH HE DOES STATE THAT THEY ARE LOCATED AS ACCURATELY AS POSSIBLE FROM INFORMATION AVAILABLE. THE SURVEYOR HAS NOT PHYSICALLY LOCATED THE UNDERGROUND UTILITIES.

PREPARED FOR: STATURE CUSTOM HOMES
ADDRESS: 417 2ND STREET, DOWNERS GROVE, ILLINOIS
BOOK & PG: 234/47 DATE: 11/30/2020 JOB NO: 2018838
DRAWN BY: SMR CHECK BY: JHH
REVISED:

DRAWING PATH: U:\Land Projects 3\18000-18999\18800-18899\18838_Topo\dwg\18838_Topo.dwg

SYMBOL LEGEND

- MANHOLE
- INLET
- WATER VALVE
- HYDRANT
- VALVE & VAULT
- POWER POLE
- UTILITY POLE W/GUY
- XXX.XX – EXISTING ELEVATION
- DEPRESSED CURB
- CONCRETE SURFACE
- (R) – RECORD DATA
- (M) – MEASURED DATA
- F/F – FINISHED FLOOR
- EXIST. CONTOURS
- FENCE LINE
- STORM SEWER
- WATERMAIN
- OVERHEAD WIRES
- DECIDUOUS TREE , LESS THAN 6" DIA. UNLESS OTHERWISE NOTED
- EVERGREEN TREE , LESS THAN 6" DIA. UNLESS OTHERWISE NOTED

SURVEYED AREA: 16,182± SQ. FT.

THIS SURVEY IS NOT VALID WITHOUT THE SURVEYOR'S ORIGINAL SIGNATURE IN BLUE INK

REFER TO YOUR DEED, ABSTRACT, TITLE POLICY AND LOCAL BUILDING AND ZONING ORDINANCE FOR ITEMS NOT SHOWN HEREON.

NO MEASUREMENTS ARE TO BE ASSUMED BY SCALING

STATE OF ILLINOIS } SS
COUNTY OF DUPAGE }

PROFESSIONAL LAND SURVEYING, INC. HEREBY CERTIFIES THAT IT HAS SURVEYED THE TRACT OF LAND ABOVE DESCRIBED, AND THAT THE HEREON DRAWN PLAT IS A CORRECT REPRESENTATION THEREOF.

FIELD WORK COMPLETED AND DATED THIS 17TH DAY OF NOVEMBER, 2020.

3483 STATE OF ILLINOIS

IPLS No. 3483
MY LICENSE EXPIRES 11/30/2022

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

©2020 PLS INC., ALL RIGHTS RESERVED

IMPERVIOUS AREA CALCULATIONS (S.F.)

LOT AREA = 16182 S.F.

	IMPERVIOUS AREA
EXISTING	
HOUSE & GARAGE (WITH OVERHANG)	2025
DRIVEWAY & STOOP	480
TOTAL EXISTING IMPERVIOUS	2505
PROPOSED	
POOL HOUSE (INCLUDING OVERHANG)	1230
CONCRETE STOOP	180
ASPHALT DRIVEWAY & STEPPERS	970
TOTAL IMPERVIOUS AREA	2380
NET NEW IMPERVIOUS AREA	-125

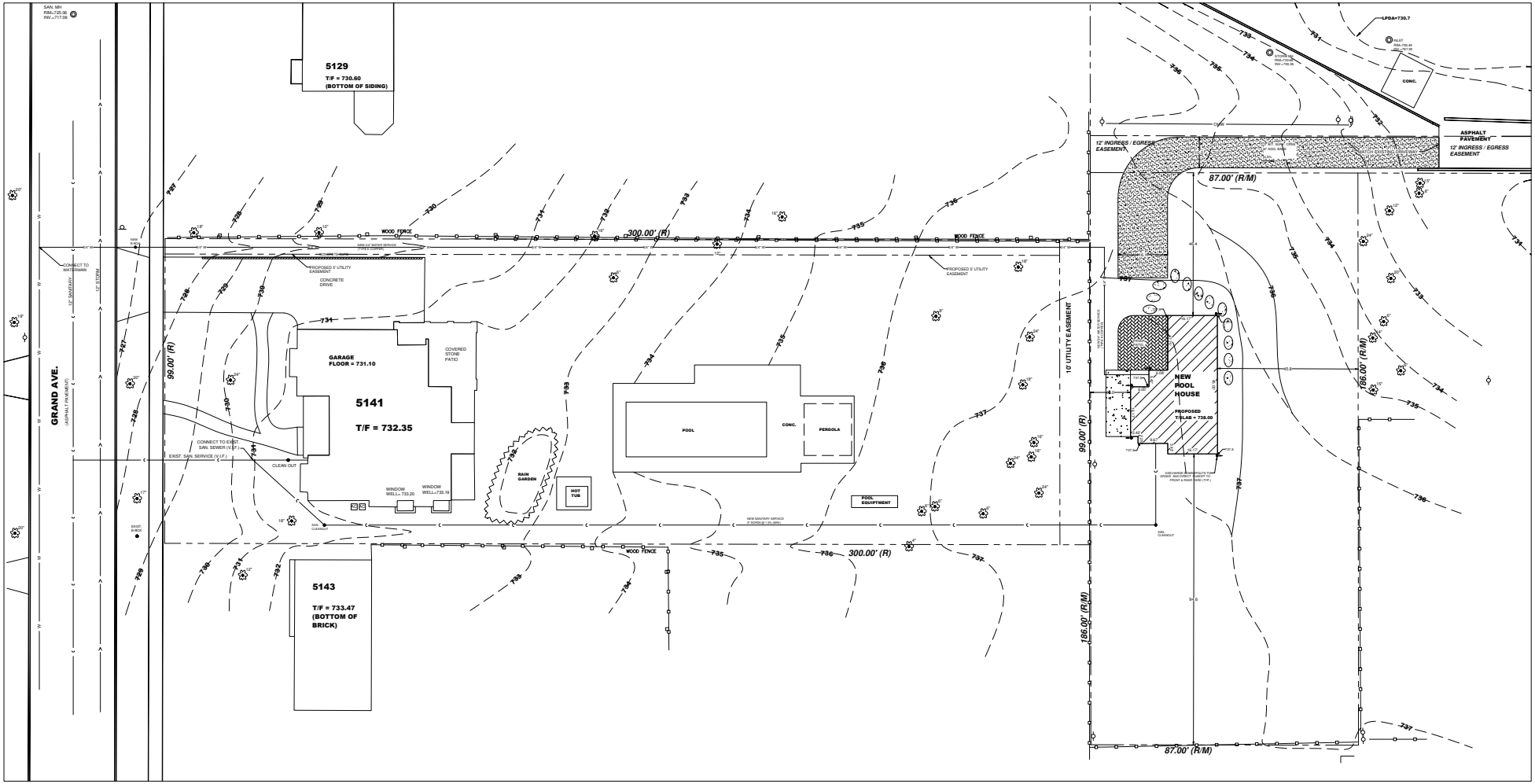
TOTAL REQUIRED STORAGE VOLUME = 0.0 C.F.

SCALE: 1" = 15'

SITE PLAN

FOR

417 SECOND ST. - DOWNERS GROVE, IL



SITE PLAN

417 SECOND ST. - DOWNERS GROVE, IL

FILE NAME = -

DRAWN BY = -

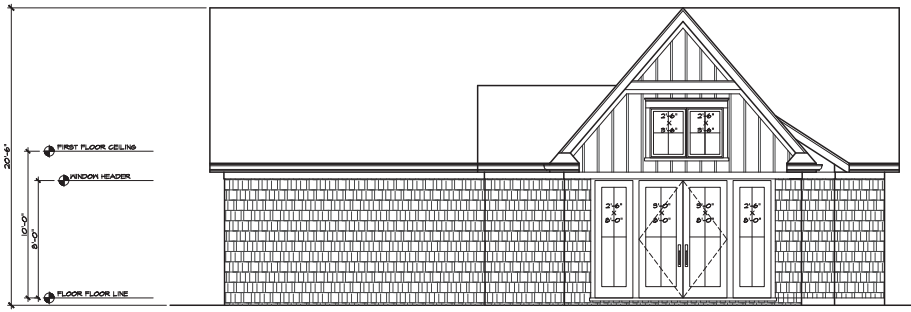
JOB DIRECTORY = -

CHECKED BY = -

PREPARED FOR

OAKLEY BUILDERS

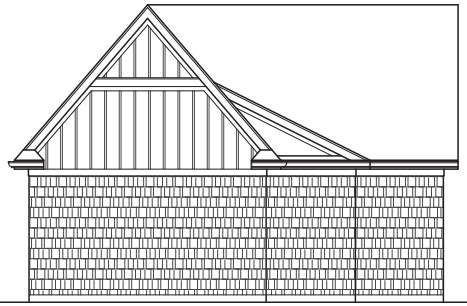
Gabriel Group, Inc.
Civil Engineering Solutions
P.O. Box 5376 - Oak Brook, IL 60522
Tel: 630-772-9393 Fax: 630-756-4151



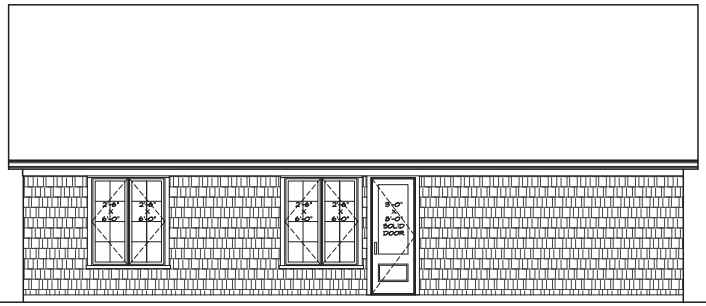
FRONT ELEVATION
SCALE: 1/4" = 1'-0"



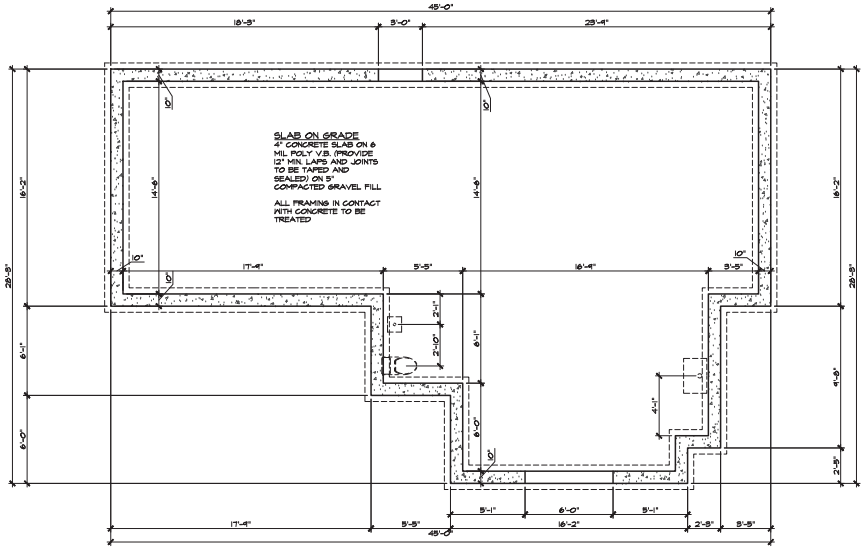
RIGHT ELEVATION
SCALE: 1/4" = 1'-0"



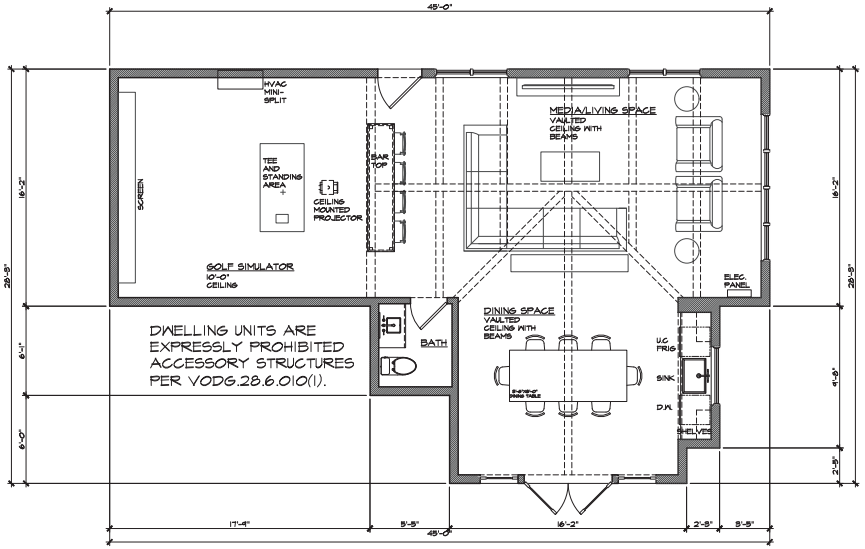
LEFT ELEVATION
SCALE: 1/4" = 1'-0"



REAR ELEVATION
SCALE: 1/4" = 1'-0"



FOUNDATION PLAN
SCALE: 1/4" = 1'-0"



PLAN
SCALE: 1/4" = 1'-0"
990 SQ.F/T.

STUDIO 1
ARCHITECTS
1105 Burlington Avenue
Western Springs, IL
708.783.1124
studio1architects.com

OAKLEY HOME BUILDERS, Inc.
5216 MAIN STREET,
DOWNERS GROVE,
ILLINOIS
630-241-3402

THE WKLUND RESIDENCE

DOWNERS GROVE, ILLINOIS

ILLINOIS LICENSE #. 001.015811
EXPIRATION. 11-30-26
PROFESSIONAL DESIGN FIRM #. 184.004427
EXPIRATION. 04-30-27

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ISSUED FOR: ZONING MEETING
DATE: APRIL 15, 2026
REVISIONS

PROJECT NUMBER: 261660
SHEET NO.

A1.1

1 OF 1

Village of Downers Grove

Planning and Zoning Commission - Report

Table 1 - Detailed information on this Planning and Zoning Commission Report.

Meeting Location	Civic Center – Betty Cheever Council Chambers
Meeting Address	850 Curtiss St., Downers Grove, IL 60515
Meeting Date	May 4, 2026 at 7:00 PM
Subject	26-PZC-0015. 330 Ogden Avenue
Type	Planned Unit Development Amendment
Submitted by	Flora León, AICP, Senior Planner

Request.

The petitioner is requesting approval of an Amendment to Planned Unit Development #68 to construct a new automobile dealership and to create a master signage plan at 330 Ogden Avenue.

Notice.

The application has been filed in conformance with applicable procedural and public notice requirements.

General Information.

Table 2 – Details about the applicant's identity and location.

Applicant Name	**Applicant Address**
Axios Architects & Consultants Inc.	801 West Adams Chicago, IL 60606

Table 3 - Property ownership details for primary and additional owner(s).

Owner Name	Owner Address
Patricia Enterprises	1035 North Clark Chicago, IL 60610

Property Information.

Table 4 - Detailed subject property summary (parcel identification, size, and zoning)

Existing Zoning	B-3/PUD #68, General Services and Highway Business/Planned Unit Development #68
Existing Land Use	Automobile Dealership and Inventory Parking Lot
Property Size	2.97 acres (129,458 square feet)
PINs	09-04-110-023, -024, -026, -027, -028, -029, -030, 09-04-111-012, -027, -028

Table 5 - Details regarding the surrounding properties, zoning, and land uses.

Direction	Zoning	Future Land Use
East	B-3, General Services and Highway Business	Corridor Commercial
West	B-3, General Services and Highway Business	Corridor Commercial
North	R-1, Residential Detached House 1	Corridor Commercial
South	B-3, General Services and Highway Business	Corridor Commercial

Analysis.

Submittals.

This report is based on the following documents, which are on file with the Department of Community Development:

1. Project Narrative
2. Approval Criteria
3. Plat of Survey
4. Site Plan
5. Engineering Plans
6. Landscape Plans
7. Elevations
8. Sign Package
9. Traffic Impact Study
10. Photometric Plan

Project Description.

The petitioner is requesting approval of an amendment to Planned Unit Development #68 to construct a new automobile dealership. The 2.97-acre property is located on the north side of Ogden Avenue to the east and west of Florence Avenue and is zoned B-3/PUD #68, General Services and Highway Business/Planned Unit Development #68. The existing site currently consists of two buildings, one of which currently houses the Bentley and Lamborghini dealerships (330 Ogden Avenue), with the other (310 Ogden Avenue) is a used car dealership with accessory services areas. Parking for customers, employees and vehicle displays exist on the subject property west of Florence Avenue. At 4241 Florence Avenue there is vehicle inventory lot that completed construction in 2025.

PUD #68 was established in 2024 to allow the construction of a 13,600 square foot two-story service center addition to expand the existing 16,000 square foot building and to develop the 4241 Florence Avenue property into a vehicle inventory parking lot. While the current proposal is similar, the amendment is needed as significant changes have been made to the originally approved development plan for the dealership and service building; a master signage plan is now included.

The petitioner is proposing to improve the subject property by constructing a new automobile dealership building in two phases. In phase one, the building to the west (330 Ogden Avenue) will remain in place. The existing building on the east (310 Ogden Avenue) will be demolished and a new 18,812 square foot service center and showroom (Rolls Royce) along with a 3,456 square foot mezzanine will be constructed. In phase two, the 330 Ogden Avenue building will be demolished and an additional 17,433 square feet will be added to the new building to house two additional showrooms and associated facilities (Bentley and Lamborghini). Upon completion, the new automobile dealership will have a total footprint of 36,245 square feet. The new dealership will house three showrooms (Rolls Royce, Bentley, and Lamborghini), service offices, a vehicle delivery bay, an automotive service center and ancillary uses including waiting areas, parts storage and break rooms. There are no proposed changes to the existing vehicle inventory lot at 4241 Florence Avenue.

The primary building façade will be composed of aluminum storefront windows, aluminum composite materials (ACM) panels, and steel framing members. The service center's second floor will mainly be open to the service center below with some space dedicated for parts storage. Immediately north of the new two-story service center, a new trash enclosure is proposed.

The petitioner will maintain two existing access points onto Ogden Avenue. The westernmost access point will be widened to provide for a two-way drive aisle. Access along Florence Avenue will be relocated fifty (50) feet north so that it is in line with the access point for the existing vehicle inventory parking lot at 4241 Florence Avenue. Including the newly constructed vehicle inventory parking lot, the

petitioner is proposing 163 vehicle spaces in total. The proposed parking is designed to accommodate customer parking, service parking, employee parking, vehicle inventory, and electric vehicle charging stations.

The petitioner is proposing landscaping around the proposed new automobile dealership, in conformance with the Village requirements. The north and west property lines, adjacent to residential zoning districts, include various landscape materials and an eight-foot solid fence. Parking lot and site lighting is provided around the proposed development. A photometric plan has been submitted and identifies that the proposed lighting complies with the Village requirements. Two pedestrian connections between the building and Ogden Avenue and Florence Avenue are provided as required.

Compliance with the Comprehensive Plan.

The Guiding DG Comprehensive Plan's Future Land Use Map designates the subject property as Corridor Commercial. Corridor commercial land uses are defined as commercial uses that are typically organized in a linear fashion and include a blend of neighborhood-oriented commercial retail, offices, auto dealerships, smaller regional commercial retail, service uses, and multi-family uses. Auto dealership businesses benefit from visibility and access without significantly contributing to traffic along the corridor or impact on nearby residential areas. The petitioner is proposing to redevelop the site with a new automobile dealership. The automobile dealership, being an automotive use, has a regional draw and will attract commuters driving to, from, and throughout Downers Grove.

Land Use and Development: Land Use Plan.

- Corridor Commercial uses should be located in areas with a regional draw of a corridor where they will benefit from access and visibility without significantly contributing to traffic or impact on nearby residential areas.

Economic Development.

- Continue to develop a balanced mix of land uses is important for the Village's long-term fiscal health and economic viability.
- Targeted incentives, flexible zoning tailored to specific areas and public-private partnerships may be utilized to ensure that desired, necessary developments occur in the correct locations.
- Continue to maintain and invest in existing stable commercial and employment centers.
- Continue to work with local businesses to improve the physical appearance and market viability of existing commercial corridors.
- Encourage new developments and redevelopments to incorporate sustainable practices, including green infrastructure and EV charging stations.

Compliance with the Zoning Ordinance.

The property is zoned B-3/PUD #68, General Services and Highway Business and Planned Unit Development #68. The bulk requirements of the proposed development in the B-3/PUD #68 zoning district are summarized in the following table:

Requirements.

Table 6 - Zoning regulations for 330 Ogden Avenue.

Zoning Regulation	Required	Proposed
Building Ogden Avenue Setback (South)	75 feet from Ogden Avenue centerline	89.17 feet from Ogden Avenue centerline
Building Florence Street Setback (East)	25 feet	58.84 feet

Zoning Regulation	Required	Proposed
Building Side Interior Setback Adjacent to R-1 (North)	14.33 feet	101.98 feet
Building Side Interior Setback Adjacent to R-1 (West)	15.33 feet	16.99 feet
Building Rear Setback Adjacent to R-1 (West)	20 feet	N/A
Building Rear Setback Adjacent to B-3 (West)	N/A	N/A
Parking Ogden Avenue Setback (South)	50 feet from Ogden Avenue centerline	50 feet
Parking Florence Street Setback (East)	8 feet	8.35 feet
Parking Side Interior Setback (North)	9 feet	5.58 feet (Existing)
Parking Rear Setback (West)	20 feet	20 feet (Existing)
Other Floor Area	0.75 (max)	0.4
Other Building Height	60 feet (max)	27 feet
Other Open Space	10,064 square feet (10% of 100,064 square feet)	11,388 square feet (11.4% of 100,064 square feet)

Table 7 - Zoning requirements for the overall planned unit development (PUD).

PUD Overall Bulk Regulations	Required	Proposed
PUD Land Area	N/A	140,098.42 square feet
PUD Site Area (Excludes Right-of-Way)	N/A	129,458 square feet
Floor Area Ratio	0.75 (max)	0.4
Building Height	60 feet (max)	27 feet

PUD Overall Bulk Regulations	Required	Proposed
Building Coverage	N/A	36,201 square feet
Open Space	12,963.7 square feet (10% of 129,458 square feet)	19,828 square feet (15.32% of 129,458 square feet)
Parking and Stacking Spaces	43 (2 spaces per 1,000 square feet of showroom area, plus 0.4 spaces 1,000 square feet of outdoor display space, plus 2 per service bay)	163 (53 required spaces and 110 outdoor display spaces)

The following improvements require relief from the Zoning Ordinance regulations:

Deviation Requests.

Table 8 - Deviation requests and petitioner's rationale.

Improvement	Relief Request	Petitioner's Rationale
Monument Signs – Street Frontage	Requirement: One (1) per street frontage Proposed: Three (3) on Ogden Avenue	Each vehicle brand requires a pylon monument sign facing Ogden Avenue.
Total Sign Area	Requirement: 300 square feet Proposed: 400 square feet	Each vehicle brand requires wall signage facing Ogden Avenue. Because the site has three specific dealerships, additional wall signage is necessary to offer equal identity and exposure.

Improvement	Relief Request	Petitioner's Rationale
Vehicle Inventory Parking – Stall Width	Requirement: 9 feet Proposed: 8 feet	With the requested relief, efficient and orderly circulation is possible due to the very low turnover of the parking spaces as they will be used for storing vehicles only and will not be accessed by the general public

Signage.

The petitioner is permitted up to 300 square feet of total signage and is requesting additional sign area for the development. Signage within the Planned Unit Development is proposed to be governed by a master signage plan that allows for a maximum of 400 square feet of signage and a total of three monument signs along the Ogden Avenue Street Frontage. Although 347 square feet of signage is identified below, the petitioner is requesting a maximum of 400 square feet to allow flexibility in the signage, as the final design has not been determined. In no case, will each ground sign exceed 36 square feet.

Table 9 - A comprehensive signage package, including type, area, height, and location.

Location	Sign Type	Area	Height
South Façade - Bentley	Wall	42 square feet	N/A
South Façade - Lamborghini	Wall	55 square feet	N/A
South Façade – Rolls Royce	Wall	47 square feet	N/A
South Façade – Rolls Royce	Wall	45 square feet	N/A

Location	Sign Type	Area	Height
South Façade – Multi Brand Sign	Wall	50 square feet	N/A
Ogden Avenue	Monument	36 square feet	10 feet
Ogden Avenue	Monument	36 square feet	10 feet
Ogden Avenue	Monument	36 square feet	10 feet
Total	N/A	347 square feet	N/A

Engineering and Public Improvements.

The petitioner's proposal complies with the Village's Stormwater and Floodplain Ordinance. The petitioner is required to provide on-site stormwater detention and provide best management practices for the proposed development. With a previous parking lot expansion (west of Florence Avenue), an underground detention basin was designed to provide on-site detention. This was designed as an "L" shaped detention area located along the northeast section of the property. The flow of water is limited by an outlet control structure that restricts the amount of water that is released. The released water is then treated by a mechanical water quality unit. The building permit review will require confirmation that both the restrictor and mechanical water quality unit are functioning properly.

Traffic and Parking.

A traffic impact study for the proposed development was completed by the petitioner. The study examined the existing Ogden Avenue traffic conditions and the future conditions based on the proposed construction of the new auto dealership. The study found that given the size of the dealership and luxury type vehicles that are sold and serviced, the dealership would generate a significantly

lower volume of traffic than a typical dealership. Moreover, additional vehicle sales and service appointments would be distributed throughout the day. As such, the increase in traffic from the expanded dealership was projected to be limited and the overall traffic to be generated by the expanded dealership will be lower than a typical dealership. It should also be noted that the vehicle deliveries are required to take place on private property.

Access to the dealership lot is provided via access drives with stop sign control. The existing easternmost Ogden Avenue access drive will include a two-way drive aisle and left-turn movements to access the drive will be accommodated via the Ogden Avenue stripped median as well as the taper for the Ogden Avenue westbound left-turn lane serving Fairview Avenue. The existing westernmost Ogden Avenue access drive be widened from twenty-one (21) feet to twenty-four (24) feet to provide a two-way drive aisle. Inbound and outbound left-turn movements from this access drive will be prohibited from 7:00 to 9:00 A.M. and from 3:00 to 6:00 P.M. via pavement markings and signage. The existing Florence Avenue access drive will be relocated 50 feet north of its current location and, will include a two-way drive aisle, and will mainly serve the employee parking and the vehicle inventory parking located behind the dealership. No changes are proposed to the existing vehicle inventory parking lot at 4241 Florence Avenue. Lastly, similar to other auto related use, a condition of approval will require that test drives are limited to arterial streets. The traffic study found no significant impacts to the existing road network.

Public Safety Requirements.

The Fire Prevention Division has reviewed the proposed development and determined that sufficient access to and around the site is provided for emergency vehicles. The site layout permits Fire Department apparatus the opportunity to enter and exit the site from both the Ogden Avenue and Florence Avenue curb cuts.

Neighborhood Comment.

Notice was provided to all property owners two hundred and fifty (250) feet or less from the subject property in addition to posting public hearing signs and publishing a legal notice in the Daily Herald. Staff did receive one call that was general in nature.

Standards of Approval.

The petitioner is requesting approval of a Planned Unit Development Amendment to construct a new automobile dealership at 330 Ogden Avenue. The review and approval criteria is listed below:

Planned Unit Developments, Sec 28.12.040(c)(5) Review and Approval Criteria.

a. the zoning map amendment review and approval criteria of DGMC Section 28.12.030(i) in the case of new Planned Unit Development proposals;

b. whether the proposed PUD development plan and map amendment would be consistent and in substantial compliance with the comprehensive plan, downtown design guidelines and any other adopted plans for the subject area;

c. whether PUD development plan complies with the PUD overlay district provisions of DGMC Section 28.4.030;

d. whether the proposed development will result in public benefits that are greater than or at least equal to those that would have resulted from development under conventional zoning regulations; and

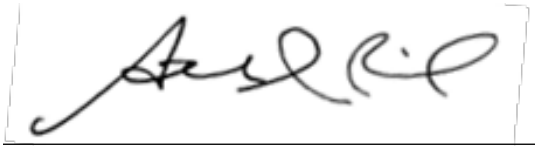
e. whether appropriate terms and conditions have been imposed on the approval to protect the interests of surrounding property owners and residents, existing and future residents of the PUD and the general public.

Draft Motion.

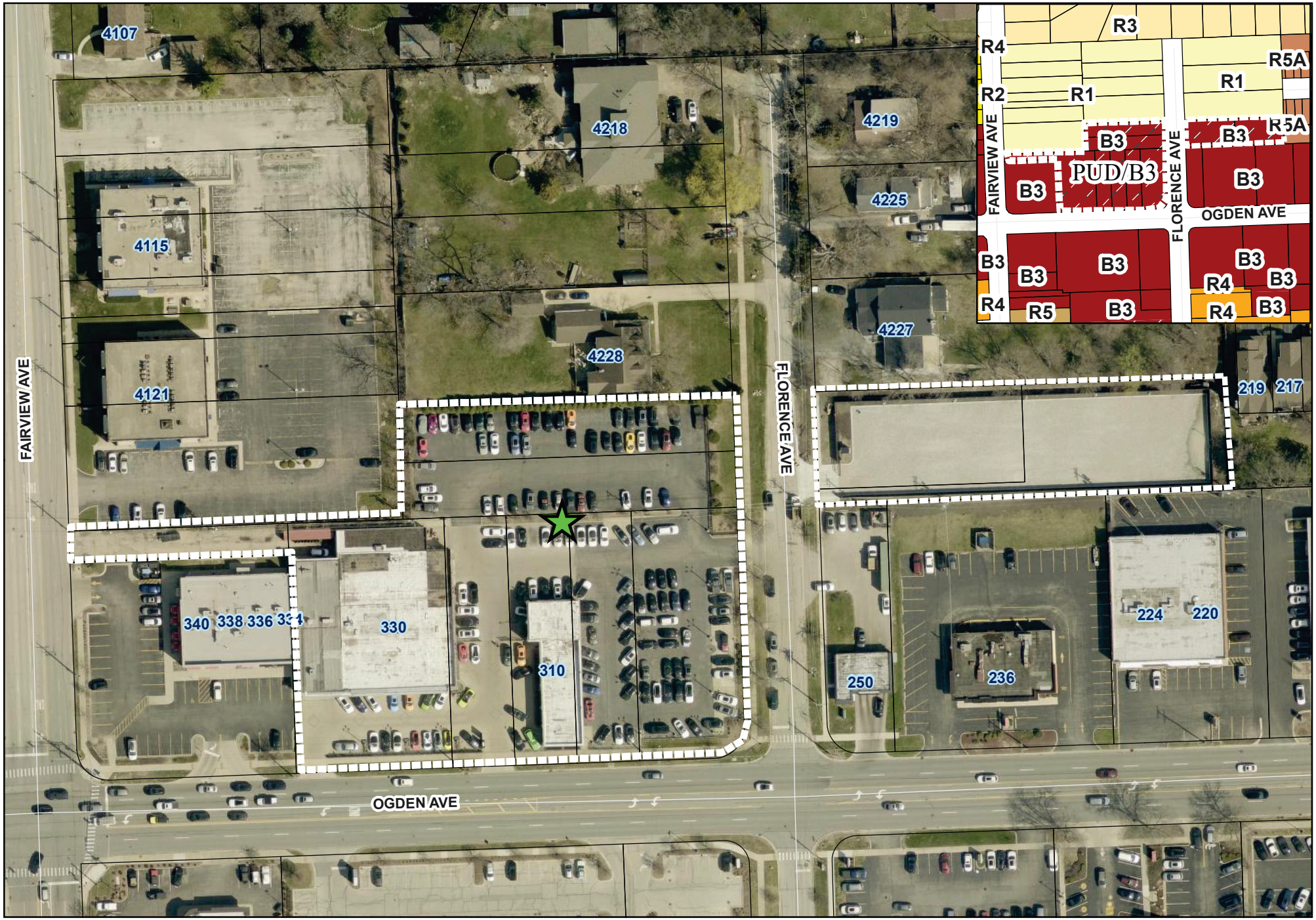
Staff will provide a recommendation at the May 4th, 2026 meeting. Should the Planning and Zoning Commission find that the request meets the standards of approval for a Planned Unit Development Amendment staff has prepared a draft motion that the Planning and Zoning Commission may make for the recommendation of 26-PZC-0015:

1. The Planned Unit Development shall substantially conform to the staff report, architectural and landscape drawings prepared by Axios Architects dated March 20th, 2026 and last revised April 16, 2026; engineering drawings prepared by WMA dated March 27th, 2026 and last revised on April 17, 2026, and photometric drawings prepared by LSI Industries Inc. dated March 18th, 2026 and last revised on April 16th, 2026.
2. All test drives are limited to arterial streets as defined in the Comprehensive Plan. Arterial streets include: Ogden Avenue, Fairview Avenue, Highland Avenue, Main Street, and 55th Street.
3. A photometric plan must demonstrate reduction in the pole heights for the existing light fixtures located in the rear parking lot of the 330 Ogden Avenue property.
4. All vehicle deliveries must be completed on private property. Deliveries may not take place on Florence Avenue or Ogden Avenue.

Staff Report Approved By:



Stanley J. Popovich, AICP
Director of Community Development



N

100 50 0 100 Feet

330 Ogden Avenue - Location Map

Subject Property

Site Location

Planned Unit Development

Form #PZC1

Review and Approval Criteria

Address of Project Site: 330 OGDEN AVE.

A detailed response to all of the standards shall be provided, specifying how each standard is or is not met.

Section 28.12.040.C.6. Review and Approval Criteria (Planned Unit Development)
The decision to amend the zoning map to approve a PUD plan and to establish a PUD overlay district are matters of legislative discretion that are not controlled by any single standard. In making recommendations and decisions regarding approval of planned unit developments, review and decision making bodies must consider at least the following factors:

1. The zoning map amendment review and approval criteria of Sec. 12.030.I.
   See the analysis of zoning map amendment review and approval criteria in separate document.

   The team will ensure compliance for map amendment review.

2. Whether the proposed PUD plan and map amendment would be consistent with the Comprehensive Plan and any other adopted plans for the subject area.

   The PUD is consistent with the Village plan to widen the Ogden Ave commercial corridor.

3. Whether PUD plan complies with the PUD overlay district provisions of Sec. 4.030.

   The PUD is and will be in full compliance.

4. Whether the proposed development will result in public benefits that are greater than or at least equal to those that would have resulted from development under conventional zoning regulations.

   The PUD and the resulting dealership will provide additional tax revenue that will benefit the community in general.

5. Whether appropriate terms and conditions have been imposed on the approval to protect the interests of surrounding property owners and residents, existing and future residents of the PUD and the general public.

   The development takes into consideration all surrounding property owner's interest and meets or exceeds expectations.

Axios Architects & Consultants Ltd.
801 W. Adams • Suite 205 • Chicago • Illinois • 60606
Tel. 312.750.1333 • Fax 312.750.1335

April 28, 2026

Flora Leon
Village of Downers Grove
850 Curtiss Street
Downers Grove, IL.

Re: Fields Auto Group - Rolls Royce, Lamborghini and Bentley Dealership description

Dear Flora,

The Fields Auto Group is developing the property at 330 Ogden Ave in Downers Grove, Illinois. The project includes the site development and new construction of an automotive service center and showrooms facilitating Rolls Royce, Bentley and Lamborghini vehicles.

The site development for the 330 Ogden Ave property includes new service structures along with new showrooms for the three brands. The property is 100,242 square feet. The project will be a two Phase project.

Phase I
The existing building to the west is to remain during Phase I construction.
Drawings are to be submitted for the entire precast shell and the complete buildout for the Rolls Royce Service Center and showroom housing approximately 18,812 square feet. Rolls Royce delivery is critical along with the understanding that a Certificate of Occupancy will be needed to operate the Rolls Royce brand prior to completing the Lamborghini and Bentley facilities. There will be a temporary exterior wall between the Rolls Royce facility and the Lamborghini/Bentley facility allowing the existing building to remain. Phase I construction will also include the infrastructure necessary to operate the service center and showroom for the Rolls Royce brand including all required fire protection. The Rolls Royce service center will also include a 3,456 square foot mezzanine.
Phase II will be to complete the Bentley and Lamborghini showrooms and associated facilities housing an additional 17,433 square feet for a total footprint area of 36,245 square feet.

As stated the project will include multi-vehicle showrooms, service offices, service reception, a vehicle delivery bay, associated service bays. The supporting elements include a parts mezzanine, various toilet rooms for both staff and public use, a staff break room and storage areas.

The new service center will be constructed of precast panels, and steel framing members, beams, bar joists etc. The showroom areas will consist of glass, steel and ACM panels.

Signage rendered is shown for representation purposes only. Final permit signage to be authorized by each brand vendor.

As part of this project a request for a sign variance is needed.

The rationale for this request is based on the requirements that each brand has equal identity and exposure.

Each of the brands require an identity pylon monument sign. Village of Downers Grove permits two signs, and a maximum of 300 s.f. We are requesting a variance for a third sign and an increase in the maximum signage ordinance of 300 s.f. to allow for wall signage in addition to the monument signage. The request is to increase the square footage to a maximum of 400 s.f.

We are requesting a reduction of the “Inventory Parking” from a stall width of 9’ to a stall width of 8’.

Efficient inventory circulation due to the very low turnover of the parking spaces as they will be used for storing vehicles only. Only dealership personnel familiar with the operation of the parking lot will be parking vehicles.

Thank you

Bill G. Kokalias, Architect
Axios Architects & Consultants Inc.
801 W. Adams Street, Ste 205
Chicago, IL. 60606
Lic# 001-019545

PREPARED BY:
Z11 SURVEY & GEOSPATIAL SERVICES, INC.
Design Firm No.: 184-008740-0008
7450 W. Argyle Street
Harwood Heights, IL 60706
Phone: 312-810-3047
Email: office@z11surveying.com
Website: www.z11surveying.com

PLAT OF TOPOGRAPHY

OF

PARCEL 1:
THE NORTH 1/2 OF LOT 4 IN BLOCK 2 IN ARTHUR T. MCINTOSH AND COMPANY'S THIRD OGDEN AVENUE SUBDIVISION, BEING A SUBDIVISION OF THE SOUTH 9 CHAINS OF THE SOUTHWEST 1/4 OF THE NORTHWEST 1/4 OF SECTION 4, TOWNSHIP 38 NORTH, RANGE 11, EAST OF THE THIRD PRINCIPAL MERIDIAN, ACCORDING TO THE PLAT THEREOF RECORDED DECEMBER 31, 1924 AS DOCUMENT 186703, IN DU PAGE COUNTY, ILLINOIS.

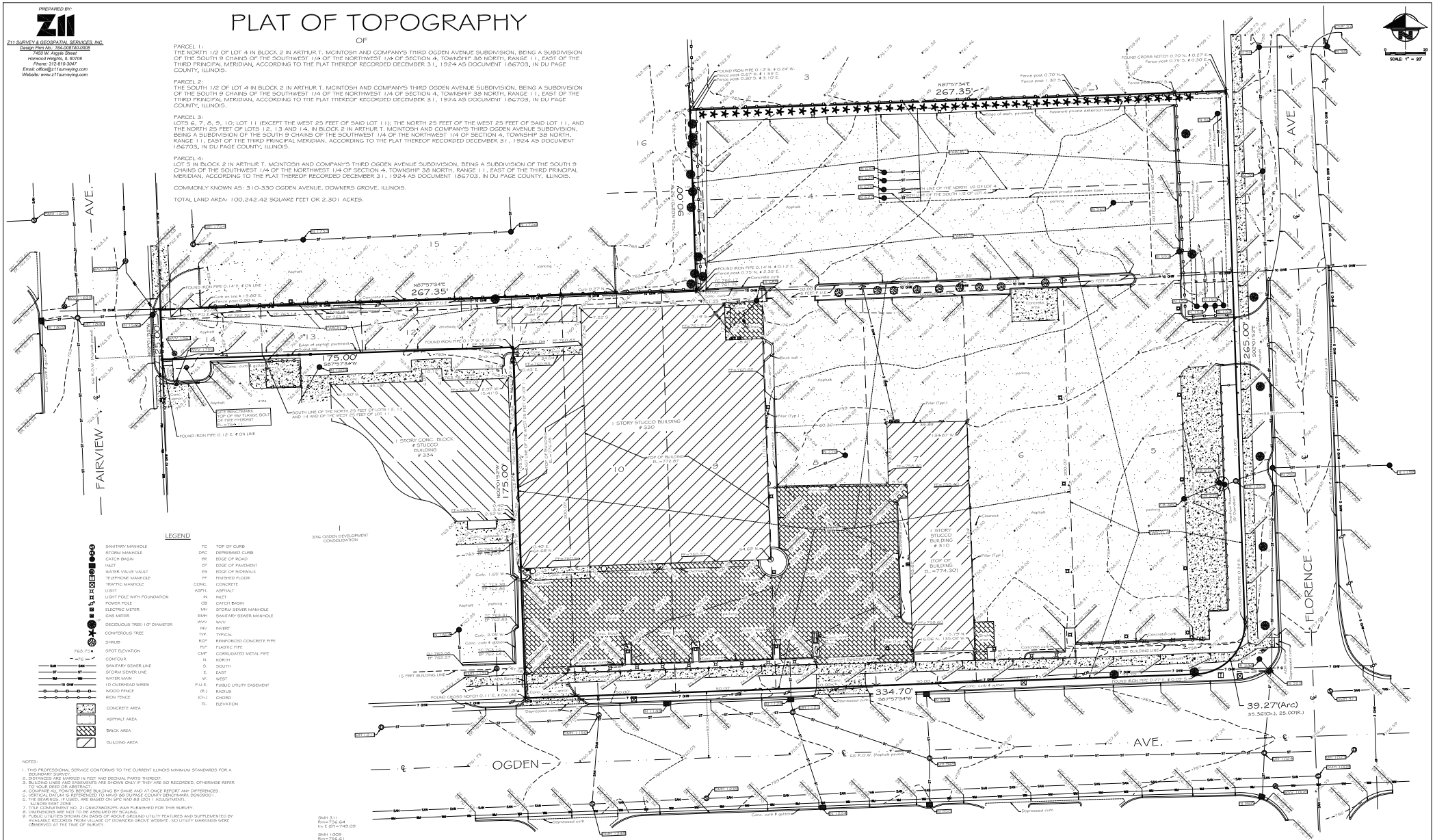
PARCEL 2:
THE SOUTH 1/2 OF LOT 4 IN BLOCK 2 IN ARTHUR T. MCINTOSH AND COMPANY'S THIRD OGDEN AVENUE SUBDIVISION, BEING A SUBDIVISION OF THE SOUTH 9 CHAINS OF THE SOUTHWEST 1/4 OF THE NORTHWEST 1/4 OF SECTION 4, TOWNSHIP 38 NORTH, RANGE 11, EAST OF THE THIRD PRINCIPAL MERIDIAN, ACCORDING TO THE PLAT THEREOF RECORDED DECEMBER 31, 1924 AS DOCUMENT 186703, IN DU PAGE COUNTY, ILLINOIS.

PARCEL 3:
LOTS 6, 7, 8, 9, 10; LOT 11 (EXCEPT THE WEST 25 FEET OF SAID LOT 11); THE NORTH 25 FEET OF THE WEST 25 FEET OF SAID LOT 11, AND THE NORTH 25 FEET OF LOTS 12, 13 AND 14, IN BLOCK 2 IN ARTHUR T. MCINTOSH AND COMPANY'S THIRD OGDEN AVENUE SUBDIVISION, BEING A SUBDIVISION OF THE SOUTH 9 CHAINS OF THE SOUTHWEST 1/4 OF THE NORTHWEST 1/4 OF SECTION 4, TOWNSHIP 38 NORTH, RANGE 11, EAST OF THE THIRD PRINCIPAL MERIDIAN, ACCORDING TO THE PLAT THEREOF RECORDED DECEMBER 31, 1924 AS DOCUMENT 186703, IN DU PAGE COUNTY, ILLINOIS.

PARCEL 4:
LOT 5 IN BLOCK 2 IN ARTHUR T. MCINTOSH AND COMPANY'S THIRD OGDEN AVENUE SUBDIVISION, BEING A SUBDIVISION OF THE SOUTH 9 CHAINS OF THE SOUTHWEST 1/4 OF THE NORTHWEST 1/4 OF SECTION 4, TOWNSHIP 38 NORTH, RANGE 11, EAST OF THE THIRD PRINCIPAL MERIDIAN, ACCORDING TO THE PLAT THEREOF RECORDED DECEMBER 31, 1924 AS DOCUMENT 186703, IN DU PAGE COUNTY, ILLINOIS.

COMMONLY KNOWN AS: 310-330 OGDEN AVENUE, DOWNERS GROVE, ILLINOIS.

TOTAL LAND AREA: 100,242.42 SQUARE FEET OR 2.301 ACRES.



LEGEND

	SANITARY MANHOLE	TC	TOP OF CURB
	STORM MANHOLE	DPC	DEPRESSED CURB
	CATCH BASIN	ER	EDGE OF ROAD
	INLET	EP	EDGE OF PAVEMENT
	WATER VALVE VAULT	ES	EDGE OF SIDEWALK
	TELEPHONE MANHOLE	FF	FINISHED FLOOR
	TRAFFIC MANHOLE	CONC.	CONCRETE
	LIGHT	ASPH.	ASPHALT
	LIGHT POLE WITH FOUNDATION	IN	INLET
	POWER POLE	CB	CATCH BASIN
	ELECTRIC METER	MH	STORM SEWER MANHOLE
	GAS METER	SMH	SANITARY SEWER MANHOLE
	DECIDUOUS TREE-1.0" DIAMETER	WVV	WVV
	CONIFEROUS TREE	INV	INVERT
	SHRUB	TYP.	TYPICAL
763.75 x	SPOT ELEVATION	RCP	REINFORCED CONCRETE PIPE
	CONTOUR	PLP	PLASTIC PIPE
SAN SAN	SANITARY SEWER LINE	CMP	CORRUGATED METAL PIPE
STM STM	STORM SEWER LINE	N.	NORTH
W W	WATER MAIN	S.	SOUTH
10 OHW	10 OVERHEAD WIRES	E.	EAST
	WOOD FENCE	W.	WEST
	IRON FENCE	P.U.E.	PUBLIC UTILITY EASEMENT
	CONCRETE AREA	(R.)	RADIUS
	ASPHALT AREA	(Ch.)	CHORD
	BRICK AREA	EL.	ELEVATION
	BUILDING AREA		

336 OGDEN DEVELOPMENT CONSOLIDATION

NOTES:
1. THIS PROFESSIONAL SERVICE CONFORMS TO THE CURRENT ILLINOIS MINIMUM STANDARDS FOR A BOUNDARY SURVEY.
2. DISTANCES ARE MARKED IN FEET AND DECIMAL PARTS THEREOF.
3. BUILDING LINES AND EASEMENTS ARE SHOWN ONLY IF THEY ARE SO RECORDED, OTHERWISE REFER TO YOUR DEED OR ABSTRACT.
4. COMPARE ALL POINTS BEFORE BUILDING BY SAME AND AT ONCE REPORT ANY DIFFERENCES.
5. VERTICAL DATUM IS REFERENCED TO NAVD 88 DUPAGE COUNTY BENCHMARK (DONDROD).
6. THE BEARINGS, IF USED, ARE BASED ON SPC NAD 83 (2011 ADJUSTMENT).
7. NO UNDERGROUND UTILITIES.
8. TITLE COMMITMENT NO. 21GW23803SPK WAS FURNISHED FOR THIS SURVEY.
9. DIMENSIONS ARE NOT TO BE ASSUMED BY SCALING.
10. PUBLIC UTILITIES SHOWN ON BASIS OF ABOVE GROUND UTILITY FEATURES AND SUPPLEMENTED BY AVAILABLE RECORDS FROM VILLAGE OF DOWNERS GROVE WEBSITE. NO UTILITY MARKINGS WERE OBSERVED AT THE TIME OF SURVEY.

SMH 311
Rim=756.69
Inv E (8")=749.09

SMH 1009
Rim=756.61
Inv W-S (8")=747.41

SMH 1156
Rim=758.93
Inv N-S (8")=752.47
Inv NW (8")=753.00

SMH 1180
Rim=762.06
Inv N-S (8")=755.76
Inv N (6" Poly)=756.76

SMH 1235
Rim=758.46
Inv E-W (8")=750.91

SMH 1246
Rim=760.76
Inv N-S (8")=751.91
Inv N (8" Poly)=751.53

SMH 1642
Rim=762.41
Inv W-N (8")=755.68

IN 24
Rim=757.63
Inv S (10" Rcp)=755.19
Inv S-W (8" Poly)=754.94
Inv N (4" Poly)=755.64
Inv E (10" Rcp)=755.24

CMP 37
Inv=757.62

IN 38
Rim=757.65
Inv W (10" Rcp)=755.46

IN 56
Rim=759.08
Inv S (48" Cmp)=754.43

IN 58
Rim=757.86
Inv S (10" Rcp)=754.83
Inv N (10" Rcp)=754.90

IN 132
Rim=758.86
Inv S-N (48" Cmp)=754.28

IN 153
Rim=759.85
Inv S-N (48" Cmp)=754.28

IN 154
Rim=759.86
Inv S-N (48" Cmp)=754.26

IN 155
Rim=759.86
Inv S-N (48" Cmp)=754.26

IN 256
Rim=757.50
Inv S (12" Rcp)=754.00
Inv N (10" Rcp)=754.07
Inv E (10" Rcp)=754.40
Inv W (10" Rcp)=754.05

CB 276
Rim=758.33
Inv E (10" Rcp)=754.12
Sump=751.33

CB 277
Rim=758.32
Inv N (12" Rcp)=753.82
Inv SW (12" Rcp)=753.02
Sump=751.32

IN 325
Rim=756.41
Inv S (12" Rcp)=753.26
Inv SW (12" Rcp)=753.21
Inv NW (12" Rcp)=753.90

CB 344
Rim=756.21
Inv SW (12" Rcp)=754.21

CB 386
Rim=757.36
Inv NE (12" Rcp)=755.21
Sump=751.76

IN 553
Rim=759.20
Inv E (12" Rcp)=755.40

CB 568
Rim=759.14
Inv E (12" Rcp)=755.54
Sump=752.50

IN 624
Rim=761.45
Inv E (48" Cmp)=754.43

IN 625
Rim=761.46
Inv E (48" Cmp)=754.46

IN 626
Rim=761.47
Inv E (48" Cmp)=754.47

IN 627
Rim=761.47
Inv E (48" Cmp)=754.47

IN 685
Rim=761.14
Inv NE (6" Poly)=759.07
Inv SW (3" Poly)=759.49
Inv W (3" Poly)=758.11

IN 776
Rim=758.03
Inv SW (9" Pip)=757.23
(Structure full of water)

IN 998
Rim=756.51
Inv N (12" Rcp)=754.16

IN 334
Rim=757.46
Inv S (12" Rcp)=754.56

MH 949
Rim=758.46
Inv NW (12" Rcp)=753.95
Inv E (15" Rcp)=753.85
Inv N (12" Rcp)=754.10
Inv S (12" Rcp)=754.10

IN 1124
Rim=758.41
Inv N (6" Poly)=759.86
Inv S (12" Rcp)=755.46

MH 1125
Rim=758.73
Inv N/A
(Structure filled with debris)

MH 1023
Rim=759.64
Inv N/A
(Sealed Lid)

MH 1024
Rim=761.97
Inv N/A
(Sealed Lid)

IN 1145
Rim=759.18
Inv N/A
(Structure filled with debris)

IN 1186
Rim=756.49
Inv W (10" Rcp)=754.60

MH 1211
Rim=761.91
Inv N/A
(Sealed Lid)

IN 1224
Rim=758.22
Inv N (12" Rcp)=756.20

IN 1253
Rim=758.39
Inv E (10" Rcp)=754.08
Inv W (10" Rcp)=753.75
Sump=746.09

IN 1464
Rim=762.24
Inv S (12" Rcp)=757.34

IN 1546
Rim=762.57
Inv W (8" Pip)=758.72
Inv S (8" Pip)=758.80

IN 1603
Rim=763.03
Inv SW (10" Rcp)=758.53

IN 1736
Rim=762.08
Inv W (10" Rcp)=758.75
Inv N (10" Rcp)=758.80

IN 1733
Rim=762.18
Inv W (10" Rcp)=758.63
Inv E (10" Rcp)=758.70

MH 1754
Rim=762.81
Inv N (12" Rcp)=758.46
Inv E (10" Rcp)=758.52

IN 1629
Rim=762.66
Inv E (12" Rcp)=756.86

MH 1840
Rim=763.05
Inv N (24" Rcp)=755.30
Inv S (24" Rcp)=755.80
Inv W - N/A
Inv E - N/A

WVV 1008
Rim=756.62
TP S-W (12")=750.77

WVV 1561
Rim=762.83
TOSwr=756.83
(Structure full of water)

WVV 1793
Rim=763.12
TOSwr=759.12
TP S-W (8")=757.37

WVV 1839
Rim=762.91
TOSwr=758.16
TP S-W (8")=757.31

WVV 1843
Rim=762.85
TOSwr=758.44
(Structure full of water)

State of Illinois }
}
County of Cook }

We, Z11 Survey & Geospatial Services Inc., do hereby certify that we have surveyed the above described property and that, to the best of our knowledge, the plat hereon drawn is an accurate representation of said survey.

Jack A. Zlotek, Illinois Land Surveyor No. 3186
License Expiration: November 30, 2024.

Date of Plat: December 14, 2022.

JACK A. ZLOTEK 3186 PROFESSIONAL LAND SURVEYOR STATE OF ILLINOIS CHICAGO, IL

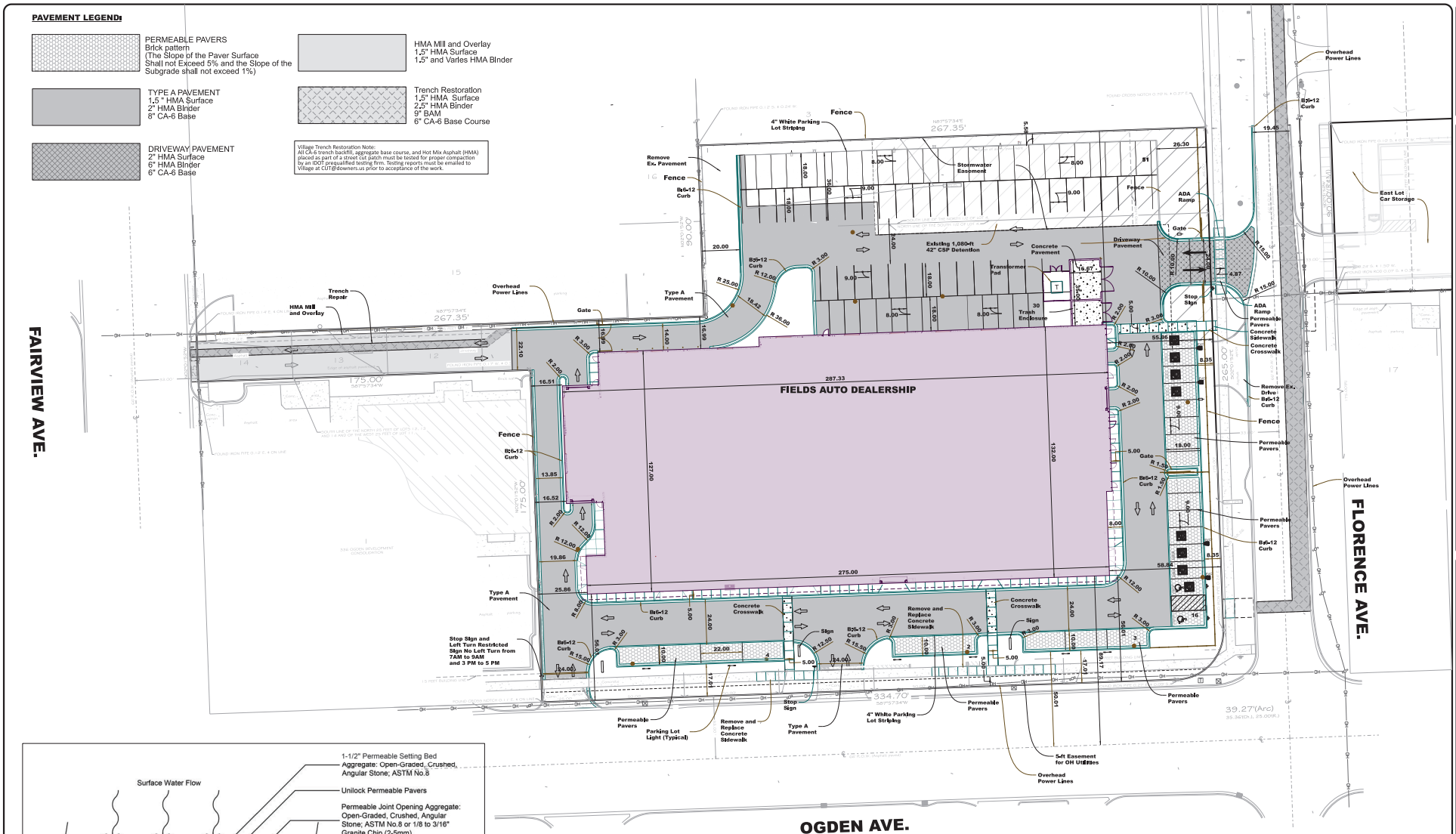
ORDER NO: Z11-22-004-T
ORDERED BY: Ben DeStefano - Construction Development Inc.
FIELD WORK COMPLETED ON: 12/09/2022 BY: J.Z./ M.

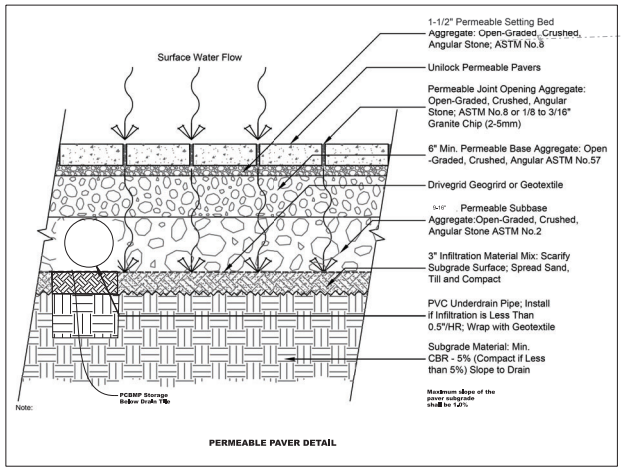
SCALE: 1" = 20'

PAVEMENT LEGEND:

- PERMEABLE PAVERS — Brick pattern (The Slope of the Paver Surface Shall not Exceed 5% and the Slope of the Subgrade shall not exceed 1%)
- HMA Mill and Overlay — 1.5" HMA Surface; 1.5" and Varies HMA Binder
- TYPE A PAVEMENT — 1.5 " HMA Surface; 2" HMA Binder; 8" CA-6 Base
- Trench Restoration — 1.5" HMA Surface; 2.5" HMA Binder; 9" BAM; 6" CA-6 Base Course
- DRIVEWAY PAVEMENT — 2" HMA Surface; 6" HMA Binder; 6" CA-6 Base

Village Trench Restoration Note:
All CA-6 trench backfill, aggregate base course, and Hot Mix Asphalt (HMA) placed as part of a street cut patch must be tested for proper compaction by an IDOT prequalified testing firm. Testing reports must be emailed to Village at CUT@downers.us prior to acceptance of the work.





PERMEABLE PAVER DETAIL

SITE DATA TABLE

330 Ogden

Site Area =	2.3 Ac.
Existing Building =	18,621 s. ft.
Building Removed =	18,621 s. ft.
Proposed Building =	39,657 s. ft.
Inventory =	103 Spaces
Customer, Employee, and Display Parking =	64 Spaces
Permeable Pavers =	4,233 s. ft.
Landscape Area =	12,381 s. ft.

GRAPHIC SCALE - FEET

FIELDS - DOWNERS GROVE
NEW SALES AND SERVICE FACILITY

Prepared For:
AADS ARCHITECTS
Attn: Jeff Aads
60 E. Bay Rd.
Osterville, MA 02655
Phone: 315-254-2383

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Wheaton, Illinois 60187-4567
Ph: (630)668-7900 Web: www.wma-ltd.com
Professional Design Firm 184.006261

NO.	DATE	REVISION DESCRIPTION
		Village Preliminary Plan Review Comments

ENGINEER'S SEAL

SURVEYOR'S SEAL

County: NW¼ 04-38-11

JOB #	44837	SURV:	Others
DRAWN:	BMB	REVIEW:	SMR
SCALE:	1" = 20'	DATE:	03-07-26

SHEET NAME

CIVIL SITE PLAN

SHEET #

SP-1

330 Ogden Avenue - Fields Auto Group

Downers Grove **Illinois**









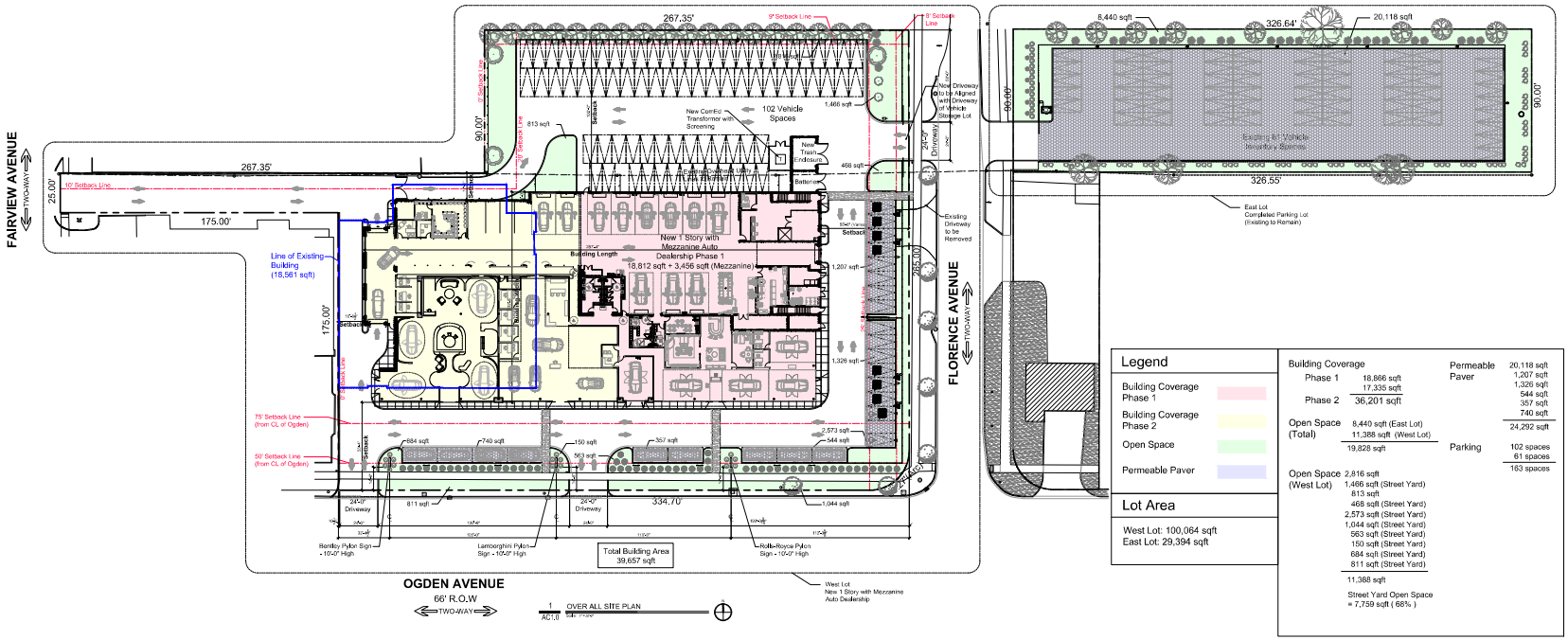
ZONING DATA

ZONING DISTRICT:	B-3 GENERAL SERVICES & HIGHWAY BUSINESS
LOT AREA	
WEST LOT:	100,064 SQFT
EAST LOT:	29,394 SQFT
PROPOSED BUILDING AREA	
PHASE 1:	18,866 SQFT (GROUND FLOOR) 3,456 SQFT (MEZZANINE)
PHASE 2:	17,335 SQFT (GROUND FLOOR)
TOTAL:	39,657 SQFT
PROPOSED F.A.R.:	
WEST LOT:	39,657 SQFT / 100,064 SQFT = .4
EAST LOT:	0
PROPOSED SETBACKS	
NORTHWEST:	17'-0"
NORTHEAST:	102'-0"
WEST:	16'-6 1/2"
EAST:	55'-6"
SOUTH:	55'-4"
BUILDING HEIGHT:	27'-0" (PARAPET)
PARKING	
INVENTORY :	61 + 40 = 101
CUSTOMER / EMPLOYEE:	29
DISPLAY PARKING:	9
SERVICE BAYS:	24
TOTAL:	163
LOADING BERTH:	0

SHEET INDEX

ARCHITECTURAL

AC1.0	ARCHITECTURAL COVER SHEET
AC1.1	ENLARGED SITE PLAN
AC1.2	FIRE TRUCK TURNING PLAN
LS1.0	LANDSCAPE PLAN
LS1.1	LANDSCAPE DETAILS
A1.0	FLOOR PLANS
A2.0	ELEVATIONS
A3.0	SECTIONS



Legend

- Building Coverage Phase 1
- Building Coverage Phase 2
- Open Space
- Permeable Paver

Lot Area

West Lot: 100,064 sqft
East Lot: 29,394 sqft

Building Coverage		
Phase 1	18,866 sqft	
	17,335 sqft	
Phase 2	36,201 sqft	
Open Space (Total)	8,440 sqft (East Lot)	
	11,388 sqft (West Lot)	
	19,828 sqft	
Open Space (West Lot)	2,816 sqft	
	1,466 sqft (Street Yard)	
	813 sqft	
	468 sqft (Street Yard)	
	2,573 sqft (Street Yard)	
	1,044 sqft (Street Yard)	
	563 sqft (Street Yard)	
	150 sqft (Street Yard)	
	684 sqft (Street Yard)	
	811 sqft (Street Yard)	
	11,388 sqft	
	Street Yard Open Space = 7,759 sqft (68%)	
Permeable Paver	20,118 sqft	
	1,207 sqft	
	1,326 sqft	
	544 sqft	
	357 sqft	
	740 sqft	
	24,292 sqft	
Parking	102 spaces	
	61 spaces	
	163 spaces	

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330 Ogden Ave

No.	DATE	Description
1	03/20/26	PUD
2	04/13/26	Revised PUD
3	04/14/26	Revised PUD
4	04/15/26	Revised PUD
5	04/16/26	Revised PUD
6	04/28/26	Revised PUD

FIELDS
DOWNERS GROVE

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SERVICE FACILITY
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Scope Document

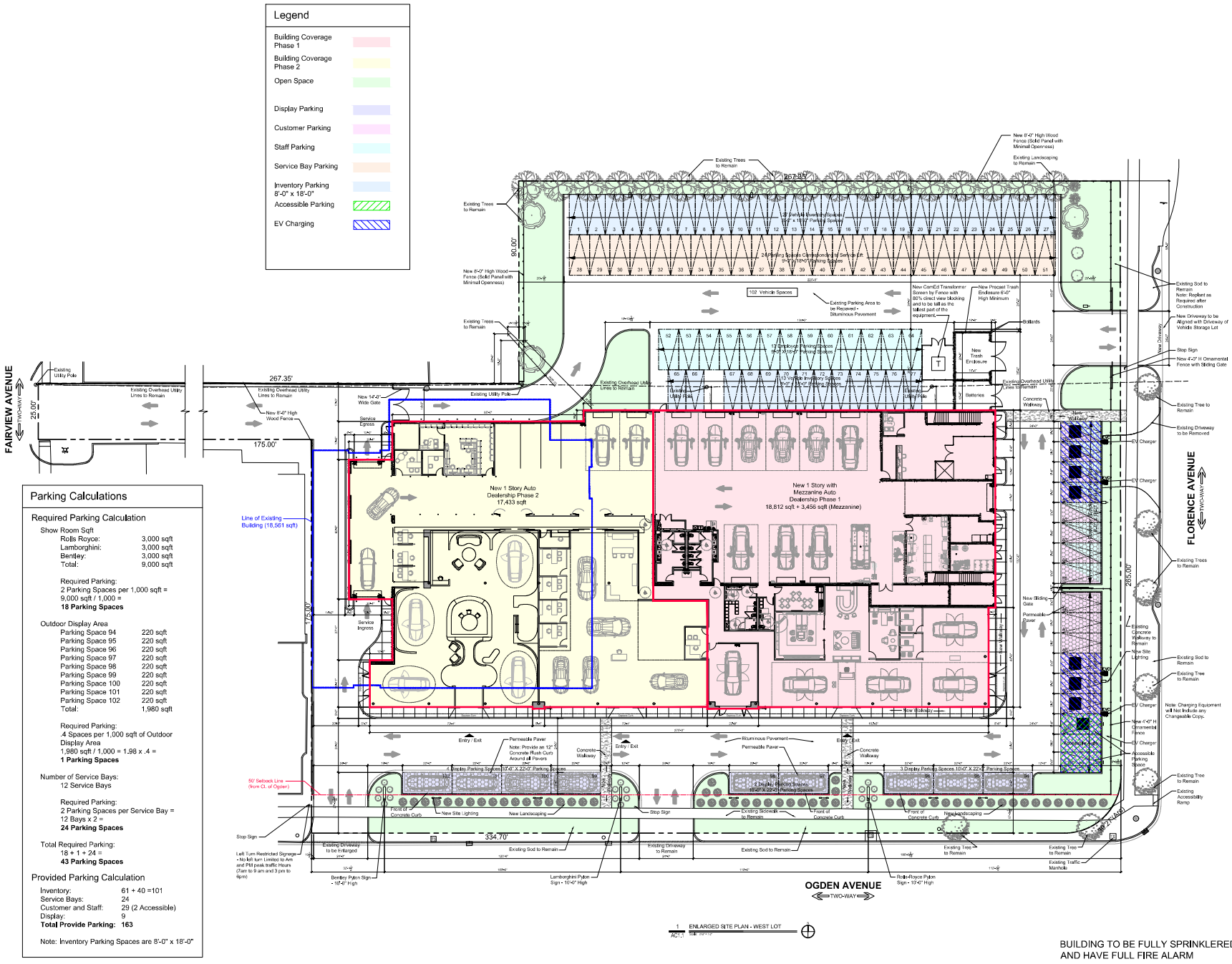
This preliminary drawing indicates the general scope of the project in terms of the architectural design concept, the dimensions of the building, the type of structural system, and an outline of the major elements of construction. As a "scope" document this drawing does not necessarily indicate or describe all work required for the full performance and completion of the work. These documents shall not be used for construction. They were prepared for the purpose of construction pricing only with the understanding that the Contractor, Subcontractor and material men are to furnish all the work of sound and quality construction and that the Contractor, Subcontractor and materials men shall be solely responsible for the inclusion of adequate amounts to cover the installation of all items indicated, described, or implied.

Sheet Name

ARCHITECTURAL COVER SHEET

Project Number	1362
Date	02.24.2026
Drawn By	BK
Sheet No.	**AC1.0**

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1 ENLARGED SITE PLAN - WEST LOT
AC1.1

Parking Calculations

Required Parking Calculation

Show Room Sqft

Rolls Royce:	3,000 sqft
Lamborghini:	3,000 sqft
Bentley:	3,000 sqft
Total:	9,000 sqft

Required Parking:
2 Parking Spaces per 1,000 sqft = 9,000 sqft / 1,000 =
18 Parking Spaces

Outdoor Display Area

Parking Space 94	220 sqft
Parking Space 95	220 sqft
Parking Space 96	220 sqft
Parking Space 97	220 sqft
Parking Space 98	220 sqft
Parking Space 99	220 sqft
Parking Space 100	220 sqft
Parking Space 101	220 sqft
Parking Space 102	220 sqft
Total:	1,980 sqft

Required Parking:
.4 Spaces per 1,000 sqft of Outdoor Display Area
1,980 sqft / 1,000 = 1.98 x .4 =
1 Parking Spaces

Number of Service Bays:
12 Service Bays

Required Parking:
2 Parking Spaces per Service Bay = 12 Bays x 2 =
24 Parking Spaces

Total Required Parking:
18 + 1 + 24 =
43 Parking Spaces

Provided Parking Calculation

Inventory:	61 + 40 =101
Service Bays:	24
Customer and Staff:	29 (2 Accessible)
Display:	9
Total Provide Parking:	**163**

Note: Inventory Parking Spaces are 8'-0" x 18'-0"

BUILDING TO BE FULLY SPRINKLERED AND HAVE FULL FIRE ALARM

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FIELDS AUTO GROUP

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Chicago, IL 60607
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3	04/14/26	Revised PUD
4	04/15/26	Revised PUD
5	04/16/26	Revised PUD
6	04/28/26	Revised PUD

FIELDS DOWNERS GROVE

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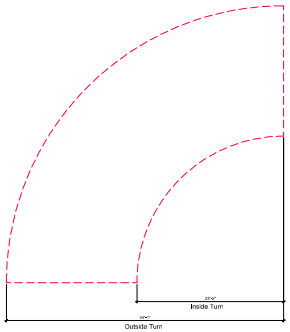
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Scope Document
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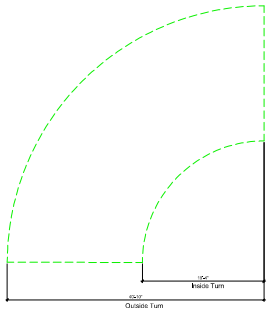
Sheet Name
ENLARGED SITE PLAN

Project Number	1362
Date	02.24.2026
Drawn By	BK
Sheet No.	**AC1.1**

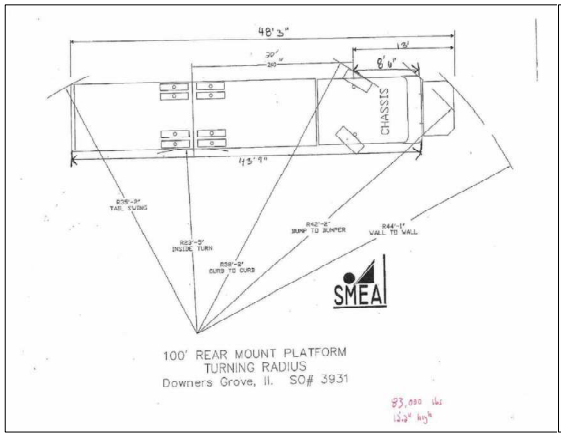
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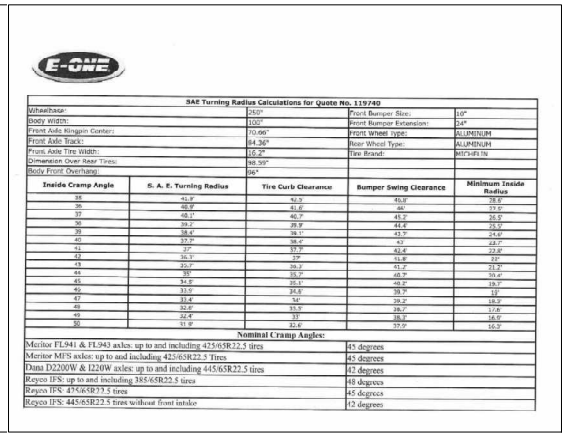


3 AC1.2 TYPICAL FIRE TRUCK TURNING ARC PER DOWNERS GROVE STANDARDS



2 AC1.2 TYPICAL WB-40 SEMI-TRAILER TRUCK (CAR CARRIER) TURNING ARC





E-ONE

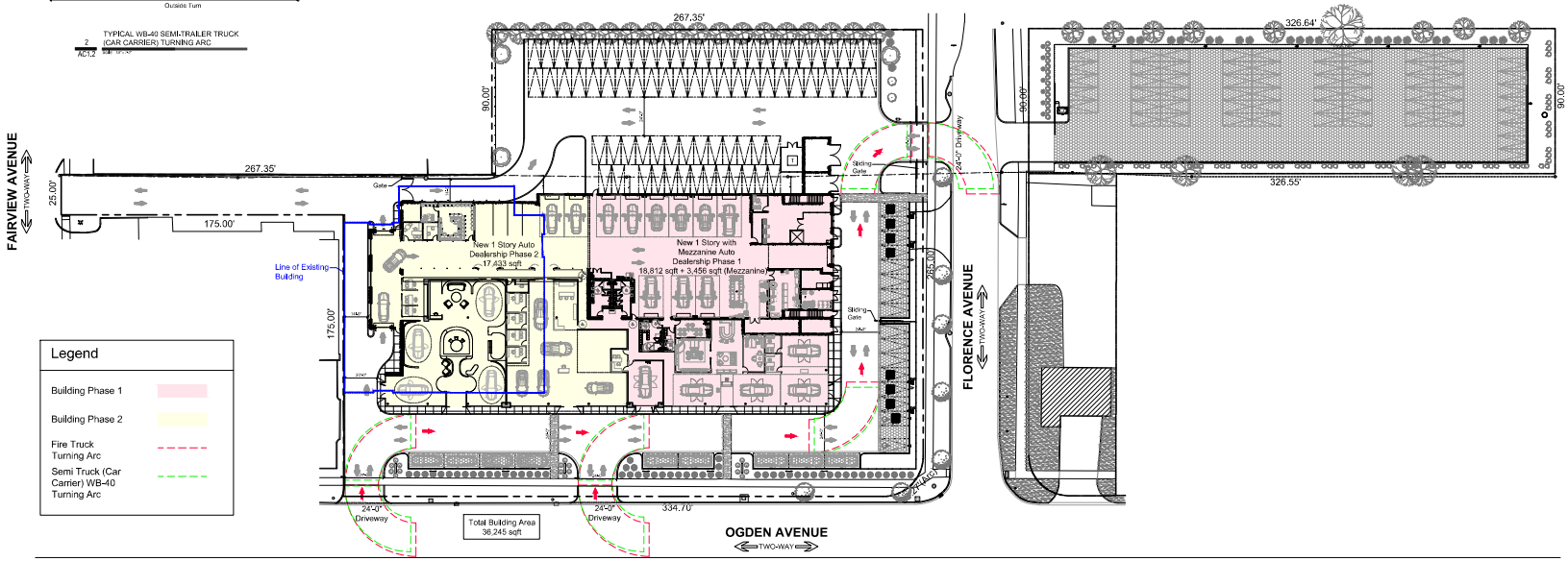
SAE Turning Radius Calculations for Quote No. 119740

Wheelbase:	250"	Front Bumper Size:	10"
Body Width:	100"	Front Bumper Extension:	24"
Front Axle Kingpin Center:	70.66"	Front Wheel Type:	ALUMINUM
Front Axle Track:	84.36"	Rear Wheel Type:	ALUMINUM
Front Axle Tire Width:	16.2"	Tire Brand:	MICHELIN
Dimension Over Rear Tires:	98.59"		
Body Front Overhang:	96"		

Inside Cramp Angle	S. A. E. Turning Radius	Tire Curb Clearance	Bumper Swing Clearance	Minimum Inside Radius
35	41.8'	42.3'	45.8'	28.8'
36	40.9'	41.6'	46'	27.9'
37	40.1'	40.7'	45.2'	26.9'
38	39.2'	39.9'	44.4'	25.9'
39	38.4'	39.1'	43.7'	24.9'
40	37.7'	38.4'	43'	23.7'
41	37'	37.7'	42.4'	22.8'
42	36.3'	37'	41.8'	22'
43	35.7'	36.3'	41.2'	21.2'
44	35'	35.7'	40.7'	20.4'
45	34.4'	35.1'	40.2'	19.7'
46	33.9'	34.6'	39.7'	19'
47	33.4'	34'	39.2'	18.3'
48	32.8'	33.5'	38.7'	17.6'
49	32.4'	33'	38.3'	16.9'
50	31.9'	32.6'	37.9'	16.3'

Nominal Cramp Angles:

Meritor FL941 & FL943 axles: up to and including 425/65R22.5 tires	45 degrees
Meritor MFS axles: up to and including 425/65R22.5 Tires	45 degrees
Dana D2200W & I220W axles: up to and including 445/65R22.5 tires	42 degrees
Reyco IFS: up to and including 385/65R22.5 tires	48 degrees
Reyco IFS: 425/65R22.5 tires	45 degrees
Reyco IFS: 445/65R22.5 tires without front intake	42 degrees



1 AC1.2 TRUCK TURNING PLAN

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FIELDS
DOWNERS GROVE

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Sheet Name
FIRE TRUCK TURNING PLAN

Project Number	1362
Date	02.24.2026
Drawn By	BK
Sheet No.	**AC1.2**

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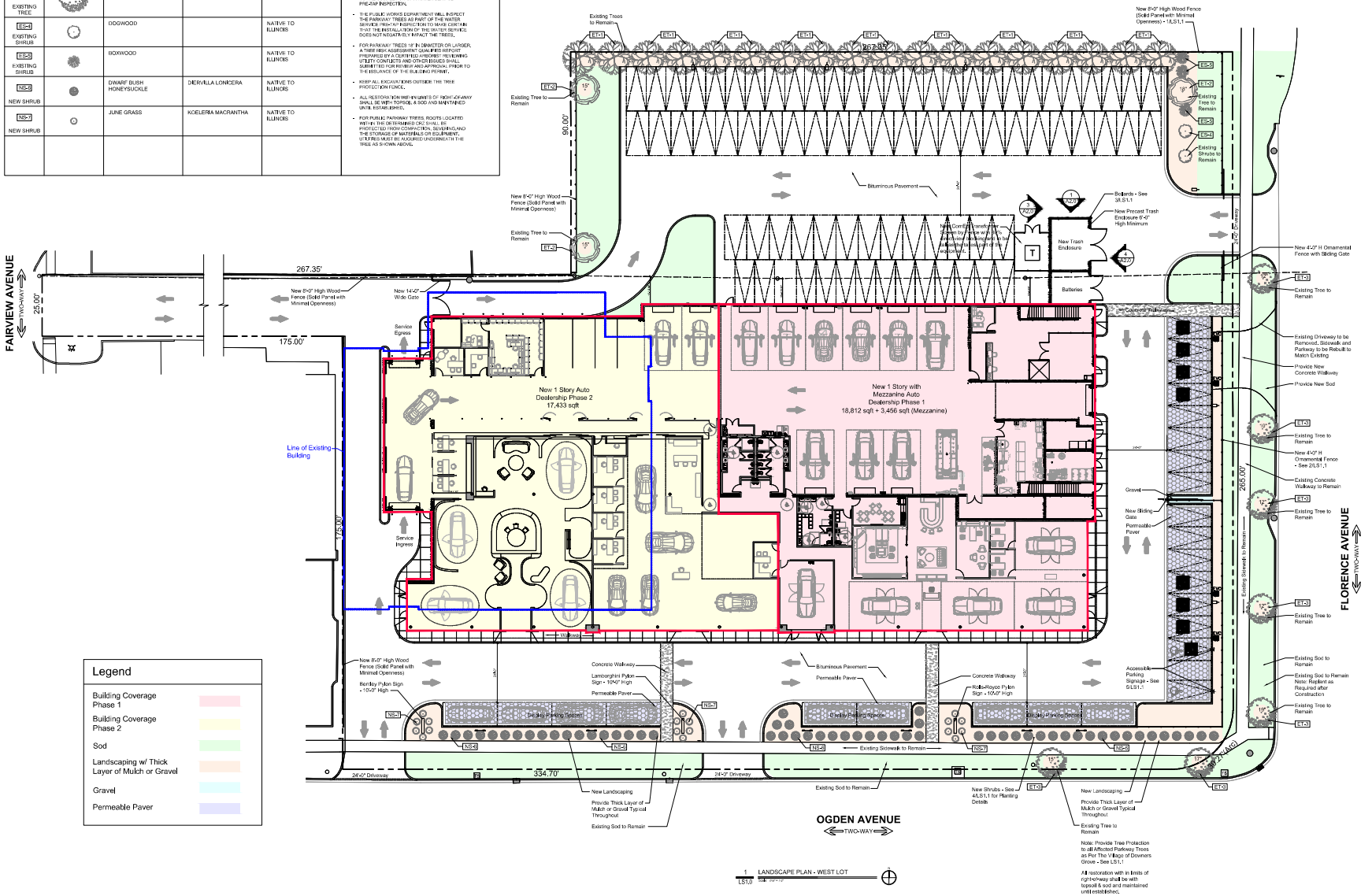
PLANTING SCHEDULE

MARK	SYMBOL	COMMON NAME	BOTANICAL NAME	NATIVE TO ILLINOIS
ET-1 EXISTING TREE		DARK GREEN ARBORVITAE	THUJA OCCIDENTALIS 'NIGRA'	NATIVE TO ILLINOIS
ET-2 EXISTING TREE		GINKGO	GINKGO BILOBA	NOT NATIVE TO ILLINOIS
ET-3 EXISTING TREE		HONEY LOCUST	GLEDITSIA TRIACANTHOS	NATIVE TO ILLINOIS
ES-1 EXISTING SHRUB		DOGWOOD		NATIVE TO ILLINOIS
ES-2 EXISTING SHRUB		BOXWOOD		NATIVE TO ILLINOIS
NS-1 NEW SHRUB		DWARF BUSH HONEYSUCKLE	DIERVILLA LONICERA	NATIVE TO ILLINOIS
NS-2 NEW SHRUB		JUNE GRASS	KOELERIA MACRANTHA	NATIVE TO ILLINOIS

LANDSCAPE NOTES

DOWNERS GROVE TREE PROTECTION STANDARDS

- IDENTIFYING THE CRITICAL ROOT ZONE (CRZ): THE AREA IMMEDIATELY SURROUNDING A TREE THAT NEEDS TO BE PROTECTED FROM DAMAGE. THE SIZE OF THIS AREA, MEASURED FROM THE CENTER OF THE TREE, IS EQUALLY A CIRCLE WITH A RADIUS OF ONE FOOT FOR EACH INCH OF TRUNK DIAMETER, THE DEPTH THE THE CRZ EXTENDS TO 1' BELOW THE NATURAL GROUND SURFACE LEVEL. THE CRZ HAS BEEN ADJUSTED TO FORM A RECTANGLE AROUND THE PARKWAY TREE FENCED WITH A 4' HIGH TEMPORARY CHAIN LINK CONSTRUCTION FENCE SECURED TO METAL POSTS SPACED NO FURTHER THAN 10 FEET APART.
- A TREE PROTECTION SIGN (AVAILABLE FROM THE VILLAGE ATTHING OF PERMIT PICK-UP) SHALL BE PLACED ON THE FENCE IDENTIFYING THE TREE PROTECTION AREA.
- NO TRENCHING OR AUGURING MAY OCCUR PRIOR TO THE COMPLETION OF A WATER SERVICE PRE-ZAP INSPECTION.
- THE PUBLIC WORKS DEPARTMENT WILL INSPECT THE PARKWAY TREES AS PART OF THE WATER SERVICE PRE-TAP INSPECTION TO MAKE CERTAIN THAT THE INSTALLATION OF THE WATER SERVICES DOES NOT NEGATIVELY IMPACT THE TREES.
- FOR PARKWAY TREES 18" IN DIAMETER OR LARGER, A TREE RISK ASSESSMENT QUALIFIED REPORT PREPARED BY A CERTIFIED ARBORIST REVIEWING UTILITY CONFLICTS AND OTHER ISSUES SHALL SUBMITTED FOR REVIEW AND APPROVAL PRIOR TO THE ISSUANCE OF THE BUILDING PERMIT.
- KEEP ALL EXCAVATIONS OUTSIDE THE TREE PROTECTION FENCE.
- ALL RESTORATION WITHIN LIMITS OF RIGHT-OF-WAY SHALL BE WITH TOPSOIL & SOD AND MAINTAINED UNTIL ESTABLISHED.
- FOR PUBLIC PARKWAY TREES, ROOTS LOCATED WITHIN THE DETERMINED CRZ SHALL BE PROTECTED FROM COMPACTION, SEVERING AND THE STORAGE OF MATERIALS OR EQUIPMENT. UTILITIES MUST BE AUGURED UNDERNEATH THE TREE AS SHOWN ABOVE.



1 LANDSCAPE PLAN - WEST LOT
LS1.0

Legend

- Building Coverage Phase 1
- Building Coverage Phase 2
- Sod
- Landscaping w/ Thick Layer of Mulch or Gravel
- Gravel
- Permeable Paver

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2	04/13/26	Revised PUD
3	04/14/26	Revised PUD
4	04/15/26	Revised PUD
5	04/16/26	Revised PUD
6	04/28/26	Revised PUD

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Scope Document

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Sheet Name

LANDSCAPE PLAN

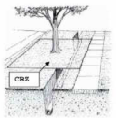
Project Number	1362
Date	02.24.2026
Drawn By	BK
Sheet No.	**LS1.0**

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Downers Grove Parkway Tree Protection Requirements

Municipal Codes regarding trees, including tree protection requirements for public parkway trees, are located in Chapter 24 of the Downers Grove Municipal Code http://www.downers.us/code/chapter/24. Parkway tree protection shall involve avoiding damage to both the above ground tree trunk, including the branches, and the below ground root system. Roots are the most vital part of a tree with the majority of nutrient and water absorbing roots in the upper 18 to 24 inches of soil. Tree roots must be protected from severing or changes in their soil environment (such as compaction or grade changes) to prevent irreversible tree decline or death in the coming years.

The Critical Root Zone, or CRZ, is the area immediately surrounding a tree that needs to be protected from damage. The size of this area, measured from the center of the tree, is ideally a circle with a radius of one foot for each inch of trunk diameter. The depth of the CRZ extends to 4 feet below the natural ground surface level. In a municipal parkway setting with utilities and paved or concrete surfaces, the CRZ cannot always be the ideal size. Instead, the CRZ has been adjusted to form a rectangle around the parkway tree trunk with the minimum dimensions listed in the following table. At a minimum, the listed CRZ shall be fenced with a 6 foot high temporary chain link construction fence secured to metal posts spaced no further than 10 feet apart. Whenever possible, the entire parkway shall be fenced in except where access has been permitted. Any exceptions shall be noted on the drawings submitted for a given permit.



Parkway Tree diameter at 4.5'	Width from street to property (minimum curb to sidewalk)	Length along street (minimum)	Depth
0 – 12.0 inches	10.0 feet	10 feet	4 feet
12.1 – 24.0 inches	10.0 feet	20 feet	4 feet
24.1 or more inches	10.0 feet	30 feet	4 feet



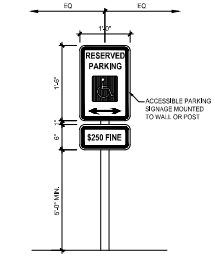
For public parkway trees, roots located within the determined CRZ shall be protected from compaction, severing, and the storage of materials or equipment. Utilities must be augered underneath the tree as shown above. In cases when severing of roots within a portion of the CRZ may be unavoidable (ex., sidewalk installation, curb replacement, water main or sanitary main disconnects in the parkway), subject to the approval of the Village Forester, the smallest possible area shall be disturbed and sharp clean cuts shall be made on root ends to promote wound closure and root regeneration. All CRZ fencing shall be a 6 foot high temporary chain link construction fence secured to metal posts spaced no further than 10 feet apart, and shall be maintained daily in good condition. Any exceptions to the fence dimensions or parkway position shall be noted on the permit.

In addition to fines and citations that may be assessed for violations of any Chapter 24 municipal code (such as not maintaining fencing around the CRZ or unauthorized removal of parkway trees), violators may be subject to the following provisions:

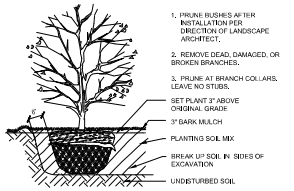
- Issuance of an invoice for the monetary loss in tree value or partial value due to damage to either the above ground or below ground portions of the parkway tree, or unauthorized tree removal.
- forfeiture of bonds issued for the work should funds be sufficient to cover tree values and fines.
- costs of repairs, such as pruning or cabling, or costs for removal of the damaged parkway tree along with the stump if the tree cannot remain in the right-of-way.
- fines of $500 for the 1st offense; $1,000 for the 2nd offense; $2,500 for 3rd and subsequent offenses.
- each day during which a violation continues shall be construed as a separate and distinct offense.

For more information, contact the Forestry Division at 434-2475 or 434-2476.

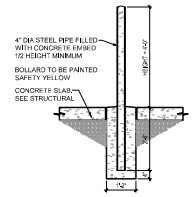
September 2007



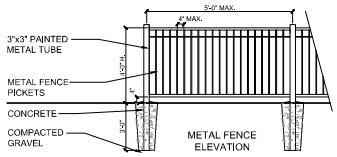
5 ACCESSIBLE PARKING SIGNAGE
LS1.1

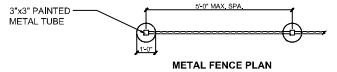


4 SHRUB DETAIL
LS1.1



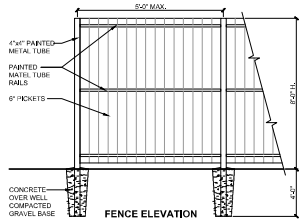
3 BOLLARD DETAIL
LS1.1



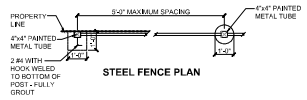


METAL FENCE PLAN

2 FENCE DETAIL
LS1.1



FENCE ELEVATION



STEEL FENCE PLAN

1 FENCE DETAIL
LS1.1

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Scope Document

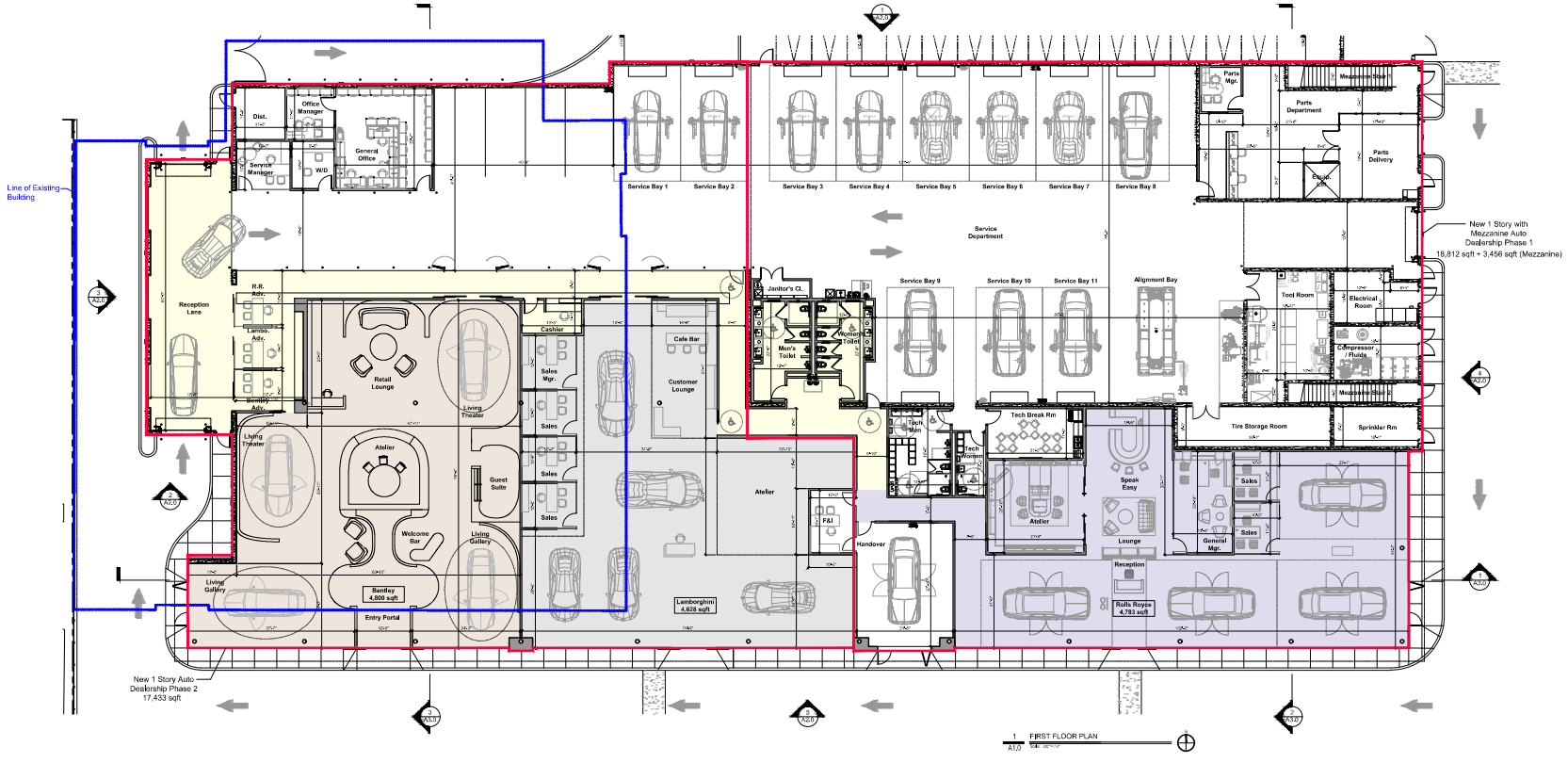
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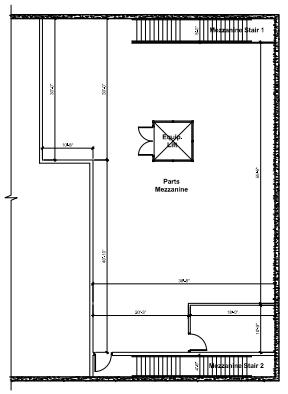
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LANDSCAPE DETAILS

Project Number	1362
Date	02.24.2026
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Sheet No.	**LS1.1**

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2 MEZZANINE PLAN
A1.0

Legend

- Rolls-Royce Showroom
- Lamborghini Showroom
- Bentley Showroom
- Customer Shared
- Dealer General Operations Area

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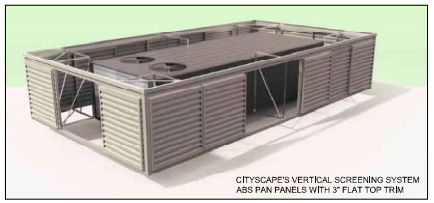
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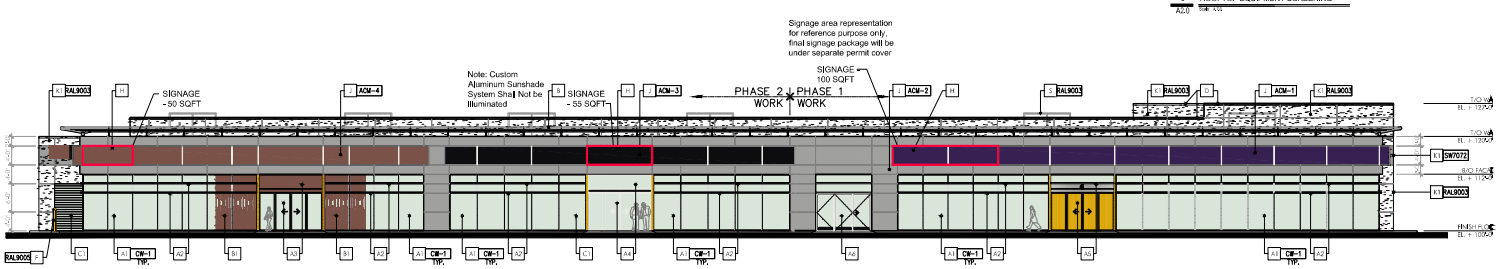
FLOOR PLANS

Project Number	1362
Date	02.24.2026
Drawn By	BK
Sheet No.	**A1.0**

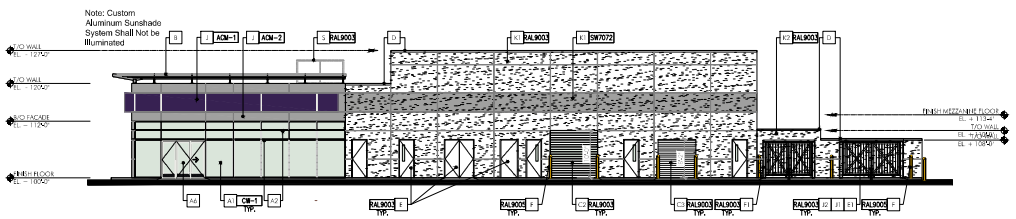
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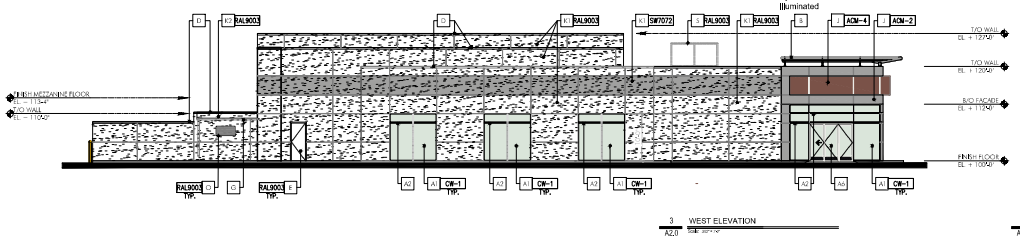
6 ROOFTOP EQUIPMENT SCREENING
A2.0



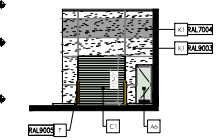
5 SOUTH ELEVATION
A2.0



4 EAST ELEVATION
A2.0



3 WEST ELEVATION
A2.0



2 SOUTH ELEVATION AT SERVICE ENTRY
A2.0

Exterior Elevations Finishes Schedule

ACM-1	TURTLE TYPE ACM PANEL SYSTEM BY IM APPROVED VENDOR
ACM-2	CUSTOMIZED PERFORM ARCH PERFORM ALM PANEL SYSTEM
ACM-3	BLACK PERFORM ACM PANEL SYSTEM BY IM APPROVED VENDOR
ACM-4	COPPER PERFORM ACM PANEL SYSTEM BY IM APPROVED VENDOR
RAL9003	MATCH SHERWIN WILLIAMS SW 7757 HIGH REFLECTANCE WHITE • SW 6258 SHERWIN WILLIAMS TRICORN BLACK • SW 7674 SHERWIN WILLIAMS PEPPERCORN
RAL9005	MATCH SHERWIN WILLIAMS SW 6258 TRICORN BLACK • SW 7757 SHERWIN WILLIAMS HIGH REFLECTANCE WHITE • SW 7674 SHERWIN WILLIAMS PEPPERCORN
SW7072	MATCH SHERWIN WILLIAMS SW 7674 PEPPERCORN • SW 7757 SHERWIN WILLIAMS HIGH REFLECTANCE WHITE • SW 6258 SHERWIN WILLIAMS TRICORN BLACK
CW-1	BASE OF STONE VENEER TO BE 12" SOLDIER COURSE

Exterior Elevations Notes

K1 METAL COPING SYSTEM PAINTED TO MATCH ADJACENT SURFACE. COORDINATE WITH ROOFING SUBCONTRACTOR.

K2 ALUMINUM STOREFRONT SYSTEM WITH CLEAR ANODIZED FINISH. PROVIDE WITH INSULATED LOW-E GLAZING UNLESS NOTED OTHERWISE.

K3 ALUMINUM CANOPY SYSTEM WITH POWDER COATED FINISH TO MATCH ADJACENT SURFACE. PROVIDE WITH CONCEALED GUTTERS AND DOWNSPOUTS.

K4 ALUMINUM LOUVER SYSTEM WITH FIXED BLADES AND BIRD SCREEN. PAINTED TO MATCH ADJACENT SURFACE.

K5 ALUMINUM SUNSHADE SYSTEM WITH POWDER COATED FINISH TO MATCH ADJACENT SURFACE. PROVIDE WITH CONCEALED SUPPORTS.

K6 ALUMINUM HANDRAIL SYSTEM WITH POWDER COATED FINISH TO MATCH ADJACENT SURFACE. PROVIDE WITH CONCEALED SUPPORTS.

K7 ALUMINUM GUARDRAIL SYSTEM WITH POWDER COATED FINISH TO MATCH ADJACENT SURFACE. PROVIDE WITH CONCEALED SUPPORTS.

K8 ALUMINUM RAILING SYSTEM WITH POWDER COATED FINISH TO MATCH ADJACENT SURFACE. PROVIDE WITH CONCEALED SUPPORTS.

K9 ALUMINUM RAILING SYSTEM WITH POWDER COATED FINISH TO MATCH ADJACENT SURFACE. PROVIDE WITH CONCEALED SUPPORTS.

K10 ALUMINUM RAILING SYSTEM WITH POWDER COATED FINISH TO MATCH ADJACENT SURFACE. PROVIDE WITH CONCEALED SUPPORTS.

K11 ALUMINUM RAILING SYSTEM WITH POWDER COATED FINISH TO MATCH ADJACENT SURFACE. PROVIDE WITH CONCEALED SUPPORTS.

K12 ALUMINUM RAILING SYSTEM WITH POWDER COATED FINISH TO MATCH ADJACENT SURFACE. PROVIDE WITH CONCEALED SUPPORTS.

K13 ALUMINUM RAILING SYSTEM WITH POWDER COATED FINISH TO MATCH ADJACENT SURFACE. PROVIDE WITH CONCEALED SUPPORTS.

K14 ALUMINUM RAILING SYSTEM WITH POWDER COATED FINISH TO MATCH ADJACENT SURFACE. PROVIDE WITH CONCEALED SUPPORTS.

K15 ALUMINUM RAILING SYSTEM WITH POWDER COATED FINISH TO MATCH ADJACENT SURFACE. PROVIDE WITH CONCEALED SUPPORTS.

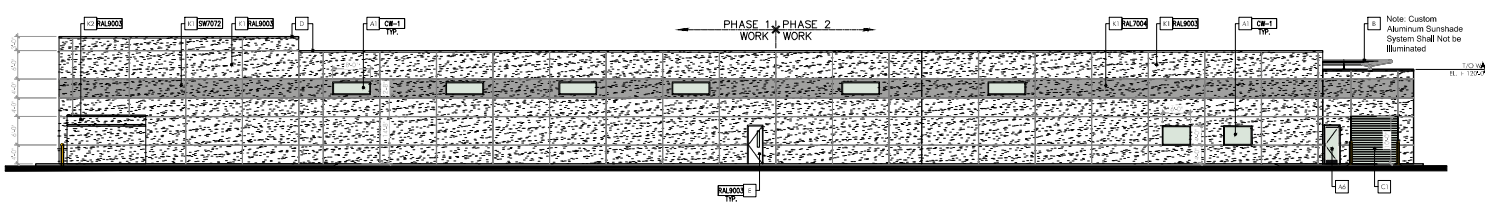
K16 ALUMINUM RAILING SYSTEM WITH POWDER COATED FINISH TO MATCH ADJACENT SURFACE. PROVIDE WITH CONCEALED SUPPORTS.

K17 ALUMINUM RAILING SYSTEM WITH POWDER COATED FINISH TO MATCH ADJACENT SURFACE. PROVIDE WITH CONCEALED SUPPORTS.

K18 ALUMINUM RAILING SYSTEM WITH POWDER COATED FINISH TO MATCH ADJACENT SURFACE. PROVIDE WITH CONCEALED SUPPORTS.

K19 ALUMINUM RAILING SYSTEM WITH POWDER COATED FINISH TO MATCH ADJACENT SURFACE. PROVIDE WITH CONCEALED SUPPORTS.

K20 ALUMINUM RAILING SYSTEM WITH POWDER COATED FINISH TO MATCH ADJACENT SURFACE. PROVIDE WITH CONCEALED SUPPORTS.



1 NORTH ELEVATION
A2.0

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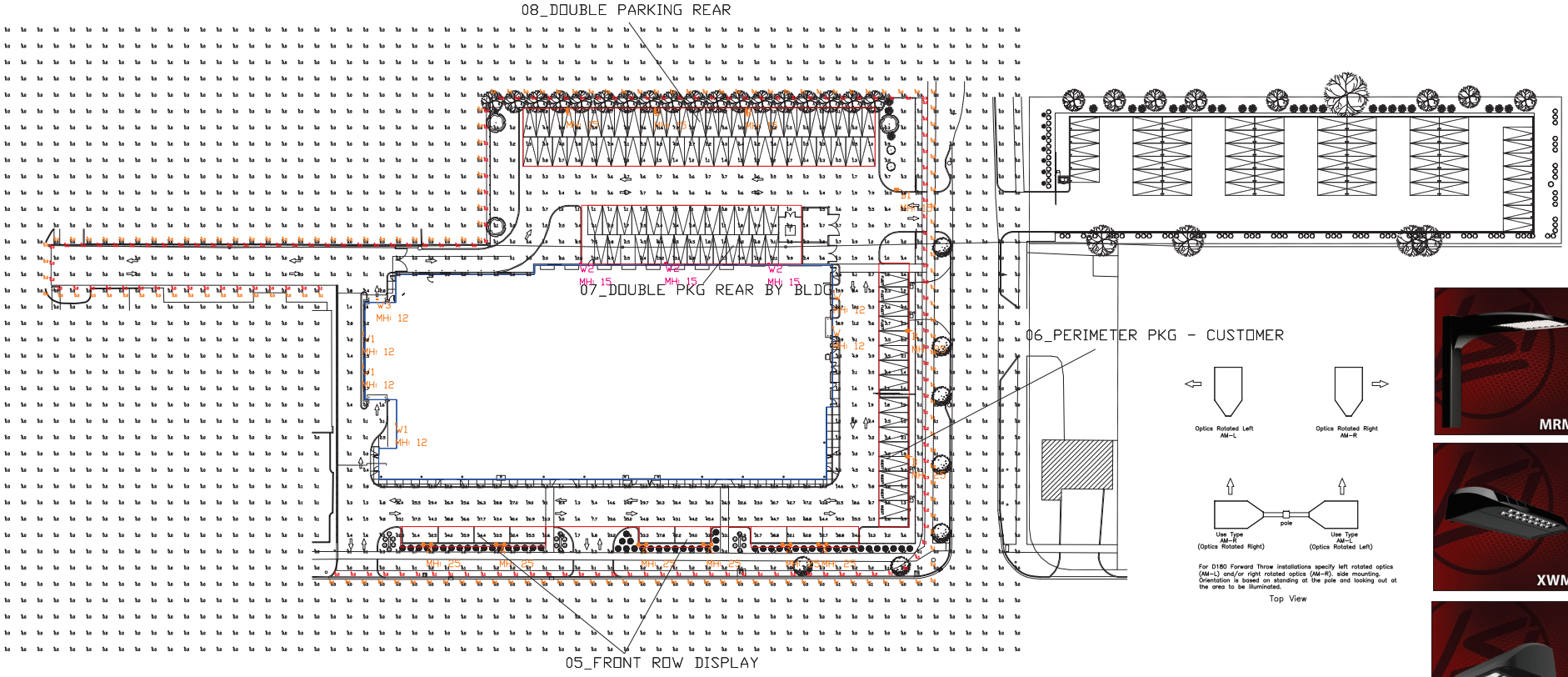
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Sheet Name

ELEVATIONS

Project Number	1362
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Sheet No.	**A2.0**

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Calculation Summary								
Label	CalcType	Units	Avg	Max	Min	Avg/Min	Max/Min	Grid Z
00_ALL CALCS @ 4' ABOVE GRADE	Illuminance	Fc	1.95	68.8	0.0	N.A.	N.A.	4
01_COMMERCIAL PROPERTY LINE- SOUTH & EAST	Illuminance	Fc	0.07	0.3	0.0	N.A.	N.A.	N.A.
02_5' FROM COMMERCIAL PROPERTY LINE-SOUTH & EAST	Illuminance	Fc	0.04	0.2	0.0	N.A.	N.A.	N.A.
03_5' FROM RESIDENTAL PROPERTY LINE-NORTH& WEST	Illuminance	Fc	0.02	0.1	0.0	N.A.	N.A.	N.A.
04_RESIDENTAL PROPERTY LINE- NORTH& WEST	Illuminance	Fc	0.08	0.1	0.0	N.A.	N.A.	N.A.
05_FRONT ROW DISPLAY	Illuminance	Fc	36.09	60.8	12.6	2.86	4.83	
06_PERIMETER PKG - CUSTOMER	Illuminance	Fc	2.23	3.7	0.6	3.72	6.17	
07_DOUBLE PKG REAR BY BLDG	Illuminance	Fc	4.12	13.2	0.8	5.15	16.50	
08_DOUBLE PARKING REAR	Illuminance	Fc	2.42	12.0	0.1	24.20	120.00	

PHOTOMETRIC EVALUATION
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Based on the information provided, all dimensions and luminaire locations shown represent recommended positions. The engineer and/or architect must determine the applicability of the layout to existing or future field conditions.

This lighting plan represents illumination levels calculated from laboratory data taken under controlled conditions in accordance with The Illuminating Engineering Society (IES) approved methods. Actual performance of any manufacturer's luminaires may vary due to changes in electrical voltage, tolerance in lamps/LEDs and other variable field conditions. Calculations do not include obstructions such as buildings, curbs, landscaping, or any other architectural elements unless noted. Fixture nomenclature noted does not include mounting hardware or poles. This drawing is for photometric evaluation purposes only and should not be used as a construction document or as a final document for ordering product.

The IES no longer uses the Cutoff Classification System for LED fixtures. The IES classifies LED fixtures with the BUG rating which refers to the Backlight-Uplight-Glare system. An Uplight of "U0" most closely matches the old Full Cutoff rating.

Luminaire Schedule									
Symbol	Qty	Label	Arrangement	Description	Mounting Height	LLF	Arr. Lum. Lumens	Arr. Watts	BUG Rating
	6	A	D180° 2RTD	MRM-LED-42L-SIL-C1AM-L;C1AM-R-50-70CRI-IL	26'	1.000	55324	628	B1-U0-G3
	4	B	Single	MRM-LED-12L-SIL-4-50-70CRI-IL	15' EXISTING POLE	1.000	8001	85	B0-U0-G2
	1	B1	Single	MRM-LED-12L-SIL-4-50-70CRI-IL	15'	1.000	8001	85	B0-U0-G2
	1	C	Single	MRM-LED-09L-SIL-FT-50-70CRI-IL	15' EXISTING POLE	1.000	6326	62	B0-U0-G2
	2	W	Single	XWM-FT-LED-08L-50-70CRI	12'	1.000	8465	64	B2-U0-G2
	3	W1	Single	XWS-LED-03L-SIL-2-50-70CRI	12'	1.000	2953	19	B1-U0-G1
	3	W2	Single	XWM-4-LED-12L-50-70CRI	12'	1.000	11716	77	B2-U0-G3
	1	W3	Single	XWS-LED-01L-SIL-2-50-70CRI	12'	1.000	1526	10	B1-U0-G1

Total Project Watts
Total Watts = 4681

LIGHTING PROPOSAL LD-165243-2A

FIELDS RRLB
4237 FLORENCE
DOWNERS GROVE, IL

BY/MK	DATE/08/25	REV#/05/26	SHEET 1 OF 1

SCALE: 1"=30' ARCH D 0 30

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

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MEMORANDUM TO: David Gonzalez
International Contractors, Inc.

FROM: Michael A. Werthmann, P.E., PTOE
Principal

DATE: April 20, 2026

SUBJECT: Preliminary Traffic Statement
Proposed Fields Auto Group Dealership Expansion
Downers Grove, Illinois

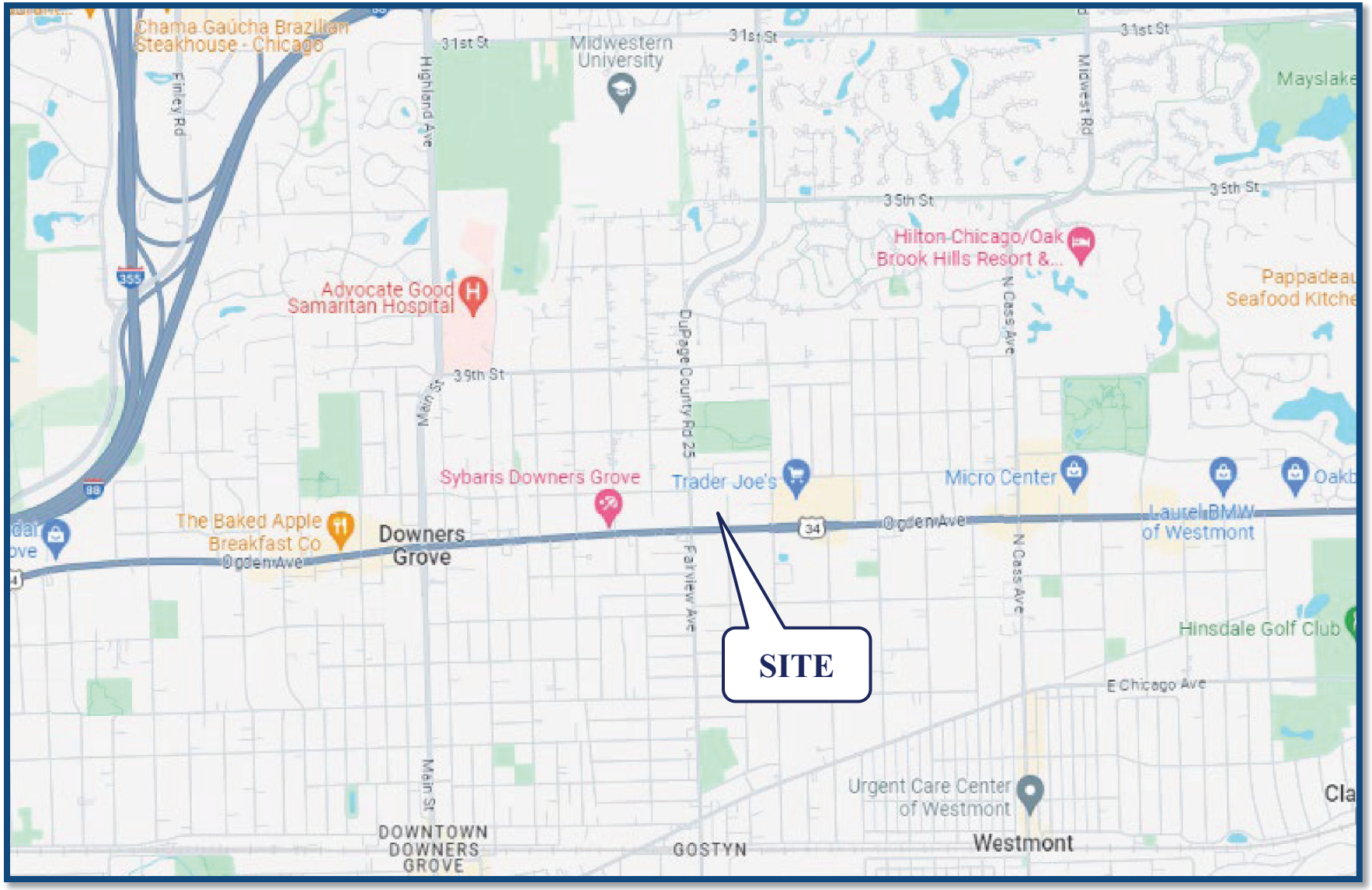
This memorandum summarizes the results and findings of a preliminary traffic statement prepared by Kenig, Lindgren, O'Hara, Aboona, Inc. (KLOA, Inc.) for the proposed expansion of the Fields Auto Group dealership located in Downers Grove, Illinois. The dealership, which sells and services primarily Rolls Royce, Bentley, and Lamborghini vehicles, is located in the northwest quadrant of the intersection of Ogden Avenue (U.S. Route 34) with Florence Avenue. In addition, a vehicle inventory parking lot is located on the east side of Florence Avenue immediately north of the commercial uses located along the north side of Ogden Avenue. Currently, the dealership has approximately 18,561 square feet of total space located in two buildings that contain a showroom/sales floor, a service department, and offices. Access to the dealership is currently provided via two access drives on Ogden Avenue and one access drive on Florence Avenue and access to the inventory parking lot is provided via one access drive on Florence Avenue. **Figure 1** shows the location of the dealership and **Figure 2** shows an aerial view of the dealership.

As proposed, both the eastern and western buildings will be expanded and remodeled to provide a total of 36,245 square feet of space. The primary purpose for the expanded dealership is to enlarge and relocate the service department as well as to enlarge the showroom/sales floor. As part of the expansion, access to the expanded dealership will be provided via the two existing Ogden Avenue access drives, the relocation of the Florence Avenue access drive approximately 50 feet north of its existing location, and the east-west alley located west of the dealership. A copy of the proposed site plan is included in the Appendix.

Existing Roadway Characteristics

The following summarizes the physical and operating characteristics of the area roadways.

Ogden Avenue (U.S. Route 34) is arterial road that extends in an east-west direction in the vicinity of the site and has two lanes in each direction divided by a center median. Left-turn movements to Florence Avenue are accommodated via a center, two-way left-turn lane. Ogden Avenue is under the jurisdiction of the Illinois Department of Transportation (IDOT), has an Average Annual Daily Traffic (AADT) volume of 27,100 vehicles (IDOT 2023), and has a posted speed limit of 35 mph.



Site Location **Figure 1**



Aerial View of Site **Figure 1**

Florence Avenue is generally a north-south, local road that has one vehicle lane in each direction. At its unsignalized intersection with Ogden Avenue, Florence Avenue has single-lane approaches that are under stop sign control. Florence Avenue is under the jurisdiction of the Village of Downers Grove.

Trip Generation

Table 1 provides a comparison of several physical and operating characteristics of the existing and proposed dealership as provided by the operator. As indicated previously, the dealership sells and services primarily Rolls Royce, Bentley, and Lamborghini vehicles. In addition, even with the expansion, the overall size of the dealership is smaller than a typical dealership. As such, given the size of the dealership and the luxury type vehicles that are sold/serviced, the dealership generates a significantly lower volume of traffic than a typical dealership. This is evident in the existing number of daily service appointments (see Table 1). Further, as shown in Table 1, the expanded dealership is projected to have a limited increase in the number of employees, vehicle sales, and service appointments. In addition, it is important to note that the additional vehicles sales and service appointments are anticipated to be distributed throughout the day. As such, the increase in traffic from the expanded dealership is projected to be limited and the overall traffic to be generated by the expanded dealership will be lower than a typical dealership.

Table 1
COMPARISON OF PHYSICAL AND OPERATING CHARACTERISTICS
EXISTING DEALERSHIP VERSUS EXPANDED DEALERSHIP

	Existing Dealership	Proposed Expanded Dealership
Total Square Footage	18,561 s.f.	36,245 s.f.
Service Department Vehicle Lifts	9	12
Employees	30	40
Service Appointments per Week	10 - 15	20 - 30

Site Access and Circulation

Access to the expanded dealership is to be provided via the existing two access drives on Ogden Avenue, the relocation of the existing Florence Avenue access drive, and the east-west alley located west of the dealership. The customer parking will be located along the east side of the dealership and the employee and vehicle inventory parking will be located on the north side of the dealership. Two-way circulation will be provided along the east, south, and west sides of the dealership and one-way inbound access will be provided from the east-west alley to the employee and vehicle inventory parking. As such, two-way circulation will be provided via three sides of the dealership and all the access drives except the inbound only access drive.

The following summarizes the design and locations of the access drives serving the dealership:

- The existing eastern Ogden Avenue access drive is located on the north side of the road approximately 230 feet west of Florence Avenue and will primarily serve the customer parking, several parking spaces used for vehicle inventory, and the front of the dealership. In addition, the access drive will provide secondary access to the service department and the employee and vehicle inventory parking. This access drive has one inbound lane and one outbound lane. Left-turn movements to this access drive are accommodated via the Ogden Avenue striped median as well as the taper for the Ogden Avenue westbound left-turn lane serving Fairview Avenue.

- The existing western Ogden Avenue access drive is located on the north side of the road approximately 375 feet west of Florence Avenue and will primarily serve the service department and the front of the dealership. In addition, the access drive will provide secondary access to the customer parking and the front of the dealership. As proposed, this access drive will be widened from approximately 21 feet to 24 feet and will provide one inbound lane and one outbound lane. Further, inbound and outbound left-turn movements from this access drive will be prohibited from 7:00 to 9:00 A.M. and from 3:00 to 6:00 P.M. via pavement markings and signage.

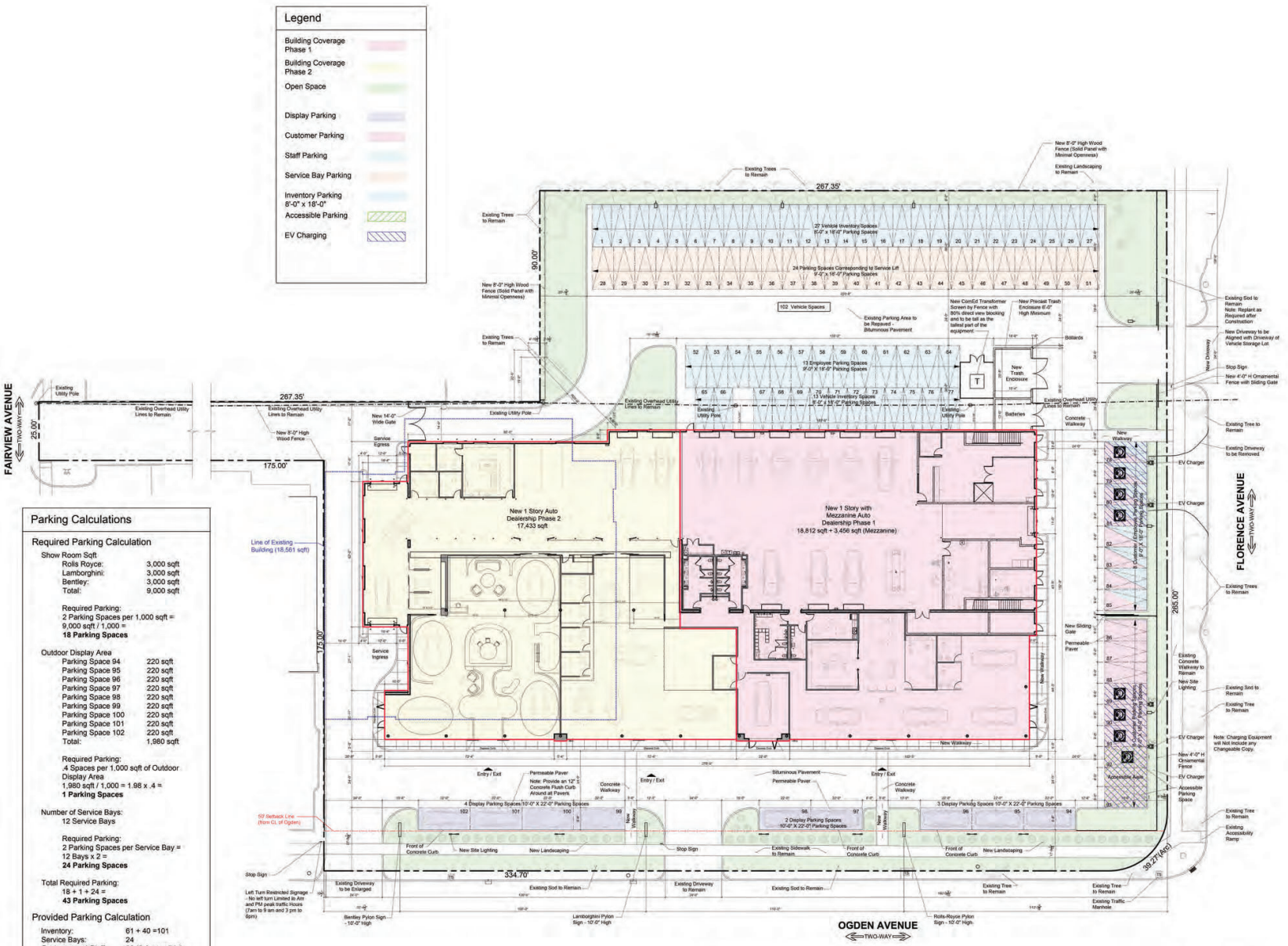
- The existing Florence Avenue access drive serving the dealership is proposed to be relocated approximately 50 feet north of its current location and aligned opposite the vehicle inventory parking lot. The access drive will primarily serve the employee parking and vehicle inventory parking and provide secondary access to and from the service department and the customer parking. This access drive will provide one inbound lane and one outbound lane.

- Inbound and outbound access to the service department and inbound access to the employee and vehicle inventory parking will be provided via the east-west alley that currently terminates at the western property line of the dealership.

The outbound lanes at all the access drives should be under stop sign control. The four access drives will provide efficient and orderly access to and from the proposed expanded dealership with limited impact on the existing through traffic.

Access to the existing vehicle inventory parking lot located on the east side of Florence Avenue is provided via one access drive located on the east side of Florence Avenue approximately 250 feet north of Ogden Avenue. This access drive provides one inbound lane and one outbound lane, which is sufficient to accommodate the parking lot.

Appendix



1 ENLARGED SITE PLAN - WEST LOT
AC1.1 Scale: 1/16"=1'-0"

Parking Calculations

Required Parking Calculation

Show Room Sqft

Rolls Royce:	3,000 sqft
Lamborghini:	3,000 sqft
Bentley:	3,000 sqft
Total:	9,000 sqft

Required Parking:
2 Parking Spaces per 1,000 sqft =
9,000 sqft / 1,000 =
18 Parking Spaces

Outdoor Display Area

Parking Space 94	220 sqft
Parking Space 95	220 sqft
Parking Space 96	220 sqft
Parking Space 97	220 sqft
Parking Space 98	220 sqft
Parking Space 99	220 sqft
Parking Space 100	220 sqft
Parking Space 101	220 sqft
Parking Space 102	220 sqft
Total:	1,980 sqft

Required Parking:
.4 Spaces per 1,000 sqft of Outdoor Display Area
1,980 sqft / 1,000 = 1.98 x .4 =
1 Parking Spaces

Number of Service Bays:
12 Service Bays

Required Parking:
2 Parking Spaces per Service Bay =
12 Bays x 2 =
24 Parking Spaces

Total Required Parking:
18 + 1 + 24 =
43 Parking Spaces

Provided Parking Calculation

Inventory:	61 + 40 =101
Service Bays:	24
Customer and Staff:	29 (2 Accessible)
Display:	9
Total Provide Parking:	**163**

Note: Inventory Parking Spaces are 8'-0" x 18'-0"

BUILDING TO BE FULLY SPRINKLERED AND HAVE FULL FIRE ALARM

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FIELDS AUTO GROUP

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Chicago, IL 60607
P 312.750.1311

330 Ogden Ave

No.	DATE	Description
1	03/20/26	PUD
2	04/13/26	Revised PUD
3	04/14/26	Revised PUD
4	04/15/26	Revised PUD
5	04/16/26	Revised PUD

FIELDS DOWNERS GROVE

NEW SALES & SERVICE FACILITY
330 OGDEN AVE.
DOWNERS GROVE, IL

NOT FOR CONSTRUCTION ESTIMATING PURPOSES ONLY

Scope Document

This preliminary drawing indicates the general scope of the project in terms of the architectural design concept, the dimensions of the building, the type of structural system, and an outline of the major elements of construction. As a "scope" document this drawing does not necessarily indicate or describe all work required for the full performance and completion of the work. These documents shall not be used for construction. They were prepared for the purpose of construction pricing only with the understanding that the Contractor, Subcontractor and material men are to furnish all the work of sound and quality construction and that the Contractor, Subcontractor and materials men shall be solely responsible for the inclusion of adequate amounts to cover the installation of all items indicated, described, or implied.

Sheet Name
ENLARGED SITE PLAN

Project Number: 1362
Date: 02.24.2026
Drawn By: ICI
Sheet No.: **AC1.1**

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