Village of Morton Grove

PLAN COMMISSION MEETING

Tuesday, September 17, 2024 - 7:00 P.M.
Flickinger Municipal Center, 6101 Capulina Avenue, Morton Grove, IL 60053

AGENDA

I. CALL TO ORDER

II. APPROVAL OF MINUTES OF: April 16, 2024

III. PUBLIC HEARINGS:

CASE: PC 24-06

PETITION: Request for a Special Use Permit for a parking variation for an existing shopping center in a C-1 General Retail District in accordance with Section 12-7-3:K at the property commonly known as 6015-6049 Dempster Street in Morton Grove, Illinois (10-20-106-064-0000). The applicant is JJK Property LLC.

CASE: PC 24-07

PETITION: Request for a Special Use Permit for the construction of an automobile minimart station in a C-1 General Commercial District in accordance with Section 12-4-2:C of the Village of Morton Grove Unified Development Code (Title 12), with variations to Section 12-5-5:A for setback and parking requirements for the property commonly known as 6335 Dempster Street in Morton Grove, Illinois (10-20-100-026-0000). The applicant is Atul Karkhanis Architects, Ltd. on behalf of Cissily, Inc.

IV. OTHER BUSINESS: None

V. CLOSE MEETING

Note that all persons are welcome to attend the public meeting in-person as regularly scheduled. Comments relating to this case may also be submitted no later than 12:00 p.m. on Tuesday, September 17, 2024, to bnolin@mortongroveil.org. All comments received in relation to this case will be read at the public hearing for consideration by the Plan Commission.

MINUTES OF THE APRIL 16, 2024
MEETING OF THE MORTON GROVE PLAN COMMISSION
MORTON GROVE VILLAGE HALL, 6101 CAPULINA AVENUE, MORTON GROVE, IL 60053

Pursuant to proper notice in accordance with the Open Meetings Act, the regular meeting of the Plan Commission was called to order at 8:08 p.m. by Chairman Chris Kintner. Secretary Kirchner called the roll.

Commissioners Present:	Dorgan, Gabriel, Kintner, Mohr and Stein
Commissioners Absent:	Hussaini and Liston with notice
Village Staff Present:	Brandon Nolin, Community Development Administrator; Anne Kirchner, Planner/Zoning Administrator and Secretary; Jim English, Manager of Building and Inspectional Services
Trustees Present:	Thill and Witko

Chairman Kintner asked for approval of the March 19, 2024 minutes. Commissioner Gabriel made a motion to approve the minutes as presented. Commissioner Dorgan seconded.

Chairman Kintner called for the vote.

Commissioner Dorgan	voting	aye
Commissioner Gabriel	voting	abstain
Commissioner Mohr	voting	aye
Commissioner Stein	voting	aye
Chairman Kintner	voting	aye

Chairman Kintner described the procedures for the meeting. The Village will present the case and the Plan Commission may ask questions of the applicant. Then, anyone from the audience will be allowed to provide comment to the Plan Commission on the case. The Commission's decision is a recommendation to the Village Board.

CASE: PC 24-03

PETITION: Request for approval of a Special Use Permit for the operation of a Commercial Tutoring/Learning Center at the property commonly known as 8120 Lehigh Avenue in Morton Grove, Illinois (PIN 10-20-303-002-0000) with a variation from Sections 12-7-3:H and I for off-street parking, all within a M-O/R Office/Research Manufacturing District, pursuant Section 12-4-4:E. The applicant is Apex Pediatric Therapy Services.

Brandon Nolin, Community Development Administrator, introduced the case. He explained the applicant (Apex Pediatric Therapy Services) is requesting a Special Use Permit for the operation of a Commercial Tutoring/Learning Center at the property commonly known as 8120 Lehigh Avenue with a variation for off-street parking. The subject property is located entirely within the M-O/R Office/Research Manufacturing District zoning district.

The applicant is leasing 3,042 sq. ft. to accommodate a business that provides Applied Behavior Analysis (ABA), speech, and occupational therapy to children and adolescents with autism. The applicant has been operating at the subject property without a Business Compliance Certificate since April 2023 and has entered into a Compliance and Escrow Agreement to obtain the required Special Use permit retroactively.

The business includes a reception area, five (5) exam rooms used for patient visits, and one (1) room used for administration. Most of the patients range in age from 4 to 9 years old. The business operates 8:00 am to 7:00 pm on weekdays, and 9:00 am to 4:00 pm on weekends. Parents drop off their children for therapy and then return for pick up at the end of their child's scheduled session. The applicant operates several other similar facilities in Illinois including locations in Gurnee, Lisle, and Palatine. All three locations are in a similar office campus environment.

It should also be noted that in 2017, a similar business (By Your Side Autism Therapy Services) was permitted as a special use (PC 17-04) in the western building at North Grove Corporate Park at 8145 River Drive, Suite 101. The Traffic Safety Commission was unanimous in its recommendation of approval at its April 4 meeting and issued no comments.

Secretary Kirchner swore in the applicant, Veena Anand, and Justin Opitz of Kimley-Horn.

Ms. Anand gave a summary of the business. The summary is as noted by Mr. Nolin, with the additional note that children are there for one-on-one therapy for 4 hours.

Chairman Kintner asked about the parking terms listed in their lease agreement, allowing for 9 spaces. Mr. Optiz said they could work with the landlord to change the terms to meet the need of 16 parking spaces. There are no current issues with parking.

Commissioner Gabriel asked if the parents stayed during the sessions. Ms. Anand said it is strictly drop-off and pick-up. There may be times when a parent talks with a teacher for a 5-minute short visit.

Chairman Kintner asked how many employees are on site. There is one full time person, three part time employees and a scheduler who comes in the late afternoon. There is overlap of 3 employees from 10:00 am to 3:00 pm. The business operates from 8:00 am to 7:00 pm.

Chairman Kintner asked if there is a policy to have more than one adult with the children at all times. There is always more than one adult present.

Chairman Kintner asked Mr. Optiz if there was any direct observation of the parking lot for the traffic study. He noted that they looked at historic aerial displays in mid-day and afternoon for demand. Public works staff also visited the site at those times.

Commissioner Gabriel asked if the traffic study was based on office use. Discussion ensued regarding the conservative nature of the study, with the proposed use needing less parking than an office use.

Commissioner Kintner asked for public comment. Mr. Jim Heitzman of Celtic Chicago, a neighboring tenant in unit 104, has 35 employees and occupies almost 50 percent of the space. He wanted to make sure his staff and clients have ample space to park. He has not experienced any parking problems since the business began operations.

Commissioner Gabriel made a motion to recommend approval of Case PC 24-03, a request for approval of a Special Use Permit for a commercial tutoring/learning center with waivers to off-street parking standards (12-7-3:H, I), all within a M-O/R Office/Research Manufacturing District, for the property commonly known as 8120 Lehigh Avenue in Morton Grove, Illinois.

The motion was seconded by Commissioner Dorgan.

Commissioner Dorgan	voting	aye
Commissioner Hussaini	voting	aye
Commissioner Mohr	voting	aye
Commissioner Stein	voting	aye
Chairman Kintner	voting	aye

Motion passed 5-0.

Chairman Kintner asked for any other business or discussion. Hearing none, Commissioner Mohr moved to adjourn the meeting by acclamation. The motion was seconded by Commissioner Dorgan.

The motion to adjourn the meeting was approved unanimously pursuant to a voice vote at 8:25 p.m.

Minutes by: Anne Kirchner

To: Chairperson Kintner and Members of the Plan Commission

From: Brandon Nolin, AICP, Community Development Administrator
Anne Ryder Kirchner, Planner/Zoning Administrator

Date: September 10, 2024

Re: Appearance Commission Case PC 24-06
Request for a Special Use Permit for a parking variation for an existing shopping center in a C-1 General Commercial District in accordance with Section 12-7-3:K at the property commonly known as 6015-6049 Dempster Street in Morton Grove, Illinois (PIN 10-20-106-064-0000). The applicant is JJK Property LLC.

STAFF REPORT

Public Notice

The Village provided Public Notice for the September 17, 2024, Plan Commission public hearing for Case PC 24-06 in accordance with the Unified Development Code. The Morton Grove Champion published a public notice on August 29, 2024. The Village notified surrounding property owners via mail and placed a public notice sign on the subject property on August 30, 2024.

Property Background

The subject property at 6015-6049 Dempster Street is a 0.67-acre (29,378 sq. ft.) site located on the south side of Dempster Street between Austin Avenue and School Street. The property is within the C-1 General Commercial zoning district and is improved with three commercial buildings. 6037-6049 Dempster Street and 6017-6035 Dempster Street provide approximately 13,200 sq. ft. of combined gross floor area of in-line retail space. 6015 Dempster Street, which is the easternmost building, provides 2,400 sq. ft. of commercial space. The block located across Dempster Street to the north is also zoned C-1 General Commercial and improved with commercial buildings of varying size. The block to the south across an alley is zoned R-2 Single-family Residence and improved with single-family homes.

Subject Property Location Map

Application Overview

The applicant, JJK Property, Inc., is seeking approval of a Special Use Permit for a parking variation for the existing Dempster Commons shopping center. The applicant is requesting that only the two larger, westernmost properties (6017-6035 Dempster Street and 6037-6049 Dempster Street) be included within the Special Use Permit. Those two (2) properties have a combined gross floor area of 13,200 sq. ft. of commercial space served by a total of 30 on-site parking spaces (including four (4) ADA accessible spaces) divided into two (2) lots. Per the applicant's request, any future uses locating at 6015 Dempster Street would need to rely on the two parking spaces (four tandem) provided at that address.

Dempster Commons shopping center has had several vacancies in recent years, but the owner cannot lease those spaces due to lack of available parking for new uses. A restaurant user (OMG Nafisa's) at the shopping center was granted a parking variation (ZBA 22-08) wherein all available parking unassigned to other uses at the time was assigned to the restaurant. The shopping center had existing vacancies when the variation was approved and as a result, Staff have had to reject several potential lessees' Business Compliance Certificate requests due to lack of parking at the shopping center. New uses at the subject property cannot be approved unless other uses leave the property and the proposed new uses have a required parking minimum of equal to or less than the previous use.

To help address problematic vacancies at the shopping center, the Staff recommended solution was for the owner to apply for a single parking variation for the entire site (rather than individual uses) that will identify the total parking maximum for the site beyond by-right parking ratios and enable leasing of smaller vacant spaces provided they do not require parking beyond what is permitted for the entire center. Toward that end, the owners retained Kimley-Horn to perform a parking study with the goal of documenting parking demand and have submitted an application tied strictly to parking. Since the requested parking waiver is in excess of what can be permitted by ZBA for a parking variation, the variation must be treated as a Special Use Permit application to be reviewed by the Plan Commission.

Existing Parking Configuration (Source: Kimley-Horn)

Required Parking

The subject property has 30 off-street parking spaces that are shared between the mix of uses. Five units totaling approximately 6,400 sq. ft. are currently vacant. The combined parking requirement for all existing uses on the site, without applying the shared parking calculation provided by Section 12-7-3:H, is 41.5 spaces, which is rounded up to 42 spaces.

The applicant is requesting that vacant spaces be treated as general commercial spaces that would require 1.0 space per 250 square feet. Applying this standard to existing vacant space, a total of 26 additional spaces would be required. In total, the shopping center would require 68 parking spaces if vacant spaces were to be fully leased using as-of-right parking requirements.

Based on the proposed mix of uses, the property will have 38 fewer spaces than required by Code for the base parking requirement and 28 fewer spaces than required by Code for the shared parking requirement. Based on the shared parking requirement of 58 spaces and an on-site parking capacity of 30 spaces, the requested reduction of 28 spaces, which is greater than a 30% variation, requires a Special Use Permit.

Address	Business	Use	General Use	Square Feet	Parking Ratio	Parking Req.
6015	Vacant		Permitted Commercial	2400	1 per 250 sq. ft.	9.6
6017	Vacant		Permitted Commercial	1000	1 per 250 sq. ft.	4
6019	Filipino Food Catering	Catering	Commercial Services	1000	1 per 300 sq. ft.	3.3
6021	Vacant		Permitted Commercial	1000	1 per 250 sq. ft.	4.0
6023	Ya Hala Restaurant	Restaurant	Restaurant	1150	1 per 150 sq. ft.	7.7
6027-29	OMG Nafisa's Kitchen	Restaurant	Restaurant	1000	1 per 150 sq. ft.	6.7
	OMG Nafisa's Kitchen	Catering	Commercial Services	1000	1 per 300 sq. ft.	3.3
6031	Vacant		Permitted Commercial	1000	1 per 250 sq. ft.	4.0
6035	Dehan Medical Supplies	Medical supplies	Retail	1000	1 per 250 sq. ft.	4.0
6037	Smash It Burgers	Restaurant	Restaurant	900	1 per 150 sq. ft.	6.0
6041	Inswan Home Health	Office	Commercial Services	950	1 per 300 sq. ft.	3.2
6043	Vivacity Beauty Salon	Salon	Commercial Services	1200	1 per 250 sq. ft.	4.8
6047	Manny's Sewing Machine Services	Commercial services	Commercial Services	1000	1 per 300 sq. ft.	3.3
6049	Vacant		Permitted Commercial	1000	1 per 250 sq. ft.	4.0
						68

General Use	Weekdays			Weekends		
	2:00 a.m. - 7:00 a.m.	7:00 a.m. - 6:00 p.m.	6:00 p.m. - 2:00 a.m.	2:00 a.m. - 7:00 a.m.	7:00 a.m. - 6:00 p.m.	6:00 p.m. - 2:00 a.m.
Retail Sales and Services	0%	90%	80%	0%	100%	60%
Restaurant	10%	70%	100%	20%	70%	100%
General Use	Weekdays			Weekends		
	2:00 a.m. - 7:00 a.m.	7:00 a.m. - 6:00 p.m.	6:00 p.m. - 2:00 a.m.	2:00 a.m. - 7:00 a.m.	7:00 a.m. - 6:00 p.m.	6:00 p.m. - 2:00 a.m.
Retail Sales and Services	0.0	42.8	38.0	0.0	47.6	28.5
Restaurant	4.1	14.2	20.3	4.1	14.2	20.3
	4.1	57.0	58.4	4.1	61.8	48.9

Off-street Parking Requirements per Section 12-7-3:I (Source: Kimley-Horn)

As required by Section 12-7-3:K, the applicant obtained an independent traffic study from Kimley-Horn Associates, Inc., to support the request for variation. The study, prepared by Justin Opitz, AICP, and dated June 28, 2024, is included in the hearing packet. The study assesses parking demand based on Village Code requirements and observed parking counts, and included recommendations to increase parking supply and traffic safety. The study makes the following observations:

- Peak parking demand in the north and south parking lots was 22 parking spaces out of 30 spaces, leaving a total of 8 spaces to be utilized by new businesses on-site. As such, the requested waiver would enable vacant spaces to be leased without causing an issue for current tenants, provided that the new tenants were low parking demand uses.
- Parking turnover was the highest in the north parking lot, likely due to the carryout orders of the restaurants.
- The two, tandem spaces behind 6015 Dempster were not included in the study as the building is currently vacant and experiencing no parking demand.
- One ADA accessible parking space at the northeast corner of the north parking lot could be restriped to create two regular parking spaces, while still maintaining the required number of accessible parking spaces.
- Additional improvements including the addition and replacement of one-way and stop signage, and removal of a solid paint line at the Dempster Street entrance would improve traffic flow and safety.

The study notes a shared parking requirement of 60 spaces during the 7:00 a.m. – 6:00 p.m. time period on weekdays; however, Staff calculations indicate a requirement of 58 spaces. Staff believe this is due to the reduction percentage being applied to round numbers.

Although not discussed by Kimley-Horn explicitly, Staff would like to note that 22 off-street public parking spaces are located directly west of the subject property and may be used by customers. While those spaces may not be included in the parking supply for the subject property per Village Code, Staff believe it is reasonable that customers will use the municipal lot, though signage should encourage parking in the north and south parking lots.

The submitted study concludes that based on collected parking count data, peak parking demand across all parking lots occurred between 3:00-5:00 p.m. on weekdays and 1:00-2:00 p.m. on Saturday. Similarly, peak parking demand in only the north and south parking lots occurred on Friday at 3:45 p.m., where 22 out of the 30 spaces were occupied, leaving eight available spaces. Based on the shared parking requirement of 58 spaces per Staff calculations, with and an on-site parking capacity of 31 spaces after recommended improvements are installed, a variation of 27 spaces is being requested.

Discussion

The applicant is requesting the Plan Commissions' approval of a Special Use Permit to reduce the collective amount of parking required by the various uses at the Dempster Commons shopping center. The applicant is also proposing improvements to assist with traffic flow and maximize efficient use of existing parking spaces. Staff works with prospective tenants applying for a Business Compliance Certificates (BCC) to ensure their business activities comply with Village Code requirements, particularly off-street parking and loading requirements. Should the Plan Commission decide to grant the requested parking variation, the BCC process will be used to track compliance with the variation and any conditions issued by the Plan Commission.

Variation Standards

The Zoning Board of Appeals can approve the application as presented, approve it with conditions, or deny the application based on the following standards, established in Section 12-16-3:A:

a. Not Self-Imposed: The alleged difficulty or hardship is caused by this title and has not been created by any persons presently having an interest in the subject property.

b. Nonmonetary Considerations: The circumstances or conditions are such that the strict application of the provisions of this title would deprive the applicant of a reasonable use of his land. Mere loss in value shall not justify a variation.

c. Not Detrimental to Public Welfare: The granting of any variation is in harmony with the general purposes and intent of this title and will not be detrimental to the public welfare or to other property or improvements in the neighborhood.

d. Not Detrimental to Neighborhood: The proposed variation will not impair an adequate supply of light and air to adjacent property, substantially increase congestion in the streets

Commission Review

Traffic Safety Commission

On September 5, 2024, the Traffic Safety Commission (TSC) reviewed Case PC 24-06. At the conclusion of the discussion, the TSC voted unanimously (7-0), with Commissioners Chalabi and Karagozian absent, to recommend approval of the application, with conditions.

- Employee parking be limited to areas that promote customer parking (such as the south parking lot).
- Parking lot flow modifications, as presented, be implemented along with new signage.

Department Review

The proposed project was reviewed by several department representatives with the Department of Public Works being the only department to provide comments (see "Attachment A").

- Building Department: No comments at this time.
- Fire Department: No comments at this time.
- Public Works Department/Engineering: In review of the proposed project, the Village Engineer issued ten comments dated September 9, 2024 regarding:
  - The application refers to public parking in the analysis of site. Village provided public parking should not be used for determining the parking supply for a private business. Public parking should only be considered as supplementary after the private site's parking supply requirement is approved.
  - After the north parking lot fills, patrons of 6017-6035 Dempster Street would be expected to choose to park in the public parking lot next to 6037-6049 Dempster Street because it is closer than the south parking lot of 6037-6049 Dempster Street. The Special Use Permit should include a condition that the applicant maintains signage to encourage parking in the north and south parking lots before parking in the public parking lot.
  - The Traffic Study is focused on parking space count. It does not include a dimensional analysis of the parking layout of the site to determine parking spaces.
  - The existing one-way circulation of the north parking lot is supportable.
  - Each parking lot would require one accessible parking space. Three are provided in the north parking lot. This is supportable. However, the purpose of the extra accessible parking space(s) is unclear. Each extra accessible parking space reduces the number of unrestricted parking spaces by two.
  - The Traffic Study states that the peak time parking in the north and south lots have available parking spaces with 5 vacant businesses. Employee parking should be accounted for on-site. It is not clear how many employees each business has, what peak employee parking demand is. One goal of this parking issue should be to reduce the chance of an inadequate parking supply at the private development reduce the public parking supply or

causing on-street parking in the adjacent residential neighborhood. The Special Use Permit should include a condition on the parking demand allowed for the vacant spaces.

- The north parking lot's existing eastern parking spaces are marked as accessible spaces. The pedestrian access route connecting this parking spaces to a building entrance should be explained by the applicant.
- The applicant has not provided a plan that compares all dimensional aspects of parking spaces and circulation comply with Village requirements. The Traffic Study mentions this should be confirmed in a future effort. The representation of the number of parking spaces could vary by a few parking spaces. The Special Use Permit process should include a requirement to confirm the number of parking spaces these parking lots can provide. This step should be completed before approving the Special Use Permit.
- Existing signage does not provide reasonable advanced notice to Dempster Street traffic, especially for eastbound Dempster Street. This circumstance could contribute to a traffic safety problem for circulating or parking drivers. The Special Use Permit should include a condition requiring new signage be installed and maintained at a better location.
- A snow removal/storage plan should be a condition of the Special Use Permit.

Standards for Review

The Standards for Special Uses are established in Section 12-16-4:C.5 of the Unified Development Code:

Standards for Special Uses: The following standards for evaluating special uses shall be applied in a reasonable manner, taking into consideration the restrictions and/or limitations which exist for the site being considered for development:

1. Preservation of Health, Safety, Morals, And Welfare: The establishment, maintenance and operation of the special use will not be detrimental to or endanger the public health, safety, morals or general welfare.
2. Adjacent Properties: The special use should not be injurious to the use and enjoyment of other property in the immediate vicinity for the uses permitted in the zoning district.
3. Orderly Development: The establishment of the special use will not impede normal and orderly development or impede the utilization of surrounding property for uses permitted in the zoning district.
4. Adequate Facilities: Adequate utilities, access roads, drainage and other necessary facilities are in existence or are being provided.
5. Traffic Control: Adequate measures have been or will be taken to provide ingress and egress designed to minimize traffic congestion on the public streets. The proposed use of the subject site should not draw substantial amounts of traffic on local residential streets.
6. Adequate Buffering: Adequate fencing and/or screening shall be provided to ensure the right of enjoyment of surrounding properties to provide for the public safety or to screen parking areas and other visually incompatible uses.
7. Conformance to Other Regulations: The special use shall, in all other respects, conform to applicable provisions of this title or amendments thereto. Variation from provisions of this title as provided for in subsection 12-16-3A, "Variations", of this chapter, may be considered by the plan commission and the Village board of trustees as a part of the special use permit.

Recommendation

Should the Plan Commission recommend approval of this application, staff suggests the following motion and conditions:

Motion to recommend approval of Case PC 24-06, a request for approval of a Special Use Permit for a parking variation for an existing shopping center in a C-1 General Commercial District in accordance with Section 12-7-3:K at the property commonly known as 6015-6049 Dempster Street in Morton Grove, Illinois (PIN 10-20-106-064-0000), subject to the following conditions:

1. *At no time shall the uses at the subject property exceed a shared parking demand of 59 parking spaces.*
2. *Employees of businesses located at 6017-6049 Dempster Street shall park within south parking lot located at the rear the subject property. If spaces are not available within the south parking lot, employees shall park in the municipal parking lot located at 6055 Dempster Street.*
3. *The Applicant shall maintain signage to encourage parking in the north and south parking lots before parking in the municipal parking lot.*
4. *Prior to filing any future Business Compliance Certificates for 6017-6049 Dempster Street, the Applicant shall provide a snow removal/storage plan, for review and approval by the Village Engineer.*
5. *Prior to filing any future Business Compliance Certificates for 6017-6049 Dempster Street, the owner/applicant shall install traffic control signage and parking lot striping in keeping the improvements proposed in the Parking Study authored by Kimley-Horns Associates, Inc. and dates June 28, 2024, as consistent with discussions with the Appearance Commission, for review and approval by the Community Development Administrator.*
6. *Prior to filing any future Business Compliance Certificates for 6017-6049 Dempster Street, the Applicant shall confirm the number of parking spaces the north and south parking lots can provide.*

Attachments

- Attachment A – Plan Review Comment Form for PC 24-06, prepared by Keith White, Traffic Safety Commission Chair dated September 9, 2024
- Attachment B – Plan Review Comment Forms for PC 24-06, prepared by Chris Tomich, Village Engineer dated September 9, 2024
- Attachment C – Final Plans and Supporting Documents for PC 24-06

Attachment A
Plan Review Comment Form for PC 24-06,
Prepared by Keith White, Traffic Safety Commission Chair
Dated September 9, 2024

REVIEWING: **BUILDING** **FIRE** POLICE **PUBLIC WORKS/ENGINEERING** **TSC**

VILLAGE OF MORTON GROVE, ILLINOIS

PLAN REVIEW COMMENT FORM

DATE DISTRIBUTED: 8/30/2024

CASE NUMBER: PC 24-06

APPLICATION: Request for a Special Use Permit for a parking variation for an existing shopping center in a C-1 General Retail District in accordance with Section 12-7-3:K at the property commonly known as 6015-6049 Dempster Street in Morton Grove, Illinois (10-20-106-064-0000). The applicant is JJK Property LLC.

A Special Permit Application has been submitted to the Plan Commission for action. Please return your review to the Department of Community and Economic Development by **Friday, September 6, 2024.**

Thank you,
Brandon Nolin, AICP
Community Development Administrator

COMMENTS OR CONCERNS

Approval as presented. The following condtions must be considered. It is suggested that employee parking be limited to areas that promote customer parking. Parking lot flow modifications as presented be implemented along with new signage.

These comments accurately represent existing Village regulations or policies.

Name (please print): Keith White Traffic Safety Commission Chairman

Signed:

Date: 09/09/2024

Attachment B
Plan Review Comment Forms for PC 24-06,
Prepared by Chris Tomich, Village Engineer
Dated September 9, 2024

REVIEWING: BUILDING FIRE POLICE PUBLIC WORKS/ENGINEERING TSC

VILLAGE OF MORTON GROVE, ILLINOIS

PLAN REVIEW COMMENT FORM

DATE DISTRIBUTED: 8/30/2024

CASE NUMBER: PC 24-06

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A Special Permit Application has been submitted to the Plan Commission for action. Please return your review to the Department of Community and Economic Development by Friday, September 6, 2024.

Thank you,
Brandon Nolin, AICP
Community Development Administrator

COMMENTS OR CONCERNS

1. The application refers to public parking in the analysis of site. Village provided public parking should not be used for determining the parking supply for a private business. Public parking should only be considered as supplementary after the private site's parking supply requirement is approved.

2. After the north parking lot fills, patrons of 6017-6035 Dempster Street would be expected to choose to park in the public parking lot next to 6037-6049 Dempster Street because it is closer than the south parking lot of 6037-6049 Dempster Street. The Special Use Permit should include a condition that the applicant maintains signage to encourage parking in the north and south parking lots before parking in the public parking lot.

3. The Traffic Study is focused on parking space count. It does not include a dimensional analysis of the parking layout of the site to determine parking spaces.

4. The existing one-way circulation of the north parking lot is supportable.

5. Each parking lot would require one accessible parking space. Three are provided in the north parking lot. This is supportable. However, the purpose of the extra accessible parking space(s) is unclear. Each extra accessible parking space reduces the number of unrestricted parking spaces by two.

6. The Traffic Study states that the peak time parking in the north and south lots have available parking spaces with 5 vacant businesses. Employee parking should be accounted for on-site. It is not clear how many employees each business has, what peak employee parking demand is. One goal of this parking issue should be to reduce the chance of an inadequate parking supply at the private development reduce the public parking supply or causing on-street parking in the adjacent residential neighborhood. The Special Use Permit should include a condition on the parking demand allowed for the vacant spaces

7. The north parking lot's existing eastern parking spaces are marked as accessible spaces. The pedestrian access route connecting this parking spaces to a building entrance should be explained by the applicant.

8. The applicant has not provided a plan that compares all dimensional aspects of parking spaces and circulation comply with Village requirements. The Traffic Study mentions this should be confirmed in a future effort. The representation of the number of parking spaces could vary be a few parking spaces. The Special Use Permit

process should include a requirement to confirm the number of parking spaces these parking lots can provide. This step should be completed before approving the Special Use Permit.

9. Existing signage does not provide reasonable advanced notice to Dempster Street traffic, especially for eastbound Dempster Street. This circumstance could contribute to a traffic safety problem for circulating or parking drivers. The Special Use Permit should include a condition requiring new signage be installed and maintained at a better location.

10. A snow removal/storage plan should be a condition of Special Use Permit.

These comments accurately represent existing Village regulations or policies.

Name (please print): Chris Tomich, Village Engineer

Signed: 

Date: 09/09/2024

Attachment C
Resident Letter
Received September 17, 2024

- Outlook

Re: CASE PC 24-06: further comments for this evening's meeting

From [redacted]
Date Tue 9/17/2024 1:10 PM
To Brandon Nolin <bnolin@mortongroveil.org>

Thank you for your prompt reply. It is unfortunate that more detail was not available to community members ahead of the meeting. And, I apologize, that I am afraid that I had mistakenly read the second case on the agenda as further detail of the JJK case.

If I understand you correctly, this request is basically one business owner looking to rent already existing parking spaces from another business owner. The spaces TO BE rented, are in the small shopping strip mall at 6015-49 Dempster, basically at the SW corner of Dempster and Austin. **If that is the case,or basically, I continue to recommend that the Special Use Permit request be denied for the same of my second reasons:** so many people already do not obey the sign that prohibits a left turn out of that parking lot onto Austin, that having more traffic that will inevitably also disobey the signs, seems to just again, increase the likelihood of an accident, and more significantly, a pedestrian accident (because of the bus stop, the schools and places of employment that are accessed).

Thank you again, for your follow up.
-Ingrid

[redacted]

Attachment D

Final Plans and Supporting Documents for PC 24-06

1. *Special Use Permit Application, submitted by JJK Property, LLC, dated July 12, 2024*
2. *Special Use Permit Cover Letter, submitted by JJK Property, LLC, dated July 12, 2024*
3. *Proof of Ownership, submitted by JJK Property, LLC, dated July 12, 2024*
4. *Plat of Survey of 6017-6049 Dempster Street, prepared by Professionals Associated Survey, Inc., dated July 17, 2007*
5. *Site Plan indicating commercial unit divisions, prepared by Kimley-Horn Assoc., dated July 12, 2024*
6. *Parking Study – 6015-6049 Dempster Street, prepared by Kimley-Horn Assoc., dated June 28, 2024*

MORTON GROVE
Incredibly Close & Amazingly Open

SPECIAL USE APPLICATION

Village of Morton Grove
Department of Community Development
6101 Capulina Avenue, Morton Grove, Illinois 60053
commdev@mortongroveil.org | 847-663-3063

Case Number: _____ Date Application Filed: 7/12/2024

APPLICANT INFORMATION

Applicant Name: John Kim
Applicant Organization: JJK property. LLC - 6017 Dempster
Applicant Address: P.O Box 427
Applicant City / State / Zip Code: Lake Forest, IL. 60045
Applicant Phone: 708-602-4414
Applicant Email: dehanjjkim@hotmail.com
Applicant Relationship to Property Owner: President
Applicant Signature: _____

PROPERTY OWNER INFORMATION (IF DIFFERENT FROM APPLICANT)

Owner Name: Same as above.
Owner Address: _____
Owner City / State / Zip Code: _____
Owner Phone: _____
Owner Email: _____
Owner Signature: _____

PROPERTY INFORMATION

Common Address of Property: 6017 - 6049 Dempster St. Morton Grove, IL. 60053
Property Identification Number (PIN): 10-20-106-064-0000
Property Square Footage: 12250 Sq
Legal Description (attach as necessary): _____
Property Zoning District: _____

APPLICATION INFORMATION

Requested Special Use: _____
Purpose of Special Use (attach as necessary): parking Variation

RESPONSES TO STANDARDS FOR SPECIAL USE

Provide responses to the seven (7) Standards for Special Use as listed in Section 12-16-4-C-5 of the Village of Morton Grove Unified Development Code. The applicant must present this information for the official record of the Planning Commission. The Special Use Standards are as follows:

a. The establishment, maintenance, or operation of the Special Use will not be detrimental to, or endanger the public health, safety, morals, comfort, or general welfare.

Our tenants and businesses have been operating at 6017-6049 Dempster Street without endangering the health, safety, moral, comfort, or general welfare of the public since we purchased the properties and will continue to do so into the future.

b. The Special Use will not be injurious to the use and enjoyment of other property in the immediate vicinity for the purposes already permitted, nor substantially diminish and impair property values within the neighborhood.

To our knowledge, we have received no complaints from other property owners in the immediate vicinity related to our tenants and businesses at 6017-6049 Dempster Street. We expect this to be the case in the future with the potential new tenants, as well.

c. The establishment of the Special Use will not impede the normal and orderly development and improvement of the surrounding property for uses permitted in the district.

The proposed special use is a parking variation, which will not impede the normal and orderly development and improvement of the surrounding properties.

d. Adequate utilities, access roads, drainage and/or necessary facilities have been or are being provided.

Adequate utilities, access, and drainage have been provided to our tenants and businesses at 6017-6049 Dempster Street since the properties were purchased and will continue to be into the future.

e. Adequate measures have been or will be taken to provide ingress and egress so designed as to minimize traffic congestion in the public streets.

Access to the north parking lot from Dempster Street is provided via one-way counterclockwise circulation, which can help to reduce conflict points. Access to the south parking lot is provided via the east-west public alleyway adjacent to the buildings.

f. The proposed Special Use is not contrary to the objectives of the current Comprehensive Plan for the Village of Morton Grove.

The proposed special use is a parking variation, which is not contrary to the objectives of the current Comprehensive Plan.

g. The Special Use shall, in all other respects, conform to the applicable regulations of the district in which it is located, except as such regulations may, in each instance, be modified pursuant to the recommendations of the Commission.

It is our intention that the proposed special use will conform to the applicable regulations of the district in which it is located.

July 12, 2024

Mr. Brandon Nolin
Village of Morton Grove
6101 Capulina Avenue
Morton Grove, IL 60053

Re: Special Use Application Letter
6017-6049 Dempster Street Special Use Application
6017-6049 Dempster Street – Morton Grove, Illinois

Dear Mr. Nolin:

JJK Property, Inc. is pleased to submit this special use application to the Village of Morton Grove for our properties located at 6017-60149 Dempster Street in Morton Grove, Illinois. We are applying for this special use in order to receive a parking variation so that we can start the process of leasing some of our vacant units. Please see **Table 1** on the following page for a list of the current businesses operating at our properties, as well as the types of businesses we are looking to target for the vacant units.

We look forward to continuing our business operations within the Village of Morton Grove. Please reach out if you have any questions or require additional information.

Sincerely,

John Kim

JJK Property, LLC
P.O. Box 427
Lake Forest, IL 60045
hjanniskim@gmail.com

Table 1. 6017-6047 Dempster Street Business List

Business Name (Address – Dempster Street)	Code Categorization / Land Use	Size	Targeted Business
Vacant (6017)	Permitted & Special Uses in Commercial Zoning District	1,000 SF	Office
Filipino Food Catering (6019)	Commercial Services	1,000 SF	--
Vacant (6021)	Permitted & Special Uses in Commercial Zoning District	1,000 SF	Office or General Commercial Services
Ya Hala (6023)	Restaurant	1,150 SF	--
OMG Nafisa's (6027-6029)	Restaurant	1,000 SF	--
OMG Nafisa's (6027-6029)	Commercial Services (Catering)	1,000 SF	--
Vacant (6031)	Permitted & Special Uses in Commercial Zoning District	1,000 SF	Dehan Medical Equipment
Dehan Medical Equipment (6035)	Permitted & Special Uses in Commercial Zoning District	1,000 SF	--
Smash It Burgers (6037)	Restaurant	900 SF	--
Evergreen Home Care (6041)	Commercial Services	950 SF	--
Vivacity Beauty Salon (6043)	Barber or Beauty Shops	1,200 SF	--
Manny's Sewing Machine Services (6047)	Commercial Services	1,000 SF	--
Vacant (6049)	Permitted & Special Uses in Commercial Zoning District	1,000 SF	AWE Charity Foundation

Doc# 1825719407 Fee $52 00
Karen A.Yarbrough
Cook County Recorder of Deeds
Date: 09/14/2018 01:36 PM Pg: 1 of 3

Return To:
LIEN SOLUTIONS
PO BOX 29071
GLENDALE, CA 91209-9071
Phone #: 800-833-5778
Email: iLienREDSupport@wolterskluwer.com

Prepared By:
CT LIEN SOLUTIONS
GERALD ROMAN
PO BOX 29071
GLENDALE, CA 91209-9071

SATISFACTION OF MORTGAGE

FOR THE PROTECTION OF THE OWNER, THIS RELEASE SHALL BE FILED WITH THE RECORDER OR THE REGISTRAR OF TITLES IN WHOSE OFFICE THE MORTGAGE OR DEED OF TRUST WAS FILED.

Know all men by these presents, that **Byline Bank f/k/a North Community Bank**, does hereby certify that a certain Mortgage, bearing the date **07/25/2014**, made by **6017 Dempster - JJK Property LLC, an Illinois series limited liability company**, to **North Community Bank** on real property located **Cook County**, in State of Illinois, with the address of **6017-6049 West Dempster St., Morton Grove, IL, 60053** and further described as:

Parcel ID Number: **10-20-106-035-0000, 10-20-106-010-0000 and 10-20-106-039-0000** and recorded in the office of **Cook County**, as **Instrument No: 1431157006 on 11/7/2014 and modified by 1602608056** on **01/26/2016**, is fully paid, satisfied, or otherwise discharged.

Description/Additional information: See attached.
Current Beneficiary Address: 3639 North Broadway St., Chicago, IL, 60613

Dated this **09/13/2018**

Lender: **Byline Bank f/k/a North Community Bank**

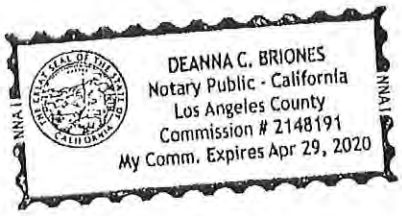
By: **Kelly Walter**
Its: **Assistant Vice President**

STATE OF **CALIFORNIA, LOS ANGELES COUNTY**

On **September 13, 2018** before me, the undersigned, a notary public in and for said state, personally appeared **Kelly Walter**, personally known to me or proved to me on the basis of satisfactory evidence to be the individual whose name is subscribed to the within instrument and acknowledged to me that he/she executed the same in his/her capacity, and that by his/her signature on the instrument, the individual, or the person upon behalf of which the individual acted, executed the instrument.

Notary Public **DeAnna C. Briones**

Commission Expires: 04/29/2020



PARCEL 1:

LOTS 1, 2, 3, 4 AND 5 IN BLOCK 1 IN DEMPSTER - AUSTIN HIGHLAND, BEING A SUBDIVISION IN THE EAST 1/2 OF THE NORTHEAST 1/4 OF THE NORTHWEST 1/4 OF SECTION 20, TOWNSHIP 41 NORTH, RANGE 13, EAST OF THE THIRD PRINCIPAL MERIDIAN, IN COOK COUNTY, ILLINOIS.

PARCEL 2:

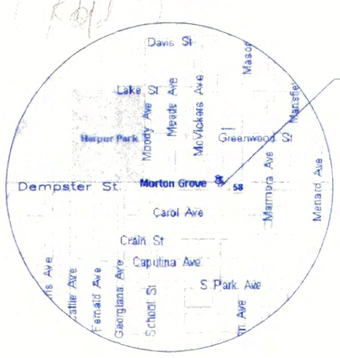
THAT PART OF THE NORTHEAST 1/4 OF THE NORTHWEST 1/4 OF SECTION 20, TOWNSHIP 41 NORTH, RANGE 13, EAST OF THE THIRD PRINCIPAL MERIDIAN, DESCRIBED AS FOLLOWS:

BEGINNING AT A POINT ON THE EAST LINE OF SAID WEST 1/2 OF THE EAST 1/2 OF THE NORTHEAST 1/4 OF THE NORTHWEST 1/4 OF SECTION 20 FOR A DISTANCE OF 40.00 FEET SOUTH OF THE NORTH LINE OF THE NORTHWEST 1/4 OF SAID SECTION 20; THENCE SOUTH ON THE EAST LINE OF THE WEST 1/2 OF THE EAST 1/2 OF THE NORTHEAST 1/4 OF THE NORTHWEST 1/4 OF SECTION 20 FOR A DISTANCE OF 293.8 FEET; THENCE WEST PARALLEL WITH THE NORTH LINE OF THE NORTHWEST 1/4 OF SAID SECTION 20 FOR A DISTANCE OF 70.00 FEET; THENCE NORTH PARALLEL WITH SAID EAST LINE FOR A DISTANCE OF 163.4 FEET; THENCE WEST PARALLEL WITH THE NORTH LINE OF SAID NORTHWEST 1/4 FOR A DISTANCE OF 20.00 FEET; THENCE NORTH PARALLEL WITH SAID EAST LINE FOR A DISTANCE 130.4 FEET; THENCE EAST ALONG A LINE 40.00 FEET SOUTH OF AND PARALLEL TO THE NORTH LINE OF SAID NORTHWEST 1/4 FOR A DISTANCE OF 90.00 FEET THE THE POINT OF BEGINNING; EXCEPT LOT 1 IN THE PLAT RECORDED AS DOCUMENT 16862074, IN COOK COUNTY, ILLINOIS.

PROFESSIONALS ASSOCIATED SURVEY, INC.
PROFESSIONAL DESIGN FIRM NO. 184-003023
7100 N. TRIPP AVE, LINCOLNWOOD, ILLINOIS 60712
TEL. (847) 675-3000 FAX (847) 675-2167

ALTA/ACSM LAND TITLE SURVEY

VICINITY MAP



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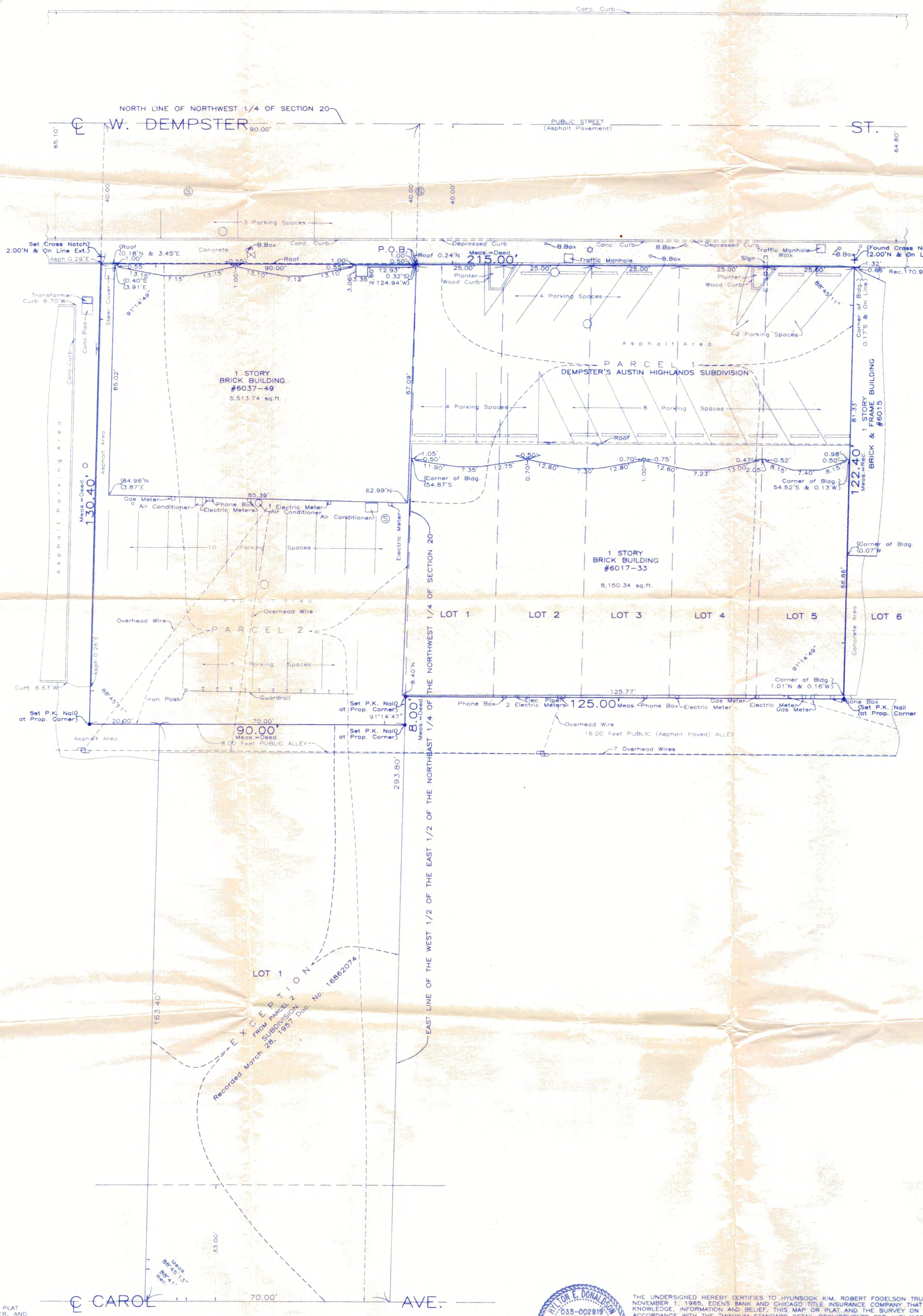
LAND TOTAL AREA: 27,029.60 SQ.FT. = 0.6205 ACRE

COMMONLY KNOWN AS: 6017-49 WEST DEMPSTER STREET, MORTON GROVE, ILLINOIS.

NORTH

GRAPHIC SCALE
10 5 0 10 20
(IN FEET)
1 Inch = 16 Ft.



LEGEND:
- ◯ – MANHOLE
- Ⓢ – SEWER MANHOLE
- ▨ – CATCH BASIN
- ○ – TRAFFIC SIGN
- ☼ – LIGHT POLE
- MV – WATER VALVE
- ᘐ – UTILITY POLE

NOTE:
REGULAR PARKING SPACES - 33

THE LEGAL DESCRIPTION SHOWN ON THE PLAT HEREON DRAWN IS A COPY OF THE ORDER, AND FOR ACCURACY SHOULD BE COMPARED WITH THE TITLE OR DEED.

DIMENSIONS ARE NOT TO BE ASSUMED FROM SCALING.

ORDER NO.: 07-78293

SCALE: 1 INCH = 16 FEET.

DATE OF FIELD WORK: July 13, 2007

ORDERED BY: SCHOENBERG, FINKEL, NEWMAN & ROSENBERG, LLC
Attorneys at Law

FLOOD CERTIFICATE:
ACCORDING TO THE FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA) FLOOD INSURANCE RATE MAP OF VILLAGE OF MORTON GROVE ILLINOIS DATED NOVEMBER 6, 2000 COMMUNITY PANEL NUMBER 170128 0242 F, THIS PROPERTY IS IN A MINIMUM FLOOD AREA AND IS DESIGNATED AS ZONE"X"

HYLTON E. DONALDSON 035-002819 PROFESSIONAL LAND SURVEYOR STATE OF ILLINOIS LINCOLNWOOD, ILL.

THE UNDERSIGNED HEREBY CERTIFIES TO HYUNSOOK KIM, ROBERT FOGELSON TRUST UNDER AGREEMENT DATED NOVEMBER 1, 1965, EDENS BANK AND CHICAGO TITLE INSURANCE COMPANY THAT TO THE BEST OF MY PROFESSIONAL KNOWLEDGE, INFORMATION AND BELIEF, THIS MAP OR PLAT AND THE SURVEY ON WHICH IT IS BASED WERE MADE IN ACCORDANCE WITH THE "MINIMUM STANDARD DETAIL REQUIREMENTS FOR ALTA/ACSM LAND TITLE SURVEYS" JOINTLY ESTABLISHED AND ADOPTED BY ALTA AND NSPS IN 2005, AND INCLUDES ITEMS 1, 2, 3, 4, 7(a), 7(b), 7(c)(1), 8, 9, 10, 11(a) AND 14 OF TABLE 'A' THEREOF. PURSUANT TO THE ACCURACY STANDARDS AS ADOPTED BY ALTA AND NSPS AND IN EFFECT ON THE DATE OF THIS CERTIFICATION, UNDERSIGNED FURTHER CERTIFIES THAT IN MY PROFESSIONAL OPINION, AS A LAND SURVEYOR REGISTERED IN THE STATE OF ILLINOIS, THE RELATIVE POSITIONAL ACCURACY OF THIS SURVEY DOES NOT EXCEED THE ALLOWABLE LIMITS SPECIFIED THEREIN.

DATE: July 17, 2007

SIGNED: Hylton E. Donaldson

ILLINOIS PROFESSIONAL LAND SURVEYOR NUMBER 35-002819
MY LICENSE EXPIRES NOVEMBER 30, 2008.

Drawn by: J. K.

PROFESSIONALS ASSOCIATED SURVEY, INC.
PROFESSIONAL DESIGN FIRM NO. 184-003023
7100 N. TRIPP AVE, LINCOLNWOOD, ILLINOIS 60712
TEL. (847) 675-3000 FAX (847) 675-2167

ALTA/ACSM LAND TITLE SURVEY

OF

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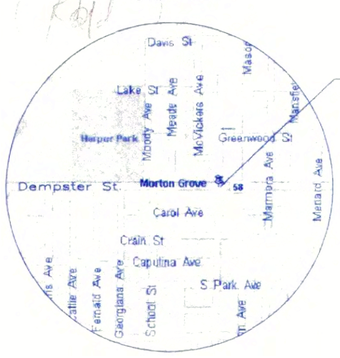

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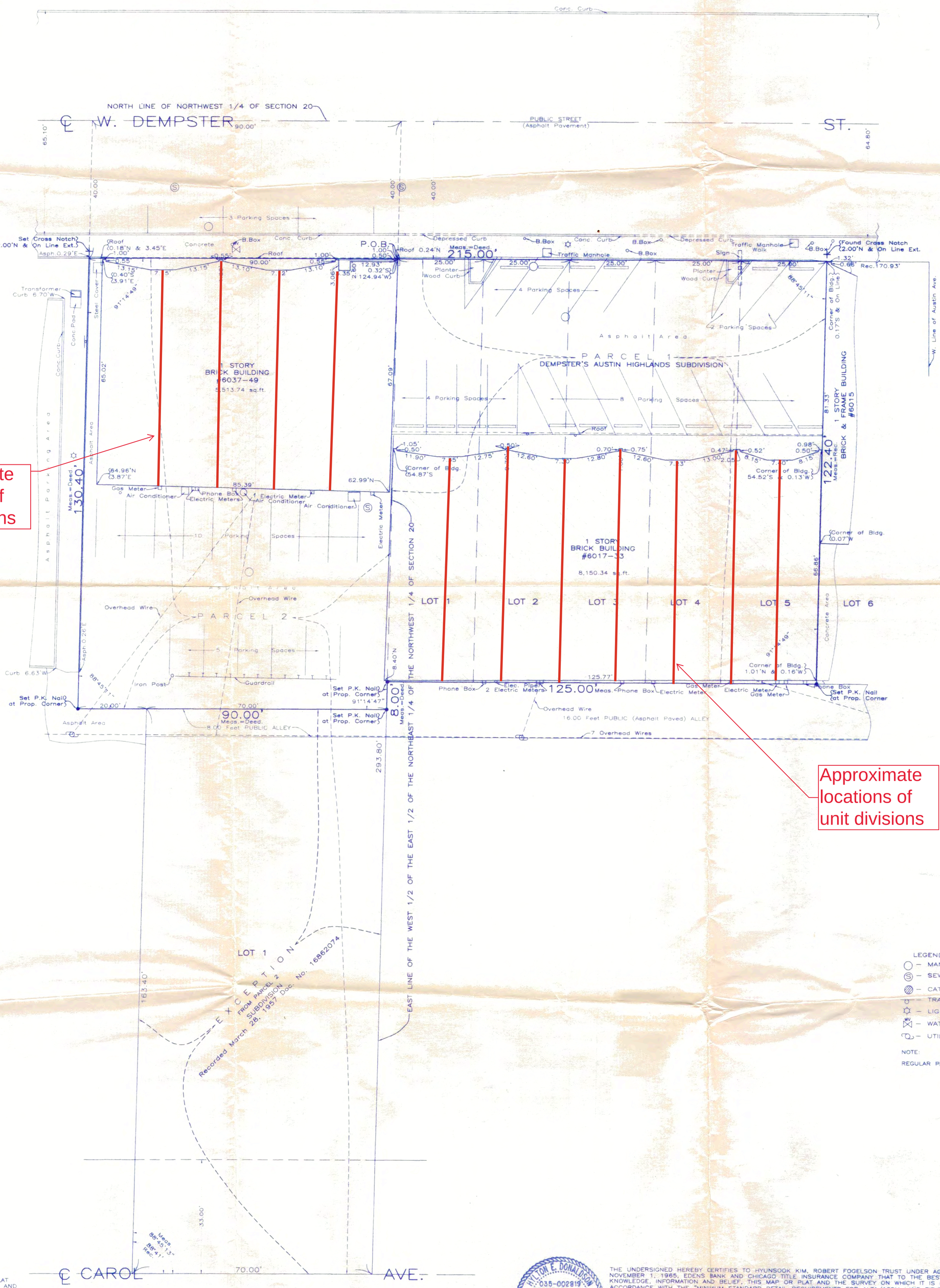

Approximate locations of unit divisions

Approximate locations of unit divisions

LEGEND:
- ◯ – MANHOLE
- Ⓢ – SEWER MANHOLE
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SIGNED: Hylton E. Donaldson

ILLINOIS PROFESSIONAL LAND SURVEYOR NUMBER 35-002819
MY LICENSE EXPIRES NOVEMBER 30, 2008.

Drawn by: J. K.

MEMORANDUM

To: Jannis Kim – JJK Property, Inc.

From: Justin Opitz, AICP
Nina Zlataric, EIT

Date: June 28, 2024

RE: Parking Study – 6015-6049 Dempster Street
Morton Grove, Illinois

Introduction

On behalf of JJK Property, Inc., Kimley-Horn and Associates, Inc. (Kimley-Horn) has prepared a parking study for the properties at 6015-6049 Dempster Street in Morton Grove, Illinois. This memorandum outlines parking counts conducted from May 16th to May 18th, 2024, and reviews future parking demand relative to existing supply, and summarizes potential tenant occupancy scenarios for currently vacant spaces at the property.

Site Conditions

The properties at 6017-6049 Dempster Street are made up of two buildings with a combined gross floor area of approximately 13,200 square feet (SF). These buildings collectively provide 30 on-site parking spaces divided into two lots; one to the north along Dempster Street, and one to the south along the public alley. The north parking lot provides three ADA-accessible parking spaces, which exceeds standards by two spaces, while the south parking lot provides one ADA accessible parking space. 6015 Dempster Street, which is located immediately east of the above buildings, provides 2,400 SF of space and two parking spaces (four tandem) that are located behind (south) the building. Three of these spaces are located in the concrete backyard space, while one is located inside a garage which is attached to the building. In addition to on-site parking, a Village-owned public parking lot, located immediately west of the site at 6055 Dempster Street, provides 22 spaces available to patrons of businesses along Dempster Street. No change is planned to the existing site access, however, slight modifications to the parking space configuration are recommended in the north parking lot as described later in the *Parking Lot Modifications* section of this memorandum. A photo inventory of the site area and parking lots is included as **Attachment 1** at the end of this memorandum.

Parking Study

A parking study was conducted to analyze the utilization of the existing parking by current tenants of the subject property and quantify the number of available parking spaces that could be utilized by new tenants occupying the vacancies in the future. The existing on-site parking locations and

adjacent public parking lot are depicted in **Exhibit 1**. It should be noted the four parking spaces located behind the 6015 Dempster Street building were not included in the parking study, as the building is currently vacant and experiencing no parking demand.

Municipal Parking Requirements

The Village of Morton Grove requires a designated amount of off-street parking depending on the land use and floor area. **Table 1** outlines Village requirements for the existing tenants and the vacancies, which were assumed to be classified as permitted and special uses in the commercial zoning district. For each of these uses, the Village code defines parking requirements based on SF of gross floor area.

Table 1. Off-Street Parking Requirements

Business Name (Address – Dempster Street)	Code Categorization / Land Use	Size	Required Space by Use	Required Spaces
Vacant (6015)	Permitted & Special Uses in Commercial Zoning District	2,400 SF	1 space per 250 SF of gross floor area	10
Vacant (6017)	Permitted & Special Uses in Commercial Zoning District	1,000 SF	1 space per 250 SF of gross floor area	4
Filipino Food Catering (6019)	Commercial Services	1,000 SF	1 space per 300 SF of gross floor area	3
Vacant (6021)	Permitted & Special Uses in Commercial Zoning District	1,000 SF	1 space per 250 SF of gross floor area	4
Ya Hala (6023)	Restaurant	1,150 SF	1 space per 150 SF of gross floor area	8
OMG Nafisa's (6027-6029)	Restaurant	1,000 SF	1 space per 150 SF of gross floor area	7
OMG Nafisa's (6027-6029)	Commercial Services (Catering)	1,000 SF	1 space per 300 SF of gross floor area	3
Vacant (6031)	Permitted & Special Uses in Commercial Zoning District	1,000 SF	1 space per 250 SF of gross floor area	4
Dehan Medical Equipment (6035)	Permitted & Special Uses in Commercial Zoning District	1,000 SF	1 space per 250 SF of gross floor area	4
Smash It Burgers (6037)	Restaurant	900 SF	1 space per 150 SF of gross floor area	6
Evergreen Home Care (6041)	Commercial Services	950 SF	1 space per 300 SF of gross floor area	3
Vivacity Beauty Salon (6043)	Barber or Beauty Shops	1,200 SF	1 space per 250 SF of gross floor area	5
Manny's Sewing Machine Services (6047)	Commercial Services	1,000 SF	1 space per 300 SF of gross floor area	3
Vacant (6049)	Permitted & Special Uses in Commercial Zoning District	1,000 SF	1 space per 250 SF of gross floor area	4
			Total Required Off-Street Parking Spaces	68
			Subtotal OCCUPIED	42
			Subtotal VACANT	26

LEGEND

- North Parking Lot
- South Parking Lot
- West Parking Lot (Public)
- 6015 Parking Area
- # (#) Total Number of Spaces (ADA Spaces)
- Site Area

Kimley»Horn

EXHIBIT 1

EXISTING SITE PARKING LOCATIONS

Based on Village code, 42 off-street parking spaces are required for the existing businesses. As permitted and special uses in a commercial zoning district, the currently vacant floor area would require 26 spaces. The existing supply of 30 spaces at 6017-6049 Dempster Street and four spaces at 6015 Dempster Street does not meet the collective 68-space requirement with a deficit of 34 spaces.

The Village code permits required off-street parking to be shared between two or more land uses jointly providing off-street parking when their respective hours of peak operation do not overlap. Such a case is worth examining for all uses within the multi-tenant commercial buildings, which has a few businesses with different peak operational times. **Table 2** on the following page summarizes the shared parking requirements per Village code.

Based on the Village shared parking standards, the off-street parking requirement is highest during the 7:00 AM – 6:00 PM time period on weekdays, when 60 spaces are required. With the shared parking reduction, the existing supply of 34 parking spaces does not meet the shared parking requirement with a deficit of 26 spaces.

Parking Counts

Kimley-Horn conducted parking counts from May 16th to May 18th, 2024. Counts were collected at the two on-site parking lots and the public parking lot every fifteen minutes from 8:00AM to 10:00PM on a Thursday and Friday and from 10:00AM to 10:00PM on a Saturday to capture parking demand during the primary hours of operation of the businesses. **Tables 3-5** summarize the collected data for each fifteen-minute interval in the north on-site parking lot with 15 spaces, the south on-site parking lot with 15 spaces, and the west public parking lot (6055 Dempster Street) with 22 spaces.

Table 2: Shared Parking Standards

Land Use Classification	Size (SF)	Required Spaces [1]	Weekdays [2]			Weekends [2]		
			2 AM – 7 AM	7 AM – 6 PM	6 PM – 2 AM	2 AM – 7 AM	7 AM – 6 PM	6 PM – 2 AM
Vacant [3] (6015)	2,400 SF	10	0% 0	90% 9	80% 8	0% 0	100% 10	60% 6
Vacant [3] (6017)	1,000 SF	4	0% 0	90% 4	80% 3	0% 0	100% 4	60% 2
Filipino Food Catering [3] (6019)	1,000 SF	3	0% 0	90% 3	80% 2	0% 0	100% 3	60% 2
Vacant [3] (6021)	1,000 SF	4	0% 0	90% 4	80% 3	0% 0	100% 4	60% 2
Ya Hala [4] (6023)	1,150 SF	8	10% 1	70% 6	100% 8	20% 2	70% 6	100% 8
OMG Nafisa's [4] (6027-6029)	1,000 SF	7	10% 1	70% 5	100% 7	20% 1	70% 5	100% 7
OMG Nafisa's [3] (6027-6029)	1,000 SF	3	0% 0	90% 3	80% 2	0% 0	100% 3	60% 2
Vacant [3] (6031)	1,000 SF	4	0% 0	90% 4	80% 3	0% 0	100% 4	60% 2
Dehan Medical Equipment [3] (6035)	1,000 SF	4	0% 0	90% 4	80% 3	0% 0	100% 4	60% 2
Smash It Burgers [4] (6037)	900 SF	6	10% 0	70% 4	100% 6	20% 1	70% 4	100% 6
Evergreen Home Care [5] (6041)	950 SF	3	5% 0	100% 3	5% 0	0% 0	10% 0	0% 0
Vivacity Beauty Salon [3] (6043)	1,200 SF	5	0% 0	90% 4	80% 4	0% 0	100% 4	60% 3
Manny's Sewing Machine Services [3] (6047)	1,000 SF	3	0% 0	90% 3	80% 2	0% 0	100% 3	60% 2
Vacant [3] (6049)	1,000 SF	4	0% 0	90% 4	80% 3	0% 0	100% 4	60% 2
Total	15,600 SF	68	2	60	54	4	58	46
Subtotal OCCUPIED	9,200 SF	42	2	35	34	4	32	32
Subtotal VACANT	6,400 SF	26	0	25	20	0	26	14

[1] Required Spaces are based on "Required Spaces By Use" table from Village of Morton Grove Code 12-7-3.

[2] Shared parking calculations are based on required spaces multiplied by percentages in the top-right corners of each cell, referenced from Village of Morton Grove Code 12-7-3.

[3] Classified as Retail Sales and Services

[4] Classified as Restaurant (Not 24 hr)

[5] Classified as Office

Table 3: Parking Counts – Thursday, May 16th, 2024 (Occupied Spaces)

Interval	_:00			_:15			_:30			_:45			*Max. by 15-min bin*
Location (Parking Spaces)	North (15)	South[1] (15)	West (22)	North (15)	South[1] (15)	West (22)	North (15)	South[1] (15)	West (22)	North (15)	South[1] (15)	West (22)	*Total (52)*
8:00 AM	1	3	-	2	3	-	3	5	3	4	5	4	13
9:00 AM	5	5	4	4	5	5	4	5	5	6	5	6	17
10:00 AM	5	4	5	5	4	5	5	4	5	4	4	5	14
11:00 AM	6	4	5	7	4	5	5	5	6	6	5	7	18
12:00 PM	6	5	8	7	8	6	13	5	7	7	5	7	25
1:00 PM	10	5	8	8	4	7	9	5	9	6	5	8	23
2:00 PM	6	5	10	7	5	10	7	6	8	9	6	7	22
3:00 PM	8	6	7	7	6	6	6	6	6	4	6	6	21
4:00 PM	6	8	9	5	8	9	5	6	10	8	7	12	27
5:00 PM	8	6	9	7	8	8	7	6	7	12	5	8	25
6:00 PM	11	5	10	9	5	6	7	5	6	4	5	7	26
7:00 PM	5	5	5	5	5	5	7	5	5	9	5	7	21
8:00 PM	6	5	4	6	4	5	7	4	6	8	3	4	17
9:00 PM	12	3	4	9	3	6	7	3	6	7	3	6	19
Max. by Location	12	8	10	9	8	10	13	6	10	12	7	12	

[1] One vehicle broken down and occupying one south lot parking space during all time periods surveyed. This space is assumed to be open in the future.

Table Legend

- Parking Lot Occupancy = 0-60%
- Parking Lot Occupancy = 60-85%
- Parking Lot Occupancy = >85%

Table 4: Parking Counts – Friday, May 17th, 2024 (Occupied Spaces)

Interval	_:00			_:15			_:30			_:45			*Max. by 15-min bin*
Location (Parking Spaces)	North (15)	South[1] (15)	West (22)	North (15)	South[1] (15)	West (22)	North (15)	South[1] (15)	West (22)	North (15)	South[1] (15)	West (22)	*Total (52)*
8:00 AM	1	2	1	1	3	2	2	5	5	2	5	6	13
9:00 AM	3	5	6	3	6	6	3	6	6	2	7	6	15
10:00 AM	3	6	7	4	6	7	4	6	7	3	6	7	17
11:00 AM	4	6	7	7	8	8	4	8	9	6	7	10	23
12:00 PM	8	7	12	9	7	9	8	8	9	11	9	9	29
1:00 PM	12	9	10	10	8	10	4	8	11	2	8	13	31
2:00 PM	9	9	10	8	9	10	9	10	11	11	10	9	30
3:00 PM	11	9	12	7	9	12	8	9	14	13	9	13	35
4:00 PM	7	8	14	6	8	15	7	9	15	8	9	14	31
5:00 PM	7	9	18	7	7	15	5	7	17	6	6	13	34
6:00 PM	7	6	12	7	6	5	5	6	6	6	6	4	25
7:00 PM	5	7	5	5	5	5	5	5	5	8	5	5	18
8:00 PM	7	5	3	8	5	3	6	5	3	7	5	3	16
9:00 PM	9	5	3	9	5	3	8	5	4	8	5	5	18
Max. by Location	12	9	18	10	9	15	9	10	17	13	10	14	

[1] One vehicle broken down and occupying one south lot parking space from 8:00AM-3:00PM.

Table Legend

- Parking Lot Occupancy = 0-60%
- Parking Lot Occupancy = 60-85%
- Parking Lot Occupancy = >85%

Table 5: Parking Counts – Saturday, May 18th, 2024 (Occupied Spaces)

Interval	_:00			_:15			_:30			_:45			*Max. by 15-min bin*
Location (Parking Spaces)	North (15)	South (15)	West (22)	North (15)	South (15)	West (22)	North (15)	South (15)	West (22)	North (15)	South (15)	West (22)	*Total (52)*
10:00 AM	3	3	-	2	3	1	2	4	1	7	3	1	11
11:00 AM	5	3	1	8	5	2	9	6	2	8	5	2	17
12:00 PM	6	5	5	9	5	4	8	5	7	9	5	7	21
1:00 PM	8	5	6	7	5	6	13	4	5	9	4	4	22
2:00 PM	5	7	4	7	6	3	7	6	2	8	6	4	18
3:00 PM	7	6	5	7	6	5	6	6	7	5	5	6	19
4:00 PM	6	5	6	4	5	5	6	5	7	5	5	4	18
5:00 PM	6	5	4	10	4	4	6	5	3	7	5	2	18
6:00 PM	7	5	3	8	5	3	6	5	3	4	6	2	16
7:00 PM	4	4	2	5	4	2	5	4	2	7	5	4	16
8:00 PM	6	5	4	5	5	3	5	5	2	6	5	2	15
9:00 PM	6	5	2	7	5	3	6	5	2	7	5	2	15
Max. by Location	8	7	6	10	6	6	13	6	7	9	6	7	

Table Legend

- Parking Lot Occupancy = 0-60%
- Parking Lot Occupancy = 60-85%
- Parking Lot Occupancy = >85%

Based on the parking counts, peak parking demand across all three parking lots occurred around 3:00-5:00PM during the weekdays and around 1:00-2:00PM on Saturday. The maximum parking demand in a fifteen-minute interval across all three days was 35 parking spaces at 3:00PM on Friday, which results in a maximum capacity of 67 percent. Although the actual parking count includes 13 vehicles parked in the public lot that includes parking generated by other properties, as a reference, the shared parking calculation per the Village's requirements for the occupied tenant spaces peaks at 35 spaces.

Similar to the overall parking count, peak parking demand only in the north and south site parking lots occurred on Friday at 3:45PM, where 22 out of the 30 spaces were occupied, leaving eight available spaces. The highest parking activity occurred at the north parking lot, which experienced a maximum occupancy of 13 vehicles parked in the 15 spaces during a 15-minute interval. During most time periods surveyed the two on-site parking lots were less than 60 percent occupied, meaning patrons were readily able to find parking spaces without issue. However, during the busiest time frames, such as Friday mid-afternoon, occupancy ranged from 60 to 85 percent where approximately 3-6 spaces would be available in both the north and south on-site parking lots. It should also be noted that the west public parking lot was under capacity during most hours of the count periods with capacity hovering around 50 percent and below, except on Friday evening when maximum occupancy reached 18 vehicles parked in the 22 spaces, or 81 percent, at 5:00PM.

Based on the parking data collected, parking space turnover was highest (quickest) in the north parking lot. This is as expected due to the restaurant businesses, OMG Nafisa's Kitchen, Ya Hala, and Filipino Food Catering, likely receiving a sizeable number of carryout orders where patrons or delivery drivers will park, pick up the food, and leave the site within the span of a few minutes. The parking space turnover in the south parking lot was lower likely due to this being the primary parking area for business employees.

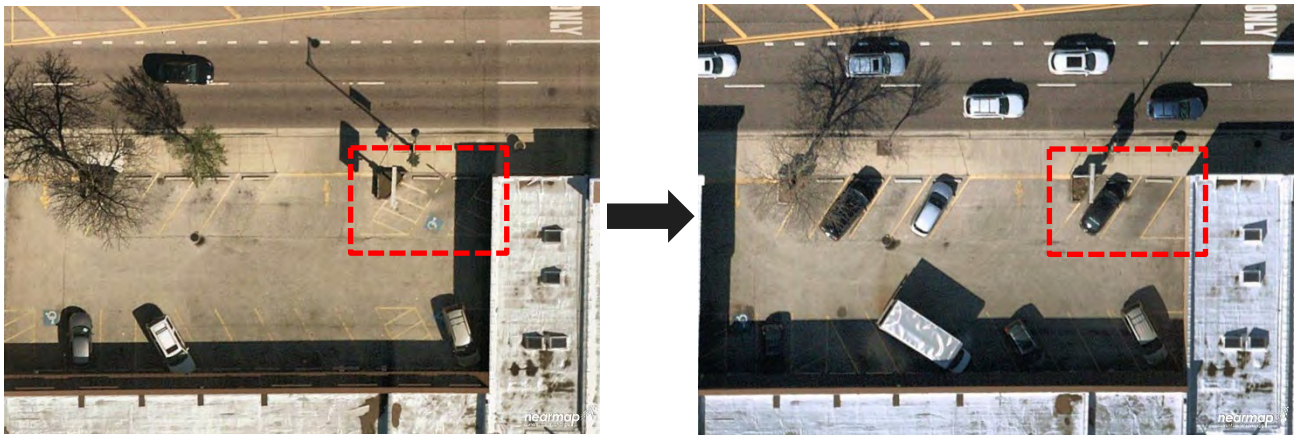
Parking Demand Review

Based on the parking data in Tables 3-5, peak parking demand in the north and south site parking lots was 22 parking spaces out of the 30 spaces on Friday at 3:45 PM. Through coordination with Village of Morton Grove staff, vacant units may be filled by tenants whose off-street parking requirements do not exceed the number of available spaces during the maximum demand scenario. This leaves a total of eight spaces to be utilized by new businesses on-site.

Parking Lot Modifications

Based on a review of parking lot design and circulation, Kimley-Horn recommends restriping the one angled ADA parking space in the northeast corner of the north site parking lot into two regular angled parking spaces. This would increase the parking supply in this parking lot from 15 spaces to 16 spaces and the parking lot would still be in compliance with Illinois law in terms of how many ADA spaces are provided. A review of high-quality historical aerial imagery indicates this one angled ADA parking used to be configured as two standard angled spaces, meaning that the current dimensions of the spaces are likely aligned with current zoning ordinances for standard angled parking spaces. Parking space dimensions should be confirmed by a pavement striping contractor and communicated to the Village. **Figure 1** on the following page depicts the subject parking spaces.

Figure 1: Parking Lot Modifications



Current Parking Lot Configuration (04/2024) Previous Parking Lot Configuration (03/2020)

Traffic Evaluation

Kimley-Horn obtained traffic volumes along Dempster Street from IDOT's Traffic Count Database System (TCDS) using the most recent year (2023) for average annual daily traffic (AADT), which is approximately 34,900 vehicles per day in the site vicinity. It is unlikely that additional traffic generated by new uses that would occupy available vacant space would have a noticeable negative impact on surrounding roadway operations.

Conclusion

The two on-site parking lots currently provide a total of 30 parking spaces. 22 additional parking spaces are provided in the Village owned public parking lot located immediately west of the site at 6055 Dempster Street. Based on the collected parking count data, peak parking demand across all three parking lots occurred between 3:00-5:00PM on weekdays and 1:00-2:00PM on Saturday. Similarly, peak parking demand in only the north and south parking lots occurred on Friday at 3:45PM, where 22 out of the 30 spaces were occupied, leaving eight available spaces.

Through coordination with Village of Morton Grove staff, vacant units may be filled by tenants whose off-street parking requirements do not exceed the number of available spaces during the maximum demand scenario. This leaves a total of eight spaces to be utilized by new businesses on site.

Furthermore, Kimley-Horn recommends restriping the one angled ADA parking space in the northeast corner of the north site parking lot into two regular angled parking spaces, as depicted in Figure 1. This would increase the parking supply in this parking lot from 15 spaces to 16 spaces while maintaining ADA compliance.

ATTACHEMENTS

Parking Lot Photo Inventory

PARKING LOT PHOTO INVENTORY

Looking east through the north site parking lot from enter-only access

Looking east through north site parking lot at exit-only access

Looking northeast from public alleyway at the south site parking lot

Looking east through the south site parking lot from full access

Looking south from Dempster Street at Village owned public parking lot at 6055 Dempster Street

Looking at signage placed at entrance of north site parking lot

Looking west along public alleyway from 6017 Dempster Street

Looking north from public alleyway at rear yard of 6015 Dempster Street

To: Chairperson Kintner and Members of the Plan Commission

From: Brandon Nolin, AICP, Community Development Administrator
Anne Ryder Kirchner, Planner/Zoning Administrator

Date: September 10, 2024

Re: Appearance Commission Case PC 24-07
Request for approval of a Special Use Permit for the construction of an automobile minimart station in a C-1 General Commercial District in accordance with Section 12-4-2:C of the Village of Morton Grove Unified Development Code (Title 12), with variations to Section 12-5-5:A for setback and parking requirements for the property commonly known as 6335 Dempster Street in Morton Grove, Illinois (10-20-100-026-0000). The applicant is Atul Karkhanis Archtiects, Ltd. on behalf of Cissily, Inc.

STAFF REPORT

Public Notice

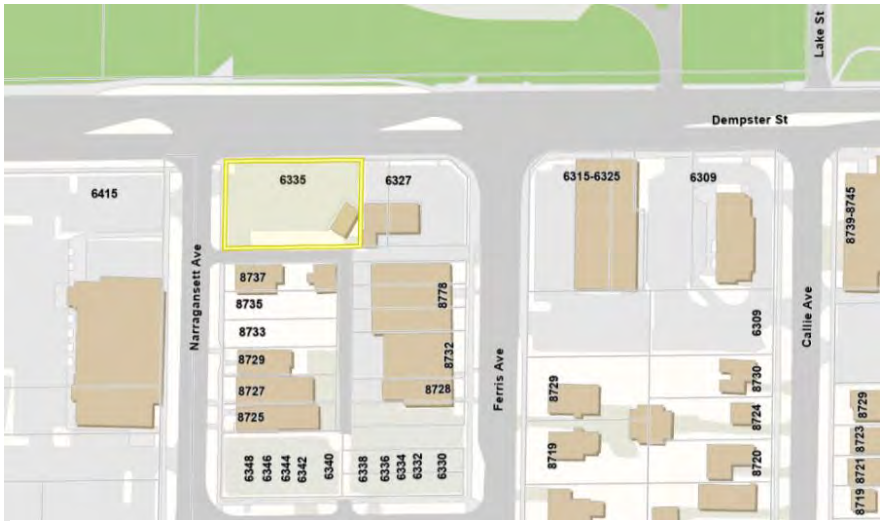
The Village provided Public Notice for the September 17, 2024, Plan Commission public hearing for Case PC 24-07 in accordance with the Unified Development Code. The *Morton Grove Champion* published a public notice on August 29, 2024. The Village notified surrounding property owners via mail and placed a public notice sign on the subject property on August 30, 2024.

Application Summary

Cissily, Inc. ("applicant"), submitted a complete Special Use Application to the Department of Community and Economic Development for the construction of an automobile minimart station at 6335 Dempster Street. The proposed project consists of the demolition of the existing automobile minimart station at the subject property, the development of a new station with new locations for two (2) pump islands, and installation of new signage, lighting, and landscaping.

Subject Property

The subject property consists one (1) lot at 6335 Dempster Street in Morton Grove, Illinois. Located at the southeast corner of Dempster Street and Narragansett Avenue, the parcel is zoned C-1 General Commercial and is 13,540 sq. ft. (0.3 acres) in total area. The adjoining property to the east is a residential remodeling and design business (Ainslie Design Studio), and the property to the west across Narragansett Avenue is a restaurant with outdoor dining area (Moretti's). The subject property is located to the north across an alley from multi-family residence. All surrounding properties (except for the Forest Preserve) are in the C-1 General Commercial zoning district. The Linne Woods property of the Cook County Forest Preserves is located across Dempster Street to the north.



Subject Property Location Map

Project Overview

The existing automobile minimart station at 6335 Dempster Street is being demolished and redeveloped. The gas station will maintain the Mobil brand while the minimart structure will be rebranded as "Joey's." The applicant is proposing the installation of two (2) islands with four (4) gas pumps designed to serve up to 8 vehicles simultaneously. The gas pumps would be located under a new canopy measuring approximately 55 feet east-to-west, and 66.5 feet north-to-south (3658 sq. ft.). The proposed retail building would include a 2,495-square-foot convenience store with an approximately 450-square-foot office for use by the owner in an upper level mezzanine. The proposed retail building would have no setback from the east property line and would be located immediately adjacent the Ainslie Design Studio property to the east.

Existing access drives along Dempster Street and Narragansett Avenue would be modified with the addition of perimeter landscaping, and a new access point would be established along the east-west alley on the south edge of the property. Ramped and stepped pedestrian accesses to the building will be provided on the west and north sides of the building respectively. The existing pylon sign would be replaced by a taller monument sign that includes both a gas pricing sign and Joey's retail logo.

Two pick-up windows are proposed for the north and west sides of the retail building. Per the applicant's business narrative, the windows, "will offer pedestrians a safe and clean area to place and pick-up orders without entering the store given the bustling nature of Dempster Street."

Zoning Review

Automobile minimart stations require a Special Use Permit within the C-1 district and must adhere special zoning provisions listed in Section 12-5-5: Criteria for Specific Commercial Special Uses of the Unified Development Code (UDC).

Hours Of Operation

Per Section 12-5-5:A.5, hours of operation are to be established as part of the special use permit granted by the Board of Trustees. The hours specified as a condition within the Special Use Permit may be shortened at the discretion of the operator, but longer hours of operation would require an amendment to the Special Use Permit.

The applicant is requesting to operate both the gas pumps and retail store 24 hours per day with the walk-up windows open for business seasonally from spring to fall from 11:00 am to 9:00 pm. Based on the operation of automobile minimart stations elsewhere in the Village, should the Plan Commission approve the Special Use Permit, *Staff recommend that as a condition, hours of operation for this facility should be limited to: Monday through Friday 5 a.m. to 11 p.m., Saturday 6 a.m. to 11 p.m., and Sunday 7 a.m. to 8 p.m.*

Staff are not aware of another example of a business that utilizes the type of pick-up window proposed and the applicant should provide additional details regarding the desired placement and function of the pick-up windows. If approved, Staff recommend that as a condition the hours of the pick-up windows be set to 10:00 am to 8:00 pm (or sundown), so as to reduce the hours the window would be used when it is dark.

Development Controls

The following table provides a comparison of the proposed development against applicable dimensional controls. The overall project height and front and side setbacks comply with C-1 Mixed Use requirements, however variances are needed for rear setback and sidewalk locations.

C-1 DISTRICT - AUTO. MINIMART STATION DIMENSIONAL CONTROLS	REQUIREMENT	PROPOSED	COMPLIANCE
Front Setback (12-4-3:E)	Min. 0 ft.	0.0 ft.	*Compliant*
Side Setback (12-4-3:E)	Side yard is not required, but if one is provided, it shall not be less than 5 ft.	5.0 ft.	*Compliant*

Rear Setback Not Abutting an Alley (12-4-3:E)	Min. 5 ft.	0.0 ft.	*Waiver of 5 ft.*
Building Height (12-5-6:E)	Max. 40 ft.	24.2 ft.	*Compliant*
Permitted Obstruction - Sidewalk (12-2-6:G)	Max. 4' width in front and street side yards; Min. 3' from all lot lines; 3'- setback may be reduced to allow a sidewalk width of 3' if yard is less than 6	5.0 ft. sidewalk with 0 ft. setback	*Dempster St: Waiver of 1 ft. in width; Waiver of 3 ft. setback* *South Property Line: Waiver of 1 ft. in setback*
Pump Island Setback (12-5-5:D)	Min. 15 ft.	15.5 ft.	*Compliant*
Canopy Setbacks (12-5-5:D)	Canopies shall conform to the minimum building setback.	Min. 6.6 ft.	*Compliant*

Rear Setback
The proposed retail building would be located along the east property line, providing zero (0) rear setback from the adjacent commercial property (Ainslie Design Studio). Currently there are a pair of landscape beds that straddle the property line and measure approximately eight feet (8') in total width. *The applicant should speak what aspects of the project require that the proposed retail building be located to the far east side of the subject property and not meet setback requirements.*

Side Setbacks with Sidewalks
Side setbacks are provided including an elevated five-foot (5') sidewalk on the north property line, and a three-foot (3') sidewalk against the building on the south with a setback of only two feet (2'). Sidewalks should be located at least three feet (3') from the property line. The portion of the north property line adjacent the proposed retail building, would be the only area along Dempster Street without landscaping. *Staff believe there may be potential to install a landscape bed between the public sidewalk on Dempster and the raised walkway, which would require the building footprint to shift and/or the walkway width to be reduced.* The Appearance Commission noted concern with the elevated sidewalk being adjacent the Dempster Street sidewalk and right of way. *The applicant should speak to the lack of a setback adjacent the proposed elevated sidewalk and* ***lack of landscaping adjacent Dempster Street along the proposed retail building's north façade.***

Traffic Impact

A traffic impact study was prepared by KLOA, Inc. and is included in the hearing packet for Case PC 24-07. The study demonstrated that the proposed site plan has sufficient off-street parking to meet the demands of the development and projected future traffic can be successfully accommodated on the surrounding roadway network and intersection controls. The report was present to the Traffic Safety Commission (TSC) on Sept. 5, 2024.

Dempster Street Site Access
At its meeting, TSC members expressed concerns with vehicles turning west (left) onto Dempster Street from the subject, and likewise with westbound vehicles turning into the subject property. Some TSC members also indicated potential support for restricting left turns on to Dempster St. during peak hours. In response, the applicant highlighted that the access point along Dempster St. has been reduced in width to better control ingress/egress and noted key findings that demonstrated that left turn movements at Dempster St. are not projected to be problematic, even when increasing the size of development on the site.

Alley Access
The proposed development includes a 24-foot (24') wide alley access point. The TSC was generally supportive of the alley connection, however the applicant noted the proposed benefit would be to enable patrons to travel eastbound to potentially travel northbound on Ferris Avenue and then take a left on to Dempster Street at that intersection. Staff noted as part of TSC

discussion, that the alley is currently one-way westbound and the proposed travel route to Ferris Avenue would be an illegal movement.

If alley access is to continue to be included as part of the proposed development, Staff recommend reevaluating the westbound only one-way restriction currently in place, such that vehicles leaving the site would legally have the ability to travel east to Ferris Avenue. If eastbound travel on the alley is not permitted from the subject property, the usefulness of the alley access will be largely limited to trash service and deliveries.

Deliveries
The application materials do not provide details as to how and when deliveries would be accommodated at the site. At the TSC meeting, the applicant commented that the access drive and pump spacing works well for gas tanker deliveries, providing an easy route through the site from Dempster Street to Narragansett and vice versa. The TSC indicated a desire to restrict deliveries to non-peak times, while also ensuring they are not too early or too late in the day so as to negatively impact nearby residences.

Parking

The proposed development would provide eight (8) parking spaces, one (1) of which will be ADA accessible. Based on the off-street parking requirements outlined in Section 12-7-3 of the UDC, seven (7) parking spaces are required, including two (2) accessible spaces, for the proposed automobile minimart station. The spaces proposed on-site exceed the Code minimum overall, but are short one (1) accessible space. The Village's parking requirements are summarized in the following table.

C-1 DISTRICT PARKING STANDARDS	REQUIREMENT	PROPOSED	COMMENT
Off-Street Parking: Automobile Minimart Station (12-7-3:I)	1.0 space per employee, not to exceed 5 spaces of which 2 spaces shall be for handicapped individuals	8 spaces; 1 ADA	*Waiver of 1 ADA Space*
Loading Berths (Sec. 12-7-4.I)	None required for commercial uses less than 10,000 sq. ft.	None	*Compliant*

Parking Study Recommendations
As part of the traffic impact study, KLOA, Inc. also evaluated parking. Based on parking occupancy surveys of two gas stations in the region, the maximum parking demand observed was six (6) spaces and it is believed that eight (8) spaces should be sufficient to meet demand.

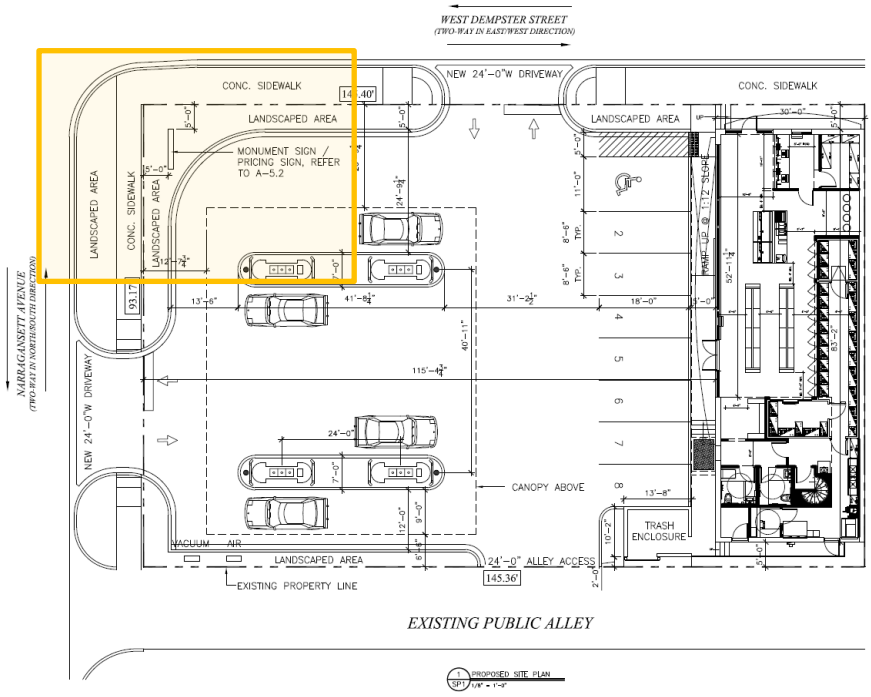
TSC discussion on parking was limited to concerns regarding employee parking potentially interfering with customer parking. The applicant indicated that two of four employees currently take transit to the subject property and they would anticipate future employees having a similar travel behavior.

Commission Review

Appearance Commission

On September 3, 2024, the Appearance Commission (AC) reviewed Case PC 24-07. At the conclusion of the discussion, the Appearance Commission voted unanimously (7-0) to recommend approval of the application. The Staff Report to the Appearance Commission has been included as Attachment A. *No formal conditions were added to the recommendation, but Chairman Pietron asked that the following areas of discussion be reflected in conditions recommended by the Plan Commission:*

- Signage – Appearance Commission members noted several aspects of the proposed signage that could potentially require a waiver:
    - The proposed monument sign was initially located less than the required 5 feet from the north and west property lines. In response to initial staff comment on the issue, and in reply to discussion, the applicant provided a revised site plan to relocate the sign to a compliant location. The remainder of the application materials have not been updated to reflect the agreed upon change. The monument sign also included a secondary logo for the retail building tenant (Joey's) that would have been in excess of permitted sign area for the monument sign face. In response to Appearance Commission comments, the applicant agreed to relocate the Joey's logo to within the sign area of the gas pricing sign and eliminate the need for a waiver.
    - Materials were not submitted for the gas canopy and gas pump signage. The Appearance Commission indicated general support for a future sign package that would be in keeping with the previous Mobil signage at the subject property and similar to signage recently approved for another gas station in the Village (AC 24-03).
    - It was requested that the light temperature of the signage, and gas canopy and building façade lighting be at 5,000K (degrees Kelvin) or less.



Revised Site Plan Showing Relocated Monument Sign and Updated Landscape Bed and Curb

- Bird-Friendly Building Design – The subject property is located across Dempster Street from the Linne Woods portion of the Forest Preserves of Cook County. Appearance Commission members requested that window films or glazing, or other mitigation strategies be employed to minimize the potential for bird collisions

- Lighting at Property Lines – Per the photometric plan submitted by the applicant, light levels along the north and west property edges adjacent to the canopy and parking area measure between 0.5 and 1.7 foot candles. The lighting on the retail building at the north and south property lines measures between 2.8 and 5.3 foot candles. And lastly, light levels along the south lot line abutting an improved public alley measure between 1.2 and 3.9 foot candles. The only property line at or near 0 foot candles is the east property line where the unlit façade of the proposed building sits immediately adjacent the property to the east. The Appearance Commission indicated an expectation that the applicant would identify modifications to the proposed lighting plan to achieve as close to zero illumination at the property lines.
- Trash Enclosure Landscaping – During review of the landscaping plan, the applicant offered that the parking lot island area adjacent the trash enclosure could be landscaped and the Appearance Commission indicated support of that recommendation.

Traffic Safety Commission
On September 5, 2024, the Traffic Safety Commission (TSC) reviewed Case PC 24-07 and the Traffic Impact Study. At the conclusion of the discussion, the TSC voted unanimously (7-0) to recommend approval of the application. Comments reflecting the discussion of the TSC were issued by Chairman White (see "Attachment B").

Departmental Review

The proposed project was reviewed by several department representatives (see "Attachment C"):

- Building Department: No comments at this time.
- Fire Department: Comments regarding the proper potential future storage of gas cylinders.
- Public Works Department/Engineering: In review of the proposed project, the Village Engineer issued several comments dated September 9, 2024, regarding:
    - Needed documentation for stormwater management.
    - Permit requirements from the MWRDGC and IDOT with emphasis on stormwater management requirements within a flood protection area.
    - Sight distance concerns and questions regarding the seasonality of traffic to the site.
    - Alley access and potential changes to the current one-way designation.
    - Concerns with left-turn movements at Dempster Street, employee parking, and delivery logistics.
    - Points of clarification regarding the need for parking blocks, desired future electric charging stations, and proposed site lighting.

Standards for Review

The Standards for Special Uses are established in Section 12-16-4:C.5 of the Unified Development Code:

Standards For Special Uses: The following standards for evaluating special uses shall be applied in a reasonable manner, taking into consideration the restrictions and/or limitations which exist for the site being considered for development:

1. Preservation of Health, Safety, Morals, And Welfare: The establishment, maintenance and operation of the special use will not be detrimental to or endanger the public health, safety, morals or general welfare.
2. Adjacent Properties: The special use should not be injurious to the use and enjoyment of other property in the immediate vicinity for the uses permitted in the zoning district.
3. Orderly Development: The establishment of the special use will not impede normal and orderly development or impede the utilization of surrounding property for uses permitted in the zoning district.
4. Adequate Facilities: Adequate utilities, access roads, drainage and other necessary facilities are in existence or are being provided.
5. Traffic Control: Adequate measures have been or will be taken to provide ingress and egress designed to minimize traffic congestion on the public streets. The proposed use of the subject site should not draw substantial amounts of traffic on local residential streets.

6. Adequate Buffering: Adequate fencing and/or screening shall be provided to ensure the right of enjoyment of surrounding properties to provide for the public safety or to screen parking areas and other visually incompatible uses.
7. Conformance To Other Regulations: The special use shall, in all other respects, conform to applicable provisions of this title or amendments thereto. Variation from provisions of this title as provided for in subsection 12-16-3A, "Variations", of this chapter, may be considered by the plan commission and the Village Board of Trustees as a part of the special use permit.

Recommendation

Should the Plan Commission recommend approval of this application, staff suggests the following motion and conditions:

Motion to recommend approval of Case PC 24-07, a request for approval of a Special Use Permit for the construction of an automobile minimart station in a C-1 General Commercial District in accordance with Section 12-4-2:C of the Village of Morton Grove Unified Development Code (Title 12), with variations to Section 12-5-5:A for setback and parking requirements for the property commonly known as 6335 Dempster Street in Morton Grove, Illinois, subject to the following conditions:

1. *The development shall adhere to bird-friendly design guidelines contained in the "Bird-Friendly Building Design" manual of the American Bird Conservancy (2015, https://abcbirds.org/wp-content/uploads/2015/05/Bird-friendly-Building-Guide_2015.pdf) where practicable. Mirrored coatings may not be used, and inconspicuous window films featuring simple dot or lined patterns are strongly encouraged.*

2. *Prior to filing any Building Permit Application, the owner/applicant shall provide the Village with a final photometric plan that meets the minimum requirements of Village Code for review and approval by the Community Development Administrator and Village Engineer.*

3. *Prior to filing any Building Permit Application, the owner/applicant shall provide the Village with final details regarding wall sign size, and gas canopy and pump signage size and location, that meet the minimum requirements of Village Code for review and approval by the Community Development Administrator.*

4. *Illuminated signage and other illuminating features on the property may not exceed 5,000K (degrees Kelvin).*

5. *Prior to filing any Building Permit Application, the owner/applicant shall provide the Village with final details regarding the monument sign location, perimeter landscape locations including the proposed trash enclosure island, and a revised landscape plan that meet the minimum requirements of Village Code for review and approval by the Community Development Administrator.*

6. *Prior to filing any Building Permit Application, the owner/applicant shall provide the Village with final elevations and material specifications for review and approval. Final elevations and materials must be deemed consistent with the approved elevations and materials, as determined by the Community Development Administrator and Appearance Commission Chairperson. If such designs are deemed to be inconsistent with the approved plans or if materials are deemed to be of a lower quality than the approved materials, then the owner/applicant will be required to file an application for an amendment to the Appearance Certificate.*

7. *Deliveries, including fuel deliveries, and trash pick-up at the subject property shall be at off peak times to minimize conflicts with heavy traffic, and at times that are not injurious to the use and enjoyment of adjacent and nearby residential properties.*

8. *The location of the air filling station and vacuum station shall not interfere with the gas filling area.*

9. *The future propane gas storage cage shall be located in a protected area that does not impact vehicular maneuvers.*

10. *Employee parking shall not interfere with patron parking or deliveries, and shall not take place on Narragansett Avenue.*

11. *Future improvements such as, but not limited to, the installation of electric vehicle charging stations shall not interfere with vehicular maneuver within the subject property.*

12. *Snow plowing, storage and removal shall be completed in such a manner so as to maintain site accessibility for parking. walking and vehicular access.*

13. *The hours of operation for this facility shall be limited to: Monday through Friday 5 a.m. to 11 p.m., Saturday 6 a.m. to 11 p.m., and Sunday 7 a.m. to 8 p.m.*

14. *The use of pick-up windows at the subject property shall be limited to 10 a.m. to 8 p.m. or sundown, whichever is earlier).*
    OR
    The use of pick-up windows at the subject property shall be prohibited.

15. *[Any other condition(s) deemed appropriate by the Plan Commission]*

Attachments

- Attachment A – Staff Report to the Appearance Commission for PC 24-07, prepared by Brandon Nolin, AICP, Community Development Administrator, dated August 27, 2024
- Attachment B – Plan Review Comment Form for PC 24-07, prepared by Keith White, Traffic Safety Commission Chair dated September 9, 2024
- Attachment C – Plan Review Comment Forms for PC 24-07, prepared by:
    - Rick Dobrowski, Fire Prevention Coordinator received September 9, 2024
    - Chris Tomich, Village Engineer dated September 9, 2024
- Attachment D – Final Plans and Supporting Documents for PC 24-07

Attachment A
Staff Report to the Appearance Commission for PC 24-07
Prepared by Brandon Nolin, AICP, Community Development Administrator
Dated August 27, 2024

To: Chairperson Pietron and Members of the Appearance Commission

From: Brandon Nolin, AICP, Community Development Administrator
Anne Ryder Kirchner, Planner/Zoning Administrator

Date: August 27, 2024

Re: Appearance Commission Case AC 24-07
Request for approval of an Appearance Certificate for site, landscape, and building plans associated with Case PC 24-06, a request for a Special Use Permit for the construction of an automobile minimart station in a C-1 General Commercial District in accordance with Section 12-4-2:C of the Village of Morton Grove Unified Development Code (Title 12), with variations to Section 12-5-5:A for setback and parking requirements for the property commonly known as 6335 Dempster Street in Morton Grove, Illinois (10-20-100-026-0000). The applicant is Atul Karkhanis Archtiects, Ltd. on behalf of Cissily, Inc.

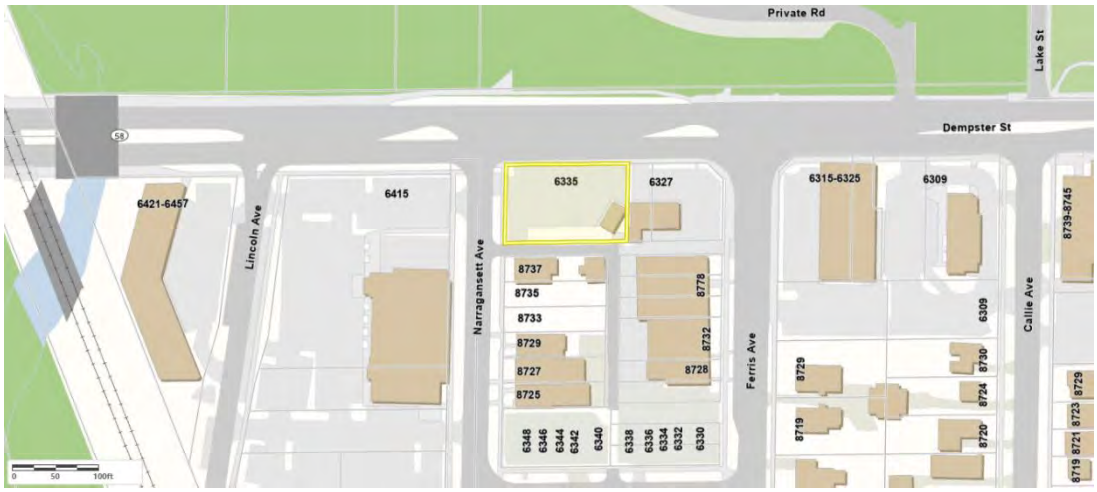
STAFF REPORT

Application Summary

Cissily, Inc. ("applicant"), submitted a complete Special Use Application to the Department of Community and Economic Development and an Appearance Certificate is requested for the construction of an automobile minimart station at 6335 Dempster Street. The proposed project consists of the demolition of the existing automobile minimart station at the subject property, the development of a new station with new locations for two (2) pump islands, and installation of new signage, lighting, and landscaping.

Subject Property

The subject property consists one (1) lot at 6335 Dempster Street in Morton Grove, Illinois. Located at the southeast corner of Dempster Street and Narragansett Avenue, the parcel is zoned C-1 General Commercial and is 13,540 sq. ft. (0.3 acres) in total area. The adjoining property to the east is a residential remodeling and design business (Ainslie Design Studio), and the property to the west across Narragansett Avenue is a restaurant with outdoor dining area (Moretti's). The subject property is located to the north across an alley from multi-family residence. All surrounding properties (except for the Forest Preserve) are in the C-1 General Commercial zoning district. The Linne Woods property of the Cook County Forest Preserves is located across Dempster Street to the north.



Subject Property Location Map

Project Overview

The existing automobile minimart station at 6335 Dempster Street is being demolished and redeveloped. The gas station will maintain the Mobil brand while the minimart structure will be rebranded as "Joey's." The applicant is proposing the installation of two (2) islands with four (4) gas pumps designed to serve up to 8 vehicles simultaneously. The gas pumps would be located under a new canopy measuring approximately 55 feet east-to-west, and 66.5 feet north-to-south (3658 sq. ft.). The proposed retail building would include a 2,495-square-foot convenience store with an approximately 450-square-foot office for use by the owner in an upper level mezzanine. The proposed retail building would have no setback from the east property line and would be located immediately adjacent the Ainslie Design Studio property to the east.

Existing access drives along Dempster Street and Narragansett Avenue would be modified with the addition of perimeter landscaping, and a new access point would be established along the east-west alley on the south edge of the property. Ramped and stepped pedestrian accesses to the building will be provided on the west and north sides of the building respectively. The existing pylon sign would be replaced by a taller monument sign that includes both a gas pricing sign and Joey's retail logo.

Two pick-up windows are proposed for the north and west sides of the retail building. Per the applicant's business narrative, the windows, "will offer pedestrians a safe and clean area to place and pick-up orders without entering the store given the bustling nature of Dempster Street." The applicant is requesting to operate the retail store 24 hours per day with the walk-up windows open for business seasonally from spring to fall from 11:00 am to 9:00 pm. *Staff are not aware of another example of a business that utilizes the type of pick-up window proposed and the applicant should provide additional details regarding the desired placement and function of the pick-up windows.*

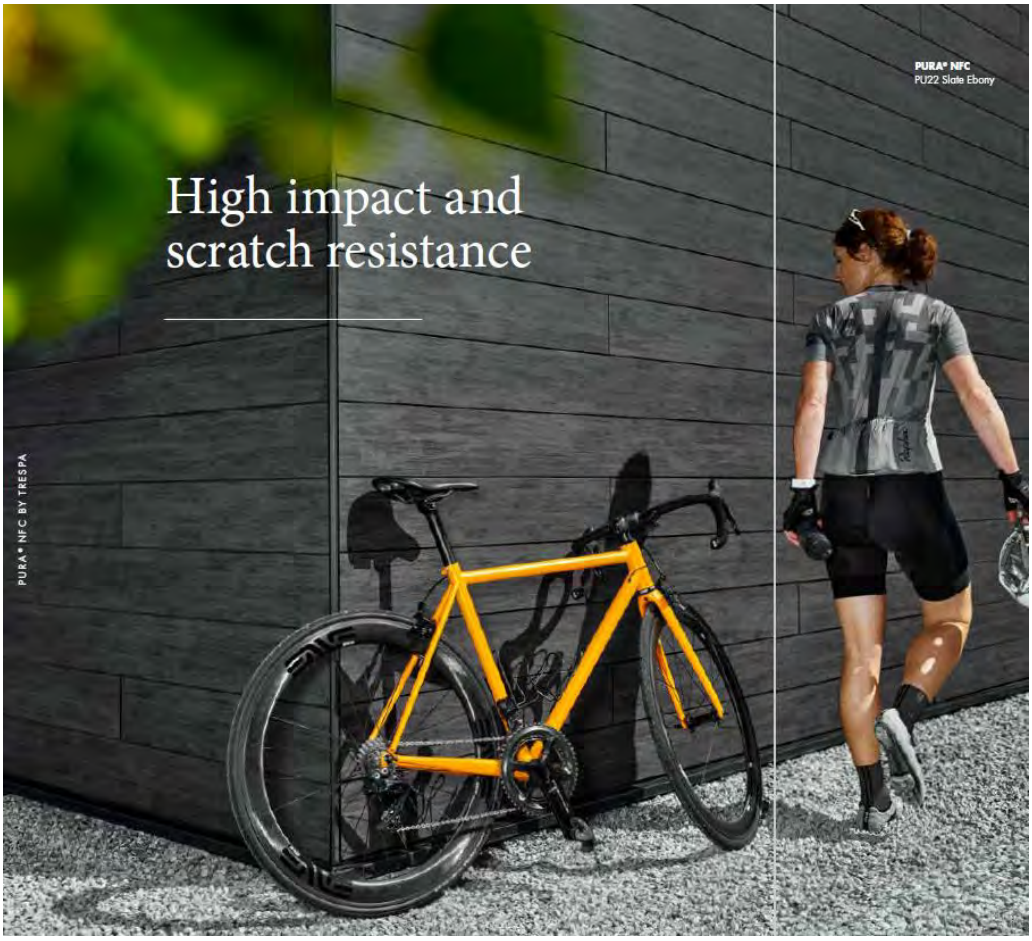
Building Design

Based on the submitted elevations, the exterior finishes of the proposed building will predominantly consist of dark gray brick veneer with gray and black metal coping and trim, and glazed windows. Dark gray architectural panels will be used on the eastern portion of the north façade, and the southern portion of the west façade. Staff researched the façade materials and have provided sample imagery below. Entry doors and window storefronts shall have a dark bronze anodized aluminum frame material shaded with metal canopies to match the storefront frames. All windows are proposed to be double pane and insulated to achieve energy efficiency. It is unclear from the description provided whether security glass will be utilized for any of the proposed windows. The applicant should clarify whether security glass will be used for any portion of the project including the pick-up windows.

Bird-Friendly Building Design

The subject property is located across Dempster Street from the Linne Woods portion of the Forest Preserves of Cook County. To mitigate bird collisions, staff recommends as a condition of approval that the development must adhere to bird-friendly design guidelines contained in the "Bird-Friendly Building Design" manual of the American Bird Conservancy (2015, https://abcbirds.org/wpcontent/ uploads/2015/05/Bird-friendly-Building-Guide_2015.pdf) where practicable. Mirrored coatings may not be used, and inconspicuous window films featuring simple dot or lined patterns are strongly encouraged.

Glen-Gery brick veneer in Blue Smooth Ironspot color (Staff Research)



Trespa Pura Architectural Panels in Slate Ebony Color (Staff Research)

Lighting

Proposed lighting consists of six (6) LED fixtures mounted to the underside of the gas canopy to illuminate the fuel pumps, and four (4) wall mounted LED fixtures along the north, west, and south facades of the proposed retail building. The wall fixtures would emit light with a temperature of 4,000K (degrees Kelvin). The canopy light fixtures can provide a range of light temperature between 3,000 and 5,000K, but the selected temperature is not specified in the application.

Per Section 12-4-3:B.5, lighting of parking and loading areas must be a minimum of one foot-candle on the surface. However, such lighting must be confined to the property boundary and reach as close to zero illumination at the property boundaries as possible. Glare may not be evident from surrounding properties or adjacent public rights of way. As proposed, light levels along nearly all segments of the subject property's lot lines will exceed 1 foot candle.

Per the photometric plan submitted by the applicant, light levels along the north and west property edges adjacent to the canopy and parking area measure between 0.5 and 1.7 foot candles. The lighting on the retail building at the north and south property lines measures between 2.8 and 5.3 foot candles. And lastly, light levels along the south lot line abutting an improved public alley measure between 1.2 and 3.9 foot candles. The only property line at or near 0 foot candles is the east property line where the unlit façade of the proposed building sits immediately adjacent the property to the east.

The applicant is expected to discuss the types of lighting fixtures proposed in the photometric plan including the light temperature to be used on all fixtures. The applicant should also speak to the lighting plan and how it could be modified to achieve as close to zero illumination at the property lines.

Landscaping

The proposed landscaping is largely compliant with the Village's applicable landscape requirements, which are outlined in the following table. The applicant is proposing the installation of a five (5) foot landscape bed with shrubs and ground cover along all property edges except for the east property line where the proposed retail building has no setback. The plan also calls for the installation of five shade trees (three Gingko, two Maple) within the perimeter landscaping. Two existing street trees along Narragansett Avenue would be preserved.

The north property line adjacent the proposed retail building, where the building would be served by a wide elevated sidewalk, would not be landscaped. Staff believe there may be potential to install a landscape bed between the public sidewalk on Dempster and the raised walkway, which would require the building footprint to shift and/or the walkway width to be reduced. The applicant should speak to the lack of landscaping adjacent Dempster Street **along the proposed retail building's** north façade.

Sight Line Triangles

The proposed fence along the south lot line would end 10 feet east of Narragansett Avenue, and 10 feet west of the alley access point. This would serve to preserve required sight line triangles for those using the alley. Proposed landscaping adjacent the alley would be installed at a height of 30 inches and be maintained at that height.

Trash Enclosure

A trash enclosure is proposed to be located in the front of the retail building along the south edge of the property line. A dumpster area will be screened with a six (6) foot tall masonry wall and accessed by employees via an opening in the east wall, and a gate on the south wall that can be accessed from the alley for garbage service. A 2.5-foot wide island will be located adjacent the trash enclosure on the west along the alley access drive. The island is not included in the landscape plan. The applicant should speak the potential to include ground cover and shrubs at the trash enclosure island consistent with the perimeter landscaping proposed at south property line across the alley.

C-1 DISTRICT DIMENSIONAL CONTROLS	REQUIREMENT	PROPOSED	COMPLIANCE
General Landscaping Requirements			
Landscaping Required (12-11-1:B.1.C)	5% of total site (677 sq. ft.)	846.5 sq. ft. (6.3%)	*Compliant*
Trees in Public Parkways (12-11-1:B.4)	Max. 40 ft. separation, min. 2.5 in. caliper (applies to both Narragansett Ave. and Dempster St.)	2 Armstrong Golden Maple and 1 Gingko located in 5 ft. perimeter landscape bed	*Dempster St.: Waiver for location in adjacent perimeter landscape bed** ** Staff supports the proposed location versus installation in carriage walk*
Landscaping Adjacent to Public ROW - Sidewalks & Streets (12-11-3:B.1)	Landscape yard min. 5 ft. width containing a year-round dense opaque screen measuring min. 3 ft. in height.	Dempster St.: 5.0 ft. width, Various shrubs min. 3 ft. height, Various groundcover plantings, No landscaping adjacent building Narragansett Ave.: 5.0 ft. width, Various shrubs min. 3 ft. height, Various groundcover plantings Alley: 5.0 ft. width, Various Arborvitae min. 3 ft. height	*Dempster St.: Waiver for landscaping adjacent primary structure* Narragansett Ave.: *Compliant* Alley: *Compliant*
Screening Requirements			
Screening of Trash Areas (12-11-4)	Trash areas shall be screened with listed materials with a required height five feet (5').	6 ft. brick enclosure with limestone coping and steel sliding gate facing the alley	*Compliant*

Signage

A complete sign package was not submitted as part of the Special Use Permit application. A monument sign and two wall signs are included in the application, but it is anticipated that additional signage would be required for the gas canopy and pumps. The Village's applicable sign requirements are outlined in the following table.

M-2 SIGN CONTROLS	REQUIREMENT	PROPOSED	*COMPLIANCE*
Wall Signs Size – Primary Frontage (Narragansett Ave.) (10-10-7.F.3)	Up to one and one-half (1.5) sq. ft. of wall signage per each linear foot of frontage or one hundred twenty (120) sq. ft. of signage (whichever is less) shall be allowed on the primary frontage of each tenant space of a nonresidential building. Max. 120 sq. ft.	140 sq. ft.	*Waiver of 20 sq. ft. to increase allowed primary frontage wall signage*
Number of Additional Signs (10-10-4:F)	No more than two (2) exempt small signs shall be allowed per lot.	Unknown	*Unknown*
Wall Signs Size – Secondary Frontage (Dempster St.) (10-10-7.F.4)	Up to one and one-half (1.5) sq. ft. of additional wall signage per each linear foot of frontage or thirty two (32) sq. ft. of signage (whichever is less) shall be allowed on the secondary frontage of each tenant space of a nonresidential building. Max. 32. sq. ft.	26.8 sq. ft.	*Compliant*
Ground Monument Sign Location (10-10-7:G.6)	Min. greater of ½ height or 4 ft. from public ROW = Min. 5.0 ft. from ROW	< 2.5 ft. from public ROW (north and west sidewalk)	*Waiver to allow a setback of < 5.0 ft. from public ROW*
Ground Monument and Pylon Sign Landscaping (10-10-7:G.5)	All ground monument and pylon signs shall be located in a landscaped bed that extends at least two feet (2') from the base on all sides. The landscape bed of a pylon sign shall be planted with shrubs at least three feet (3') in height.	Landscape bed with various shrubs each 3 ft. in height and turf.	*Compliant*

Monument Sign

The proposed monument sign is to be located in the same general area as the existing sign at the subject property. However, at a proposed height of 10 feet, the sign should be located a minimum of five (5) feet away from both the Dempster St. and Narragansett Ave. sidewalks. There appears to be sufficient room for vehicular circulation in the northwest corner of the site, such that the monument sign and related landscape bed could be installed away from the corner as required. The applicant should speak to potential modifications that could be made to the site plan to eliminate the need for a waiver on monument sign location.

Pursuant Section 10-10-7:G, ground monument and pylon signs should be located in a landscaped bed that extends at least two feet from the sign base on all sides and be planted with shrubs at least three feet (3') in height. The monument sign is shown in the site plan as being located in the northwest corner of the site; however, the landscape plan omits the sign and related landscaping. The applicant should speak to the sign location and how proposed landscaping will meet requirements for monument signs.

Gas Canopy and Pump Island Signage
Details regarding branding and signage have not been provided aside some of the monument sign information. Staff anticipate the requested signage to be similar to the Mobil gas signage currently existing at the subject property, and the sign package recently approved by the Appearance Commission (AC 24-03) for the gas station at 6000 Oakton. The applicant should speak to the branding and signage envisioned for the gas canopy and pump islands.

Appearance Commission Review

In accordance with Unified Development Code Section 2-10-2:A, the Appearance Commission shall conduct design reviews and approve or disapprove applications for sign permits and relief from the technical requirements of the sign code in accordance with title 10, chapter 10 of this code.

The Sign Variance Standards (Sec. 10-10-3:E) established in the Code are as follows:

1. In the opinion of the appearance commission the proposed sign displays a level of creativity which might not be achieved if strict adherence to the technical requirements of this chapter were imposed; or
2. There are special circumstances unique to the property that would create practical difficulties if the technical requirement of this chapter were imposed. By way of example, but not by way of limitation, such circumstances include the size, shape, topography, location or surroundings affecting the property; however,
3. Under no circumstances may a sign be approved if the proposed sign violates the standards set forth in subsection D2 or D3 of this section. (See below)
4. The appearance commission may approve and amend a sign plan for a building or development with multiple tenants. Upon such approval, the village administrator shall approve all signs for such building or developments which conform to said plan without further design review by the appearance commission.

As referenced in Section 10-10-3:E, the standards established in subsections D2 and D3 are as follows:

D. Standards For Permit Approval: The village administrator shall approve an application if all of the following standards have been met or can be met with conditions as may be included in a conditional approval:
    2. The sign as proposed does not violate any other applicable code provisions and/or standards of the village of Morton Grove, state of Illinois, or federal government; and
    3. The sign will not:
        a. Cause substantial injury to the value of other properties in the vicinity, or
        b. Be detrimental to the public safety or welfare in the neighborhood where it is located, or
        c. Unreasonably impair the visibility to adjacent property or public right of way, or
        d. Be inconsistent with any approved plan for the building or the district or area where it is located, or
        e. Be inconsistent with other signs on the property, or with the architectural character of the building, or
        f. Alter the essential character of the neighborhood, or
        g. Violate the purpose, spirit, or intent of this code.

Recommendation

If the Appearance Commission approves the request for an Appearance Certificate for new signage and landscaping, with associated waivers described herein, under Appearance Certificate (AC 24-07) for the property commonly known as 6335 Dempster Street in Morton Grove, Illinois, staff recommends the following conditions of approval:

1. *The development shall adhere to bird-friendly design guidelines contained in the "Bird-Friendly Building Design" manual of the American Bird Conservancy (2015, https://abcbirds.org/wp-content/uploads/2015/05/Bird-friendly-Building-Guide_2015.pdf) where practicable. Mirrored coatings may not be used, and inconspicuous window films featuring simple dot or lined patterns are strongly encouraged.*

2. *Prior to filing any Building Permit Application, the owner/applicant shall provide the Village with a final photometric plan that meets the minimum requirements of Village Code for review and approval by the Community Development Administrator and Village Engineer.*

3. *Prior to filing any Building Permit Application, the owner/applicant shall provide the Village with final details regarding wall sign size, and gas canopy and pump signage size and location, that meet the minimum requirements of Village Code for review and approval by the Community Development Administrator.*

4. *Illuminated signage and other illuminating features on the property may not exceed 5,000K (degrees Kelvin).*

5. *Prior to filing any Building Permit Application, the owner/applicant shall provide the Village with final details regarding the monument sign location, perimeter landscape locations including the proposed trash enclosure island, and a revised landscape plan that meet the minimum requirements of Village Code for review and approval by the Community Development Administrator.*

6. *Prior to filing any Building Permit Application, the owner/applicant shall provide the Village with final elevations and material specifications for review and approval. Final elevations and materials must be deemed consistent with the approved elevations and materials, as determined by the Community Development Administrator and Appearance Commission Chairperson. If such designs are deemed to be inconsistent with the approved plans or if materials are deemed to be of a lower quality than the approved materials, then the owner/applicant will be required to file an application for an amendment to the Appearance Certificate.*

7. *[Any other condition(s) deemed appropriate by the Appearance Commission]*

Attachment B
Plan Review Comment Form for PC 24-07,
Prepared by Keith White, Traffic Safety Commission Chair
Dated September 9, 2024

REVIEWING: **BUILDING** **FIRE** POLICE **PUBLIC WORKS/ENGINEERING** **TSC**

VILLAGE OF MORTON GROVE, ILLINOIS

PLAN REVIEW COMMENT FORM

DATE DISTRIBUTED: 5/16/2024

CASE NUMBER: PC 24-07

APPLICATION: Request for a Special Use Permit for the construction of an automobile minimart station in a C-1 General Commercial District in accordance with Section 12-4-2:C of the Village of Morton Grove Unified Development Code (Title 12), with variations to Section 12-5-5:A for setback and parking requirements for the property commonly known as 6335 Dempster Streeet in Morton Grove, Illinois (10-20-100-026-0000). The applicant is Atul Karkhanis Archtiects, Ltd. on behalf of Cissily, Inc.

A Special Permit Application has been submitted to the Plan Commission for action. Please return your review to the Department of Community and Economic Development by **Friday, June 7, 2024.**

Thank you,
Brandon Nolin, AICP
Community Development Administrator

COMMENTS OR CONCERNS

Approval as presented with the following conditions:

1. Restricted times of operation for deliveries and garbage pick-up. Garbage pick up should be at off peak times and keeping in a respectful hour of the residential area.
2. The sight distance should not be interfered with the placement of the exterior sign on comer of Dempster St. and Narragansett Ave.
3. Location of the air filling station and vacuum station should not interfere with the gas filling area.
4. A proposed future propane gas storage cage be in a protected area from vehicle maneuverability.
5. Employee parking shall not interfere with patron parking, deliveries and shall not spill onto Narragansett Ave.
6. A future electric car charging station shall not interfere with vehicle maneuverability within the property.

These comments accurately represent existing Village regulations or policies.

Name (please print): Keith White Traffic Safety Commission Chairman

Signed:

Date: 09/09/2024

Attachment C
Plan Review Comment Forms for PC 24-07
Prepared by:

Rick Dobrowski, Fire Prevention Coordinator
Received September 9, 2024

Chris Tomich, Village Engineer
Dated September 9, 2024

REVIEWING: BUILDING FIRE POLICE PUBLIC WORKS/ENGINEERING TSC

VILLAGE OF MORTON GROVE, ILLINOIS

PLAN REVIEW COMMENT FORM

DATE DISTRIBUTED: 8/16/2024

CASE NUMBER: PC 24-07

APPLICATION: Request for a Special Use Permit for the construction of an automobile minimart station in a C-1 General Commercial District in accordance with Section 12-4-2:C of the Village of Morton Grove Unified Development Code (Title 12), with variations to Section 12-5-5:A for setback and parking requirements for the property commonly known as 6335 Dempster Street in Morton Grove, Illinois (10-20-100-026-0000). The applicant is Atul Karkhanis Archtiects, Ltd. on behalf of Cissily, Inc.

A Special Permit Application has been submitted to the Plan Commission for action. Please return your review to the Department of Community and Economic Development by Friday, September 6, 2024.

Thank you,
Brandon Nolin, AICP
Community Development Administrator

COMMENTS OR CONCERNS

Any storage of liquefied petroleum gas (LP) cylinders must strictly adhere to IFC, 2018 and NFPA 58, 2017 ed.

These comments accurately represent existing Village regulations or policies.

Name (please print):

Signed:

Date:

REVIEWING: BUILDING FIRE POLICE PUBLIC WORKS/ENGINEERING TSC

VILLAGE OF MORTON GROVE, ILLINOIS

PLAN REVIEW COMMENT FORM

DATE DISTRIBUTED: 5/16/2024

CASE NUMBER: PC 24-07

APPLICATION: Request for a Special Use Permit for the construction of an automobile minimart station in a C-1 General Commercial District in accordance with Section 12-4-2:C of the Village of Morton Grove Unified Development Code (Title 12), with variations to Section 12-5-5:A for setback and parking requirements for the property commonly known as 6335 Dempster Streeet in Morton Grove, Illinois (10-20-100-026-0000). The applicant is Atul Karkhanis Archtiects, Ltd. on behalf of Cissily, Inc.

A Special Permit Application has been submitted to the Plan Commission for action. Please return your review to the Department of Community and Economic Development by Friday, June 7, 2024.

Thank you,
Brandon Nolin, AICP
Community Development Administrator

COMMENTS OR CONCERNS

1. A comprehensive report on all aspects of stormwater management is required for this site. Floodplain development must be described. An simple exhibit showing only the floodplain of North Branch Chicago River relative this site is required. Existing and proposed drainage patterns must be described. Watershed boundaries must be defined. All stormwater management requirements of the Village and of the Metropolitan Water Reclamation District of Greater Chicago (MWRDGC) must be presented and compared to the proposed facility.
2. A permit from the Illinois Department of Transportation (IDOT) will be required for the access point on Dempster. IDOT may have design requirements that are more restrictive than the Village's requirements and may change some aspects of the design.
3. A Watershed Management Ordinance (WMO) permit from the MWRDGC will be required for the construction of sewers in a combined sewer area tributary to MWRDGC sewers.
4. A Floodplain Submittal will be required with the WMO permit for development in a Flood Protection Area.
5. A Federal Emergency Management Agency Elevation Certificate may be required for development on this site.
6. As previously stated, the site will include a floodplain of the North Branch Chicago River. The Village participates in the national flood insurance program. Municipal Code Section 12-14 pertains to flood protection. The site will include underground storage tanks for fuel. It is understood by Public Works staff that there are no environmental regulations preventing this type of development. However, it would be the applicant's responsibility at all points of development to comply with any and all regulations from all regulatory agency's including the Village.
7. While stormwater detention and floodplain compensatory storage calculations are provided on the plans, a separate stormwater management report needs to be provided to identify and address the complexities of this site.
8. The Project Narrative provided with the application materials states this business would be more active

seasonally from spring to fall but the traffic counts were taken during the winter in February 2024. The Traffic Study should address whether there might be any significant differences for traffic volumes between the winter and spring, summer, or fall seasons.

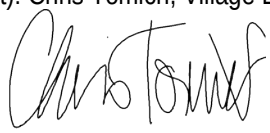
9. Site circulation and turning templates should be included and discussed in the Traffic Study.
10. A sight distance study should be provided and evaluated to ensure adequate visibility for vehicles accessing and circulating within the site or to address shortcomings. This should include proposed building, signage, and landscaping.
11. Based on the site plan provided, it is unclear how traffic can circulate along the south property limits should a vehicle stop to use the air or vacuum facilities shown at the southwest limit of the property.
12. The Traffic Study includes a site plan showing full access at the Village's alley at the south edge of the site. However, the Traffic Study narrative does not describe purpose or need for access at the alley and no site traffic has been distributed to this access point. The alley is restricted to one-way westbound movements. The Traffic Study does not consider the traffic distribution through the proposed alley access drive at the south property line of the site or its effect on the neighborhood. Public Works staff is not supportive of this access point without justification that it is a necessary part of the business' operations plan. There is concern that, in a desire to access the traffic signal at Dempster and Ferris, traffic might regularly ignore the One-Way westward alley designation at the site's proposed alley access and cause alley congestion or safety issues. If this access is included in the approved site plan, then it should be considered whether two-way traffic would be needed for a useful and safe facility.
13. It might be considered to prohibit left-turn movements from the proposed Dempster access onto westbound Dempster Street. This movement requires crossing the existing westbound left-turn lane on Dempster Street north of the site. This could conflict with a vehicle attempting to enter the storage lane and prohibit that vehicle from fully entering the left-turn lane thereby blocking the inside westbound lane on Dempster until the left-turning vehicle exiting the fuel center can enter the westbound traffic stream and clear the left-turn storage lane.
14. In the Traffic Study, Table 3 shows Project-Generated Traffic Volumes. One hundred percent of trips generated by the existing fuel center were subtracted from the predicted site generated traffic to provide a Net Total Trips. Net Total Trips were then reduced by 60% to account for Pass-By traffic not specifically generated by the development to result in a Total New Trips estimated to be directly attributable to the proposed development. It seems the Trips generated by the existing fuel center should initially have been reduced by 60% to account for assumed existing Pass-By traffic before being subtracted from the predicted site generated traffic. This might provide a more accurate Net Total Trips before being reduced by 60% to again account for Pass-By trips and arrive at an estimated Total New Trips.
15. The applicant should describe the garbage collection plan, snow removal/storage plan, fuel delivery plan, and merchandise delivery plan.
16. All driveways crossing pedestrian routes must comply with the Illinois accessibility requirements.
17. It does not seem reasonable that patrons would be encouraged or allowed to leave a vehicle blocking access to a fuel pump to shop the mini-mart assuming others are waiting to have access.
18. The Project Narrative states there may be a maximum of 5 employees present at any given time during business hours which are stated to be 24 hours a day. Eight parking spaces are proposed along the building. It should be clarified where employees will be designated to park and if there will be any restrictions placed on these eight spaces to facilitate turn over for shopping.
19. The existing facility includes portable propane tank sales. The Project Narrative describes picnic supply sales, so it is assumed the proposed facility intends to sell that product. The outside storage space is not identified on the site plan or described in the application materials. The applicant should provide information about this part of the business operation.
20. The sidewalk in front of the proposed building is elevated and protected with railing. Consider whether

parking blocks are needed in the parking spaces to reduce the chance of parked cars damaging these elements.

21. The Project Narrative mentions a desire for future plans to incorporate electric vehicle charging stations. This is not part of the current proposal, so it is unclear whether and how to address this aspect in the Special Use Permit.
22. Site lighting has not been adequately addressed. The design criteria for the site lighting should be described in the project narrative because this is a commercial use abutting a residential use.

These comments accurately represent existing Village regulations or policies.

Name (please print): Chris Tomich, Village Engineer

Signed: 

Date: 09/09/2024

Attachment D
Letters from area property owners,
Dated September 16, 2024

8778 Ferris Avenue
Morton Grove, Illinois 60053
Telephone: 847/679-2211
Fax: 847/679-2219

EQUIPMENT INTERNATIONAL LTD.
MACHINERY & OPERATIONAL SYSTEMS FOR
THE LAUNDRY & DRY CLEANING INDUSTRIES

Brandon Nolin
Community Development Administrator
Village of Morton Grove
6101 Capulina Avenue
Morton Grove, IL 60053

September 16, 2024

Dear Brandon,

Please accept my letter as testimony for Plan Commission case PC-24-07 request for special use. I am the owner of Equipment International at 8778 Ferris Avenue, the company directly south of the gas station. While I am in full support of my neighbor's plans to redevelop the property, I want to point out a potential impact on my business.

We are an industrial machinery distributor and we warehouse some of our equipment on site. We accept deliveries multiple times per week, sometimes per day, requiring us to use a forklift in the alleyway to offload the equipment from box or semi trucks. Additionally, two to three times a week our rigging crew loads and secures machinery onto our delivery vehicle in preparation for installations. When I purchased the building a decade ago, I had access to alleyways on both the north and south ends of the alley that runs behind my building. Recently, the south alley was permanently removed to accommodate the townhomes being built on Hennings Court. The applicant's plans call for a 3rd point of egress from the gas station into the alleyway that my business depends on. This access point and the traffic it could create would severely impact our operations.

I ask the Plan Commission to consider that there are two other access points in the plans. Also, the Village's Plan Review Comment Form states the following warning from the Village Engineer:

"The Traffic Study includes a site plan showing full access at the Village's alley at the south edge of the site. However, the Traffic Study narrative does not describe purpose or need for access at the alley and no site traffic has been distributed to this access point. The alley is restricted to one-way westbound movements. The Traffic Study does not consider the traffic distribution through the proposed alley access drive at the south property line of the site or its effect on the neighborhood. Public Works staff is not supportive of this access point without justification that it is a necessary part of the business' operations plan. There is concern that, in a desire to access the traffic signal at Dempster and Ferris, traffic might regularly ignore the One-Way westward alley designation at the site's proposed alley access and cause alley congestion or safety issues."

8778 Ferris Avenue
Morton Grove, Illinois 60053
Telephone: 847/679-2211
Fax: 847/679-2219

EQUIPMENT INTERNATIONAL LTD.
MACHINERY & OPERATIONAL SYSTEMS FOR
THE LAUNDRY & DRY CLEANING INDUSTRIES

Again, I am supportive of the applicant's plans overall, my concern is the negative impact this access point will have on my business, which has already been impacted by development in the area. The potential traffic using the only alley in which I can receive deliveries or load equipment would be a hardship on my business, one that generates substantial sales tax revenue for the Village.

I appreciate the Plan Commission's consideration. My employees and I look forward to patronizing the new mini-mart.

Sincerely,

Kyle Zabrin

Kyle Zabrin
CEO
Equipment International

Variegated Designs, LLC
119 Hollywood Ct
Wilmette, IL 60091
Tel 614-204-7472
Certified WBE

Brandon Nolin
Community Development Administrator
Village of Morton Grove
6101 Capulina Avenue
Morton Grove, IL 60053

September 16, 2024

Dear Brandon,

Please accept my letter as testimony for Plan Commission case PC-24-07 request for special use. I recently purchased the building at 8732 Ferris Ave., a workspace off the alley south of the gas station. I look forward to moving into the building this year, post renovation. The case for development was recently brought to my attention and I want to point out a potential impact on my business.

We are an interior plant design firm and we will be housing our plants, planters, and materials in the workspace. We plan to accept deliveries regularly and will be using a liftgate in order to receive these deliveries along the alleyway behind our building. We will also be using the alley to access our space with our delivery van that we will load and unload each day and park inside the building. Since the south alley way is blocked, we will be solely relying on the north alley running east to west for access. The applicant's plans call for a 3rd point of egress from the gas station into the alleyway that my business depends on. This access point and the traffic it could create would severely impact our operations.

I ask the Plan Commission to consider that there are two other access points in the plans. Also, the Village's Plan Review Comment Form states the following warning from the Village Engineer:

"*The Traffic Study includes a site plan showing full access at the Village's alley at the south edge of the site. However, the Traffic Study narrative does not describe purpose or need for access at the alley and no site traffic has been distributed to this access point. The alley is restricted to one-way westbound movements. The Traffic Study does not consider the traffic distribution through the proposed alley access drive at the south property line of the site or its effect on the neighborhood. Public Works staff is not supportive of this access point without justification that it is a necessary part of the business' operations plan. There is concern that, in a desire to access the traffic signal at Dempster and Ferris, traffic might regularly ignore the One-Way westward alley designation at the site's proposed alley access and cause alley congestion or safety issues.*"

I am excited to have a mini-mart close by for my employees to use, however, I have concerns on the impact the access point to the alley will have on my business. The potential traffic using the only alley in which I can receive deliveries or load equipment would be a hardship on my business, one that will generate substantial sales tax revenue for the Village.

I appreciate the Plan Commission's consideration.

Sincerely,

Stephanie Williams

Stephanie Williams
President
Variegated Designs, LLC

Attachment E
Final Plans and Supporting Documents for PC 24-07

1. *Special Use Application, submitted by Cissily, Inc., dated April 22, 2024*
2. *Plat of Survey of 6335 Dempster Street, prepared by Geodetic Survey, Ltd., dated August 24, 2022*
3. *Project Narrative, prepared by Cissily, Inc., dated June 4th, 2024*
4. *Final Site Plan, prepared by aka Architects, dated July 31, 2024*
5. *Landscape Plan, prepared by aka Architects, dated July 24, 2024*
6. *Civil Plans, prepared by aka Architects, dated July 18, 2024*
7. *Proposed Monument Sign, prepared by aka Architects, dated July 31, 2024*
8. *Photometric Plan, prepared by PG Enlighten dated June 18, 2024*
9. *Light Fixture details submitted by aka Architects, dated June 18, 2024*
10. *Exterior Elevations, prepared by aka Architects, dated July 31, 2024*
11. *Staff revised , prepared by Village staff based on aka Architects materials, dated August 22, 2024*
12. *Parking Study – 6015-6049 Dempster Street, prepared by KLOA, Inc., dated June 28, 2024*

SPECIAL USE APPLICATION

Village of Morton Grove
Department of Community Development
6101 Capulina Avenue, Morton Grove, Illinois 60053
commdev@mortongroveil.org | 847-663-3063

Case Number: _____ Date Application Filed: _____

APPLICANT INFORMATION

Applicant Name: ALEX SKARIAH

Applicant Organization: CISSILY, INC.

Applicant Address: 6335 DEMPSTER STREET

Applicant City / State / Zip Code: MORTON GROVE, IL 60053

Applicant Phone: (847)269-8500

Applicant Email: alex.skariah@gmail.com

Applicant Relationship to Property Owner: SON

Applicant Signature: _____

PROPERTY OWNER INFORMATION (IF DIFFERENT FROM APPLICANT)

Owner Name: ALEYAMMA JOYKUTTY

Owner Address: 6335 DEMPSTER STREET

Owner City / State / Zip Code: MORTON GROVE, IL 60053

Owner Phone: (847) 269-8500

Owner Email: _____

Owner Signature: _____

PROPERTY INFORMATION

Common Address of Property: 6335 DEMPSTER STREET, MORTON GROVE, IL 60053

Property Identification Number (PIN): _____

Property Square Footage: 13,540 sq.ft.

Legal Description (attach as necessary): Refer to the plat of topographical survey

Property Zoning District: C-1, General Commercial District

APPLICATION INFORMATION

Requested Special Use: Construction of a new gas station / convenience store

Purpose of Special Use (attach as necessary): Redevelopment of existing lot.

RESPONSES TO STANDARDS FOR SPECIAL USE

Provide responses to the seven (7) Standards for Special Use as listed in Section 12-16-4-C-5 of the Village of Morton Grove Unified Development Code. The applicant must present this information for the official record of the Planning Commission. The Special Use Standards are as follows:

a. The establishment, maintenance, or operation of the Special Use will not be detrimental to, or endanger the public health, safety, morals, comfort, or general welfare.

A security camera system will be installed internally and externally. The redevelopment will be a major upgrade from what currently exists at the site. The site and new building will be adequately lit. A fully automatic sprinkler system and fire alarm system will be installed.

b. The Special Use will not be injurious to the use and enjoyment of other property in the immediate vicinity for the purposes already permitted, nor substantially diminish and impair property values within the neighborhood.

The redevelopment does not adversely affect any properties in its immediate vicinity. The current building is in disrepair and old. As such, redevelopment makes sense. A new building will probably increase the overall property value within the neighborhood.

c. The establishment of the Special Use will not impede the normal and orderly development and improvement of the surrounding property for uses permitted in the district.

The redevelopment of the site with a new gas station / convenience store does not impede on any future development in the neighborhood.

d. Adequate utilities, access roads, drainage and/or necessary facilities have been or are being provided.

Utilities will be new and upgraded. Two access points to the site will be provided for ease of traffic flow. A detention system is being proposed under the proposed building.

e. Adequate measures have been or will be taken to provide ingress and egress so designed as to minimize traffic congestion in the public streets.

Having two access and egress points to and from the site will help in reducing traffic congestion.

f. The proposed Special Use is not contrary to the objectives of the current Comprehensive Plan for the Village of Morton Grove.

The proposed redevelopment will follow the objectives of the current Comprehensive Plan for the Village of Morton Grove.

g. The Special Use shall, in all other respects, conform to the applicable regulations of the district in which it is located, except as such regulations may, in each instance, be modified pursuant to the recommendations of the Commission.

The proposed redevelopment will follow the current codes and regulations as adopted by the Village of Morton Grove.

QUALIFYING STATEMENT AND PROJECT NARRATIVE

Date: June 4th, 2024

Brandon Nolin, AICP
Community Development Administrator
Village of Morton Grove
6101 Capulina Avenue
Morton Grove, IL 60053
(847) 663-3063
bnolin@mortongroveil.org

Ref: Qualifying statement and narrative for a proposed ~ 2,495 sq.ft. single story + mezzanine gas station – convenience store at 6335 Dempster Street, Morton Grove, IL 60053.

The qualifying statement and narrative is intended to meet the requirements of the Special Use petition. The applicant, Alex Skariah of Cissily, Inc., is proposing to demolish the existing gas station/convenience store and site to develop and construct a new and improved single story, ~ 2,495 sq.ft. gas station/convenience store.

The proposed development in existing Lots-1 to 5 is in the existing Lumpp's subdivision. The existing/proposed site measures 145.38' x 93.17', approximately 13,540 sq.ft. or .31 acres in total area. The existing/proposed site is bound by Dempster Street to the north, Narragansett Avenue to the west, a 16'-0" public alley to the south, and a design studio to the east.

The existing/proposed site is currently zoned C-1, General Commercial District. Access to the site will continue to be provided by two driveways on Dempster Street and Narragansett Avenue respectively. In addition to the convenience store, the development will include the installation of 8 parking spaces and 8 gas pumping stalls on two raised concrete islands as indicated in the proposed site plan.

Based on the Village of Morton Grove Zoning Map 2017, the immediate surrounding neighborhood is zoned for single family residential development (R1) north of Dempster Street, General Commercial District (C1) east, west and south of the subject property. The proposed development will be consistent with the trends of development indicated in the Zoning Map 2017 as it follows previous retail & business developments along Dempster Street.

The proposed building will be setback by 0'-0" from the east property line which will require a variance, approximately 5'-0" from the north property line, approximately 115'-4" from the west property line and approximately 5'-0" from the south property line. Ramped and stepped pedestrian accesses to the building will be provided on the west and north sides of the building respectively. The proposed building will have 8" thick exterior walls built from solidly grouted concrete masonry units, externally insulated and clad with a veneer of blue ironspot thin brick and/or high-pressure compact laminated panels manufactured by Trespa. Entry doors and window storefronts shall be of a dark bronze anodized aluminum frame material shaded with metal canopies to match the storefront frames. All exterior glazing will be of the double pane, insulated type, low-e, tempered, safety type with a U-value as per the latest Illinois Energy Compliance Code.

The construction of a new convenience store at this location offers numerous advantages. Increased floor space will provide a wider range of food and beverage choices, including counter and open cooler spaces for drink and food options. Walk-up windows being proposed on the north and west sides will offer pedestrians a safe and clean area to place and pick-up orders without entering the store given the bustling nature of Dempster Street. Additionally, the store aims to cater to picnickers by offering grilling items and beverages for those visiting the adjacent forest preserve. As the gas station industry evolves with the rise of electric cars, the store plans to incorporate electrical prepping for future charging stations. While the initial costs are high, adding electric stations is a future consideration. This addition, coupled with prepared food and drink options, ensures a diverse appeal. Overall, aligning with the Village's green mission and

family centric atmosphere, the new convenience store promises to become a go-to destination for quick, fresh, and reliable service for customers of all ages.

A trash enclosure of similar construction and finish to the main building will be situated at the south-west of the proposed building. The site and building will be adequately lit and remain within the limits of the Village of Morton Grove's lighting ordinance. A photometric plan has been included with this development package.

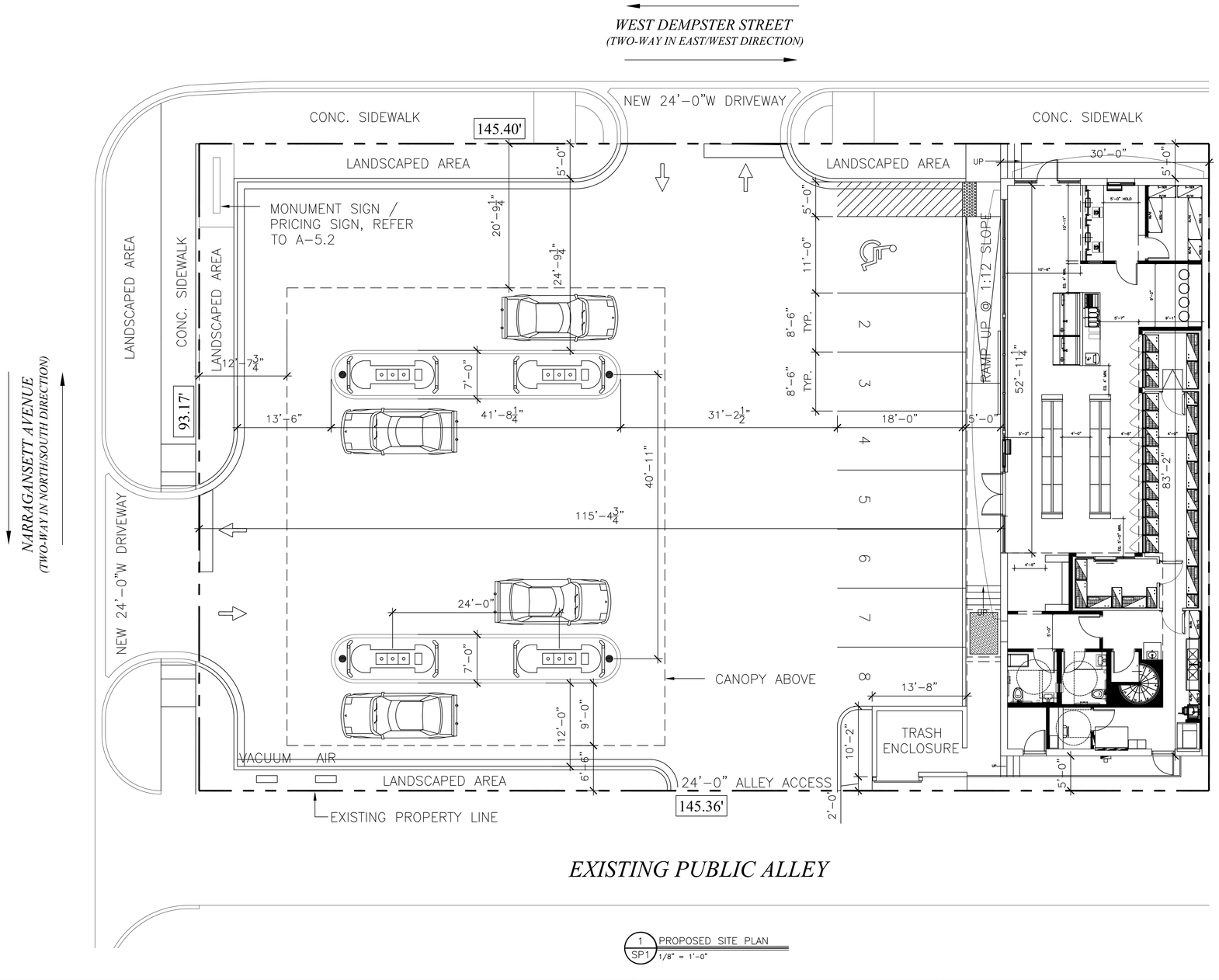
Water, electric, gas, communication and sanitary utilities will be adequately provided to the proposed building. An underground stormwater detention will be provided as well as indicated in the preliminary civil engineering plans from Bono Consulting, Inc.

The applicant hopes to have this store open 24 hours a day with the walk-up windows open for business seasonally from spring to fall 11am to 9pm. The applicant will have an office at the mezzanine level for personal use and to monitor the daily business activities on the floor below.

Gas tankers are expected to visit the facility at least twice a week with food and drink delivery trucks expected to serve the facility daily.

The applicant proposes to hire a total number of 6-7 employees with a maximum of 5 employees present at any given time during business hours.

The building will be developed and constructed in accordance with the building and health code requirements as stipulated by the Village of Morton Grove, while also maintaining the general safety and welfare of the community.



EXISTING PUBLIC ALLEY

1 SP1 PROPOSED SITE PLAN
1/8" = 1'-0"

ZONING BULK REGULATIONS AND INFORMATION:
EXISTING ZONE: C-1 General Commercial District PROPOSED ZONE: C-1 General Commercial District LOT AREA: Existing lot area = 13,540 sq.ft. F.A.R.: 2.0 BUILDING AREA: Proposed Building Footprint = ~2495 sq.ft. (Gross Area) BUILDING HEIGHT: Allowable Building Height = 40'-0" max. Proposed Building Height = 1 story or ~24'-0" at highest point. BUILDING SETBACKS: Side (North): none required; provided = ~ 5'-0" Front (West): none required; provided = ~ 115'-5" Rear (East): 10'-0" min. required; provided = ~ 0'-0" (Variance) Side (South): none required; provided = ~ 5'-0" PROPOSED USE: Gas Station - Convenience Store (Permitted Use / Special Use)
PARKING REQUIREMENTS: Per 12-7-3-I: 1 per 250 sq.ft. of gross building area = 10 parking stalls Actual # of parking stalls provided in the proposed site plan = 8 parking stalls including 1 ADA parking stall (Variance)

Architect of Record
atul kavkhanis architects, ltd.
Commercial • Educational • Residential • Healthcare
2514 WEST PETERSON AVE
CHICAGO, IL 60659
PHONE: 773.561.5533 FAX: 773.508.5757
www.akarchitects.com

PROPOSED SITE PLAN

PROPOSED GAS STATION / CONVENIENCE STORE / DRIVE THRU
6335 WEST DEMPSTER STREET
MORTON GROVE, IL 60053

SHEET TITLE	ADDRESS

PROJECT NO. 27641-21

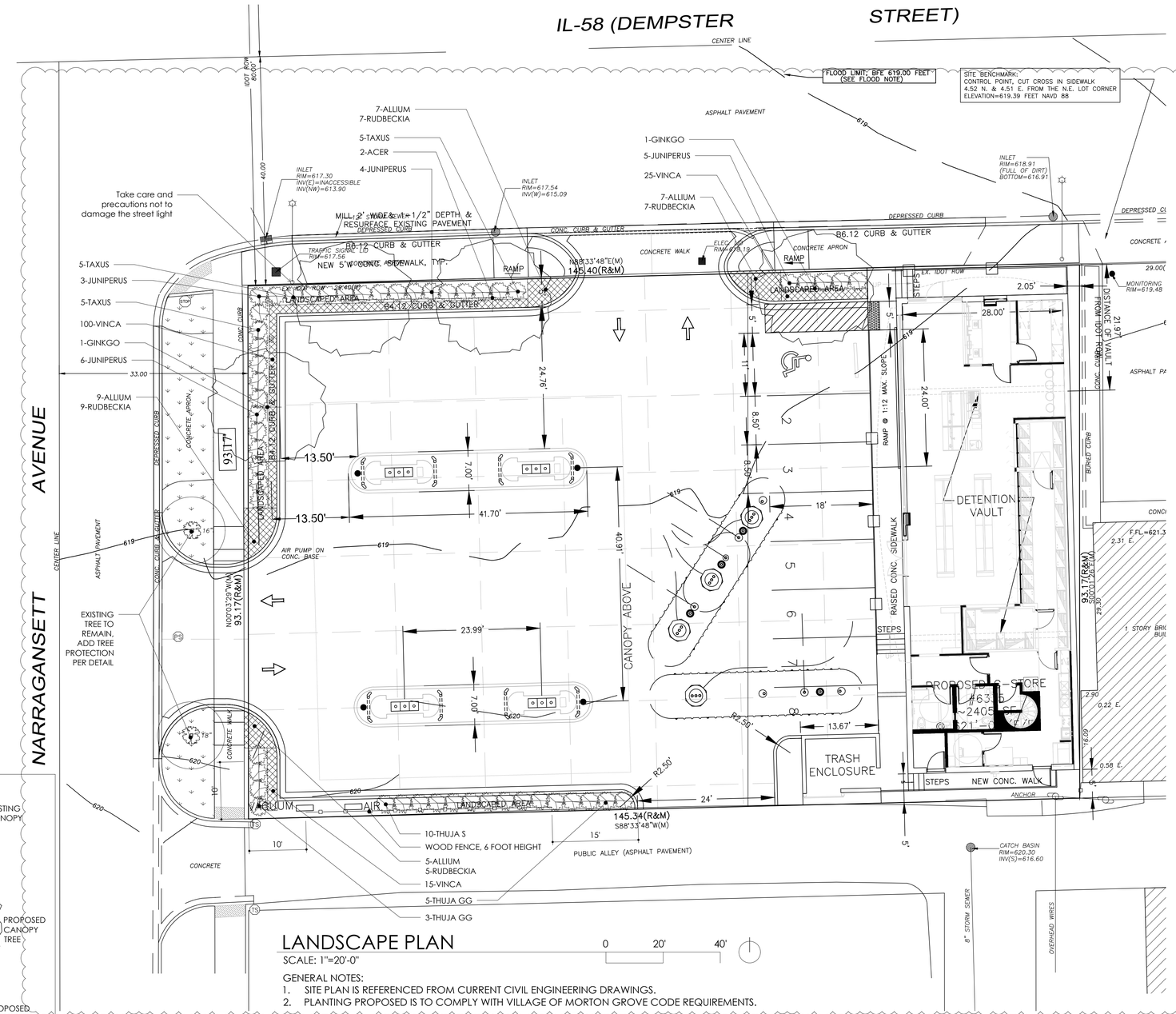
REVISIONS

#	DATE	DESCRIPTION
	07-31-24	SU Re-submittal

DRAWN BY: AT CK'D BY: AT

SCALE: As Noted
DATE: 04-22-2024
CAD FILE:SP_1

SHEET NO.
SP-1



LANDSCAPE PLAN

SCALE: 1"=20'-0"

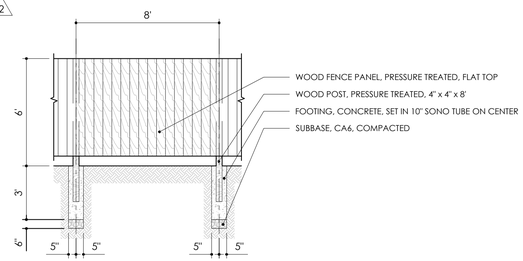
GENERAL NOTES:
1. SITE PLAN IS REFERENCED FROM CURRENT CIVIL ENGINEERING DRAWINGS.
2. PLANTING PROPOSED IS TO COMPLY WITH VILLAGE OF MORTON GROVE CODE REQUIREMENTS.

GRAPHIC KEY

- EXISTING CANOPY
- PROPOSED CANOPY TREE
- PROPOSED EVERGREEN SHRUBS
- PROPOSED SHRUBS
- PROPOSED PERENNIAL BED
- GRASS, SOD

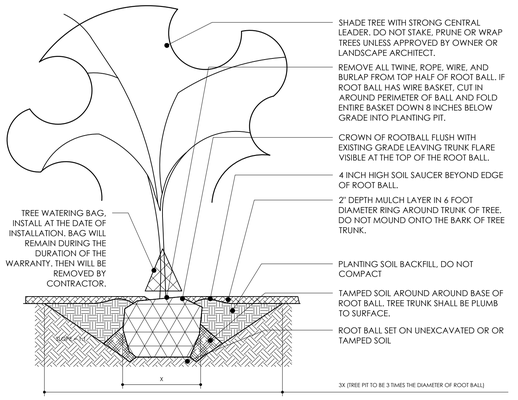
Botanical Name	Common Name	Quantity	Size	Condition	Notes
Shade Trees		**4**			
Acer rubrum 'JFS-KW78'	Armstrong Gold Maple Tree	2	2-1/2" caliper	B&B	Other red maples in a columnar form are acceptable
Ginkgo biloba	Ginkgo	2	2-1/2" caliper	B&B	Male varieties only, non-fruiting
Shrubs		**51**			
Juniperus chinensis 'Sea Green'	Sea Green Juniper	18	36 inch height	B&B	3' on center
Taxus x media 'Densiformis'	Yew	15	36 inch height	B&B	3' on center
Thuja occidentalis 'Golden Globe'	Golden Globe Arborvitae	8	30 inch height	B&B	3' on center, maintain at 30 inch height
Thuja 'Smaragd'	Emerald Green Arborvitae	10	6 foot height	B&B	3' on center; hedge to become 5 foot in height
Perennials and Grasses		**196**			
Rudbeckia hirta	Black-eyed Susan	28		1 gallon	space 18" on center
Allium cernuum	Nodding Onion	28		1 gallon	space 18" on center
Vinca minor 'Bowles'	Periwinkle	140		1 gallon	space 12" on center

PLANT SCHEDULE



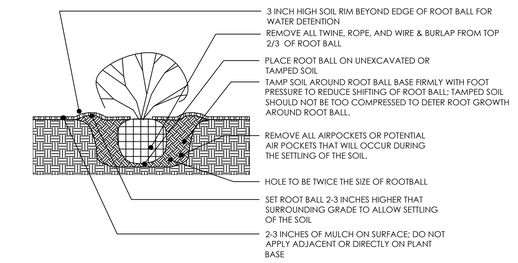
WOOD FENCE DETAIL

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



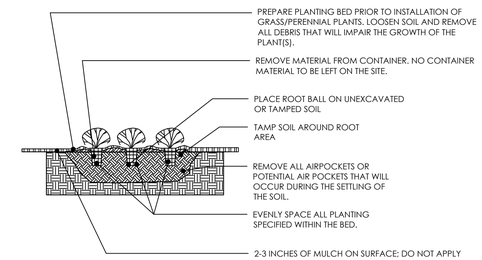
DECIDUOUS TREE DETAIL

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



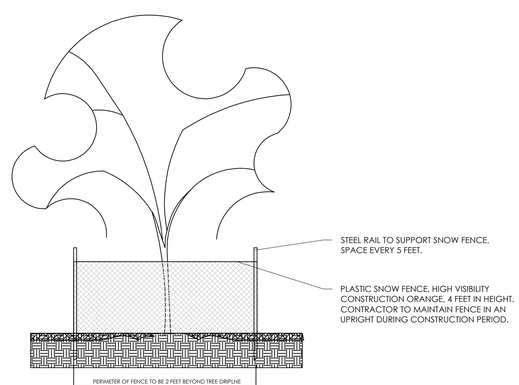
SHRUB DETAIL

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



PERENNIAL DETAIL

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



TREE PROTECTION DETAIL

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

LICENSED LANDSCAPE ARCHITECT
GARY W. LEHMAN
157-001193
STATE OF ILLINOIS

REVISIONS		DATE
PERMIT REVIEW PLANS	1	04-05-24
PERMIT REVIEW PLANS	2	07-24-24

PROJECT STAFF

PROJECT MANAGER:	G. LEHMAN R.L.A.	
ENGINEER:	G. LEHMAN R.L.A.	
ENGINEER:		
TECHNICIAN:		

Gstudio
LANDSCAPE ARCHITECTURE
3564 N 7TH AVE
CHICAGO, IL 60659
773-750-3031
GSTUDIO@GSTUDIODESIGN.NET

LANDSCAPE PLANS

6335 DEMPSTER STREET
MORTON GROVE, ILLINOIS

PROJECT NO.:	24024
ISSUE DATE:	JULY 24, 2024
SCALE:	AS NOTED

SHEET NUMBER
L1

BENCHMARK INFO

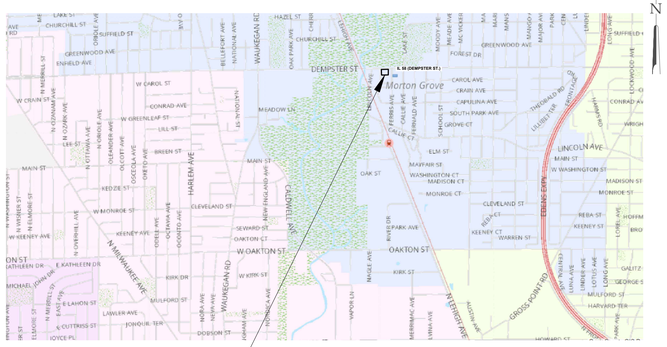
VILLAGE OF MORTON GROVE BENCHMARK, G.P.S. CONTROL 0500-05 BERNTSEN MONUMENT, LOCATED IN HARRER PARK AND POOL APPROX. 800' NORTH OF THE ENTRANCE AT FERNDALE AVENUE AND DEMPSTER STREET. LOCATED BETWEEN THE BALL FIELDS AN THE SOUTH PARKING LOT 4.3' NORTH OF THE EDGE OF WALK SET FLUSH WITH THE GROUND SURFACE. ELEVATION=624.09 FEET NAVD 88

NEW GAS STATION & RETAIL
SITE DEVELOPMENT PLAN
6335 DEMPSTER ST., MORTON GROVE, COOK COUNTY, IL

SECTION: 20
TOWNSHIP: 41N
RANGE: 13E

PIN:
10-20-100-026-0000

SITE LOCATION MAP



AERIAL MAP

DRAWING INDEX:

1. TITLE SHEET, LEGEND, SITE LOCATION, & AERIAL MAP
2. EXISTING TOPOGRAPHY, DEMOLITION PLAN, SOIL EROSION & SEDIMENTATION CONTROL PLAN
3. PROPOSED GRADING & DRAINAGE PLAN – OVERALL SITE
4. PROPOSED UTILITIES PLAN – OVERALL SITE
5. SITE PLAN & GEOMETRIC PLAN – OVERALL SITE
6. AUTOTURN EXHIBITS
7. CONSTRUCTION NOTES
8. STANDARD DETAILS
9. IDOT HIGHWAY STANDARD DETAILS
10. IDOT HIGHWAY STANDARD CONT...
11. IDOT TRIBUTARY AREA EXHIBIT

PROJECT NARRATIVE

GENERAL: PROPOSED GAS STATION & RETAIL IS PROPOSED ON EXISTING GAS STATION SITE WITH AREA 0.311 AC. A PORTION OF SITE IS LOCATED IN FLOODPLAIN.

AREA SUMMARY:
TOTAL AREA OF SITE: 0.311 ACRES
DISTURBED AREA OF SITE: 0.311 ACRES

SPECIAL PROTECTION AREAS: FLOODPLAIN LOCATED ON SITE, WITH 100 YR. BFE AT 619.00. THERE ARE NO WETLANDS WITHIN 100' OF SITE.

UPSTREAM TRIBUTARY: THERE IS NO UPSTREAM TRIBUTARY AREA FOR THE SITE.

COMBINED/SEPARATE SEWER AREA INFO: PROPOSED PROJECT IS LOCATED IN A COMBINED SEWER AREA.

DETENTION/VOLUME CONTROL FACILITY: DETENTION (SITE AREA<3AC.) IS NOT REQUIREMENT PER MWRD. DETENTION IS REQUIRED PER LOCAL REQUIREMENTS. VOLUME CONTROL(SITE AREA<0.5AC.) IS NOT REQUIRED PER MWRD REGULATIONS.

SANITARY SEWERS: NEW SANITARY SERVICE FROM THE BUILDING TO BE CONNECTED TO SANITARY SEWER MAIN LOCATED ON SIDE STREET.

SOILS/INFILTRATION RATE: SILTY CLAYS

GROUNDWATER ELEVATION: SEASONAL HIGH GROUNDWATER TABLE IS AT ##

1. I HEREBY CERTIFY THAT THE PROPOSED IMPROVEMENTS WILL NOT ADVERSELY IMPACT THE SUBJECT PROPERTY, THE SURROUNDING PROPERTIES OR THE PUBLIC RIGHT-OF-WAY WITH RESPECT TO STORMWATER DRAINAGE, AND THAT A SAFE OVERFLOW ROUTE HAS BEEN ESTABLISHED.

2. I HEREBY CERTIFY TO THE BEST OF MY KNOWLEDGE THAT THE PROPOSED IMPROVEMENT IS LOCATED IN FLOOD PROTECTION AREAS BASED ON THE INFORMATION FROM THE FEMA MAPS.

ABHIJIT VEER 062-067076 REGISTERED PROFESSIONAL ENGINEER OF ILLINOIS

EXP. 11-30-25

ENGINEER

7-18-2024
DATE

LEGEND:

	EXISTING	PROPOSED
PROPERTY LINE		
SANITARY SEWER LINE		
WATER LINE		
STORM SEWER LINE		
STORM MANHOLE		
SANITARY MANHOLE		
COMBINED SEWER		
COMBINED MANHOLE		
CATCH BASIN		
INLET		
WATER VALVE VAULT		
WATER VALVE		
GRADE		
DRAINAGE DIVIDE		
CURB & GUTTER		
CLEANOUT		
DOWNSPOUT (ROOF DRAINS)		
WATER B. BOX		
TREE PROTECTION FENCE		
CONSTRUCTION FENCE		
INLET FILTER BASKET		
TRAFFIC DIRECTION PAVEMENT MARKING		
FIRE HYDRANT		
RETAINING WALL W/RAILING		
TOP OF CURB BOTTOM OF CURB		T/C XXX.XX B/C XXX.XX
TOP OF CURB BOTTOM OF GUTTER		T/C XXX.XX B/G XXX.XX
WALK BOTTOM OF WALK		W XXX.XX B/W XXX.XX
DESPRESSED CURB BOTTOM OF GUTTER		D/C XXX.XX B/G XXX.XX
MOUNTABLE CURB		M/C XXX.XX B/C XXX.XX

FLOODPLAIN LOCATED ON SITE.
BFE - 619.00
MAP NUMBER: 17031C0141 J
NO STORAGE ALLOWED BELOW BFE

NOTE

The location of existing underground utilities, such as water mains, sewers, gas lines, etc., as shown on the plans, has been determined from the best available information and is given for the convenience of the Contractor. However, the Owner and the Engineer do not assume responsibility in the event that during construction, utilities other than those shown may be encountered, and that the actual location of those which are shown may be different from the location as shown on the plans.

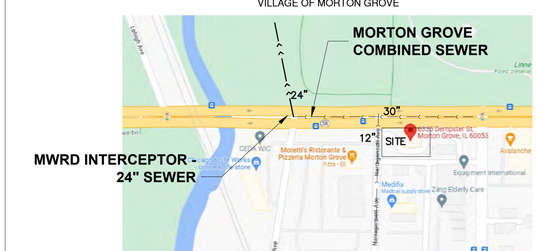
Bono Consulting, Inc. is not responsible for the safety of any party at or on the construction site. Safety is the sole responsibility of the contractor and any other person or entity performing work or services. Neither the owner nor engineer assumes any responsibility for the job site safety of persons engaged in the work or the means or methods of construction.

Current Standard Specifications of the Judicial Authority shall apply to the construction on this project.

Note: The exact location of all utilities shall be verified by the contractor prior to construction activities. For utility locations call:
J.U.L.I.E. 1 (800) 892-0123

COMBINED SEWER ROUTE MAP

SEWERS BETWEEN SITE AND MWRD INTERCEPTOR ARE OWNED AND MAINTAINED BY VILLAGE OF MORTON GROVE



STORM SEWER
COMBINED/SANITARY SEWER
MWRD INTERCEPTOR

PROJECT STAFF

PROJECT MANAGER:	B. BONO P.E.	
ENGINEER:	A. VEER P.E.	
ENGINEER:		
TECHNICIAN:		

ISSUE	REVISIONS	DATE
A	PRELIMINARY PLAN	1-20-2023
B	REVISED PER VILLAGE COMMENTS AND SITE PLAN CHANGES	7-18-2024

BCI
BONO CONSULTING
CIVIL ENGINEERS
A Server & Maller Engineers Company
1018 BUSSE HIGHWAY PH : (847) 823-3300
PARK RIDGE, IL 60068 FAX: (847) 823-3303
bbono@bonoconsulting.com

TITLE SHEET, LEGEND, SITE LOCATION MAP, & AERIAL MAP
NEW GAS STATION & RETAIL
6335 DEMPSTER ST., MORTON GROVE, IL

NOT FOR CONSTRUCTION

PROJECT NUMBER: 22348
START DATE: NOV. 1, 2022
GRAPHIC SCALE
0
SCALE: NTS

SHEET NUMBER
1 OF 10

PLAT OF TOPOGRAPHY

OF

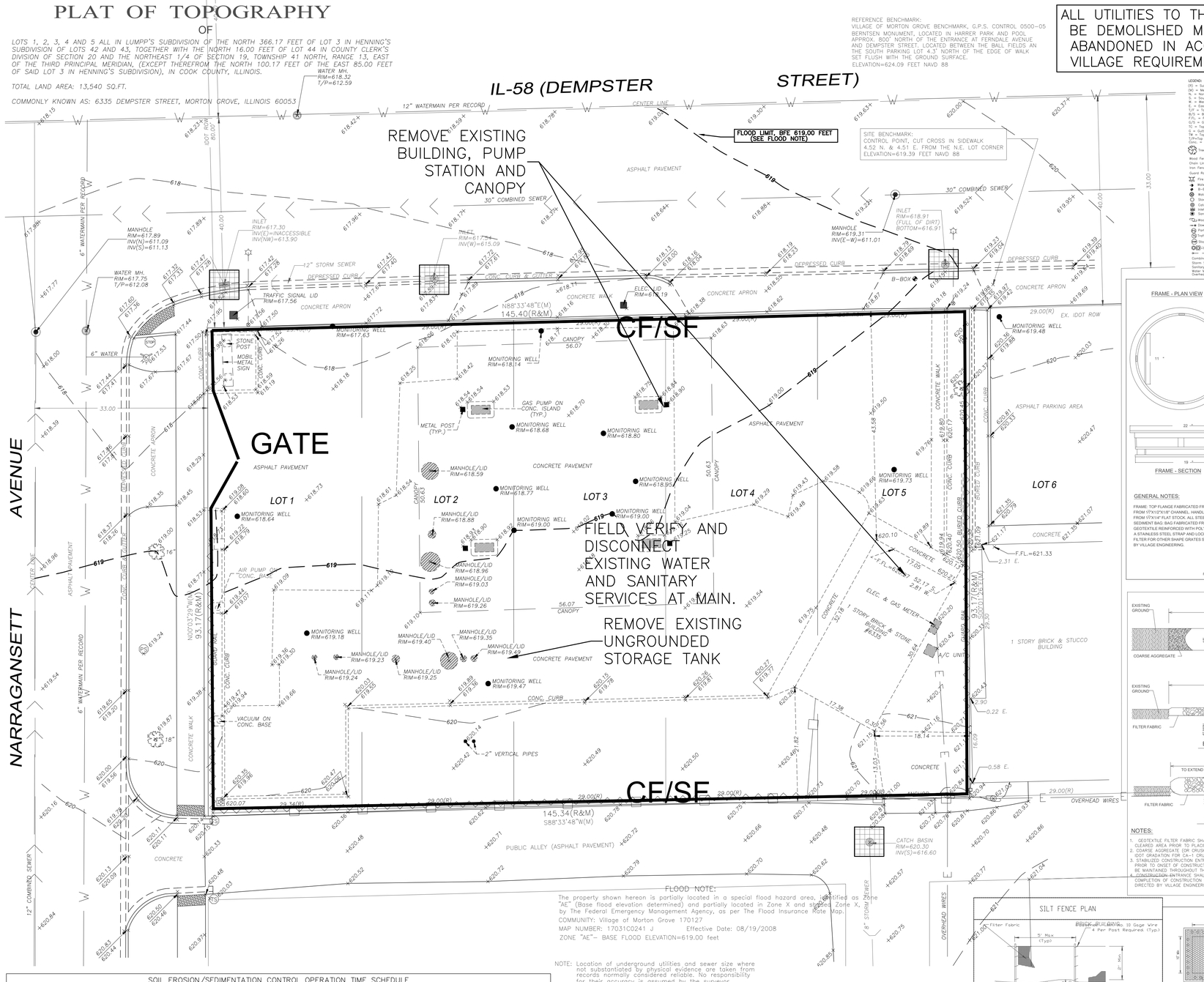
LOTS 1, 2, 3, 4 AND 5 ALL IN LUMPP'S SUBDIVISION OF THE NORTH 366.17 FEET OF LOT 3 IN HENNING'S SUBDIVISION OF LOTS 42 AND 43, TOGETHER WITH THE NORTH 16.00 FEET OF LOT 44 IN COUNTY CLERK'S DIVISION OF SECTION 20 AND THE NORTHEAST 1/4 OF SECTION 19, TOWNSHIP 41 NORTH, RANGE 13, EAST OF THE THIRD PRINCIPAL MERIDIAN, (EXCEPT THEREFROM THE NORTH 100.17 FEET OF THE EAST 85.00 FEET OF SAID LOT 3 IN HENNING'S SUBDIVISION), IN COOK COUNTY, ILLINOIS.

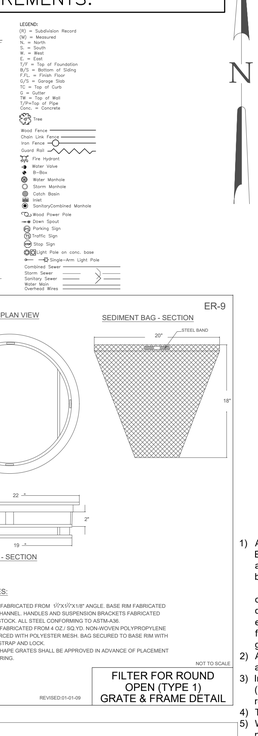
TOTAL LAND AREA: 13,540 SQ.FT.

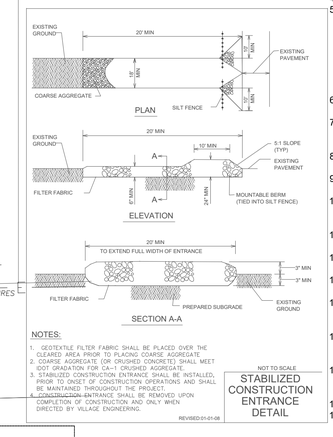
COMMONLY KNOWN AS: 6335 DEMPSTER STREET, MORTON GROVE, ILLINOIS 60053

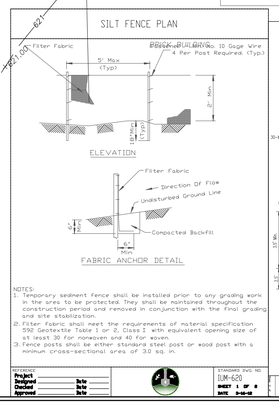
REFERENCE BENCHMARK:
VILLAGE OF MORTON GROVE BENCHMARK, G.P.S. CONTROL 0500-05
BERNTSEN MONUMENT, LOCATED IN HARRER PARK AND POOL APPROX. 800' NORTH OF THE ENTRANCE AT FERNDALE AVENUE AND DEMPSTER STREET; LOCATED BETWEEN THE BALL FIELDS AN THE SOUTH PARKING LOT 4.3' NORTH OF THE EDGE OF WALK SET FLUSH WITH THE GROUND SURFACE.
ELEVATION=624.09 FEET NAVD 88

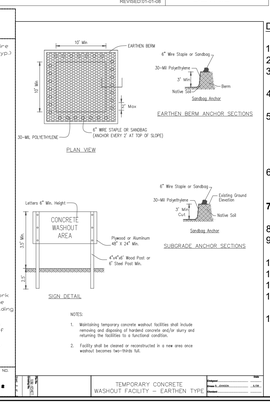
ALL UTILITIES TO THE BUILDING TO BE DEMOLISHED MUST BE ABANDONED IN ACCORDANCE WITH VILLAGE REQUIREMENTS.











SOIL EROSION/SEDIMENTATION CONTROL OPERATION TIME SCHEDULE

NOTE: GENERAL CONTRACTOR TO COMPLETE TABLE WITH THEIR SPECIFIC PROJECT SCHEDULE

CONSTRUCTION SEQUENCE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN
TEMPORARY CONSTRUCTION EXITS																									
TEMPORARY CONTROL MEASURES																									
SEDIMENT CONTROL BASINS																									
STRIP & STOCKPILE TOPSOIL																									
ROUGH GRADE																									
STORM FACILITIES																									
SITE CONSTRUCTION																									
PERMANENT CONTROL STRUCTURES																									
FOUNDATION / BUILDING CONSTRUCTION																									
FINISH GRADING																									
LANDSCAPING/SEED/FINAL STABILIZATION																									

1) CONTRACTOR SHALL UPDATE THE TABLE BY DATING THE APPLICABLE ACTIVITIES AS PROJECT PROGRESSES.
2) TIME SCHEDULE MUST COINCIDE WITH SEQUENCE OF CONSTRUCTION.

TEMPORARY SEEDING, SPECIES, RATES, & DATES

NOTE: GENERAL CONTRACTOR TO COMPLETE TABLE WITH THEIR SPECIFIC PROJECT SCHEDULE

SPECIES	LBS./ ACRE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
OATS	90												
CEREAL RYE	90												
WINTER WHEET	90												
WINTER MULCH	25												

FLOOD NOTE:
The property shown hereon is partially located in a special flood hazard area, identified as Zone "AE" (Base flood elevation determined) and partially located in Zone X and shaded Zone X, by The Federal Emergency Management Agency, as per The Flood Insurance Rate Map.
COMMUNITY: Village of Morton Grove 170127
MAP NUMBER: 17031C0241 J Effective Date: 08/19/2008
ZONE "AE"- BASE FLOOD ELEVATION=619.00 feet

NOTE: Location of underground utilities and sewer size where not substantiated by physical evidence are taken from records normally considered reliable. No responsibility for their accuracy is assumed by the surveyor.

Locations of existing utility services are based on visual observations. Contractor must confirm location and condition of all utility services to remain.

FOR LOCATION OF BURIED CABLE CALL J.U.L.I.E. @1-800-892-0123 BEFORE DIGGING

SEEDING INFORMATION
CONTRACTOR TO SEED ALL DISTURBED AREA.
TURF GRASS SEED MIX:
FURNISH AND APPLY SUNNY TURF GRASS SEED MIX (TIMOTHY-33.3% / ORCHARDGRASS-33.3% / KENTUCKY BLUEGRASS-33.3%, SEEDING RATE=70 LBS./ACRE AND COMMON OATS=30 LBS./ACRE FOR A TOTAL 100 LBS./ACRE. OVERSEED WITH 10 LBS./ACRE ANNUAL RYE. SEEDING MUST COMMENCE WITHIN 1 WEEK OF THE COMPLETION OF FINAL GRADING.

BEST MANAGEMENT PRACTICES SEQUENCE

NOTE: UPON IMPLEMENTATION AND INSTALLATION OF THE FOLLOWING AREAS: TRAILER, PARKING, LAY DOWN, PORTA-POTTY, WHEEL WASH, CONCRETE WASHOUT, MASON'S AREA, FUEL AND MATERIAL STORAGE CONTAINERS, SOLID WASTE CONTAINERS, ETC., IMMEDIATELY DENOTE THEM ON THE SITE MAPS AND NOTE ANY CHANGES IN LOCATION AS THEY OCCUR THROUGHOUT THE CONSTRUCTION PROCESS. IN ADDITION, NOTE ANY OFF-SITE AREAS WHERE FILL IS IMPORTED FROM OR SOIL IS EXPORTED TO ON THE SITE MAPS.

PHASE – I
1. INSTALL TREE PROTECTION FENCING AND EROSION CONTROL SILT FENCE, INLET FILTER BASKETS, MAINTAIN THROUGH OUT PROJECT.
2. USE WILLIE ROAD FOR CONSTRUCTION ACCESS, USE DRIVEWAY FOR CONSTRUCTION. INSTALL STABILIZED CONSTRUCTION ENTRANCE. OBSERVE ALL APPROPRIATE MUTCD/IDOT TRAFFIC CONTROL MEASURES FOR CONSTRUCTION TRAFFIC ENTERING HIGHWAY. CONTRACTOR IS RESPONSIBLE FOR KEEPING ROADS FREE OF MUD AND DEBRIS.
3. PROTECT TREES THAT ARE SHOWN TO BE PROTECTED.
4. CLEAR AND REMOVE BRUSH AND TREES.
5. CONSTRUCT DETENTION FACILITY WITHIN 30 DAYS OF TREE REMOVAL/BRUSH CLEARING.
6. INSTALL UTILITIES AND PERFORM MASS GRADING.

HALT ALL ACTIVITIES AND CONTACT THE VILLAGE TO PERFORM INSPECTION AND CERTIFICATION OF BMPS. GENERAL CONTRACTOR SHALL SCHEDULE AND CONDUCT THE STORMWATER PRE-CONSTRUCTION MEETING WITH THE CONSTRUCTION MANAGER, AGENCY(IES) AND GROUND-DISTURBING CONTRACTORS BEFORE PROCEEDING WITH CONSTRUCTION.

ALL EXCEPTIONS NOTED ON THE BMP CERTIFICATION FORM MUST BE ADDED TO THE FIRST DAILY REPORT AS A DEFICIENCY OR DEFICIENCIES AND RESOLVED WITHIN 24-HOURS. BMPS CAN NOT BE CERTIFIED IF ANY EXCEPTION REQUIRES GREATER THAN 24-HOURS TO RESOLVE.

DAILY INSPECTIONS AND REPORTING USING THE SWPPP MANAGEMENT TOOL MUST START THE DAY OF OR IMMEDIATELY AFTER BMP CERTIFICATION.

7. ~~CONSTRUCT AND STABILIZE SEDIMENT BASIN(S) AND SEDIMENT TRAP(S) WITH APPROPRIATE OUTFALL STRUCTURES (CLEAR ONLY THOSE AREAS NECESSARY TO INSTALL BASINS AND TRAPS).~~
8. INSTALL AND STABILIZE HYDRAULIC CONTROL STRUCTURES (DIKES, SWALES, CHECK DAMS, ETC.).
9. BEGIN CLEARING AND GRUBBING THE SITE.
10. BEGIN GRADING THE SITE.

PHASE II
1. TEMPORARILY SEED, THROUGHOUT CONSTRUCTION, DENUDED AREAS THAT WILL BE INACTIVE FOR 7 DAYS OR MORE. IF ACTIVITY WILL RESUME WITHIN 14 DAYS, TEMPORARY SEEDING IS NOT RECQUIRED.
2. INSTALL UTILITIES, UNDERDRAINS, STORM SEWERS, CURBS AND GUTTERS.
3. ~~INSTALL RIP RAP AROUND OUTLET STRUCTURES AS EACH OUTLET STRUCTURE IS INSTALLED.~~
4. INSTALL INLET PROTECTION AT ALL STORM SEWER STRUCTURES AS EACH INLET STRUCTURE IS INSTALLED.
5. PERMANENTLY STABILIZE AREAS TO BE VEGETATED AS THEY ARE BROUGHT TO FINAL GRADE.
6. PREPARE SITE FOR PAVING.
7. PAVE SITE.
8. INSTALL APPROPRIATE INLET PROTECTION DEVICES FOR PAVED AREAS AS WORK PROGRESSES.
9. COMPLETE GRADING AND INSTALLATION OF PERMANENT STABILIZATION OVER ALL AREAS.
10. CONTINUE DAILY INSPECTION REPORTS UNTIL THE FINAL DAILY INSPECTION REPORT, MARKED 'READY TO TERMINATE PERMIT', IS SIGNED BY THE CONSTRUCTION MANAGER AND SUBMITTED VIA THE SWPPP MANAGEMENT TOOL.
11. STABILIZE SITE AND INSTALL ALL FENCES CONCURRENTLY.

NOTE: THE GENERAL CONTRACTOR MAY COMPLETE CONSTRUCTION-RELATED ACTIVITIES CONCURRENTLY ONLY IF ALL PRECEDING BMPS HAVE BEEN COMPLETELY INSTALLED.

EARTHWORK / EROSION & SEDIMENTATION CONTROL

1) All construction activities that involve earthwork shall meet the National Pollutant Discharge Elimination System Phase II requirements:
   a) ~~Submittal of a Notice of Intent (NOI) to IEPA.~~
   b) Possession of a completed and signed Stormwater Pollution Prevention Plan (SWPPP) and a graphic Erosion and Sediment Control (ESC) plan.
   c) Implementation of the SWPPP.
   d) Submittal of an Incidence of Noncompliance (ION) if an event occurs.
   e) Weekly reports after ½" rainfall or 5" snowfall.
   f) Documentation of changes to ESC plan.
   g) ~~Submittal of a Notice of Termination (NOT) when final stabilization is achieved.~~
2) Any wetland mitigation shall begin prior to any grading work and shall be in accordance with the approved mitigation permit plan and requirements.
3) In order to protect and ensure against flooding, all top of foundations shall be set a minimum of one (1') foot above the high water level of adjacent stormwater management facilities such as retention/detention ponds.
4) The contractor shall maintain existing positive drainage from off-site at all times during construction.
5) Within the limits of proposed grading the soil shall be compacted to not less than the following percentages of modified proctor dry density in accordance with ASTM D 1557-78:
   a) Under structures. Building slabs, steps and pavements.Compact six (6") inch maximum lifts of subgrade. Backfill or fill material at 95% modified proctor dry density.
   b) Under walkways. Compact six (6") inch maximum lifts of dry subgrade, backfill, or fill material at 95% modified proctor dry density.
   c) Under lawn or unpaved areas. Compact six (6") inch maximum lifts of subgrade, backfill, or fill material at 85% modified proctor dry density.
6) All erosion control work shall comply with "Illinois Procedures and Standards for Urban Soil Erosion and Sedimentation Control."
7) Stripping of vegetation, grading or other soil disturbance, especially in designated wetland areas, shall be done in a manner which will minimize soil erosion, and shall be in accordance with the approved drawings, mitigation and permit requirements.
8) The contractor shall take precautionary measures to minimize earthwork in areas where trees are to be saved as shown on the plans or determined in the field.
9) The extent of the area which is exposed and free of vegetation and the duration of its exposure shall be kept within practical limits as directed by the Village Engineer.
10) Sedimentation shall be retained on site. Sediment fence shall be installed along the perimeter of all regraded areas or as required to prevent sediment from entering and/or leaving the site.
11) Dust produced from the site shall be kept to a minimum during dry periods by spraying water as required to the Village Engineer's satisfaction and is to be considered incidental.
12) All mud shall be removed from all tires before leaving the site and the roads shall be kept clean and clear of mud and debris at all times.
13) Culverts and drainage ditches shall be kept clean and clear of obstructions during the construction period.
14) Silt fences shall be inspected frequently and maintained or replaced as required to maintain both their effectiveness and integrity. The underside of bales shall be kept in close contact with the earth below at all times to prevent water from washing beneath them.
15) Water courses and drainage swales adjacent to construction activities shall be monitored as necessary, for evidence of silt intrusion and other adverse environmental impacts. Any problems or deficiencies shall be corrected immediately upon their discovery.
16) Sod all unpaved areas of parkways, right-of-ways and front yards to rear wall of the building. Any and all **other** site seeding **may** be used, in some instance particularly for the back yard, only with prior approval by the Village Engineer.
17) The contractor shall install all erosion control items prior to commencement of any work.
18) The contractor shall install temporary orange fence around all trees to remain and wetland areas to be mitigated.

DEMOLITION NOTES

1. Install temporary tree protection fencing prior to any demolition work.
2. Install temporary 6' high chain link fence around the proposed work area as shown on the drawing.
3. Contractor to call julie at 1-800-892-0123. minimum of 48 hours prior to initiating any excavation or demolition.
4. Contractor shall verify the exact elevation and location of all existing utilities and appurtenances prior to construction, to avoid interferences.
5. Appropriate precautions shall be taken to avoid damage to and to protect existing utilities and appurtenances in the vicinity of work. Contractor shall be responsible for the protection of all underground or overhead utilities even though they may not be shown on the plans. any utility that is damaged during construction shall be repaired to the satisfaction of the Village and the owner, or replaced.
6. Any open excavations, or potentially dangerous areas shall be fenced or guarded in an acceptable manner at the end of each day for the protection of the contractor's employees and general public safety.
7. **Bono Consulting Inc is not liable for any construction site safety**. Contractor to take all OSHA regulated and applicable local safety precautions to safe guard all potentially hazard sites/work.
8. Contractor is responsible for keeping roads free of excessive debris at all times.
9. Any soil, mud or debris that is washed, tracked, or deposited onto the street shall be removed before the end of each day.
10. Topographic survey by Bono Consulting Inc.
11. All excavation shall be tapered, or, shored and maintained pumped dry.
12. Do not create dust or other nuisance to neighboring properties during construction
13. "No trespassing" signs shall be mounted on the fencing in conspicuous locations until construction is completed and approved
14. Any gate in the perimeter fence shall be adequately hinged to prevent entry, except to allow ingress and egress to and from site, such gate must be looked at all times, other than permitted hours of construction.

DATE	1-20-2023	7-19-2024								
REVISIONS	PRELIMINARY PLAN	ADDITIONAL REVISED PER VILLAGE COMMENTS AND SITE PLAN CHANGES								
ISSUE	A	B								

PROJECT STAFF

PROJECT MANAGER:
ENGINEER: B. BONO P.E.
ENGINEER: A. VEER P.E.
ENGINEER:
TECHNICIAN:

BCI
BONO CONSULTING CIVIL ENGINEERS
A Service & Materials Engineers Company
1018 BUSSE HIGHWAY PH : (847) 823-3300
PARK RIDGE, IL 60068 FAX: (847) 823-3303
bbono@bonoconsulting.com

EXIST. TOPOGRAPHY, DEMOLITION, EROSION AND SEDIMENTATION CONTROL PLAN

NEW GAS STATION & RETAIL
6335 DEMPSTER ST., MORTON GROVE, IL

NOT FOR CONSTRUCTION

PROJECT NUMBER: 22348

START DATE: NOV. 1, 2022

GRAPHIC SCALE
10 0 10

SCALE: 1"=10'-0

SHEET NUMBER
2 OF 10

MWRD (MOD.RATIONAL METHOD)
100 YEAR

Project: 6335 Dempster, Morton Grove
Date:1.24.23

Project No:
Computed By: AV

DETENTION FOR DISTURBED AREA OF THE SITE

Disturbed Area

Disturbed Area of Site		0.607	acres
Release Rate = 0.3*0.607	0.091	Per MWRD	

Developed Disturbed Area of Site/ Proposed

Land UseType	Runoff Coefficient	Area (Acres)	Percentage
Impervious	0.95	0.287	92.3%
Grass & Landscaping	0.50	0.024	7.7%
Surface Ponding	1.00	0.000	0.0%
Composite Characteristics:	***0.92***	***0.311***	***100.0%***

BULLETIN 75 STORM EVENT (2019 RAINFALL DATA)

Storm Duration (Min)	Storm Duration (Hours)	Rainfall Intensity (Inch/ Hour)	Inflow Rate (CFS)	Release Rate (CFS)	Storage Rate (CFS)	Storage Required (Acre-Feet)
5	0.08	12.34	3.51	**0.091**	3.42	0.024
10	0.17	10.80	3.07	**0.091**	2.98	0.041
15	0.25	9.26	2.64	**0.091**	2.54	0.053
30	0.50	6.34	1.80	**0.091**	1.71	0.071
60	1.00	4.03	1.15	**0.091**	1.06	0.088
120	2.00	2.49	0.71	**0.091**	0.62	0.103
180	3.00	1.83	0.52	**0.091**	0.43	0.107
360	6.00	1.07	0.30	**0.091**	0.21	0.107
720	12.00	0.62	0.18	**0.091**	0.09	0.085
1080	18.00	0.45	0.13	**0.091**	0.04	0.056
1440	24.00	0.36	0.10	**0.091**	0.01	0.023

0.107 **Acre-Feet**

Required Detention Volume = 4,681.17 ft³

					C Value
A =	0.311	Acres	Impervious	0.287 Acres	0.95
			Surf.Ponding	0.000 Acres	1
			Landscape	0.024 Acres	0.5
C =	0.854				
Release Rate	0.091	cfs			

MWRD VOLUME CONTROL (New Impervious Area)

Impervious Area	Times 1"	Required Voulme	
19,779	0.083	1,648	ft³

RESTRICTOR CALCULATION

Orifice Design

Require Q =	0.091 cfs	Det. HWL =	619.00
Cd =	0.61	Orifice Invert:	614.00
Max. Head =	4.95	Orifice Cent.	614.05
Orifice Area:	0.0084		
Calculated Max. Restrictor Discharge:	0.091		

Restrictor Diameter = 1.24 inches

USE 3" DIAMETER PIPE RESTRICTOR (MIN.)

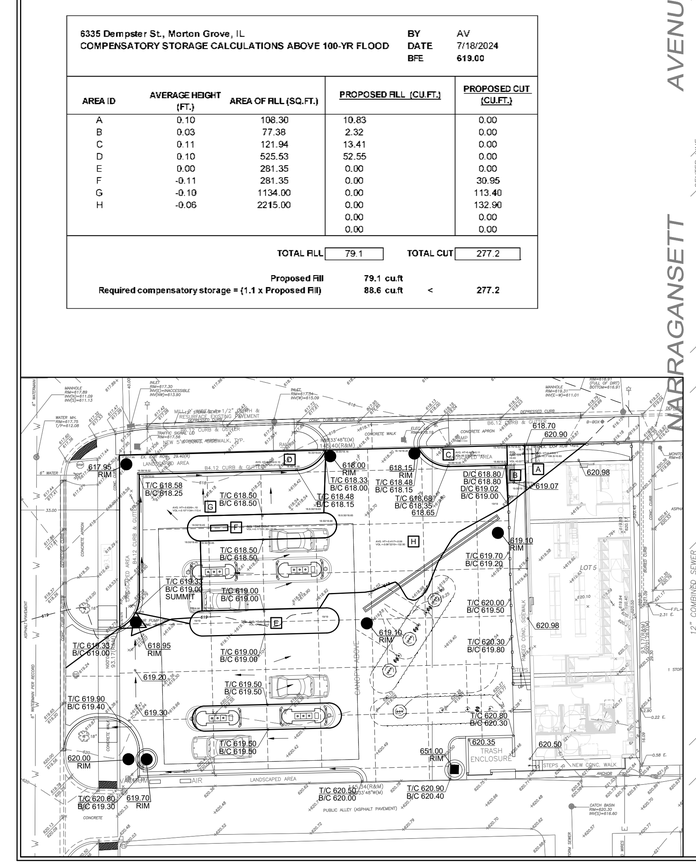
6335 Dempster St., Morton Grove, IL COMPENSATORY STORAGE CALCULATIONS ABOVE 100-YR FLOOD			BY DATE BFE	AV 7/18/2024 619.00
AREA ID	AVERAGE HEIGHT (FT.)	AREA OF FILL (SQ.FT.)	PROPOSED FILL (CU.FT.)	PROPOSED CUT (CU.FT.)
A	0.10	108.30	10.83	0.00
B	0.03	77.38	2.32	0.00
C	0.11	121.94	13.41	0.00
D	0.10	525.53	52.55	0.00
E	0.00	281.35	0.00	0.00
F	-0.11	281.35	0.00	30.95
G	-0.10	1134.00	0.00	113.40
H	-0.06	2215.00	0.00	132.90
			0.00	0.00
			0.00	0.00
		TOTAL FILL	79.1	TOTAL CUT 277.2
		Proposed Fill	79.1 cu.ft	
		Required compensatory storage = (1.1 x Proposed Fill)	88.6 cu.ft	< 277.2

New Gas Station & Retail - 6335 Dempster, Morton Grove

Date: 1.24.23

	Existing Sq. Ft.	Existing Acres	Proposed Sq. Ft.	Proposed Acres
Project Area	13,540.06	0.311		
Disturbed Area of Site	13,540.06	0.311		
Building	549.68	0.013	2,405.10	0.055
Walks, Play Ground & Conc. Pads	682.40	0.016	1,267.40	0.029
Access & Parking	9,502.57	0.218	8,843.76	0.203
Impervious Area	10,734.65	0.246	12,516.26	0.287
Pervious Area	2,805.41	0.064	1,023.80	0.024

Disturbed area of Site 0.311 **Ac.**
Increase in Impervious Area 0.041



REFERENCE BENCHMARK:
VILLAGE OF MORTON GROVE BENCHMARK, G.P.S. CONTROL 0500-05
BERNTSEN MONUMENT, LOCATED IN HARRER PARK AND POOL APPROX. 800' NORTH OF THE ENTRANCE AT FERNDALE AVENUE AND DEMPSTER STREET, LOCATED BETWEEN THE BALL FIELDS AN THE SOUTH PARKING LOT 4.3' NORTH OF THE EDGE OF WALK SET FLUSH WITH THE GROUND SURFACE.
ELEVATION=624.09 FEET NAVD 88

FLOOD LIMIT, BFE 619.00 FEET (SEE FLOOD NOTE)

SITE BENCHMARK:
CONTROL POINT, CUT CROSS IN SIDEWALK
4.52 N. & 4.51 E. FROM THE N.E. LOT CORNER
ELEVATION=619.39 FEET NAVD 88

ALL BUILDING DOWNSPOUTS TO BE CONNECTED TO ON SITE STORM SEWER

LEGEND
6" BARRIER CURB
B6.12 CURB & GUTTER

REVISIONS	DATE
PRELIMINARY PLAN	1-20-2023
2ND SUBMITTAL - REVISED PER VILLAGE COMMENTS AND SITE PLAN CHANGES	7-19-2024

PROJECT STAFF		ISSUE
PROJECT MANAGER:	B. BONO P.E.	A
ENGINEER:	A. VEER P.E.	B
ENGINEER:		
TECHNICIAN:		

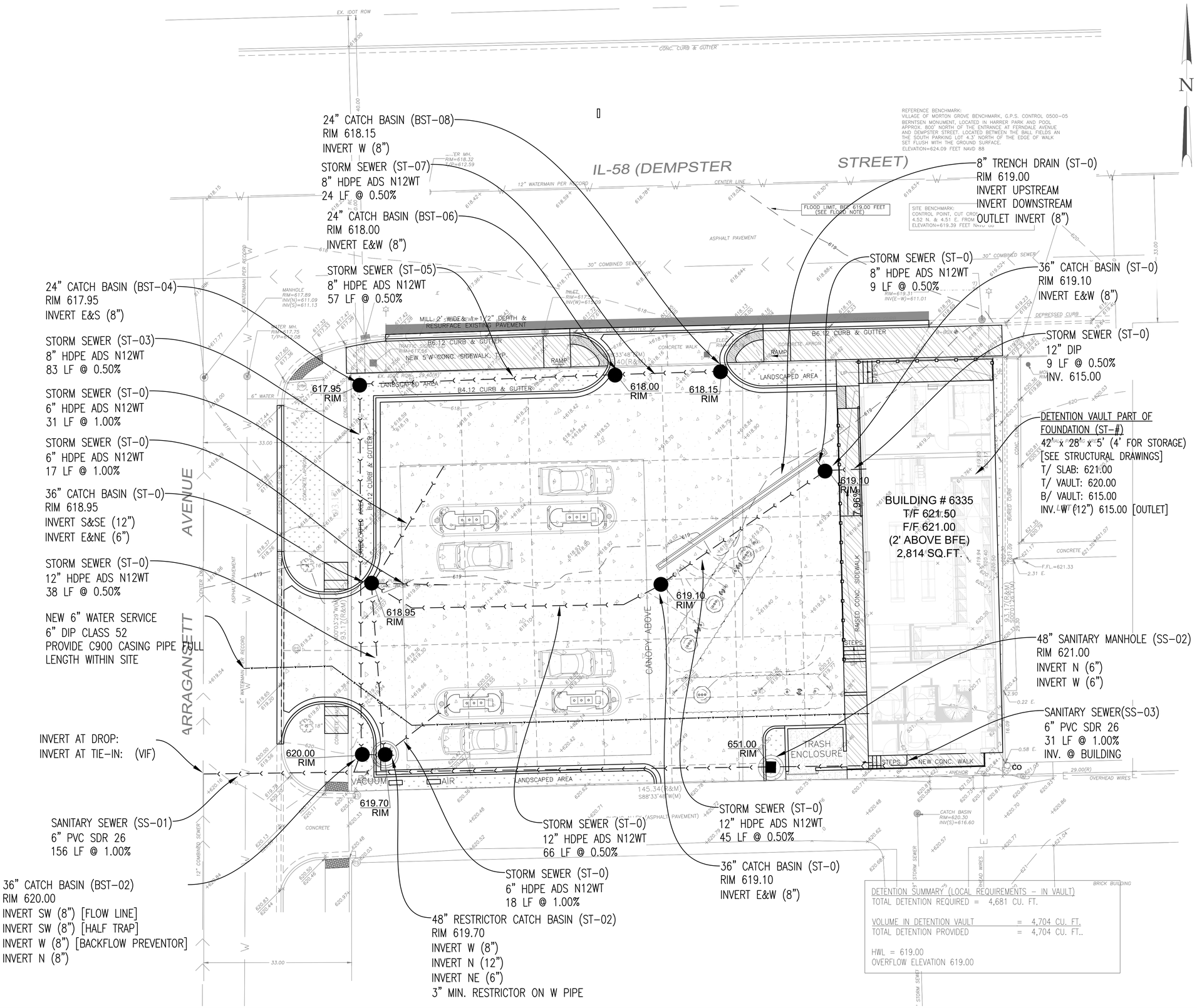
BCI
BONO CONSULTING CIVIL ENGINEERS
A Service & Matter Engineers Company
1018 BUSSE HIGHWAY PH : (847) 823-3300
PARK RIDGE, IL 60068 FAX: (847) 823-3303
bbono@bonoconsulting.com

PROPOSED GRADING & DRAINAGE PLAN
OVERALL SITE
NEW GAS STATION & RETAIL
6335 DEMPSTER ST., MORTON GROVE, IL

NOT FOR CONSTRUCTION

PROJECT NUMBER: 22348
START DATE: NOV. 1, 2022
GRAPHIC SCALE
10 0 10
SCALE: 1"=10'-0

SHEET NUMBER
3 OF 10



PROJECT STAFF		ISSUE	REVISIONS	DATE
PROJECT MANAGER:	B. BONO P.E.	A	PRELIMINARY PLAN	1-20-2023
ENGINEER:	A. WEER P.E.	B	REVISED PER VILLAGE COMMENTS AND SITE PLAN CHANGES	7-19-2024
ENGINEER:				
TECHNICIAN:				

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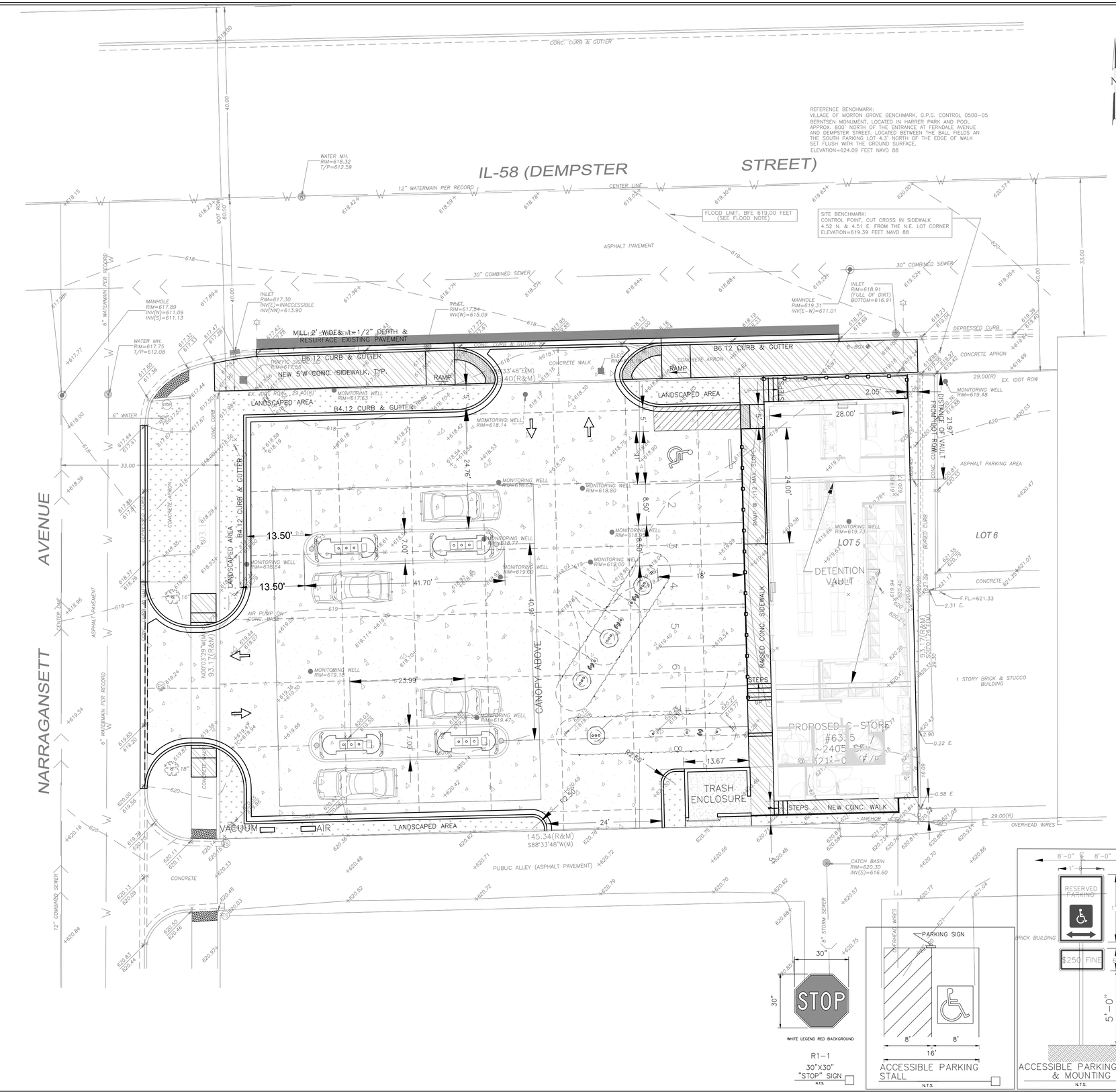
PROPOSED UTILITIES PLAN
OVERALL SITE
NEW GAS STATION & RETAIL
6335 DEMPSTER ST., MORTON GROVE, IL

NOT FOR CONSTRUCTION

PROJECT NUMBER: 22348
START DATE: NOV. 1, 2022
GRAPHIC SCALE
20 0 20
SCALE: 1"=20'-0

SHEET NUMBER
4 OF 10



SITE PLAN NOTES:

A. ALL WORK AND MATERIALS SHALL COMPLY WITH ALL LOCAL /COUNTY REGULATIONS AND CODES AND O.S.H.A. STANDARDS.
B. ALL DISTURBED AREAS ARE TO RECEIVE SIX INCHES OF TOPSOIL, SEED, MULCH AND WATER UNTIL HEALTHY STAND OF GRASS IS ESTABLISHED UNLESS OTHERWISE NOTED.
C. ALL CURBED RADII ARE TO BE 3' MEASURED TO FACE OF CURB UNLESS OTHERWISE NOTED. STRIPED RADII ARE TO BE 5' UNLESS OTHERWISE NOTED.
D. ALL DIMENSIONS ARE FACE OF CURB TO FACE OF CURB AND RADII ARE BACK OF CURB OR BUILDING FOUNDATION UNLESS OTHERWISE NOTED.
E. BUILDING DIMENSIONS AND ADJACENT PARKING AND UTILITY LAYOUT HAVE BEEN PREPARED BASED UPON ARCHITECTURAL INFORMATION CURRENT AT THE DATE OF THIS DRAWING. SUBSEQUENT ARCHITECTURAL CHANGES MAY EXIST, THEREFORE CONTRACTOR SHALL REFER TO ARCHITECTURAL PLANS FOR PRECISE BUILDING DIMENSIONS AND EXACT UTILITY ENTRANCE LOCATIONS AND NOTIFY THE ARCHITECT AND ENGINEER OF ANY DISCREPANCIES PRIOR TO CONSTRUCTION.
F. ALL PROPOSED CURB AND GUTTER SHALL BE B6.12 UNLESS OTHERWISE NOTED.
G. EXISTING TOPOGRAPHY SHOWN REPRESENTS SITE CONDITION AS PREPARED BY BCI. CONTRACTOR SHALL FIELD CHECK EXISTING ELEVATIONS AND CONDITIONS PRIOR TO CONSTRUCTION AND NOTIFY ARCHITECT AND ENGINEER OF ANY DISCREPANCIES PRIOR TO STARTING CONSTRUCTION.
H. THE CONTRACTOR SHALL CONTACT J.U.L.I.E. (1-800-892-0123) PRIOR TO ANY WORK TO LOCATE UTILITIES AND SHALL CONTACT THE OWNER SHOULD UTILITIES APPEAR TO BE IN CONFLICT WITH THE PROPOSED IMPROVEMENT.
I. EXISTING STRUCTURES WITHIN CONSTRUCTION LIMITS ARE TO BE REMOVED UNDER PROPOSED BUILDINGS AND ABANDONED ELSEWHERE AS NECESSARY. ALL COST SHALL BE INCLUDED IN BASE BID.
J. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL RELOCATIONS, (UNLESS OTHERWISE NOTED ON PLANS) INCLUDING BUT NOT LIMITED TO, ALL UTILITIES, STORM DRAINAGE, SIGNS, TRAFFIC SIGNALS AND POLES, ETC. AS REQUIRED. ALL WORK SHALL BE IN ACCORDANCE WITH GOVERNING AUTHORITIES REQUIREMENTS AND PROJECT SITEWORK SPECIFICATIONS AND SHALL BE APPROVED BY SUCH. ALL COST SHALL BE INCLUDED IN BASE BID.
K. SITE BOUNDARY, TOPOGRAPHY, UTILITY AND ROAD INFORMATION TAKEN FROM A SURVEY BY OTHERS.
L. IMPROVEMENTS ADJACENT TO BUILDING IF SHOWN SUCH AS TRUCK DOCK, RETAINING WALLS, SIDEWALKS, CURBING, CANOPIES, RAMPS, HANDICAP ACCESS, PLANTERS, DUMPSTERS AND TRANSFORMERS ETC. HAVE BEEN SHOWN FOR APPROXIMATE LOCATION ONLY. CONTRACTOR SHALL REFER TO THE ARCHITECTURAL PLANS FOR EXACT LOCATIONS AND DIMENSIONS OF VESTIBULES, SLOPE PAVING, SIDEWALKS, EXIT PORCHES, TRUCK DOCKS, PRECISE BUILDING DIMENSIONS AND EXACT BUILDING UTILITY ENTRANCE LOCATIONS.
M. THE CONTRACTOR SHALL ADJUST RIM ELEVATIONS OF ALL EXISTING STRUCTURES TO PROPOSED GRADES AS INDICATED ON PLANS.
N. CONTRACTOR TO VERIFY LOCATION, SIZES, AND ELEVATIONS OF ALL BUILDING SERVICE LOCATIONS WITH ARCHITECTURAL PLANS.
O. TOTAL LAND AREA IS 0.311+/- ACRES. DISTURBED AREA OF SITE 0.311+/- ACRES.
P. NO WETLANDS WERE PRESENT ON THIS SITE.
Q. THE SITE WORK FOR THIS PROJECT SHALL MEET OR EXCEED THE "SITE SPECIFIC SPECIFICATIONS."
R. MONUMENT AND/OR PYLON SIGNS SHALL BE CONSTRUCTED BY OWNER ASSIGNED CONTRACTOR.
S. ALL ROADWAY AND PARKING LOT IMPROVEMENTS SHALL BE COMPLETED IN ACCORDANCE WITH THE APPLICABLE SECTIONS OF THE STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, DEPARTMENT OF TRANSPORTATION, STATE OF ILLINOIS, LATEST EDITION.
T. ROUTING OF GAS, ELECTRIC AND TELEPHONE SERVICES IF SHOWN ARE APPROXIMATE ONLY AND SUBJECT TO CHANGE BASED UPON FINAL REVIEW AND APPROVAL BY RESPECTIVE UTILITY COMPANIES AND OWNER. CONTRACTOR SHALL CONTACT EACH UTILITY COMPANY AND COORDINATE FINAL LOCATIONS FOR ALL UTILITY SERVICES PRIOR TO START OF CONSTRUCTION.
U. CONTRACTOR SHALL ADJUST AND/OR CUT EXISTING PAVEMENT AS NECESSARY TO ASSURE A SMOOTH FIT AND CONTINUOUS GRADE
V. ALL SIDEWALK CROSS-SLOPES SHALL BE 1% UNLESS OTHERWISE NOTED.

PAVEMENT MARKING LEGEND

(A)	24" WHITE SOLID STOP BAR
(B)	4" YELLOW SOLID LINE
~~(C)~~	~~8" SOLID WHITE LINE~~
~~(D)~~	~~LETTERS & SYMBOLS PAVEMENT MARKINGS~~
(E)	TRAFFIC FLOW DIRECTIONAL ARROWS
(F)	ACCESSIBLE PARKING SPACE PAVEMENT MARKINGS-SEE DETAIL
(G)	4" YELLOW DIAGONAL AT 45° SPACED 3' O.C.
~~(H)~~	~~4" SOLID WHITE LINE~~

SIGNAGE LEGEND

(1)	STOP SIGN (R1-1)
(2)	ACCESSIBLE PARKING SIGN (R7-8)
~~(3)~~	~~NO PARKING SIGN FIRE LANE (R8-31)~~
~~(4)~~	~~DO NOT ENTER (R5-1)~~
~~(5)~~	~~PEDESTRIAN CROSSING SIGN~~
~~(6)~~	~~RIGHT TURN ONLY SIGN (R3-5R)~~
~~(7)~~	~~ONE WAY SIGN (R6-2L/R)~~
~~(8)~~	~~TWO WAY TRAFFIC SIGN (W6-3)~~
~~(9)~~	~~EMPLOYEE PARKING SIGN~~
~~(10)~~	~~NO LEFT TURN (R3-2)~~
~~(11)~~	~~NO RIGHT TURN (R3-1)~~
~~(12)~~	~~YIELD SIGN (X-R1-2)~~
~~(13)~~	~~ON COMING TRAFFIC DOES NOT STOP SIGN (X-W4-4BP) INSTALL BELOW #12~~

PAVEMENT LEGEND

HEAVY DUTY PAVEMENT (NOT USED)
2" BITUMINOUS SURFACE COURSE, HOT-MIX ASPHALT, MIX D, N50
2-1/4" BITUMINOUS BINDER COURSE, HOT-MIX ASPHALT, IL-19, N50
5" BITUMINOUS BINDER COURSE, HOT-MIX ASPHALT, IL-19,
4" AGGREGATE BASE COURSE CA-6, TYPE B

STANDARD DUTY PAVEMENT (NOT USED)
(SN=2*0.40+2*0.33+10*.11=2.56)
2" BITUMINOUS SURFACE COURSE, HOT-MIX ASPHALT, MIX D, N50
2" BITUMINOUS BINDER COURSE, HOT-MIX ASPHALT, IL-19, N50
10" AGGREGATE BASE COURSE CA-6, TYPE B

CONCRETE APRON/PAVEMENT
8" CONCRETE PAVEMENT (W/6X6 W/1.4 WWF)*
4" COMPACTED AGGREGATE BASE CA-6, TYPE B

CONCRETE PADS - TRASH CORRAL & UTILITY PADS
8" CONCRETE PAVEMENT W/6X6 W/1.4 WWF*
4" COMPACTED AGGREGATE BASE CA-6, TYPE B

SIDEWALKS
5" PORTLAND CEMENT CONCRETE- 8" PORTLAND CEMENT CONCRETE WITHIN DRIVEWAYS
4" COMPACTED AGGREGATE BASE COURSE, TYPE B

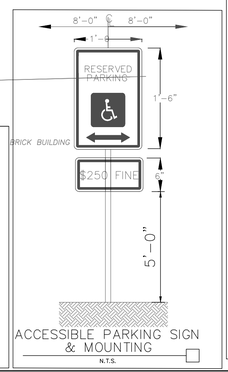
IDOT PAVEMENT RESURFACING (NOT USED)
1-1/2" SURFACE COURSE

DETECTABLE WARNING AND DEPRESSED CURB
REPLACEABLE RED POLYMER COMPOSITE PLATES

*REFER TO CONCRETE JOINT DETAILS (IF ANY).

R1-1
30"X30"
"STOP" SIGN
N.T.S.

ACCESSIBLE PARKING STALL
N.T.S.



ACCESSIBLE PARKING SIGN & MOUNTING
N.T.S.

DATE	REVISIONS	ISSUE
1-20-2023	PRELIMINARY PLAN	A
7-19-2024	ADDRESS VILLAGE COMMENTS AND SITE PLAN CHANGES	B

PROJECT STAFF
PROJECT MANAGER: B. BONO P.E.
ENGINEER: A. VEER P.E.
ENGINEER:
TECHNICIAN:

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SITE PLAN & GEOMETRIC PLAN
OVERALL SITE
NEW GAS STATION & RETAIL
6335 DEMPSTER ST., MORTON GROVE, IL

NOT FOR CONSTRUCTION

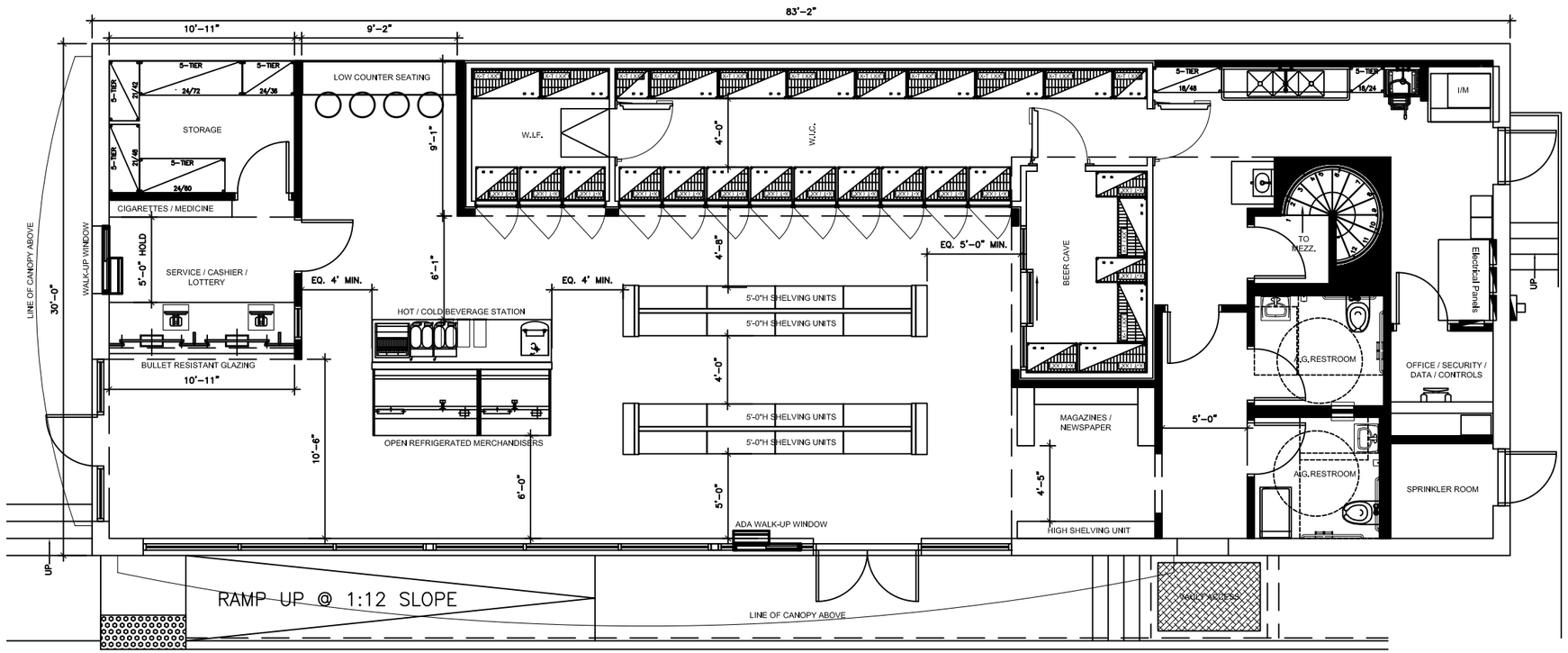
PROJECT NUMBER: 22348
START DATE: NOV. 1, 2022
GRAPHIC SCALE
10 0 10
SCALE: 1"=10'-0"

SHEET NUMBER
5 OF 10

PROPOSED FLOOR PLAN

SCALE: 1/8" = 1'-0"

A-1



1 / A-1 PROPOSED FLOOR PLAN
1/8" = 1'-0"

2 / A-1 PROPOSED MEZZANINE
1/8" = 1'-0"

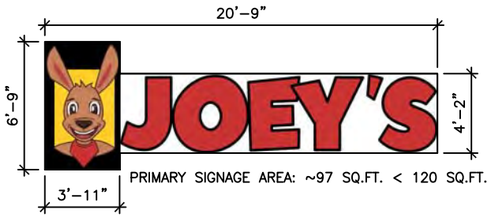
FOR ENTITLEMENT ONLY. PLAN IS SUBJECT TO REVIEW AND APPROVAL BY THE VILLAGE OF MORTON GROVE, IL

JOEY'S

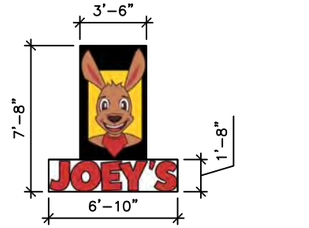
PROPOSED GAS STATION / CONVENIENCE STORE
6335 DEMPSTER STREET
MORTON GROVE, IL 60053
PROJECT NO. 27641-21 DATE: 07-31-2024

aka atul karkhanis architects, ltd.
Commercial • Educational • Residential • Healthcare
2514 WEST PETERSON AVENUE
CHICAGO, IL 60659
PHONE: 773.508.5533 FAX: 773.508.5757
www.akarchitects.com

EXTERIOR ELEVATIONS — SCALE: 1/8" = 1'-0" — A-5



PRIMARY SIGNAGE AREA: ~97 SQ.FT. < 120 SQ.FT.



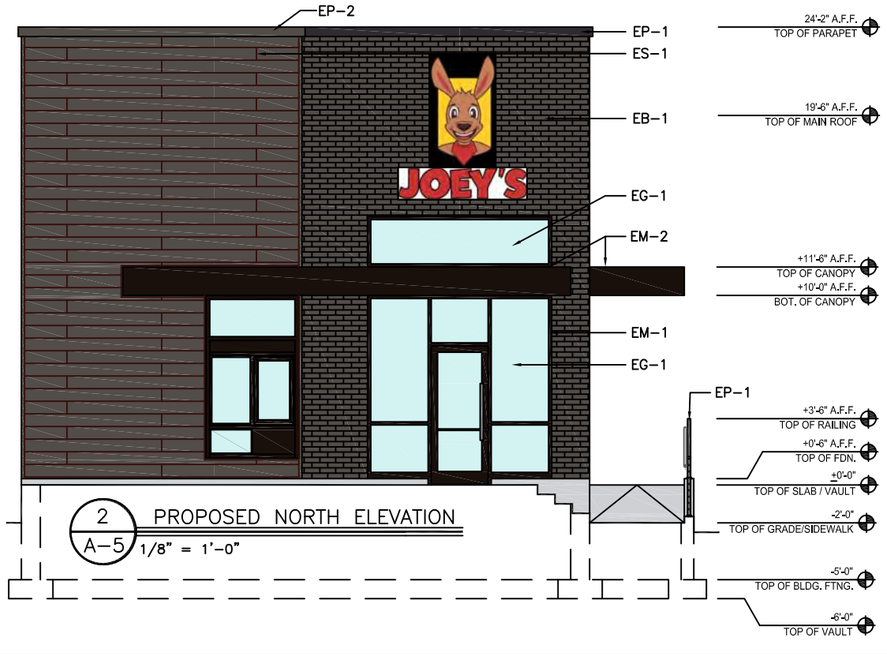
SECONDARY SIGNAGE AREA: ~32 SQ.FT., COMPLIES

4 / A-5 SIGNAGE DATA 1/8" = 1'-0"

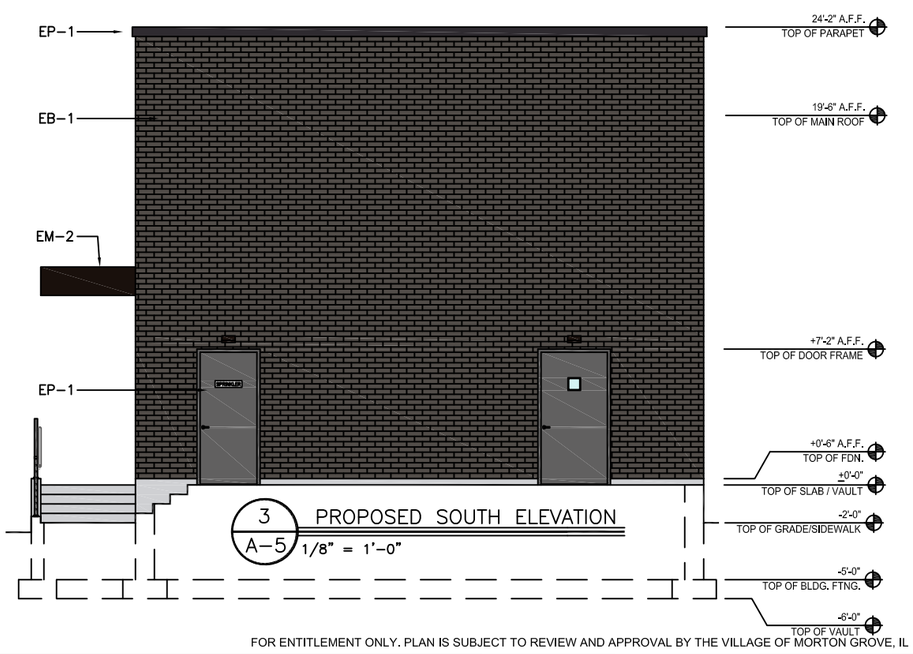
1 / A-5 PROPOSED WEST ELEVATION 1/8" = 1'-0"

EXTERIOR FINISH LEGEND

- EM-1: STOREFRONT FRAME ANOD. DARK BRONZE
- EP-1: COPING / METAL SW 6237 DARK NIGHT
- EP-2: COPING / METAL SW 7674 PEPPERCORN
- REINFORCED CONRETE
- ES-1: SIDING TRESPA PURA PU22 SLATE EBONY_MATT
- EB-1: BRICK VENEER GELN-GERY BLUE IRONSPOT SMOOTH
- EG-1: ALL GLAZING LOW-E, TEMPERED SAFETY GLAZING; U-VALUE = 0.38
- EM-2: STOREFRONT CANOPY BLACK



2 / A-5 PROPOSED NORTH ELEVATION 1/8" = 1'-0"



3 / A-5 PROPOSED SOUTH ELEVATION 1/8" = 1'-0"

FOR ENTITLEMENT ONLY. PLAN IS SUBJECT TO REVIEW AND APPROVAL BY THE VILLAGE OF MORTON GROVE, IL

JOEY'S

PROPOSED GAS STATION / CONVENIENCE STORE
6335 DEMPSTER STREET
MORTON GROVE, IL 60053
PROJECT NO. 27641-21 DATE: 07-31-2024

aka atul karkhanis architects, ltd.
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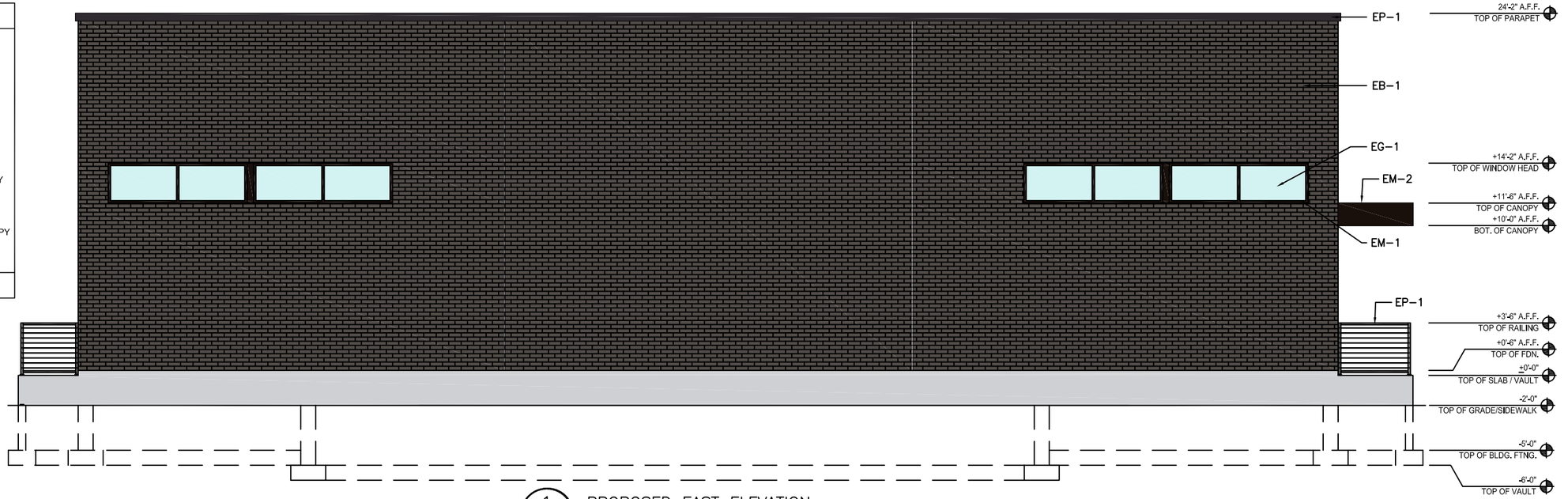
2514 WEST PETERSON AVENUE
CHICAGO, IL 60659
PHONE: 773.508.5533 FAX: 773.508.5757
www.akarchitects.com

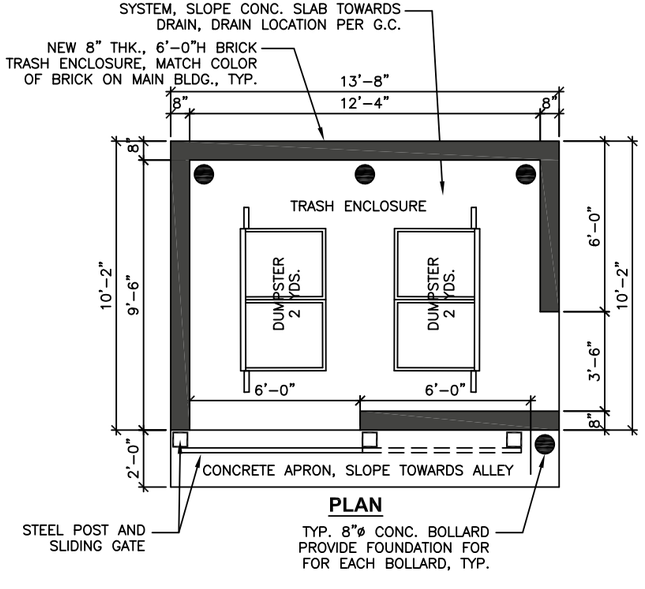
EXTERIOR ELEVATIONS — SCALE: 1/8" = 1'-0" — A-5.1

EXTERIOR FINISH LEGEND

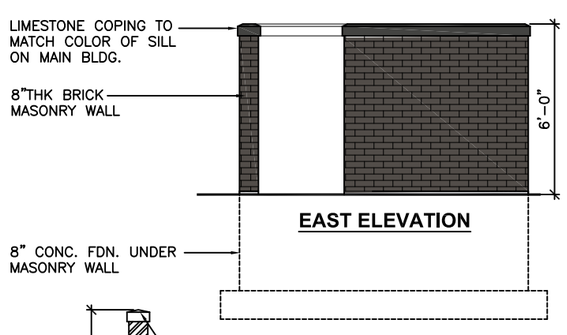
- EM-1: STOREFRONT FRAME ANOD. DARK BRONZE
- EP-1: COPING / METAL SW 6237 DARK NIGHT
- EP-2: COPING / METAL SW 7674 PEPPERCORN
- REINFORCED CONRETE
- ES-1: SIDING TRESPA PURA PU22 SLATE EBONY_MATT
- EB-1: BRICK VENEER GELN-GERY BLUE IRONSPOT SMOOTH
- EG-1: ALL GLAZING LOW-E, TEMPERED SAFETY GLAZING; U-VALUE = 0.38
- EM-2: STOREFRONT CANOPY BLACK



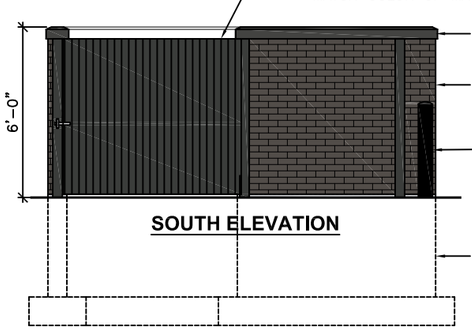
1 / A5.1 PROPOSED EAST ELEVATION
1/8" = 1'-0"



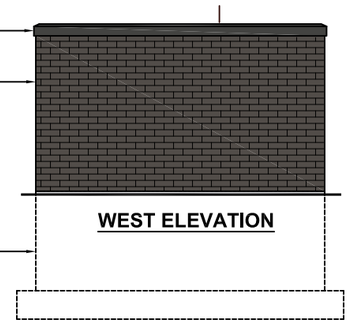
PLAN



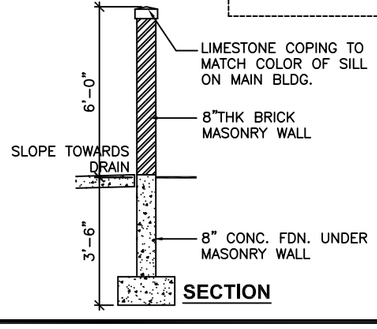
EAST ELEVATION



SOUTH ELEVATION



NORTH ELEVATION - SIMILAR TO WEST ELEVATION



SECTION

2 / A5.1 TRASH ENCLOSURE DETAILS
3/16" = 1'-0"

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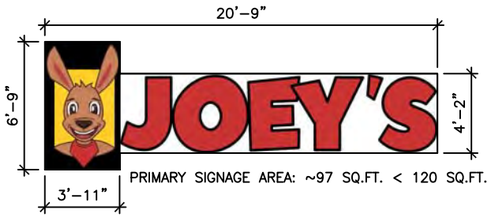
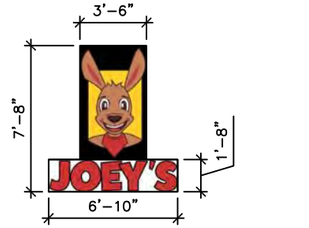
EXTERIOR ELEVATIONS — SCALE: 1/8" = 1'-0" — A-5

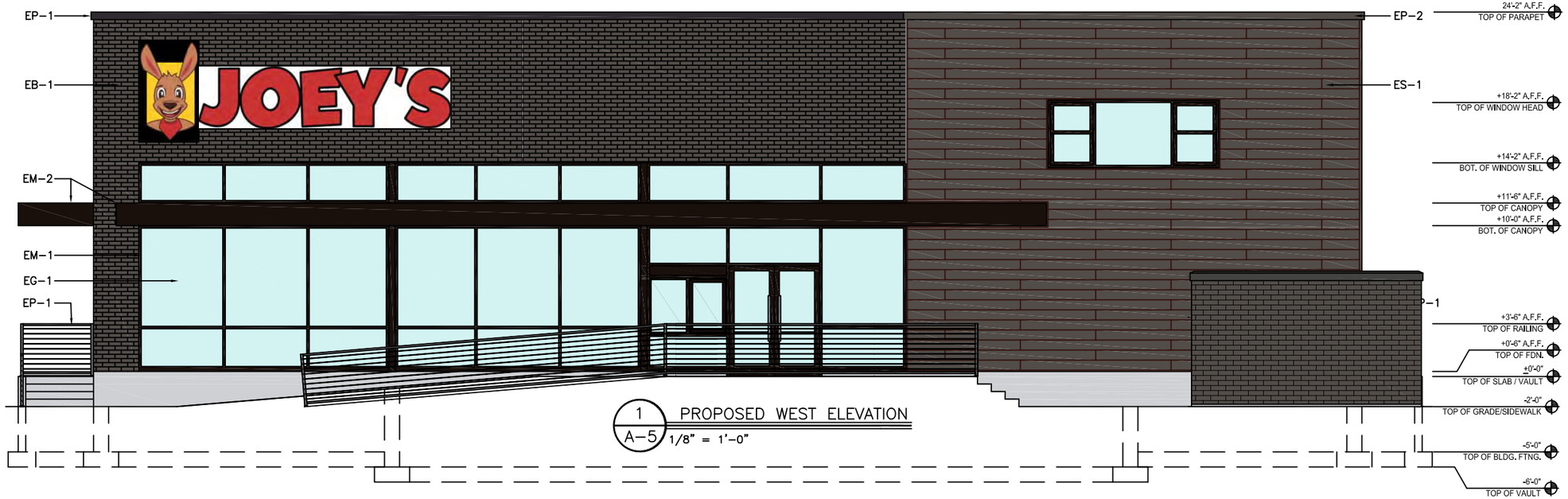


PRIMARY SIGNAGE AREA: ~97 SQ.FT. < 120 SQ.FT.



SECONDARY SIGNAGE AREA: ~32 SQ.FT., COMPLIES

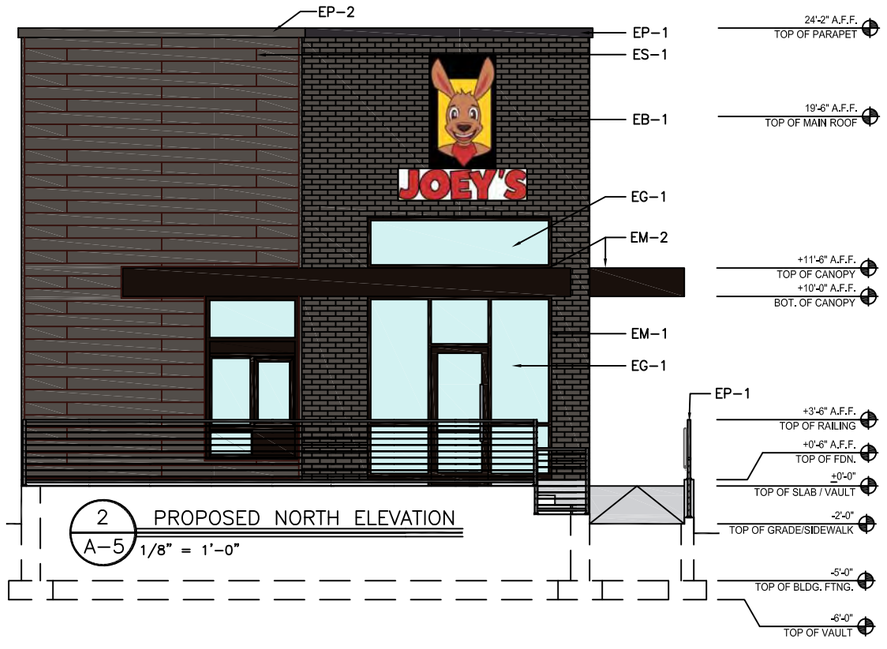
4 / A–5 SIGNAGE DATA
1/8" = 1'–0"



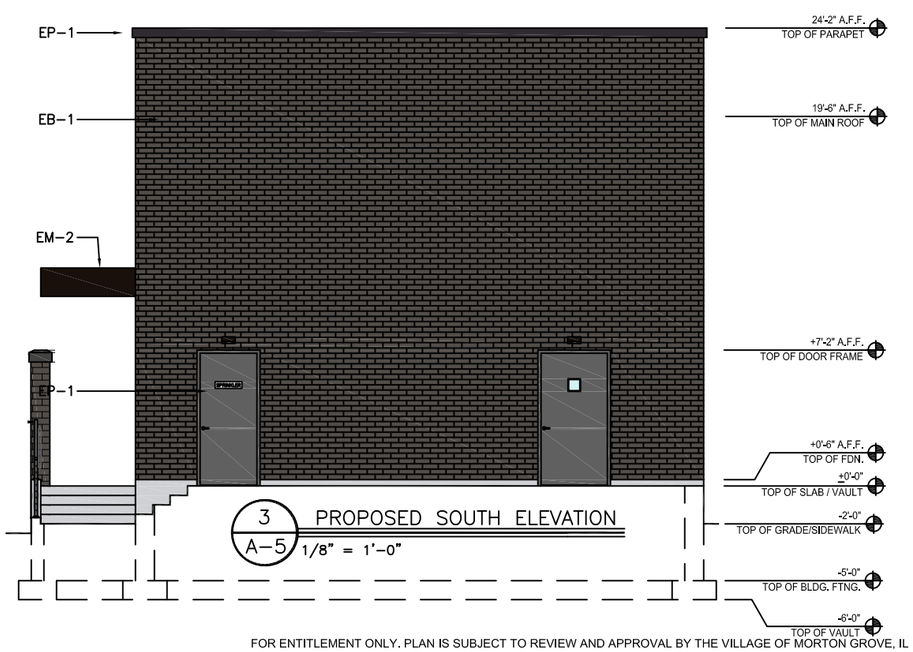
1 / A–5 PROPOSED WEST ELEVATION
1/8" = 1'–0"

EXTERIOR FINISH LEGEND

- EM-1: STOREFRONT FRAME ANOD. DARK BRONZE
- EP-1: COPING / METAL SW 6237 DARK NIGHT
- EP-2: COPING / METAL SW 7674 PEPPERCORN
- REINFORCED CONRETE
- ES-1: SIDING TRESPA PURA PU22 SLATE EBONY_MATT
- EB-1: BRICK VENEER GELN-GERY BLUE IRONSPOT SMOOTH
- EG-1: ALL GLAZING LOW-E, TEMPERED SAFETY GLAZING; U-VALUE = 0.38
- EM-2: STOREFRONT CANOPY BLACK



2 / A–5 PROPOSED NORTH ELEVATION
1/8" = 1'–0"



3 / A–5 PROPOSED SOUTH ELEVATION
1/8" = 1'–0"

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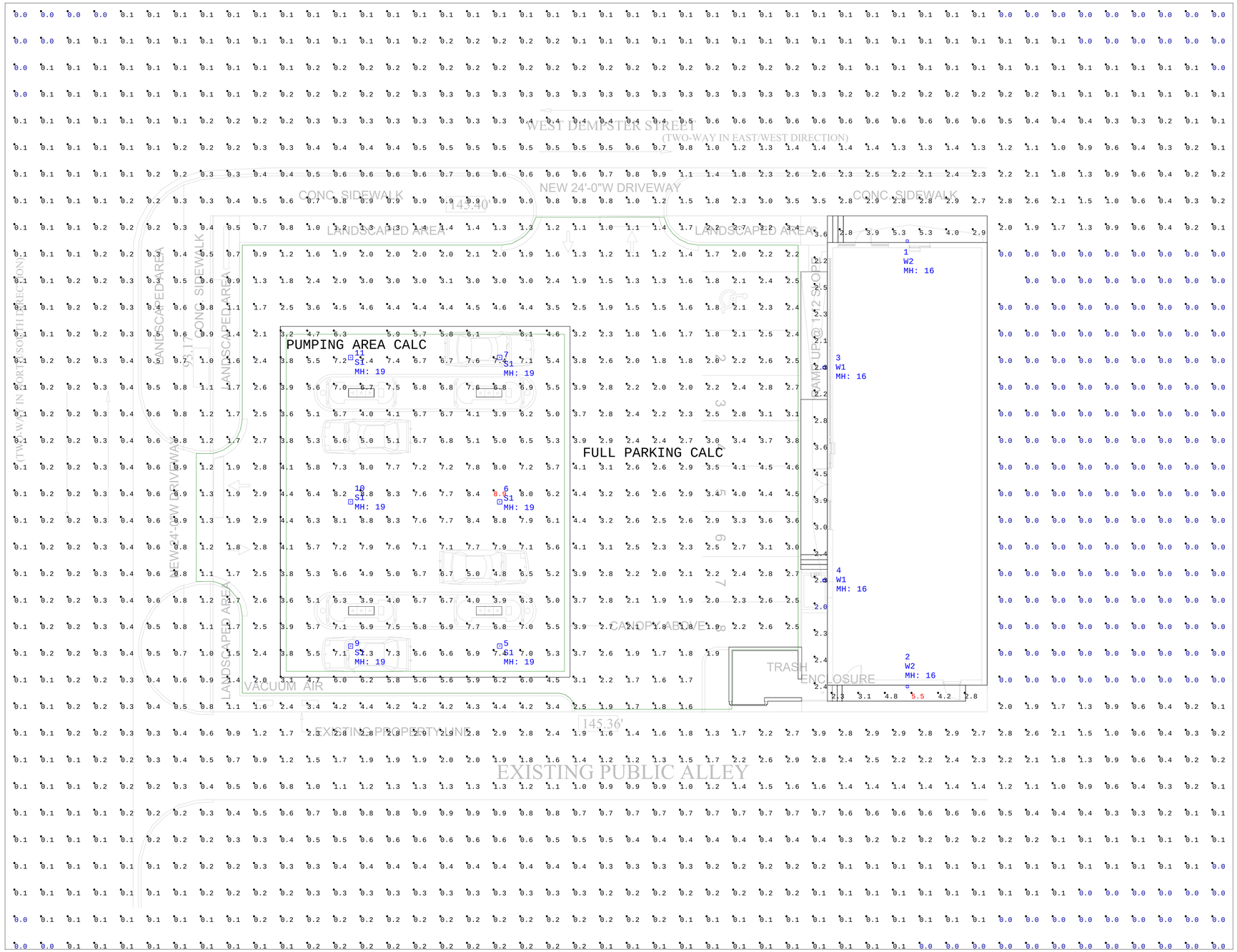

Not to Scale

NOTES

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

Calculation Summary

Label	CalcType	Units	Avg	Max	Min	Max/Min	Avg/Min
FULL AREA CALC	Illuminance	Fc	1.09	8.9	0.0	N.A.	N.A.
SIDEWALK	Illuminance	Fc	3.19	5.5	2.0	2.75	1.60
FULL PARKING CALC	Illuminance	Fc	4.03	8.9	0.9	9.89	4.48
PUMPING AREA CALC	Illuminance	Fc	6.57	8.9	3.9	2.28	1.68

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

Symbol	Qty	Tag	Manufacturer	Description	Arrangement	Luminaire Lumens	Arr. Lum. Lumens	Luminaire Watts	Arr. Watts	LLF	Mounting Height
+	6	S1	EXO	SGC-LSCS-F-60W-4K7	Single	7846	7846	60	60	0.900	19
	2	W2	EXO	RAR1-80L-40-4K7-T2-U	Single	5206	5206	38	38	0.900	16
	2	W1	EXO	RAR1-80L-40-4K7-4W-U	Single	5163	5163	38	38	0.900	16

Luminaire Location Summary

LumNo	Label	Mtg Ht
1	RAR1-80L-40-4K7-2	16
2	RAR1-80L-40-4K7-2	16
3	RAR1-80L-40-4K7-4W	16
4	RAR1-80L-40-4K7-4W	16
5	SGC-LSCS-F-60W-4K7	19
6	SGC-LSCS-F-60W-4K7	19
7	SGC-LSCS-F-60W-4K7	19
9	SGC-LSCS-F-60W-4K7	19
10	SGC-LSCS-F-60W-4K7	19
11	SGC-LSCS-F-60W-4K7	19

PG enlighten

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Name
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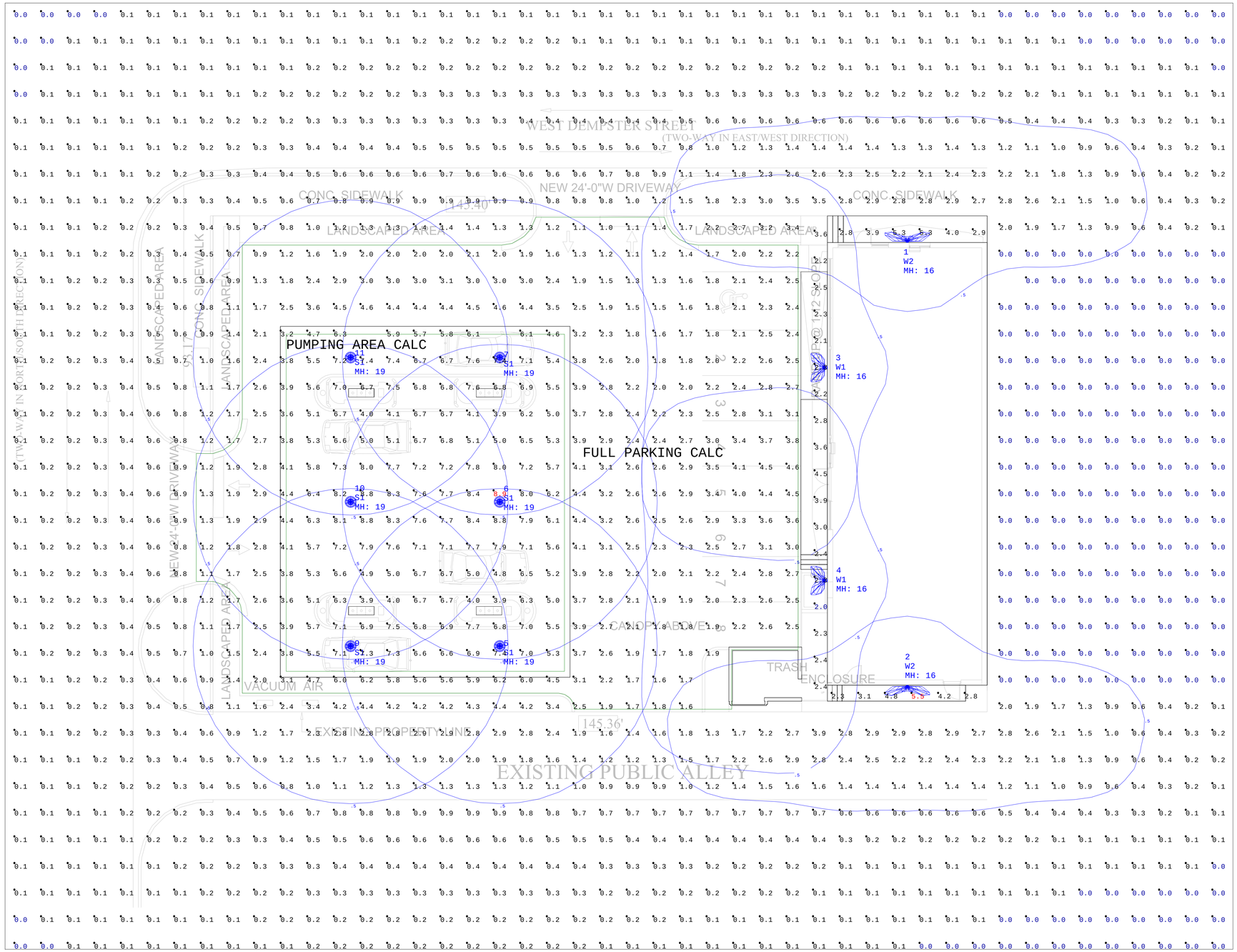
847.228.1199

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

PROJECT NAME:
JOEY'S 6335 DEMPSTER STREET - MORTON GROVE, IL

CLIENT NAME:
NAME

Date:6/17/2024



Not to Scale

NOTES

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6	SGC-LSCS-F-60W-4K7	19
7	SGC-LSCS-F-60W-4K7	19
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11	SGC-LSCS-F-60W-4K7	19

PG enlighten

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

REVISIONS

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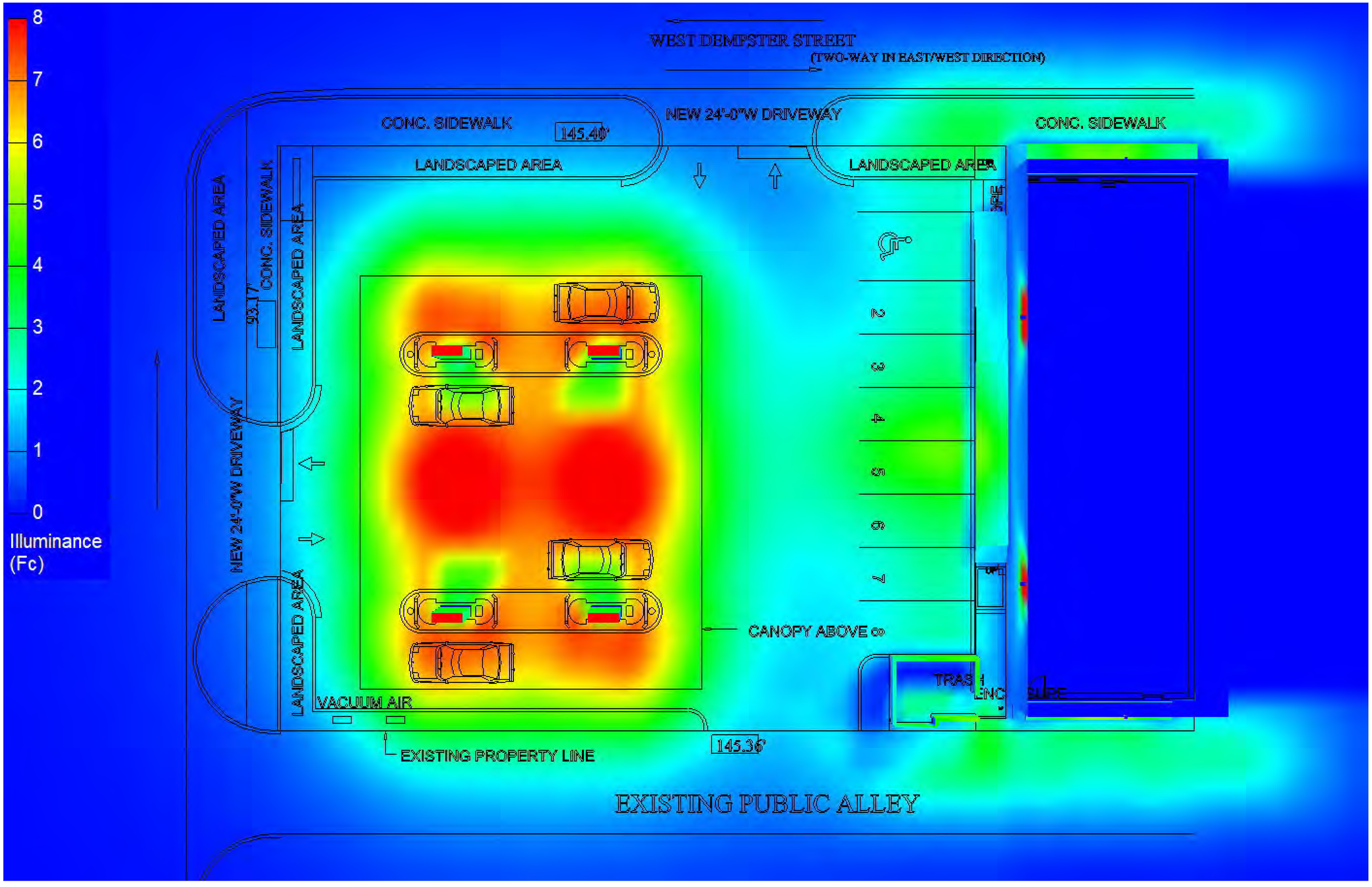

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PG enlighten

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JOEY'S 6335 DEMPSTER STREET - MORTON GROVE, IL

CLIENT NAME:
NAME

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

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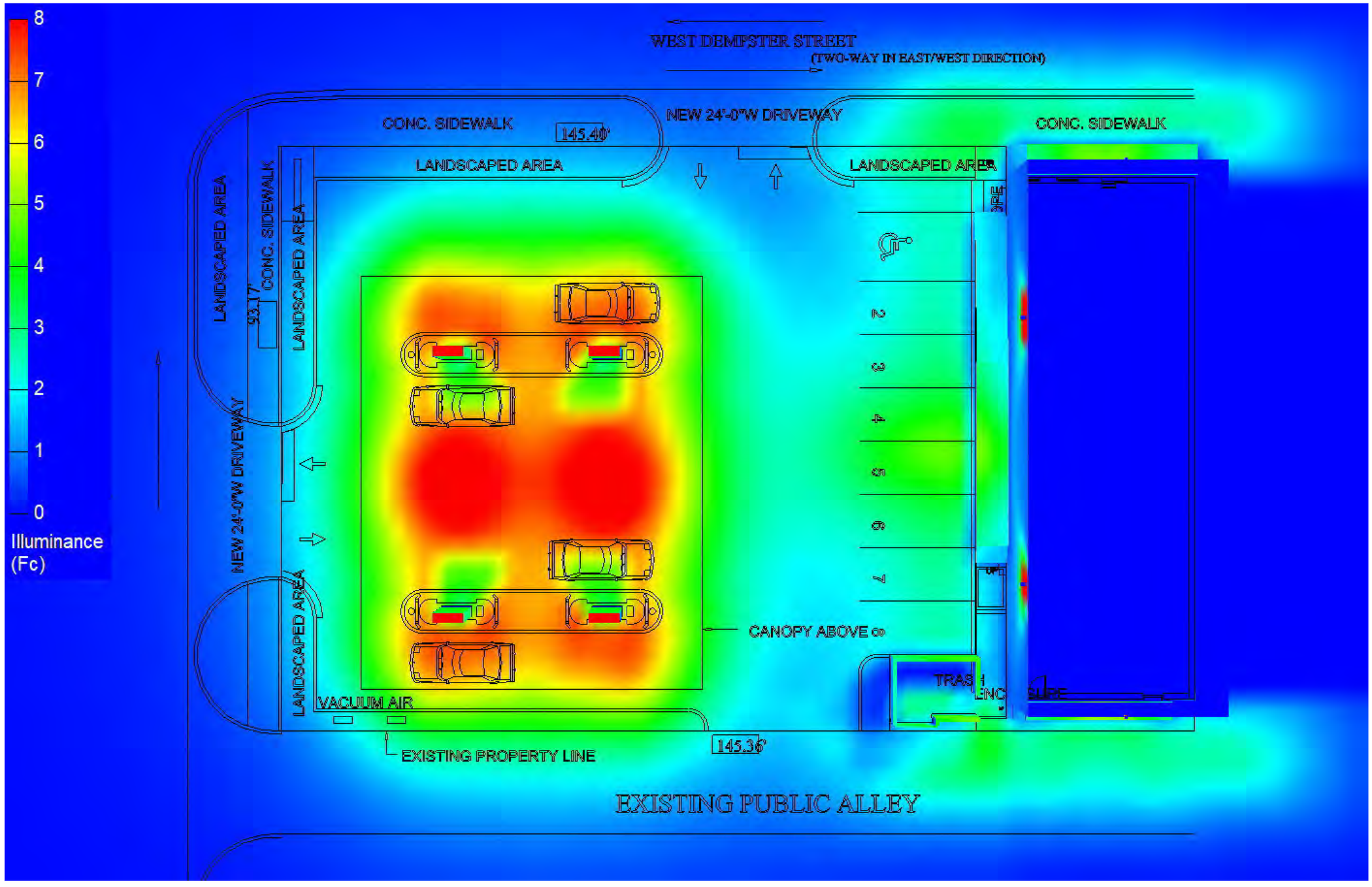

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PROJECT NAME:
JOEY'S 6335 DEMPSTER STREET - MORTON GROVE, IL

CLIENT NAME:
NAME

Date:6/17/2024

EXO OUTDOOR LIGHTING

DATE: LOCATION:

TYPE: PROJECT:

CATALOG #:

SGC-F CANOPY

SLING SERIES - SWITCHABLE CEILING/SURFACE/GARAGE

tradeSELECT

FEATURES

- Commercial grade LED canopy luminare for use in outdoor applications such a commercial building, retail, government and educational facilities
- Low profile housing with a frosted lens for reduced pixilation and glare
- Field switchable lumens and LED color temperature (3K, 4K, 5K) in bronze fixture
- Two housing finishes including white and dark bronze
- Type 5 distribution

SGC-F Bronze

SGC-F White

c UL us LISTED IP65 DLC LISTED PREMIUM SWITCHABLE WATTAGE & CCT

SPECIFICATIONS

CONSTRUCTION

- Rugged die-cast aluminum housing with corrosion resistant powder coat finish both protects and provides architectural appearance
- Heat dissipating fins provide superior thermal performance extending the life of the electronic components
- Housing size: 10" x 10" x 3.5"
- Lightly frosted lens for reduced LED pixalation and brightness
- White housing available for SGC-F-40-4K version only

OPTICS

- Type 5 Distribution

ELECTRICAL

- 0-10 Volt dimmable driver
- Universal 120-277 VAC input voltage, 50/60 Hz
- Switchable wattage includes 25, 40, 60W
- Switchable CCT inlcudes 3K, 4K, 5K

INSTALLATION

- 3/4" conduit entry on top for pendant mounting
- 1/2" conduit entry on three sides
- Able to mount on a minimum of 3-3.5" junction box

CERTIFICATIONS

- Listed to UL1598
- IP65

WARRANTY

- 5 year warranty
- Consortium (DLC) standard & premium qualifications, consult the DLC website for more details: designlights.org/QPL

KEY DATA	
Lumen Range	3500-9300
Wattage Range	25–60W
Efficacy Range (LPW)	122–165
Weights lbs. (kg)	6.4 (2.9)

EXO
OUTDOOR LIGHTING

DATE: LOCATION:

TYPE: PROJECT:

CATALOG #:

SGC-F CANOPY

SLING SERIES - SWITCHABLE CEILING/SURFACE/GARAGE

ORDERING GUIDE

STOCK ORDERING INFORMATION

Catalog Number	Wattage	Voltage	CCT/CRI	Lumens	LPW	Finish
SGC-F-60-4K	59.9	120-277V	4000K/70	8043	134.3	Dark Bronze
SGC-F-60-LSCS	25		3000K/70	3562	155	
			4000K/70	3775	164	
			5000K/70	3668	159	
	40		3000K/70	5441	133	
			4000K/70	6002	146	
			5000K/70	5609	137	
	60		3000K/70	7225	122	
			4000K/70	8312	140	
			5000K/70	7769	131	
SGC-F-40-4K-WH	40		4000K/70	5807	142	White
SGC-F-40-4K	41		4000K/70	5807	141.6	Dark Bronze
SGC-F-20-4K	22.9		4000K/70	3224	140.7	

ELECTRICAL DATA

Nominal Wattage	Input Voltage	Oper. Current (Amps)	System Power (Watts)
20	120	0.19	22.9
	208	0.11	
	240	0.09	
	277	0.08	
40	120	0.34	41
	208	0.18	
	240	0.17	
	277	0.15	
60	120	0.50	59.9
	208	0.29	
	240	0.25	
	277	0.22	

PROJECTED LUMEN MAINTENANCE

Ambient Temperature	OPERATING HOURS					
	0	25,000	TM-21-11 36,000	50,000	100,000	L70 (Hours)
25°C / 77°F	1.00	0.95	0.93	0.90	0.81	170,000
40°C / 104°F	0.99	0.94	0.92	0.89	0.80	165,000

LUMINAIRE AMBIENT TEMPERATURE FACTOR (LATF)

Ambient Temperature		Lumen Multiplier
0°C	32°F	1.03
10°C	50°F	1.01
20°C	68°F	1.00
25° C	77° F	1.00
30° C	86° F	0.99
40° C	104° F	0.98

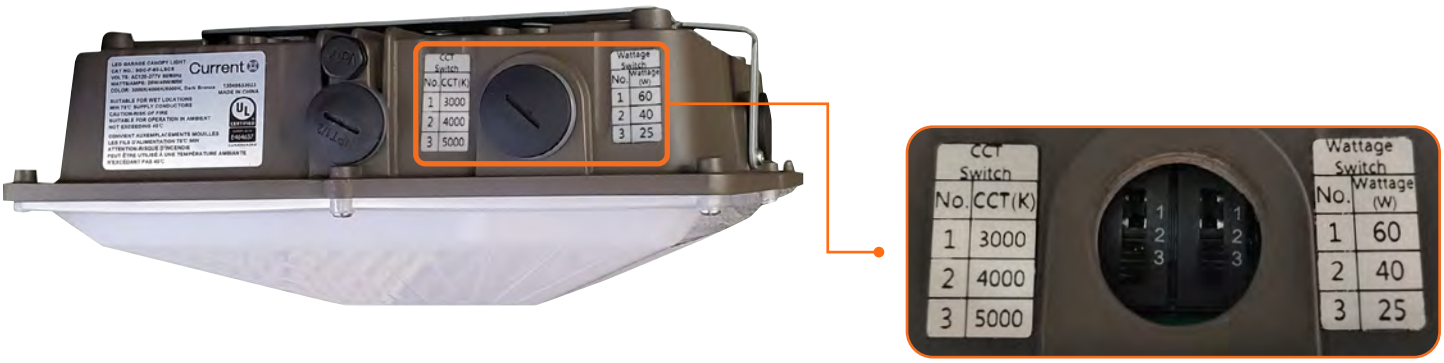
Use these factors to determine relative lumen output for average ambient temperatures from 0-40°C (32-104°F).

EXO
OUTDOOR LIGHTING

DATE: LOCATION:

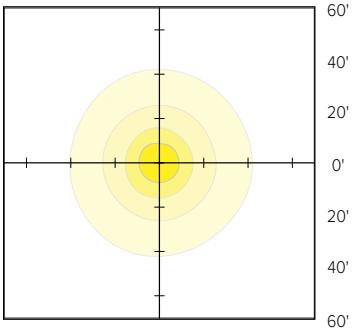
TYPE: PROJECT:

CATALOG #:



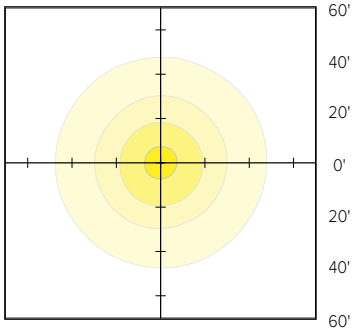
PHOTOMETRY

SGC-F-LSCS @ 20W



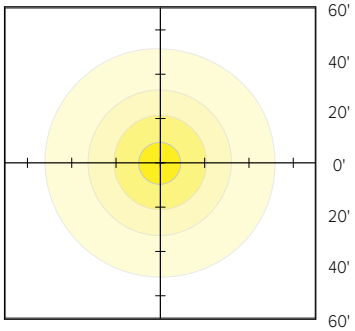
Mounting Distance: 10'

SGC-F-LSCS @ 40W



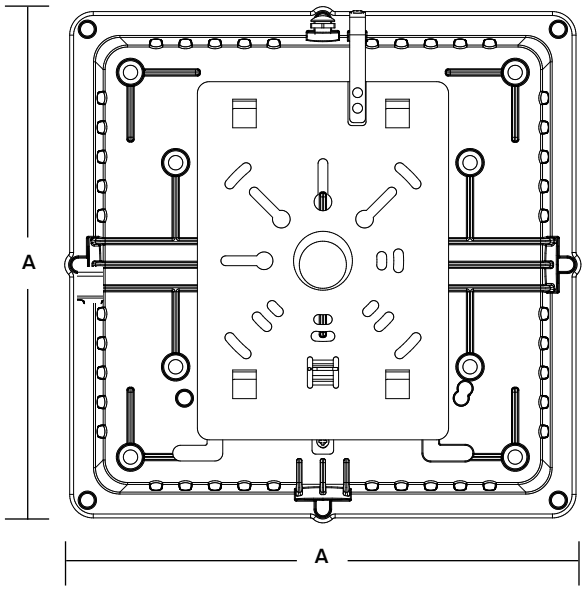
Mounting Distance: 10'

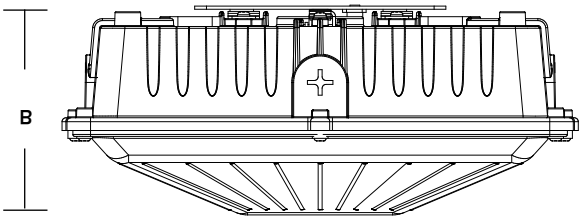
SGC-F-LSCS @ 60W



Mounting Distance: 10'

DIMENSIONS





A	B	Weight
10.4" (263mm)	4.2" (107mm)	6.4lbs (2.9kg)

USE OF TRADEMARKS AND TRADE NAMES

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BEACON
design . performance . technology

RATIO Series

AREA/SITE LIGHTER

DATE: LOCATION:

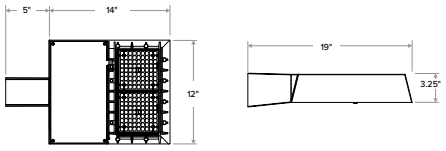
TYPE: PROJECT:

CATALOG #:

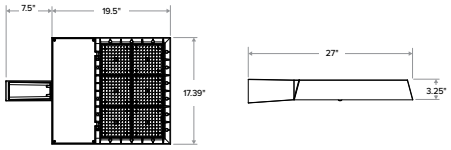
FEATURES

- Low profile LED area/site luminaire with a variety of IES distributions for lighting applications such as retail, commercial and campus parking lots
- Featuring Micro Strike Optics which maximizes target zone illumination with minimal losses at the house-side, reducing light trespass issues
- Visual comfort standard
- Compact and lightweight design with low EPA
- 3G rated for high vibration applications including bridges and overpasses
- Control options including photo control, occupancy sensing, NX Distributed Intelligence™ and 7-Pin with networked controls
- Best in class surge protection available

RAR1



RAR2



	Weight	EPA at 0°
RAR1	13.5 lbs / 6.1 kg	.45ft.² / .13m²
RAR2	24 lbs / 10.9 kg	.55ft.² / .17m²

CONTROL TECHNOLOGY

SERVICE PROGRAMS

SPECIFICATIONS

CONSTRUCTION

- Rectilinear form mimics the traditional shoebox form factor keeping a similar but updated style and appearance, ideal for retrofit applications
- Die-cast housing with hidden vertical heat fins that are optimal for heat dissipation while keeping a clean smooth outer surface
- Corrosion resistant, die-cast aluminum housing with powder coat paint finish

OPTICS

- Entire optical aperture illuminates to create a larger luminous surface area resulting in a low glare appearance without sacrificing optical performance
- 80, 160, 320 or 480 midpower LEDs
- 3000K, 4000K or 5000K (70 CRI) CCT
- Zero uplight at 0 degrees of tilt
- Field rotatable optics

INSTALLATION

- Standard square arm mount, compatible with B3 drill pattern
- Optional universal mounting block for ease of installation during retrofit applications. Available as an option or accessory for square and round poles.
- Knuckle arm fitter option available for 2-3/8" OD tenon. Max tilt of 60 degrees with 4 degree adjustable increments. (Restrictions apply for 7-pin options)

ELECTRICAL

- Universal 120-277 VAC or 347-480 VAC input voltage, 50/60 Hz
- Ambient operating temperature -40˚C to 40˚C
- Drivers have greater than 90% power factor and less than 20% THD
- LED drivers have output power over-voltage, over-current protection and short circuit protection with auto recovery
- Field replaceable surge protection device provides 20kA protection meeting ANSI/IEEE C62.41.2 Category C High and Surge Location Category C3; Automatically takes fixture off-line for protection when device is compromised

CONTROLS

- Photo control, occupancy sensor and wireless available for complete on/off and dimming control
- 7-pin ANSI C136.41-2013 photocontrol receptacle option available for twist lock photocontrols or wireless control modules (control accessories sold separately)
- 0- 10 V Dimming Drivers are standard and dimming leads are extended out of the luminaire unless control options require connection to the dimming leads. Must specify if wiring leads are to be greater than the 6" standard
- NX Distributed Intelligence™ available with in fixture wireless control module, features dimming and occupancy sensor

CERTIFICATIONS

- DLC® (DesignLights Consortium Qualified), with some Premium Qualified configurations. Not all product variations on this page are DLC Qualified. Refer to www.designlights.org for the most up-to-date list.
- Listed to UL1598 and CSA C22.2#250.0-24 for wet locations and 40˚C ambient temperatures
- 3G rated for ANSI C136.31 high vibration applications
- Fixture is IP66 rated
- Meets IDA recommendations using 3K CCT configuration at 0 degrees of tilt
- This product meets federal procurement law requirements under the Buy American Act (FAR 52.225-9) and Trade Agreements Act (FAR 52.225-11). See Buy America(n) Solutions (link to https://www.currentlighting.com/resources/america-solutions)

WARRANTY

- 5 year limited warranty
- See HLI Standard Warranty for additional information

BEACON
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RATIO Series
AREA/SITE LIGHTER

DATE: LOCATION:

TYPE: PROJECT:

CATALOG #:

Gray Shading = Service Program Limit of 15 luminaires QS10

ORDERING GUIDE

Example: RAR1-80L-25-3K7-2-UNV-ASQ-BL-NXW-BC

CATALOG #

ORDERING INFORMATION

Series		# LEDs - Wattage		CCT/CRI		Distribution		Optics Rotation		Voltage	
RAR1	Ratio Area Size 1	80L-25	25W - 3,000 Lumens	3K7	3000K, 70 CRI	2	IES TYPE II	Blank for no rotation		UNV	Universal 120-277V
		80L-39	39W -5,200 Lumens	4K7	4000K, 70 CRI	3	IES TYPE III	L	Optic rotation left	120	120V
		80L-50	50W - 6,000 Lumens	5K7	5000K, 70 CRI	4W	IES TYPE IV	R	Optic rotation right	208	208V
		160L-70	70W - 9,000 Lumens			4F	IES TYPE IV Forward			240	240V
		160L-100	100W - 12,000 Lumens			5QW	IES TYPE V			277	277V
		160L-115	115W - 15,000 Lumens							347	347V
		160L-135	135W - 18,000 Lumens							480	480V
RAR2	Ratio Area Size 2	320L-110	110W - 15,000 Lumens								
		320L-140	140W - 18,000 Lumens								
		320L-165	165W - 21,000 Lumens								
		480L-185	185W - 24,000 Lumens								
		480L-210	210W - 27,000 Lumens								
		480L-240	240W - 30,000 Lumens								
		480L-255	255W - 36,000 Lumens								
		480L-295	295W - 42,000 Lumens								
		480L-340	340W - 48,000 Lumens								

Mounting	
ASQ	Arm mount for square pole/flat surface
ASQU	Universal arm mount for square pole/flat surface- Does not include round pole adapt or B3 drill pattern
Mounting Round Poles	
A_	Arm mount for round pole[1] B3 drill pattern
A_U	Universal arm mount for round pole[1]
Mounting Other	
WB	Wall bracket
MAF	Mast arm fitter for 2-3/8" OD horizontal arm
K	Knuckle

Color	
BLT	Black Matte Textured
BLS	Black Gloss Smooth
DBT	Dark Bronze Matte Textured
DBS	Dark Brone Gloss Smooth
GTT	Graphite Matte Textured
LGS	Light Grey Gloss Smooth
PSS	Platinum Silver Smooth
WHT	White Matte Textured
WHS	White Gloss Smooth
VGT	Verde Green Textured
Color Option	
CC	Custom Color

Control Options Network	
NXWS16F	NX Networked Wireless Enabled Integral NXSMP2-LMO PIR Occupancy Sensor with Automatic Dimming Photocell and Bluetooth Programming [6,7]
NXWS40F	NX Networked Wireless Enabled Integral NXSMP2-HMO PIR Occupancy Sensor with Automatic Dimming Photocell and Bluetooth Programming [6,7]
NXW	NX Networked Wireless Radio Module NXRM2 and Bluetooth Programming, without Sensor [6,7]
Control Options Other	
SCP_F	Programmable occupancy sensor [3,4]
7PR	7-Pin twist lock receptacle
7PR-SC	7-Pin receptacle with shorting cap
7PR-MD40F	Low voltage sensor for 7PR
7PR-TL	7-Pin PCR with photocontrol
ADD	AutoDim Timer Based Dimming
ADT	AutoDim Time of Day Dimming
BTS-14F	Bluetooth® Programmable, BTSMP-LMO PIR Occupancy Sensor with Automatic Dimming Photocell and 360° Lens [9]
BTS-40F	Bluetooth® Programmable, BTSMP-LMO PIR Occupancy Sensor with Automatic Dimming Photocell and 360° Lens [9]
BTSO-12F	Bluetooth® Programmable, BTSMP-OMNI-O PIR Occupancy Sensor with Automatic Dimming Photocell and 360° Lens [9]

Options	
BC	Backlight control [8]
F	Fusing [5]
TB	Terminal block
2PF	2 power feed with 2 drivers[2]

Notes:
1 Replace "_" with "3" for 3.5"-4.13" OD pole, "4" for 4.18"-5.25" OD pole, "5" for 5.5"-6.5" OD pole
2 Not available with 25, 50, 255, 295 & 340W configurations
3 At least one SCPREMOTE required to program SCP motion sensor
4 Replace "_" with 8F or 40F lens
5 Must specify voltage
6 Networked Controls cannot be combined with other control options
7 Not available with 2PF option
8 BC not available on 4F distributions
9 BTS and BTSO available for 50 Watts or higher and only on 120-277 voltage

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RATIO Series

AREA/SITE LIGHTER

DATE: LOCATION:

TYPE: PROJECT:

CATALOG #:

OUTDOOR LIGHTING CONTROLS OPTIONS

CONTROLS FUNCTIONALITY

	Control Option Ordering Logic & Description		Control Option Functionality									Control Option Components	
			Networkable	Grouping	Scheduling	Occupancy/ Motion	Daylight Harvesting	0-10V Dimming	On/Off Control	Bluetooth App Programming	Sensor Height		
NX Wireless	NXOFM1R1D-UNV	NX 7-Pin Twist-Lock® with NX Networked Wireless Radio, Integral Automatic Dimming Photocell, Integral Single Pole Relay with Dimming, and Bluetooth Programming	✓	✓	✓	Paired with external control	✓	✓	✓	✓	–		NXOFM-1R1D-UV
NX Wireless	NXW	NX Networked Wireless Radio Module NXRM2 and Bluetooth Programming, without Sensor	✓	✓	✓	–	–	✓	✓	✓	–		NXRM2-H
NX Wireless	NXWS16F	NX Networked Wireless Enabled Integral NXSMP2-LMO PIR Occupancy Sensor with Automatic Dimming Photocell and Bluetooth Programming	✓	✓	✓	✓	✓	✓	✓	✓	16ft		NXSMP2-LMO
NX Wireless	NXWS40F	NX Networked Wireless Enabled Integral NXSMP2-HMO PIR Occupancy Sensor with Automatic Dimming Photocell and Bluetooth Programming	✓	✓	✓	✓	✓	✓	✓	✓	40ft		NXSMP2-HMO
Independent	BTSO-12F	Bluetooth® Programmable, BTSMP-OMNI-O PIR Occupancy Sensor with Automatic Dimming Photocell and 360° Lens	–	–	–	✓	✓	✓	✓	✓	12ft		BTSMP-OMNI-O
Independent	BTS-14F	Bluetooth® Programmable, BTSMP-LMO PIR Occupancy Sensor with Automatic Dimming Photocell and 360° Lens	–	–	–	✓	✓	✓	✓	✓	14ft		BTSMP-LMO
Independent	BTS-40F	Bluetooth® Programmable, BTSMP-HMO PIR Occupancy Sensor with Automatic Dimming Photocell and 360° Lens	–	–	–	✓	✓	✓	✓	✓	40ft		BTSMP-HMO

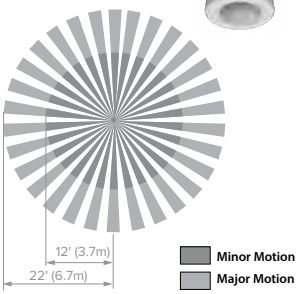
DEFAULT SETTINGS

NX Wireless	
Occupancy Sensor	Enabled
Occupancy Sensor Sensitivity	7
Occupancy Sensor Timeout	15 Minutes
Occupied Dim Level	100%
Unoccupied Dim Level	0%
Daylight Sensor	Disabled
Bluetooth	Enabled
2.4GHz Wireless Mesh	On
"Passcode Factory Passcode: HubbN3T!"	Enabled

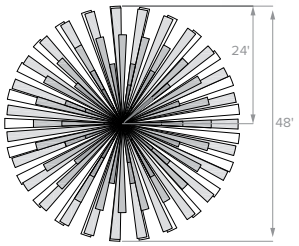
Stand Alone	
Occupancy Sensor	Enabled
Occupancy Sensor Sensitivity	7
Occupancy Sensor Timeout	8 Minutes
Occupied Dim Level	100%
Unoccupied Dim Level	50%
Daylight Sensor	Disabled

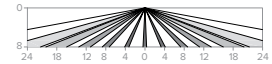
NX WIRELESS COVERAGE PATTERNS

NXSMP2-OMNI



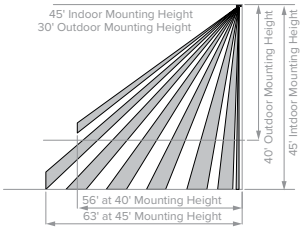
NXSMP2-LMO





Sensor Lens Coverage and Detection Patterns
When Mounted at 8ft with Low Mount Lens

NXSMP2-HMO



Sensor Lens Coverage and Detection Patterns
When Mounted at 40ft and 45ft with Standard Lens

NX LIGHTING CONTROLS FREE APP

The NX Lighting Controls App is free to use mobile application for programming both NX Lighting Controls System or Standalone Bluetooth Sensors. The mobile app allows you to configure devices, discover and setup wireless enable luminiaires and program NX system settings.

Apple App: https://apps.apple.com/us/app/nx-lighting-controls/id962112904

Google Play: https://play.google.com/store/apps/details?id=io.cordova.NXBTR&hl=en_US&gl=US

Apple App

Google Play

CONTROLS TECH SUPPORT 800-888-8006 (7:00 AM - 7:00 PM)

DATE: | LOCATION:

TYPE: | PROJECT:

CATALOG #:

RATIO Series

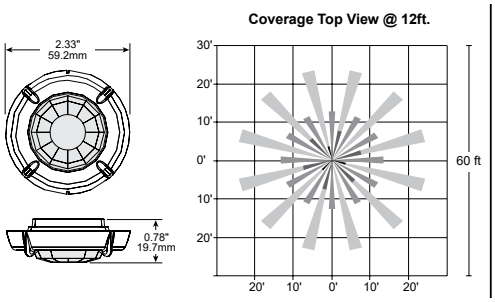
AREA/SITE LIGHTER

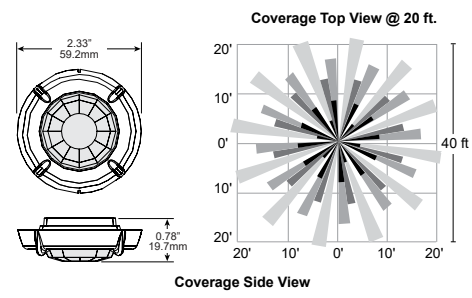
OUTDOOR LIGHTING CONTROLS OPTIONS

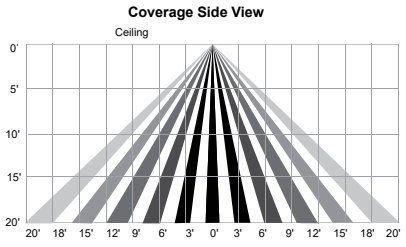
CONTROLS FUNCTIONALITY

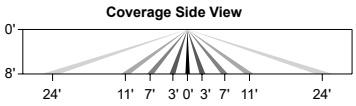
	Control Option Ordering Logic & Description		Control Option Functionality									Control Option Components	
			Networkable	Grouping	Scheduling	Occupancy/ Motion	Daylight Harvesting	0-10V Dimming	On/Off Control	Bluetooth App Programming	Sensor Height		
Independent	SCP_F	Sensor Control Programmable, sensor range, reference product specification for height selections	–	–	–	✓	✓	✓	✓	–	8ft or 20ft	SCP_F	
	ADD	AutoDIM Timer Based Dimming	–	–	✓	–	–	–	✓	–	–	ADD	
	ADT	AutoDIM Time of Day Dimming	–	–	✓	–	–	–	✓	–	–	ADT	
	7PR	7-Pin Receptacle	–	–	Paired with external control	–	Paired with external control	–	Paired with external control	–	–	7PR	
	7PR-SC	7-Pin Receptacle with shorting cap	–	–	–	–	–	–	–	–	–		7PR-SC
	7PR-TL	7-Pin with photocontrol	–	–	–	–	✓	–	✓	–	–		7PR-TL

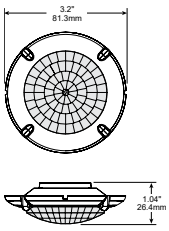
COVERAGE PATTERNS FOR SCP_F

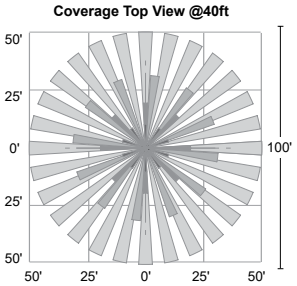


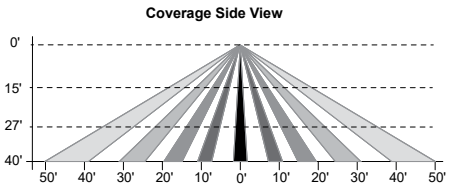












PROGRAMMED CONTROLS

ADD-AutoDim Timer Based Options

- Light delay options from 1-9 hours after the light is turned on to dim the light by 10-100%. To return the luminaire to its original light level there are dim return options from 1-9 hours after the light has been dimmed previously.

EX: ADD-6-5-R6

ADD Control Options	Configurations Choices	Example Choice Picked
Auto-Dim Options	1-9 Hours	6 - Delay 6 hours
Auto-Dim Brightness	10-100% Brightness	5 - Dim to 50% brightness
Auto-Dim Return	Delay 0-9 Hours	R6 - Return to full output after 6 hours

ADT-AutoDim Time of Day Based Option

- Light delay options from 1AM-9PM after the light is turned on to dim the light by 10-100%. To return the luminaire to its original light level there are dim return options from 1AM-9PM after the light has been dimmed previously.

EX: ADT-6-5-R6

ADD Control Options	Configurations Choices	Example Choice Picked
Auto-Dim Options	12-3 AM and 6-11 PM	6 - Dim at 6PM
Auto-Dim Brightness	10-100% Brightness	5 - Dim to 50%
Auto-Dim Return	12-6 AM and 9-11P	R6 - Return to full output at 6AM

DATE: LOCATION:

TYPE: PROJECT:

CATALOG #:

RATIO Series

AREA/SITE LIGHTER

CONTROLS

Control Options	
Standalone	
SCPREMOTE	Order at least one per project location to program and control
Networked – Wireless	
WIR-RME-L	LightGRID+ External Fixture Module[1,2]
NX Networked – Wireless	
NXOFM-1R1D-UNV	NX Wireless, Daylight Harvesting, BLE, 7 pin twisted lock

Notes:

1 Works with external networked photosensor

2 LightGRID+ Gateway required for system programming

OPTIONS AND ACCESSORIES - STOCK (ORDERED SEPARATELY)

	Catalog Number	Description
☐	**RARRPA3DB**	Round pole adapter 3.5" to 4.13" for ASQ arm, 3.5" to 4.13" OD pole, dark bronze finish
☐	**RARA3UDB**	Universal mount for square pole or round pole 3.5" to 4.13", dark bronze finish
☐	**RARBC80L**	Ratio backlight control 80L
☐	**RARBC160L**	Ratio backlight control 160L
☐	**RARBC320L**	Ratio backlight control 320L
☐	**RARBC480L**	Ratio backlight control 480L

ACCESSORIES AND REPLACEMENT PARTS - MADE TO ORDER

	Catalog Number	Description
☐	**RAR–ASQU–XX**	Universal arm mount for square pole/flat surface[2]
☐	**RAR–A_U-XX**	Universal arm mount for round poles[1,2]
☐	**RAR–RPA_–XX**	Round pole adapter[1, 2]
☐	**SETAVP-XX**	4" square pole top tenon adapter, 2 3/8" OD slipfitter[2]
☐	**RETAVP-XX**	4" round pole top tenon adapter; 2 3/8" OD slipfitter for max. Four fixtures (90o); order 4" round pole adapters separately[2]
☐	**BIRD–SPIKE–3**	Ratio size 1 bird deterrent/spikes
☐	**BIRD–SPIKE–4**	Ratio size 2 bird deterrent/spikes
☐	**RARWB–XX**	Wall bracket - use with Mast Arm Fitter or Knuckle[2]

1 Replace "_" with "3" for 3.5"-4.13" OD pole, "4" for 4.18"-5.25" OD pole, "5" for 5.5"-6.5" OD pole

2 Replace "XX" with desired color/ paint finish

DATE: LOCATION:

TYPE: PROJECT:

CATALOG #:

RATIO Series

AREA/SITE LIGHTER

PERFORMANCE DATA

Description	Nominal Wattage	System Watts	Dist. Type	5K (5000K NOMINAL 70 CRI)					4K (4000K NOMINAL 70 CRI)					3K (3000K NOMINAL 80 CRI)				
				Lumens	LPW	B	U	G	Lumens	LPW	B	U	G	Lumens	LPW	B	U	G
RAR1	25	25.4	2	3438	135	1	0	1	3445	136	1	0	1	3240	128	1	0	1
			3	3460	136	1	0	1	3467	136	1	0	1	3260	128	1	0	1
			4W	3406	134	1	0	1	3412	134	1	0	1	3209	126	1	0	1
			5QW	3483	137	2	0	1	3490	137	2	0	1	3282	129	2	0	1
	39	39	2	5263	139	1	0	2	5273	139	1	0	2	4960	131	1	0	2
			3	5297	139	1	0	2	5308	140	1	0	2	4991	131	1	0	2
			4W	5200	137	1	0	2	5210	137	1	0	2	4900	129	1	0	2
			5QW	5333	140	3	0	1	5344	141	3	0	1	5025	132	3	0	1
	50	49.8	2	6310	127	1	0	2	6323	127	1	0	2	5946	120	1	0	2
			3	6349	128	1	0	2	6362	128	1	0	2	5983	120	1	0	2
			4W	6233	125	1	0	2	6245	126	1	0	2	5873	118	1	0	2
			5QW	6392	129	3	0	1	6405	129	3	0	1	6023	121	3	0	1
	70	68.4	2	9486	139	1	0	2	9505	139	1	0	2	8938	131	1	0	2
			3	9544	140	1	0	2	9563	140	1	0	2	8993	131	1	0	2
			4W	9395	137	1	0	2	9414	138	1	0	2	8853	129	1	0	2
			5QW	9608	140	4	0	2	9628	141	4	0	2	9054	132	4	0	2
	100	90.0	2	11976	133	2	0	2	12000	133	2	0	2	11285	125	2	0	2
			3	12050	134	2	0	2	12074	134	2	0	2	11354	126	2	0	2
			4W	11861	132	2	0	2	11885	132	2	0	2	11177	124	2	0	2
			5QW	12131	135	4	0	2	12155	135	4	0	2	11431	127	4	0	2
	115	109.7	2	15572	142	2	0	2	15494	141	2	0	2	14871	136	2	0	2
			3	15833	144	2	0	2	15754	144	2	0	2	15121	138	2	0	2
			4W	15281	139	2	0	3	15205	139	2	0	3	14623	133	2	0	3
			5QW	15732	143	4	0	2	15653	143	4	0	2	15024	137	4	0	2
	135	133.3	2	17971	135	3	0	3	17881	134	3	0	3	17163	129	3	0	3
			3	18272	137	2	0	2	18181	136	2	0	2	17450	131	2	0	2
			4W	17635	132	2	0	3	17547	132	2	0	3	16876	127	2	0	3
			5QW	18156	136	4	0	2	18065	136	4	0	2	17339	130	4	0	2

RAR2 Performance Data on next page

* Lumen values are from photometric test performed in accordance with IESNA LM-79-08. Data is considered to be representative of the configurations shown. Actual performance may differ as a result of end-user environment and application.

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RATIO Series

AREA/SITE LIGHTER

DATE: LOCATION:

TYPE: PROJECT:

CATALOG #:

ELECTRICAL DATA

# OF LEDS	Nominal Wattage	Input Voltage	Oper. Current (Amps)	System Power (Watts)
RAR1	25	120	0.21	25.4
		208	0.12	
		240	0.11	
		277	0.09	
	39	120	0.32	38.0
		208	0.18	
		240	0.16	
		277	0.14	
		347	0.11	
		480	0.08	
	50	120	0.42	49.8
		208	0.24	
		240	0.21	
		277	0.18	
	70	120	0.57	68.4
		208	0.33	
		240	0.29	
		277	0.25	
	100	120	0.75	90.0
		208	0.43	
		240	0.38	
		277	0.32	
	115	120	0.91	109.7
		208	0.53	
		240	0.46	
		277	0.40	
		347	0.32	
		480	0.23	
	135	120	1.11	133.3
		208	0.64	
		240	0.56	
		277	0.48	
		347	0.38	
		480	0.28	

# OF LEDS	Nominal Wattage	Input Voltage	Oper. Current (Amps)	System Power (Watts)
RAR2	110	120	0.84	100.3
		208	0.48	
		240	0.42	
		277	0.36	
	140	120	1.11	133.2
		208	0.64	
		240	0.56	
		277	0.48	
	165	120	1.28	153.6
		208	0.74	
		240	0.64	
		277	0.55	
	185	120	1.45	174.5
		208	0.84	
		240	0.73	
		277	0.63	
	210	120	1.65	198.3
		208	0.95	
		240	0.83	
		277	0.72	
	240	120	1.89	226.9
		208	1.09	
		240	0.95	
		277	0.82	
	255	120	2.14	257.0
		208	1.24	
		240	1.07	
		277	0.93	
		347	0.74	
		480	0.54	
	295	120	2.45	294.0
		208	1.41	
		240	1.23	
		277	1.06	
		347	0.85	
		480	0.61	
	340	120	2.89	347.1
		208	1.67	
		240	1.45	
		277	1.25	
		347	1.00	
		480	0.72	

LUMINAIRE AMBIENT TEMPERATURE FACTOR (LATF)

Ambient Temperature		Lumen Multiplier
0° C	32° F	1.03
10° C	50° F	1.01
20° C	68° F	1.00
25° C	77° F	1.00
30° C	86° F	0.99
40° C	104° F	0.98
50° C	122° F	0.97

Use these factors to determine relative lumen output for average ambient temperatures from 0-40°C (32-104°F).

PROJECTED LUMEN MAINTENANCE

Ambient Temperature	OPERATING HOURS					
	0	25,000	TM-21-11 L90 36,000	50,000	100,000	L70 (Hours)
25°C / 77°F	1.00	0.97	0.95	0.93	0.86	238,000
40°C / 104°F	0.99	0.96	0.95	0.93	0.85	225,000

MICRO STRIKE LUMEN MULTIPLIER

Micro Strike Lumen Multiplier			
CCT	70 CRI	80 CRI	90 CRI
2700K	x	0.841	x
3000K	x	0.861	0.647
3500K	x	0.9	x
4000K	1	0.926	0.699
5000K	1	0.937	0.791
Phosphor Coated Amber Multiplier			
AP	0.71		

RATIO Series

AREA/SITE LIGHTER

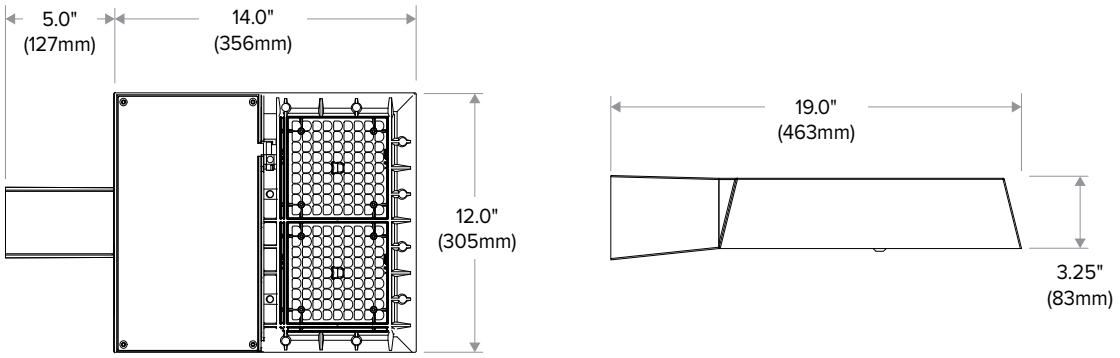
DATE: LOCATION:

TYPE: PROJECT:

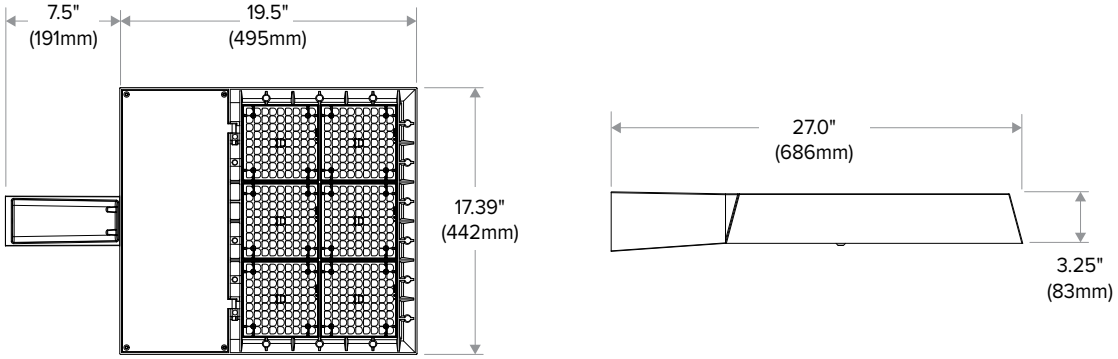
CATALOG #:

DIMENSIONS

RAR1

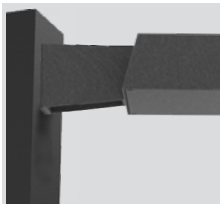


RAR2

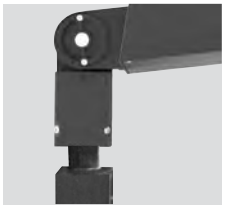


ADDITIONAL INFORMATION

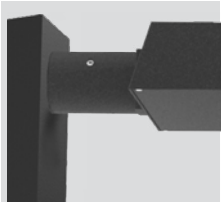
MOUNTING



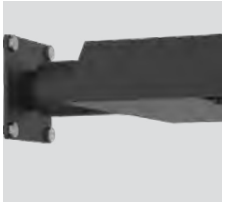
Arm Mount – ASQ: Fixture ships with integral arm for ease of installation.



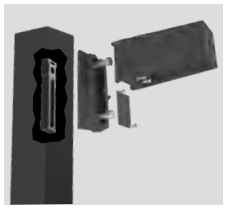
Knuckle – Knuckle mount 15° aiming angle increments for precise aiming and control, fits 2-3/8" tenons or pipes.



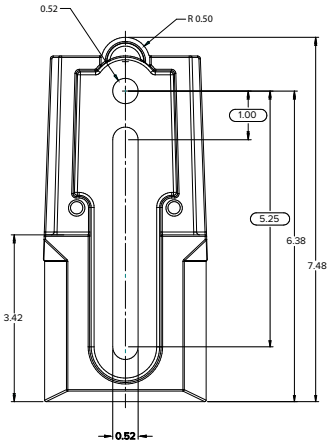
MAF – Fits 2-3/8" OD arms Roadway applications.



Wall Mount – Wall mount bracket designed for building mount applications.



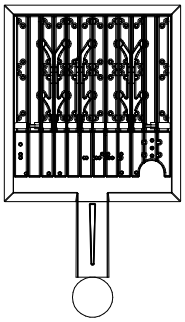
Universal Mounting – Universal mounting block for ease of installation. Compatible with drill patterns from 2.5" to 4.5" and S2 and B3 drill patterns



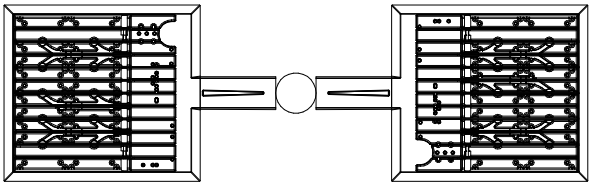
RATIO Series

AREA/SITE LIGHTER

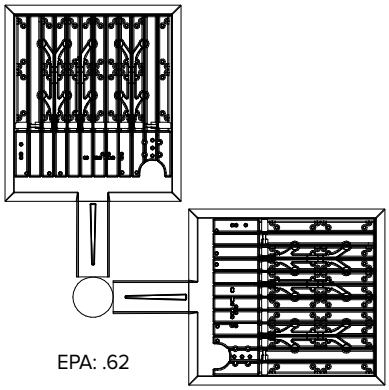
EPA (RAR1)



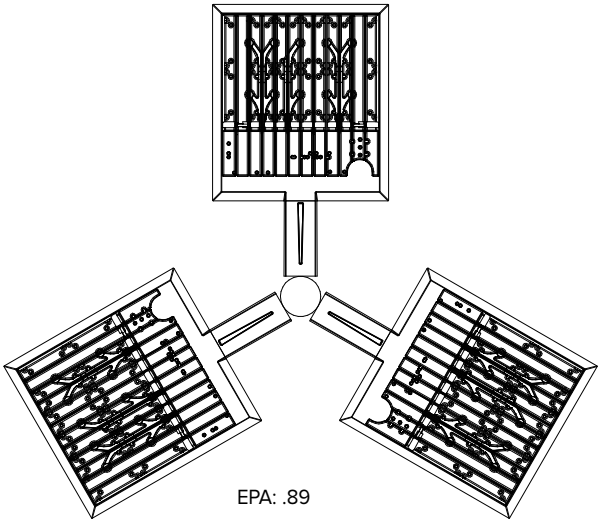
EPA Knuckle Mount 0 degrees: .43
EPA Knuckle Mount 30 degrees: .55
EPA Arm Mount: .0 degrees 38



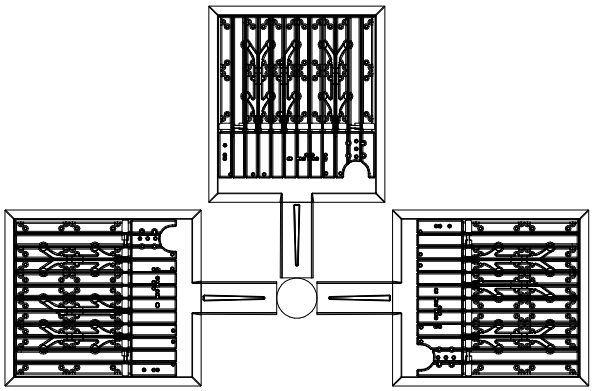
EPA: .99



EPA: .62



EPA: .89



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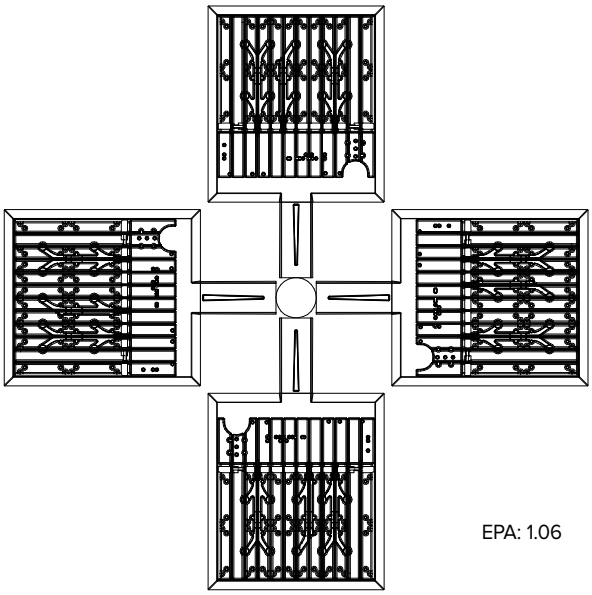
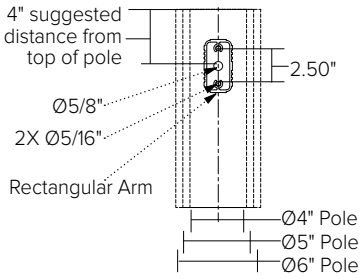


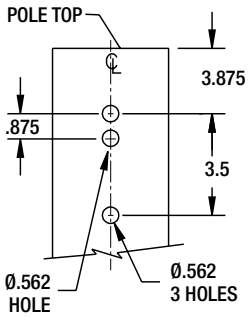
EPA: 1.06

ADDITIONAL INFORMATION (CONT'D)

ARM MOUNT (ASQ)
Compatible with Pole drill pattern B3



UNIVERSAL MOUNTING (ASQU)
Compatible with pole drill pattern S2



PROGRAMMED CONTROLS

ADD-AutoDim Timer Based Options

- Light delay options from 1-9 hours after the light is turned on to dim the light by 10-100%. To return the luminaire to its original light level there are dim return options from 1-9 hours after the light has been dimmed previously.

EX: ADD-6-5-R6

ADD Control Options	Configurations Choices	Example Choice Picked
Auto-Dim Options	1-9 Hours	6
Auto-Dim Brightness	0-9% Brightness	5
Auto-Dim Return	Delay 0-9 Hours	R6

ADT-AutoDim Time of Day Based Option

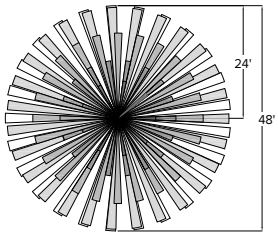
- Light delay options from 1AM-9PM after the light is turned on to dim the light by 10-100%. To return the luminaire to its original light level there are dim return options from 1AM-9PM after the light has been dimmed previously.

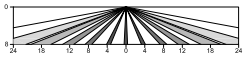
EX: ADT-6-5-R6

ADD Control Options	Configurations Choices	Example Choice Picked
Auto-Dim Options	12-3 AM and 6-11 PM	6
Auto-Dim Brightness	0-9% Brightness	5
Auto-Dim Return	12-6 AM and 9-11P	R6

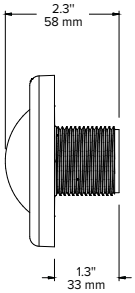
ADDITIONAL INFORMATION (CONT'D)

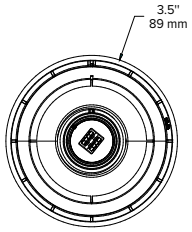
NXSP-14F



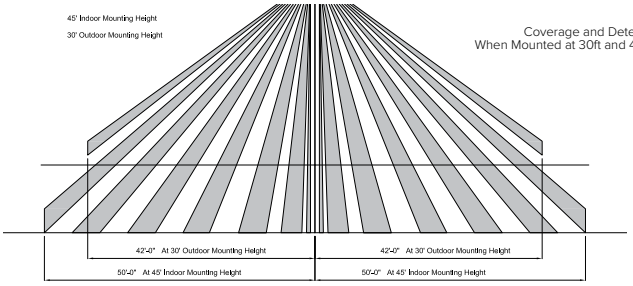


Sensor Lens Coverage and Detection Patterns
When Mounted at 8ft with Low Mount Lens

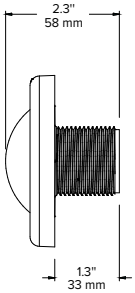


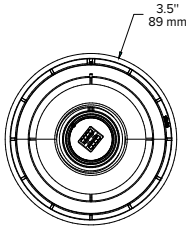


NXSP-30F

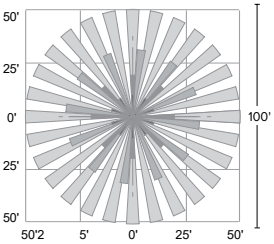


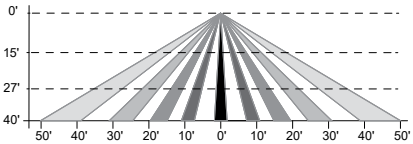
Coverage and Detection Patterns
When Mounted at 30ft and 45ft with Standard Lens

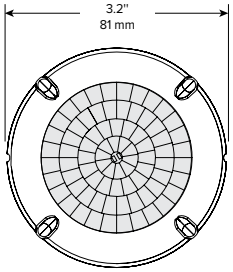


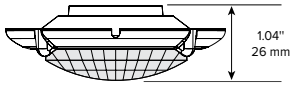


SCP-40F









RAR1 EPA

RAR-1	
EPA at 0˚	EPA at 30˚
.45ft.^{2} .13m^2	.56ft.^{2} .17m^2

RAR2 EPA

RAR-2	
EPA at 0˚	EPA at 30˚
.55ft.^{2} .17m^2	1.48ft.^{2} .45m^2

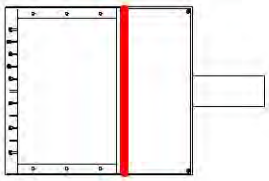
SHIPPING

Catalog Number	G.W(kg)/ CTN	Carton Dimensions		
		Length Inch (cm)	Width Inch (cm)	Height Inch (cm)
RAR1	15 (6.8)	20.75 (52.7)	15.125 (38.4)	6.9375 (17.6)
RAR2	19 (8.6)	25 (63.5)	15.125 (38.4)	6.9375 (17.6)

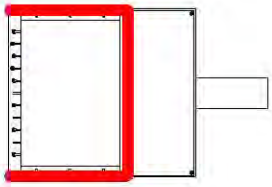
ADDITIONAL INFORMATION (CONT'D)

RATIO HOUSE SIDE SHIELD

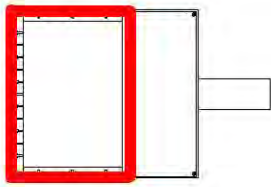
RARx HSS-90-B-xx



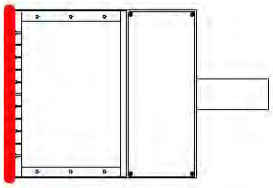
RARx HSS-270-BSS-xx



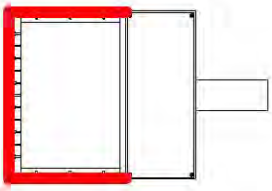
RARx HSS-360-xx



RARx HSS-90-F-xx

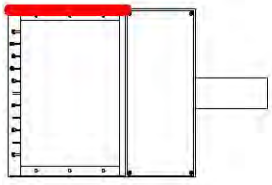


RARx HSS-270-FSS-xx

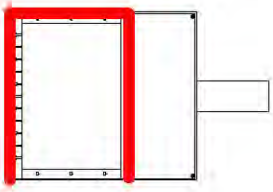


Note: Not to be used with Ocupancy Sensors as the shield may block the light to the sensor

RARx HSS-90-S-xx



RARx HSS-270-FSB-xx



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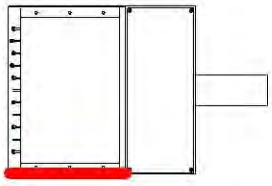

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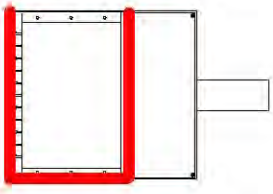


Traffic Impact Study
Proposed Fuel Center Redevelopment

Morton Grove, Illinois

Prepared For:

aka architects

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

May 29, 2024

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 redevelopment of the existing fuel center to be located in Morton Grove, Illinois. The site is located at 6335 Dempster Street and is currently occupied by a Mobil fuel center. As proposed, the site will be redeveloped to include a fuel center containing 12 passenger vehicle fueling positions, an approximate 2,520 square-foot convenience store, and eight parking spaces.

Access to the fuel center will continue to be provided via a full-movement access drive on Dempster Street and a full movement access drive on Narragansett Avenue.

The purpose of this study was to examine background traffic conditions, assess the impact that the proposed fuel center will have on traffic conditions in the area, and determine if any roadway or access improvements are necessary to accommodate the traffic generated by the proposed fuel center.

Figure 1 shows the location of the site in relation to the area roadway system. **Figure 2** shows an aerial view of the site. The sections of this report present the following:

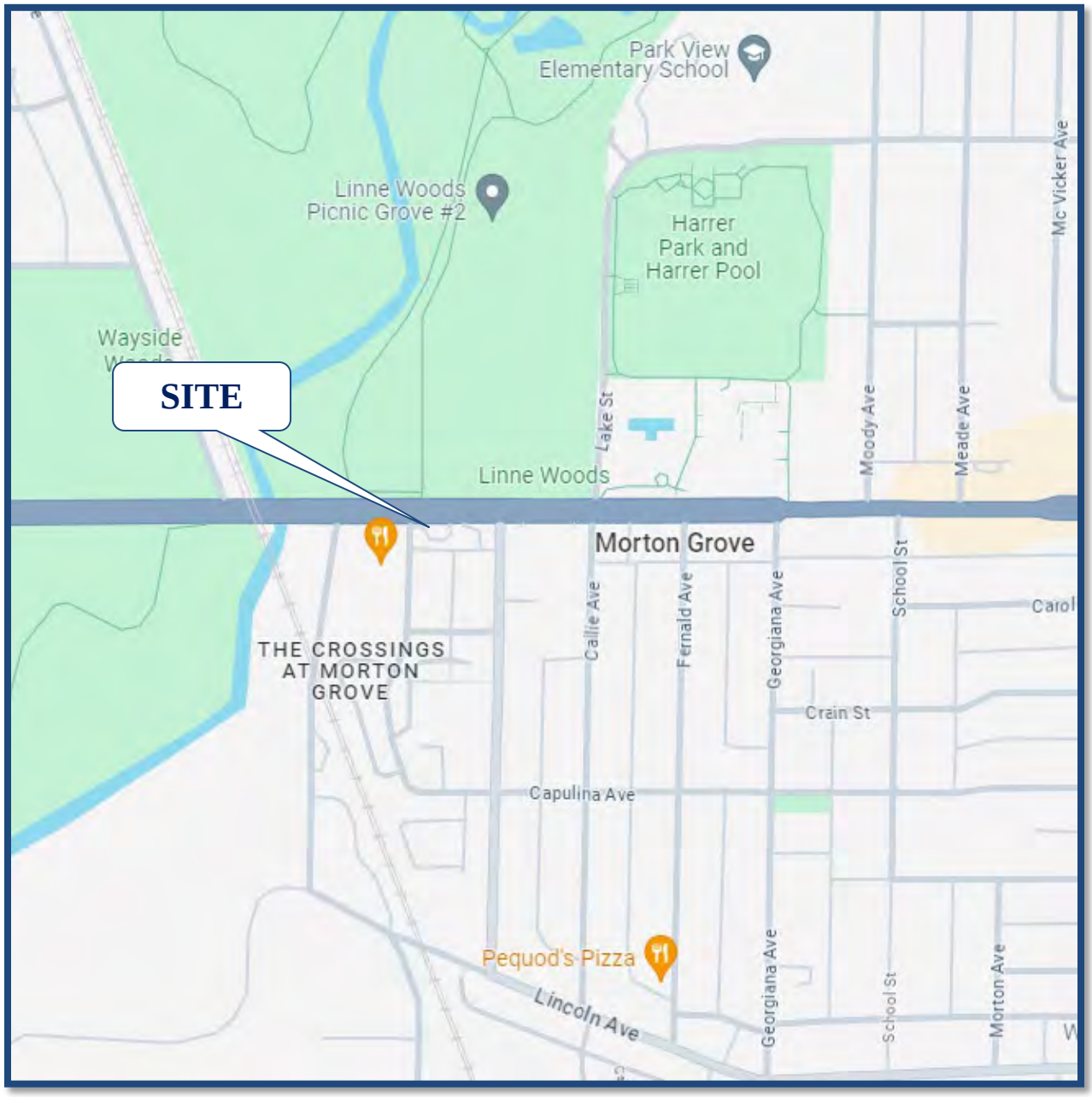
- Existing roadway conditions
- A description of the proposed fuel center
- Directional distribution of the fuel center traffic
- Vehicle trip generation for the fuel center
- Future traffic conditions including access to the fuel center
- Traffic analyses for the weekday morning and weekday evening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

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

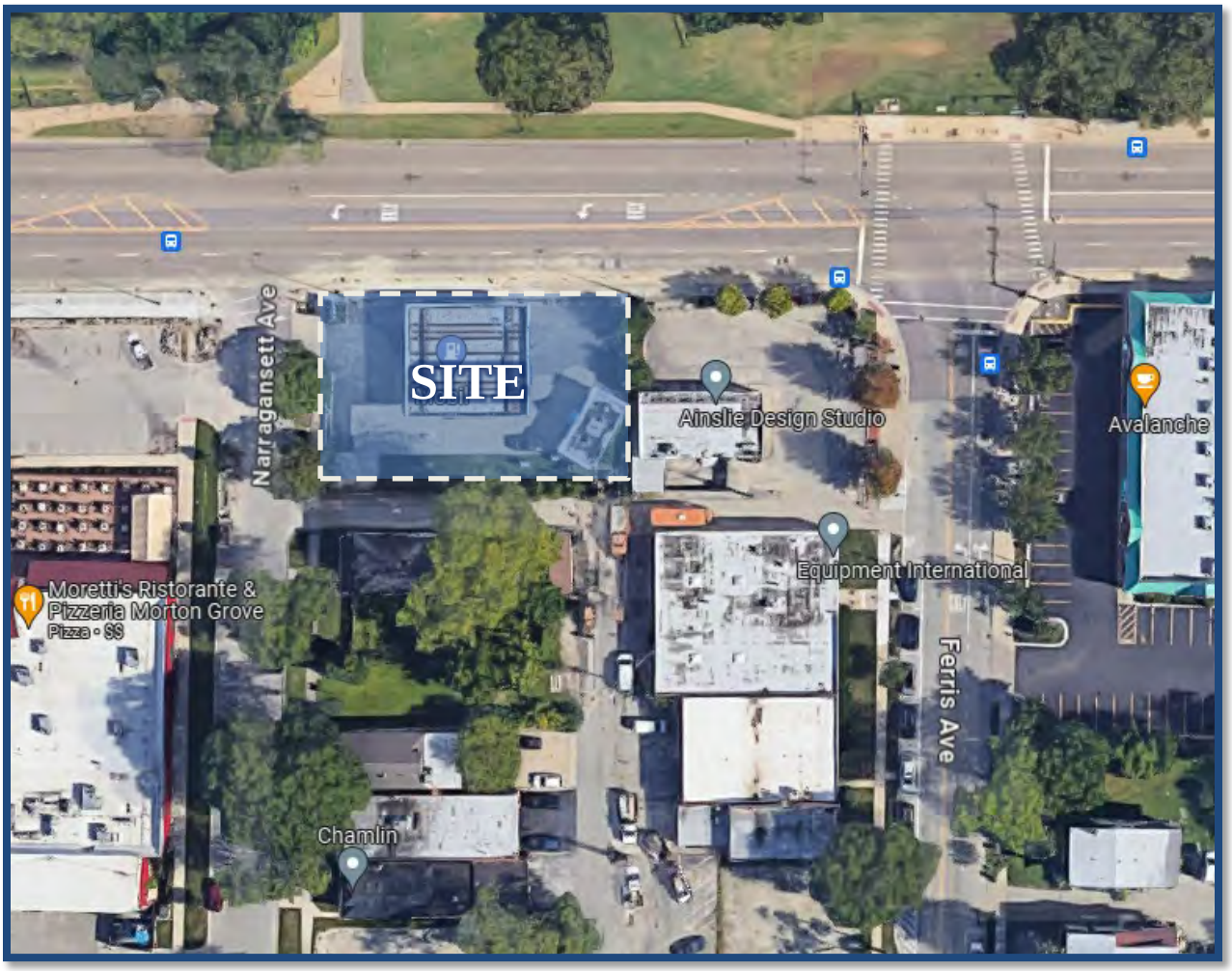
1. Existing Conditions – Analyzes the capacity of the existing roadway system using existing peak hour traffic volumes in the surrounding area.

2. Year 2030 No-Build Conditions – Analyzes the capacity of the existing roadway system using peak hour traffic volumes adjusted to represent the background growth of the area.

3. Year 2030 Total Projected Conditions – Analyzes the capacity of the future roadway system using the projected traffic volumes that include the existing traffic volumes, ambient traffic growth over a six-year period, and the traffic estimated to be generated by the full buildout of the proposed fuel center.



Site Location **Figure 1**



Aerial View of Site **Figure 2**

2. Existing Conditions

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

Site Location

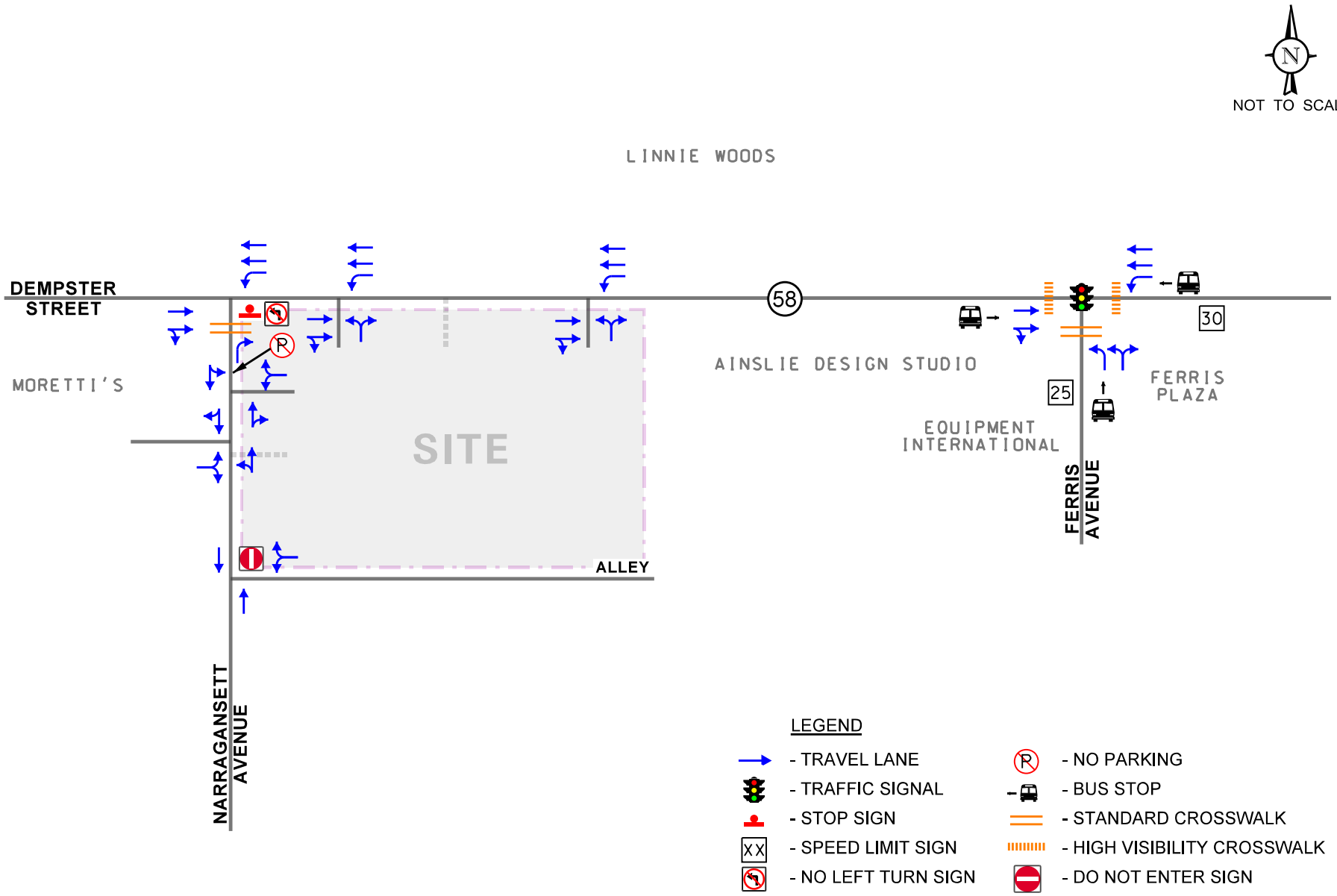
The site, which is currently occupied by a Mobil fuel center, is located at 6335 Dempster Street in Morton Grove, Illinois. Land uses in the vicinity of the site are commercial and residential. Commercial land uses include Riverbank Plaza and Moretti`s pizzeria to the west, Ainslie Design Studio, Equipment International, and Ferris Plaza to the east.

Existing Roadway System Characteristics

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

Dempster Street (IL Route 58) is an east-west, other principal arterial roadway that provides two through lanes in each direction in the vicinity of the site. At its signalized intersection with Ferris Avenue, Dempster Street provides a through and a shared through/right-turn lane on the eastbound approach and a left-turn lane and a through lane on the westbound approach. High visibility crosswalks are provided on the east and west legs of this intersection. At its unsignalized intersections with the existing Mobil fuel center, Dempster Street provides a through lane and a shared through/right-turn lane on the eastbound approach and two through lane on the westbound approach. The westbound left-turn movements are accommodated via the extension of the exclusive left-turn lane at the intersection of Dempster Street with Narragansett Avenue. At its unsignalized "T" intersection with Narragansett Avenue, Dempster Street provides a through lane and a shared through/right-turn lane on the eastbound approach and an exclusive left-turn lane and two through lanes on the westbound approach. Dempster Street is under the jurisdiction of the Illinois Department of Transportation (IDOT) and carries an annual average daily traffic (AADT) volume of 23,600 vehicles (IDOT 2021). Dempster Street is classified as a Strategic Regional Arterial (SRA) and has a posted speed limit of 30 miles per hour.

Ferris Avenue is a north-south, two-lane major collector roadway in the vicinity of the site. At its signalized intersection with Dempster Street, Ferris Avenue provides an exclusive left turn lane and a shared left-turn/right-turn lane on the northbound approach. A standard style crosswalk is provided on Ferris Avenue at this intersection. North of Hennings Court, on-street parking is restricted to 90 minutes except from 9:30 A.M. to 3:00 P.M. on weekdays. South of Hennings Court, on-street parking is provided on both sides of the road restricted to 90-minute parking from 8:00 A.M. to 6:00 P.M. on weekdays except on Holidays or for vehicles displaying a Zone 5 permit. Ferris Avenue has a posted speed limit of 25 mph, carries an AADT volume of 3,200 vehicles (IDOT 2022), and is under the jurisdiction of the Village of Morton Grove.



Fuel Center Redevelopment
Morton Grove, Illinois

Existing Roadway Characteristics

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

Job No: 24-058

Figure: 3

Narragansett Avenue is a north-south two-lane roadway in the vicinity of the site. At its unsignalized intersection with Dempster Street, Narragansett Avenue provides a right-turn lane on the northbound approach and the left-turn movement is prohibited on the northbound approach at this intersection. A standard style crosswalk is provided on Narragansett Avenue at this intersection. At its intersections with Mobil access drive/Moretti`s access drive and the alley, Narraganset Avenue does not provide any exclusive lanes. Narragansett Avenue is under the jurisdiction of the Village of Morton Grove.

The *public alley* is an east-west local roadway that provides garage access to several homes behind the site extended from Narragansett Avenue to its terminus at Ferris Avenue. Inbound movements are restricted from Narragansett Avenue to this Alley. At its unsignalized "T" intersection with Narragansett Avenue, Public Alley provides a shared left-turn/right-turn lane on the westbound approach.

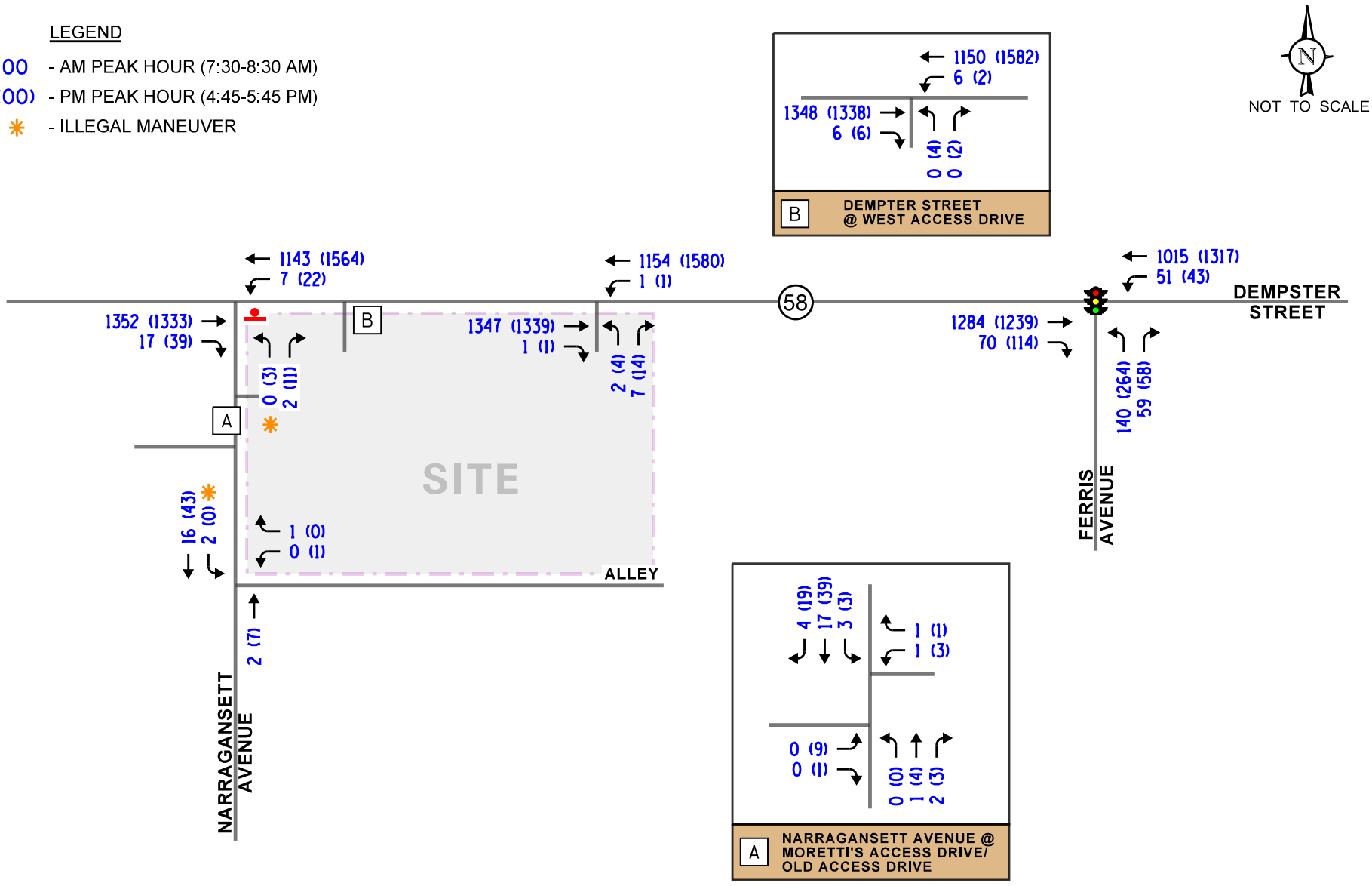
Existing Traffic Volumes

To determine current traffic conditions in the vicinity of the site, KLOA, Inc. conducted peak period traffic counts on Thursday, February 22, 2024, during the weekday morning (7:00 to 9:00 A.M.) and evening (4:00 to 6:00 P.M.) peak periods at the following intersections:

- Dempster Street with Ferris Avenue
- Dempster Street with Narragansett Avenue
- Dempster Street with Mobil east and west access drives
- Narragansett Avenue with east-west public alley
- Narragansett Avenue with Mobil access drive/Moretti`s access drive

The results of the traffic counts indicated that the weekday morning peak hour of traffic occurs from 7:30 A.M. to 8:30 A.M. and the weekday evening peak hour of traffic occurs from 4:45 P.M. to 5:45 P.M.

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



Fuel Center
Redevelopment
Morton Grove, Illinois

Existing Traffic Volumes

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

Job No: 24-058

Figure: 4

Crash Data Summary

KLOA, Inc. obtained crash data from IDOT for the most recent past five years available (2018 to 2022) for the intersections of Dempster Street with Ferris Avenue and Narragansett Avenue. A review of the crash data indicated that no fatalities were reported at any of the intersections[1]. **Tables 1** and **2** summarize the crash data for these intersections.

Table 1
DEMPSTER STREET WITH FERRIS AVENUE – CRASH SUMMARY

Year	Type of Crash Frequency							
	Angle	Head On	Object	Rear End	Sideswipe	Turning	Other	Total
2018	0	0	0	1	0	1	0	2
2019	0	0	0	2	0	1	1	4
2020	0	0	0	0	0	1	0	1
2021	0	0	0	0	1	0	0	1
2022	0	0	0	3	0	1	0	4
Total	**0**	**0**	**0**	**6**	**1**	**4**	**1**	**12**
Average	**--**	**--**	**--**	**1.2**	**<1.0**	**<1.0**	**<1.0**	**2.4**

Table 2
DEMPSTER STREET WITH NARRAGANSETT AVENUE – CRASH SUMMARY

Year	Type of Crash Frequency							
	Angle	Head On	Object	Rear End	Sideswipe	Turning	Other	Total
2018	0	0	1	2	0	0	0	3
2019	0	0	1	0	0	1	0	2
2020	0	0	0	1	0	0	0	1
2021	0	0	0	2	0	0	0	2
2022	0	0	1	0	0	0	1	2
Total	**0**	**0**	**3**	**5**	**0**	**1**	**1**	**10**
Average	**--**	**--**	**<1.0**	**1.0**	**--**	**<1.0**	**<1.0**	**2.0**

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

3. Traffic Characteristics of the Proposed Fuel Center

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

Proposed Site and Development Plan

As indicated earlier, the site is currently occupied by a Mobil fuel center with eight fueling positions and a convenience store. As proposed, the site will be redeveloped to include a fuel center containing twelve passenger vehicle fueling positions, an approximate 2,520 square-foot convenience store, and eight parking spaces. Access to the fuel center will be provided via the followings:

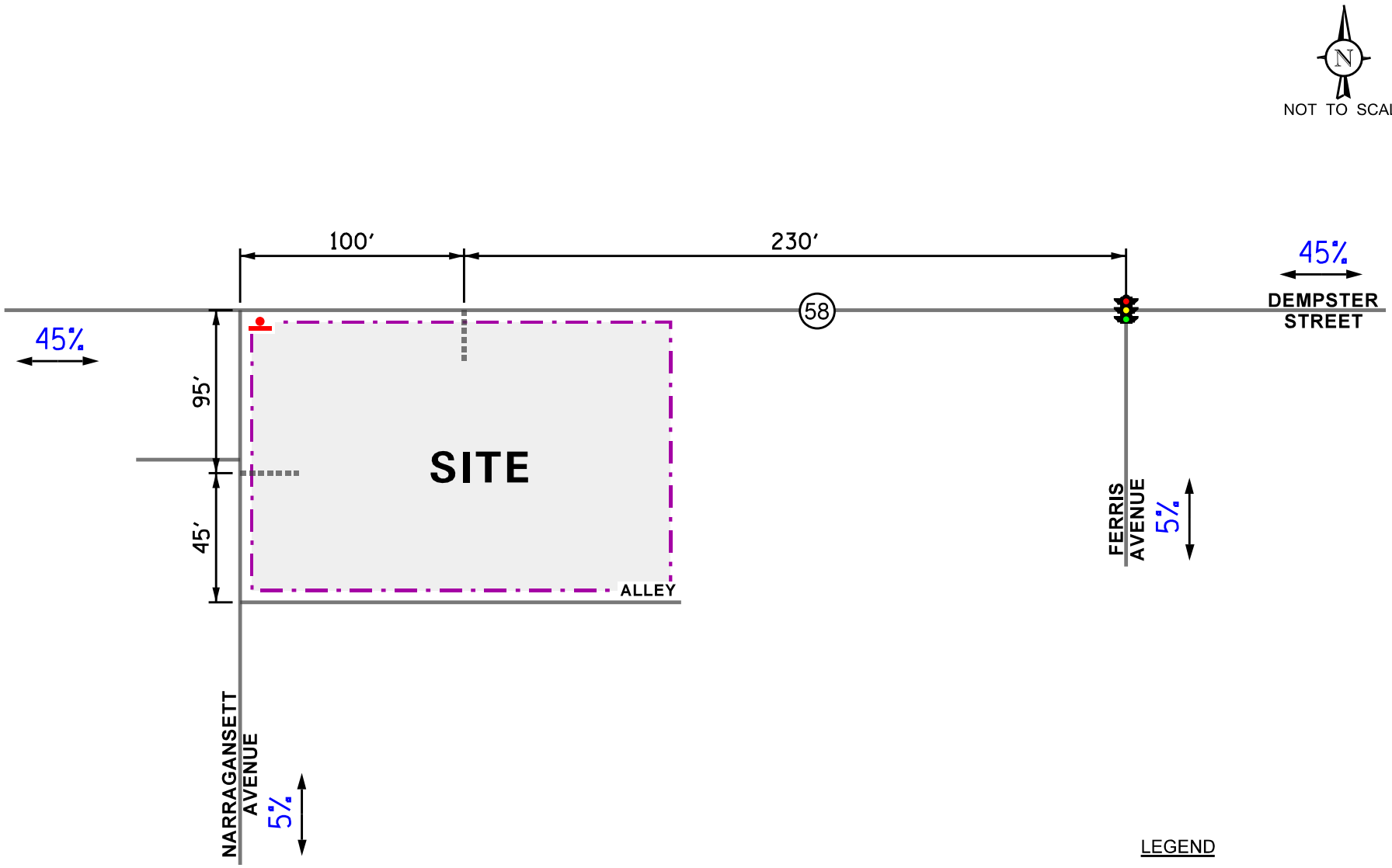
- A proposed full-movement access drive on Dempster Street located approximately 230 feet west of Ferris Avenue which will replace the existing two east and west access drives thus reducing the number of conflict points and increasing the traffic safety. This access drive will provide one inbound lane and one outbound lane with the outbound movements under stop sign control.

- The existing full movement access drive on Narragansett Avenue which will be slightly relocated to the south. This access drive will provide one inbound lane and one outbound lane with the outbound movements under stop sign control.

A copy of the site plan depicting the proposed fuel center and access drives is included in the Appendix.

Directional Distribution

The directions from which patrons and employees will approach and depart the site were estimated based on existing travel patterns, as determined from the traffic counts and the operation of the roadway system. **Figure 5** illustrates the directional distribution of the fuel center-generated traffic.



Fuel Center Redevelopment
Morton Grove, Illinois

Directional Distribution

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

Job No: 24-058

Figure: 5

Peak Hour Traffic Volumes

The number of passenger vehicle peak hour trips estimated to be generated by the proposed fuel center was based on the rates contained in *Trip Generation Manual*, 11th Edition, published by the Institute of Transportation Engineers (ITE). Land-Use Code 945 – Convenience Store/Gas Station – GFA (2-4k) was utilized for the fuel center based on twelve fueling positions and an approximate 2,520 square feet convenience store. The amount of traffic volumes that are currently being generated by the existing fuel center were subtracted from the estimated traffic volumes for the proposed fuel center to calculate the additional total trips that will be generated by the proposed fuel center.

It is important to note that surveys conducted by ITE have shown that approximately 60 percent of trips made to fueling centers are 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.

Table 3 summarizes the trips projected to be generated by the proposed development.

It should be noted that the existing fuel center with eight fueling positions generates approximately 30 trips during the weekday morning peak hour and approximately 50 trips during the evening peak hours which is one-fourth and one-third of what it is expected to generate based on the ITE rates during the weekday morning and evening peak hours. As such, the estimated trips for the proposed expansion shown in Table 3 are very conservative estimates.

Table 3
PROJECTED SITE-GENERATED TRAFFIC VOLUMES

ITE Land-Use Code	Type/Size	Weekday Morning Peak Hour			Weekday Evening Peak Hour		
		In	Out	Total	In	Out	Total
945	Convenience Store/Gas Station – GFA (2-4k) – 12 Fueling Positions	96	97	193	111	110	221
	Trips Generated by the Existing Fuel Center (8 Fueling Positions)	-19	-11	-30	-16	-34	-50
	Net Total Trips	**77**	**86**	**163**	**95**	**76**	**171**
	-60% Pass-By	-46	-46	-92	-46	-46	-92
	Total New Trips	**31**	**40**	**71**	**49**	**30**	**79**

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 subject fuel center.

Fuel Center Traffic Assignment

The estimated weekday morning and weekday evening peak hour traffic volumes that will be generated by the proposed fuel center were assigned to the roadway system in accordance with the previously described directional distribution (Figure 5). **Figure 6** illustrates the traffic assignment of the new passenger vehicle trips and **Figure 7** illustrates the traffic assignment of the pass-by trips.

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 Annual Average Daily Traffic (AADT) projections provided by the Chicago Metropolitan Agency for Planning (CMAP) in a letter, the existing traffic volumes are projected to increase by a total of four percent (0.6 percent compounded annually) to represent Year 2030 no-build conditions (one-year buildout plus five years). Year 2030 background traffic volumes are shown in **Figure 8**.

Year 2030 Total Projected Traffic Volumes

The new development-generated traffic (Figures 6 and 7) was added to the Year 2030 no-build traffic volumes to determine the projected Year 2030 total traffic volumes, as shown in **Figure 9**.

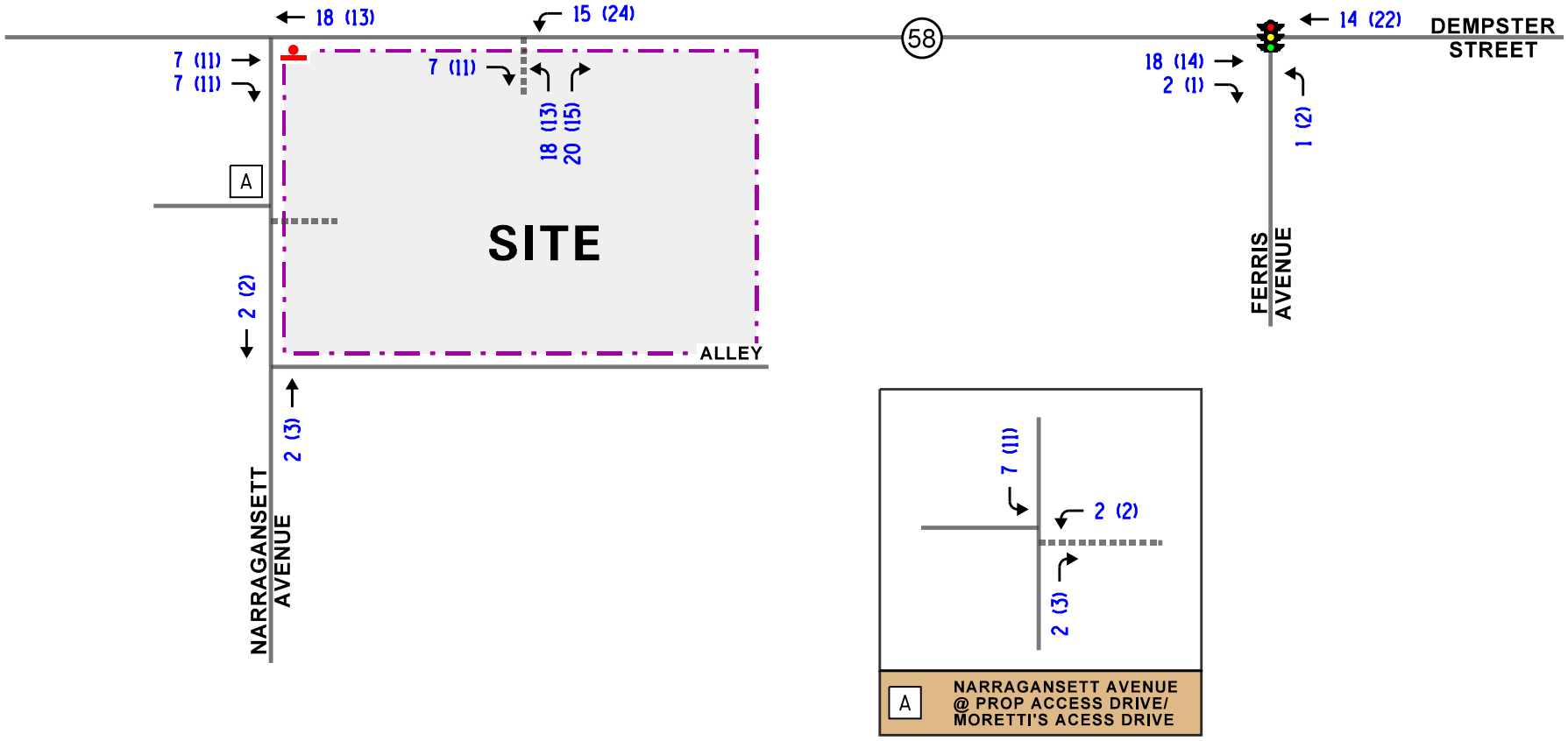
LEGEND

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

(00) - PM PEAK HOUR (4:45-5:45 PM)

✳ - ILLEGAL MANEUVER

NOT TO SCALE



Fuel Center Redevelopment
Morton Grove, Illinois

Site-Generated Traffic Volumes
New Trips

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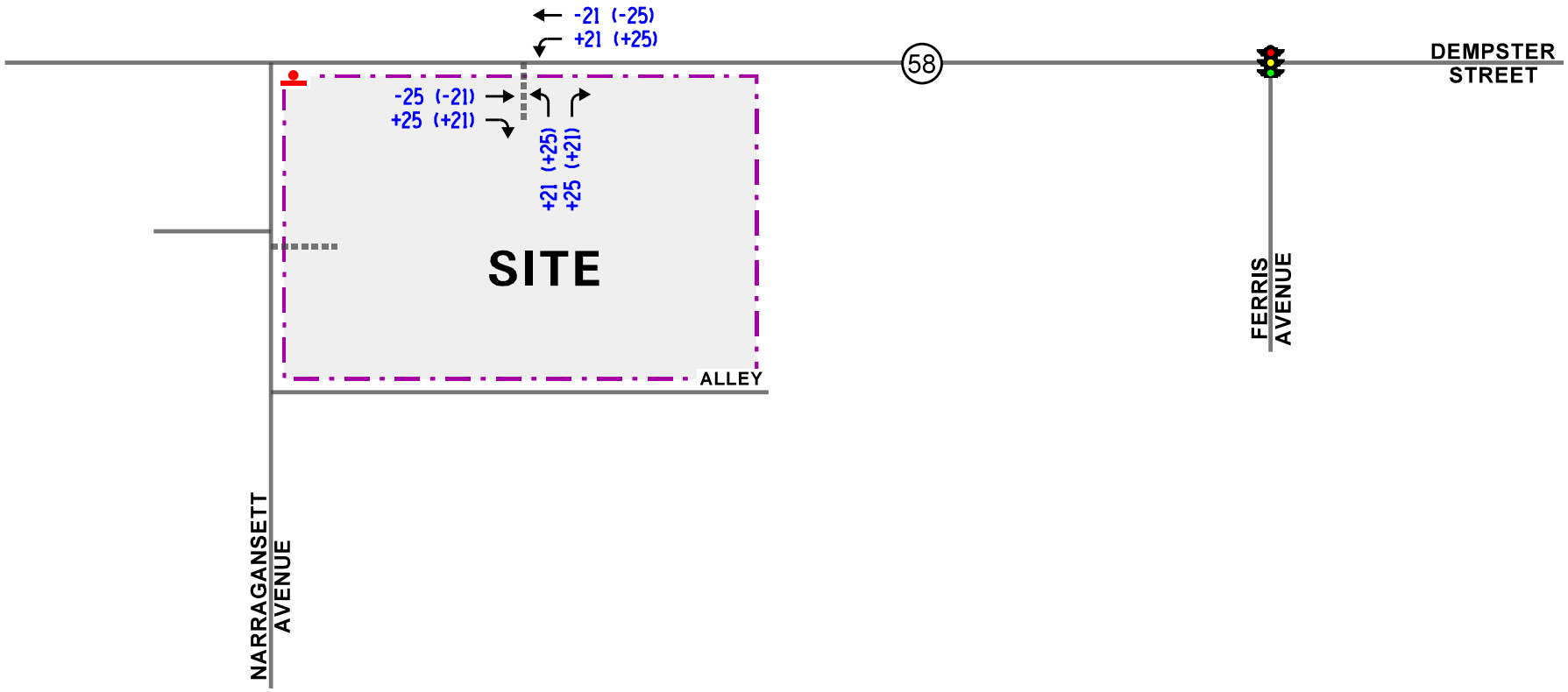
Figure: 6

LEGEND

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

(00) - PM PEAK HOUR (4:45-5:45 PM)

NOT TO SCALE



Fuel Center Redevelopment
Morton Grove, Illinois

Pass-By Traffic Volumes

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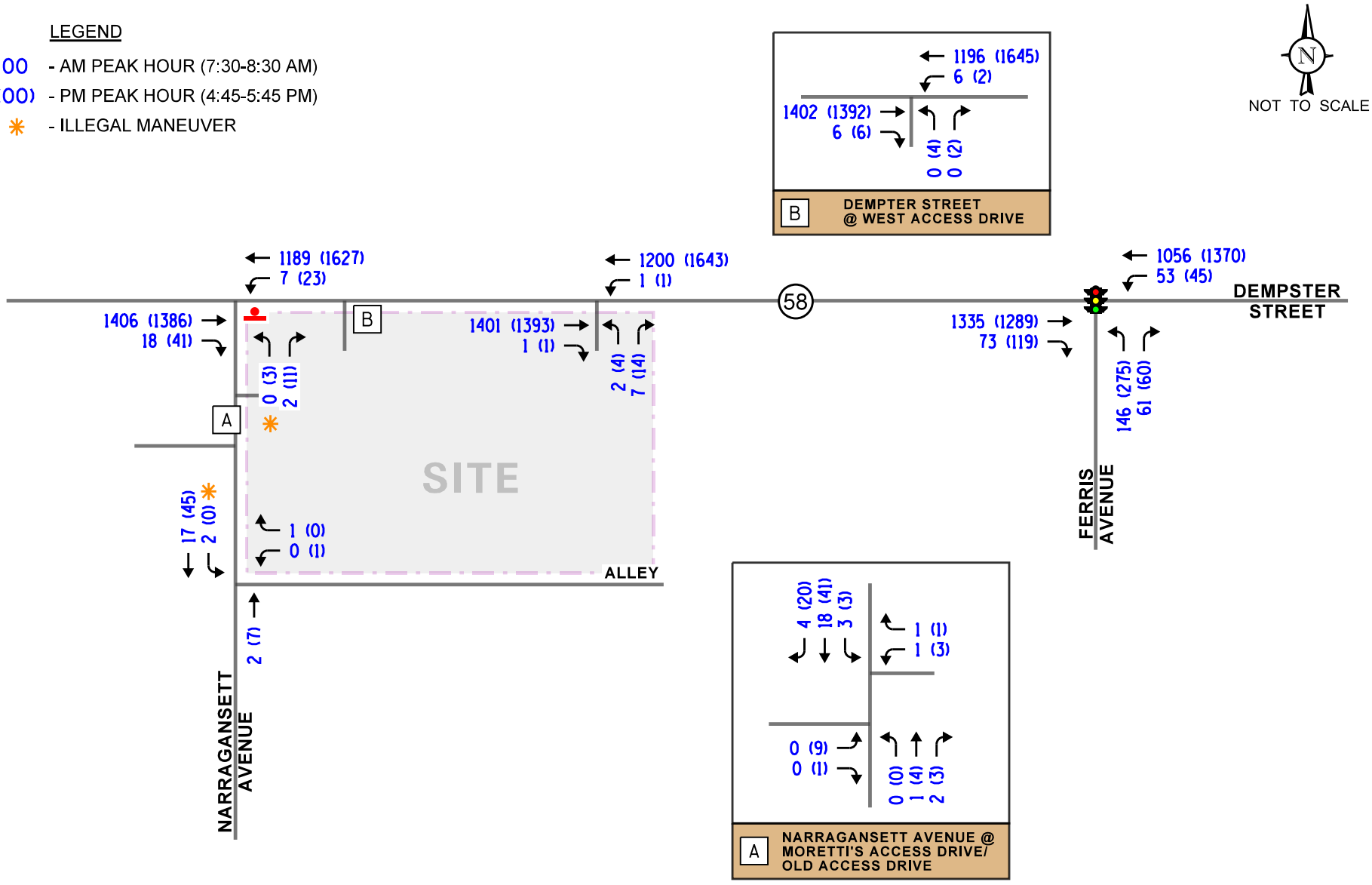
Figure: 7



Fuel Center
Redevelopment
Morton Grove, Illinois

Year 2030 No-Build Traffic Volumes

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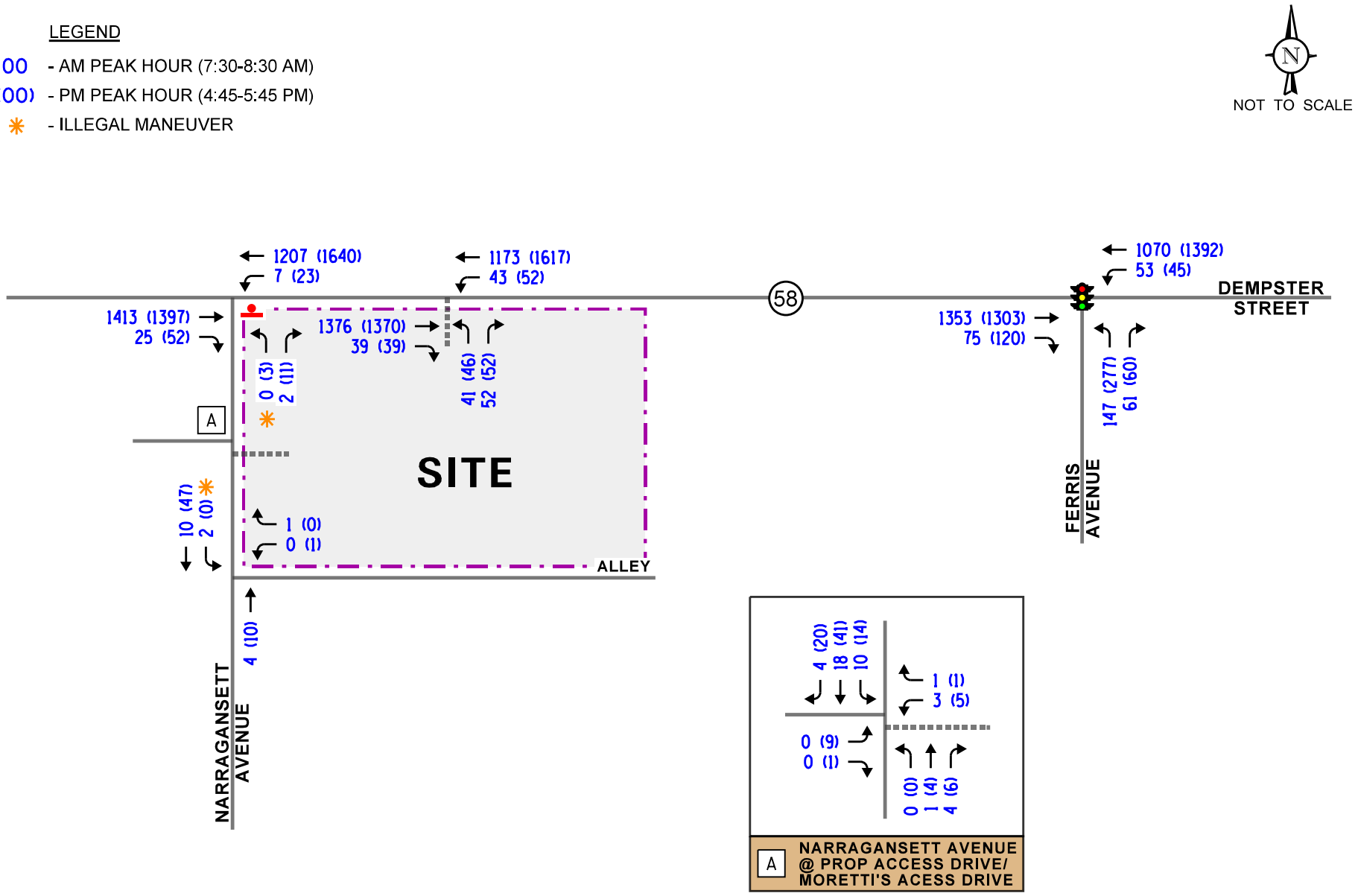
Figure: 8



Fuel Center Redevelopment
Morton Grove, Illinois

Year 2030 Total Traffic Volumes

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Job No: 24-058

Figure: 9

5. Traffic Analysis and Recommendations

The following provides an evaluation conducted for the weekday morning and weekday evening 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 and evening peak hours for the existing (Year 2024), Year 2030 no-build, and Year 2030 total projected traffic volumes.

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

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 (2024), Year 2030 no-build, and Year 2030 total projected conditions are presented in **Tables 4** through **7**. A discussion of each intersection follows. Summary sheets for the capacity analyses are included in the Appendix.

Table 4
DEMPSTER STREET AND FERRIS AVENUE – SIGNALIZED

	Peak Hour	Westbound		Eastbound	Northbound	Overall
		L	T	T/R	L/R	
Existing Conditions	Weekday Morning	A 4.4	A 4.4	B – 10.1	D – 44.1	B 10.3
		A – 4.4				
	Weekday Evening	A 4.6	A 6.4	B – 11.3	D – 51.5	B 13.3
		A – 6.3				
No-Build Conditions	Weekday Morning	A 4.9	A 4.6	B – 10.9	D – 44.9	B 10.9
		A – 4.6				
	Weekday Evening	A 4.9	A 6.8	B – 11.9	D – 51.5	B 13.8
		A – 6.7				
Projected Conditions	Weekday Morning	A 5.0	A 4.7	B – 11.1	D – 44.9	B 11.1
		A – 4.7				
	Weekday Evening	A 5.0	A 6.9	B – 12.1	D – 51.5	B 13.9
		A – 6.8				

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

Table 5
CAPACITY ANALYSIS RESULTS
YEAR 2024 EXISTING CONDITIONS – UNSIGNALIZED

Intersection	Weekday Morning Peak Hour		Weekday Evening Peak Hour	
	LOS	Delay	LOS	Delay
Dempster Street with Narragansett Avenue[1]				
• Northbound Approach	B	14.9	C	15.1
• Westbound Left Turn	B	12.9	B	13.1
Narragansett Avenue with Alley[1]				
• Westbound Approach	A	8.3	A	8.8
Narragansett Avenue with Access Drive/Moretti`s Access Drive[2]				
• Eastbound Approach	A	0.1	A	9.0
• Westbound Approach	A	8.5	A	8.8
• Northbound Left Turn	A	0.1	A	0.1
• Southbound Left Turn	A	7.2	A	7.2
Dempster Street with West Access Drive[1]				
• Northbound Approach	A	0.1	C	21.9
• Westbound Left Turn	A	9.6	A	9.5
Dempster Street with East Access Drive[1]				
• Northbound Approach	C	15.0	C	15.5
• Westbound Left Turn	A	9.5	A	9.5

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

Table 6
CAPACITY ANALYSIS RESULTS
YEAR 2030 NO-BUILD CONDITIONS – UNSIGNALIZED

Intersection	Weekday Morning Peak Hour		Weekday Evening Peak Hour	
	LOS	Delay	LOS	Delay
Dempster Street with Narragansett Avenue[1]				
• Northbound Approach	C	15.3	C	15.5
• Westbound Left Turn	B	13.3	B	13.5
Narragansett Avenue with Alley[1]				
• Westbound Approach	A	8.3	A	8.8
Narragansett Avenue with Access Drive/Moretti`s Access Drive[2]				
• Eastbound Approach	A	0.1	A	9.0
• Westbound Approach	A	8.6	A	8.8
• Northbound Left Turn	A	0.1	A	0.1
• Southbound Left Turn	A	7.2	A	7.2
Dempster Street with West Access Drive[1]				
• Northbound Approach	A	0.1	C	24.6
• Westbound Left Turn	A	9.8	A	9.8
Dempster Street with East Access Drive[1]				
• Northbound Approach	C	16.0	C	17.3
• Westbound Left Turn	A	9.8	A	9.8

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

Table 7
CAPACITY ANALYSIS RESULTS
YEAR 2030 TOTAL PROJECTED CONDITIONS – UNSIGNALIZED

Intersection	Weekday Morning Peak Hour		Weekday Evening Peak Hour	
	LOS	Delay	LOS	Delay
Dempster Street with Narragansett Avenue[1]				
• Northbound Approach	C	15.5	C	15.7
• Westbound Left Turn	B	13.4	B	13.7
Narragansett Avenue with Alley[1]				
• Westbound Approach	A	8.3	A	8.9
Narragansett Avenue with Proposed Access Drive/Moretti`s Access Drive[2]				
• Eastbound Approach	A	0.1	A	9.2
• Westbound Approach	A	8.8	A	9.1
• Northbound Left Turn	A	0.1	A	0.1
• Southbound Left Turn	A	7.2	A	7.2
Dempster Street with Proposed Access Drive[1]				
• Northbound Approach	C	24.9	D	27.4
• Westbound Left Turn	B	10.1	B	10.1

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

Discussion and Recommendations

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

Dempster Street with Ferris Avenue

The results of the capacity analysis indicate that his intersection currently operates at an overall Level of Service (LOS) B during the weekday morning and weekday evening peak hours. The eastbound and westbound approaches operate at LOS B or better during both peak hours while the northbound approach operates at LOS D during both peak hours.

Under Year 2030 no-build and total projected conditions, the intersection is projected to continue operating at LOS B during both peak hours with increases in delay of less than one second. All the approaches are projected to continue operating at the same existing levels of service with increases in delay of approximately one second or less.

As such, this intersection has adequate reserve capacity to accommodate the traffic estimated to be generated by the proposed fuel center and no roadway improvements or traffic control modifications are required in conjunction with the proposed fuel center.

Dempster Street with Narragansett Avenue

The results of the capacity analysis indicate that the northbound approach currently operates at LOS B during the weekday morning peak hour and LOS C during the weekday evening peak hour. The westbound left-turn movement operates at LOS B during both peak hours.

Under Year 2030 no-build and total projected conditions, the northbound is projected to operate at LOS C during the weekday morning and weekday evening peak hours with increases in delay of less than one second. The westbound left-turn movement is projected to continue operating at LOS B during both peak hours with increases in delay of less than one second.

As such, this intersection has sufficient reserve capacity to accommodate the traffic to be generated by the proposed fuel center and roadway improvements or traffic control adjustments will be required.

Narragansett Avenue with Alley

The results of the capacity analysis indicate that the westbound approach currently operates at LOS A during the weekday morning and weekday evening peak hours and will continue to do so in the future. As such, the traffic estimated to be generated by the proposed fuel center will have a limited impact on the operation of this intersection and no roadway improvements or traffic control adjustments will be required.

Narragansett Avenue with Fuel Center Access Drive/Moretti`s Access Drive

The results of the capacity analysis indicate that all the approaches and their critical movements at this intersection operate at LOS A during the weekday morning and weekday evening peak hours and will continue to do so under Year 2030 no-build conditions.

Under Year 2030 total projected conditions, this access drive to the existing fuel center will be relocated approximately 13 feet south of the existing location. The results of the capacity analysis indicate that all the approaches and their critical movements at this intersection will continue to operate at LOS A during the weekday morning and weekday evening peak hours. In addition, the 95th percentile queue for the southbound left-turn movement is projected to be one to two vehicles and will not interrupt the traffic flow along Narragansett Avenue. As such, this intersection and access drive will be adequate to accommodate the traffic estimated to be generated by the proposed fuel center and will ensure efficient and flexible access to the site.

Dempster Street with West and East Access Drives

The results of the capacity analysis indicate that the northbound approach currently operates at LOS C or better during the weekday morning and weekday evening peak hours while the westbound left-turn movements operate at LOS A during both peak hours.

Under Year 2030 no-build conditions, the northbound approaches and the westbound left-turn movements are projected to continue operating at the same existing levels of service during both peak hours with increases in delay of less than three seconds.

Under Year 2030 total projected conditions, these two access drives will be consolidated into one full movement access which will be located approximately 100 feet east of Narragansett Avenue. The results of the capacity analysis indicate that the northbound approach is projected to operate at LOS C during the weekday morning peak hour and LOS D during the weekday evening peak hour. Additionally, the westbound left-turn movement is projected to operate at LOS B during both peak hours with 95th percentile queue of one to two vehicles. It should be noted that the total projected traffic volumes at the proposed access drive were compared to the right-turn lane warrant criteria summarized in Chapter 36 of the IDOT *Bureau of Design and Environment* (BDE) manual. The results indicated that a right-turn lane will not be warranted at this intersection. As such, this intersection access drive will be adequate to accommodate the traffic estimated to be generated by the proposed fuel center and will ensure efficient and flexible access to the site.

Parking Evaluation

As previously indicated, the proposed fuel center will include a fuel center containing 12 passenger vehicle fueling positions, an approximate 2,520 square-foot convenience store, and eight parking spaces of which one will be handicapped space. In order to determine the projected parking demand of the proposed fuel center, the parking demand was estimated based on the Village of Morton Grove Municipal Code. The parking demand for the proposed fuel center is as follows:

Parking Requirements of Proposed Fuel Center per Village Code

- Permitted and Special Uses in the Commercial Zoning Districts
    - One Parking Space per 250 Square Feet of Gross Floor Area

Based on the above and the requirements of the Village of Morton Grove, this translates into 10 parking spaces. As such, the proposed eight parking spaces along with the proposed 12 fueling pumps will be adequate to meet the parking requirements of the village.

6. Conclusion

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

- The traffic projected to be generated by the proposed fuel center will be reduced due to the volume of pass-by traffic that will be diverted from the existing traffic on the adjacent roadways.

- The area roadway system has sufficient reserve capacity to accommodate the additional traffic to be generated by the proposed fuel center and no roadway improvements or traffic control modifications are required.

- Reducing the number of access drives on Dempster Street from two to one will increase traffic safety by reducing the number of conflict points.

- An exclusive right-turn lane will not be warranted during both peak hours on Dempster Street at the proposed access drive.

- The outbound movements from both access drives should be under stop sign control.

- The proposed access system will be adequate in accommodating the traffic projected to be generated by the proposed fuel center with limited impact on the external roadway system.

- The proposed eight parking spaces along with the proposed 12 fueling pumps will be adequate to meet the parking requirements of the village.

Appendix

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

Traffic Count Summary Sheets

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

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

Count Name: Dempster Street with Ferris Avenue TMC
Site Code:
Start Date: 02/22/2024

Turning Movement Data

Start Time	Dempster Street Eastbound					Dempster Street Westbound					Ferris Avenue Northbound					
	U-Turn	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Peds	App. Total	U-Turn	Left	Right	Peds	App. Total	Int. Total
7:00 AM	0	309	8	0	317	0	5	242	0	247	0	28	9	0	37	601
7:15 AM	0	324	9	1	333	0	7	293	1	300	0	28	8	1	36	669
7:30 AM	0	338	14	1	352	0	16	228	1	244	0	42	16	1	58	654
7:45 AM	0	342	15	0	357	0	9	244	2	253	0	29	11	1	40	650
Hourly Total	0	1313	46	2	1359	0	37	1007	4	1044	0	127	44	3	171	2574
8:00 AM	0	257	16	0	273	0	9	229	3	238	0	38	12	1	50	561
8:15 AM	0	347	25	0	372	0	17	302	1	319	0	31	20	0	51	742
8:30 AM	0	310	14	0	324	0	11	270	2	281	0	28	9	0	37	642
8:45 AM	0	303	19	0	322	0	6	243	2	249	0	43	11	0	54	625
Hourly Total	0	1217	74	0	1291	0	43	1044	8	1087	0	140	52	1	192	2570
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4:00 PM	0	240	23	1	263	0	6	312	4	318	0	70	14	0	84	665
4:15 PM	0	247	27	1	274	0	12	368	1	380	0	53	12	1	65	719
4:30 PM	0	246	34	0	280	0	17	309	3	326	0	61	13	1	74	680
4:45 PM	0	297	27	2	324	0	15	328	1	343	0	47	16	1	63	730
Hourly Total	0	1030	111	4	1141	0	50	1317	9	1367	0	231	55	3	286	2794
5:00 PM	0	272	24	0	296	0	9	303	5	312	0	89	19	2	108	716
5:15 PM	1	268	21	1	290	0	10	354	0	364	0	69	10	0	79	733
5:30 PM	0	281	42	0	323	1	8	328	0	337	0	59	13	0	72	732
5:45 PM	0	247	34	4	281	0	13	313	1	326	0	50	16	1	66	673
Hourly Total	1	1068	121	5	1190	1	40	1298	6	1339	0	267	58	3	325	2854
Grand Total	1	4628	352	11	4981	1	170	4666	27	4837	0	765	209	10	974	10792
Approach %	0.0	92.9	7.1	-	-	0.0	3.5	96.5	-	-	0.0	78.5	21.5	-	-	-
Total %	0.0	42.9	3.3	-	46.2	0.0	1.6	43.2	-	44.8	0.0	7.1	1.9	-	9.0	-
Lights	1	4505	340	-	4846	1	168	4534	-	4703	0	754	206	-	960	10509
% Lights	100.0	97.3	96.6	-	97.3	100.0	98.8	97.2	-	97.2	-	98.6	98.6	-	98.6	97.4
Buses	0	37	6	-	43	0	1	41	-	42	0	9	1	-	10	95
% Buses	0.0	0.8	1.7	-	0.9	0.0	0.6	0.9	-	0.9	-	1.2	0.5	-	1.0	0.9
Single-Unit Trucks	0	67	4	-	71	0	1	57	-	58	0	2	1	-	3	132
% Single-Unit Trucks	0.0	1.4	1.1	-	1.4	0.0	0.6	1.2	-	1.2	-	0.3	0.5	-	0.3	1.2
Articulated Trucks	0	19	0	-	19	0	0	34	-	34	0	0	1	-	1	54
% Articulated Trucks	0.0	0.4	0.0	-	0.4	0.0	0.0	0.7	-	0.7	-	0.0	0.5	-	0.1	0.5
Bicycles on Road	0	0	2	-	2	0	0	0	-	0	0	0	0	-	0	2
% Bicycles on Road	0.0	0.0	0.6	-	0.0	0.0	0.0	0.0	-	0.0	-	0.0	0.0	-	0.0	0.0
Pedestrians	-	-	-	11	-	-	-	-	27	-	-	-	-	10	-	-
% Pedestrians	-	-	-	100.0	-	-	-	-	100.0	-	-	-	-	100.0	-	-

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

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(847)518-9990 sainkeshavarzi@kloainc.com

Count Name: Dempster Street with Ferris Avenue TMC
Site Code:
Start Date: 02/22/2024

Turning Movement Peak Hour Data (7:30 AM)

Start Time	Dempster Street Eastbound					Dempster Street Westbound					Ferris Avenue Northbound					
	U-Turn	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Peds	App. Total	U-Turn	Left	Right	Peds	App. Total	Int. Total
7:30 AM	0	338	14	1	352	0	16	228	1	244	0	42	16	1	58	654
7:45 AM	0	342	15	0	357	0	9	244	2	253	0	29	11	1	40	650
8:00 AM	0	257	16	0	273	0	9	229	3	238	0	38	12	1	50	561
8:15 AM	0	347	25	0	372	0	17	302	1	319	0	31	20	0	51	742
Total	0	1284	70	1	1354	0	51	1003	7	1054	0	140	59	3	199	2607
Approach %	0.0	94.8	5.2	-	-	0.0	4.8	95.2	-	-	0.0	70.4	29.6	-	-	-
Total %	0.0	49.3	2.7	-	51.9	0.0	2.0	38.5	-	40.4	0.0	5.4	2.3	-	7.6	-
PHF	0.000	0.925	0.700	-	0.910	0.000	0.750	0.830	-	0.826	0.000	0.833	0.738	-	0.858	0.878
Lights	0	1248	68	-	1316	0	50	966	-	1016	0	135	58	-	193	2525
% Lights	-	97.2	97.1	-	97.2	-	98.0	96.3	-	96.4	-	96.4	98.3	-	97.0	96.9
Buses	0	8	2	-	10	0	1	13	-	14	0	4	1	-	5	29
% Buses	-	0.6	2.9	-	0.7	-	2.0	1.3	-	1.3	-	2.9	1.7	-	2.5	1.1
Single-Unit Trucks	0	18	0	-	18	0	0	15	-	15	0	1	0	-	1	34
% Single-Unit Trucks	-	1.4	0.0	-	1.3	-	0.0	1.5	-	1.4	-	0.7	0.0	-	0.5	1.3
Articulated Trucks	0	10	0	-	10	0	0	9	-	9	0	0	0	-	0	19
% Articulated Trucks	-	0.8	0.0	-	0.7	-	0.0	0.9	-	0.9	-	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
Pedestrians	-	-	-	1	-	-	-	-	7	-	-	-	-	3	-	-
% Pedestrians	-	-	-	100.0	-	-	-	-	100.0	-	-	-	-	100.0	-	-

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9575 W. Higgins Rd., Suite 400

Rosemont, Illinois, United States 60018
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Count Name: Dempster Street with Ferris Avenue TMC
Site Code:
Start Date: 02/22/2024

Turning Movement Peak Hour Data (4:45 PM)

Start Time	Dempster Street Eastbound					Dempster Street Westbound					Ferris Avenue Northbound					
	U-Turn	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Peds	App. Total	U-Turn	Left	Right	Peds	App. Total	Int. Total
4:45 PM	0	297	27	2	324	0	15	328	1	343	0	47	16	1	63	730
5:00 PM	0	272	24	0	296	0	9	303	5	312	0	89	19	2	108	716
5:15 PM	1	268	21	1	290	0	10	354	0	364	0	69	10	0	79	733
5:30 PM	0	281	42	0	323	1	8	328	0	337	0	59	13	0	72	732
Total	1	1118	114	3	1233	1	42	1313	6	1356	0	264	58	3	322	2911
Approach %	0.1	90.7	9.2	-	-	0.1	3.1	96.8	-	-	0.0	82.0	18.0	-	-	-
Total %	0.0	38.4	3.9	-	42.4	0.0	1.4	45.1	-	46.6	0.0	9.1	2.0	-	11.1	-
PHF	0.250	0.941	0.679	-	0.951	0.250	0.700	0.927	-	0.931	0.000	0.742	0.763	-	0.745	0.993
Lights	1	1104	110	-	1215	1	42	1285	-	1328	0	262	57	-	319	2862
% Lights	100.0	98.7	96.5	-	98.5	100.0	100.0	97.9	-	97.9	-	99.2	98.3	-	99.1	98.3
Buses	0	6	1	-	7	0	0	8	-	8	0	2	0	-	2	17
% Buses	0.0	0.5	0.9	-	0.6	0.0	0.0	0.6	-	0.6	-	0.8	0.0	-	0.6	0.6
Single-Unit Trucks	0	7	2	-	9	0	0	15	-	15	0	0	1	-	1	25
% Single-Unit Trucks	0.0	0.6	1.8	-	0.7	0.0	0.0	1.1	-	1.1	-	0.0	1.7	-	0.3	0.9
Articulated Trucks	0	1	0	-	1	0	0	5	-	5	0	0	0	-	0	6
% Articulated Trucks	0.0	0.1	0.0	-	0.1	0.0	0.0	0.4	-	0.4	-	0.0	0.0	-	0.0	0.2
Bicycles on Road	0	0	1	-	1	0	0	0	-	0	0	0	0	-	0	1
% Bicycles on Road	0.0	0.0	0.9	-	0.1	0.0	0.0	0.0	-	0.0	-	0.0	0.0	-	0.0	0.0
Pedestrians	-	-	-	3	-	-	-	-	6	-	-	-	-	3	-	-
% Pedestrians	-	-	-	100.0	-	-	-	-	100.0	-	-	-	-	100.0	-	-

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Count Name: Dempster Street with Narragansett Avenue
Site Code:
Start Date: 02/22/2024

Turning Movement Data

Start Time	Dempster Street Eastbound					Dempster Street Westbound					Narragansett Avenue Northbound					
	U-Turn	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Peds	App. Total	U-Turn	Left	Right	Peds	App. Total	Int. Total
7:00 AM	0	326	5	0	331	0	0	278	0	278	0	1	0	0	1	610
7:15 AM	0	334	6	0	340	0	0	305	0	305	0	0	2	1	2	647
7:30 AM	0	343	4	0	347	0	1	293	0	294	0	0	0	2	0	641
7:45 AM	1	347	1	0	349	0	3	246	0	249	0	0	1	2	1	599
Hourly Total	1	1350	16	0	1367	0	4	1122	0	1126	0	1	3	5	4	2497
8:00 AM	0	304	4	0	308	0	2	278	0	280	0	0	0	1	0	588
8:15 AM	0	341	8	0	349	0	1	326	0	327	0	0	1	0	1	677
8:30 AM	0	331	3	0	334	0	0	296	0	296	0	0	4	0	4	634
8:45 AM	0	320	2	0	322	0	0	296	0	296	0	0	1	1	1	619
Hourly Total	0	1296	17	0	1313	0	3	1196	0	1199	0	0	6	2	6	2518
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4:00 PM	0	280	11	0	291	1	0	372	0	373	0	2	4	3	6	670
4:15 PM	0	266	7	0	273	0	4	404	0	408	0	1	1	0	2	683
4:30 PM	0	281	10	0	291	0	2	376	0	378	0	0	2	1	2	671
4:45 PM	0	313	14	0	327	0	5	369	0	374	0	1	0	2	1	702
Hourly Total	0	1140	42	0	1182	1	11	1521	0	1533	0	4	7	6	11	2726
5:00 PM	0	291	9	0	300	0	3	378	0	381	0	0	4	2	4	685
5:15 PM	0	284	8	0	292	0	3	398	0	401	0	1	2	3	3	696
5:30 PM	0	316	7	0	323	0	11	419	0	430	0	0	1	0	1	754
5:45 PM	0	294	8	0	302	0	8	328	0	336	0	0	5	0	5	643
Hourly Total	0	1185	32	0	1217	0	25	1523	0	1548	0	1	12	5	13	2778
Grand Total	1	4971	107	0	5079	1	43	5362	0	5406	0	6	28	18	34	10519
Approach %	0.0	97.9	2.1	-	-	0.0	0.8	99.2	-	-	0.0	17.6	82.4	-	-	-
Total %	0.0	47.3	1.0	-	48.3	0.0	0.4	51.0	-	51.4	0.0	0.1	0.3	-	0.3	-
Lights	1	4834	106	-	4941	1	42	5235	-	5278	0	6	27	-	33	10252
% Lights	100.0	97.2	99.1	-	97.3	100.0	97.7	97.6	-	97.6	-	100.0	96.4	-	97.1	97.5
Buses	0	43	0	-	43	0	0	33	-	33	0	0	0	-	0	76
% Buses	0.0	0.9	0.0	-	0.8	0.0	0.0	0.6	-	0.6	-	0.0	0.0	-	0.0	0.7
Single-Unit Trucks	0	63	0	-	63	0	0	63	-	63	0	0	1	-	1	127
% Single-Unit Trucks	0.0	1.3	0.0	-	1.2	0.0	0.0	1.2	-	1.2	-	0.0	3.6	-	2.9	1.2
Articulated Trucks	0	30	1	-	31	0	1	30	-	31	0	0	0	-	0	62
% Articulated Trucks	0.0	0.6	0.9	-	0.6	0.0	2.3	0.6	-	0.6	-	0.0	0.0	-	0.0	0.6
Bicycles on Road	0	1	0	-	1	0	0	1	-	1	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	-	0.0	0.0
Pedestrians	-	-	-	0	-	-	-	-	0	-	-	-	-	18	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	100.0	-	-

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Count Name: Dempster Street with Narragansett Avenue
Site Code:
Start Date: 02/22/2024

Turning Movement Peak Hour Data (7:30 AM)

Start Time	Dempster Street Eastbound					Dempster Street Westbound					Narragansett Avenue Northbound					
	U-Turn	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Peds	App. Total	U-Turn	Left	Right	Peds	App. Total	Int. Total
7:30 AM	0	343	4	0	347	0	1	293	0	294	0	0	0	2	0	641
7:45 AM	1	347	1	0	349	0	3	246	0	249	0	0	1	2	1	599
8:00 AM	0	304	4	0	308	0	2	278	0	280	0	0	0	1	0	588
8:15 AM	0	341	8	0	349	0	1	326	0	327	0	0	1	0	1	677
Total	1	1335	17	0	1353	0	7	1143	0	1150	0	0	2	5	2	2505
Approach %	0.1	98.7	1.3	-	-	0.0	0.6	99.4	-	-	0.0	0.0	100.0	-	-	-
Total %	0.0	53.3	0.7	-	54.0	0.0	0.3	45.6	-	45.9	0.0	0.0	0.1	-	0.1	-
PHF	0.250	0.962	0.531	-	0.969	0.000	0.583	0.877	-	0.879	0.000	0.000	0.500	-	0.500	0.925
Lights	1	1296	17	-	1314	0	7	1110	-	1117	0	0	2	-	2	2433
% Lights	100.0	97.1	100.0	-	97.1	-	100.0	97.1	-	97.1	-	-	100.0	-	100.0	97.1
Buses	0	11	0	-	11	0	0	7	-	7	0	0	0	-	0	18
% Buses	0.0	0.8	0.0	-	0.8	-	0.0	0.6	-	0.6	-	-	0.0	-	0.0	0.7
Single-Unit Trucks	0	17	0	-	17	0	0	19	-	19	0	0	0	-	0	36
% Single-Unit Trucks	0.0	1.3	0.0	-	1.3	-	0.0	1.7	-	1.7	-	-	0.0	-	0.0	1.4
Articulated Trucks	0	11	0	-	11	0	0	7	-	7	0	0	0	-	0	18
% Articulated Trucks	0.0	0.8	0.0	-	0.8	-	0.0	0.6	-	0.6	-	-	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
Pedestrians	-	-	-	0	-	-	-	-	0	-	-	-	-	5	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	100.0	-	-

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Count Name: Dempster Street with Narragansett Avenue
Site Code:
Start Date: 02/22/2024

Turning Movement Peak Hour Data (4:45 PM)

Start Time	Dempster Street Eastbound					Dempster Street Westbound					Narragansett Avenue Northbound					
	U-Turn	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Peds	App. Total	U-Turn	Left	Right	Peds	App. Total	Int. Total
4:45 PM	0	313	14	0	327	0	5	369	0	374	0	1	0	2	1	702
5:00 PM	0	291	9	0	300	0	3	378	0	381	0	0	4	2	4	685
5:15 PM	0	284	8	0	292	0	3	398	0	401	0	1	2	3	3	696
5:30 PM	0	316	7	0	323	0	11	419	0	430	0	0	1	0	1	754
Total	0	1204	38	0	1242	0	22	1564	0	1586	0	2	7	7	9	2837
Approach %	0.0	96.9	3.1	-	-	0.0	1.4	98.6	-	-	0.0	22.2	77.8	-	-	-
Total %	0.0	42.4	1.3	-	43.8	0.0	0.8	55.1	-	55.9	0.0	0.1	0.2	-	0.3	-
PHF	0.000	0.953	0.679	-	0.950	0.000	0.500	0.933	-	0.922	0.000	0.500	0.438	-	0.563	0.941
Lights	0	1187	38	-	1225	0	22	1534	-	1556	0	2	7	-	9	2790
% Lights	-	98.6	100.0	-	98.6	-	100.0	98.1	-	98.1	-	100.0	100.0	-	100.0	98.3
Buses	0	7	0	-	7	0	0	10	-	10	0	0	0	-	0	17
% Buses	-	0.6	0.0	-	0.6	-	0.0	0.6	-	0.6	-	0.0	0.0	-	0.0	0.6
Single-Unit Trucks	0	7	0	-	7	0	0	15	-	15	0	0	0	-	0	22
% Single-Unit Trucks	-	0.6	0.0	-	0.6	-	0.0	1.0	-	0.9	-	0.0	0.0	-	0.0	0.8
Articulated Trucks	0	3	0	-	3	0	0	5	-	5	0	0	0	-	0	8
% Articulated Trucks	-	0.2	0.0	-	0.2	-	0.0	0.3	-	0.3	-	0.0	0.0	-	0.0	0.3
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
Pedestrians	-	-	-	0	-	-	-	-	0	-	-	-	-	7	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	100.0	-	-

Study Name	Dempster Street with Mobile Gas Station Access (AM)
Start Date	Thursday, February 22, 2024 7:00 AM
End Date	Thursday, February 22, 2024 9:00 AM
Site Code	

Report Summary

		Eastbound						Westbound						Northwestbound						Northeastbound						Crosswalk		
Time Period	**Class.**	**U**	**T**	**BR**	**HR**	**I**	**O**	**U**	**HL**	**BL**	**T**	**I**	**O**	**U**	**L**	**BL**	**HR**	**I**	**O**	**U**	**HL**	**BR**	**R**	**I**	**O**	**Total**		**ıdestria**	**Total**
Peak 1	Lights	0	1308	1	6	1315	1082	0	1	6	1080	1087	1315	0	0	2	7	9	2	0	0	0	0	0	12	2411	EB	0	0
Specified Period	%	0%	97%	100%	100%	97%	97%	0%	100%	100%	97%	97%	97%	0%	0%	100%	100%	100%	100%	0%	0%	0%	0%	0%	100%	97%		0%	
7:30 AM - 8:30 AM	Buses	0	11	0	0	11	11	0	0	0	11	11	11	0	0	0	0	0	0	0	0	0	0	0	0	22	WB	0	0
One Hour Peak	%	0%	1%	0%	0%	1%	1%	0%	0%	0%	1%	1%	1%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	1%		0%	
7:30 AM - 8:30 AM	ngle-Unit Truc	0	18	0	0	18	17	0	0	0	17	17	18	0	0	0	0	0	0	0	0	0	0	0	0	35	NWB	3	3
	%	0%	1%	0%	0%	1%	2%	0%	0%	0%	2%	2%	1%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	1%		100%	
	ticulated Truc	0	10	0	0	10	7	0	0	0	7	7	10	0	0	0	0	0	0	0	0	0	0	0	0	17	NEB	1	1
	%	0%	1%	0%	0%	1%	1%	0%	0%	0%	1%	1%	1%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	1%		100%	
	icycles on Roa	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		**4**	**4**
	%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%			
	Total	**0**	**1347**	**1**	**6**	**1354**	**1117**	**0**	**1**	**6**	**1115**	**1122**	**1354**	**0**	**0**	**2**	**7**	**9**	**2**	**0**	**0**	**0**	**0**	**0**	**12**	**2485**			
	PHF	0	0.93	0.25	0.38	0.93	0.83	0	0.25	0.5	0.83	0.83	0.93	0	0	0.5	0.44	0.45	0.25	0	0	0	0	0	0.6	0.88			
	Approach %					54%	45%					45%	54%					0%	0%					0%	0%				

Dempster Street with East and West Access Drives

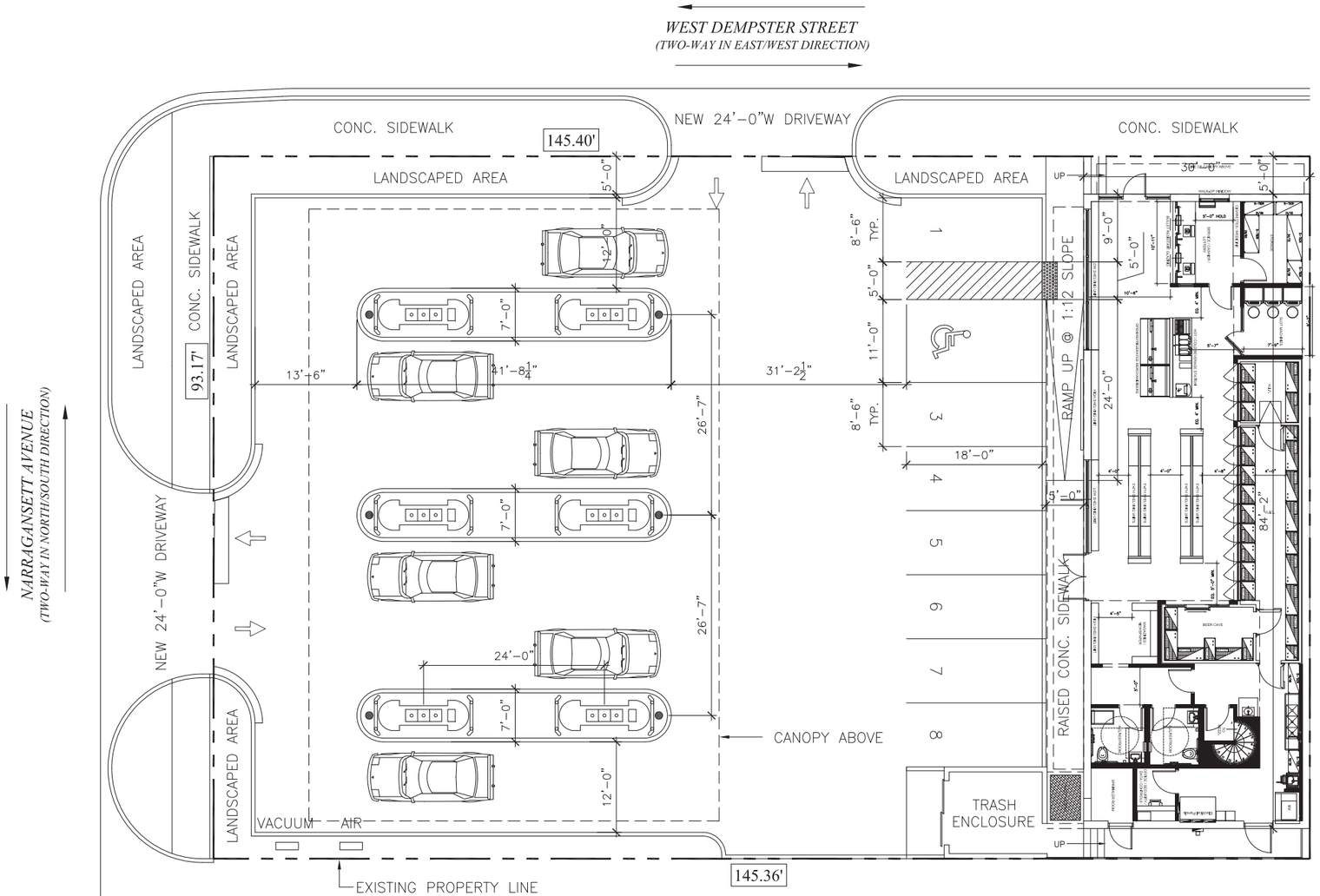
	Westbound Approach			Eastbound Approach			West Access			East Access					
	T		L	R	T		R		L	R		L			
4:15 PM	315		3	2	340		0		0	1		2			
4:30 PM	300		1	3	337		0		0	2		0			
4:45 PM	295		2	1	356		1		3	1		0	659		
5:00 PM	335		0	6	314		1		1	4		1	662	PHF	0.943166
5:15 PM	361		0	0	347		0		0	6		3	717		
5:30 PM	346		1	0	317		0		0	3		0	667		
5:45 PM	313		1	3	363		0		0	1		0			

Study Name	Narragansett Avenue with Alley Access TMC
Start Date	Thursday, February 22, 2024 7:00 AM
End Date	Thursday, February 22, 2024 6:00 PM
Site Code	

Report Summary

		Eastbound							Northbound							Southbound							Northwestbound							Southwestbound							Crosswalk		
Time Period	**Class.**	**U**	**L**	**BL**	**BR**	**R**	**I**	**O**	**U**	**L**	**T**	**BR**	**HR**	**I**	**O**	**U**	**HL**	**BL**	**T**	**R**	**I**	**O**	**U**	**HL**	**BL**	**BR**	**R**	**I**	**O**	**U**	**L**	**BL**	**BR**	**HR**	**I**	**O**	**Total**		**:destria**	**Total**
Peak 1	Lights	0	0	0	0	0	0	4	0	0	1	2	0	3	15	0	3	2	14	4	23	2	0	0	0	0	1	1	2	0	0	1	0	1	2	6	29	EB	0	0
Specified Period	%	0%	0%	0%	0%	0%	0%	100%	0%	0%	100%	100%	0%	100%	100%	0%	100%	100%	100%	100%	100%	100%	0%	0%	0%	0%	100%	100%	100%	0%	0%	100%	0%	100%	100%	100%	100%		0%	
7:30 AM - 8:30 AM	Buses	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	NB	0	0
One Hour Peak	%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%		0%	
7:30 AM - 8:30 AM	ıgle-Unit Truc	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	SB	0	0
	%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%		0%	
	ticulated Truc	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	NWB	0	0
	%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%		0%	
	cycles on Roa	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	SWB	0	0
	%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%		0%	
	Total	**0**	**0**	**0**	**0**	**0**	**0**	**4**	**0**	**0**	**1**	**2**	**0**	**3**	**15**	**0**	**3**	**2**	**14**	**4**	**23**	**2**	**0**	**0**	**0**	**0**	**1**	**1**	**2**	**0**	**0**	**1**	**0**	**1**	**2**	**6**	**29**		**0**	**0**
	PHF	0	0	0	0	0	0	0.5	0	0	0.25	0.25	0	0.38	0.75	0	0.38	0.25	0.88	0.5	0.72	0.5	0	0	0	0	0.25	0.25	0.25	0.38	0.6	0	0.25	0	0.25	0.38	0.6			
	Approach %						0%	14%						10%	52%						79%	7%						3%	7%						7%	21%				
Peak 2	Lights	0	5	4	0	1	10	20	1	0	4	3	0	8	42	0	3	0	36	19	58	9	0	1	0	0	0	1	0	0	0	3	1	0	4	10	81	EB	0	0
Specified Period	%	0%	100%	100%	0%	100%	100%	100%	100%	0%	100%	100%	0%	100%	100%	0%	100%	0%	100%	100%	100%	100%	0%	100%	0%	0%	0%	100%	0%	0%	0%	100%	100%	0%	100%	100%	100%		0%	
4:45 PM - 5:45 PM	Buses	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	NB	1	1
One Hour Peak	%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%		100%	
4:45 PM - 5:45 PM	ıgle-Unit Truc	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	SB	1	1
	%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%		100%	
	ticulated Truc	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	NWB	0	0
	%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%		0%	
	cycles on Roa	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	SWB	0	0
	%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%		0%	
	Total	**0**	**5**	**4**	**0**	**1**	**10**	**20**	**1**	**0**	**4**	**3**	**0**	**8**	**42**	**0**	**3**	**0**	**36**	**19**	**58**	**9**	**0**	**1**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**3**	**1**	**0**	**4**	**10**	**81**		**2**	**2**
	PHF	0	0.62	0.33	0	0.25	0.5	0.45	0.25	0	0.5	0.75	0	0.67	0.81	0	0.38	0	0.69	0.48	0.85	0.75	0	0.25	0	0	0	0.25	0	0	0	0.75	0.25	0	0.5	0.42	0.75			
	Approach %						12%	25%						10%	52%						72%	11%						1%	0%						5%	12%				

Site Plan



EXISTING PUBLIC ALLEY

1 / SP1H SCHEMATIC SITE PLAN H – PRELIMINARY
1/8" = 1'-0"

DISCLAIMER:

- Schematic site plan is preliminary and to be used only for the pre-development meeting with the Village of Morton Grove.
- Schematic site plan is subject to changes based on review by the Village of Morton Grove.
- Schematic site plan shall not be used for any purpose other the one mentioned above.
- Do not scale the drawing.

SCHEMATIC SITE PLAN
NOT FOR CONSTRUCTION

Architect of Record
aka anil kakkunta architects, ltd.
Commercial • Educational • Residential • Healthcare
2514 WEST PETERSON AVE
CHICAGO, IL 60659
PHONE: 773.508.5533 FAX: 773.508.5757
www.akarchitects.com

SCHEMATIC SITE PLAN - G

PROPOSED GAS STATION / CONVENIENCE STORE / DRIVE THRU
6335 WEST DEMPSTER STREET
MORTON GROVE, IL 60053

SHEET TITLE	ADDRESS

PROJECT NO. 27641-21

REVISIONS

#	DATE	DESCRIPTION

DRAWN BY: AT CK'D BY: AT

SCALE: As Noted
DATE: 05-13-2022
CAD FILE:SP_1

SHEET NO.
SP-1H

ITE Trip Generation Summary Sheets

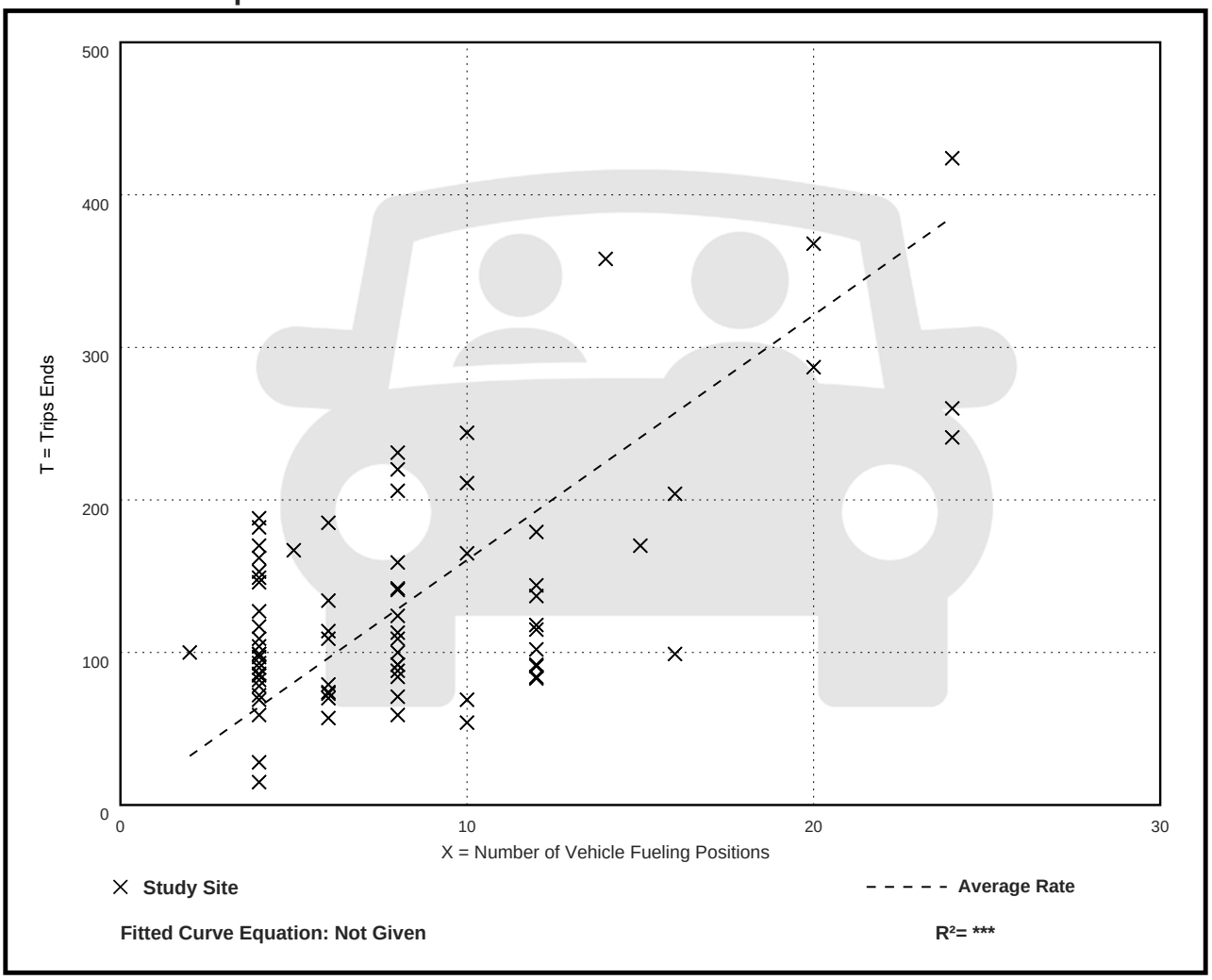
Convenience Store/Gas Station - GFA (2-4k) (945)

Vehicle Trip Ends vs: Vehicle Fueling Positions
On a: Weekday,
Peak Hour of Adjacent Street Traffic,
One Hour Between 7 and 9 a.m.
Setting/Location: General Urban/Suburban
Number of Studies: 76
Avg. Num. of Vehicle Fueling Positions: 8
Directional Distribution: 50% entering, 50% exiting

Vehicle Trip Generation per Vehicle Fueling Position

Average Rate	Range of Rates	Standard Deviation
16.06	3.75 - 50.00	8.79

Data Plot and Equation



Fitted Curve Equation: Not Given

R^2= ***

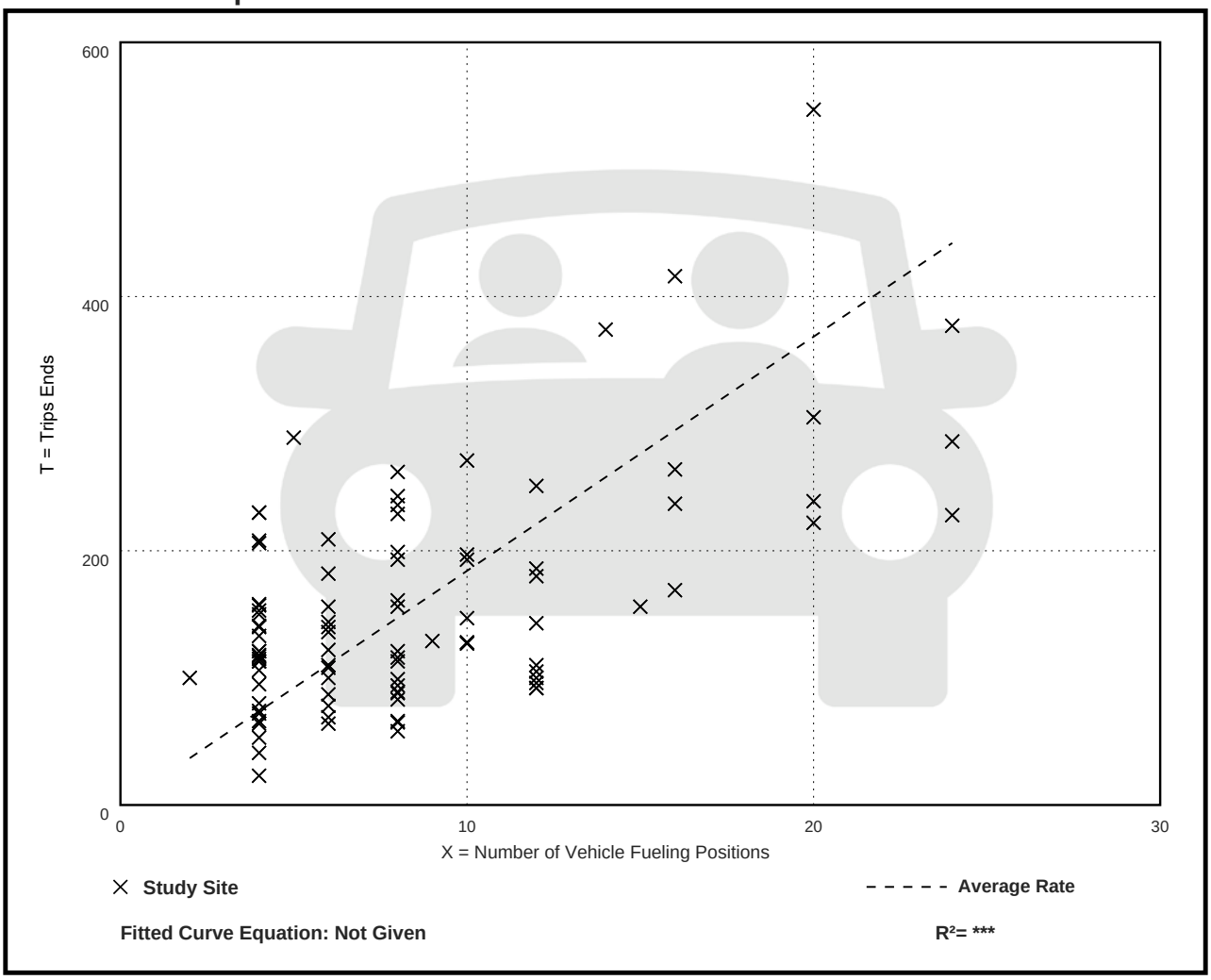
Convenience Store/Gas Station - GFA (2-4k) (945)

Vehicle Trip Ends vs: Vehicle Fueling Positions
On a: Weekday,
Peak Hour of Adjacent Street Traffic,
One Hour Between 4 and 6 p.m.
Setting/Location: General Urban/Suburban
Number of Studies: 93
Avg. Num. of Vehicle Fueling Positions: 8
Directional Distribution: 50% entering, 50% exiting

Vehicle Trip Generation per Vehicle Fueling Position

Average Rate	Range of Rates	Standard Deviation
18.42	5.75 - 57.80	10.16

Data Plot and Equation



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 22, 2024

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

Subject: Dempster Street @ Ferris Avenue
IDOT

Dear Ms. May:

In response to a request made on your behalf and dated February 21, 2024, we have developed year 2050 average daily traffic (ADT) projections for the subject location.

ROAD SEGMENT	Current ADT	Year 2050 ADT
Dempster St, at Ferris Ave	32,600	38,700
Ferris Ave, at Dempster St	3,200	3,800

Traffic projections are developed using existing ADT data provided in the request letter and the results from the December 2023 CMAP Travel Demand Analysis. The regional travel model uses CMAP 2050 socioeconomic projections and assumes the implementation of the ON TO 2050 Comprehensive Regional Plan for the Northeastern Illinois area. The provision of this data in support of your request does not constitute a CMAP endorsement of the proposed development or any subsequent developments.

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

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

cc: Rios (IDOT)
2024_TrafficForecasts\MortonGrove\ck-27-24\ck-27-24.docx

Level of Service Criteria

LEVEL OF SERVICE CRITERIA

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

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

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

Capacity Analysis Summary Sheets

Existing Weekday Morning Peak Hour

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	1284	70	51	1015	140	59
Future Volume (vph)	1284	70	51	1015	140	59
Ideal Flow (vphpl)	1900	1900	1900	2000	1900	1900
Storage Length (ft)		0	150		140	0
Storage Lanes		0	1		1	0
Taper Length (ft)			105		130	
Lane Util. Factor	0.95	0.95	1.00	0.95	0.97	0.95
Frt	0.992				0.956	
Flt Protected			0.950		0.966	
Satd. Flow (prot)	3477	0	1770	3654	3292	0
Flt Permitted			0.121		0.966	
Satd. Flow (perm)	3477	0	225	3654	3292	0
Right Turn on Red		No				Yes
Satd. Flow (RTOR)					54	
Link Speed (mph)	30			30	25	
Link Distance (ft)	156			136	296	
Travel Time (s)	3.5			3.1	8.1	
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88
Heavy Vehicles (%)	3%	3%	2%	4%	4%	2%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	1539	0	58	1153	226	0
Turn Type	NA		pm+pt	NA	Prot	
Protected Phases	2		1	6	8	
Permitted Phases			6			
Detector Phase	2		1	6	8	
Switch Phase						
Minimum Initial (s)	15.0		3.0	15.0	8.0	
Minimum Split (s)	32.0		9.5	32.0	35.0	
Total Split (s)	72.0		13.0	85.0	35.0	
Total Split (%)	60.0%		10.8%	70.8%	29.2%	
Yellow Time (s)	4.5		3.5	4.5	4.5	
All-Red Time (s)	1.5		0.0	1.5	1.5	
Lost Time Adjust (s)	0.0		0.0	0.0	0.0	
Total Lost Time (s)	6.0		3.5	6.0	6.0	
Lead/Lag	Lag		Lead			
Lead-Lag Optimize?	Yes		Yes			
Recall Mode	C-Min		None	C-Min	None	
Act Effct Green (s)	87.4		97.8	95.3	12.7	
Actuated g/C Ratio	0.73		0.82	0.79	0.11	
v/c Ratio	0.61		0.22	0.40	0.57	
Control Delay	10.1		4.4	4.4	44.1	
Queue Delay	0.0		0.0	0.0	0.0	
Total Delay	10.1		4.4	4.4	44.1	
LOS	B		A	A	D	
Approach Delay	10.1			4.4	44.1	
Approach LOS	B			A	D	
Queue Length 50th (ft)	287		7	115	65	
Queue Length 95th (ft)	387		17	163	100	

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Internal Link Dist (ft)	76			56	216	
Turn Bay Length (ft)			150		140	
Base Capacity (vph)	2531		305	2903	836	
Starvation Cap Reductn	0		0	0	0	
Spillback Cap Reductn	0		0	0	0	
Storage Cap Reductn	0		0	0	0	
Reduced v/c Ratio	0.61		0.19	0.40	0.27	

Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 110.4 (92%), Referenced to phase 2:EBT and 6:WBTL, Start of Green			
Natural Cycle: 90			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.61			
Intersection Signal Delay: 10.3		Intersection LOS: B	
Intersection Capacity Utilization 59.0%		ICU Level of Service B	
Analysis Period (min) 15			

Splits and Phases: 5: Ferris Avenue & Dempster Street

Intersection	
Int Delay, s/veh	0.1

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	1352	17	7	1143	0	2
Future Vol, veh/h	1352	17	7	1143	0	2
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	165	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	93	93	93	93	93	93
Heavy Vehicles, %	3	0	0	3	0	0
Mvmt Flow	1454	18	8	1229	0	2

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	1472	0	-	736
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	4.1	-	-	6.9
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	2.2	-	-	3.3
Pot Cap-1 Maneuver	-	-	464	-	0	366
Stage 1	-	-	-	-	0	-
Stage 2	-	-	-	-	0	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	464	-	-	366
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.1	14.9
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	366	-	-	464	-
HCM Lane V/C Ratio	0.006	-	-	0.016	-
HCM Control Delay (s)	14.9	-	-	12.9	-
HCM Lane LOS	B	-	-	B	-
HCM 95th %tile Q(veh)	0	-	-	0	-

Intersection	
Int Delay, s/veh	0

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	1348	6	6	1150	0	0
Future Vol, veh/h	1348	6	6	1150	0	0
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	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	88	88	88	88	88	88
Heavy Vehicles, %	3	0	0	4	0	0
Mvmt Flow	1532	7	7	1307	0	0

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	1539	0	2204	770
Stage 1	-	-	-	-	1536	-
Stage 2	-	-	-	-	668	-
Critical Hdwy	-	-	4.1	-	6.8	6.9
Critical Hdwy Stg 1	-	-	-	-	5.8	-
Critical Hdwy Stg 2	-	-	-	-	5.8	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	795	-	*215	*531
Stage 1	-	-	-	-	*501	-
Stage 2	-	-	-	-	*575	-
Platoon blocked, %	-	-	1	-	1	1
Mov Cap-1 Maneuver	-	-	795	-	*213	*531
Mov Cap-2 Maneuver	-	-	-	-	*213	-
Stage 1	-	-	-	-	*501	-
Stage 2	-	-	-	-	*570	-

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

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	-	-	-	795	-
HCM Lane V/C Ratio	-	-	-	0.009	-
HCM Control Delay (s)	0	-	-	9.6	-
HCM Lane LOS	A	-	-	A	-
HCM 95th %tile Q(veh)	-	-	-	0	-

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

Intersection	
Int Delay, s/veh	0.1

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	1347	1	1	1154	2	7
Future Vol, veh/h	1347	1	1	1154	2	7
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	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	88	88	88	88	88	88
Heavy Vehicles, %	3	0	0	4	0	0
Mvmt Flow	1531	1	1	1311	2	8

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	1532	0	2190	766
Stage 1	-	-	-	-	1532	-
Stage 2	-	-	-	-	658	-
Critical Hdwy	-	-	4.1	-	6.8	6.9
Critical Hdwy Stg 1	-	-	-	-	5.8	-
Critical Hdwy Stg 2	-	-	-	-	5.8	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	*798	-	*180	*531
Stage 1	-	-	-	-	*501	-
Stage 2	-	-	-	-	*575	-
Platoon blocked, %	-	-	1	-	1	1
Mov Cap-1 Maneuver	-	-	*798	-	*180	*531
Mov Cap-2 Maneuver	-	-	-	-	*180	-
Stage 1	-	-	-	-	*501	-
Stage 2	-	-	-	-	*575	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	15
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	370	-	-	* 798	-
HCM Lane V/C Ratio	0.028	-	-	0.001	-
HCM Control Delay (s)	15	-	-	9.5	-
HCM Lane LOS	C	-	-	A	-
HCM 95th %tile Q(veh)	0.1	-	-	0	-

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

Intersection	
Int Delay, s/veh	1.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	0	0	1	0	1	0	1	2	3	17	4
Future Vol, veh/h	0	0	0	1	0	1	0	1	2	3	17	4
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	60	60	60	60	60	60	60	60	60	60	60	60
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	0	0	2	0	2	0	2	3	5	28	7

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	47	47	32	46	49	4	35	0	0	5	0	0
Stage 1	42	42	-	4	4	-	-	-	-	-	-	-
Stage 2	5	5	-	42	45	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	959	849	1048	961	846	1085	1589	-	-	1630	-	-
Stage 1	978	864	-	1024	897	-	-	-	-	-	-	-
Stage 2	1022	896	-	978	861	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	955	846	1048	959	843	1085	1589	-	-	1630	-	-
Mov Cap-2 Maneuver	955	846	-	959	843	-	-	-	-	-	-	-
Stage 1	978	861	-	1024	897	-	-	-	-	-	-	-
Stage 2	1020	896	-	975	858	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	8.5	0	0.9
HCM LOS	A	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1589	-	-	-	1018	1630	-	-
HCM Lane V/C Ratio	-	-	-	-	0.003	0.003	-	-
HCM Control Delay (s)	0	-	-	0	8.5	7.2	0	-
HCM Lane LOS	A	-	-	A	A	A	A	-
HCM 95th %tile Q(veh)	0	-	-	-	0	0	-	-

Intersection	
Int Delay, s/veh	0.4

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	1	2	0	0	16
Future Vol, veh/h	0	1	2	0	0	16
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	60	60	60	60	60	60
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	0	2	3	0	0	27

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	30	3	0	-	-	-
Stage 1	3	-	-	-	-	-
Stage 2	27	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	-	-
Pot Cap-1 Maneuver	989	1087	-	0	0	-
Stage 1	1025	-	-	0	0	-
Stage 2	1001	-	-	0	0	-
Platoon blocked, %			-			-
Mov Cap-1 Maneuver	989	1087	-	-	-	-
Mov Cap-2 Maneuver	989	-	-	-	-	-
Stage 1	1025	-	-	-	-	-
Stage 2	1001	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	8.3	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	WBLn1	SBT
Capacity (veh/h)	-	1087	-
HCM Lane V/C Ratio	-	0.002	-
HCM Control Delay (s)	-	8.3	-
HCM Lane LOS	-	A	-
HCM 95th %tile Q(veh)	-	0	-

Capacity Analysis Summary Sheets

Existing Weekday Evening Peak Hour

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	1239	114	43	1317	264	58
Future Volume (vph)	1239	114	43	1317	264	58
Ideal Flow (vphpl)	1900	1900	1900	2000	1900	1900
Storage Length (ft)		0	150		140	0
Storage Lanes		0	1		1	0
Taper Length (ft)			105		130	
Lane Util. Factor	0.95	0.95	1.00	0.95	0.97	0.95
Frt	0.987				0.973	
Flt Protected			0.950		0.961	
Satd. Flow (prot)	3522	0	1805	3725	3406	0
Flt Permitted			0.146		0.961	
Satd. Flow (perm)	3522	0	277	3725	3406	0
Right Turn on Red		No				Yes
Satd. Flow (RTOR)					21	
Link Speed (mph)	30			30	25	
Link Distance (ft)	156			136	296	
Travel Time (s)	3.5			3.1	8.1	
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99	0.99
Heavy Vehicles (%)	1%	3%	0%	2%	1%	2%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	1367	0	43	1330	326	0
Turn Type	NA		pm+pt	NA	Prot	
Protected Phases	2		1	6	8	
Permitted Phases			6			
Detector Phase	2		1	6	8	
Switch Phase						
Minimum Initial (s)	15.0		3.0	15.0	8.0	
Minimum Split (s)	32.0		9.5	32.0	35.0	
Total Split (s)	72.0		13.0	85.0	35.0	
Total Split (%)	60.0%		10.8%	70.8%	29.2%	
Yellow Time (s)	4.5		3.5	4.5	4.5	
All-Red Time (s)	1.5		0.0	1.5	1.5	
Lost Time Adjust (s)	0.0		0.0	0.0	0.0	
Total Lost Time (s)	6.0		3.5	6.0	6.0	
Lead/Lag	Lag		Lead			
Lead-Lag Optimize?	Yes		Yes			
Recall Mode	C-Min		None	C-Min	None	
Act Effct Green (s)	83.1		93.5	91.0	17.0	
Actuated g/C Ratio	0.69		0.78	0.76	0.14	
v/c Ratio	0.56		0.15	0.47	0.65	
Control Delay	11.3		4.6	6.4	51.5	
Queue Delay	0.0		0.0	0.0	0.0	
Total Delay	11.3		4.6	6.4	51.5	
LOS	B		A	A	D	
Approach Delay	11.3			6.3	51.5	
Approach LOS	B			A	D	
Queue Length 50th (ft)	266		6	174	116	
Queue Length 95th (ft)	376		17	249	158	

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Internal Link Dist (ft)	76			56	216	
Turn Bay Length (ft)			150		140	
Base Capacity (vph)	2438		336	2824	839	
Starvation Cap Reductn	0		0	0	0	
Spillback Cap Reductn	0		0	0	0	
Storage Cap Reductn	0		0	0	0	
Reduced v/c Ratio	0.56		0.13	0.47	0.39	

Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 111.6 (93%), Referenced to phase 2:EBT and 6:WBTL, Start of Green			
Natural Cycle: 80			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.65			
Intersection Signal Delay: 13.3		Intersection LOS: B	
Intersection Capacity Utilization 57.2%		ICU Level of Service B	
Analysis Period (min) 15			

Splits and Phases: 5: Ferris Avenue & Dempster Street

Intersection	
Int Delay, s/veh	0.2

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	1333	39	22	1564	3	11
Future Vol, veh/h	1333	39	22	1564	3	11
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	165	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	1	0	0	2	0	0
Mvmt Flow	1418	41	23	1664	3	12

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	1459	0	2317	730
Stage 1	-	-	-	-	1439	-
Stage 2	-	-	-	-	878	-
Critical Hdwy	-	-	4.1	-	6.8	6.9
Critical Hdwy Stg 1	-	-	-	-	5.8	-
Critical Hdwy Stg 2	-	-	-	-	5.8	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	469	-	33	369
Stage 1	-	-	-	-	188	-
Stage 2	-	-	-	-	372	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	469	-	31	369
Mov Cap-2 Maneuver	-	-	-	-	31	-
Stage 1	-	-	-	-	188	-
Stage 2	-	-	-	-	354	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.2	15.1
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	369	-	-	469	-
HCM Lane V/C Ratio	0.032	-	-	0.05	-
HCM Control Delay (s)	15.1	-	-	13.1	-
HCM Lane LOS	C	-	-	B	-
HCM 95th %tile Q(veh)	0.1	-	-	0.2	-

Intersection	
Int Delay, s/veh	0

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	1338	6	2	1582	4	2
Future Vol, veh/h	1338	6	2	1582	4	2
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	0	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	0	0	2	0	0
Mvmt Flow	1454	7	2	1720	4	2

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	1461	0	2322	731
Stage 1	-	-	-	-	1458	-
Stage 2	-	-	-	-	864	-
Critical Hdwy	-	-	4.1	-	6.8	6.9
Critical Hdwy Stg 1	-	-	-	-	5.8	-
Critical Hdwy Stg 2	-	-	-	-	5.8	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	*798	-	*171	*531
Stage 1	-	-	-	-	*501	-
Stage 2	-	-	-	-	*402	-
Platoon blocked, %	-	-	1	-	1	1
Mov Cap-1 Maneuver	-	-	*798	-	*170	*531
Mov Cap-2 Maneuver	-	-	-	-	*170	-
Stage 1	-	-	-	-	*501	-
Stage 2	-	-	-	-	*401	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	21.9
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	220	-	-	* 798	-
HCM Lane V/C Ratio	0.03	-	-	0.003	-
HCM Control Delay (s)	21.9	-	-	9.5	-
HCM Lane LOS	C	-	-	A	-
HCM 95th %tile Q(veh)	0.1	-	-	0	-

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

Intersection	
Int Delay, s/veh	0.1

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	1339	1	1	1580	4	14
Future Vol, veh/h	1339	1	1	1580	4	14
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	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	2	0	0	2	0	0
Mvmt Flow	1424	1	1	1681	4	15

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	1425	0	2268	713
Stage 1	-	-	-	-	1425	-
Stage 2	-	-	-	-	843	-
Critical Hdwy	-	-	4.1	-	6.8	6.9
Critical Hdwy Stg 1	-	-	-	-	5.8	-
Critical Hdwy Stg 2	-	-	-	-	5.8	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	*798	-	*171	*531
Stage 1	-	-	-	-	*501	-
Stage 2	-	-	-	-	*402	-
Platoon blocked, %	-	-	1	-	1	1
Mov Cap-1 Maneuver	-	-	*798	-	*171	*531
Mov Cap-2 Maneuver	-	-	-	-	*171	-
Stage 1	-	-	-	-	*501	-
Stage 2	-	-	-	-	*402	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	15.5
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	362	-	-	* 798	-
HCM Lane V/C Ratio	0.053	-	-	0.001	-
HCM Control Delay (s)	15.5	-	-	9.5	-
HCM Lane LOS	C	-	-	A	-
HCM 95th %tile Q(veh)	0.2	-	-	0	-

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

Intersection	
Int Delay, s/veh	1.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	9	0	1	3	0	1	0	4	3	3	39	19
Future Vol, veh/h	9	0	1	3	0	1	0	4	3	3	39	19
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	75	75	75	75	75	75	75	75	75	75	75	75
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	12	0	1	4	0	1	0	5	4	4	52	25

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	81	82	65	80	92	7	77	0	0	9	0	0
Stage 1	73	73	-	7	7	-	-	-	-	-	-	-
Stage 2	8	9	-	73	85	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	912	812	1005	913	802	1081	1535	-	-	1624	-	-
Stage 1	942	838	-	1020	894	-	-	-	-	-	-	-
Stage 2	1019	892	-	942	828	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	908	810	1005	909	800	1081	1535	-	-	1624	-	-
Mov Cap-2 Maneuver	908	810	-	909	800	-	-	-	-	-	-	-
Stage 1	942	835	-	1020	894	-	-	-	-	-	-	-
Stage 2	1018	892	-	938	826	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	9	8.8	0	0.4
HCM LOS	A	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1535	-	-	917	947	1624	-	-
HCM Lane V/C Ratio	-	-	-	0.015	0.006	0.002	-	-
HCM Control Delay (s)	0	-	-	9	8.8	7.2	0	-
HCM Lane LOS	A	-	-	A	A	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0	0	0	-	-

Intersection	
Int Delay, s/veh	0.2

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	1	0	7	0	0	43
Future Vol, veh/h	1	0	7	0	0	43
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	75	75	75	75	75	75
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	1	0	9	0	0	57

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	66	9	0	-	-	-
Stage 1	9	-	-	-	-	-
Stage 2	57	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	-	-
Pot Cap-1 Maneuver	944	1079	-	0	0	-
Stage 1	1019	-	-	0	0	-
Stage 2	971	-	-	0	0	-
Platoon blocked, %			-			-
Mov Cap-1 Maneuver	944	1079	-	-	-	-
Mov Cap-2 Maneuver	944	-	-	-	-	-
Stage 1	1019	-	-	-	-	-
Stage 2	971	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	8.8	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	WBLn1	SBT
Capacity (veh/h)	-	944	-
HCM Lane V/C Ratio	-	0.001	-
HCM Control Delay (s)	-	8.8	-
HCM Lane LOS	-	A	-
HCM 95th %tile Q(veh)	-	0	-

Capacity Analysis Summary Sheets

Year 2030 No-Build Weekday Morning Peak Hour

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	1335	73	53	1056	146	61
Future Volume (vph)	1335	73	53	1056	146	61
Ideal Flow (vphpl)	1900	1900	1900	2000	1900	1900
Storage Length (ft)		0	150		140	0
Storage Lanes		0	1		1	0
Taper Length (ft)			105		130	
Lane Util. Factor	0.95	0.95	1.00	0.95	0.97	0.95
Frt	0.992				0.956	
Flt Protected			0.950		0.966	
Satd. Flow (prot)	3477	0	1770	3654	3292	0
Flt Permitted			0.109		0.966	
Satd. Flow (perm)	3477	0	203	3654	3292	0
Right Turn on Red		No				Yes
Satd. Flow (RTOR)					52	
Link Speed (mph)	30			30	25	
Link Distance (ft)	156			136	296	
Travel Time (s)	3.5			3.1	8.1	
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88
Heavy Vehicles (%)	3%	3%	2%	4%	4%	2%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	1600	0	60	1200	235	0
Turn Type	NA		pm+pt	NA	Prot	
Protected Phases	2		1	6	8	
Permitted Phases			6			
Detector Phase	2		1	6	8	
Switch Phase						
Minimum Initial (s)	15.0		3.0	15.0	8.0	
Minimum Split (s)	32.0		9.5	32.0	35.0	
Total Split (s)	72.0		13.0	85.0	35.0	
Total Split (%)	60.0%		10.8%	70.8%	29.2%	
Yellow Time (s)	4.5		3.5	4.5	4.5	
All-Red Time (s)	1.5		0.0	1.5	1.5	
Lost Time Adjust (s)	0.0		0.0	0.0	0.0	
Total Lost Time (s)	6.0		3.5	6.0	6.0	
Lead/Lag	Lag		Lead			
Lead-Lag Optimize?	Yes		Yes			
Recall Mode	C-Min		None	C-Min	None	
Act Effct Green (s)	86.8		97.4	94.9	13.1	
Actuated g/C Ratio	0.72		0.81	0.79	0.11	
v/c Ratio	0.64		0.24	0.42	0.58	
Control Delay	10.9		4.9	4.6	44.9	
Queue Delay	0.0		0.0	0.0	0.0	
Total Delay	10.9		4.9	4.6	44.9	
LOS	B		A	A	D	
Approach Delay	10.9			4.6	44.9	
Approach LOS	B			A	D	
Queue Length 50th (ft)	312		7	124	70	
Queue Length 95th (ft)	431		17	176	105	

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Internal Link Dist (ft)	76			56	216	
Turn Bay Length (ft)			150		140	
Base Capacity (vph)	2514		288	2890	835	
Starvation Cap Reductn	0		0	0	0	
Spillback Cap Reductn	0		0	0	0	
Storage Cap Reductn	0		0	0	0	
Reduced v/c Ratio	0.64		0.21	0.42	0.28	

Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 110.4 (92%), Referenced to phase 2:EBT and 6:WBTL, Start of Green			
Natural Cycle: 90			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.64			
Intersection Signal Delay: 10.9		Intersection LOS: B	
Intersection Capacity Utilization 60.7%		ICU Level of Service B	
Analysis Period (min) 15			

Splits and Phases: 5: Ferris Avenue & Dempster Street

Intersection	
Int Delay, s/veh	0.1

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	1406	18	7	1189	0	2
Future Vol, veh/h	1406	18	7	1189	0	2
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	165	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	93	93	93	93	93	93
Heavy Vehicles, %	3	0	0	3	0	0
Mvmt Flow	1512	19	8	1278	0	2

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	1531	0	-	766
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	4.1	-	-	6.9
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	2.2	-	-	3.3
Pot Cap-1 Maneuver	-	-	441	-	0	350
Stage 1	-	-	-	-	0	-
Stage 2	-	-	-	-	0	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	441	-	-	350
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.1	15.3
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	350	-	-	441	-
HCM Lane V/C Ratio	0.006	-	-	0.017	-
HCM Control Delay (s)	15.3	-	-	13.3	-
HCM Lane LOS	C	-	-	B	-
HCM 95th %tile Q(veh)	0	-	-	0.1	-

Intersection	
Int Delay, s/veh	0

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	1402	6	6	1196	0	0
Future Vol, veh/h	1402	6	6	1196	0	0
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	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	88	88	88	88	88	88
Heavy Vehicles, %	3	0	0	4	0	0
Mvmt Flow	1593	7	7	1359	0	0

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	1600	0	2291	800
Stage 1	-	-	-	-	1597	-
Stage 2	-	-	-	-	694	-
Critical Hdwy	-	-	4.1	-	6.8	6.9
Critical Hdwy Stg 1	-	-	-	-	5.8	-
Critical Hdwy Stg 2	-	-	-	-	5.8	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	*758	-	*177	*505
Stage 1	-	-	-	-	*476	-
Stage 2	-	-	-	-	*550	-
Platoon blocked, %	-	-	1	-	1	1
Mov Cap-1 Maneuver	-	-	*758	-	*175	*505
Mov Cap-2 Maneuver	-	-	-	-	*175	-
Stage 1	-	-	-	-	*476	-
Stage 2	-	-	-	-	*546	-

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

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	-	-	-	* 758	-
HCM Lane V/C Ratio	-	-	-	0.009	-
HCM Control Delay (s)	0	-	-	9.8	-
HCM Lane LOS	A	-	-	A	-
HCM 95th %tile Q(veh)	-	-	-	0	-

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

Intersection	
Int Delay, s/veh	0.1

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	1401	1	1	1200	2	7
Future Vol, veh/h	1401	1	1	1200	2	7
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	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	88	88	88	88	88	88
Heavy Vehicles, %	3	0	0	4	0	0
Mvmt Flow	1592	1	1	1364	2	8

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	1593	0	2277	797
Stage 1	-	-	-	-	1593	-
Stage 2	-	-	-	-	684	-
Critical Hdwy	-	-	4.1	-	6.8	6.9
Critical Hdwy Stg 1	-	-	-	-	5.8	-
Critical Hdwy Stg 2	-	-	-	-	5.8	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	*758	-	*156	*505
Stage 1	-	-	-	-	*476	-
Stage 2	-	-	-	-	*550	-
Platoon blocked, %	-	-	1	-	1	1
Mov Cap-1 Maneuver	-	-	*758	-	*156	*505
Mov Cap-2 Maneuver	-	-	-	-	*156	-
Stage 1	-	-	-	-	*476	-
Stage 2	-	-	-	-	*550	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	16
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	337	-	-	* 758	-
HCM Lane V/C Ratio	0.03	-	-	0.001	-
HCM Control Delay (s)	16	-	-	9.8	-
HCM Lane LOS	C	-	-	A	-
HCM 95th %tile Q(veh)	0.1	-	-	0	-

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

Intersection	
Int Delay, s/veh	1.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	0	0	1	0	1	0	1	2	3	18	4
Future Vol, veh/h	0	0	0	1	0	1	0	1	2	3	18	4
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	60	60	60	60	60	60	60	60	60	60	60	60
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	0	0	2	0	2	0	2	3	5	30	7

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	49	49	34	48	51	4	37	0	0	5	0	0
Stage 1	44	44	-	4	4	-	-	-	-	-	-	-
Stage 2	5	5	-	44	47	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	956	846	1045	958	844	1085	1587	-	-	1630	-	-
Stage 1	975	862	-	1024	897	-	-	-	-	-	-	-
Stage 2	1022	896	-	975	860	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	952	843	1045	956	841	1085	1587	-	-	1630	-	-
Mov Cap-2 Maneuver	952	843	-	956	841	-	-	-	-	-	-	-
Stage 1	975	859	-	1024	897	-	-	-	-	-	-	-
Stage 2	1020	896	-	972	857	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	8.6	0	0.9
HCM LOS	A	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1587	-	-	-	1016	1630	-	-
HCM Lane V/C Ratio	-	-	-	-	0.003	0.003	-	-
HCM Control Delay (s)	0	-	-	0	8.6	7.2	0	-
HCM Lane LOS	A	-	-	A	A	A	A	-
HCM 95th %tile Q(veh)	0	-	-	-	0	0	-	-

Intersection	
Int Delay, s/veh	0.4

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	1	2	0	0	17
Future Vol, veh/h	0	1	2	0	0	17
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	60	60	60	60	60	60
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	0	2	3	0	0	28

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	31	3	0	-	-	-
Stage 1	3	-	-	-	-	-
Stage 2	28	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	-	-
Pot Cap-1 Maneuver	988	1087	-	0	0	-
Stage 1	1025	-	-	0	0	-
Stage 2	1000	-	-	0	0	-
Platoon blocked, %			-			-
Mov Cap-1 Maneuver	988	1087	-	-	-	-
Mov Cap-2 Maneuver	988	-	-	-	-	-
Stage 1	1025	-	-	-	-	-
Stage 2	1000	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	8.3	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	WBLn1	SBT
Capacity (veh/h)	-	1087	-
HCM Lane V/C Ratio	-	0.002	-
HCM Control Delay (s)	-	8.3	-
HCM Lane LOS	-	A	-
HCM 95th %tile Q(veh)	-	0	-

Capacity Analysis Summary Sheets

Year 2030 No-Build Weekday Evening Peak Hour

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	1289	119	45	1370	275	60
Future Volume (vph)	1289	119	45	1370	275	60
Ideal Flow (vphpl)	1900	1900	1900	2000	1900	1900
Storage Length (ft)		0	150		140	0
Storage Lanes		0	1		1	0
Taper Length (ft)			105		130	
Lane Util. Factor	0.95	0.95	1.00	0.95	0.97	0.95
Frt	0.987				0.973	
Flt Protected			0.950		0.961	
Satd. Flow (prot)	3522	0	1805	3725	3406	0
Flt Permitted			0.134		0.961	
Satd. Flow (perm)	3522	0	255	3725	3406	0
Right Turn on Red		No				Yes
Satd. Flow (RTOR)					21	
Link Speed (mph)	30			30	25	
Link Distance (ft)	156			136	296	
Travel Time (s)	3.5			3.1	8.1	
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99	0.99
Heavy Vehicles (%)	1%	3%	0%	2%	1%	2%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	1422	0	45	1384	339	0
Turn Type	NA		pm+pt	NA	Prot	
Protected Phases	2		1	6	8	
Permitted Phases			6			
Detector Phase	2		1	6	8	
Switch Phase						
Minimum Initial (s)	15.0		3.0	15.0	8.0	
Minimum Split (s)	32.0		9.5	32.0	35.0	
Total Split (s)	72.0		13.0	85.0	35.0	
Total Split (%)	60.0%		10.8%	70.8%	29.2%	
Yellow Time (s)	4.5		3.5	4.5	4.5	
All-Red Time (s)	1.5		0.0	1.5	1.5	
Lost Time Adjust (s)	0.0		0.0	0.0	0.0	
Total Lost Time (s)	6.0		3.5	6.0	6.0	
Lead/Lag	Lag		Lead			
Lead-Lag Optimize?	Yes		Yes			
Recall Mode	C-Min		None	C-Min	None	
Act Effct Green (s)	82.6		93.0	90.5	17.5	
Actuated g/C Ratio	0.69		0.78	0.75	0.15	
v/c Ratio	0.59		0.16	0.49	0.66	
Control Delay	11.9		4.9	6.8	51.5	
Queue Delay	0.0		0.0	0.0	0.0	
Total Delay	11.9		4.9	6.8	51.5	
LOS	B		A	A	D	
Approach Delay	11.9			6.7	51.5	
Approach LOS	B			A	D	
Queue Length 50th (ft)	288		7	189	121	
Queue Length 95th (ft)	406		18	270	164	

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Internal Link Dist (ft)	76			56	216	
Turn Bay Length (ft)			150		140	
Base Capacity (vph)	2425		320	2810	839	
Starvation Cap Reductn	0		0	0	0	
Spillback Cap Reductn	0		0	0	0	
Storage Cap Reductn	0		0	0	0	
Reduced v/c Ratio	0.59		0.14	0.49	0.40	

Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 111.6 (93%), Referenced to phase 2:EBT and 6:WBTL, Start of Green			
Natural Cycle: 90			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.66			
Intersection Signal Delay: 13.8		Intersection LOS: B	
Intersection Capacity Utilization 59.1%		ICU Level of Service B	
Analysis Period (min) 15			

Splits and Phases: 5: Ferris Avenue & Dempster Street

Intersection	
Int Delay, s/veh	0.2

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	1386	41	23	1627	3	11
Future Vol, veh/h	1386	41	23	1627	3	11
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	165	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	1	0	0	2	0	0
Mvmt Flow	1474	44	24	1731	3	12

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	1518	0	2410	759
Stage 1	-	-	-	-	1496	-
Stage 2	-	-	-	-	914	-
Critical Hdwy	-	-	4.1	-	6.8	6.9
Critical Hdwy Stg 1	-	-	-	-	5.8	-
Critical Hdwy Stg 2	-	-	-	-	5.8	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	446	-	28	353
Stage 1	-	-	-	-	175	-
Stage 2	-	-	-	-	356	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	446	-	26	353
Mov Cap-2 Maneuver	-	-	-	-	26	-
Stage 1	-	-	-	-	175	-
Stage 2	-	-	-	-	337	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.2	15.5
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	353	-	-	446	-
HCM Lane V/C Ratio	0.033	-	-	0.055	-
HCM Control Delay (s)	15.5	-	-	13.5	-
HCM Lane LOS	C	-	-	B	-
HCM 95th %tile Q(veh)	0.1	-	-	0.2	-

Intersection	
Int Delay, s/veh	0

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	1392	6	2	1645	4	2
Future Vol, veh/h	1392	6	2	1645	4	2
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	0	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	0	0	2	0	0
Mvmt Flow	1513	7	2	1788	4	2

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	1520	0	2415	760
Stage 1	-	-	-	-	1517	-
Stage 2	-	-	-	-	898	-
Critical Hdwy	-	-	4.1	-	6.8	6.9
Critical Hdwy Stg 1	-	-	-	-	5.8	-
Critical Hdwy Stg 2	-	-	-	-	5.8	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	*758	-	*146	*505
Stage 1	-	-	-	-	*476	-
Stage 2	-	-	-	-	*378	-
Platoon blocked, %	-	-	1	-	1	1
Mov Cap-1 Maneuver	-	-	*758	-	*145	*505
Mov Cap-2 Maneuver	-	-	-	-	*145	-
Stage 1	-	-	-	-	*476	-
Stage 2	-	-	-	-	*376	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	24.6
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	190	-	-	* 758	-
HCM Lane V/C Ratio	0.034	-	-	0.003	-
HCM Control Delay (s)	24.6	-	-	9.8	-
HCM Lane LOS	C	-	-	A	-
HCM 95th %tile Q(veh)	0.1	-	-	0	-

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

Intersection	
Int Delay, s/veh	0.1

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	1393	1	1	1643	4	14
Future Vol, veh/h	1393	1	1	1643	4	14
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	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	2	0	0	2	0	0
Mvmt Flow	1482	1	1	1748	4	15

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	1483	0	2359	742
Stage 1	-	-	-	-	1483	-
Stage 2	-	-	-	-	876	-
Critical Hdwy	-	-	4.1	-	6.8	6.9
Critical Hdwy Stg 1	-	-	-	-	5.8	-
Critical Hdwy Stg 2	-	-	-	-	5.8	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	*758	-	*134	*505
Stage 1	-	-	-	-	*476	-
Stage 2	-	-	-	-	*378	-
Platoon blocked, %	-	-	1	-	1	1
Mov Cap-1 Maneuver	-	-	*758	-	*134	*505
Mov Cap-2 Maneuver	-	-	-	-	*134	-
Stage 1	-	-	-	-	*476	-
Stage 2	-	-	-	-	*377	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	17.3
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	313	-	-	* 758	-
HCM Lane V/C Ratio	0.061	-	-	0.001	-
HCM Control Delay (s)	17.3	-	-	9.8	-
HCM Lane LOS	C	-	-	A	-
HCM 95th %tile Q(veh)	0.2	-	-	0	-

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

Intersection	
Int Delay, s/veh	1.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	9	0	1	3	0	1	0	4	3	3	41	20
Future Vol, veh/h	9	0	1	3	0	1	0	4	3	3	41	20
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	75	75	75	75	75	75	75	75	75	75	75	75
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	12	0	1	4	0	1	0	5	4	4	55	27

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	85	86	69	84	97	7	82	0	0	9	0	0
Stage 1	77	77	-	7	7	-	-	-	-	-	-	-
Stage 2	8	9	-	77	90	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	906	808	1000	908	797	1081	1528	-	-	1624	-	-
Stage 1	937	835	-	1020	894	-	-	-	-	-	-	-
Stage 2	1019	892	-	937	824	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	902	806	1000	904	795	1081	1528	-	-	1624	-	-
Mov Cap-2 Maneuver	902	806	-	904	795	-	-	-	-	-	-	-
Stage 1	937	832	-	1020	894	-	-	-	-	-	-	-
Stage 2	1018	892	-	933	822	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	9	8.8	0	0.3
HCM LOS	A	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1528	-	-	911	943	1624	-	-
HCM Lane V/C Ratio	-	-	-	0.015	0.006	0.002	-	-
HCM Control Delay (s)	0	-	-	9	8.8	7.2	0	-
HCM Lane LOS	A	-	-	A	A	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0	0	0	-	-

Intersection	
Int Delay, s/veh	0.2

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	1	0	7	0	0	45
Future Vol, veh/h	1	0	7	0	0	45
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	75	75	75	75	75	75
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	1	0	9	0	0	60

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	69	9	0	-	-	-
Stage 1	9	-	-	-	-	-
Stage 2	60	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	-	-
Pot Cap-1 Maneuver	941	1079	-	0	0	-
Stage 1	1019	-	-	0	0	-
Stage 2	968	-	-	0	0	-
Platoon blocked, %			-			-
Mov Cap-1 Maneuver	941	1079	-	-	-	-
Mov Cap-2 Maneuver	941	-	-	-	-	-
Stage 1	1019	-	-	-	-	-
Stage 2	968	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	8.8	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	WBLn1	SBT
Capacity (veh/h)	-	941	-
HCM Lane V/C Ratio	-	0.001	-
HCM Control Delay (s)	-	8.8	-
HCM Lane LOS	-	A	-
HCM 95th %tile Q(veh)	-	0	-

Capacity Analysis Summary Sheets

Year 2030 Total Projected Weekday Morning Peak Hour

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	1353	75	53	1070	147	61
Future Volume (vph)	1353	75	53	1070	147	61
Ideal Flow (vphpl)	1900	1900	1900	2000	1900	1900
Storage Length (ft)		0	150		140	0
Storage Lanes		0	1		1	0
Taper Length (ft)			105		130	
Lane Util. Factor	0.95	0.95	1.00	0.95	0.97	0.95
Frt	0.992				0.956	
Flt Protected			0.950		0.966	
Satd. Flow (prot)	3477	0	1770	3654	3292	0
Flt Permitted			0.105		0.966	
Satd. Flow (perm)	3477	0	196	3654	3292	0
Right Turn on Red		No				Yes
Satd. Flow (RTOR)					52	
Link Speed (mph)	30			30	25	
Link Distance (ft)	267			136	296	
Travel Time (s)	6.1			3.1	8.1	
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88
Heavy Vehicles (%)	3%	3%	2%	4%	4%	2%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	1623	0	60	1216	236	0
Turn Type	NA		pm+pt	NA	Prot	
Protected Phases	2		1	6	8	
Permitted Phases			6			
Detector Phase	2		1	6	8	
Switch Phase						
Minimum Initial (s)	15.0		3.0	15.0	8.0	
Minimum Split (s)	32.0		9.5	32.0	35.0	
Total Split (s)	72.0		13.0	85.0	35.0	
Total Split (%)	60.0%		10.8%	70.8%	29.2%	
Yellow Time (s)	4.5		3.5	4.5	4.5	
All-Red Time (s)	1.5		0.0	1.5	1.5	
Lost Time Adjust (s)	0.0		0.0	0.0	0.0	
Total Lost Time (s)	6.0		3.5	6.0	6.0	
Lead/Lag	Lag		Lead			
Lead-Lag Optimize?	Yes		Yes			
Recall Mode	C-Min		None	C-Min	None	
Act Effct Green (s)	86.8		97.4	94.9	13.1	
Actuated g/C Ratio	0.72		0.81	0.79	0.11	
v/c Ratio	0.65		0.25	0.42	0.58	
Control Delay	11.1		5.0	4.7	44.9	
Queue Delay	0.0		0.0	0.0	0.0	
Total Delay	11.1		5.0	4.7	44.9	
LOS	B		A	A	D	
Approach Delay	11.1			4.7	44.9	
Approach LOS	B			A	D	
Queue Length 50th (ft)	320		7	127	70	
Queue Length 95th (ft)	443		17	180	105	

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Internal Link Dist (ft)	187			56	216	
Turn Bay Length (ft)			150		140	
Base Capacity (vph)	2513		283	2889	835	
Starvation Cap Reductn	0		0	0	0	
Spillback Cap Reductn	0		0	0	0	
Storage Cap Reductn	0		0	0	0	
Reduced v/c Ratio	0.65		0.21	0.42	0.28	

Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 110.4 (92%), Referenced to phase 2:EBT and 6:WBTL, Start of Green			
Natural Cycle: 90			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.65			
Intersection Signal Delay: 11.1		Intersection LOS: B	
Intersection Capacity Utilization 60.7%		ICU Level of Service B	
Analysis Period (min) 15			

Splits and Phases: 5: Ferris Avenue & Dempster Street

Intersection	
Int Delay, s/veh	0.1

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	1413	25	7	1207	0	2
Future Vol, veh/h	1413	25	7	1207	0	2
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	165	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	93	93	93	93	93	93
Heavy Vehicles, %	3	0	0	3	0	0
Mvmt Flow	1519	27	8	1298	0	2

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	1546	0	-	773
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	4.1	-	-	6.9
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	2.2	-	-	3.3
Pot Cap-1 Maneuver	-	-	435	-	0	346
Stage 1	-	-	-	-	0	-
Stage 2	-	-	-	-	0	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	435	-	-	346
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.1	15.5
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	346	-	-	435	-
HCM Lane V/C Ratio	0.006	-	-	0.017	-
HCM Control Delay (s)	15.5	-	-	13.4	-
HCM Lane LOS	C	-	-	B	-
HCM 95th %tile Q(veh)	0	-	-	0.1	-

Intersection	
Int Delay, s/veh	1

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	1376	39	43	1173	41	52
Future Vol, veh/h	1376	39	43	1173	41	52
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	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	88	88	88	88	88	88
Heavy Vehicles, %	3	0	0	4	0	0
Mvmt Flow	1564	44	49	1333	47	59

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	1608	0	2351	804
Stage 1	-	-	-	-	1586	-
Stage 2	-	-	-	-	765	-
Critical Hdwy	-	-	4.1	-	6.8	6.9
Critical Hdwy Stg 1	-	-	-	-	5.8	-
Critical Hdwy Stg 2	-	-	-	-	5.8	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	*758	-	*197	*505
Stage 1	-	-	-	-	*476	-
Stage 2	-	-	-	-	*550	-
Platoon blocked, %	-	-	1	-	1	1
Mov Cap-1 Maneuver	-	-	*758	-	*184	*505
Mov Cap-2 Maneuver	-	-	-	-	*184	-
Stage 1	-	-	-	-	*476	-
Stage 2	-	-	-	-	*515	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.4	24.9
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	285	-	-	* 758	-
HCM Lane V/C Ratio	0.371	-	-	0.064	-
HCM Control Delay (s)	24.9	-	-	10.1	-
HCM Lane LOS	C	-	-	B	-
HCM 95th %tile Q(veh)	1.6	-	-	0.2	-

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

Intersection	
Int Delay, s/veh	2.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		⇕			⇕			⇕			⇕	
Traffic Vol, veh/h	0	0	0	3	0	1	0	1	4	10	18	4
Future Vol, veh/h	0	0	0	3	0	1	0	1	4	10	18	4
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	60	60	60	60	60	60	60	60	60	60	60	60
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	0	0	5	0	2	0	2	7	17	30	7

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	75	77	34	74	77	6	37	0	0	9	0	0
Stage 1	68	68	-	6	6	-	-	-	-	-	-	-
Stage 2	7	9	-	68	71	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	920	817	1045	921	817	1083	1587	-	-	1624	-	-
Stage 1	947	842	-	1021	895	-	-	-	-	-	-	-
Stage 2	1020	892	-	947	840	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	911	808	1045	914	808	1083	1587	-	-	1624	-	-
Mov Cap-2 Maneuver	911	808	-	914	808	-	-	-	-	-	-	-
Stage 1	947	833	-	1021	895	-	-	-	-	-	-	-
Stage 2	1018	892	-	937	831	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	8.8	0	2.3
HCM LOS	A	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1587	-	-	-	951	1624	-	-
HCM Lane V/C Ratio	-	-	-	-	0.007	0.01	-	-
HCM Control Delay (s)	0	-	-	0	8.8	7.2	0	-
HCM Lane LOS	A	-	-	A	A	A	A	-
HCM 95th %tile Q(veh)	0	-	-	-	0	0	-	-

Intersection	
Int Delay, s/veh	0.9

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	1	4	0	2	19
Future Vol, veh/h	0	1	4	0	2	19
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	60	60	60	60	60	60
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	0	2	7	0	3	32

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	45	7	0	-	7	0
Stage 1	7	-	-	-	-	-
Stage 2	38	-	-	-	-	-
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	970	1081	-	0	1627	-
Stage 1	1021	-	-	0	-	-
Stage 2	990	-	-	0	-	-
Platoon blocked, %			-			-
Mov Cap-1 Maneuver	968	1081	-	-	1627	-
Mov Cap-2 Maneuver	968	-	-	-	-	-
Stage 1	1021	-	-	-	-	-
Stage 2	988	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	8.3	0	0.7
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	WBLn1	SBL	SBT
Capacity (veh/h)	-	1081	1627	-
HCM Lane V/C Ratio	-	0.002	0.002	-
HCM Control Delay (s)	-	8.3	7.2	-
HCM Lane LOS	-	A	A	-
HCM 95th %tile Q(veh)	-	0	0	-

Capacity Analysis Summary Sheets

Year 2030 Total Projected Weekday Evening Peak Hour

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	1303	120	45	1392	277	60
Future Volume (vph)	1303	120	45	1392	277	60
Ideal Flow (vphpl)	1900	1900	1900	2000	1900	1900
Storage Length (ft)		0	150		140	0
Storage Lanes		0	1		1	0
Taper Length (ft)			105		130	
Lane Util. Factor	0.95	0.95	1.00	0.95	0.97	0.95
Frt	0.987				0.973	
Flt Protected			0.950		0.961	
Satd. Flow (prot)	3522	0	1805	3725	3406	0
Flt Permitted			0.130		0.961	
Satd. Flow (perm)	3522	0	247	3725	3406	0
Right Turn on Red		No				Yes
Satd. Flow (RTOR)					21	
Link Speed (mph)	30			30	25	
Link Distance (ft)	267			136	296	
Travel Time (s)	6.1			3.1	8.1	
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99	0.99
Heavy Vehicles (%)	1%	3%	0%	2%	1%	2%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	1437	0	45	1406	341	0
Turn Type	NA		pm+pt	NA	Prot	
Protected Phases	2		1	6	8	
Permitted Phases			6			
Detector Phase	2		1	6	8	
Switch Phase						
Minimum Initial (s)	15.0		3.0	15.0	8.0	
Minimum Split (s)	32.0		9.5	32.0	35.0	
Total Split (s)	72.0		13.0	85.0	35.0	
Total Split (%)	60.0%		10.8%	70.8%	29.2%	
Yellow Time (s)	4.5		3.5	4.5	4.5	
All-Red Time (s)	1.5		0.0	1.5	1.5	
Lost Time Adjust (s)	0.0		0.0	0.0	0.0	
Total Lost Time (s)	6.0		3.5	6.0	6.0	
Lead/Lag	Lag		Lead			
Lead-Lag Optimize?	Yes		Yes			
Recall Mode	C-Min		None	C-Min	None	
Act Effct Green (s)	82.6		93.0	90.5	17.5	
Actuated g/C Ratio	0.69		0.78	0.75	0.15	
v/c Ratio	0.59		0.17	0.50	0.66	
Control Delay	12.1		5.0	6.9	51.5	
Queue Delay	0.0		0.0	0.0	0.0	
Total Delay	12.1		5.0	6.9	51.5	
LOS	B		A	A	D	
Approach Delay	12.1			6.8	51.5	
Approach LOS	B			A	D	
Queue Length 50th (ft)	293		7	194	122	
Queue Length 95th (ft)	414		18	277	164	

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Internal Link Dist (ft)	187			56	216	
Turn Bay Length (ft)			150		140	
Base Capacity (vph)	2423		314	2808	839	
Starvation Cap Reductn	0		0	0	0	
Spillback Cap Reductn	0		0	0	0	
Storage Cap Reductn	0		0	0	0	
Reduced v/c Ratio	0.59		0.14	0.50	0.41	

Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 111.6 (93%), Referenced to phase 2:EBT and 6:WBTL, Start of Green			
Natural Cycle: 90			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.66			
Intersection Signal Delay: 13.9		Intersection LOS: B	
Intersection Capacity Utilization 59.6%		ICU Level of Service B	
Analysis Period (min) 15			

Splits and Phases: 5: Ferris Avenue & Dempster Street

Intersection	
Int Delay, s/veh	0.2

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	1397	52	23	1640	3	11
Future Vol, veh/h	1397	52	23	1640	3	11
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	165	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	1	0	0	2	0	0
Mvmt Flow	1486	55	24	1745	3	12

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	1541	0	2435	771
Stage 1	-	-	-	-	1514	-
Stage 2	-	-	-	-	921	-
Critical Hdwy	-	-	4.1	-	6.8	6.9
Critical Hdwy Stg 1	-	-	-	-	5.8	-
Critical Hdwy Stg 2	-	-	-	-	5.8	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	437	-	27	347
Stage 1	-	-	-	-	171	-
Stage 2	-	-	-	-	353	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	437	-	26	347
Mov Cap-2 Maneuver	-	-	-	-	26	-
Stage 1	-	-	-	-	171	-
Stage 2	-	-	-	-	334	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.2	15.7
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	347	-	-	437	-
HCM Lane V/C Ratio	0.034	-	-	0.056	-
HCM Control Delay (s)	15.7	-	-	13.7	-
HCM Lane LOS	C	-	-	B	-
HCM 95th %tile Q(veh)	0.1	-	-	0.2	-

Intersection	
Int Delay, s/veh	1

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	1370	39	52	1617	46	52
Future Vol, veh/h	1370	39	52	1617	46	52
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	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	2	0	0	2	0	0
Mvmt Flow	1457	41	55	1720	49	55

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	1498	0	2448	749
Stage 1	-	-	-	-	1478	-
Stage 2	-	-	-	-	970	-
Critical Hdwy	-	-	4.1	-	6.8	6.9
Critical Hdwy Stg 1	-	-	-	-	5.8	-
Critical Hdwy Stg 2	-	-	-	-	5.8	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	*758	-	*185	*505
Stage 1	-	-	-	-	*476	-
Stage 2	-	-	-	-	*378	-
Platoon blocked, %	-	-	1	-	1	1
Mov Cap-1 Maneuver	-	-	*758	-	*171	*505
Mov Cap-2 Maneuver	-	-	-	-	*171	-
Stage 1	-	-	-	-	*476	-
Stage 2	-	-	-	-	*350	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.3	27.4
HCM LOS			D

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	263	-	-	* 758	-
HCM Lane V/C Ratio	0.396	-	-	0.073	-
HCM Control Delay (s)	27.4	-	-	10.1	-
HCM Lane LOS	D	-	-	B	-
HCM 95th %tile Q(veh)	1.8	-	-	0.2	-

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

Intersection	
Int Delay, s/veh	2.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		⇕			⇕			⇕			⇕	
Traffic Vol, veh/h	9	0	1	5	0	1	0	4	6	14	41	20
Future Vol, veh/h	9	0	1	5	0	1	0	4	6	14	41	20
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	75	75	75	75	75	75	75	75	75	75	75	75
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	12	0	1	7	0	1	0	5	8	19	55	27

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	117	120	69	116	129	9	82	0	0	13	0	0
Stage 1	107	107	-	9	9	-	-	-	-	-	-	-
Stage 2	10	13	-	107	120	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	864	774	1000	865	765	1079	1528	-	-	1619	-	-
Stage 1	903	811	-	1017	892	-	-	-	-	-	-	-
Stage 2	1016	889	-	903	800	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	855	765	1000	856	756	1079	1528	-	-	1619	-	-
Mov Cap-2 Maneuver	855	765	-	856	756	-	-	-	-	-	-	-
Stage 1	903	801	-	1017	892	-	-	-	-	-	-	-
Stage 2	1015	889	-	891	790	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	9.2	9.1	0	1.4
HCM LOS	A	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1528	-	-	868	887	1619	-	-
HCM Lane V/C Ratio	-	-	-	0.015	0.009	0.012	-	-
HCM Control Delay (s)	0	-	-	9.2	9.1	7.2	0	-
HCM Lane LOS	A	-	-	A	A	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0	0	0	-	-

Intersection	
Int Delay, s/veh	0.2

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	1	0	10	0	0	47
Future Vol, veh/h	1	0	10	0	0	47
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	75	75	75	75	75	75
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	1	0	13	0	0	63

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	76	13	0	-	-	-
Stage 1	13	-	-	-	-	-
Stage 2	63	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	-	-
Pot Cap-1 Maneuver	932	1073	-	0	0	-
Stage 1	1015	-	-	0	0	-
Stage 2	965	-	-	0	0	-
Platoon blocked, %			-			-
Mov Cap-1 Maneuver	932	1073	-	-	-	-
Mov Cap-2 Maneuver	932	-	-	-	-	-
Stage 1	1015	-	-	-	-	-
Stage 2	965	-	-	-	-	-

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

Minor Lane/Major Mvmt	NBT	WBLn1	SBT
Capacity (veh/h)	-	932	-
HCM Lane V/C Ratio	-	0.001	-
HCM Control Delay (s)	-	8.9	-
HCM Lane LOS	-	A	-
HCM 95th %tile Q(veh)	-	0	-