

VILLAGE OF DOWNERS GROVE
Report for the Village
2/13/2018

| | |
|---------------------------------|--|
| SUBJECT: | SUBMITTED BY: |
| 2410 Ogden Avenue - Special Use | Stan Popovich, AICP Director of Community Development |

SYNOPSIS

The petitioner is requesting Special Use approval to operate an automobile dealership at 2410 Ogden Avenue.

STRATEGIC PLAN ALIGNMENT

The goals for 2017-2019 include *Strong and Diverse Local Economy*.

FISCAL IMPACT

n/a

UPDATE & RECOMMENDATION

This item was discussed at the February 6, 2018 Village Council meeting. Staff recommends approval on the February 13, 2018 active agenda.

BACKGROUND

Property Information & Zoning Request

The petitioner is proposing to redevelop the site of an existing one-story vacant building (formerly a restaurant) with a new two-story, 8,500 square-foot automobile dealership. The proposed building will be near the center of the lot and parking will wrap around the building on all sides with automobile display concentrated in the rear. The eastern curb cut onto Ogden Avenue will be removed, while the western curb cut will be improved.

The new building's modern design will consist primarily of steel, masonry and concrete. The street facing elevation includes tinted window panes, framing, metal clad panels and upwards slanted eaves. The southern half of the side elevations maintain the window panes, and the north half incorporates two different variations of metal clad panels. The rear elevation is mostly brown colored metal clad paneling with horizontal lines and glazed overhead doors leading to the service area.

The interior will consist of a front sales area, interior vehicle display, service bays, customer waiting area, and reception. The smaller second floor will also have offices and a common area. The rear service area has five vehicle bays for maintenance, washing/detailing, and a photographic marketing area.

Compliance with the Comprehensive Plan

The Comprehensive Plan's Future Land Use Map designates this property as Corridor Commercial. The plan calls for the concentration of auto dealerships within this western section of the corridor and to promote uses that have a regional draw. The proposal also achieves the Comprehensive Plan's aesthetic, site and screening improvement goals. The proposed use at this property is consistent with the Comprehensive Plan.

Compliance with the Zoning Ordinance

The property is zoned B-3, General Services and Highway Business. An automobile dealership use is an allowable Special Use in the B-3 zoning district. The new building and redeveloped site will be compliant with the required B-3 bulk standards. The trash enclosure will be screened, and the photometric plan demonstrates that the light trespass will not exceed code requirements. The proposed use and site is consistent with the Zoning Ordinance.

Engineering\Public Improvements

Post Construction Best Management Practices (PCBMPs) are not required since the proposal results in a decrease in impervious area. The existing detention area and utility connections will remain the same. The traffic study concluded that the single full movement access drive will be adequate in accommodating the projected traffic and onsite vehicle deliveries. The impact on the existing road network will be minimal. The owner will dedicate land to be incorporated into the Ogden Avenue right-of-way. A public sidewalk and an internal pedestrian connection is proposed.

Public Comment

No member of the public spoke at the public hearing. After the Plan Commission meeting, two members of the public contacted staff and expressed concerns regarding traffic, light glare, and the general number of automobile dealerships in the Village. Staff explained and reviewed the proposal including the site plan, traffic study, landscaping/screening and photometric plans with the residents.

ATTACHMENTS

Ordinance

Aerial Map

Staff Report with attachments dated January 8, 2018

Draft Minutes of the Plan Commission Hearing dated January 8, 2018

VILLAGE OF DOWNERS GROVE
COUNCIL ACTION SUMMARY

INITIATED: Applicant DATE: February 13, 2018
(Name)

RECOMMENDATION FROM: _____ FILE REF: 17-PLC-0039
(Board or Department)

NATURE OF ACTION:

STEPS NEEDED TO IMPLEMENT ACTION:

- Ordinance
- Resolution
- Motion
- Other

Motion to Adopt "AN ORDINANCE
AUTHORIZING A SPECIAL USE FOR 2410
OGDEN AVENUE TO PERMIT AN
AUTOMOBILE DEALERSHIP", as presented.

EFB

SUMMARY OF ITEM:

Adoption of the attached ordinance will authorize a special use for 2410 Ogden Avenue to permit an automobile dealership.

RECORD OF ACTION TAKEN:

ORDINANCE NO. _____**AN ORDINANCE AUTHORIZING A SPECIAL USE FOR 2410 OGDEN AVENUE
TO PERMIT AN AUTOMOBILE DEALERSHIP**

WHEREAS, the following described property, to wit:

LOTS 18, 19, 20, 21 AND 22 IN BLOCK 1 IN ARTHUR T. MCINTOSH AND CO'S FOURTH OGDEN AVENUE SUBDIVISION, BEING A SUBDIVISION IN THE SOUTH HALF OF SECTION 1, TOWNSHIP 38 NORTH, RANGE 10, EAST OF THE THIRD PRINCIPAL MERIDIAN, ACCORDING TO THE PLAT THEREOF RECORDED APRIL 9, 1925 AS DOCUMENT 190962, IN DUPAGE COUNTY, ILLINOIS.

Commonly known as: 2410 Ogden Avenue, Downers Grove, IL 60515
PINs: 08-01-303-014; -015; -016; -017

(hereinafter referred to as the "Property") is presently zoned in the "*B-3, General Services and Highway Business District*" under the Comprehensive Zoning Ordinance of the Village of Downers Grove; and

WHEREAS, such petition was referred to the Plan Commission of the Village of Downers Grove, and said Plan Commission has given the required public notice, has conducted a public hearing for the petition on January 8, 2018 and has made its findings and recommendations, all in accordance with the statutes of the State of Illinois and the ordinances of the Village of Downers Grove; and,

WHEREAS, the Plan Commission has recommended approval of the Special Use, subject to certain conditions; and,

WHEREAS, the Village Council finds that the evidence presented in support of said petition, as stated in the aforesaid findings and recommendations of the Plan Commission, is such as to establish the following:

1. That the proposed use is expressly authorized as a Special Use in the district in which it is to be located;
2. That the proposed use at the proposed location is necessary or desirable to provide a service or a facility that is in the interest of public convenience and will contribute to the general welfare of the neighborhood or community.
3. That the proposed use will not, in the particular case, be detrimental to the health, safety or general welfare of persons residing or working in the vicinity or be injurious to property values or improvements in the vicinity.

NOW, THEREFORE, BE IT ORDAINED by the Council of the Village of Downers Grove, in DuPage County, Illinois, as follows:

SECTION 1. That Special Use of the Property is hereby granted to allow construction of an automobile dealership.

SECTION 2. This approval is subject to the following conditions:

1. The Special Use shall substantially conform to the staff report dated January 8, 2018; engineering drawings prepared by Damas Consulting Group dated December 1, 2017 and last revised on December 20, 2017 and architectural drawings prepared by Phorma Designs, Inc. dated December 1, 2017 and last revised December 14, 2017, except as such plans may be modified to conform to the Village codes and ordinances.
2. All test drives are limited to arterial streets as defined in the Comprehensive Plan.
3. All vehicle deliveries must be completed on private property. Vehicles may not be dropped off or picked up on Ogden Avenue.
4. A pedestrian connection must be provided from the public right-of-way to the main building entrance in conformance with the Zoning Ordinance.
5. The building shall be equipped with an automatic fire suppression system and an automatic and manual fire alarm system.
6. Prior to the issuance of a building permit, an administrative lot consolidation shall be completed that dedicates additional IDOT right-of-way.
7. A sidewalk easement shall be granted to the Village.

SECTION 3. The above conditions are hereby made part of the terms under which the Special Use is granted. Violation of any or all of such conditions shall be deemed a violation of the Village of Downers Grove Zoning Ordinance, the penalty for which may include, but is not limited to, a fine and/or revocation of the Special Use granted herein.

SECTION 4. It is the Petitioner's obligation to maintain compliance with all applicable Federal, State, County and Village laws, ordinances, regulations, and policies.

SECTION 5. That all ordinances or parts of ordinances in conflict with the provisions of this ordinance are hereby repealed.

Mayor

Passed:

Published:

Attest: _____

Village Clerk



0 30 60 Feet

2410 Ogden Avenue-Location Map





**VILLAGE OF DOWNERS GROVE
REPORT FOR THE PLAN COMMISSION
JANUARY 8, 2018 AGENDA**

| SUBJECT: | TYPE: | SUBMITTED BY: |
|----------------------------------|--------------|---------------------------------|
| 17-PLC-0039 2410 Ogden Avenue | Special Use | Scott Williams, AICP Planner |

REQUEST

The petitioner is requesting approval of a Special Use to construct a personal vehicle sales business at 2410 Ogden Avenue.

NOTICE

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

GENERAL INFORMATION

OWNER: Agri-Pes, LLC
857 Willow Lane
Willowbrook, IL 60527

APPLICANT: Agent: Anas Alkhatib
Agri-Pes, LLC
857 Willow Lane
Willowbrook, IL 60527

PROPERTY INFORMATION

EXISTING ZONING: B-3, General Services and Highway Business
EXISTING LAND USE: Vacant Restaurant
PROPERTY SIZE: 65,030 sq. ft. (1.5 acres)
PINS: 08-01-303-014, -015, -016, -017

SURROUNDING ZONING AND LAND USES

| | ZONING | FUTURE LAND USE |
|---------------|--|--|
| NORTH: | B-3, General Services and Highway Business M-1, Light Manufacturing | Corridor Commercial Corridor Commercial |
| SOUTH: | B-3, General Services and Highway Business | Corridor Commercial |
| WEST: | B-3, General Services and Highway Business | Corridor Commercial |
| EAST: | B-3, General Services and Highway Business | Corridor Commercial |

ANALYSIS**SUBMITTALS**

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

1. Project Narrative
2. Plat of Survey
3. Plat of Consolidation
4. Engineering Plans
5. Architectural Plans
6. Landscape Plan
7. Photometric Plan
8. Traffic Study

PROJECT DESCRIPTION

The owner of the property is proposing to construct a personal vehicle sales business at the property located on the north side of Ogden Avenue, approximately 385 feet east of Cross Street, commonly known as 2410 Ogden Avenue. The property is zoned B-3, General Services and Highway Business. Personal vehicle sales business is an allowable Special Use in the B-3 zoning district.

Currently, the subject property is improved with a one-story vacant building (formerly a restaurant) and a surface parking lot. The property consists of five lots of record. The site is accessed currently by two existing Ogden Avenue curb-cuts.

Proposed Development

Site Design: The petitioner is proposing to construct a two-story, 8,500 square foot building. The proposed building will be sited in the center of the lot, and the parking will wrap around the building on all sides. Multiple rows of parking are shown in the rear yard. A trash enclosure is located to the side of the primary structure at the northeast corner.

The existing eastern Ogden Avenue curb-cut has been eliminated. Turning exhibits demonstrate that the curb-cut and drive aisle widths are sufficient for onsite vehicle unloading/loading. An internal pedestrian connection leads from the main entrance to the proposed public sidewalk.

Parking: The parking area will consist of 92 parking spaces including display vehicles, employee parking, service parking and customer parking. The outdoor automobile display and service parking is shown in the rear and western side yards. Employee parking is concentrated in the eastern side yard. Guest or customer parking is located in the street yard.

Elevations: The new building's modern design will consist primarily of steel, masonry and concrete. The south elevation includes tinted window panes, framing, metal clad panels and upwards slanted eaves. The southern half of the side elevations maintain the window panes, and the north half incorporates two different variations of metal clad panels. The rear elevation is mostly a brown colored metal clad paneling with vertical lines and glazed overhead doors leading to the service area. Parapet walls fully screen the rooftop mechanical units.

Floor Plans: The interior will consist of a front sales area, interior vehicle display, service bays, customer waiting area, and reception. The smaller second floor will also have offices and a common area. The rear service area has five vehicle bays for maintenance, washing/detailing, and a photographic marketing area.

Landscaping/Screening: The petitioner is proposing landscaping around the perimeter of the property and interior islands, in conformance with the Village requirements. The new trash area will be screened with a metal clad panel gate and walls over concrete masonry unit (CMU) block walls. Additional landscaping will be planted between the enclosure and Ogden Avenue. The submitted photometric plan indicates that the new light fixtures will not adversely spill over on the adjacent properties.

COMPLIANCE WITH THE COMPREHENSIVE PLAN

The Comprehensive Plan's Future Land Use Map designates this property as Corridor Commercial. The plan calls for the concentration of auto dealerships within this western section of the corridor and to promote uses that have a regional draw. The petitioner's redesigned site plan reduces the number of curb cuts, includes a dumpster enclosure, new parking lot landscape islands and the beautification of Ogden Avenue with dense landscaping, all of which are Comprehensive Plan goals.

The proposed personal vehicle sales business at this property is consistent with the Comprehensive Plan.

COMPLIANCE WITH ZONING ORDINANCE

The property is zoned B-3, General Services and Highway Business. The proposed personal vehicle sales business is an allowable Special Use in the B-3 District per Section 5.010 of the Zoning Ordinance. The new building and redeveloped site will be compliant with the required B-3 bulk standards. The table below identifies the required regulations and what is proposed:

| 2410 Ogden Avenue | Required | Proposed |
|---|-----------------|------------------|
| South Setback (Street Yard – Ogden Avenue) - Building | 75 ft. | 99 ft. |
| East Setback (Side Yard) - Building | 0 ft. | 75 ft. |
| West Setback (Side Yard) - Building | 30 ft. | 63 ft. |
| North Setback (Rear Yard) - Building | 0 ft. | 92 ft. |
| South Setback (Street Yard Ogden Avenue) - Parking | 50 ft. | 50.5 ft. |
| Landscaped Open Space | 6,503 sf. (10%) | 12,648 sf. (20%) |
| Street yard landscaped open space | 3,251 sf | 6,261 sf |
| Floor Area Ratio | 0.75 (max) | 0.13 |
| Building Height | 60 ft. (max) | 27.75 ft. |
| Parking Spaces | 21 | 92 |

The proposed use and site is consistent with the Zoning Ordinance.

ENGINEERING/PUBLIC IMPROVEMENTS

Post Construction Best Management Practices (PCBMPs) are not required since the proposal results in a decrease in impervious area. There is no existing floodplain or wetlands on the property. The existing detention in the southwest corner of the site is to be maintained. Storm sewers will connect to the existing detention area and outlet to an existing storm sewer along Ogden Avenue.

The existing water service and sanitary services will be replaced. The Sanitary District provided conceptual approval for the proposed redevelopment.

Vehicle deliveries will be made on site by vehicle carriers. No vehicle deliveries or other business activities will be permitted to take place on Ogden Avenue. The traffic study concluded that the single full movement access drive will be adequate in accommodating the traffic projected to be generated by the proposed development. The study also stated there will be a low volume of traffic generated during

peak travel hours, and the impact on adjacent levels of service will be minimal. Staff concurs with the findings of the traffic study. The proposed personal vehicle sales business and site plan has received conceptual approval from IDOT.

The petitioner is proposing a sidewalk along Ogden Avenue. Because it would be constructed on private property, enacting a sidewalk easement is a condition of approval. This easement will be conveyed through the required plat of consolidation.

PUBLIC SAFETY REQUIREMENTS

The Fire Prevention Division has reviewed the proposed plans and will require the building include a fire alarm and sprinkler system that meet the Village's code requirements. The proper fire department connection and hydrant are shown on the plans.

The proposed development provides sufficient access for emergency vehicles. The site layout permits Fire Department apparatus the opportunity to enter and exit the site from the Ogden Avenue curb cut. The loop around the building provides good access around the building and property as needed.

NEIGHBORHOOD COMMENT

Notice was provided to all property owners 250 feet or less from the property in addition to posting public hearing notice signs and publishing the legal notice in the *Downers Grove Suburban Life*. Staff has received one informational inquiry.

FINDINGS OF FACT

The petitioner is requesting a Special Use to construct a personal vehicle sales business at 2410 Ogden Avenue. Staff finds that the proposal meets the standards for granting a Special Use as outlined below:

Section 28.12.050.H Approval Criteria

No special use may be recommended for approval or approved unless the respective review or decision-making body determines that the proposed special use is constituent with and in substantial compliance with all Village Council policies and plans and that the applicant has presented evidence to support each of the following conclusions:

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

The property is located in the B-3, General Service and Highway Business zoning district. Under Section 5.010 of the Zoning Ordinance, personal vehicle sales business is listed as an allowable Special Use in the B-3 zoning district. This standard has been met.

- 2. That the proposed use at the proposed location is necessary or desirable to provide a service or a facility that is in the interest of public convenience and will contribute to the general welfare of the neighborhood or community.***

The proposed plan will allow the petitioner to redevelop a vacant site which in turn will enhance the Ogden Avenue corridor and provide vehicle sales and services to the local residents, businesses and the larger region. The proposed use is in the interest of the public convenience and will contribute to the general welfare of the area by providing growth and employment opportunities. The petitioner's proposed use will meet various Comprehensive Plan goals. This standard has been met.

- 3. That the proposed use will not, in the particular case, be detrimental to the health, safety or general welfare of persons residing or working in the vicinity or be injurious to property values or improvements in the vicinity.***

17-PLC-0039; 2410 Ogden Avenue
January 8, 2018

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The proposed use will not be detrimental to the health, safety or general welfare of persons residing in or working in the vicinity and will not be injurious to property values or improvements in the vicinity. The petitioner will be redeveloping a vacant property. The proposed development will meet all applicable Village regulations including the Stormwater Ordinance. Additionally, specific conditions will be placed on the subject property to ensure that there will be no or minimal secondary impacts to the surrounding properties, including loading/unloading and test driving restrictions. This standard has been met.

RECOMMENDATIONS

The proposed Special Use for personal vehicle sales business at 2410 Ogden Avenue is consistent with the Comprehensive Plan, the Zoning Ordinance and surrounding zoning and land use classifications. Based on the findings listed above, staff recommends the Plan Commission recommend the Village Council **approve** the Special Use as requested in case 17-PLC-0039 subject to the following conditions:

1. The Special Use shall substantially conform to the staff report; engineering drawings prepared by Damas Consulting Group dated December 1, 2017 and last revised on December 20, 2017 and architectural drawings prepared by Phorma Designs, Inc. dated December 1, 2017 and last revised December 14, 2017, except as such plans may be modified to conform to the Village codes and ordinances.
2. All test drives are limited to arterial streets as defined in the Comprehensive Plan.
3. All vehicle deliveries must be completed on private property. Vehicles may not be dropped off or picked up in Ogden Avenue.
4. A pedestrian connection must be provided from the public right-of-way to the main building entrance in conformance with the Zoning Ordinance.
5. The building shall be equipped with an automatic suppression system and an automatic and manual fire alarm system.
6. An administrative lot consolidation shall be completed prior to the issuance of a building permit.
7. A sidewalk easement shall be granted to the Village.

Staff Report Approved By:



Stanley J. Popovich, AICP
Director of Community Development

SP; sw
-att



0 30 60 Feet

2410 Ogden Avenue-Location Map



Phorma Designs, Inc.

2092 Gardner Circle E. Suite 1
Aurora, IL. 60503

Architectural & Planning

Tel: (630)229-6498
Fax: (630)982-3795

BRIEF PROJECT DESCRIPTION

The proposed building project located at 2410 Ogden Ave. in Downers Grove, IL property is designated to be a new Auto Dealership in the business of selling and buying vehicles along with minor maintenance towards vehicles. The said property is currently zoned as a B3 business district with the applicant applying for special use of the property. The site of approximately 46,000 square feet shall be remodeled with new curb and parking pavement appeal with additional required new landscaping and parking lot lighting.

The proposed Auto Dealership gross building of approximately 8,500 square feet shall be constructed of but not limited to concrete, masonry, steel, metal clad panels and drywall materials. All finishes shall consist of commercial grade designation. The structure shall be of steel, concrete and masonry construction along with new mechanical HVAC systems of RTU's placed on roof and interior space heaters hung from roof joists in auto bay area. New plumbing domestic water and separate fire suppression water lines shall be put in place for the new building along with new electrical panels and transformer feed if required.

The proposed Auto Dealership shall consist of a sales area, interior vehicle display, customer waiting area, reception and conference/office areas along with employee break room space. The other portion of the proposed building shall consist of a 5 vehicle bays for maintenance, washing/detailing and photo marketing area.

The dealership will operate from 10 AM to 8 AM (Monday through Friday) and 11 AM to 6 PM (Saturday and Sunday).

The building will include 5 employees in sales and management and 2 in the service area. The delivery of vehicles will be scheduled on a weekly bases and all loading and unloading of the inventory shall take place within the dealership lot.

All employees are to park east of the building only. And the day to day operations shall include an Auto retail (selling and buying) and some minor service to the dealership own inventory (no Auto service will be open for the public). Detailing of cars and photographing of new Auto to be conducted on the site.

Listed below is additional site and building information as follows –

Project Description

This project consists of 1.50-acres. This site is located in Dupage County North Along Ogden Ave . The address of the property is 2400 Ogden Ave Downers Grove, IL. The proposed development will be a new Auto Dealership with parking lot.



PHORMA DESIGNS, Inc. ♦ 2092 Gardner Cir. E. Suite 1 ♦ Aurora, IL. ♦ 60504 ♦ (630)229-6498 ♦ (630)982-3795 ♦

www.phormadesigns.com ♦ pchabez@phormadesigns.com

Phorma Designs, Inc.

2092 Gardner Circle E. Suite 1
Aurora, IL. 60503

Architectural & Planning

Tel: (630)229-6498
Fax: (630)982-3795

Existing Conditions

The subject property existing lot is used for the existing restaurant building and parking lot, The existing building and parking lot to be removed There is no existing flood plain or wetland on the lot.

Proposed Development

The proposed development is to include new building with foot print of 7000 SF and proposed parking lot with total of 101 parking spaces. The development is not going to have any negative impact to the existing storm water runoff.

Floodplains and Wetlands

There is no jurisdictional wetland or floodplain on the lot. There is not LPDA on the site.

Storm Water Management

SITE AREA = 1.50 ACRE

The Existing Site Condition Impervious area= 54,628 SF

Building=3737 SF

Concrete Sidewalk/Concrete patio=1583 SF

Asphalt Parking lot=49,308 SF

Green area=10,760 SF

-Proposed site condition decreases impervious area from the existing condition, PCBMP is not required for this site

Proposed Site condition:

Total Site Area = 1,5 ACRE

Area breakdown :

Building = 7000 SF

Concrete Sidewalk/Concrete pad = 870 SF

Asphalt Parking lot = 42,710 SF

Green area = 14,808 SF

Total Impervious area = 50,580 SF

The site out flow to the culvert located at the southeast corner of the lot. The existing detention area southwest of the site to be maintained (no change) the site out flow will be connected to the existing storm manhole.



Narrative

Storm Management Submittal

Project Description

This project consists of 1.50-acres. This site is located in Dupage County North Along Ogden Ave . The address of the property is 2400 Ogden Ave Downers Grove, IL. The proposed development will be a new Auto Dealership with parking lot.

Existing Conditions

The subject property existing lot is used for the exiting restaurant building and parking lot, The existing building and parking lot to be removed There is no existing flood plain or wetland on the lot.

Proposed Development

The proposed development is to include new building with foot print of 7000 SF and proposed parking lot with total of 101 parking spaces. the development is not going to have any negative impact to the existing storm water runoff.

Floodplains and Wetlands

There is no jurisdictional wetland or floodplain on the lot. There is not LPDA on the site.

Storm Water Management

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Asphalt Parking lot=49,308 SF

Green area=10,760 SF

-Proposed site condition decreases impervious area from the existing condition, PCBMP is not required for this site

Proposed Site condition:

Total Site Area = 1,5 ACRE

Area breakdown :

Building=7000 SF

Concrete Sidewalk/Concrete pad=870 SF

Asphalt Parking lot=42,710 SF

Green area=14,808 SF

Total Impervious area=50,580 SF

The site out flow to the culvert located at the southeast corner of the lot. The existing detention area southwest of the site to be maintained (no change) the site out flow will be connected to the existing storm manhole

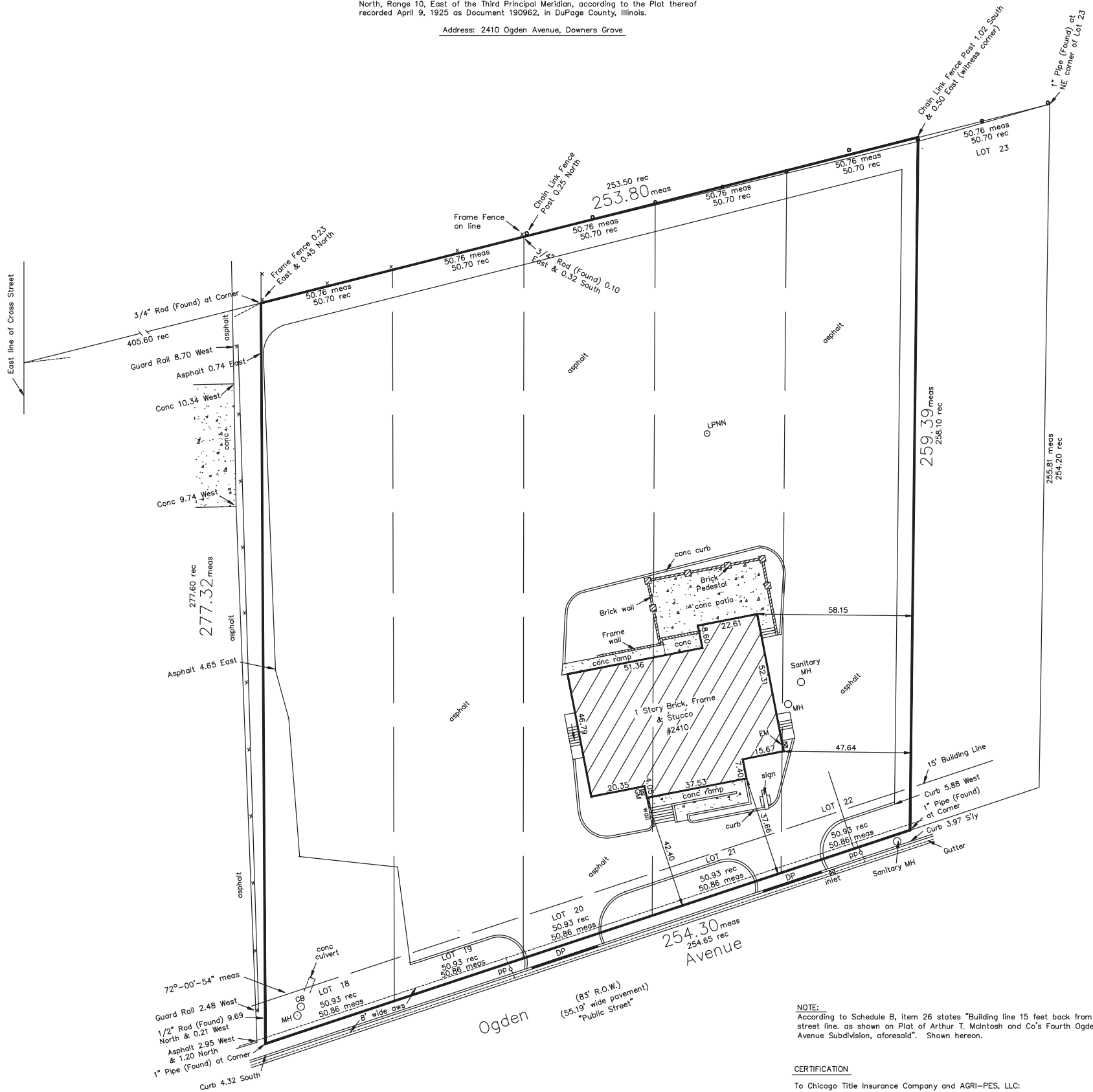


KABAL SURVEYING COMPANY
 Land Surveying Services
 ALTA/NSPS Land Title Survey

Lots 18, 19, 20, 21 and 22 in Block 1 in Arthur T. McIntosh and Co's Fourth Ogden Avenue Subdivision, being a subdivision in the South half of Section 38 North, Range 10, East of the Third Principal Meridian, according to the Plat thereof recorded April 9, 1925 as Document 190962, in DuPage County, Illinois.

Address: 2410 Ogden Avenue, Downers Grove

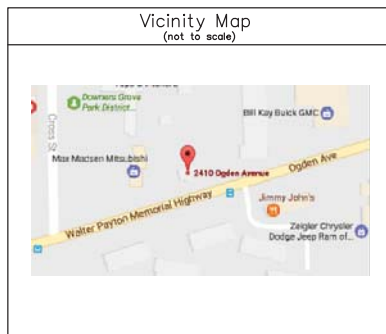
2411 Hawthorne Avenue
 Westchester, Illinois 60154
 (708) 562-2652
 Fax (708) 562-7314
 email: kabal-surveying@comcast.net
 website: KabalSurveyingCompany.com
 Registration No. 184-003061



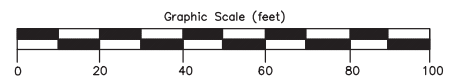
LEGEND
 meas = measured, S = South, pp = power pole
 rec = record, E = East, W = West, LP = light pole
 R.O.W. = right-of-way, BS = bumper stop
 conc = concrete, wv = water valve, MH = manhole
 pch = porch, N = North, EM = electric meter
 DP = depressed curb, GM = gas meter
 aw = aerial wire, CB = catch basin
 Area of property is approximately 65,360 square feet

"X" in box indicates that hereon drawn plat was ordered as a non-monumented survey
 Please check Legal Description with Deed and report any discrepancy immediately.
 Surveyed April 24, 20 17
 Building Located April 24, 20 17

Scale: 1 inch = 30 ft.
 Order No. 170405
 Ordered By: Wade Joyner, Attorney at Law



Chicago Title Insurance Company
 Order No. 17SA3716035AU
 Effective Date: February 16, 2017
 Proposed Insured: AGRI-PES, LLC



This professional service conforms to the current Illinois minimum standards for an ALTA/NSPS survey

STATE OF ILLINOIS }
 COUNTY OF COOK }

I, STEPHEN J. BALEK, an Illinois Professional Land Surveyor, hereby certify that I have surveyed the property described above and the plat hereon drawn is a correct representation of said survey.

Dimensions are in feet and decimal parts thereof and are corrected to a temperature of 62 degrees Fahrenheit.

Illinois Professional Land Surveyor No. 035-001712
 My license expires on November 30, 2018

ORIGINAL SEAL IN RED

SEND TAX BILL TO:

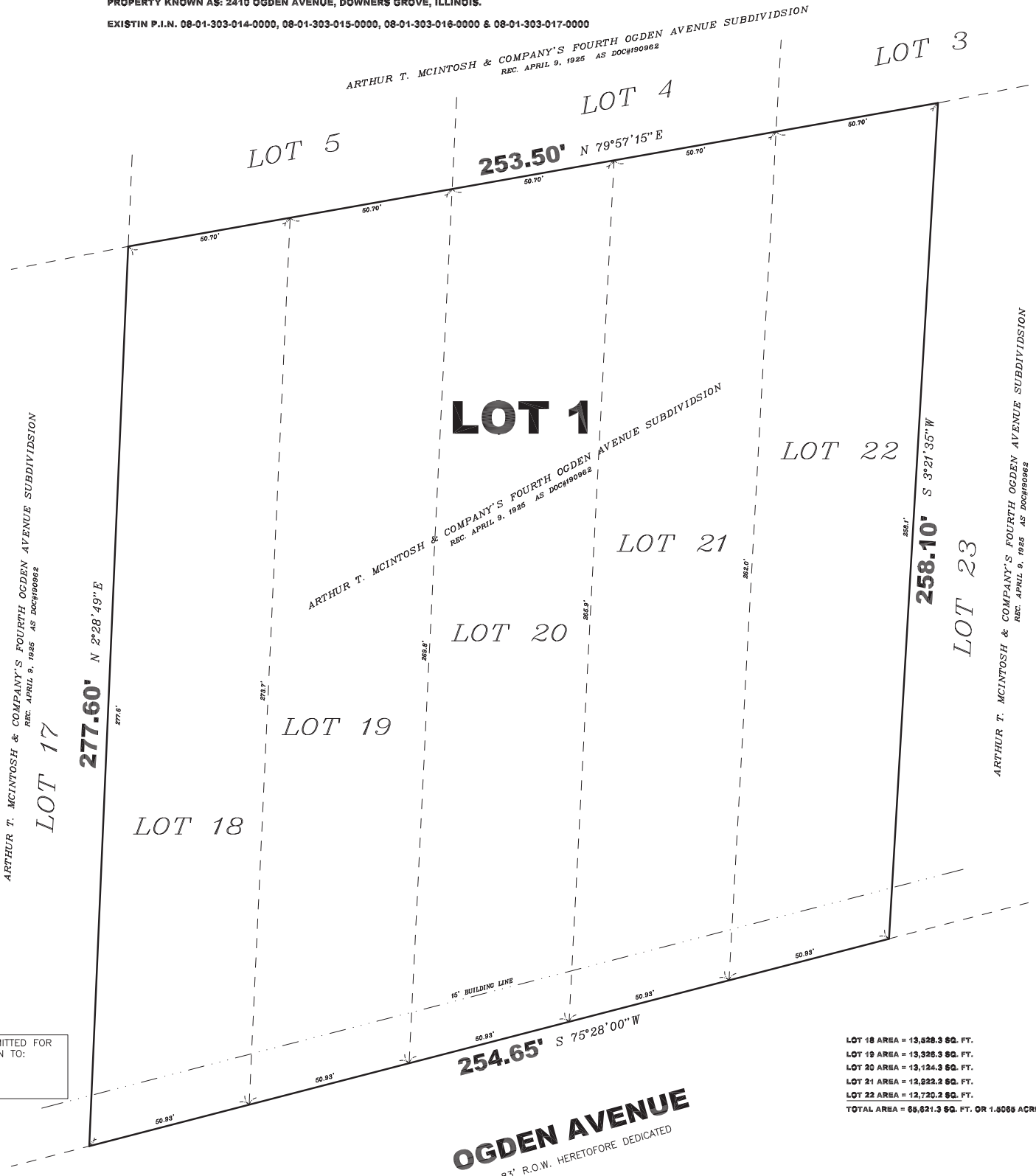
ANAS ALKHATIB PLAT OF CONSOLIDATION

OF

LOTS 18, 19, 20, 21 AND 22 IN BLOCK 1 IN ARTHUR T. MCINTOSH AND COMPANY'S FOURTH OGDEN AVENUE SUBDIVISION, BEING A SUBDIVISION IN THE SOUTH 1/2 OF SECTION 1, TOWNSHIP 38 NORTH, RANGE 10, EAST OF THE THIRD PRINCIPAL MERIDIAN, ACCORDING TO THE PLAT THEREOF RECORDED APRIL 9, 1925 AS DOCUMENT 190962, IN DUPAGE COUNTY, ILLINOIS.

PROPERTY KNOWN AS: 2410 OGDEN AVENUE, DOWNERS GROVE, ILLINOIS.

EXISTIN P.I.N. 08-01-303-014-0000, 08-01-303-015-0000, 08-01-303-016-0000 & 08-01-303-017-0000



THIS PLAT HAS BEEN SUBMITTED FOR RECORDING BY AND RETURN TO:

OWNER AND TAX BILL ADDRESS:

PREPARED BY:
CHICAGOLAND SURVEY COMPANY INC.
 PROFESSIONAL DESIGN FIRM LICENSE NO: 184-005262 EXPIRES 04/30/2019
 6501 W. 65TH STREET CHICAGO, ILLINOIS 60638 (773) 271-9447
 CHICAGOLANDSURVEY@SBCGLOBAL.NET



ORDERED BY: ANAS ALKHATIB
FILE NO.: 132-43

OWNER'S CERTIFICATE
 STATE OF ILLINOIS)
 COUNTY OF DUPAGE) SS

THIS IS TO CERTIFY THAT _____ IS THE OWNER OF THE LAND DESCRIBED AND SHOWN ON THIS CONSOLIDATION PLAT, AND THAT AS SUCH OWNER HAS CAUSED THE SAME TO BE SURVEYED AND CONSOLIDATED FOR THE USES AND PURPOSES THEREIN SET FORTH AS ALLOWED AND PROVIDED BY STATUTES AND THAT SAID OWNER HEREBY ACKNOWLEDGES AND ADOPTS THE SAME UNDER THE STYLE THEREON INDICATED.

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

OWNER _____
 NOTARY CERTIFICATE
 STATE OF ILLINOIS)
 COUNTY OF DUPAGE) SS

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

PERSONALLY KNOW TO ME TO BE THE SOME PERSON WHOSE NAME IS SUBSCRIBED TO THE FOREGOING INSTRUMENT AS THE OWNER APPEARED BEFORE ME THIS DAY IN PERSON AND ACKNOWLEDGED THAT THEY SIGNED AND DELIVERED THE CONSOLIDATED PLAT AS THEIR OWN FREE AND VOLUNTARY ACT FOR THE USES AND PURPOSES THEREIN SET FORTH.

GIVEN UNDER MY HAND AND OFFICIAL SEAL
THIS _____ DAY OF _____, A.D., 20____.

NOTARY SIGNATURE _____

CITY CLERK CERTIFICATE
 STATE OF ILLINOIS)
 COUNTY OF DUPAGE) SS

I, _____, CITY CLERK OF THE CITY OF DOWNERS GROVE, ILLINOIS HEREBY CERTIFY THAT THE PLAT WAS PRESENTED TO AND BY RESOLUTION DULY APPROVED BY THE CITY COUNCIL OF SAID CITY AT ITS MEETING HELD ON _____, 20____.

AND THAT THE REQUIRED BOND OR OTHER GUARANTEE HAS BEEN POSTED FOR THE COMPLETION OF THE IMPROVEMENTS REQUIRED BY THE REGULATION OF SAID CITY. IN WITNESS WHEREOF, I HAVE HERETO SET MY HAND AND SEAL OF THE CITY OF DOWNERS GROVE, ILLINOIS

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

CITY CLERK _____

CITY COUNCIL CERTIFICATE
 STATE OF ILLINOIS)
 COUNTY OF DUPAGE) SS

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

DATED AT DOWNERS GROVE, DUPAGE COUNTY, ILLINOIS.

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

MAYOR _____

ATTEST: _____

CITY CLERK _____

CITY COLLECTOR CERTIFICATE
 STATE OF ILLINOIS)
 COUNTY OF DUPAGE) SS

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

DATED AT DOWNERS GROVE, DUPAGE COUNTY, ILLINOIS.
THIS _____ DAY OF _____, A.D., 20____.

CITY COLLECTOR _____

CITY ENGINEER'S CERTIFICATE
 STATE OF ILLINOIS)
 COUNTY OF DUPAGE) SS

MAIL TO:

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

DATED AT DOWNERS GROVE, DUPAGE COUNTY, ILLINOIS.
THIS _____ DAY OF _____, A.D., 20____.

CITY ENGINEER _____

DUPAGE COUNTY RECORDER'S CERTIFICATE
 STATE OF ILLINOIS)
 COUNTY OF DUPAGE) SS

THIS INSTRUMENT _____, WAS FILED FOR RECORD IN THE RECORDER'S OFFICE OF DU PAGE COUNTY, ILLINOIS.

ON THE _____ DAY OF _____, A.D., 20____.

AT _____ O'CLOCK _____ M. AND WAS RECORDED IN BOOK _____ OF PLATS ON PAGE _____

RECORDER OF DEEDS _____

COUNTY CLERK'S CERTIFICATE
 STATE OF ILLINOIS)
 COUNTY OF DUPAGE) SS

I, _____, COUNTY CLERK OF DUPAGE COUNTY, ILLINOIS, DO HEREBY, THAT I FIND NO DELINQUENT GENERAL TAXES, NO UNPAID CURRENT GENERAL TAXES, NO UNPAID FORFEITED TAXES, NO DELINQUENT OR UNPAID SPECIAL ASSESSMENTS, NO REDEEMABLE TAX SALES AGAINST ANY OF LAND SHOWN ON THIS PLAT.

GIVEN UNDER MY HAND AND SEAL AT DOWNERS GROVE, DUPAGE COUNTY, ILLINOIS.

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

COUNTY CLERK, DUPAGE COUNTY, ILLINOIS.

STATE OF ILLINOIS)
 COUNTY OF DUPAGE) SS

I, ROGER P. JACOB, ILLINOIS PROFESSIONAL LAND SURVEYOR, NO. 3384, DO HEREBY CERTIFY THAT AT THE REQUEST OF THE OWNER, THEREOF, I HAVE SURVEYED AND CONSOLIDATED THE FOLLOWING DESCRIBED PROPERTY:

LOTS 18,19,20,21 AND 22 IN BLOCK 1 IN ARTHUR T. MCINTOSH AND COMPANY'S FOURTH OGDEN AVENUE SUBDIVISION, BEING A SUBDIVISION IN THE SOUTH 1/2 OF SECTION 1, TOWNSHIP 38 NORTH, RANGE 10, EAST OF THE THIRD PRINCIPAL MERIDIAN, ACCORDING TO THE PLAT THEREOF RECORDED APRIL 9, 1925 AS DOCUMENT NUMBER 190962, IN DUPAGE COUNTY, ILLINOIS.

CONTAINING 65,621.3 SQUARE FEET OR 1.5065 ACRES MORE OR LESS.

I FURTHER CERTIFY THAT THE PLAT HEREON DRAWN IS A CORRECT REPRESENTATION OF SAID SURVEY AND SUBDIVISION WHICH WAS PREPARED IN COMPLIANCE WITH THE LAWS OF THE STATE OF ILLINOIS.

I FURTHER CERTIFY THAT THE PROPERTY DESCRIBED AND SHOWN ON THE PLAT HEREON DRAWN IS WITHIN ON CORPORATE LIMITS OF THE CITY OF DOWNERS GROVE, ILLINOIS WHICH HAS ADOPTED AN OFFICIAL COMPREHENSIVE PLAN AND IS EXERCISING THE SPECIAL POWERS AUTHORIZED BY THE STATE OF ILLINOIS ACCORDING TO 65 ILCS 5/11-12-6 AS HERETOFORE AND HEREAFTER AMENDED

I FURTHER CERTIFY THAT ACCORDING TO THE FLOOD INSURANCE RATE MAPS, COMMUNITY PANEL NUMBER 17043 C 0803 H, WITH AN EFFECTIVE DATE OF DECEMBER 16, 2004, THIS SITE APPEARS TO BE LOCATED IN ZONE "X" (AREA DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN) TO THE BEST OF MY KNOWLEDGE AND BELIEF.

GIVEN UNDER MY HAND AND SEAL THIS _____ DAY OF _____, IN THE YEAR 20____.

ROGER P. JACOB
ILLINOIS PROFESSIONAL LAND SURVEYOR NO. 3384



STATE OF ILLINOIS)
 COUNTY OF COOK) S.S.

THIS IS TO CERTIFY THAT THIS PLAT AND THE SURVEY ON WHICH IT IS BASED WERE MADE BY ME, OR BY PERSONS UNDER MY DIRECT SUPERVISION AND CONTROL, THIS PROFESSIONAL SERVICE CONFORMS TO THE CURRENT ILLINOIS MINIMUM STANDARDS FOR A BOUNDARY SURVEY.

DATED THIS 27 TH DAY OF NOVEMBER 2017.

By: *Roger P. Jacob*
ILLINOIS PROFESSIONAL LAND SURVEYOR NO. 3384

LICENSE EXPIRES 11/30/2018

SITE STORM WATER Calculations :

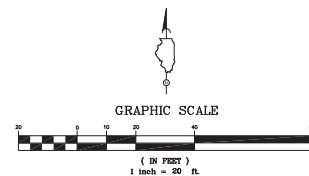
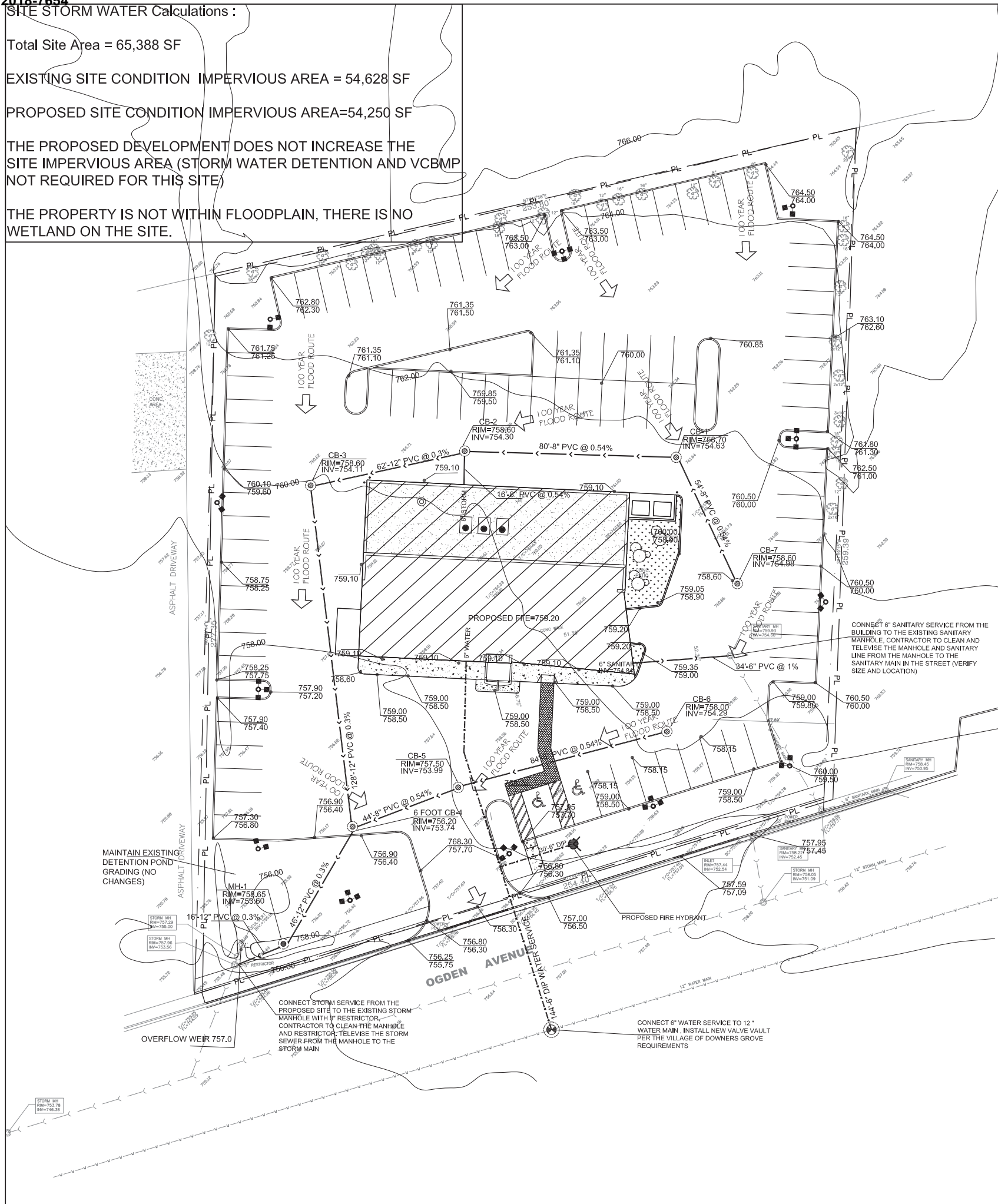
Total Site Area = 65,388 SF

EXISTING SITE CONDITION IMPERVIOUS AREA = 54,628 SF

PROPOSED SITE CONDITION IMPERVIOUS AREA=54,250 SF

THE PROPOSED DEVELOPMENT DOES NOT INCREASE THE SITE IMPERVIOUS AREA (STORM WATER DETENTION AND VCBMP NOT REQUIRED FOR THIS SITE)

THE PROPERTY IS NOT WITHIN FLOODPLAIN, THERE IS NO WETLAND ON THE SITE.



LEGEND AND ABBREVIATIONS:

- PL PROPERTY LINE
- - - LIMITS OF FENCE LINE
- > STORM LINE
- > SANITARY LINE
- - - - - WATER LINE
- FFE FINISHED FLOOR ELEVATION
- CB CATCH BASIN (CB)
- FLM FLARED END SECTION (FE)
- MH MANHOLE (MH)
- VV VALVE VAULT
- FH FIRE HYDRANT
- TC TOP OF CURB
- PG BOTTOM OF CURB
- SE SPOT ELEVATION
- TC TOP OF CURB
- PG PARKING GRADE
- BW BOTTOM OF WALL

| DATE | DRAWING ISSUE |
|----------|-------------------|
| 12-1-17 | ISSUED FOR ZONING |
| 12-20-17 | ISSUED FOR ZONING |
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UTILITY NOTES:

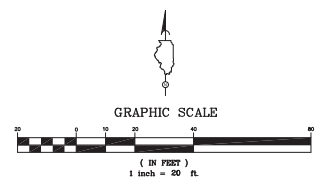
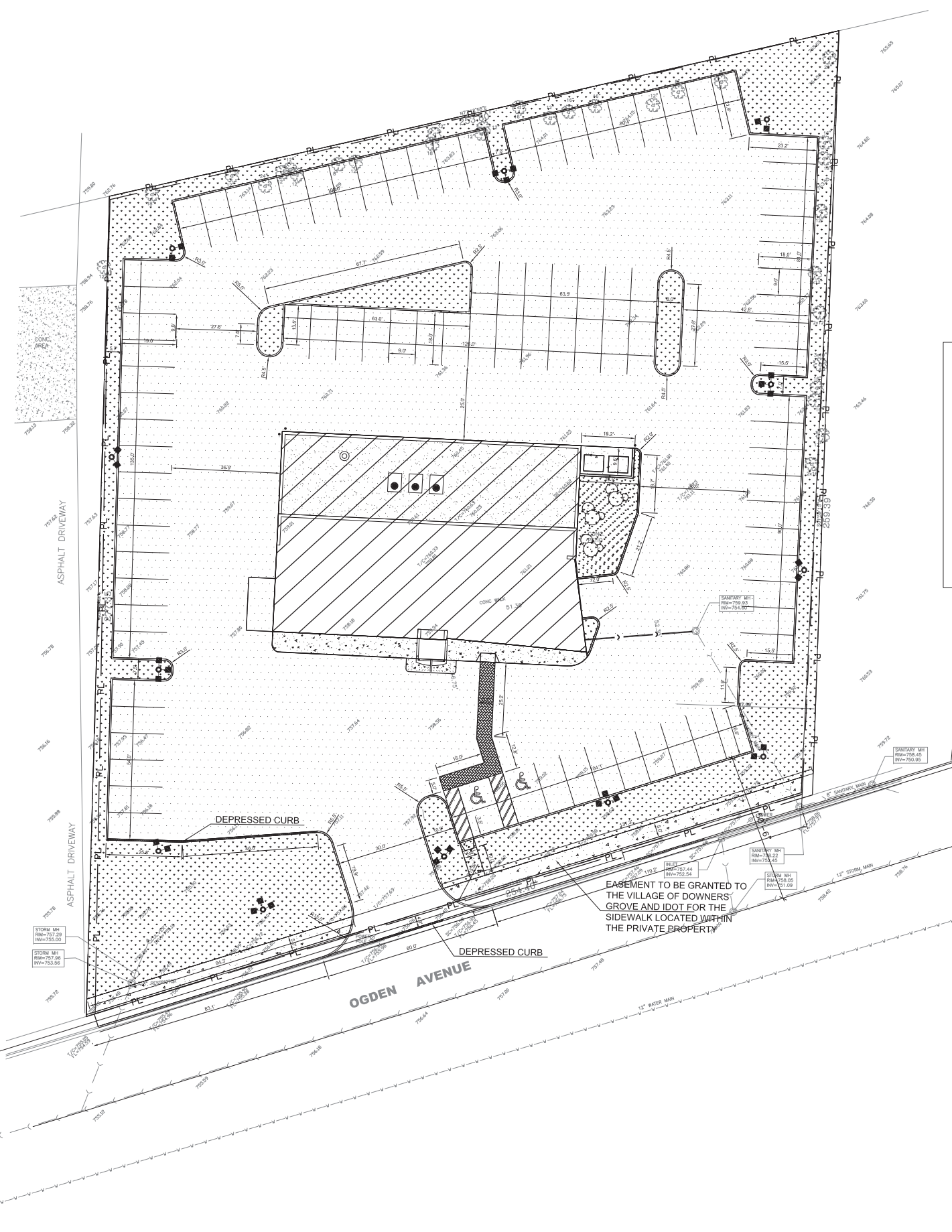
1. THE EXISTENCE AND LOCATION OF UNDERGROUND UTILITIES SHALL BE OBTAINED FROM ALL UTILITY COMPANIES. INVESTIGATED AND VERIFIED IN THE FIELD BY THE CONTRACTOR BEFORE STARTING WORK IN THE CONSTRUCTION AREA. EXCAVATION IN THE VICINITY OF EXISTING STRUCTURES SHALL BE PERFORMED BY HAND. THE CONTRACTOR SHALL BE HELD RESPONSIBLE FOR ANY AND ALL DAMAGES TO EXISTING FACILITIES, MAINTENANCE AND PROTECTION OF EXISTING UTILITIES AND STRUCTURES.
2. THE CONTRACTOR IS TO UNCOVER ALL LINES BEING TIED INTO AND VERIFY GRADES BEFORE ANY CONSTRUCTION.
3. CALL JULIE (800)892-0123 PRIOR TO DIGGING FOR ANY UTILITY CONSTRUCTION.
4. ALL DISTURBED AREAS SHALL BE RESTORED BY THE CONTRACTOR TO THE ORIGINAL CONDITION.
5. THE CONTRACTOR MUST COMPLY WITH ALL FEDERAL, STATE AND LOCAL CODES.
6. THE CONTRACTOR SHALL OBTAIN ALL NECESSARY PERMITS AND PAY THE REQUISITE FEES TO THE CITY OF LOMBARD PRIOR TO COMMENCING WORK.
7. ALL WORK AND MATERIALS WHICH DO NOT CONFORM TO THE SPECIFICATIONS ARE SUBJECT TO REMOVAL AND REPLACEMENT AT THE CONTRACTOR'S EXPENSE.
8. WATERMAIN SHALL BE DUCTILE IRON PIPE, CLASS 52, CEMENT LINED.
9. SEWER SHALL CONFORM TO ASTM SPECIFICATIONS FOR MATERIALS AND JOINTS. PVC USED TO BE SDR 26 CONFORMING TO ASTM-3034, JOINT TO CONFORM TO ANSI A21.11
10. DO NOT SCALE PLANS FOR CONSTRUCTION DIMENSIONS.
11. A WATER MAIN SHALL BE SEPARATED FROM A SEWER SO THAT ITS INVERT IS A MINIMUM OF 18 INCHES ABOVE THE CROWN OF THE SEWER WHENEVER WATER MAINS CROSS STORM SEWERS, SANITARY SEWERS OR SEWER SERVICE CONNECTIONS. THE VERTICAL SEPARATION SHALL BE MAINTAINED FOR THAT PORTION OF THE WATER MAIN LOCATED WITHIN TEN FEET HORIZONTALLY OF ANY SEWER OR DRAIN CROSSED. A LENGTH OF WATER MAIN PIPE SHALL BE CENTERED OVER THE SEWER TO BE CROSSED WITH JOINTS EQUIDISTANT FROM THE SEWER OR DRAIN.
12. BOTH THE WATER MAIN AND SEWER SHALL BE CONSTRUCTED OF SLIP-ON OR MECHANICAL JOINT CAST OR DUCTILE IRON PIPE EQUIVALENT TO WATER MAIN STANDARDS OR CONSTRUCTION WHEN IT IS IMPOSSIBLE TO OBTAIN THE PROPER VERTICAL SEPARATION AS DESCRIBED ABOVE, OR THE WATER MAIN PASSES UNDER A SEWER OR DRAIN.
13. A VERTICAL SEPARATION OF 18 INCHES BETWEEN THE INVERT OF THE SEWER OR DRAIN AND THE CROWN OF THE WATER MAIN SHALL BE MAINTAINED WHERE A WATER MAIN CROSSES UNDER A SEWER. SUPPORT THE SEWER OR DRAIN LINES TO PREVENT SETTLING AND BREAKING THE WATER MAIN.
14. CONSTRUCTION SHALL EXTEND ON EACH SIDE OF THE CROSSING UNTIL THE PERPENDICULAR DISTANCE FROM THE WATER MAIN TO THE SEWER OR DRAIN OR SEWER SERVICE CONNECTION SHALL BE THE SAME AS WATER MAIN SEPARATION DESCRIBED ABOVE.
15. CONTRACTOR IS TO RESTORE ALL STREET PAVEMENT PER VILLAGE OF DOWNERS GROVE REQUIREMENTS.

PROPOSED CAR DEALERSHIP
 2410 W. OGDEN AVE.
 DOWNERS GROVE, IL 60515



| | |
|-----------------------------|-----------------|
| DATE STARTED: 07-15-2017 | DRAWN BY: AA |
| JOB NO.: | FILE NO.: |

SHEET NO:
C-2



- ASPHALT PAVEMENT
- BUILDING
- CONCRETE PAVEMENT
- LANDSCAPE ISLAND

PROPOSED Site CONDITION Calculations :

Total Site Area = 65,388 SF

Area breakdown :

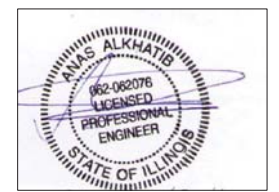
Building=7000 SF
 Concrete Sidewalk/Concrete pad=870 SF
 Asphalt Parking lot=42,710 SF
 Green area=14,808 SF

Total Impervious area=50,580 SF

Damas Consulting Group
 5625 MIDDAUGH AVE
 Downers Grove, IL 60516
 Ph 630-991-3299 FAX 630-541-2382

| DATE | DRAWING ISSUE |
|----------|-------------------|
| 12-1-17 | ISSUED FOR ZONING |
| 12-20-17 | ISSUED FOR ZONING |
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PROPOSED CAR DEALERSHIP
 2410 W. OGDEN AVE.
 DOWNERS GROVE, IL 60515



| | |
|-----------------------------|-----------------|
| DATE STARTED: 07-15-2017 | DRAWN BY: AA |
| JOB NO.: | FILE NO.: |

SHEET NO:
C-7

2410 W. OGDEN AVE, DOWNERS GROVE

PROPOSED SCOPE: DEMOLISH EXISTING BUILDING, DESIGN AND BUILD NEW CAR DEALERSHIP
PER APPLICABLE CODES ADOPTED BY THE CITY OF DOWNERS GROVE

DRAWINGS INDEX

- A1 PROPOSED SITE PLAN, APPLICABLE CODES, DRAWINGS INDEX
- F1 PROPOSED VEHICLE TURNING EXHIBIT
- L1 PROPOSED LANDSCAPE PLAN
- A2 PROPOSED FLOOR PLANS
- A3 PROPOSED EXTERIOR ELEVATIONS
- A4 PROPOSED BUILDING SECTIONS
- A5 PROPOSED LIGHTING PHOTOMETRICS
- A6 PROPOSED BUILDING PERSPECTIVES

CODES ADOPTED BY THE CITY OF DOWNERS GROVE

1. CURRENT DOWNERS GROVE ZONING ORDINANCE
2. CURRENT DOWNERS GROVE STORMWATER AND FLOOD PLAN ORDINANCE
3. 2015 INTERNATIONAL BUILDING CODE WITH D.G. AMENDMENTS
4. 2014 NATIONAL ELECTRICAL CODE WITH D.G. AMENDMENTS
5. CURRENT STATE OF ILLINOIS PLUMBING CODE WITH D.G. AMENDMENTS (INCLUDING WATERSENSE LABELED FIXTURE REQUIREMENTS)
6. 2015 INTERNATIONAL MECHANICAL CODE WITH D.G. AMENDMENTS
7. 2015 INTERNATIONAL FUEL GAS CODE WITH D.G. AMENDMENTS
8. 2015 INTERNATIONAL ENERGY CONSERVATION CODE WITH D.G. AMENDMENTS AND STATE OF ILLINOIS AMENDMENTS
9. 2015 INTERNATIONAL PROPERTY MAINTENANCE CODE WITH D.G. AMENDMENTS
10. 2015 INTERNATIONAL FIRE CODE WITH D.G. AMENDMENTS
11. 2015 INTERNATIONAL SWIMMING POOL AND SPA CODE WITH D.G. AMENDMENTS
12. 2003 LIFE SAFETY CODE (NFPA 101)
13. CURRENT STATE OF ILLINOIS ACCESSIBILITY CODE

SITE AND BUILDING DATA

| OCCUPANCY USE | (B) BUSINESS | CONSTRUCTION TYPE | TYPE 2B |
|---------------------------------|-----------------|----------------------------|----------|
| LAND USE, ZONING | COMMERCIAL, B3 | | |
| LOT SIZE | 65,030 SF | 1.49 ACRES | |
| PROPOSED BUILDING GROSS AREA | 7,000 SF | | |
| TOTAL PROPOSED FIRST FLOOR AREA | 6,376 SF | | |
| PROPOSED SHOWROOM AREA | 3,523 SF | 2 SPACES PER 1,000 SQ. FT. | 7 SPACES |
| PROPOSED SECOND FLOOR | 1,300 SF | | |
| LOT COVERAGE | 11% | | |
| LANDSCAPE AREA & PERCENTAGE | 12,648 SF (20%) | | |
| STREET YARD OPEN SPACE | 6,261 SF (9.6%) | | |

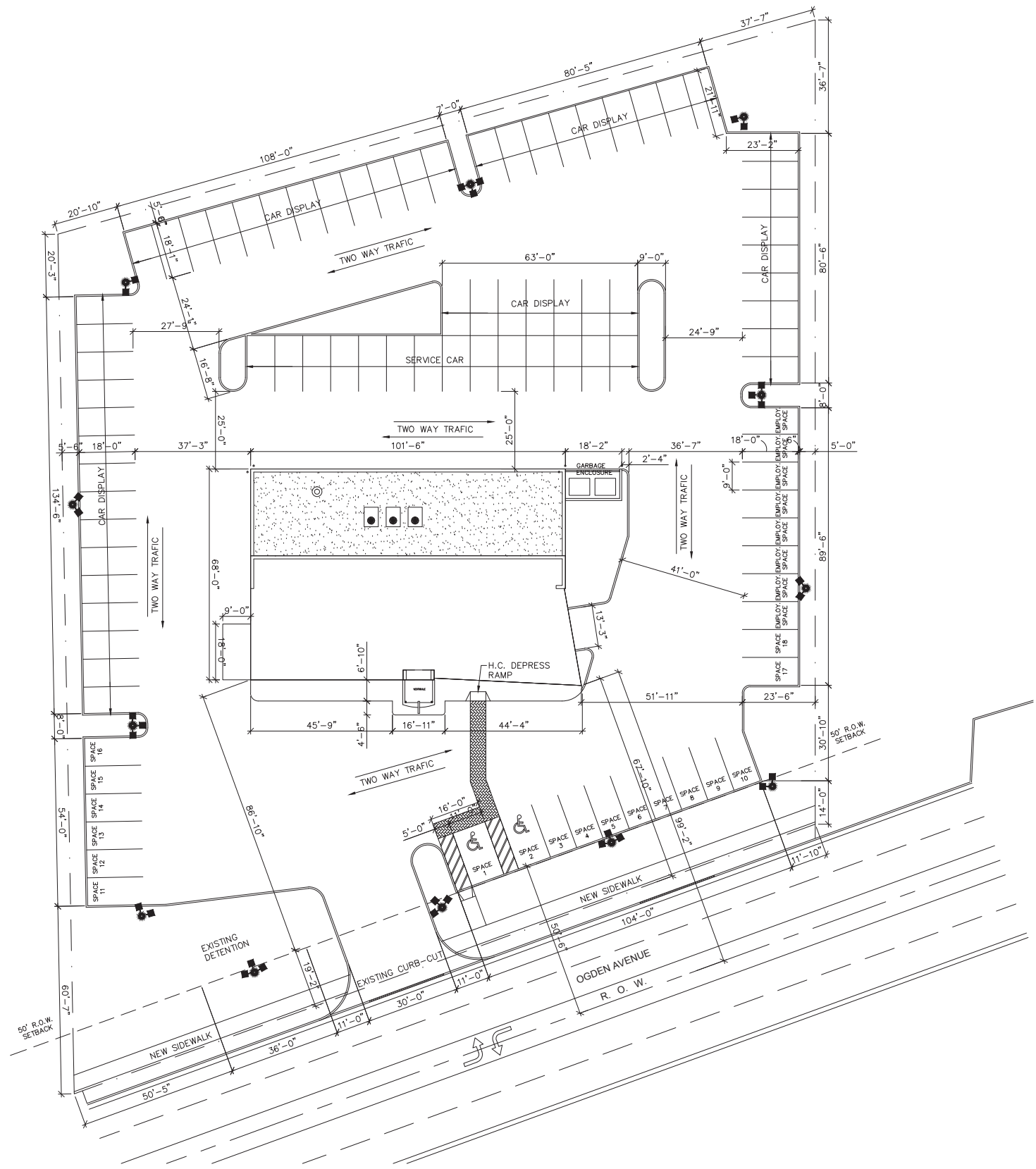
COMMERCIAL VEHICLE SALES PARKING REQUIREMENTS

| DESCRIPTION | AREA SF | CODE | REQUIRED | PROVIDED |
|----------------------|---------|---|----------|----------|
| SHOWROOM AREA | 3,523 | 2 SPACES PER 1,000 SF OF SHOWROOM AREA | 7 | 5 |
| OUTDOOR DISPLAY AREA | 8,424 | 0.4 SPACES PER 1,000 SF OF OUTDOOR AREA | 4 | 52 |
| SERVICE AREA | 5 BAYS | 2 SPACES PER SERVICE BAY. | 10 | 14 |
| GUEST PARKING | | NOT INCLUDED IN OVERALL SUBTOTAL | - | 26 |
| EMPLOYEE PARKING | | NOT INCLUDED IN OVERALL SUBTOTAL | - | 8 |
| | | TOTAL | 21 | 71 |

* MINIMUM MOTOR VEHICLE PARKING REQUIREMENT AS FOLLOWS:
- 2 SPACES PER 1,000 SQ. FT. OF SHOWROOM AREA, PLUS 0.4 SPACES
1,000 SQ.FT. OF OUTDOOR DISPLAY SPACE, PLUS 2 CARS PER SERVICE BAY

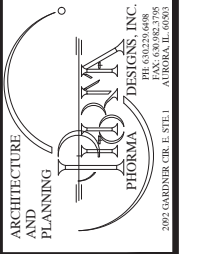
GENERAL NOTES

1. ALL WORK SHALL CONFORM TO THE APPLICABLE CODES AND ORDINANCES OF THE VILLAGE OF DOWNERS GROVE & THE STATE OF ILLINOIS ACCESSIBILITY CODE
2. ALL WORK SHALL CONFORM TO THE SPECIFICATIONS AND QUALITY STANDARDS AS EXPRESSED IN THE DRAWINGS WHICH FORM A PART OF THE CONTRACT DOCUMENTS
3. START OF THE WORK BY THE CONTRACTORS SHALL SIGNIFY THE ACCEPTANCE OF THE EXISTING SITE CONDITIONS
4. ALL DEBRIS AND WASTE MATERIALS AND EQUIPMENT SHALL BE TRANSPORTED OFF OF THE PREMISES AND LEGALLY DISPOSED OF. ALL ITEMS SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND DISPOSAL OF SUCH ITEMS SHALL BECOME THEIR RESPONSIBILITY EXCEPT FOR EXISTING MATERIALS PROPOSED FOR RE-USE
5. THE ARCHITECT SHALL NOT BE RESPONSIBLE FOR CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES, PROCEDURES OR FOR ANY SAFETY PRECAUTIONS AND PROGRAMS IN CONNECTION WITH THIS PROJECT
6. THE ARCHITECT SHALL NOT BE RESPONSIBLE FOR ANY ADDITIONAL EXPENDITURES THAT MIGHT BE NECESSARY AFTER CONSTRUCTION BEGINS



PROPOSED SITE PLAN

SCALE 1"=20'-0"



CONSULTANT:

CLIENT:

ARCHITECT LIC.:

I hereby certify these drawings have been prepared by my firm or myself and to the best of my knowledge comply with all applicable codes of local and State of Illinois.
I have prepared or caused to be prepared only my best representation of the actual plans and specifications and will not, to the best of my knowledge and belief, and to the extent of my contractual obligation, be used in accordance with the Environmental Business Act (625 ILCS 25/2) and the Illinois Accessibility Code (77 ILCS 406.005-009).

LICENSE EXPIRES:

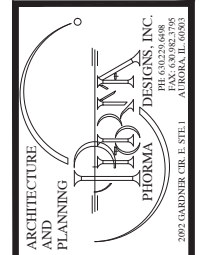
**NEW AUTO DEALERSHIP AT
2410 OGDEN AVE.
DOWNERS GROVE, IL.
PROPOSED SITE PLAN**

| NO. | DATE | DESCRIPTION | BY |
|-----|----------|---------------|----|
| 1 | 12-14-17 | ZONING REVIEW | PC |
| 2 | | | |
| 3 | | | |
| 4 | | | |

PROJECT NO.: 17108
DATE: 12.01.17
ISSUED: DD
DRAWN BY: PCJ
CHECKED BY: PCJ
FILENAME: RAD-SITEPLAN.DWG
SHEET NO.:

A1

PHORMA DESIGNS, INC. COPYRIGHT 2011 ALL RIGHTS RESERVED



CONSULTANT:

CLIENT:

ARCHITECT LIC.:

I hereby certify these drawings have been prepared under my direct supervision and to the best of my knowledge and belief, with all applicable codes of local and State of Illinois.
I have prepared or caused to be prepared under my direct supervision, the architectural plans and specifications and state that to the best of my knowledge and belief and to the extent of my contractual obligations, they are in accordance with the Environmental Planning Act (625 ILCS 25/2) and the Illinois Accessibility Code (77 ILCS 4205-10).

LICENSE EXPIRES:

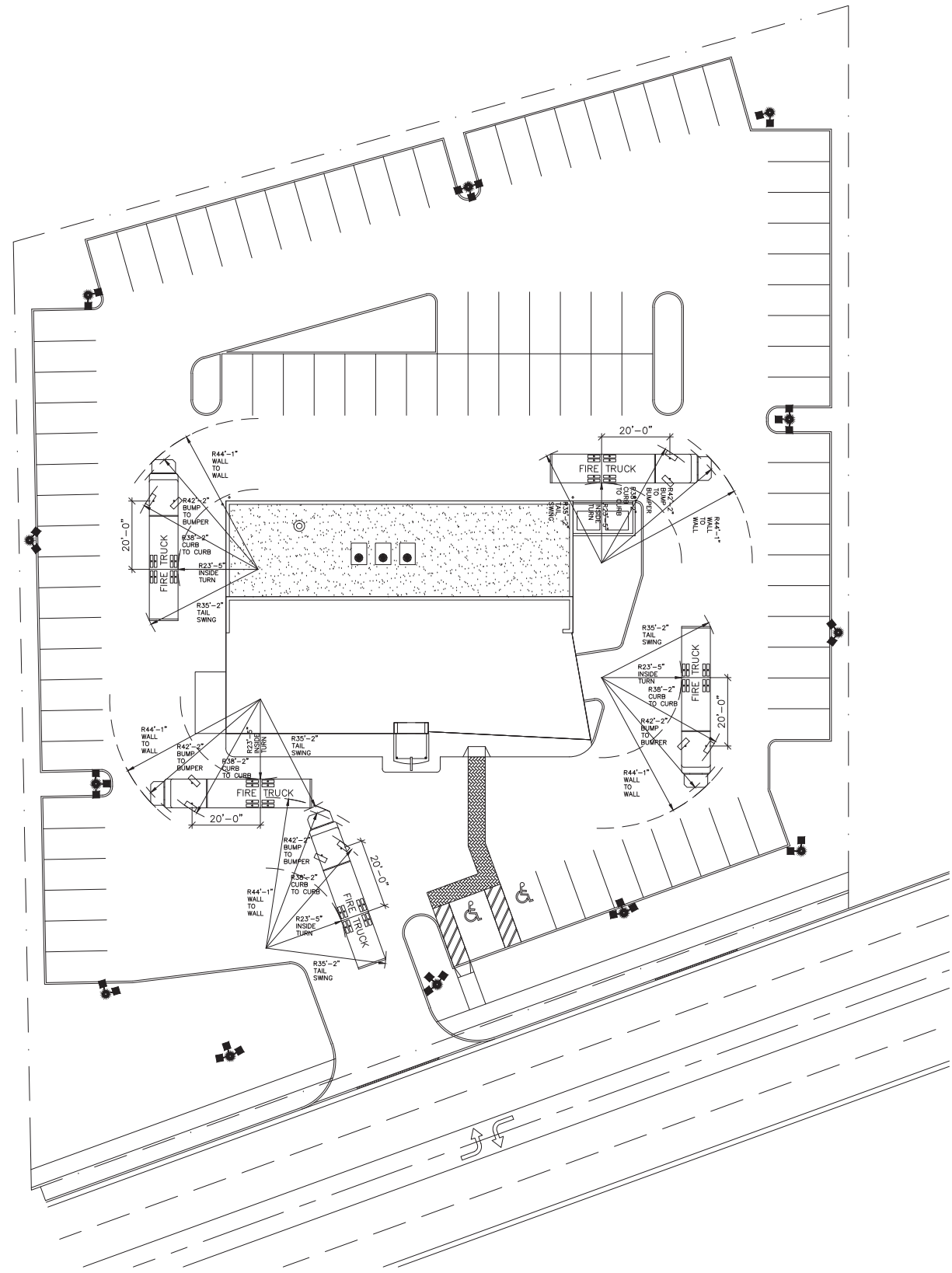
**NEW AUTO DEALERSHIP AT
2410 OGDEN AVE.
DOWNERS GROVE, IL.**

PROP. VEHICLE TURNING EXHIBIT

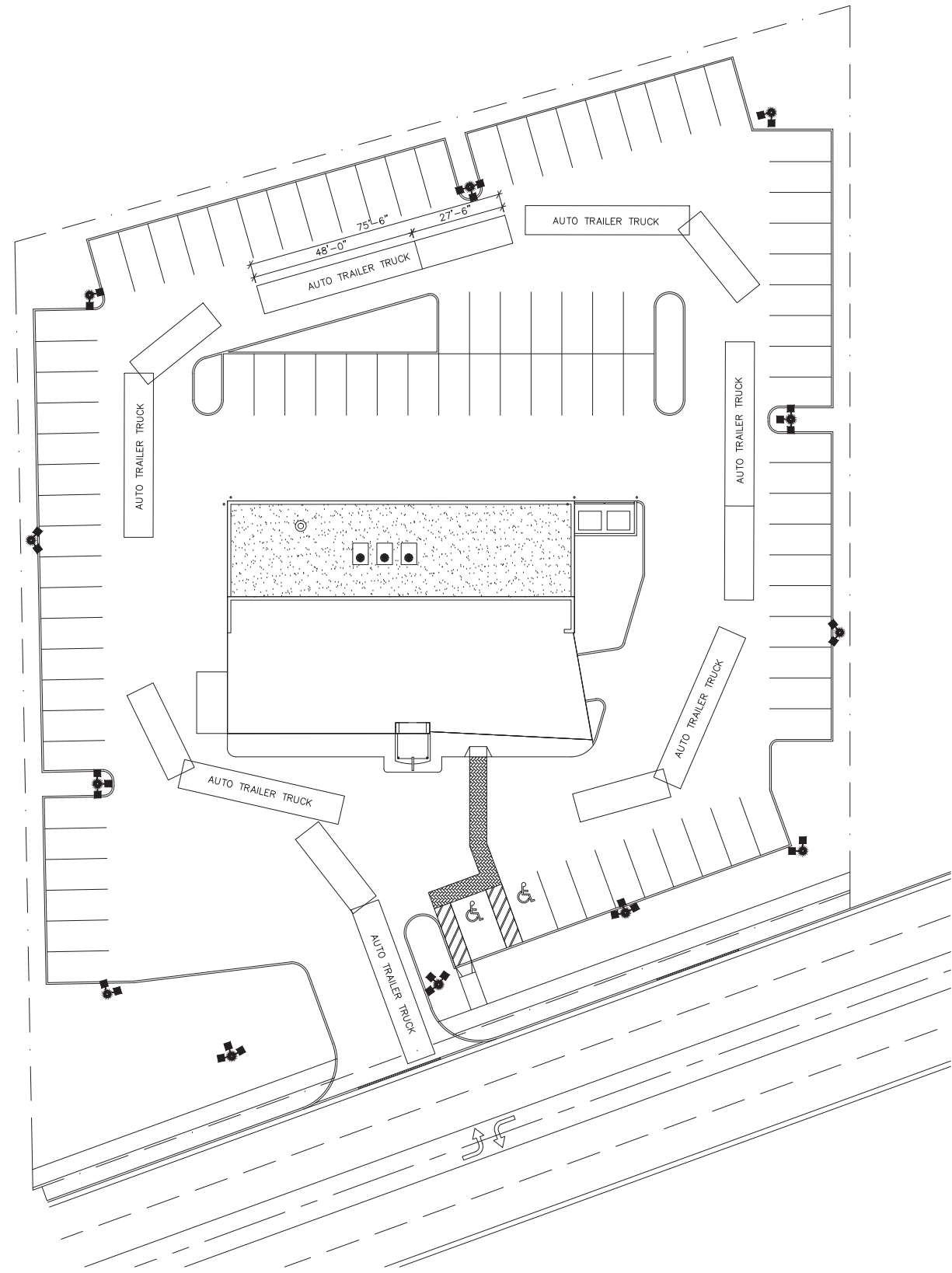
| NO. | DATE | DESCRIPTION | BY |
|-----|----------|---------------|----|
| 1 | 12-14-17 | ZONING REVIEW | PC |
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PROJECT NO.: 17108
 DATE: 12.01.17
 ISSUED: DD
 DRAWN BY: PCJ
 CHECKED BY: PCJ
 FILENAME: RAD-SITEPLAN.DWG
 SHEET NO.:

F1



PROPOSED FIRE TRUCK TURNING EXHIBIT
 SCALE 1"=20'-0"



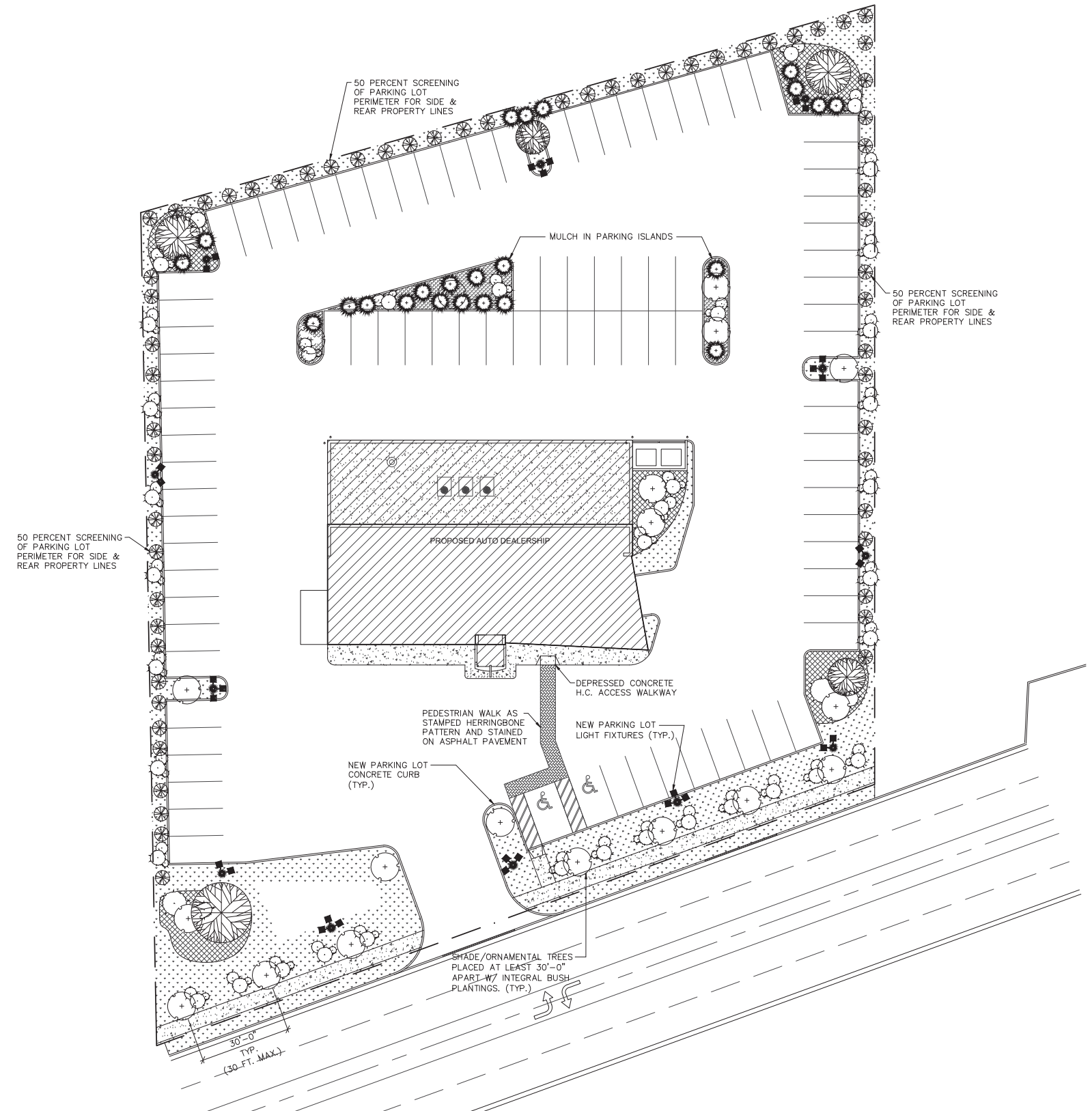
PROPOSED AUTO CARRIER TURNING EXHIBIT
 SCALE 1"=20'-0"

| LEGEND OF SYMBOLS | | | |
|-------------------|---------------------|--|---------------|
| SYMBOL | NAME | ACTUAL NAME | MATURE HEIGHT |
| | CANOPY TREE | AUTUMN BLAZE RED MAPLE | 30-40 FT. |
| | EVERGREEN TREE | EMERALD GREEN ARBOVITAE | 12-14 FT. |
| | UNDERSTORY TREE | BLOODGOOD JAPANESE MAPLE | 10-15 FT. |
| | EVERGREEN SHRUB | GREEN VELVET BOXWOOD | 4-6 FT. |
| | DECIDUOUS SHRUB | DIABLO NINE BARK | 6-8 FT. |
| | MULCH | HARDWOOD MULCH CHIPS 2 TO 3 INCHES DEEP WITHIN SOIL PLANTING BEDS. | |
| | PERENNIALS | CREeping THYME | 3 INCHES |
| | GRASS | CLASS 1 LAWN MIXTURE PER IDOT SPECIFICATION FOR SEED W/ STRAW OR SOD PLANTING. | |
| | PROPERTY LINE | | |
| | SETBACK LINE | | |
| | CENTER RIGHT OF WAY | | |
| | BUILDINGS | | |
| | CONCRETE SIDEWALK | | |

NOTE:
THE ABOVE LANDSCAPE BLOCKS DEPICT THE WIDTH OF THE CANOPY AT MATURITY. LANDSCAPE PLANS SUBMITTED TO THE CITY OF AURORA FOR APPROVAL MUST BE SCALED TO DEPICT THE WIDTH OF CANOPY AT THE TIME OF INSTALLATION.

LANDSCAPE NOTES:

- 1) ALL ORNAMENTAL TREES SHALL BE AT LEAST 4 FEET IN HEIGHT AT THE TIME OF INSTALL.
- 2) ALL SHADED TREES SHALL BE AT LEAST 2.5 INCH CALIPER AT THE TIME OF INSTALL.
- 3) ALL PLANTING SHRUBS SHALL BE AT LEAST 8 INCHES IN HEIGHT AT THE TIME OF INSTALL.
- 4) ALL ORNAMENTAL PLANTINGS (GRASSES AND PERENNIALS) SHALL BE AT LEAST 12 INCHES IN HEIGHT AT THE TIME OF INSTALL.



PROPOSED LANDSCAPE PLAN
SCALE 1"=20'-0"



CONSULTANT:

CLIENT:

ARCHITECT LIC.:

I hereby certify these drawings have been prepared under my direct supervision and to the best of my knowledge comply with all applicable codes of local and State of Illinois.
I have prepared or caused to be prepared under my direct supervision, the attached plans and specifications and state that, to the best of my knowledge and belief, they conform to the requirements of the Environmental Protection Act (625 ILCS 2.0/2.1) and the Illinois Accessibility Code (77 ILCS 23.0/23.0).

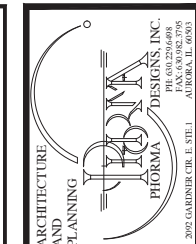
LICENSE EXPIRES:

**NEW AUTO DEALERSHIP AT
2410 OGDEN AVE.
DOWNERS GROVE, IL.
PROPOSED LANDSCAPE PLAN**

| NO. | DATE | DESCRIPTION | BY |
|-----|----------|---------------|----|
| 1 | 12-14-17 | ZONING REVIEW | PC |
| 2 | | | |
| 3 | | | |
| 4 | | | |

PROJECT NO.: 17108
DATE: 10.08.17
ISSUED: DD
DRAWN BY: PCJ
CHECKED BY: PCJ
FILENAME: RAD-SITEPLAN.DWG
SHEET NO.:

L1



ARCHITECTURE AND PLANNING
 CONSULTANT:

CLIENT:

ARCHITECT LIC.:

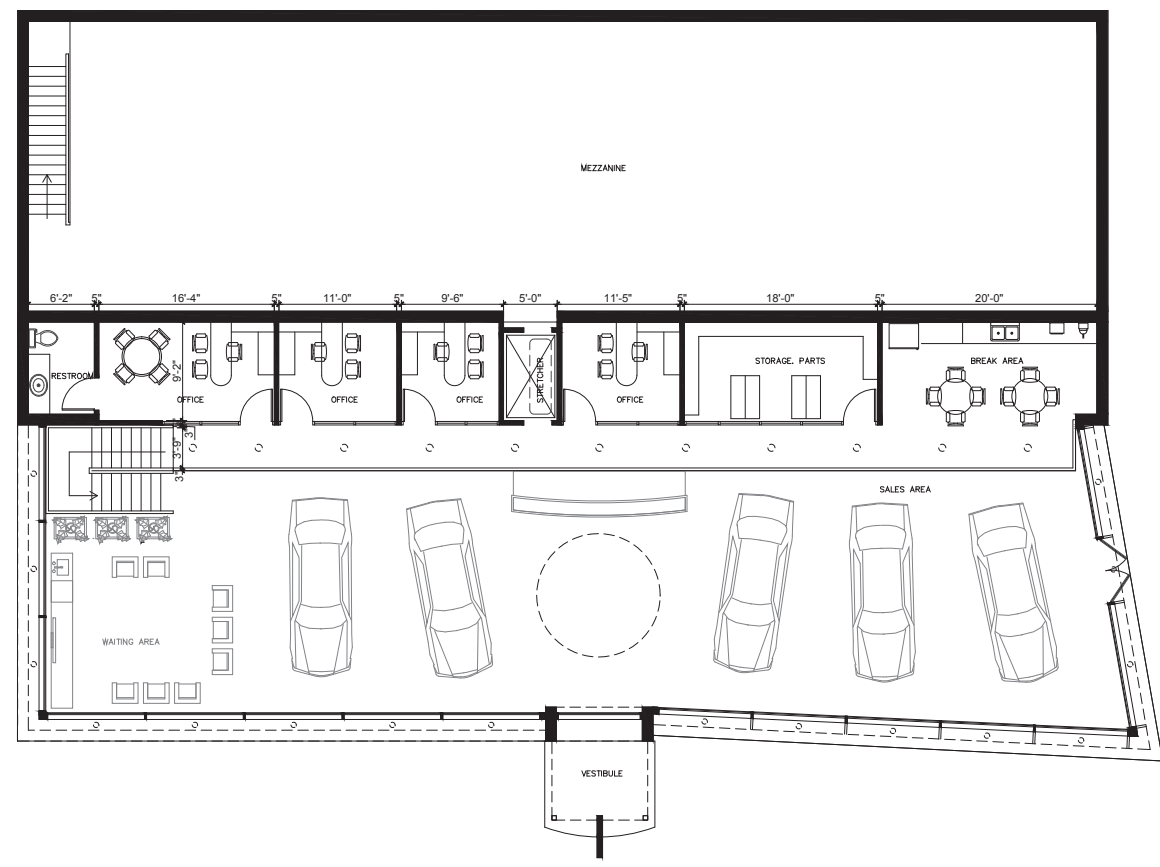
I hereby certify these drawings have been prepared under my direct supervision and to the best of my knowledge comply with all applicable codes of local and State of Illinois.
 I have prepared or caused to be prepared under my direct supervision, the attached plans and specifications and state that, to the best of my knowledge and belief, they will comply with the construction requirements set forth in the contract with the Environmental Bureau, PCJ and the provisions of the Environmental Code, Title 11, 11.1.0, Admin. Code 600.001.
 LICENSE EXPIRES:

NEW AUTO DEALERSHIP AT
 2410 OGDEN AVE.
 DOWNERS GROVE, IL.
 PROPOSED FLOOR PLANS

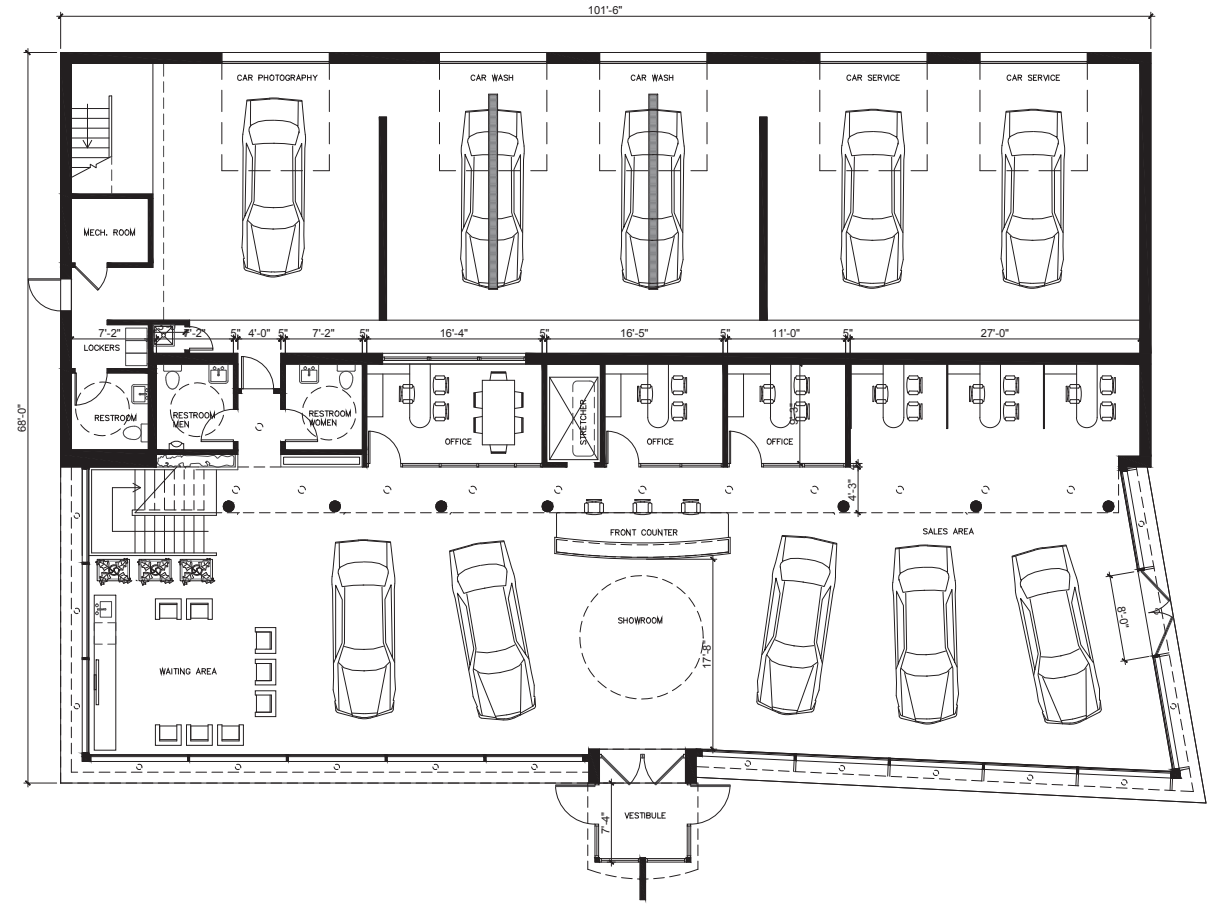
| NO. | DATE | DESCRIPTION | BY |
|-----|----------|---------------|----|
| 1 | 12-14-17 | ZONING REVIEW | PC |
| 2 | | | |
| 3 | | | |
| 4 | | | |

PROJECT NO.: 7108
 DATE: 12.01.17
 ISSUED: DD
 DRAWN BY: PCJ
 CHECKED BY: PCJ
 FILENAME: RAD-YBASEPLANS.DWG
 SHEET NO.:

A2



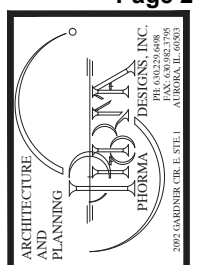
SECOND FLOOR PLAN



FIRST FLOOR PLAN

PROPOSED FLOOR PLANS
 SCALE 1/8"=1'-0"





CONSULTANT:

CLIENT:

ARCHITECT LIC.:

I hereby certify these drawings have been prepared under my direct supervision and to the best of my knowledge comply with all applicable codes of local and State of Alabama.
I have prepared or caused to be prepared under my direct supervision the attached plans and specifications and state that, to the best of my knowledge and belief, they conform to the requirements of the Environmental Response Act (ERA) of Alabama and the State Accessibility Code (SAC) of Alabama.

LICENSE EXPIRES:

**NEW AUTO DEALERSHIP AT
 2410 OGDEN AVE.
 DOWNERS GROVE, IL.
 PROPOSED EXTERIOR ELEVATIONS**

| NO. | DATE | DESCRIPTION | BY |
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| 1 | 12-14-17 | ZONING REVIEW | PC |
| 2 | | | |
| 3 | | | |
| 4 | | | |

PROJECT NO.: 17108
 DATE: 12.01.17
 ISSUED: DD
 DRAWN BY: PCJ
 CHECKED BY: PCJ
 FILENAME: 240-1802-0101.280
 SHEET NO.:

A3

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- T/O BLDG. HT. EL. 30'-2 1/2"
- T/O COPING EL. 27'-9 1/2"
- T/O COPING EL. 26'-3"
- T/O WIN. OPNG EL. 20'-7"
- T/O WIN. MUL. EL. 14'-5"
- T/O WIN. MUL. EL. 8'-3"
- FIN. FLOOR EL. 0'-0" TYP



SOUTH ELEVATION
 SCALE 1/8"=1'-0"

- T/O BLDG. HT. EL. 30'-5 1/2"
- T/O COPING EL. 27'-9 1/2"
- T/O COPING EL. 26'-3"
- T/O WIN. OPNG EL. 20'-7"
- T/O WIN. MUL. EL. 14'-5"
- T/O WIN. MUL. EL. 8'-3"
- FIN. FLOOR EL. 0'-0" TYP



EAST ELEVATION
 SCALE 1/8"=1'-0"

- T/O BLDG. HT. EL. 30'-5 1/2"
- T/O COPING EL. 27'-9 1/2"
- T/O COPING EL. 26'-3"
- T/O FIN. PANEL EL. 17'-3 1/2"
- T/O OPNG. HDR. EL. 10'-0"
- FIN. FLOOR EL. 0'-0" TYP



NORTH ELEVATION
 SCALE 1/8"=1'-0"

- T/O BLDG. HT. EL. 30'-5 1/2"
- T/O COPING EL. 27'-9 1/2"
- T/O COPING EL. 23'-6 1/2"
- T/O FIN. PANEL EL. 17'-3 1/2"
- T/O OPNG. HDR. EL. 10'-0"
- FIN. FLOOR EL. 0'-0" TYP



WEST ELEVATION
 SCALE 1/8"=1'-0"



CONSULTANT:

CLIENT:

ARCHITECT LIC.:

I hereby certify these drawings have been prepared under my direct supervision and to the best of my knowledge comply with all applicable codes of local and State of Alabama.
I have prepared or caused to be prepared under my direct supervision, the attached plans and specifications and state that, to the best of my knowledge and belief, they conform to the requirements of the Environmental Response Act (ERA) 36-25-21 and the Historic Preservation Code (HPC) 36-25-22, in Alabama Code (2018).

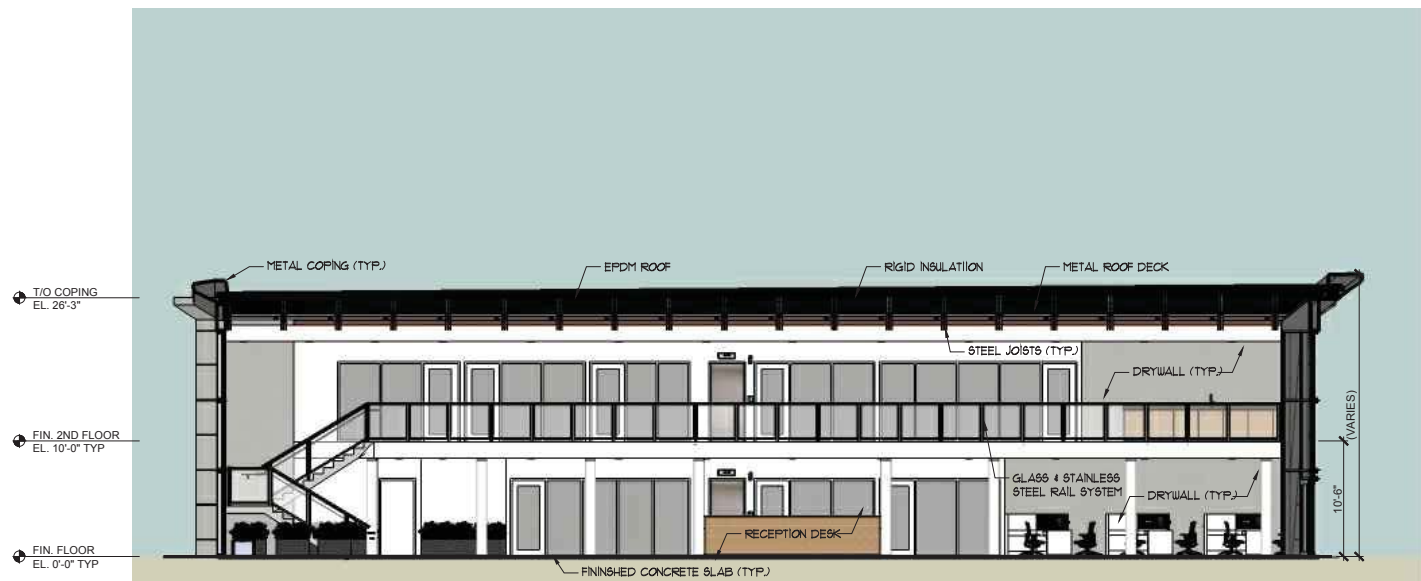
LICENSE EXPIRES:

**NEW AUTO DEALERSHIP AT
 2410 OGDEN AVE.
 DOWNERS GROVE, IL.
 PROPOSED BUILDING SECTIONS**

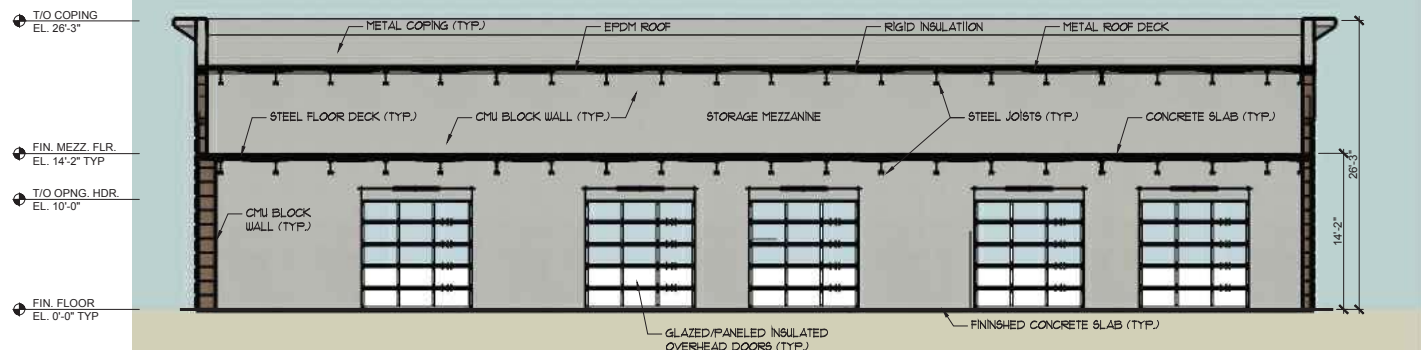
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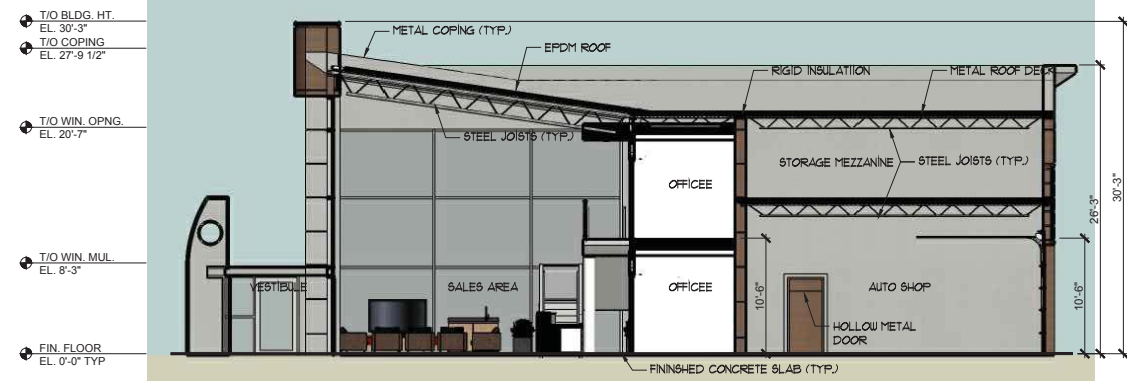
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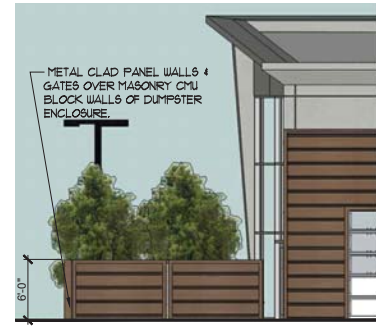
BUILDING SECTION
 SCALE 1/8"=1'-0"



BUILDING SECTION
 SCALE 1/8"=1'-0"



BUILDING SECTION
 SCALE 1/8"=1'-0"



T/O ENCLOSURE EL. 6'-0"
 FIN. FLOOR EL. 0'-0" TYP.

DUMPSTER ENCLOSURE ELEVATION
 SCALE 1/8"=1'-0"

HIGHLINE S2

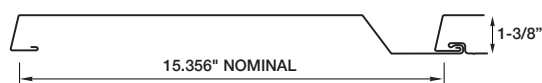
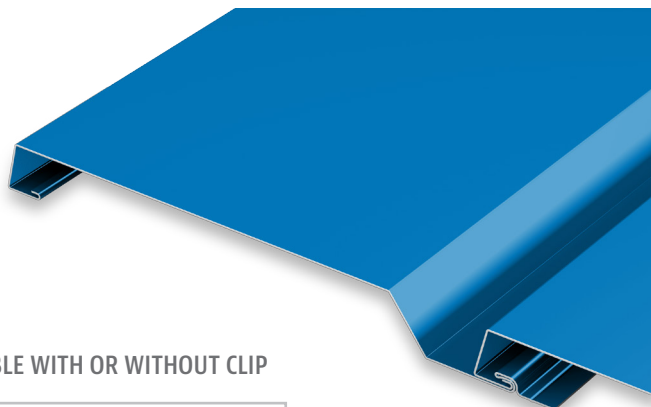
PRECISION SERIES WALL PANELS

MATERIALS

.050 aluminum 22 gauge steel

SPECS

15.356" Wide 1-3/8" High



AVAILABLE WITH OR WITHOUT CLIP



PRODUCT FEATURES

- ▶ No-clip panel or clip installation for expansion/contraction
- ▶ Multiple rib patterns provide a variety of looks and design options
- ▶ Panel depth of 1-3/8"
- ▶ Cost-effective installation
- ▶ Horizontal or vertical installation

- ▶ Panel lengths: 30' maximum for steel; 22' maximum for aluminum; longer lengths available on clip panels; 4' min. steel and aluminum

MATERIAL

- ▶ 15 stocked colors (22 gauge steel)
- ▶ 29 stocked colors (.050 aluminum)
- ▶ Galvalume Plus available

TESTS

- ▶ ASTM E283
- ▶ ASTM E331

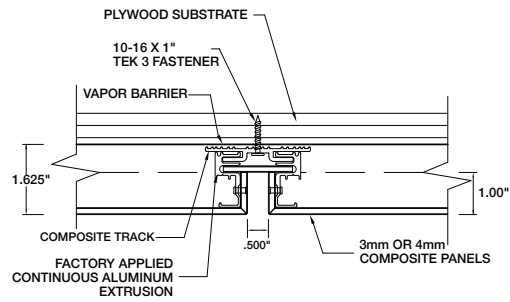
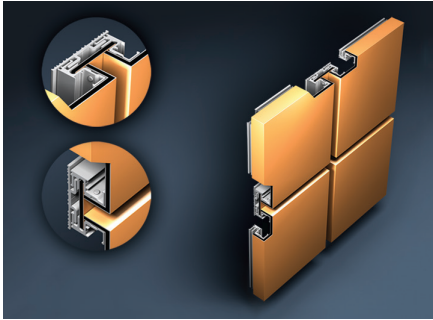
FLORIDA BUILDING PRODUCT APPROVALS

Please refer to pac-clad.com or your local factory for specific product approval numbers for Precision Series panels.

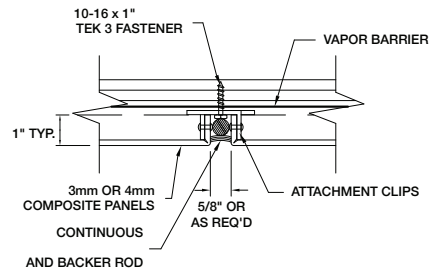
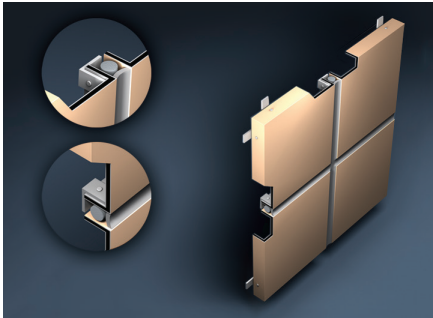
Note: Line drawings may not be to scale.

COMPOSITE WALL PANELS

PAC-3000 RS



PAC-3000 CS



PRODUCT FEATURES

- ▶ Available in a wide variety of non-PAC-CLAD colors and finishes
- ▶ Consult Petersen rep for color options (extra fee applies for PAC-CLAD colors)
- ▶ Precise fabrication to meet exacting tolerances
- ▶ Rout-and-return fabrication
- ▶ Welded corners available

MATERIALS

- ▶ 3mm, 4mm, 6mm – Composite
- ▶ .063 - .125 Mill Finish Aluminum
- ▶ Zinc
- ▶ Stainless steel
- ▶ Anodized aluminum

TESTS

- ▶ ASTM E283*
 - ▶ ASTM E330*
 - ▶ ASTM E331*
- * Composite material only



ARCHITECTURE AND PLANNING
 PHORIA DESIGNS, INC.
 PH. 602.226.6808
 2925 GARDNER CURVE, STEEL
 ALPHARETTA, VA 20185

CONSULTANT:
 KSA LIGHTING & CONTROLS

CLIENT:

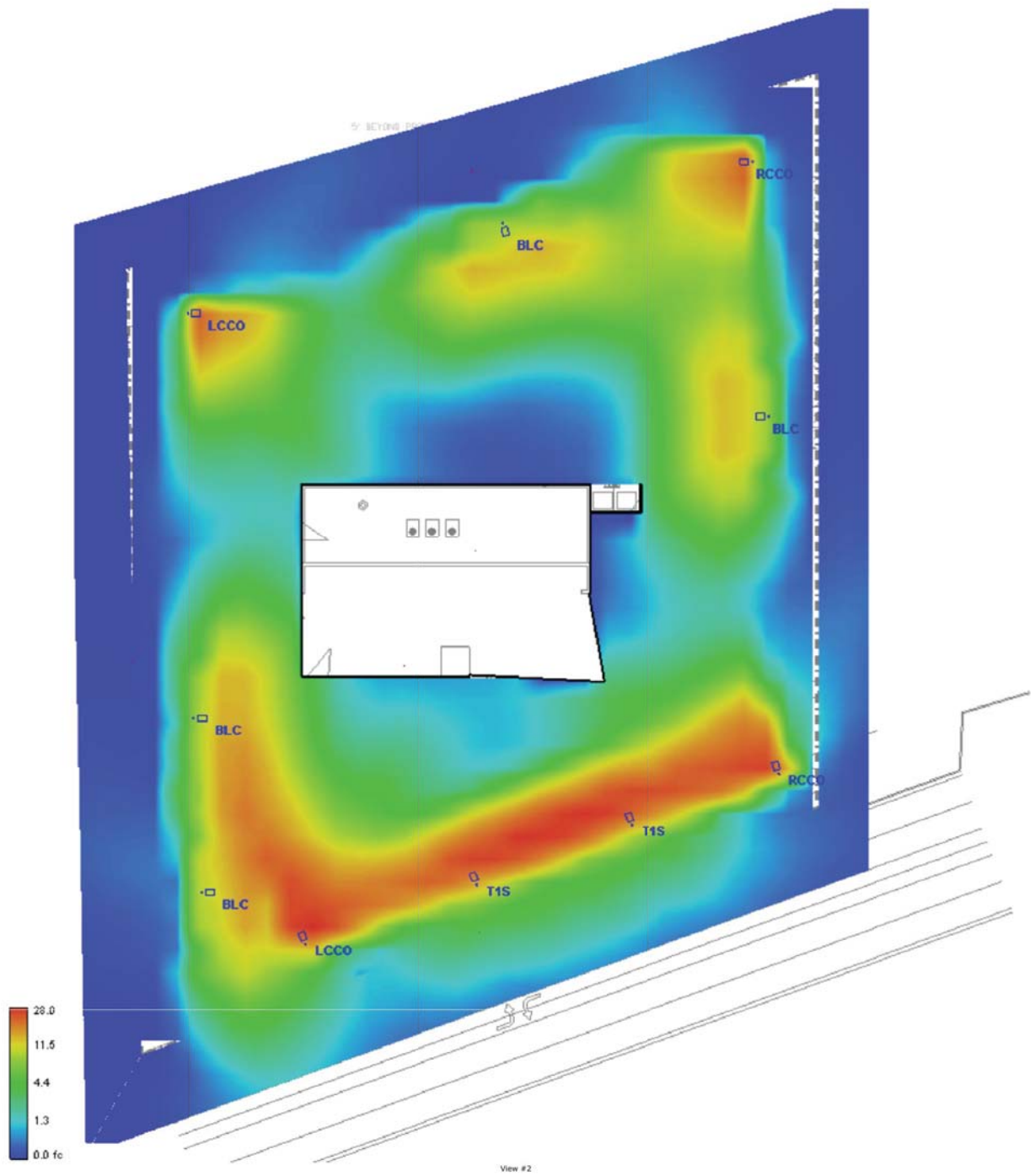
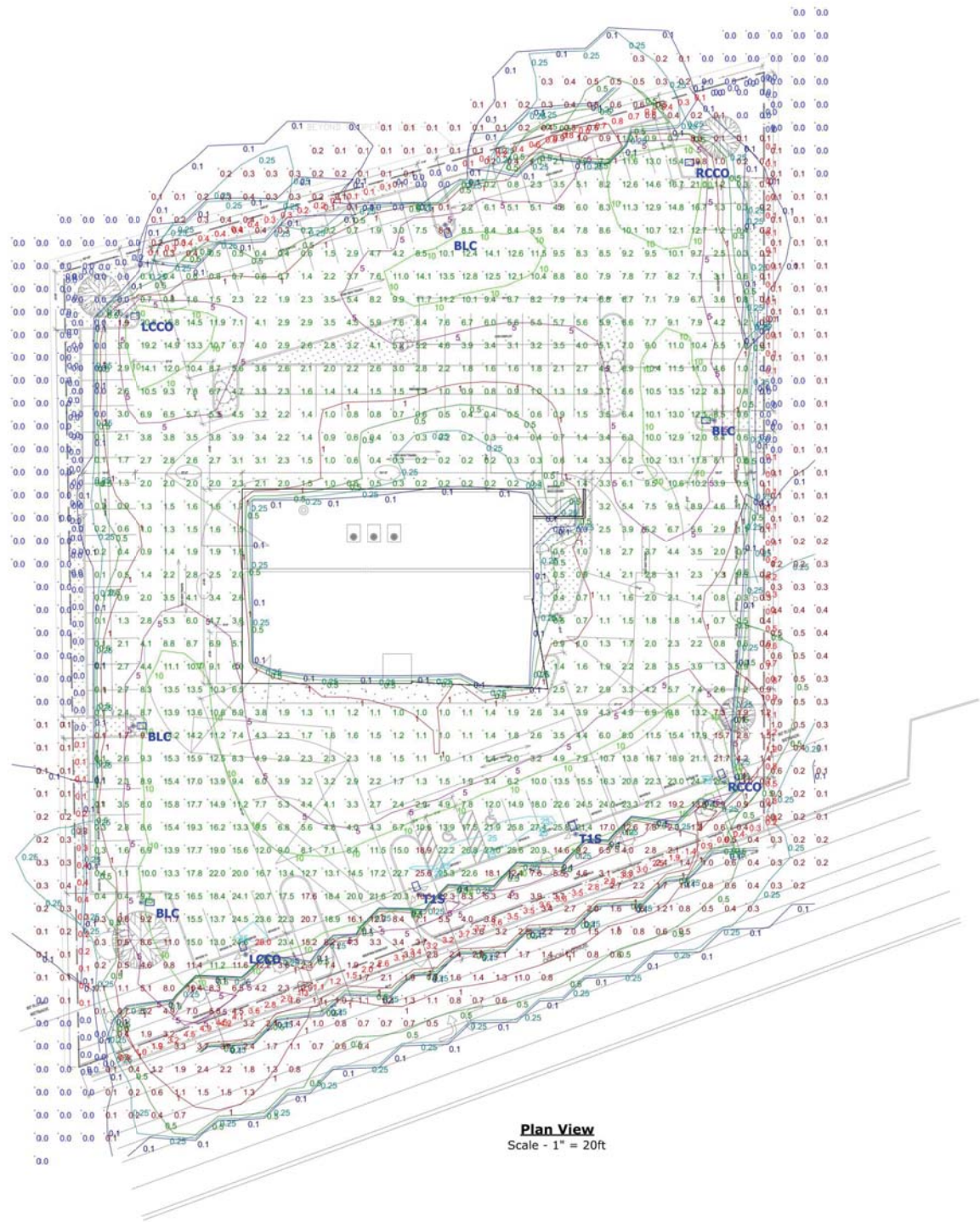
ARCHITECT LIC.:

NEW AUTO DEALERSHIP AT
 2410 OGDEN AVE.
 DOWNERS GROVE, IL.
 PROP. LIGHTING PHOTOMETRICS

| NO. | DATE | DESCRIPTION | BY |
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| 12-14-17 | | ZONING REVIEW | PC |

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 FILENAME: 2410-OGDEN PHOTOMETRICS
 SHEET NO.:

A5



| Symbol | Label | Quantity | Manufacturer | Catalog Number | Description | Lamp | Number Lamps | Filename | Lumens Per Lamp | Light Loss Factor | Wattage |
|--------|-------|----------|-------------------|----------------------------|----------------------------|------|--------------|--------------------------------|-----------------|-------------------|---------|
| | T1S | 2 | Lithonia Lighting | DSX2 LED P8 40K T1S MVOLT | DSX2 LED P8 40K T1S MVOLT | LED | 1 | DSX2_LED_P8_40K_T1S_MVOLT.ies | 49133 | 0.95 | 431 |
| | BLC | 4 | Lithonia Lighting | DSX2 LED P8 40K BLC MVOLT | DSX2 LED P8 40K BLC MVOLT | LED | 1 | DSX2_LED_P8_40K_BLC_MVOLT.ies | 40324 | 0.95 | 431 |
| | RCCO | 2 | Lithonia Lighting | DSX2 LED P8 40K RCCO MVOLT | DSX2 LED P8 40K RCCO MVOLT | LED | 1 | DSX2_LED_P8_40K_RCCO_MVOLT.ies | 30005 | 0.95 | 431 |
| | LCCO | 2 | Lithonia Lighting | DSX2 LED P8 40K LCCO MVOLT | DSX2 LED P8 40K LCCO MVOLT | LED | 1 | DSX2_LED_P8_40K_LCCO_MVOLT.ies | 30005 | 0.95 | 431 |

| Description | Symbol | Avg | Max | Min | Max/Min | Avg/Min |
|---|--------|--------|---------|--------|---------|---------|
| 1. PAVED AREAS ONLY - GRADE LEVEL | ✕ | 6.1 fc | 28.0 fc | 0.0 fc | N/A | N/A |
| 2. WHOLE PARCEL TO PROPERTY LINES - GRADE LEVEL | + | 5.7 fc | 28.0 fc | 0.0 fc | N/A | N/A |
| 3. BEYOND PROPERTY LINE - 15' ZONE | ◇ | 0.5 fc | 4.2 fc | 0.0 fc | N/A | N/A |
| 4. WEST PROPERTY LINE | □ | 0.1 fc | 0.4 fc | 0.0 fc | N/A | N/A |
| 5. NORTH PROPERTY LINE | □ | 0.3 fc | 0.8 fc | 0.0 fc | N/A | N/A |
| 6. EAST PROPERTY LINE | □ | 0.3 fc | 1.2 fc | 0.0 fc | N/A | N/A |
| 7. SOUTH PROPERTY LINE (OGDEN AVE.) | □ | 2.4 fc | 4.9 fc | 0.0 fc | N/A | N/A |

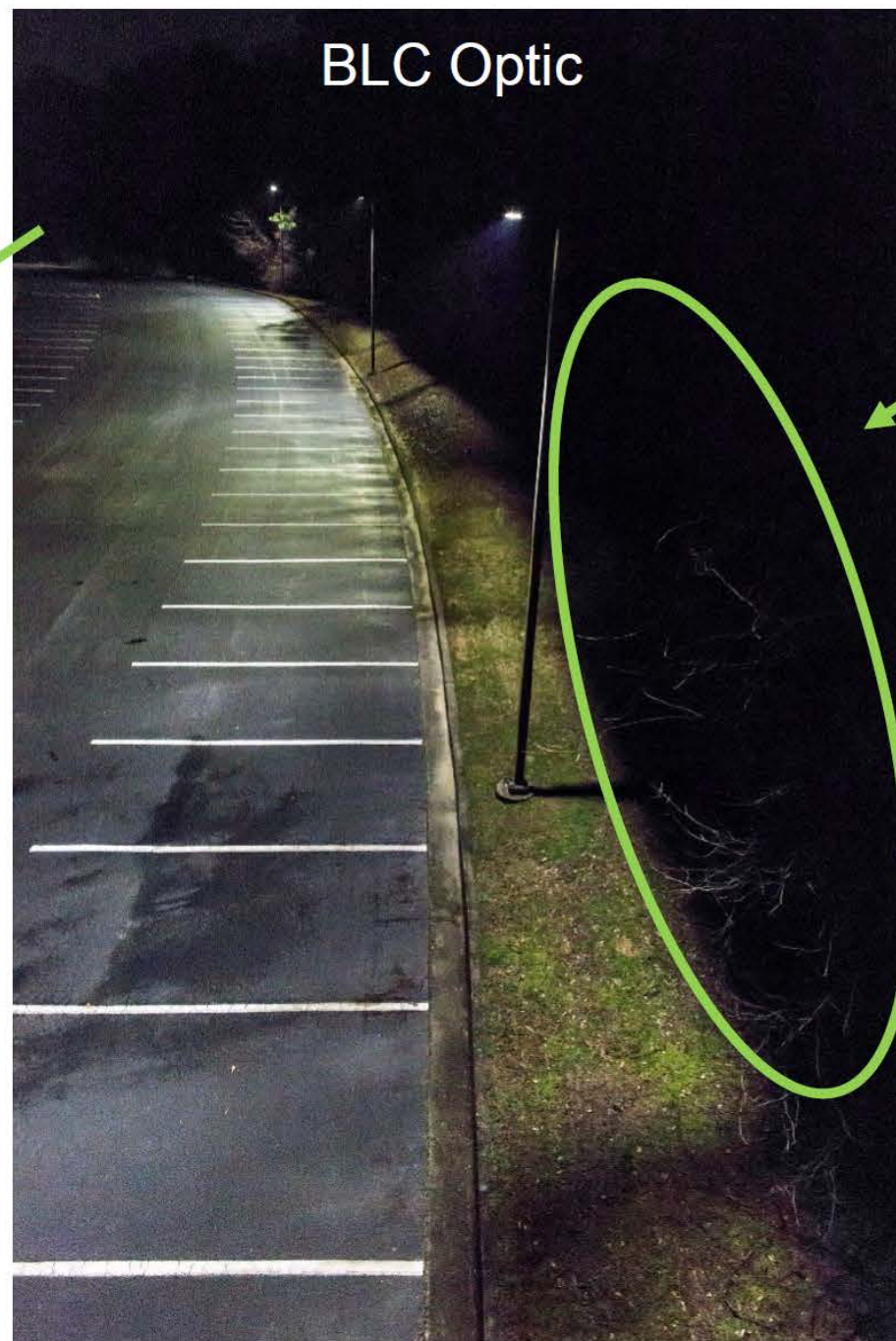
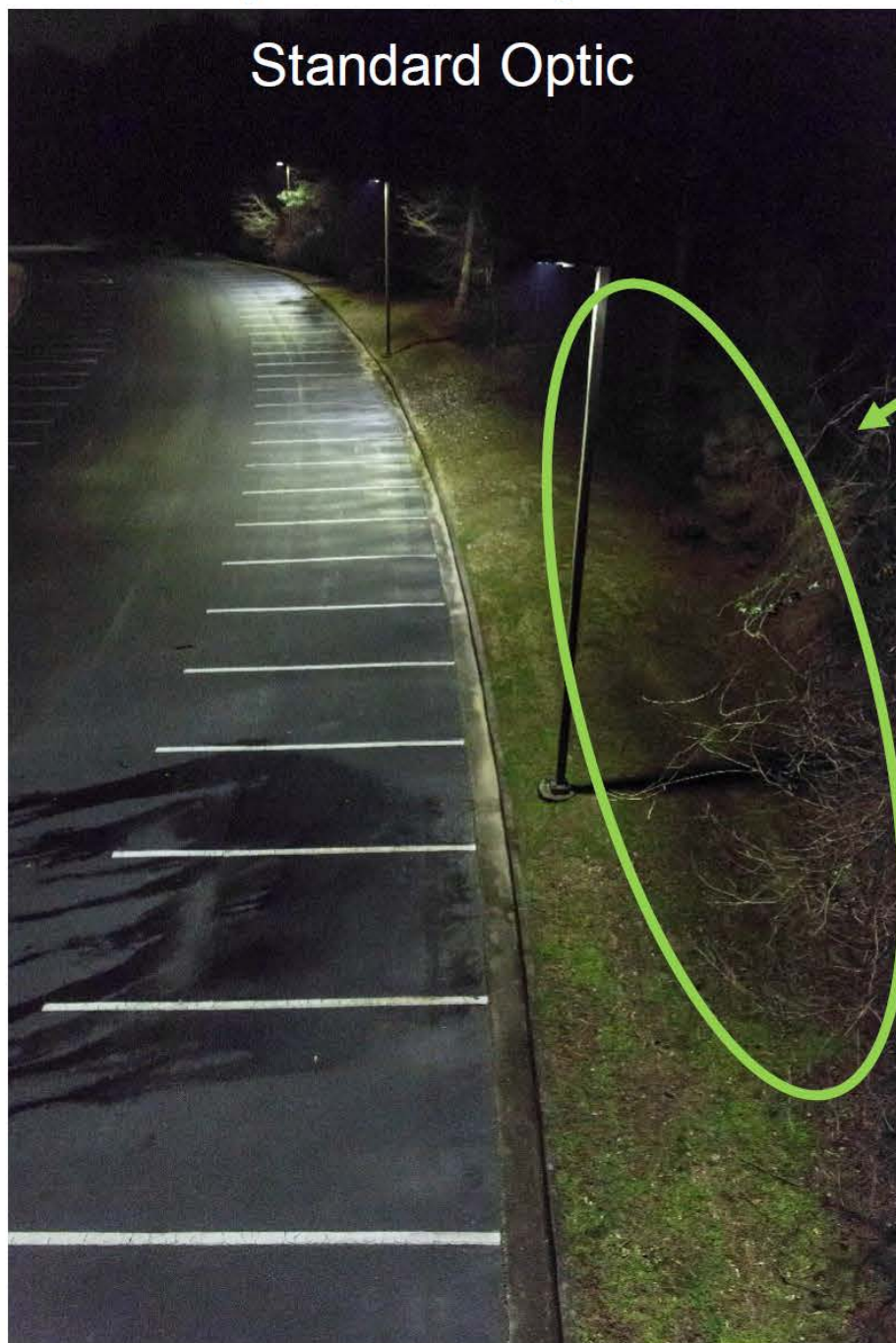
NOTES:
 1. CALCULATION POINTS ARE AT GRADE LEVEL.
 2. FIXTURES ARE MOUNTED AT 23'-0" ABOVE GRADE (20' POLES ON 3' CONCRETE BASES).
 3. CALCULATIONS PROVIDED ARE NOT A GUARANTEE OF PERFORMANCE. ACTUAL LIGHT LEVELS MAY VARY.**

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BLC Optics – (From Above)





PERSPECTIVE RENDERINGS
SCALE: NTS



CONSULTANT:

CLIENT:

ARCHITECT LIC.:

I hereby certify these drawings have been prepared under my direct supervision and to the best of my knowledge comply with all applicable codes of local and State of Illinois.
I have prepared, or caused to be prepared under my direct supervision, the attached plans and specifications and state that, to the best of my knowledge and belief, they comply with the provisions of the Environmental Protection Act and the provisions of the Environmental Protection Act, as amended, of the State of Illinois, Chapter 110, 115, 116, 117, 118, 119, 120, 121, 122, 123, 124, 125, 126, 127, 128, 129, 130, 131, 132, 133, 134, 135, 136, 137, 138, 139, 140, 141, 142, 143, 144, 145, 146, 147, 148, 149, 150, 151, 152, 153, 154, 155, 156, 157, 158, 159, 160, 161, 162, 163, 164, 165, 166, 167, 168, 169, 170, 171, 172, 173, 174, 175, 176, 177, 178, 179, 180, 181, 182, 183, 184, 185, 186, 187, 188, 189, 190, 191, 192, 193, 194, 195, 196, 197, 198, 199, 200, 201, 202, 203, 204, 205, 206, 207, 208, 209, 210, 211, 212, 213, 214, 215, 216, 217, 218, 219, 220, 221, 222, 223, 224, 225, 226, 227, 228, 229, 230, 231, 232, 233, 234, 235, 236, 237, 238, 239, 240, 241, 242, 243, 244, 245, 246, 247, 248, 249, 250, 251, 252, 253, 254, 255, 256, 257, 258, 259, 260, 261, 262, 263, 264, 265, 266, 267, 268, 269, 270, 271, 272, 273, 274, 275, 276, 277, 278, 279, 280, 281, 282, 283, 284, 285, 286, 287, 288, 289, 290, 291, 292, 293, 294, 295, 296, 297, 298, 299, 300, 301, 302, 303, 304, 305, 306, 307, 308, 309, 310, 311, 312, 313, 314, 315, 316, 317, 318, 319, 320, 321, 322, 323, 324, 325, 326, 327, 328, 329, 330, 331, 332, 333, 334, 335, 336, 337, 338, 339, 340, 341, 342, 343, 344, 345, 346, 347, 348, 349, 350, 351, 352, 353, 354, 355, 356, 357, 358, 359, 360, 361, 362, 363, 364, 365, 366, 367, 368, 369, 370, 371, 372, 373, 374, 375, 376, 377, 378, 379, 380, 381, 382, 383, 384, 385, 386, 387, 388, 389, 390, 391, 392, 393, 394, 395, 396, 397, 398, 399, 400, 401, 402, 403, 404, 405, 406, 407, 408, 409, 410, 411, 412, 413, 414, 415, 416, 417, 418, 419, 420, 421, 422, 423, 424, 425, 426, 427, 428, 429, 430, 431, 432, 433, 434, 435, 436, 437, 438, 439, 440, 441, 442, 443, 444, 445, 446, 447, 448, 449, 450, 451, 452, 453, 454, 455, 456, 457, 458, 459, 460, 461, 462, 463, 464, 465, 466, 467, 468, 469, 470, 471, 472, 473, 474, 475, 476, 477, 478, 479, 480, 481, 482, 483, 484, 485, 486, 487, 488, 489, 490, 491, 492, 493, 494, 495, 496, 497, 498, 499, 500, 501, 502, 503, 504, 505, 506, 507, 508, 509, 510, 511, 512, 513, 514, 515, 516, 517, 518, 519, 520, 521, 522, 523, 524, 525, 526, 527, 528, 529, 530, 531, 532, 533, 534, 535, 536, 537, 538, 539, 540, 541, 542, 543, 544, 545, 546, 547, 548, 549, 550, 551, 552, 553, 554, 555, 556, 557, 558, 559, 560, 561, 562, 563, 564, 565, 566, 567, 568, 569, 570, 571, 572, 573, 574, 575, 576, 577, 578, 579, 580, 581, 582, 583, 584, 585, 586, 587, 588, 589, 590, 591, 592, 593, 594, 595, 596, 597, 598, 599, 600, 601, 602, 603, 604, 605, 606, 607, 608, 609, 610, 611, 612, 613, 614, 615, 616, 617, 618, 619, 620, 621, 622, 623, 624, 625, 626, 627, 628, 629, 630, 631, 632, 633, 634, 635, 636, 637, 638, 639, 640, 641, 642, 643, 644, 645, 646, 647, 648, 649, 650, 651, 652, 653, 654, 655, 656, 657, 658, 659, 660, 661, 662, 663, 664, 665, 666, 667, 668, 669, 670, 671, 672, 673, 674, 675, 676, 677, 678, 679, 680, 681, 682, 683, 684, 685, 686, 687, 688, 689, 690, 691, 692, 693, 694, 695, 696, 697, 698, 699, 700, 701, 702, 703, 704, 705, 706, 707, 708, 709, 710, 711, 712, 713, 714, 715, 716, 717, 718, 719, 720, 721, 722, 723, 724, 725, 726, 727, 728, 729, 730, 731, 732, 733, 734, 735, 736, 737, 738, 739, 740, 741, 742, 743, 744, 745, 746, 747, 748, 749, 750, 751, 752, 753, 754, 755, 756, 757, 758, 759, 760, 761, 762, 763, 764, 765, 766, 767, 768, 769, 770, 771, 772, 773, 774, 775, 776, 777, 778, 779, 780, 781, 782, 783, 784, 785, 786, 787, 788, 789, 790, 791, 792, 793, 794, 795, 796, 797, 798, 799, 800, 801, 802, 803, 804, 805, 806, 807, 808, 809, 810, 811, 812, 813, 814, 815, 816, 817, 818, 819, 820, 821, 822, 823, 824, 825, 826, 827, 828, 829, 830, 831, 832, 833, 834, 835, 836, 837, 838, 839, 840, 841, 842, 843, 844, 845, 846, 847, 848, 849, 850, 851, 852, 853, 854, 855, 856, 857, 858, 859, 860, 861, 862, 863, 864, 865, 866, 867, 868, 869, 870, 871, 872, 873, 874, 875, 876, 877, 878, 879, 880, 881, 882, 883, 884, 885, 886, 887, 888, 889, 890, 891, 892, 893, 894, 895, 896, 897, 898, 899, 900, 901, 902, 903, 904, 905, 906, 907, 908, 909, 910, 911, 912, 913, 914, 915, 916, 917, 918, 919, 920, 921, 922, 923, 924, 925, 926, 927, 928, 929, 930, 931, 932, 933, 934, 935, 936, 937, 938, 939, 940, 941, 942, 943, 944, 945, 946, 947, 948, 949, 950, 951, 952, 953, 954, 955, 956, 957, 958, 959, 960, 961, 962, 963, 964, 965, 966, 967, 968, 969, 970, 971, 972, 973, 974, 975, 976, 977, 978, 979, 980, 981, 982, 983, 984, 985, 986, 987, 988, 989, 990, 991, 992, 993, 994, 995, 996, 997, 998, 999, 1000.
LICENSE EXPIRES:

**NEW AUTO DEALERSHIP AT
2410 OGDEN AVE.
DOWNERS GROVE, IL.
PROPOSED BUILDING PERSPECTIVES**

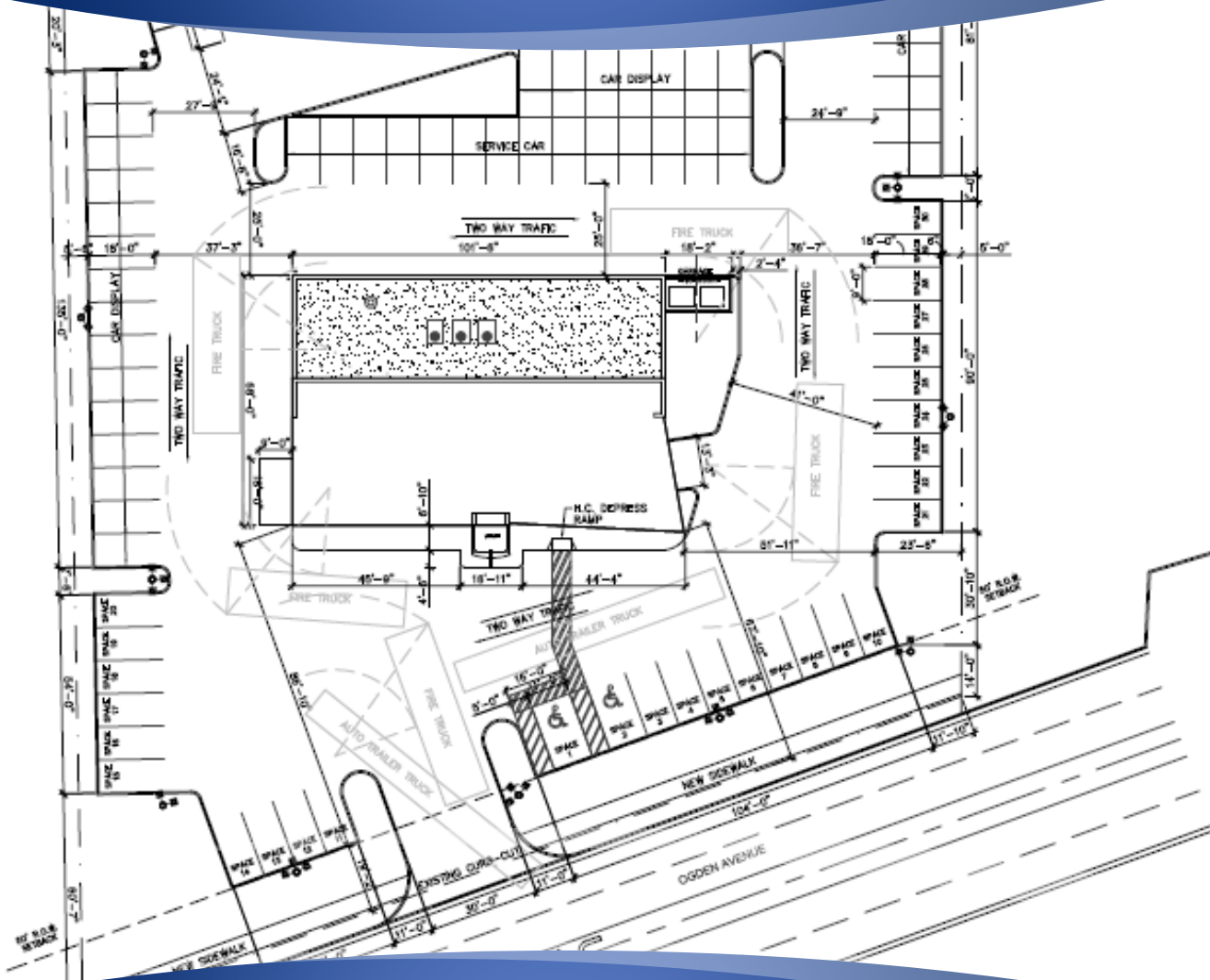
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PROJECT NO.: 17108
DATE: 12.01.17
ISSUED: DD
DRAWN BY: PCJ
CHECKED BY: PCJ
FILENAME: 180-1808 RENDERING
SHEET NO.:

A6

Traffic Impact Study Proposed Used Car Dealership

Downers Grove, Illinois



December 12, 2017

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 the proposed used car dealership to be located on the north side of Ogden Avenue approximately 600 feet east of Cross Street in Downers Grove, Illinois. As proposed, the site will be developed with an approximately 7,000 square-foot building with an approximately 3,500 square-foot showroom and a five-bay service center. Access to the development will be provided via the existing westerly full movement curb cut serving the site. A total of 101 parking spaces will be provided with 30 spaces reserved for guest parking.

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

Figure 1 shows the location of the site in relation to the area roadway system. **Figure 2** shows an aerial view of the site area.

The sections of this report present the following:

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

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

1. Existing Condition - Analyzes the capacity of the existing roadway system using existing peak hour traffic volumes in the surrounding area.
2. Future Condition - The future projected traffic volumes include the existing traffic volumes increased by an ambient area growth factor (growth not attributable to any particular development) and the traffic estimated to be generated by the proposed subject development.



Site Location

Figure 1



Aerial View of Site Location

Figure 2

2. Existing Conditions

Existing transportation conditions in the vicinity of the site were documented based on a field visit 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 vacant building, is located on the north side of Ogden Avenue approximately 600 feet east of Cross Street. Land uses in the vicinity of the site are primarily commercial to the west, north, and east and residential to the south and include Gerber Collision and Glass to the east, Premier Auto Auctions, Riggs Brothers Tops and Interiors, R & D Fence, and the Downers Grove Park District to the north, Max Madsen Mitsubishi and Culvers to the west, and Auto Extreme, Inc. and Fairway Grove Condominiums to the south.

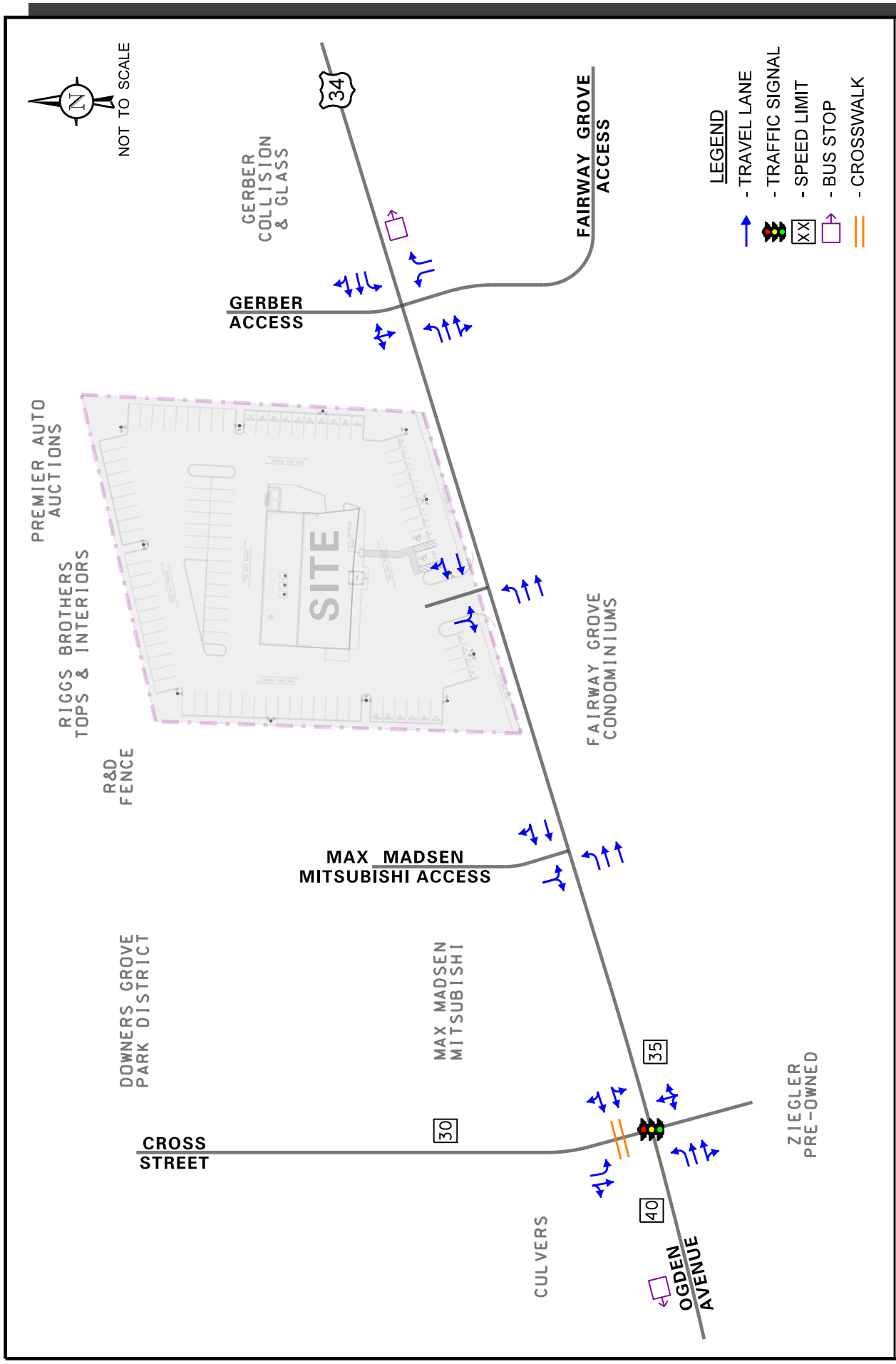
Existing Roadway System Characteristics

The characteristics of the existing roadways near the development are described below. **Figure 3** illustrates the existing roadway characteristics.

Ogden Avenue is generally an east-west arterial roadway that in the vicinity of the site provides two through lanes in each direction separated by a center, two-way left-turn lane. At its signalized intersection with Cross Street, Ogden Avenue provides an exclusive left-turn lane and two exclusive through lanes on the eastbound approach and an exclusive through lane and a shared through/right-turn lane on the westbound approach. At its unsignalized intersection with the Max Madsen Mitsubishi access drive, Ogden Avenue provides two exclusive through lanes on the eastbound approach and an exclusive through lane and a shared through/right-turn lane on the westbound approach with eastbound left-turn movements accommodated via the center, two-way left-turn lane. At its unsignalized intersection with the Gerber Collision & Glass and Fairway Grove access drives, Ogden Avenue provides an exclusive through lane and a shared through/right-turn lane on both approaches with left turns onto the access drives accommodated via the existing center, two-way left-turn lane. Ogden Avenue is under the jurisdiction of the Illinois Department of Transportation (IDOT), carries an annual average daily traffic volume (AADT) volume of 30,600 vehicles (IDOT AADT 2016), and has a posted speed limit of 35 miles per hour east of Cross Street and a posted speed limit of 40 miles per hour west of Cross Street.

Cross Street is a north-south local roadway that has an offset intersection with Ogden Avenue. The north leg of the intersection extends from Ogden Avenue to Warrenville Road, provides access to the commercial developments along Cross Street, and has signalized intersections with both roadways. At its signalized intersection with Ogden Avenue, the north leg of Cross Street provides an exclusive left-turn lane, an exclusive right-turn lane, and a standard style crosswalk. The south leg of this intersection is the full movement access drive serving Auto Extreme, Inc. This access drive provides one inbound lane and one outbound lane. Cross Street is under the jurisdiction of the DuPage County Division of Transportation, carries an AADT volume of 7,442 vehicles (DuDOT AADT 2010), and has a posted speed limit of 30 miles per hour.

*Proposed Used Car Dealership
Downers Grove, Illinois*



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

Job No: 17-273 Figure: 3

Existing Roadway Characteristics

Used Car Dealership
Downers Grove, Illinois

Existing Traffic Volumes

In order to determine current traffic conditions in the vicinity of the site, KLOA, Inc. conducted peak period traffic counts using Miovision Scout Video Collection Units on Wednesday, November 15, 2017 during the weekday morning (7:00 A.M. to 9:00 A.M.) and weekday evening (4:00 P.M. to 6:00 P.M.) peak periods at the following intersections:

- Ogden Avenue with Cross Street/Auto Extreme, Inc. Access Drive
- Ogden Avenue with the Max Madsen Mitsubishi Access Drive
- Ogden Avenue with Fairway Grove/Gerber Collision and Glass Access Drives

The results of the traffic counts showed that the weekday morning peak hour of traffic occurs from 7:15 A.M. to 8:15 A.M. and the weekday evening peak hour of traffic occurs from 4:30 P.M. to 5:30 P.M. **Figure 4** illustrates the existing peak hour traffic volumes. Copies of the traffic count summary sheets are included in the Appendix.

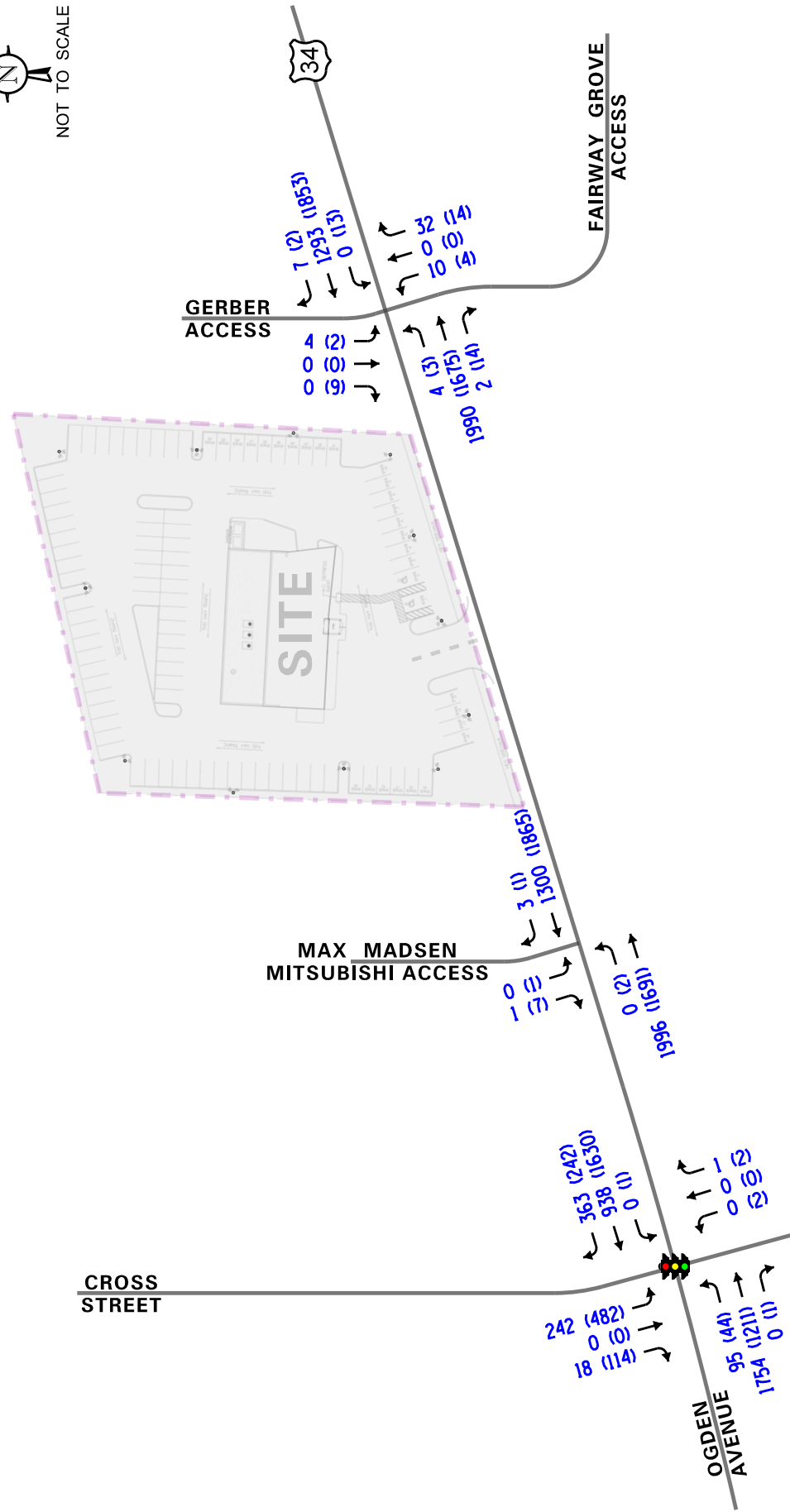
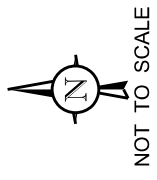
Crash Analysis

KLOA, Inc. obtained crash data for the past five years (2010 to 2014) for the intersections of Ogden Avenue with Cross Street, Ogden Avenue with the Max Madsen Mitsubishi access drive, and Ogden Avenue with the Gerber/Fairway Grove access drives. The crash data for the intersection of Ogden Avenue with Cross Street is summarized in **Table 1**. A review of the crash data indicated that the intersection of Ogden Avenue with the Max Madsen Mitsubishi access drive experienced only one crash in 2011, 2012, and 2015 and zero crashes in 2013 and 2014. Only one crash involved a turning vehicle at this intersection. Furthermore, the intersection of Ogden Avenue with the Gerber/Fairway Grove access drives experienced zero crashes in 2011 and 2015, one crash in 2012 and 2014, and two crashes in 2013. None of the crashes at this intersection involved a turning vehicle. Additionally, the crash data indicated there were no fatalities reported at any of the intersections.

Table 1
OGDEN AVENUE WITH CROSS STREET – CRASH SUMMARY

| Year | Type of Crash Frequency | | | | | | Total |
|----------------|-------------------------|----------|------------|-----------|------------|----------|------------|
| | Angle | Object | Rear End | Sideswipe | Turning | Other | |
| 2011 | 0 | 0 | 2 | 0 | 2 | 0 | 4 |
| 2012 | 0 | 0 | 1 | 0 | 0 | 0 | 1 |
| 2013 | 0 | 0 | 1 | 0 | 3 | 0 | 4 |
| 2014 | 0 | 0 | 3 | 0 | 2 | 0 | 5 |
| 2015 | 0 | 0 | 0 | 0 | 4 | 0 | 4 |
| Total | 0 | 0 | 7 | 0 | 11 | 0 | 18 |
| Average | 0 | 0 | 1.4 | 0 | 2.2 | 0 | 3.6 |

DISCLAIMER: The motor vehicle crash data referenced herein was provided by the Illinois Department of Transportation. The author is responsible for any data analyses and conclusions drawn.



LEGEND

- 00 - AM PEAK HOUR (7:15-8:15 AM)
- (00) - PM PEAK HOUR (4:30-5:30 PM)



Existing Traffic Volumes

Used Car Dealership
Downers Grove, Illinois

3. Traffic Characteristics of the Proposed Development

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

Proposed Site and Development Plan

As proposed, the plans call for developing the site with an approximately 7,000 square-foot used car dealership that will provide an approximately 3,500 square-foot showroom. Additionally, a five-bay service center will be provided. Access to the used car dealership will be provided via the existing full movement curb cut that is located approximately 250 feet east of the Max Madsen Mitsubishi full movement access drive. This access drive provides one inbound lane and one outbound lane and outbound movements should be under stop sign control. Left turns onto the access drive will be accommodated via the existing center, two-way left-turn lane on Ogden Avenue. It should be noted that the proposed access system will result in the elimination of the existing easterly full movement curb cut on Ogden Avenue along the site frontage. A total of 101 parking spaces will be provided with 30 spaces reserved for guest parking. A copy of the preliminary site plan depicting the proposed development and access is included in the Appendix.

Directional Distribution

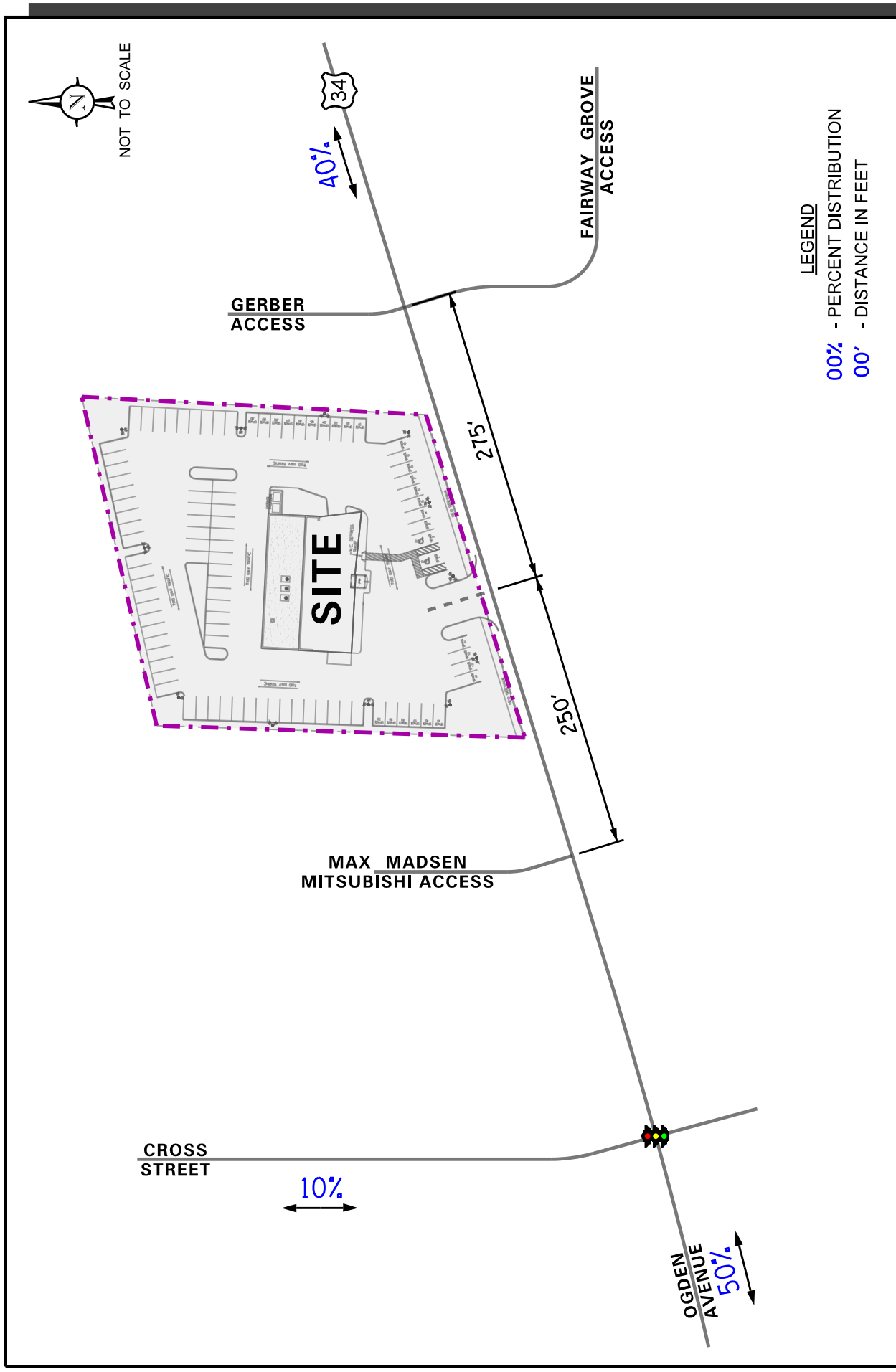
The directions from which employees and patrons of the used car dealership will approach and depart the site were estimated based on existing travel patterns, as determined from the traffic counts. **Figure 5** illustrates the directional distribution of the development-generated traffic.

Estimated Site Traffic Generation

The estimates of traffic to be generated by the development are based upon the proposed land use type and size. The volume of traffic generated for the auto dealership was estimated using data published in the Institute of Transportation Engineers (ITE) *Trip Generation Manual*, 9th Edition. The ITE rates and equations used are included in the Appendix. **Table 2** tabulates the vehicle trips anticipated for this development for the weekday morning and weekday evening peak hours.

Table 2
ESTIMATED SITE-GENERATED TRAFFIC VOLUMES

| ITE Land Use Code | Type/Size | Weekday Morning Peak Hour | | | Weekday Evening Peak Hour | | | Daily Two-Way Trips |
|-------------------|------------------------------|---------------------------|-----|-------|---------------------------|-----|-------|---------------------|
| | | In | Out | Total | In | Out | Total | |
| 841 | Auto Dealership (7,000 s.f.) | 10 | 3 | 13 | 7 | 11 | 18 | 226 |



Estimated Directional Distribution

Used Car Dealership
 Downers Grove, Illinois

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 development.

Development Traffic Assignment

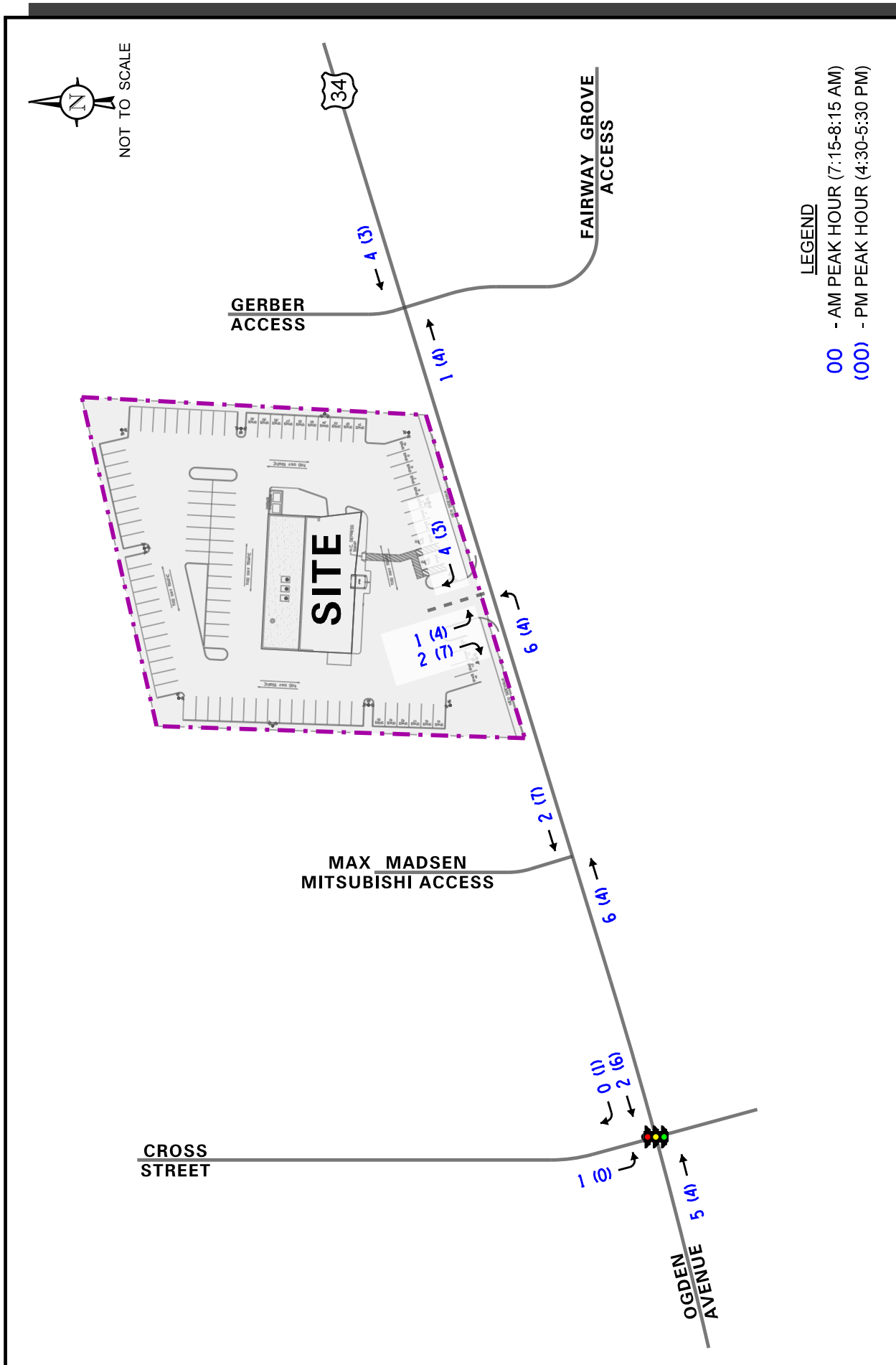
The estimated weekday morning and evening peak hour traffic volumes that will be generated by the proposed development were assigned to the roadway system in accordance with the previously described directional distribution (Figure 5). The total new traffic assignment for the commercial development is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

Background 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 ADT projections provided by the Chicago Metropolitan Agency for Planning (CMAP) in a letter dated December 11, 2017, an increase of approximately four-tenths of a percent per year for six years (buildout year plus five years) was applied to project Year 2023 conditions. A copy of the CMAP 2040 projections letter is included in the Appendix.

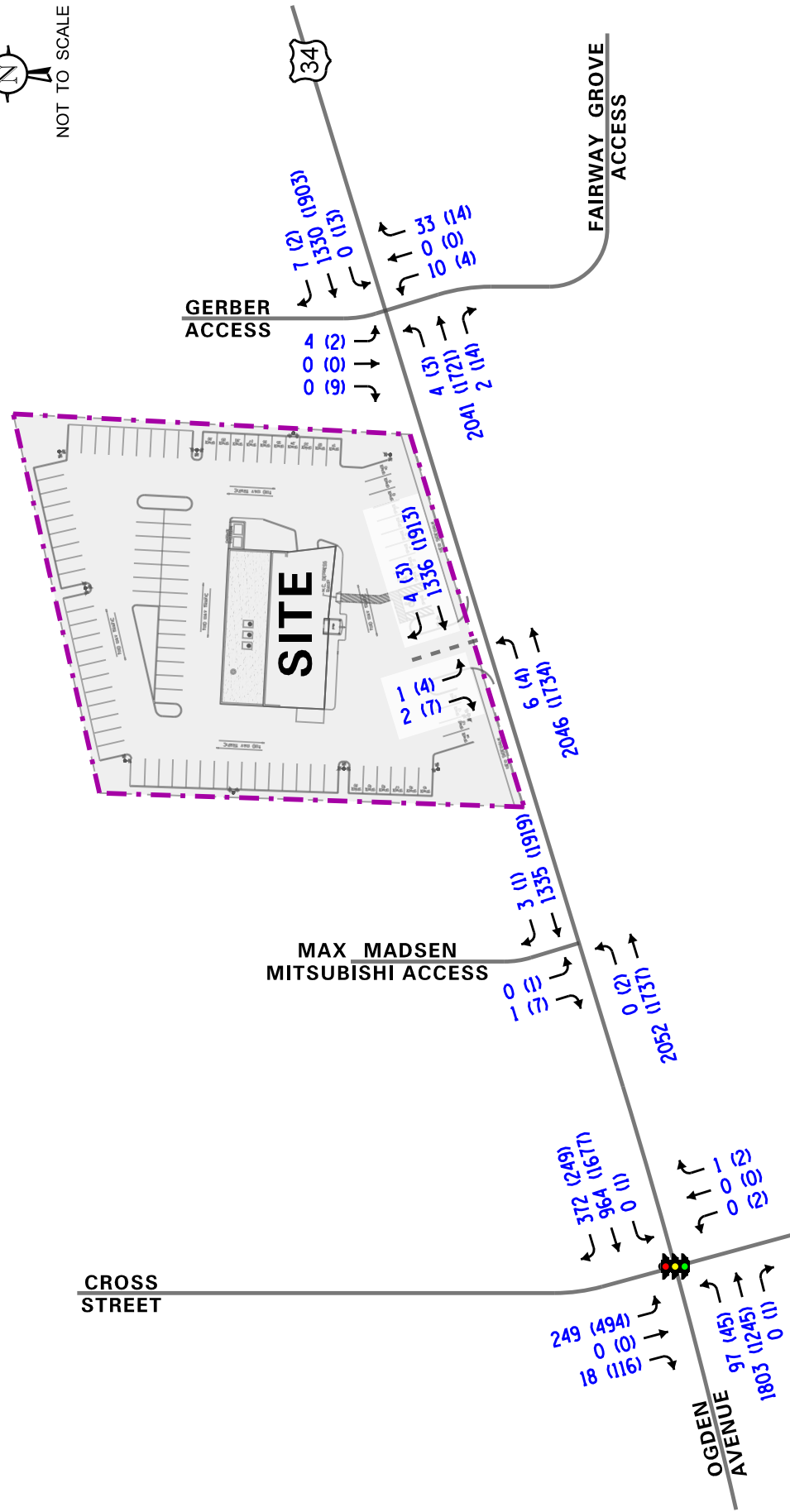
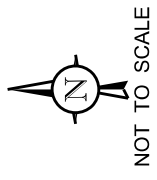
Total Projected Traffic Volumes

The development-generated traffic was added to the existing traffic volumes accounting for background growth to determine the Year 2023 total projected traffic volumes, shown in **Figure 7**.



Estimated Site-Generated Traffic Volumes

Used Car Dealership
 Downers Grove, Illinois



LEGEND

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

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



Year 2023 Total Projected Traffic Volumes

Used Car Dealership
Downers Grove, Illinois

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 weekday evening peak hours for the existing (Year 2017) and future projected (Year 2023) traffic volumes.

The traffic analyses were performed using the methodologies outlined in the Transportation Research Board's *Highway Capacity Manual (HCM), 2010* and analyzed using the HCS 7 computer software. The analyses for the intersection of Ogden Avenue with Cross Street were completed utilizing actual cycle lengths and phasings.

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 and Year 2023 total projected conditions are presented in **Tables 3** and **4**, respectively. A discussion of the intersections follows. Summary sheets for the capacity analyses are included in the Appendix.

Table 3
CAPACITY ANALYSIS RESULTS – EXISTING TRAFFIC CONDITIONS

| Intersection | Weekday Morning Peak Hour | | Weekday Evening Peak Hour | |
|---|------------------------------|-------|------------------------------|-------|
| | LOS | Delay | LOS | Delay |
| Ogden Avenue with Cross Street/Auto Extreme, Inc. Access Drive ¹ | | | | |
| • Overall | A | 9.5 | E | 64.4 |
| • Eastbound Approach | A | 1.5 | A | 4.2 |
| • Westbound Approach | A | 5.9 | B | 16.0 |
| • Northbound Approach | D | 48.9 | D | 41.9 |
| • Southbound Approach | F | 84.7 | F | 99+ |
| Ogden Avenue with Max Madsen Mitsubishi Access Drive ² | | | | |
| • Southbound Approach | B | 14.2 | C | 24.7 |
| • Westbound Left Turns | B | 12.2 | C | 17.3 |
| Ogden Avenue with Gerber/Fairway Grove Access Drives ² | | | | |
| • Northbound Approach | F | 55.7 | D | 30.7 |
| • Southbound Approach | E | 47.7 | D | 32.0 |
| • Eastbound Left Turns | B | 12.1 | C | 17.2 |
| • Westbound Left Turns | C | 18.5 | C | 15.8 |
| LOS = Level of Service Delay is measured in seconds. 1 – Signalized Access Drive 2 – Unsignalized Access Drive | | | | |

Table 4

CAPACITY ANALYSIS RESULTS - YEAR 2023 PROJECTED TRAFFIC CONDITIONS

| Intersection | Weekday Morning Peak Hour | | Weekday Evening Peak Hour | |
|---|------------------------------|-------|------------------------------|-------|
| | LOS | Delay | LOS | Delay |
| Ogden Avenue with Cross Street/Auto Extreme, Inc. Access Drive ¹ | | | | |
| • Overall | B | 10.0 | E | 68.3 |
| • Eastbound Approach | A | 1.6 | A | 4.3 |
| • Westbound Approach | A | 6.1 | B | 17.4 |
| • Northbound Approach | D | 48.9 | D | 42.0 |
| • Southbound Approach | F | 89.5 | F | 99+ |
| Ogden Avenue with Max Madsen Mitsubishi Access Drive ² | | | | |
| • Southbound Approach | B | 14.5 | C | 25.9 |
| • Westbound Left Turns | B | 12.4 | C | 17.9 |
| Ogden Avenue with Gerber/Fairway Grove Access Drives ² | | | | |
| • Northbound Approach | F | 60.7 | D | 32.4 |
| • Southbound Approach | E | 50.4 | D | 33.8 |
| • Eastbound Left Turns | B | 12.4 | C | 17.8 |
| • Westbound Left Turns | C | 19.2 | C | 16.3 |
| Ogden Avenue with Proposed Full Movement Access Drive ² | | | | |
| • Southbound Approach | C | 21.8 | E | 36.0 |
| • Westbound Left-Turns | B | 12.4 | C | 17.8 |
| LOS = Level of Service Delay is measured in seconds. 1 – Signalized Access Drive 2 – Unsignalized Access Drive | | | | |

Discussion and Recommendations

The following summarizes how the intersections are projected to operate and identify any roadway and traffic control improvements to accommodate the development traffic.

Ogden Avenue with Cross Street

The results of the capacity analysis indicate that overall this intersection currently operates at level of service (LOS) A during the weekday morning peak hour and at LOS E during the weekday evening peak hour. It should be noted that the delays experienced during the weekday evening peak hour are a result of the southbound approach which operates at LOS F during the weekday evening peak hour due to the limited amount of greentime allocated to this approach. Under Year 2023 projected conditions, this intersection overall is projected to operate at LOS B during the weekday morning peak hour with increases in delay of less than one second and is projected to continue operating at LOS E during the weekday evening peak hours with increases in delay of approximately four seconds. It should be noted that the increases in delay at this intersection are primarily due to the increase in background growth as the proposed development is projected to increase the volume of traffic traversing this intersection by less than one-half percent. As such, the proposed development traffic will have a limited impact on the operations of this intersection.

Ogden Avenue with Max Madsen Mitsubishi Access Drive

The results of the capacity analysis indicate that the southbound approach currently operates at LOS B during the weekday morning peak hour and at LOS C during the weekday evening peak hour. Under Year 2023 conditions, the southbound approach will continue to operate at existing levels of service during the peak hours with increases in delay of approximately one second or less. Additionally, eastbound left-turns onto the access drive are projected to continue operating at LOS B during the weekday morning peak hour and at LOS C during the weekday evening peak hour with increases in delay of less than one second and 95th percentile queues of one to two vehicles. As such, the proposed development traffic will have a limited impact on the operations of this intersection and no roadway or traffic control improvements will be required.

Ogden Avenue with Gerber/Fairway Grove Access Drives

The results of the capacity analysis indicate that the northbound approach currently operates at LOS F during the weekday morning peak hour and at LOS D during the weekday evening peak hour. Additionally, the southbound approach currently operates at LOS E during the weekday morning peak hour and at LOS D during the weekday evening peak hour. However, this level of service is expected for access driveways that have unsignalized intersections with major roadways such as Ogden Avenue. Under Year 2023 projected conditions, the northbound and southbound approaches are projected to continue operating at existing levels of service during the peak hours with increase in delay of approximately five seconds or less. Additionally, eastbound and westbound left-turns onto the access drives are projected to continue operating at LOS C or better during the peak hours with increases in delay of less than one second and 95th percentile queues of one to two vehicles. As such, the proposed development traffic will have a limited impact on the operations of this intersection and no roadway or traffic control improvements will be required.

Ogden Avenue with Proposed Full Movement Access Drive

The results of the capacity analysis indicate that outbound movements from the proposed access drive are projected to operate at LOS C during the weekday morning peak hour and at LOS E during the weekday evening peak hour with 95th percentile queues of one to two vehicles. As previously indicated, this LOS is expected for access driveways that have an unsignalized intersection with a major roadway such as Ogden Avenue. Additionally, eastbound left-turns onto the access drive are projected to operate at LOS B during the weekday morning peak hour and at LOS C during the weekday evening peak hour with 95th percentile queues of one to two vehicles which can be accommodated within the existing center, two-way left-turn lane. As such, the proposed access driveway will be adequate in accommodating the traffic projected to be generated by the proposed development

6. Conclusion

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

- The proposed development will generate a low volume of traffic, approximately 13 trips during the weekday morning peak hour and 18 trips during the weekday evening peak hour.
- The development-generated traffic will not have a significant impact on area roadways.
- Providing a single full movement access drive off Ogden Avenue will be adequate in accommodating the traffic projected to be generated by the proposed development and will eliminate an existing curb cut on Ogden Avenue along the site frontage.

Appendix

Traffic Count Summary Sheets
ITE Rates and Equations
Site Plan
CMAP 2040 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

Count Name: Ogdan Avenue with Cross Street
Site Code:
Start Date: 11/15/2017
Page No: 4

Turning Movement Peak Hour Data (4:30 PM)

| Start Time | Cross Street Eastbound | | | | | | Ogdan Avenue Westbound | | | | | | Access Drive Northbound | | | | | | Cross Street Southbound | | | | | | |
|----------------------|------------------------|-------|-------|-------|-------|------------|------------------------|-------|-------|-------|------|------------|-------------------------|-------|-------|-------|------|------------|-------------------------|-------|-------|-------|------|------------|------------|
| | U-Turn | Left | Thru | Right | Peds | App. Total | U-Turn | Left | Thru | Right | Peds | App. Total | U-Turn | Left | Thru | Right | Peds | App. Total | U-Turn | Left | Thru | Right | Peds | App. Total | Int. Total |
| 4:30 PM | 0 | 9 | 295 | 0 | 1 | 304 | 0 | 0 | 365 | 62 | 0 | 427 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 126 | 0 | 44 | 1 | 170 | 902 |
| 4:45 PM | 0 | 13 | 281 | 0 | 0 | 294 | 0 | 0 | 438 | 61 | 0 | 499 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 109 | 0 | 24 | 0 | 133 | 927 |
| 5:00 PM | 0 | 12 | 279 | 0 | 0 | 291 | 0 | 1 | 403 | 56 | 0 | 460 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 126 | 0 | 23 | 0 | 149 | 900 |
| 5:15 PM | 0 | 10 | 345 | 1 | 0 | 356 | 0 | 0 | 411 | 63 | 0 | 474 | 0 | 1 | 0 | 1 | 1 | 2 | 0 | 121 | 0 | 23 | 0 | 144 | 976 |
| Total | 0 | 44 | 1200 | 1 | 1 | 1245 | 0 | 1 | 1617 | 242 | 0 | 1860 | 0 | 2 | 0 | 2 | 2 | 4 | 0 | 482 | 0 | 114 | 1 | 596 | 3705 |
| Approach % | 0.0 | 3.5 | 96.4 | 0.1 | - | - | 0.0 | 0.1 | 86.9 | 13.0 | - | - | 0.0 | 50.0 | 0.0 | 50.0 | - | - | 0.0 | 80.9 | 0.0 | 19.1 | - | - | - |
| Total % | 0.0 | 1.2 | 32.4 | 0.0 | - | 33.6 | 0.0 | 0.0 | 43.6 | 6.5 | - | 50.2 | 0.0 | 0.1 | 0.0 | 0.1 | - | 0.1 | 0.0 | 13.0 | 0.0 | 3.1 | - | 16.1 | - |
| PHF | 0.000 | 0.846 | 0.870 | 0.250 | - | 0.874 | 0.000 | 0.250 | 0.923 | 0.960 | - | 0.932 | 0.000 | 0.500 | 0.000 | 0.500 | - | 0.500 | 0.000 | 0.956 | 0.000 | 0.648 | - | 0.876 | 0.949 |
| % Lights | 0 | 43 | 1183 | 1 | - | 1227 | 0 | 1 | 1606 | 242 | - | 1849 | 0 | 2 | 0 | 2 | - | 4 | 0 | 478 | 0 | 114 | - | 592 | 3672 |
| % Lights | - | 97.7 | 98.6 | 100.0 | - | 98.6 | - | 100.0 | 99.3 | 100.0 | - | 99.4 | - | 100.0 | - | 100.0 | - | 100.0 | - | 99.2 | - | 100.0 | - | 99.3 | 99.1 |
| Buses | 0 | 0 | 2 | 0 | - | 2 | 0 | 0 | 3 | 0 | - | 3 | 0 | 0 | 0 | 0 | - | 0 | 0 | 1 | 0 | 0 | - | 1 | 6 |
| % Buses | - | 0.0 | 0.2 | 0.0 | - | 0.2 | - | 0.0 | 0.2 | 0.0 | - | 0.2 | - | 0.0 | - | 0.0 | - | 0.0 | - | 0.2 | - | 0.0 | - | 0.2 | 0.2 |
| Single-Unit Trucks | 0 | 0 | 12 | 0 | - | 12 | 0 | 0 | 4 | 0 | - | 4 | 0 | 0 | 0 | 0 | - | 0 | 0 | 3 | 0 | 0 | - | 3 | 19 |
| % Single-Unit Trucks | - | 0.0 | 1.0 | 0.0 | - | 1.0 | - | 0.0 | 0.2 | 0.0 | - | 0.2 | - | 0.0 | - | 0.0 | - | 0.0 | - | 0.6 | - | 0.0 | - | 0.5 | 0.5 |
| Articulated Trucks | 0 | 1 | 3 | 0 | - | 4 | 0 | 0 | 4 | 0 | - | 4 | 0 | 0 | 0 | 0 | - | 0 | 0 | 0 | 0 | 0 | - | 0 | 8 |
| % Articulated Trucks | - | 2.3 | 0.3 | 0.0 | - | 0.3 | - | 0.0 | 0.2 | 0.0 | - | 0.2 | - | 0.0 | - | 0.0 | - | 0.0 | - | 0.0 | - | 0.0 | - | 0.0 | 0.2 |
| Bicycles on Road | 0 | 0 | 0 | 0 | - | 0 | 0 | 0 | 0 | 0 | - | 0 | 0 | 0 | 0 | 0 | - | 0 | 0 | 0 | 0 | 0 | - | 0 | 0 |
| % Bicycles on Road | - | 0.0 | 0.0 | 0.0 | - | 0.0 | - | 0.0 | 0.0 | 0.0 | - | 0.0 | - | 0.0 | - | 0.0 | - | 0.0 | - | 0.0 | - | 0.0 | - | 0.0 | 0.0 |
| Pedestrians | - | - | - | - | 1 | - | - | - | - | - | 0 | - | - | - | - | - | - | 2 | - | - | - | - | - | 1 | - |
| % Pedestrians | - | - | - | - | 100.0 | - | - | - | - | - | - | - | - | - | - | - | - | 100.0 | - | - | - | - | - | 100.0 | - |



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9575 W. Higgins Rd., Suite 400

Rosemont, Illinois, United States 60018
(847)518-9990

Count Name: Ogdén Avenue with Max Madsen
Access
Site Code:
Start Date: 11/15/2017
Page No: 1

Turning Movement Data

| Start Time | Ogdén Avenue Eastbound | | | | | Ogdén Avenue Westbound | | | | | Max Madsen Access Drive Southbound | | | | | |
|----------------------|------------------------|-------|------|------|------------|------------------------|-------|------|------|------------|------------------------------------|-------|-------|-------|------------|------------|
| | U-Turn | Left | Thru | Peds | App. Total | U-Turn | Right | Thru | Peds | App. Total | U-Turn | Right | Left | Peds | App. Total | Int. Total |
| 7:00 AM | 0 | 0 | 441 | 0 | 441 | 0 | 0 | 302 | 0 | 302 | 0 | 0 | 0 | 0 | 0 | 743 |
| 7:15 AM | 0 | 0 | 530 | 0 | 530 | 0 | 1 | 312 | 0 | 313 | 0 | 0 | 0 | 0 | 0 | 843 |
| 7:30 AM | 0 | 0 | 532 | 0 | 532 | 0 | 0 | 305 | 0 | 305 | 0 | 0 | 0 | 1 | 1 | 838 |
| 7:45 AM | 0 | 0 | 515 | 0 | 515 | 0 | 2 | 368 | 0 | 360 | 0 | 0 | 0 | 0 | 0 | 875 |
| Hourly Total | 0 | 0 | 2018 | 0 | 2018 | 0 | 3 | 1277 | 0 | 1280 | 0 | 0 | 0 | 0 | 1 | 3299 |
| 8:00 AM | 0 | 0 | 419 | 0 | 419 | 0 | 0 | 311 | 0 | 311 | 0 | 0 | 0 | 0 | 0 | 730 |
| 8:15 AM | 1 | 1 | 417 | 0 | 419 | 0 | 3 | 340 | 0 | 343 | 0 | 0 | 0 | 0 | 0 | 762 |
| 8:30 AM | 0 | 0 | 417 | 0 | 417 | 0 | 0 | 350 | 0 | 350 | 0 | 2 | 0 | 0 | 2 | 769 |
| 8:45 AM | 0 | 2 | 400 | 0 | 402 | 0 | 1 | 362 | 0 | 363 | 0 | 1 | 0 | 0 | 1 | 766 |
| Hourly Total | 1 | 3 | 1653 | 0 | 1657 | 0 | 4 | 1363 | 0 | 1367 | 0 | 3 | 0 | 0 | 3 | 3027 |
| *** BREAK *** | | | | | | | | | | | | | | | | |
| 4:00 PM | 0 | 0 | 396 | 0 | 396 | 0 | 0 | 461 | 0 | 461 | 0 | 1 | 0 | 0 | 1 | 858 |
| 4:15 PM | 0 | 0 | 378 | 0 | 378 | 0 | 0 | 469 | 0 | 469 | 0 | 0 | 0 | 0 | 0 | 847 |
| 4:30 PM | 0 | 1 | 411 | 0 | 412 | 0 | 1 | 430 | 0 | 431 | 0 | 1 | 2 | 1 | 3 | 846 |
| 4:45 PM | 0 | 0 | 401 | 0 | 401 | 0 | 0 | 488 | 0 | 488 | 0 | 0 | 2 | 0 | 2 | 891 |
| Hourly Total | 0 | 1 | 1586 | 0 | 1587 | 0 | 1 | 1848 | 0 | 1849 | 0 | 2 | 4 | 1 | 6 | 3442 |
| 5:00 PM | 0 | 0 | 401 | 0 | 401 | 0 | 0 | 476 | 0 | 476 | 0 | 0 | 2 | 0 | 2 | 879 |
| 5:15 PM | 0 | 1 | 478 | 0 | 479 | 0 | 0 | 471 | 0 | 471 | 0 | 0 | 1 | 1 | 1 | 951 |
| 5:30 PM | 0 | 1 | 368 | 0 | 369 | 0 | 1 | 511 | 0 | 512 | 0 | 0 | 0 | 0 | 0 | 881 |
| 5:45 PM | 0 | 0 | 375 | 0 | 375 | 0 | 0 | 414 | 0 | 414 | 0 | 0 | 0 | 0 | 0 | 789 |
| Hourly Total | 0 | 2 | 1622 | 0 | 1624 | 0 | 1 | 1872 | 0 | 1873 | 0 | 0 | 3 | 1 | 3 | 3500 |
| Grand Total | 1 | 6 | 6879 | 0 | 6886 | 0 | 9 | 6360 | 0 | 6369 | 0 | 5 | 8 | 2 | 13 | 13268 |
| Approach % | 0.0 | 0.1 | 99.9 | - | - | 0.0 | 0.1 | 99.9 | - | - | 0.0 | 38.5 | 61.5 | - | - | - |
| Total % | 0.0 | 0.0 | 51.8 | - | 51.9 | 0.0 | 0.1 | 47.9 | - | 48.0 | 0.0 | 0.0 | 0.1 | - | 0.1 | - |
| Lights | 1 | 6 | 6767 | - | 6774 | 0 | 9 | 6256 | - | 6265 | 0 | 5 | 8 | - | 13 | 13052 |
| % Lights | 100.0 | 100.0 | 98.4 | - | 98.4 | 0 | 100.0 | 98.4 | - | 98.4 | - | 100.0 | 100.0 | - | 100.0 | 98.4 |
| Buses | 0 | 0 | 38 | - | 38 | 0 | 0 | 35 | - | 35 | 0 | 0 | 0 | - | 0 | 73 |
| % Buses | 0.0 | 0.0 | 0.6 | - | 0.6 | 0 | 0.0 | 0.6 | - | 0.5 | 0 | 0.0 | 0.0 | - | 0.0 | 0.6 |
| Single-Unit Trucks | 0 | 0 | 49 | - | 49 | 0 | 0 | 42 | - | 42 | 0 | 0 | 0 | - | 0 | 91 |
| % Single-Unit Trucks | 0.0 | 0.0 | 0.7 | - | 0.7 | 0 | 0.0 | 0.7 | - | 0.7 | 0 | 0.0 | 0.0 | - | 0.0 | 0.7 |
| Articulated Trucks | 0 | 0 | 25 | - | 25 | 0 | 0 | 27 | - | 27 | 0 | 0 | 0 | - | 0 | 52 |
| % Articulated Trucks | 0.0 | 0.0 | 0.4 | - | 0.4 | 0 | 0.0 | 0.4 | - | 0.4 | 0 | 0.0 | 0.0 | - | 0.0 | 0.4 |
| Bicycles on Road | 0 | 0 | 0 | - | 0 | 0 | 0 | 0 | - | 0 | 0 | 0 | 0 | - | 0 | 0 |
| % Bicycles on Road | 0.0 | 0.0 | 0.0 | - | 0.0 | 0 | 0.0 | 0.0 | - | 0.0 | 0 | 0.0 | 0.0 | - | 0.0 | 0.0 |
| Pedestrians | - | - | - | 0 | - | - | - | - | - | - | - | - | - | 2 | - | - |
| % Pedestrians | - | - | - | - | - | - | - | - | - | - | - | - | - | 100.0 | - | - |



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Rosemont, Illinois, United States 60018
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Count Name: Ogdan Avenue with Max Madsen Access
Site Code:
Start Date: 11/15/2017
Page No: 3

Turning Movement Peak Hour Data (4:30 PM)

| Start Time | Ogdan Avenue Eastbound | | | | | Ogdan Avenue Westbound | | | | | Max Madsen Access Drive Southbound | | | | | |
|----------------------|------------------------|-------|-------|------|------------|------------------------|-------|-------|------|------------|------------------------------------|-------|-------|-------|------------|------------|
| | U-Turn | Left | Thru | Peds | App. Total | U-Turn | Thru | Right | Peds | App. Total | U-Turn | Left | Right | Peds | App. Total | Int. Total |
| 4:30 PM | 0 | 1 | 411 | 0 | 412 | 0 | 430 | 1 | 0 | 431 | 0 | 1 | 2 | 1 | 3 | 846 |
| 4:45 PM | 0 | 0 | 401 | 0 | 401 | 0 | 488 | 0 | 0 | 488 | 0 | 0 | 2 | 0 | 2 | 891 |
| 5:00 PM | 0 | 0 | 401 | 0 | 401 | 0 | 476 | 0 | 0 | 476 | 0 | 0 | 2 | 0 | 2 | 879 |
| 5:15 PM | 0 | 1 | 478 | 0 | 479 | 0 | 471 | 0 | 0 | 471 | 0 | 0 | 1 | 1 | 1 | 951 |
| Total | 0 | 2 | 1691 | 0 | 1693 | 0 | 1865 | 1 | 0 | 1866 | 0 | 1 | 7 | 2 | 8 | 3567 |
| Approach % | 0.0 | 0.1 | 99.9 | - | - | 0.0 | 99.9 | 0.1 | - | - | 0.0 | 12.5 | 87.5 | - | - | - |
| Total % | 0.0 | 0.1 | 47.4 | - | 47.5 | 0.0 | 52.3 | 0.0 | - | 52.3 | 0.0 | 0.0 | 0.2 | - | 0.2 | - |
| PHF | 0.000 | 0.500 | 0.884 | - | 0.884 | 0.000 | 0.955 | 0.250 | - | 0.956 | 0.000 | 0.250 | 0.875 | - | 0.667 | 0.938 |
| Lights | 0 | 2 | 1669 | - | 1671 | 0 | 1853 | 1 | - | 1854 | 0 | 1 | 7 | - | 8 | 3533 |
| % Lights | - | 100.0 | 98.7 | - | 98.7 | - | 99.4 | 100.0 | - | 99.4 | - | 100.0 | 100.0 | - | 100.0 | 99.0 |
| Buses | 0 | 0 | 5 | - | 5 | 0 | 3 | 0 | - | 3 | 0 | 0 | 0 | - | 0 | 8 |
| % Buses | - | 0.0 | 0.3 | - | 0.3 | - | 0.2 | 0.0 | - | 0.2 | - | 0.0 | 0.0 | - | 0.0 | 0.2 |
| Single-Unit Trucks | 0 | 0 | 12 | - | 12 | 0 | 5 | 0 | - | 5 | 0 | 0 | 0 | - | 0 | 17 |
| % Single-Unit Trucks | - | 0.0 | 0.7 | - | 0.7 | - | 0.3 | 0.0 | - | 0.3 | - | 0.0 | 0.0 | - | 0.0 | 0.5 |
| Articulated Trucks | 0 | 0 | 5 | - | 5 | 0 | 4 | 0 | - | 4 | 0 | 0 | 0 | - | 0 | 9 |
| % Articulated Trucks | - | 0.0 | 0.3 | - | 0.3 | - | 0.2 | 0.0 | - | 0.2 | - | 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 | - | - | - | - | 2 | - | - |
| % Pedestrians | - | - | - | - | - | - | - | - | - | - | - | - | - | 100.0 | - | - |



Kenig Lindgren O'Hara Aboona, Inc.
9575 W. Higgins Rd., Suite 400
Rosemont, Illinois, United States 60018
(847)518-9990

Count Name: Ogdan Avenue with Access Drives
Site Code:
Start Date: 11/15/2017
Page No: 1

Turning Movement Data

| Start Time | Ogdan Avenue Eastbound | | | | | Ogdan Avenue Westbound | | | | | Fairway Grove Access Northbound | | | | | Gerber Access Southbound | | | | | | | | | | | | | | |
|----------------------|------------------------|------|------|-------|------|------------------------|--------|-------|------|-------|---------------------------------|------------|--------|-------|------|--------------------------|------|------------|--------|------|------|-------|------|------------|------------|------|-----|-------|---|-------|
| | U-Turn | Left | Thru | Right | Peds | App. Total | U-Turn | Left | Thru | Right | Peds | App. Total | U-Turn | Left | Thru | Right | Peds | App. Total | U-Turn | Left | Thru | Right | Peds | App. Total | Int. Total | | | | | |
| 7:00 AM | 0 | 0 | 439 | 0 | 0 | 439 | 0 | 0 | 301 | 2 | 0 | 303 | 0 | 0 | 0 | 6 | 0 | 6 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 748 |
| 7:15 AM | 0 | 1 | 521 | 0 | 0 | 522 | 0 | 0 | 310 | 0 | 0 | 310 | 0 | 3 | 0 | 7 | 0 | 10 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 843 |
| 7:30 AM | 0 | 0 | 533 | 1 | 0 | 534 | 0 | 0 | 315 | 3 | 0 | 318 | 0 | 0 | 0 | 8 | 0 | 8 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 860 |
| 7:45 AM | 0 | 1 | 507 | 0 | 0 | 508 | 0 | 0 | 358 | 3 | 0 | 361 | 0 | 4 | 0 | 8 | 0 | 12 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 881 |
| Hourly Total | 0 | 2 | 2000 | 1 | 0 | 2003 | 0 | 0 | 1284 | 8 | 0 | 1292 | 0 | 7 | 0 | 29 | 0 | 36 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 3332 |
| 8:00 AM | 0 | 2 | 420 | 1 | 0 | 423 | 0 | 0 | 310 | 1 | 0 | 311 | 0 | 3 | 0 | 9 | 0 | 12 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 749 |
| 8:15 AM | 0 | 2 | 408 | 4 | 0 | 414 | 0 | 5 | 337 | 1 | 0 | 343 | 0 | 1 | 0 | 5 | 0 | 6 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 765 |
| 8:30 AM | 0 | 2 | 412 | 0 | 0 | 414 | 0 | 1 | 335 | 3 | 0 | 339 | 0 | 2 | 0 | 5 | 0 | 7 | 0 | 1 | 0 | 0 | 3 | 0 | 0 | 1 | 0 | 3 | 0 | 764 |
| 8:45 AM | 0 | 3 | 401 | 1 | 0 | 405 | 0 | 0 | 367 | 0 | 0 | 367 | 0 | 2 | 0 | 5 | 0 | 7 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 2 | 0 | 781 |
| Hourly Total | 0 | 9 | 1641 | 6 | 0 | 1656 | 0 | 6 | 1349 | 5 | 0 | 1360 | 0 | 8 | 0 | 24 | 0 | 32 | 0 | 5 | 0 | 6 | 0 | 0 | 0 | 5 | 0 | 6 | 0 | 3059 |
| *** BREAK *** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 4:00 PM | 0 | 1 | 395 | 2 | 0 | 398 | 1 | 2 | 453 | 2 | 0 | 458 | 0 | 0 | 0 | 2 | 0 | 2 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 860 |
| 4:15 PM | 0 | 1 | 374 | 2 | 0 | 377 | 0 | 2 | 454 | 2 | 0 | 458 | 0 | 1 | 0 | 8 | 0 | 9 | 0 | 1 | 0 | 2 | 0 | 0 | 0 | 1 | 0 | 2 | 0 | 847 |
| 4:30 PM | 0 | 1 | 406 | 2 | 0 | 409 | 0 | 4 | 438 | 2 | 0 | 444 | 0 | 0 | 0 | 3 | 0 | 3 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 857 |
| 4:45 PM | 0 | 2 | 396 | 4 | 0 | 402 | 0 | 4 | 488 | 0 | 0 | 492 | 0 | 2 | 0 | 6 | 0 | 8 | 0 | 1 | 0 | 0 | 4 | 0 | 0 | 1 | 0 | 4 | 0 | 907 |
| Hourly Total | 0 | 5 | 1571 | 10 | 0 | 1586 | 1 | 12 | 1833 | 6 | 0 | 1852 | 0 | 3 | 0 | 19 | 0 | 22 | 0 | 3 | 0 | 8 | 0 | 0 | 0 | 3 | 0 | 8 | 0 | 3471 |
| 5:00 PM | 0 | 0 | 395 | 2 | 0 | 397 | 0 | 3 | 458 | 0 | 0 | 461 | 0 | 1 | 0 | 2 | 0 | 3 | 0 | 0 | 0 | 0 | 4 | 0 | 0 | 0 | 0 | 4 | 0 | 865 |
| 5:15 PM | 0 | 0 | 468 | 6 | 0 | 474 | 0 | 2 | 469 | 0 | 0 | 471 | 0 | 1 | 0 | 3 | 0 | 4 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 950 |
| 5:30 PM | 0 | 0 | 370 | 2 | 0 | 372 | 0 | 5 | 496 | 0 | 0 | 501 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 875 |
| 5:45 PM | 0 | 1 | 372 | 4 | 0 | 377 | 0 | 4 | 420 | 1 | 0 | 425 | 0 | 0 | 0 | 3 | 0 | 3 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 1 | 0 | 807 |
| Hourly Total | 0 | 1 | 1605 | 14 | 0 | 1620 | 0 | 14 | 1843 | 1 | 0 | 1858 | 0 | 2 | 0 | 9 | 0 | 11 | 0 | 3 | 0 | 5 | 0 | 0 | 0 | 3 | 0 | 5 | 0 | 3497 |
| Grand Total | 0 | 17 | 6817 | 31 | 0 | 6865 | 1 | 32 | 6309 | 20 | 0 | 6362 | 0 | 20 | 0 | 81 | 0 | 101 | 0 | 12 | 0 | 19 | 0 | 0 | 0 | 12 | 0 | 19 | 0 | 13359 |
| Approach % | 0.0 | 0.2 | 99.3 | 0.5 | - | - | 0.0 | 0.5 | 99.2 | 0.3 | - | - | 0.0 | 19.8 | 0.0 | 80.2 | - | - | 0.0 | 38.7 | 0.0 | 61.3 | - | - | 0.0 | 38.7 | 0.0 | 61.3 | - | - |
| Total % | 0.0 | 0.1 | 51.0 | 0.2 | - | 51.4 | 0.0 | 0.2 | 47.2 | 0.1 | - | 47.6 | 0.0 | 0.1 | 0.0 | 0.6 | - | 0.8 | 0.0 | 0.1 | 0.0 | 0.1 | - | - | 0.0 | 0.1 | 0.0 | 0.1 | - | 0.2 |
| Lights | 0 | 16 | 6703 | 31 | - | 6750 | 1 | 32 | 6205 | 20 | - | 6258 | 0 | 20 | 0 | 81 | - | 101 | 0 | 10 | 0 | 19 | - | - | 0 | 10 | 0 | 19 | - | 13138 |
| % Lights | - | 94.1 | 98.3 | 100.0 | - | 98.3 | 100.0 | 100.0 | 98.4 | 100.0 | - | 98.4 | - | 100.0 | - | 100.0 | - | 100.0 | - | 83.3 | - | 100.0 | - | - | - | 83.3 | - | 100.0 | - | 93.5 |
| Buses | 0 | 0 | 38 | 0 | 0 | 38 | 0 | 0 | 36 | 0 | 0 | 36 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 74 |
| % Buses | - | 0.0 | 0.6 | 0.0 | - | 0.6 | 0.0 | 0.0 | 0.6 | 0.0 | - | 0.6 | - | 0.0 | - | 0.0 | - | 0.0 | - | 0.0 | - | 0.0 | - | - | - | 0.0 | - | 0.0 | - | 0.0 |
| Single-Unit Trucks | 0 | 1 | 51 | 0 | - | 52 | 0 | 0 | 44 | 0 | - | 44 | 0 | 0 | 0 | 0 | - | 0 | 0 | 2 | 0 | 0 | - | - | 0 | 2 | 0 | 0 | - | 98 |
| % Single-Unit Trucks | - | 5.9 | 0.7 | 0.0 | - | 0.8 | 0.0 | 0.0 | 0.7 | 0.0 | - | 0.7 | - | 0.0 | - | 0.0 | - | 0.0 | - | 16.7 | - | 0.0 | - | - | - | 16.7 | - | 0.0 | - | 6.5 |
| Articulated Trucks | 0 | 0 | 25 | 0 | - | 25 | 0 | 0 | 24 | 0 | - | 24 | 0 | 0 | 0 | 0 | - | 0 | 0 | 0 | 0 | 0 | - | - | 0 | 0 | 0 | 0 | - | 49 |
| % Articulated Trucks | - | 0.0 | 0.4 | 0.0 | - | 0.4 | 0.0 | 0.0 | 0.4 | 0.0 | - | 0.4 | - | 0.0 | - | 0.0 | - | 0.0 | - | 0.0 | - | 0.0 | - | - | - | 0.0 | - | 0.0 | - | 0.0 |
| Bicycles on Road | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| % Bicycles on Road | - | 0.0 | 0.0 | 0.0 | - | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | - | 0.0 | - | 0.0 | - | 0.0 | - | 0.0 | - | 0.0 | - | 0.0 | - | - | - | 0.0 | - | 0.0 | - | 0.0 |
| Pedestrians | - | - | - | - | - | 0 | - | - | - | - | - | 0 | - | - | - | - | - | 0 | - | - | - | - | - | - | - | - | - | - | - | 0 |

ITE Rates and Equations

Automobile Sales (841)

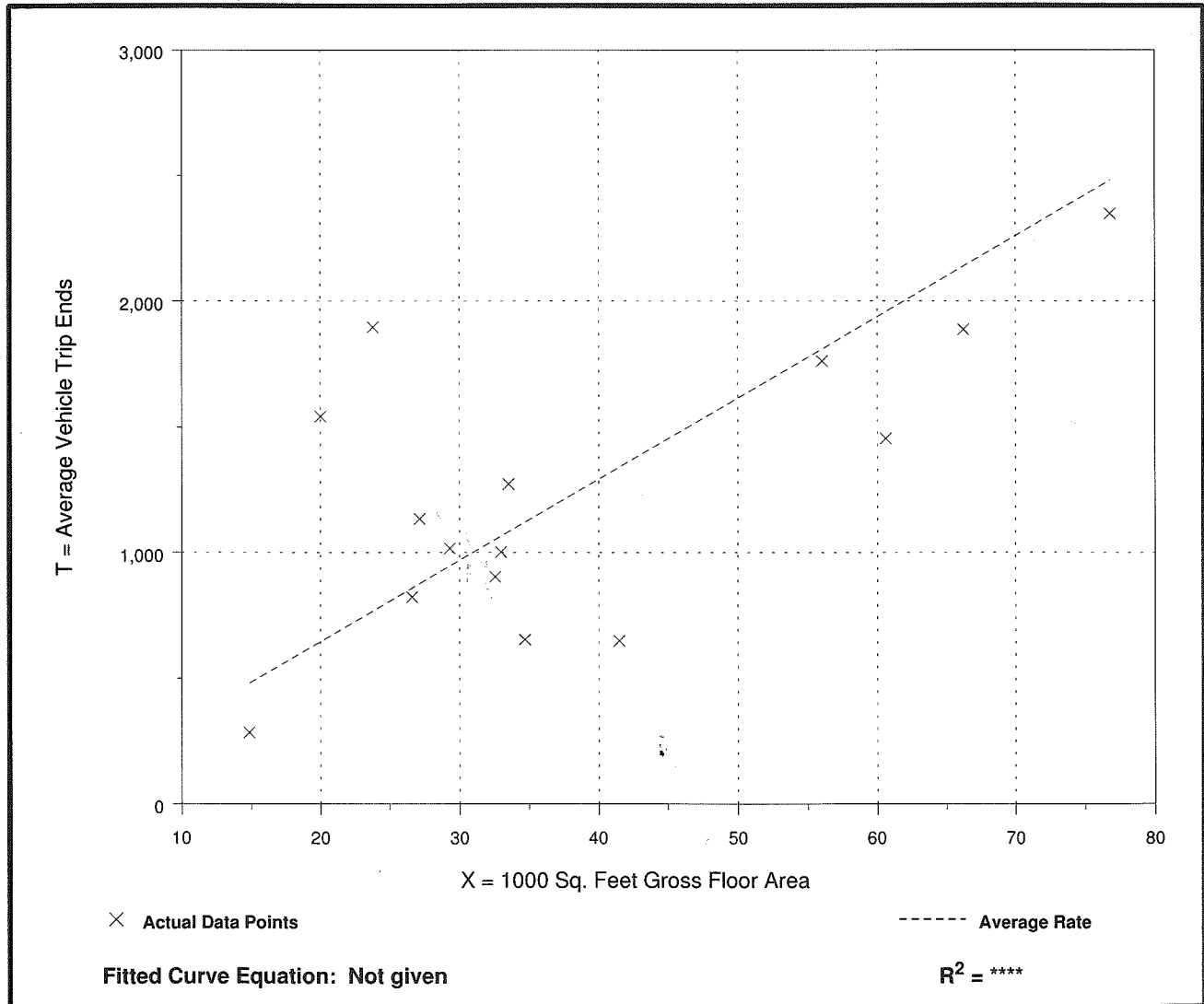
**Average Vehicle Trip Ends vs: 1000 Sq. Feet Gross Floor Area
On a: Weekday**

Number of Studies: 15
Average 1000 Sq. Feet GFA: 38
Directional Distribution: 50% entering, 50% exiting

Trip Generation per 1000 Sq. Feet Gross Floor Area

| Average Rate | Range of Rates | Standard Deviation |
|--------------|----------------|--------------------|
| 32.30 | 15.64 - 79.66 | 15.70 |

Data Plot and Equation



Automobile Sales (841)

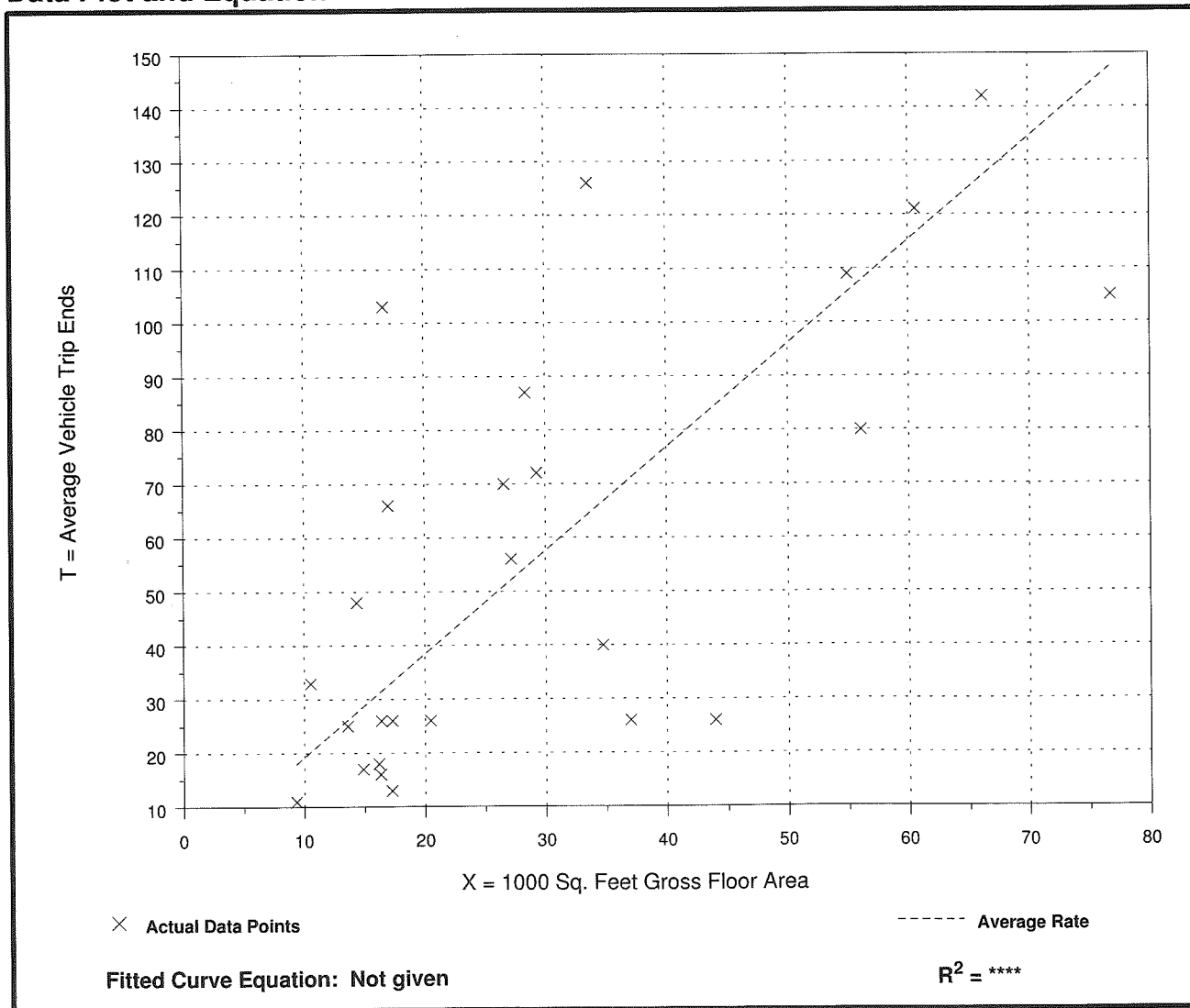
Average Vehicle Trip Ends vs: 1000 Sq. Feet Gross Floor Area
On a: Weekday,
Peak Hour of Adjacent Street Traffic,
One Hour Between 7 and 9 a.m.

Number of Studies: 26
 Average 1000 Sq. Feet GFA: 30
 Directional Distribution: 75% entering, 25% exiting

Trip Generation per 1000 Sq. Feet Gross Floor Area

| Average Rate | Range of Rates | Standard Deviation |
|--------------|----------------|--------------------|
| 1.92 | 0.59 - 6.17 | 1.72 |

Data Plot and Equation



Automobile Sales (841)

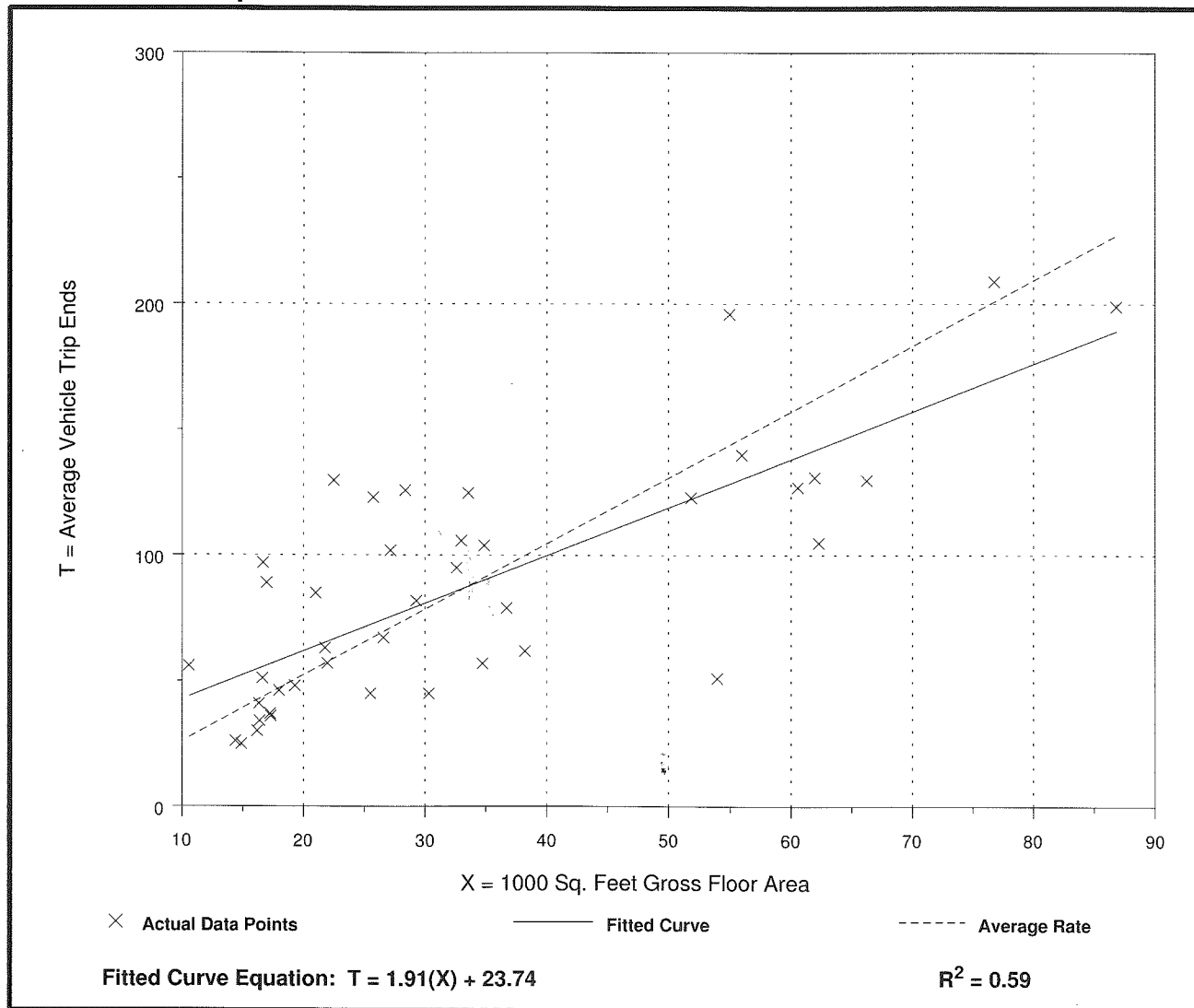
Average Vehicle Trip Ends vs: 1000 Sq. Feet Gross Floor Area
On a: Weekday,
Peak Hour of Adjacent Street Traffic,
One Hour Between 4 and 6 p.m.

Number of Studies: 41
 Average 1000 Sq. Feet GFA: 33
 Directional Distribution: 40% entering, 60% exiting

Trip Generation per 1000 Sq. Feet Gross Floor Area

| Average Rate | Range of Rates | Standard Deviation |
|--------------|----------------|--------------------|
| 2.62 | 0.94 - 5.81 | 1.90 |

Data Plot and Equation



Site Plan

PHORMA DESIGNS, INC. COPYRIGHT 2017 ALL RIGHTS RESERVED

2410 W. OGDEN AVE, DOWNERS GROVE

PROPOSED SCOPES: REDUCTION EXISTING BUILDING DESIGN AND BUILD NEW CAR DEALERSHIP PER APPLICABLE CODES ADOPTED BY THE CITY OF DOWNERS GROVE

DRAWINGS INDEX

- A1 EXISTING BUILDING CODES, SHOWNAS INDEX
- COSES ADOPTED BY THE CITY OF DOWNERS GROVE
- 1. CURRENT DOWNERS CODE ZONING ORDINANCE
- 2. 2014 NATIONAL ELECTRICAL CODE WITH D.C. AMENDMENTS
- 3. 2014 NATIONAL MECHANICAL CODE WITH D.C. AMENDMENTS
- 4. 2014 NATIONAL PLUMBING CODE WITH D.C. AMENDMENTS
- 5. 2006 INTERNATIONAL FIRE CODE WITH D.C. AMENDMENTS
- 6. 2006 INTERNATIONAL BUILDING CODE WITH D.C. AMENDMENTS
- 7. 2006 INTERNATIONAL ENERGY CONSERVATION CODE WITH D.C. AMENDMENTS
- 8. 2006 INTERNATIONAL PLUMBING CODE WITH D.C. AMENDMENTS
- 9. 2006 INTERNATIONAL FIRE CODE WITH D.C. AMENDMENTS
- 10. 2006 INTERNATIONAL BUILDING CODE WITH D.C. AMENDMENTS
- 11. CURRENT STATE OF ILLINOIS ACCESSIBILITY CODE

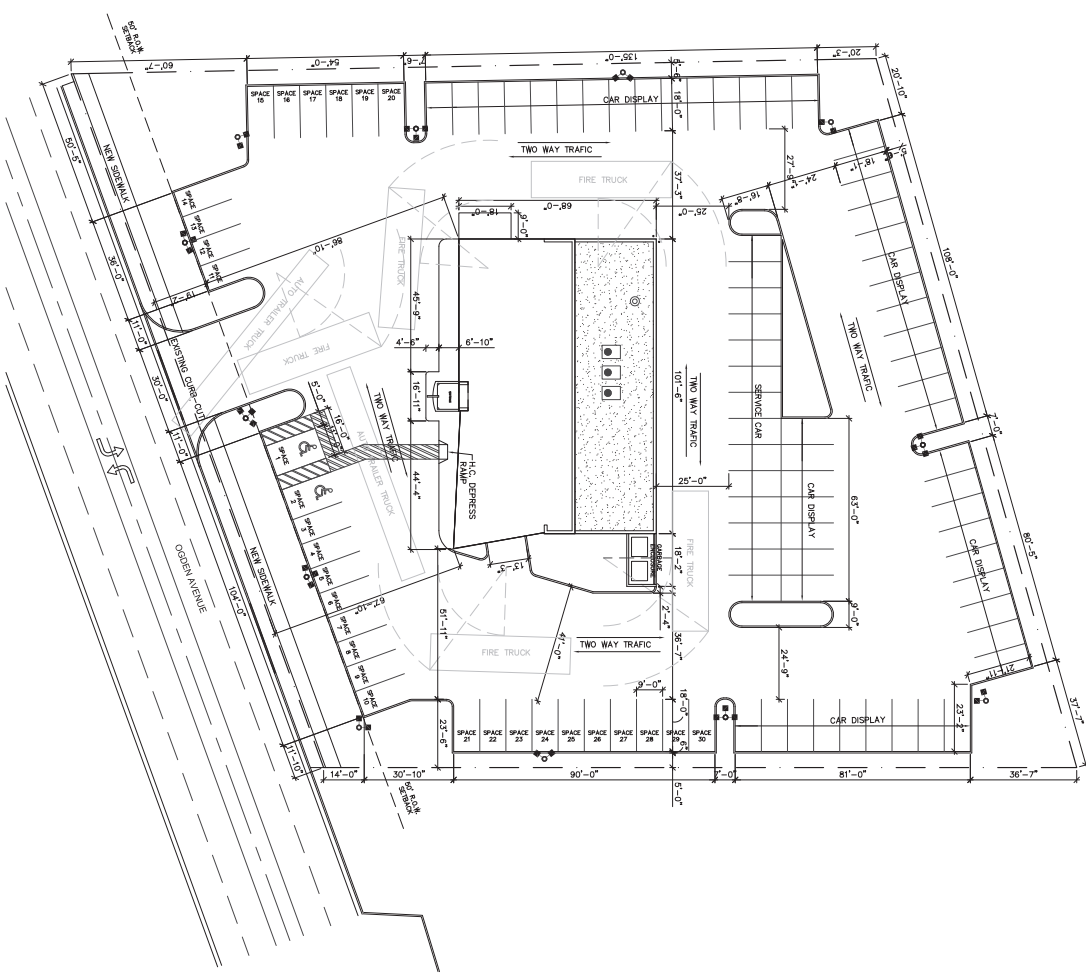
| | |
|---------------------------------|-----------------|
| LAND USE ZONING | COMMERCIAL B3 |
| LOT SIZE | 1.49 ACRES |
| EXISTING BUILDING GROSS AREA | 7,000 SF |
| TOTAL PROPOSED FIRST FLOOR AREA | 6,379 SF |
| PROPOSED SECOND FLOOR AREA | 3,233 SF |
| PROPOSED SECOND FLOOR | 1,200 SF |
| LOT COVERAGE | 11% |
| LANDSCAPE AREA & PERCENTAGE | 12,248 SF (28%) |

| DESCRIPTION | AREA SF | CODE | REQUIRED | PROVIDED |
|----------------------|---------|---|----------|----------|
| SHOWROOM AREA | 3,036 | 2 SPACES PER 1,000 SF OF SHOWROOM AREA | 6 | 5 |
| OUTDOOR DISPLAY AREA | 20,096 | 0.4 SPACES PER 1,000 SF OF OUTDOOR AREA | 8 | 52 |
| SERVICE AREA | 8 | 2 SPACES PER SERVICE BAY | 10 | 14 |
| CUSTOM PARKING | | | 10 | 14 |
| TOTAL | | | 24 | 101 |

* MINIMUM LOT/ON VEHICLE PARKING REQUIREMENT AS FOLLOWS: 4 SPACES PER 1,000 SQ FT OF OUTDOOR DISPLAY SPACE, PLUS 2 CARS PER SERVICE

GENERAL NOTES

1. ALL WORK SHALL CONFORM TO THE APPLICABLE CODES AND ORDINANCES OF THE CITY OF DOWNERS GROVE & THE STATE OF ILLINOIS ACCESSIBILITY CODE AS EXPRESSED IN THE DRAWINGS WHICH FORM A PART OF THE CONTRACT DOCUMENTS
2. STATE OF THE WORK BY THE CONTRACTORS SHALL SHOW THE ACCEPTANCE OF THE EXISTING SITE CONDITIONS
3. ALL DEMOS AND WASTE MATERIALS AND EQUIPMENT SHALL BE REMOVED FROM THE SITE AND THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE REDEMPTION OF THE CONTRACT AND DISPOSAL OF SUCH ITEMS SHALL BECOME THEIR RESPONSIBILITY
4. THE ARCHITECT SHALL NOT BE RESPONSIBLE FOR CONSTRUCTION METHODS, METHODS, TECHNIQUES, SEQUENCES, PROCEDURES OR FOR ANY SAFETY PRECAUTIONS AND THAT WHICH BE NECESSARY AFTER CONSTRUCTION BEGINS



PROPOSED SITE PLAN
SCALE 1"=20'-0"

| <p>A1</p> | <p>REVISIONS</p> <table border="1"> <thead> <tr> <th>NO.</th> <th>DATE</th> <th>DESCRIPTION</th> <th>BY</th> </tr> </thead> <tbody> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> </tbody> </table> | NO. | DATE | DESCRIPTION | BY | | | | | | | | | | | | | | | | | <p>NEW AUTO DEALERSHIP AT 2410 OGDEN AVE. DOWNERS GROVE, IL.</p> <p>PROPOSED SITE PLAN</p> | <p>ARCHITECTURE AND PLANNING</p> <p>PHORMA DESIGNS, INC.</p> <p>PHORMA DESIGNS, INC. 3195 OGDEN AVE. STE. 111 DOWNERS GROVE, IL 60515 TEL: 630.272.6998 FAX: 630.272.7791 WWW.PHORMA.COM</p> |
|--|---|------------------------|------|-------------|----|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|---|
| NO. | DATE | DESCRIPTION | BY | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | |
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| | | | | | | | | | | | | | | | | | | | | | | | |
| <p>CLIENT:</p> | | <p>ARCHITECT FIRM:</p> | | | | | | | | | | | | | | | | | | | | | |
| <p>PROJECT NO.: 17108</p> <p>DATE: 12.01.17</p> <p>ISSUED: DD</p> <p>DRAWN BY: PCJ</p> <p>CHECKED BY: PCJ</p> <p>FILE NAME: 2410 OGDEN AVE</p> <p>SHEET NO.:</p> | | <p>LICENSE EXP.:</p> | | | | | | | | | | | | | | | | | | | | | |

CMAP 2040 Projections Letter



Chicago Metropolitan Agency for Planning

233 South Wacker Drive
Suite 800
Chicago, Illinois 60606

312 454 0400
www.cmap.illinois.gov

December 11, 2017

Brendan S. May
Consultant
Kenig, Lindgren, O'Hara and Aboona, Inc.
9575 West Higgins Road
Suite 400
Rosemont, IL 60018

**Subject: Ogden Avenue (US 34) @ Cross Street
IDOT**

Dear Mr. May:

In response to a request made on your behalf and dated December 11, 2017, we have developed year 2040 average daily traffic (ADT) projections for the subject location.

| ROAD SEGMENT | Current ADT | Year 2040 ADT |
|-----------------------------|-------------|---------------|
| Ogden Ave, @ Cross St | 30,600 | 34,100 |
| Ogden Ave east of Cross St | 36,609 | 40,700 |
| Ogden Ave west of Cross St | 34,195 | 38,100 |
| Cross St north of Ogden Ave | 7,442 | 8,300 |

Traffic projections are developed using existing ADT data provided in the request letter and the results from the October 2017 CMAP Travel Demand Analysis. The regional travel model uses CMAP 2040 socioeconomic projections and assumes the implementation of the GO TO 2040 Comprehensive Regional Plan for the Northeastern Illinois area.

If you have any questions, please call me at (312) 386-8806.

Sincerely,

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

cc: Quigley (IDOT)
S:\AdminGroups\ResearchAnalysis\TrafficForecasts_CY2017\DownersGrove\du-69-17\du-69-17.docx

Level of Service Criteria

LEVEL OF SERVICE CRITERIA

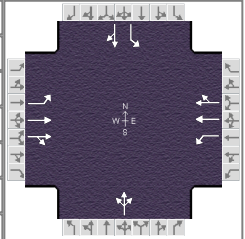
| Signalized Intersections | | |
|-----------------------------------|--|--|
| Level of Service | Interpretation | Average Control Delay (seconds per vehicle) |
| A | Favorable progression. Most vehicles arrive during the green indication and travel through the intersection without stopping. | ≤10 |
| 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. | >80.0 |
| Unsignalized Intersections | | |
| Level of Service | Average Total Delay (SEC/VEH) | |
| A | 0 - 10 | |
| B | > 10 - 15 | |
| C | > 15 - 25 | |
| D | > 25 - 35 | |
| E | > 35 - 50 | |
| F | > 50 | |

Source: *Highway Capacity Manual*, 2010.

Capacity Analysis Summary Sheets

HCS7 Signalized Intersection Input Data

| General Information | | | | Intersection Information | | | |
|---------------------|--------------------------|---------------|---|--------------------------|----------|--|--|
| Agency | KLOA, Inc. | | | Duration, h | 0.25 | | |
| Analyst | BSM | Analysis Date | Dec 12, 2017 | Area Type | Other | | |
| Jurisdiction | IDOT | Time Period | AM Peak Hour | PHF | 0.96 | | |
| Urban Street | Ogden Avenue | Analysis Year | 2017 | Analysis Period | 1 > 7:00 | | |
| Intersection | Ogden Avenue with Cro... | File Name | Ogden Avenue with Cross Street - AMEX.xus | | | | |
| Project Description | AM Existing Peak Hour | | | | | | |



| Demand Information | EB | | | WB | | | NB | | | SB | | |
|---------------------|----|------|---|----|-----|-----|----|---|---|-----|---|----|
| | L | T | R | L | T | R | L | T | R | L | T | R |
| Approach Movement | | | | | | | | | | | | |
| Demand (v), veh/h | 95 | 1754 | 0 | 0 | 938 | 363 | 0 | 0 | 1 | 242 | 0 | 18 |

| Signal Information | | | | Signal Timing (s) | | | | | | | | | |
|--------------------|-------|-----------------|-------|-------------------|-----|------|------|-----|-----|-----|--|--|--|
| Cycle, s | 140.0 | Reference Phase | 2 | | | | | | | | | | |
| Offset, s | 0 | Reference Point | Begin | Green | 4.2 | 97.3 | 23.0 | 0.0 | 0.0 | 0.0 | | | |
| Uncoordinated | No | Simult. Gap E/W | On | Yellow | 3.5 | 4.5 | 4.5 | 0.0 | 0.0 | 0.0 | | | |
| Force Mode | Fixed | Simult. Gap N/S | On | Red | 0.0 | 1.5 | 1.5 | 0.0 | 0.0 | 0.0 | | | |

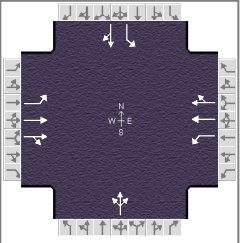
| Traffic Information | EB | | | WB | | | NB | | | SB | | |
|---|------|------|------|------|------|------|------|------|------|------|------|------|
| | L | T | R | L | T | R | L | T | R | L | T | R |
| Approach Movement | | | | | | | | | | | | |
| Demand (v), veh/h | 95 | 1754 | 0 | 0 | 938 | 363 | 0 | 0 | 1 | 242 | 0 | 18 |
| Initial Queue (Q _b), veh/h | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Base Saturation Flow Rate (s ₀), veh/h | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Parking (N _m), man/h | | None | | | None | | | None | | | None | |
| Heavy Vehicles (P _{HV}), % | 0 | 2 | | 0 | 3 | | | 0 | | 2 | 0 | |
| Ped / Bike / RTOR, /h | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Buses (N _b), buses/h | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Arrival Type (AT) | 3 | 4 | 3 | 3 | 4 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| Upstream Filtering (I) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Lane Width (W), ft | 12.0 | 12.0 | | 12.0 | 12.0 | | | 12.0 | | 12.0 | 12.0 | |
| Turn Bay Length, ft | 100 | 0 | | 50 | 0 | | | 0 | | 300 | 0 | |
| Grade (P _g), % | | 0 | | | 0 | | | 0 | | | 0 | |
| Speed Limit, mi/h | 40 | 40 | 40 | 35 | 35 | 35 | 15 | 15 | 15 | 30 | 30 | 30 |

| Phase Information | EBL | EBT | WBL | WBT | NBL | NBT | SBL | SBT |
|--|------|-------|-----|------|-----|------|-----|------|
| Maximum Green (G _{max}) or Phase Split, s | 14.0 | 111.0 | | 97.0 | | 29.0 | | 29.0 |
| Yellow Change Interval (Y), s | 3.5 | 4.5 | | 4.5 | | 4.5 | | 4.5 |
| Red Clearance Interval (R _c), s | 0.0 | 1.5 | | 1.5 | | 1.5 | | 1.5 |
| Minimum Green (G _{min}), s | 3 | 15 | 6 | 15 | 6 | 8 | 3 | 8 |
| Start-Up Lost Time (l _t), s | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 |
| Extension of Effective Green (e), s | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 |
| Passage (P _T), s | 3.0 | 7.0 | 2.0 | 7.0 | 2.0 | 4.0 | 2.0 | 4.0 |
| Recall Mode | Off | Min | Off | Min | Off | Off | Off | Off |
| Dual Entry | Yes | Yes | No | Yes | No | Yes | No | Yes |
| Walk (Walk), s | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Pedestrian Clearance Time (P _C), s | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

| Multimodal Information | EB | | | WB | | | NB | | | SB | | |
|---|-----|------|-----|-----|------|-----|-----|------|-----|-----|------|-----|
| 85th % Speed / Rest in Walk / Corner Radius | 0 | No | 25 | 0 | No | 25 | 0 | No | 25 | 0 | No | 25 |
| Walkway / Crosswalk Width / Length, ft | 9.0 | 12 | 0 | 9.0 | 12 | 0 | 9.0 | 12 | 0 | 9.0 | 12 | 0 |
| Street Width / Island / Curb | 0 | 0 | No | 0 | 0 | No | 0 | 0 | No | 0 | 0 | No |
| Width Outside / Bike Lane / Shoulder, ft | 12 | 5.0 | 2.0 | 12 | 5.0 | 2.0 | 12 | 5.0 | 2.0 | 12 | 5.0 | 2.0 |
| Pedestrian Signal / Occupied Parking | No | 0.50 | | No | 0.50 | | No | 0.50 | | No | 0.50 | |

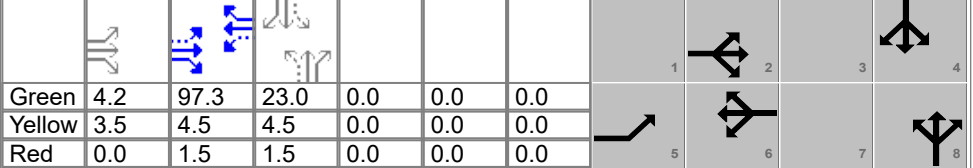
HCS7 Signalized Intersection Results Summary

| General Information | | | | Intersection Information | | | |
|---------------------|--------------------------|---------------|---|--------------------------|----------|--|--|
| Agency | KLOA, Inc. | | | Duration, h | 0.25 | | |
| Analyst | BSM | Analysis Date | Dec 12, 2017 | Area Type | Other | | |
| Jurisdiction | IDOT | Time Period | AM Peak Hour | PHF | 0.96 | | |
| Urban Street | Ogden Avenue | Analysis Year | 2017 | Analysis Period | 1 > 7:00 | | |
| Intersection | Ogden Avenue with Cro... | File Name | Ogden Avenue with Cross Street - AMEX.xus | | | | |
| Project Description | AM Existing Peak Hour | | | | | | |



| Demand Information | EB | | | WB | | | NB | | | SB | | |
|---------------------|----|------|---|----|-----|-----|----|---|---|-----|---|----|
| | L | T | R | L | T | R | L | T | R | L | T | R |
| Approach Movement | | | | | | | | | | | | |
| Demand (v), veh/h | 95 | 1754 | 0 | 0 | 938 | 363 | 0 | 0 | 1 | 242 | 0 | 18 |

| Signal Information | | | | Signal Timing (s) | | | | | | | | | |
|--------------------|-------|-----------------|-------|-------------------|-----|------|------|-----|-----|-----|--|--|--|
| Cycle, s | 140.0 | Reference Phase | 2 | | | | | | | | | | |
| Offset, s | 0 | Reference Point | Begin | Green | 4.2 | 97.3 | 23.0 | 0.0 | 0.0 | 0.0 | | | |
| Uncoordinated | No | Simult. Gap E/W | On | Yellow | 3.5 | 4.5 | 4.5 | 0.0 | 0.0 | 0.0 | | | |
| Force Mode | Fixed | Simult. Gap N/S | On | Red | 0.0 | 1.5 | 1.5 | 0.0 | 0.0 | 0.0 | | | |



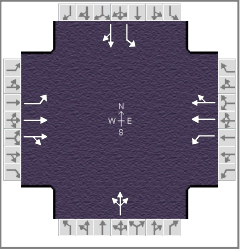
| Timer Results | EBL | EBT | WBL | WBT | NBL | NBT | SBL | SBT |
|--|------|-------|-----|-------|-----|------|-----|------|
| Assigned Phase | 5 | 2 | | 6 | | 8 | | 4 |
| Case Number | 1.0 | 4.0 | | 6.3 | | 8.0 | | 6.0 |
| Phase Duration, s | 7.7 | 111.0 | | 103.3 | | 29.0 | | 29.0 |
| Change Period, (Y+R _c), s | 3.5 | 6.0 | | 6.0 | | 6.0 | | 6.0 |
| Max Allow Headway (MAH), s | 4.0 | 0.0 | | 0.0 | | 5.1 | | 5.1 |
| Queue Clearance Time (g _s), s | 4.1 | | | | | 2.1 | | 25.0 |
| Green Extension Time (g _e), s | 0.1 | 0.0 | | 0.0 | | 1.4 | | 0.0 |
| Phase Call Probability | 1.00 | | | | | 1.00 | | 1.00 |
| Max Out Probability | 0.09 | | | | | 0.00 | | 1.00 |

| Movement Group Results | EB | | | WB | | | NB | | | SB | | |
|--|-------|-------|-------|-------|-------|-------|------|-------|----|-------|-------|----|
| | L | T | R | L | T | R | L | T | R | L | T | R |
| Assigned Movement | 5 | 2 | 12 | 1 | 6 | 16 | 3 | 8 | 18 | 7 | 4 | 14 |
| Adjusted Flow Rate (v), veh/h | 99 | 1827 | 0 | 0 | 706 | 649 | | 0 | | 252 | 19 | |
| Adjusted Saturation Flow Rate (s), veh/h/ln | 1810 | 1870 | 0 | 259 | 1856 | 1679 | | 0 | | 1416 | 1610 | |
| Queue Service Time (g _s), s | 2.1 | 0.0 | 0.0 | 0.0 | 8.0 | 20.1 | | 0.0 | | 22.9 | 1.4 | |
| Cycle Queue Clearance Time (g _c), s | 2.1 | 0.0 | 0.0 | 0.0 | 8.0 | 20.1 | | 0.0 | | 23.0 | 1.4 | |
| Green Ratio (g/C) | 0.74 | 0.75 | | 0.69 | 0.69 | 0.69 | | | | 0.16 | 0.16 | |
| Capacity (c), veh/h | 331 | 2806 | | 51 | 1289 | 1167 | | | | 283 | 265 | |
| Volume-to-Capacity Ratio (X) | 0.299 | 0.651 | 0.000 | 0.000 | 0.548 | 0.556 | | 0.000 | | 0.890 | 0.071 | |
| Back of Queue (Q), ft/ln (95 th percentile) | 34 | 21.2 | 0 | 0 | 103.3 | 247.5 | | 0 | | 426 | 25.8 | |
| Back of Queue (Q), veh/ln (95 th percentile) | 1.4 | 0.8 | 0.0 | 0.0 | 4.0 | 9.9 | | 0.0 | | 16.8 | 1.0 | |
| Queue Storage Ratio (RQ) (95 th percentile) | 0.34 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | | 0.00 | | 1.42 | 0.00 | |
| Uniform Delay (d ₁), s/veh | 7.3 | 0.0 | | 0.0 | 1.9 | 6.6 | | | | 59.5 | 49.5 | |
| Incremental Delay (d ₂), s/veh | 0.5 | 1.2 | 0.0 | 0.0 | 1.7 | 1.9 | | 0.0 | | 27.8 | 0.2 | |
| Initial Queue Delay (d ₃), s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | 0.0 | | 0.0 | 0.0 | |
| Control Delay (d), s/veh | 7.8 | 1.2 | | 0.0 | 3.5 | 8.5 | | | | 87.3 | 49.6 | |
| Level of Service (LOS) | A | A | | | A | A | | | | F | D | |
| Approach Delay, s/veh / LOS | 1.5 | | A | 5.9 | | A | 48.9 | | D | 84.7 | | F |
| Intersection Delay, s/veh / LOS | 9.5 | | | | | | A | | | | | |

| Multimodal Results | EB | | WB | | NB | | SB | |
|----------------------------|-----|---|-----|---|-----|---|-----|---|
| Pedestrian LOS Score / LOS | 2.0 | B | 2.2 | B | 2.9 | C | 2.9 | C |
| Bicycle LOS Score / LOS | 2.1 | B | 1.6 | B | 0.5 | A | 0.9 | A |

HCS7 Signalized Intersection Intermediate Values

| General Information | | | | Intersection Information | | | |
|---------------------|--------------------------|---------------|---|--------------------------|----------|--|--|
| Agency | KLOA, Inc. | | | Duration, h | 0.25 | | |
| Analyst | BSM | Analysis Date | Dec 12, 2017 | Area Type | Other | | |
| Jurisdiction | IDOT | Time Period | AM Peak Hour | PHF | 0.96 | | |
| Urban Street | Ogden Avenue | Analysis Year | 2017 | Analysis Period | 1 > 7:00 | | |
| Intersection | Ogden Avenue with Cro... | File Name | Ogden Avenue with Cross Street - AMEX.xus | | | | |
| Project Description | AM Existing Peak Hour | | | | | | |



| Demand Information | EB | | | WB | | | NB | | | SB | | |
|---------------------|----|------|---|----|-----|-----|----|---|---|-----|---|----|
| Approach Movement | L | T | R | L | T | R | L | T | R | L | T | R |
| Demand (v), veh/h | 95 | 1754 | 0 | 0 | 938 | 363 | 0 | 0 | 1 | 242 | 0 | 18 |

| Signal Information | | | | Signal Phases | | | | | | | | | |
|--------------------|-------|-----------------|-------|---------------|-----|------|------|-----|-----|-----|-----|-----|-----|
| Cycle, s | 140.0 | Reference Phase | 2 | | | | | | | | | | |
| Offset, s | 0 | Reference Point | Begin | Green | 4.2 | 97.3 | 23.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Uncoordinated | No | Simult. Gap E/W | On | Yellow | 3.5 | 4.5 | 4.5 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Force Mode | Fixed | Simult. Gap N/S | On | Red | 0.0 | 1.5 | 1.5 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

| Saturation Flow / Delay | L | T | R | L | T | R | L | T | R | L | T | R |
|--|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Lane Width Adjustment Factor (f _w) | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 |
| Heavy Vehicles and Grade Factor (f _{HVg}) | 1.000 | 0.984 | 1.000 | 1.000 | 0.977 | 1.000 | 1.000 | 1.000 | 1.000 | 0.984 | 1.000 | 0.914 |
| Parking Activity Adjustment Factor (f _p) | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 |
| Bus Blockage Adjustment Factor (f _{bb}) | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 |
| Area Type Adjustment Factor (f _a) | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 |
| Lane Utilization Adjustment Factor (f _{LU}) | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 |
| Left-Turn Adjustment Factor (f _{LT}) | 0.952 | 0.000 | | 0.136 | 0.000 | | 1.000 | 0.847 | | 0.745 | 0.000 | |
| Right-Turn Adjustment Factor (f _{RT}) | | 1.000 | 1.000 | | 0.905 | 0.905 | | 0.000 | 0.847 | | 0.847 | 0.847 |
| Left-Turn Pedestrian Adjustment Factor (f _{LPB}) | 1.000 | | | 1.000 | | | 1.000 | | | 1.000 | | |
| Right-Turn Ped-Bike Adjustment Factor (f _{RPB}) | | | 1.000 | | | 1.000 | | | 1.000 | | | 1.000 |
| Work Zone Adjustment Factor (f _{wz}) | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 |
| Movement Saturation Flow Rate (s), veh/h | 1810 | 3741 | 0 | 259 | 2556 | 979 | 0 | 0 | 1610 | 1416 | 0 | 1610 |
| Proportion of Vehicles Arriving on Green (P) | 0.03 | 1.00 | 0.00 | 0.00 | 0.93 | 0.69 | 0.00 | 0.00 | 0.16 | 0.16 | 0.00 | 0.16 |
| Incremental Delay Factor (k) | 0.11 | 0.50 | | | 0.50 | 0.50 | | | | 0.42 | 0.15 | |

| Signal Timing / Movement Groups | EBL | EBT/R | WBL | WBT/R | NBL | NBT/R | SBL | SBT/R |
|---|------|-------|-----|-------|-----|-------|-----|-------|
| Lost Time (t _L) | 3.5 | 6.0 | | 6.0 | | 6.0 | | 6.0 |
| Green Ratio (g/C) | 0.74 | 0.75 | | 0.69 | | 0.16 | | 0.16 |
| Permitted Saturation Flow Rate (s _p), veh/h/ln | 408 | 0 | | 259 | | 1416 | | 1416 |
| Shared Saturation Flow Rate (s _{sh}), veh/h/ln | | | | | | 0 | | |
| Permitted Effective Green Time (g _p), s | 99.3 | 0.0 | | 0.0 | | 0.0 | | 23.0 |
| Permitted Service Time (g _u), s | 77.1 | 0.0 | | 0.0 | | 0.0 | | 22.9 |
| Permitted Queue Service Time (g _{ps}), s | 7.1 | | | 0.0 | | | | 22.9 |
| Time to First Blockage (g _t), s | 0.0 | 0.0 | | 0.0 | | 23.0 | | 0.0 |
| Queue Service Time Before Blockage (g _{ts}), s | | | | | | | | |
| Protected Right Saturation Flow (s _R), veh/h/ln | | | | | | | | |
| Protected Right Effective Green Time (g _R), s | | | | | | | | |

| Multimodal | EB | | | WB | | | NB | | | SB | | |
|--|---------|-------|--|---------|-------|--|--------|-------|--|--------|-------|--|
| Pedestrian F _w / F _v | 1.389 | 0.00 | | 1.557 | 0.00 | | 2.107 | 0.00 | | 2.107 | 0.00 | |
| Pedestrian F _s / F _{delay} | 0.000 | 0.059 | | 0.000 | 0.075 | | 0.000 | 0.156 | | 0.000 | 0.156 | |
| Pedestrian M _{corner} / M _{cw} | | | | | | | | | | | | |
| Bicycle c _b / d _b | 1500.00 | 4.38 | | 1389.66 | 6.52 | | 328.57 | 48.89 | | 328.57 | 48.89 | |
| Bicycle F _w / F _v | -3.64 | 1.59 | | -3.64 | 1.12 | | -3.64 | 0.00 | | -3.64 | 0.45 | |

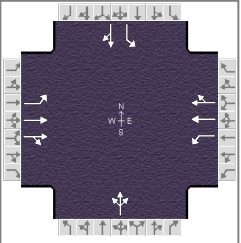
--- Messages ---

WARNING: Since queue spillover from turn lanes and spillback into upstream intersections is not accounted for in the HCM procedures, use of a simulation tool may be advised in situations where the Queue Storage Ratio exceeds 1.0.

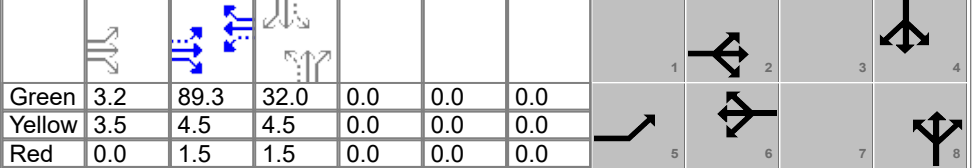
--- Comments ---

HCS7 Signalized Intersection Input Data

| General Information | | | | Intersection Information | | | |
|---------------------|--------------------------|---------------|---|--------------------------|----------|--|--|
| Agency | KLOA, Inc. | | | Duration, h | 0.25 | | |
| Analyst | BSM | Analysis Date | Dec 12, 2017 | Area Type | Other | | |
| Jurisdiction | IDOT | Time Period | PM Peak Hour | PHF | 0.95 | | |
| Urban Street | Ogden Avenue | Analysis Year | 2017 | Analysis Period | 1 > 7:00 | | |
| Intersection | Ogden Avenue with Cro... | File Name | Ogden Avenue with Cross Street - PMEX.xus | | | | |
| Project Description | PM Existing Peak Hour | | | | | | |



| Demand Information | EB | | | WB | | | NB | | | SB | | |
|--------------------|----|------|---|----|------|-----|----|---|---|-----|---|-----|
| Approach Movement | L | T | R | L | T | R | L | T | R | L | T | R |
| Demand (v), veh/h | 44 | 1211 | 1 | 1 | 1630 | 249 | 2 | 0 | 2 | 482 | 0 | 114 |

| Signal Information | | | | Signal Timing (s) | | | | | | | | | Signal Phases | | | | | | | | | |
|--------------------|-------|-----------------|-------|--|-----|------|------|-----|-----|-----|-----|-----|---------------|-----|-----|-----|-----|-----|-----|-----|-----|--|
| Cycle, s | 140.0 | Reference Phase | 2 | Green | 3.2 | 89.3 | 32.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | |
| Offset, s | 0 | Reference Point | Begin | Yellow | 3.5 | 4.5 | 4.5 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | |
| Uncoordinated | No | Simult. Gap E/W | On | Red | 0.0 | 1.5 | 1.5 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | |
| Force Mode | Fixed | Simult. Gap N/S | On |  | | | | | | | | | | | | | | | | | | |

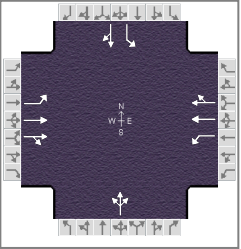
| Traffic Information | EB | | | WB | | | NB | | | SB | | |
|--|------|------|------|------|------|------|------|------|------|------|------|------|
| Approach Movement | L | T | R | L | T | R | L | T | R | L | T | R |
| Demand (v), veh/h | 44 | 1211 | 1 | 1 | 1630 | 249 | 2 | 0 | 2 | 482 | 0 | 114 |
| Initial Queue (Q _b), veh/h | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Base Saturation Flow Rate (s ₀), veh/h | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Parking (N _m), man/h | None | | | None | | | None | | | None | | |
| Heavy Vehicles (P _{HV}), % | 2 | 1 | | 0 | 1 | | | 0 | | 1 | 0 | |
| Ped / Bike / RTOR, /h | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Buses (N _b), buses/h | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Arrival Type (AT) | 3 | 4 | 3 | 3 | 4 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| Upstream Filtering (I) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Lane Width (W), ft | 12.0 | 12.0 | | 12.0 | 12.0 | | | 12.0 | | 12.0 | 12.0 | |
| Turn Bay Length, ft | 100 | 0 | | 0 | 0 | | | 0 | | 300 | 0 | |
| Grade (P _g), % | | 0 | | | 0 | | | 0 | | | 0 | |
| Speed Limit, mi/h | 40 | 40 | 40 | 35 | 35 | 35 | 15 | 15 | 15 | 30 | 30 | 30 |

| Phase Information | EBL | EBT | WBL | WBT | NBL | NBT | SBL | SBT |
|---|------|-------|-----|------|-----|------|-----|------|
| Maximum Green (G _{max}) or Phase Split, s | 11.0 | 102.0 | | 91.0 | | 38.0 | | 38.0 |
| Yellow Change Interval (Y), s | 3.5 | 4.5 | | 4.5 | | 4.5 | | 4.5 |
| Red Clearance Interval (R _c), s | 0.0 | 1.5 | | 1.5 | | 1.5 | | 1.5 |
| Minimum Green (G _{min}), s | 3 | 15 | 6 | 15 | 6 | 8 | 3 | 8 |
| Start-Up Lost Time (lt), s | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 |
| Extension of Effective Green (e), s | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 |
| Passage (PT), s | 3.0 | 7.0 | 2.0 | 7.0 | 2.0 | 4.0 | 2.0 | 4.0 |
| Recall Mode | Off | Min | Off | Min | Off | Off | Off | Off |
| Dual Entry | Yes | Yes | No | Yes | No | Yes | No | Yes |
| Walk (Walk), s | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Pedestrian Clearance Time (PC), s | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

| Multimodal Information | EB | | | WB | | | NB | | | SB | | |
|---|-----|------|-----|-----|------|-----|-----|------|-----|-----|------|-----|
| 85th % Speed / Rest in Walk / Corner Radius | 0 | No | 25 | 0 | No | 25 | 0 | No | 25 | 0 | No | 25 |
| Walkway / Crosswalk Width / Length, ft | 9.0 | 12 | 0 | 9.0 | 12 | 0 | 9.0 | 12 | 0 | 9.0 | 12 | 0 |
| Street Width / Island / Curb | 0 | 0 | No | 0 | 0 | No | 0 | 0 | No | 0 | 0 | No |
| Width Outside / Bike Lane / Shoulder, ft | 12 | 5.0 | 2.0 | 12 | 5.0 | 2.0 | 12 | 5.0 | 2.0 | 12 | 5.0 | 2.0 |
| Pedestrian Signal / Occupied Parking | No | 0.50 | | No | 0.50 | | No | 0.50 | | No | 0.50 | |

HCS7 Signalized Intersection Results Summary

| General Information | | | | Intersection Information | | | |
|---------------------|--------------------------|---------------|---|--------------------------|---------|--|--|
| Agency | KLOA, Inc. | | | Duration, h | 0.25 | | |
| Analyst | BSM | Analysis Date | Dec 12, 2017 | Area Type | Other | | |
| Jurisdiction | IDOT | Time Period | PM Peak Hour | PHF | 0.95 | | |
| Urban Street | Ogden Avenue | Analysis Year | 2017 | Analysis Period | 1> 7:00 | | |
| Intersection | Ogden Avenue with Cro... | File Name | Ogden Avenue with Cross Street - PMEX.xus | | | | |
| Project Description | PM Existing Peak Hour | | | | | | |



| Demand Information | EB | | | WB | | | NB | | | SB | | |
|---------------------|----|------|---|----|------|-----|----|---|---|-----|---|-----|
| Approach Movement | L | T | R | L | T | R | L | T | R | L | T | R |
| Demand (v), veh/h | 44 | 1211 | 1 | 1 | 1630 | 249 | 2 | 0 | 2 | 482 | 0 | 114 |

| Signal Information | | | | Signal Timing (s) | | | | | | | | | | |
|--------------------|-------|-----------------|-------|-------------------|-----|------|------|-----|-----|-----|---|---|---|---|
| Cycle, s | 140.0 | Reference Phase | 2 | Green | 3.2 | 89.3 | 32.0 | 0.0 | 0.0 | 0.0 | 1 | 2 | 3 | 4 |
| Offset, s | 0 | Reference Point | Begin | Yellow | 3.5 | 4.5 | 4.5 | 0.0 | 0.0 | 0.0 | 5 | 6 | 7 | 8 |
| Uncoordinated | No | Simult. Gap E/W | On | Red | 0.0 | 1.5 | 1.5 | 0.0 | 0.0 | 0.0 | | | | |
| Force Mode | Fixed | Simult. Gap N/S | On | | | | | | | | | | | |

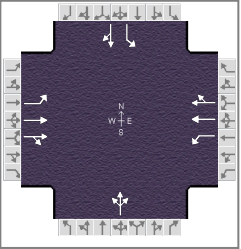
| Timer Results | EBL | EBT | WBL | WBT | NBL | NBT | SBL | SBT |
|--|------|-------|-----|------|-----|------|-----|------|
| Assigned Phase | 5 | 2 | | 6 | | 8 | | 4 |
| Case Number | 1.0 | 4.0 | | 6.3 | | 8.0 | | 6.0 |
| Phase Duration, s | 6.7 | 102.0 | | 95.3 | | 38.0 | | 38.0 |
| Change Period, (Y+R _c), s | 3.5 | 6.0 | | 6.0 | | 6.0 | | 6.0 |
| Max Allow Headway (MAH), s | 4.0 | 0.0 | | 0.0 | | 5.1 | | 5.1 |
| Queue Clearance Time (g _s), s | 3.2 | | | | | 10.7 | | 34.0 |
| Green Extension Time (g _e), s | 0.0 | 0.0 | | 0.0 | | 3.8 | | 0.0 |
| Phase Call Probability | 1.00 | | | | | 1.00 | | 1.00 |
| Max Out Probability | 0.69 | | | | | 0.03 | | 1.00 |

| Movement Group Results | EB | | | WB | | | NB | | | SB | | | |
|--|-------|-------|-------|-------|-------|-------|----|-------|----|--------|-------|----|---|
| Approach Movement | L | T | R | L | T | R | L | T | R | L | T | R | |
| Assigned Movement | 5 | 2 | 12 | 1 | 6 | 16 | 3 | 8 | 18 | 7 | 4 | 14 | |
| Adjusted Flow Rate (v), veh/h | 46 | 638 | 638 | 1 | 989 | 989 | | 4 | | 507 | 120 | | |
| Adjusted Saturation Flow Rate (s), veh/h/ln | 1781 | 1885 | 1885 | 441 | 1885 | 1799 | | 1153 | | 1426 | 1610 | | |
| Queue Service Time (g _s), s | 1.2 | 7.4 | 7.4 | 0.1 | 36.6 | 50.3 | | 0.0 | | 23.3 | 8.7 | | |
| Cycle Queue Clearance Time (g _c), s | 1.2 | 7.4 | 7.4 | 0.8 | 36.6 | 50.3 | | 8.7 | | 32.0 | 8.7 | | |
| Green Ratio (g/C) | 0.67 | 0.69 | 0.69 | 0.64 | 0.64 | 0.64 | | 0.23 | | 0.23 | 0.23 | | |
| Capacity (c), veh/h | 154 | 1293 | 1292 | 330 | 1202 | 1147 | | 302 | | 289 | 368 | | |
| Volume-to-Capacity Ratio (X) | 0.301 | 0.494 | 0.494 | 0.003 | 0.823 | 0.862 | | 0.014 | | 1.757 | 0.326 | | |
| Back of Queue (Q), ft/ln (95 th percentile) | 32.1 | 99.1 | 98.7 | 0.6 | 314.8 | 556.3 | | 5.4 | | 1553.1 | 161.4 | | |
| Back of Queue (Q), veh/ln (95 th percentile) | 1.3 | 3.9 | 3.9 | 0.0 | 12.5 | 22.3 | | 0.2 | | 61.6 | 6.5 | | |
| Queue Storage Ratio (RQ) (95 th percentile) | 0.32 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | | 0.00 | | 5.18 | 0.00 | | |
| Uniform Delay (d ₁), s/veh | 20.0 | 2.2 | 2.2 | 9.5 | 6.5 | 10.4 | | 41.9 | | 60.4 | 45.0 | | |
| Incremental Delay (d ₂), s/veh | 1.1 | 1.3 | 1.3 | 0.0 | 6.4 | 8.6 | | 0.0 | | 354.5 | 0.7 | | |
| Initial Queue Delay (d ₃), s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | 0.0 | | 0.0 | 0.0 | | |
| Control Delay (d), s/veh | 21.0 | 3.6 | 3.6 | 9.5 | 13.0 | 19.0 | | 41.9 | | 415.0 | 45.7 | | |
| Level of Service (LOS) | C | A | A | A | B | B | | D | | F | D | | |
| Approach Delay, s/veh / LOS | 4.2 | | A | 16.0 | | B | | 41.9 | | D | 344.3 | | F |
| Intersection Delay, s/veh / LOS | | | | 64.4 | | | | | | | E | | |

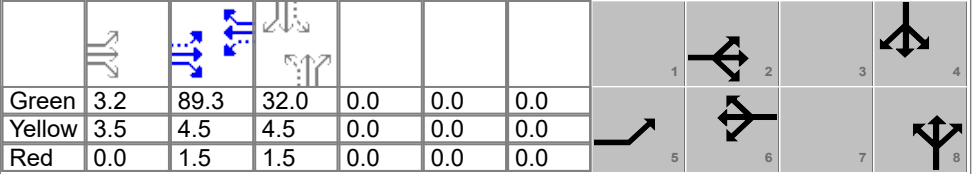
| Multimodal Results | EB | | WB | | NB | | SB | |
|----------------------------|-----|---|-----|---|-----|---|-----|---|
| Pedestrian LOS Score / LOS | 2.1 | B | 2.2 | B | 2.9 | C | 2.9 | C |
| Bicycle LOS Score / LOS | 1.6 | B | 2.1 | B | 0.5 | A | 1.5 | B |

HCS7 Signalized Intersection Intermediate Values

| General Information | | | | Intersection Information | | | |
|---------------------|--------------------------|---------------|---|--------------------------|----------|--|--|
| Agency | KLOA, Inc. | | | Duration, h | 0.25 | | |
| Analyst | BSM | Analysis Date | Dec 12, 2017 | Area Type | Other | | |
| Jurisdiction | IDOT | Time Period | PM Peak Hour | PHF | 0.95 | | |
| Urban Street | Ogden Avenue | Analysis Year | 2017 | Analysis Period | 1 > 7:00 | | |
| Intersection | Ogden Avenue with Cro... | File Name | Ogden Avenue with Cross Street - PMEX.xus | | | | |
| Project Description | PM Existing Peak Hour | | | | | | |



| Demand Information | EB | | | WB | | | NB | | | SB | | |
|---------------------|----|------|---|----|------|-----|----|---|---|-----|---|-----|
| Approach Movement | L | T | R | L | T | R | L | T | R | L | T | R |
| Demand (v), veh/h | 44 | 1211 | 1 | 1 | 1630 | 249 | 2 | 0 | 2 | 482 | 0 | 114 |

| Signal Information | | | | Signal Phases | | | | | | | | | |
|--------------------|-------|-----------------|-------|--|-----|------|------|-----|-----|-----|-----|-----|-----|
| Cycle, s | 140.0 | Reference Phase | 2 |  | | | | | | | | | |
| Offset, s | 0 | Reference Point | Begin | Green | 3.2 | 89.3 | 32.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Uncoordinated | No | Simult. Gap E/W | On | Yellow | 3.5 | 4.5 | 4.5 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Force Mode | Fixed | Simult. Gap N/S | On | Red | 0.0 | 1.5 | 1.5 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

| Saturation Flow / Delay | L | T | R | L | T | R | L | T | R | L | T | R |
|--|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Lane Width Adjustment Factor (f _w) | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 |
| Heavy Vehicles and Grade Factor (f _{HVg}) | 0.984 | 0.992 | 1.000 | 1.000 | 0.992 | 1.000 | 1.000 | 1.000 | 1.000 | 0.992 | 1.000 | 1.000 |
| Parking Activity Adjustment Factor (f _p) | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 |
| Bus Blockage Adjustment Factor (f _{bb}) | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 |
| Area Type Adjustment Factor (f _a) | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 |
| Lane Utilization Adjustment Factor (f _{LU}) | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 |
| Left-Turn Adjustment Factor (f _{LT}) | 0.952 | 0.000 | | 0.232 | 0.000 | | 0.652 | 0.607 | | 0.751 | 0.897 | |
| Right-Turn Adjustment Factor (f _{RT}) | | 1.000 | 1.000 | | 0.954 | 0.954 | | 0.000 | 0.607 | | 0.847 | 0.847 |
| Left-Turn Pedestrian Adjustment Factor (f _{LPB}) | 1.000 | | | 1.000 | | | 1.000 | | | 1.000 | | |
| Right-Turn Ped-Bike Adjustment Factor (f _{RPB}) | | | 1.000 | | | 1.000 | | | 1.000 | | | 1.000 |
| Work Zone Adjustment Factor (f _{wz}) | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 |
| Movement Saturation Flow Rate (s), veh/h | 1781 | 3767 | 3 | 441 | 3208 | 477 | 576 | 0 | 576 | 1426 | 0 | 1610 |
| Proportion of Vehicles Arriving on Green (P) | 0.02 | 0.91 | 0.69 | 0.64 | 0.85 | 0.64 | 0.23 | 0.00 | 0.23 | 0.23 | 0.00 | 0.23 |
| Incremental Delay Factor (k) | 0.11 | 0.50 | 0.50 | 0.50 | 0.50 | 0.50 | | 0.15 | | 0.50 | 0.15 | |

| Signal Timing / Movement Groups | EBL | EBT/R | WBL | WBT/R | NBL | NBT/R | SBL | SBT/R |
|---|------|-------|-----|-------|-----|-------|-----|-------|
| Lost Time (t _L) | 3.5 | 6.0 | | 6.0 | | 6.0 | | 6.0 |
| Green Ratio (g/C) | 0.67 | 0.69 | | 0.64 | | 0.23 | | 0.23 |
| Permitted Saturation Flow Rate (s _p), veh/h/ln | 220 | 0 | | 441 | | 1292 | | 1426 |
| Shared Saturation Flow Rate (s _{sh}), veh/h/ln | | | | | | 0 | | |
| Permitted Effective Green Time (g _p), s | 91.3 | 0.0 | | 89.3 | | 32.0 | | 32.0 |
| Permitted Service Time (g _u), s | 39.0 | 0.0 | | 88.6 | | 23.3 | | 23.3 |
| Permitted Queue Service Time (g _{ps}), s | 13.9 | | | 0.1 | | 0.0 | | 23.3 |
| Time to First Blockage (g _i), s | 0.0 | 0.0 | | 0.0 | | 2.0 | | 0.0 |
| Queue Service Time Before Blockage (g _{fs}), s | | | | | | 0.1 | | |
| Protected Right Saturation Flow (s _R), veh/h/ln | | | | | | | | |
| Protected Right Effective Green Time (g _R), s | | | | | | | | |

| Multimodal | EB | | | WB | | | NB | | | SB | | |
|--|---------|-------|--|---------|-------|--|--------|-------|--|--------|-------|--|
| Pedestrian F _w / F _v | 1.389 | 0.00 | | 1.557 | 0.00 | | 2.107 | 0.00 | | 2.107 | 0.00 | |
| Pedestrian F _s / F _{delay} | 0.000 | 0.078 | | 0.000 | 0.089 | | 0.000 | 0.150 | | 0.000 | 0.150 | |
| Pedestrian M _{corner} / M _{cw} | | | | | | | | | | | | |
| Bicycle c _b / d _b | 1371.43 | 6.91 | | 1275.16 | 9.19 | | 457.15 | 41.66 | | 457.15 | 41.66 | |
| Bicycle F _w / F _v | -3.64 | 1.09 | | -3.64 | 1.63 | | -3.64 | 0.01 | | -3.64 | 1.04 | |

--- Messages ---

WARNING: If demand exceeds capacity, a multiple-period analysis should be conducted.

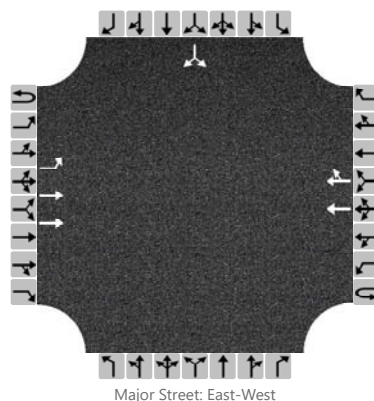
WARNING: Since queue spillover from turn lanes and spillback into upstream intersections is not accounted for in the HCM procedures, use of a simulation tool may be advised in situations where the Queue Storage Ratio exceeds 1.0.

--- Comments ---

HCS7 Two-Way Stop-Control Report

| General Information | | | | Site Information | | | |
|--------------------------|------------------------|--|--|----------------------------|-----------------------|--|--|
| Analyst | BSM | | | Intersection | Ogden with Max Madsen | | |
| Agency/Co. | KLOA, Inc. | | | Jurisdiction | IDOT | | |
| Date Performed | 12/12/2017 | | | East/West Street | Ogden Avenue | | |
| Analysis Year | 2017 | | | North/South Street | Max Madsen Access | | |
| Time Analyzed | AM Peak Hour | | | Peak Hour Factor | 0.94 | | |
| Intersection Orientation | East-West | | | Analysis Time Period (hrs) | 0.25 | | |
| Project Description | 17-273 - Downers Grove | | | | | | |

Lanes



Vehicle Volumes and Adjustments

| Approach | Eastbound | | | | Westbound | | | | Northbound | | | | Southbound | | | |
|----------------------------|-----------|---|------|---|-----------|---|------|----|------------|---|---|---|------------|----|----|----|
| | U | L | T | R | U | L | T | R | U | L | T | R | U | L | T | R |
| Movement | 1U | 1 | 2 | 3 | 4U | 4 | 5 | 6 | | 7 | 8 | 9 | | 10 | 11 | 12 |
| Priority | | | | | | | | | | | | | | | | |
| Number of Lanes | 0 | 1 | 2 | 0 | 0 | 0 | 2 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 |
| Configuration | | L | T | | | | T | TR | | | | | | | LR | |
| Volume, V (veh/h) | | 0 | 1996 | | | | 1300 | 3 | | | | | | 0 | | 1 |
| Percent Heavy Vehicles (%) | | 0 | | | | | | | | | | | | 0 | | 0 |
| Proportion Time Blocked | | | | | | | | | | | | | | | | |
| Percent Grade (%) | 0 | | | | | | | | | | | | | | | |
| Right Turn Channelized | No | | | | No | | | | No | | | | No | | | |
| Median Type/Storage | Left Only | | | | | | | | 1 | | | | | | | |

Critical and Follow-up Headways

| | | | | | | | | | | | | | | | | |
|------------------------------|--|------|--|--|--|--|--|--|--|--|--|--|--|------|--|------|
| Base Critical Headway (sec) | | 4.1 | | | | | | | | | | | | 7.5 | | 6.9 |
| Critical Headway (sec) | | 4.10 | | | | | | | | | | | | 6.80 | | 6.90 |
| Base Follow-Up Headway (sec) | | 2.2 | | | | | | | | | | | | 3.5 | | 3.3 |
| Follow-Up Headway (sec) | | 2.20 | | | | | | | | | | | | 3.50 | | 3.30 |

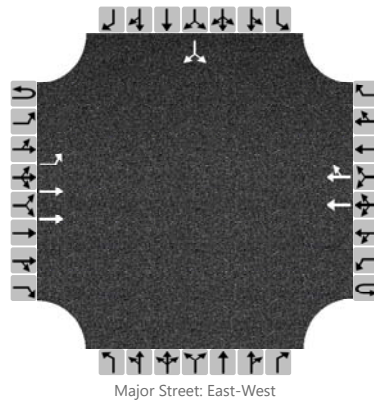
Delay, Queue Length, and Level of Service

| | | | | | | | | | | | | | | | | |
|---|-----|------|--|--|--|--|--|--|------|--|--|--|--|--|--|------|
| Flow Rate, v (veh/h) | | 0 | | | | | | | | | | | | | | 1 |
| Capacity, c (veh/h) | | 501 | | | | | | | | | | | | | | 391 |
| v/c Ratio | | 0.00 | | | | | | | | | | | | | | 0.00 |
| 95% Queue Length, Q ₉₅ (veh) | | 0.0 | | | | | | | | | | | | | | 0.0 |
| Control Delay (s/veh) | | 12.2 | | | | | | | | | | | | | | 14.2 |
| Level of Service, LOS | | B | | | | | | | | | | | | | | B |
| Approach Delay (s/veh) | 0.0 | | | | | | | | 14.2 | | | | | | | |
| Approach LOS | B | | | | | | | | B | | | | | | | |

HCS7 Two-Way Stop-Control Report

| General Information | | | | Site Information | | | |
|--------------------------|------------------------|--|--|----------------------------|-----------------------|--|--|
| Analyst | BSM | | | Intersection | Ogden with Max Madsen | | |
| Agency/Co. | KLOA, Inc. | | | Jurisdiction | IDOT | | |
| Date Performed | 12/12/2017 | | | East/West Street | Ogden Avenue | | |
| Analysis Year | 2017 | | | North/South Street | Max Madsen Access | | |
| Time Analyzed | PM Peak Hour | | | Peak Hour Factor | 0.94 | | |
| Intersection Orientation | East-West | | | Analysis Time Period (hrs) | 0.25 | | |
| Project Description | 17-273 - Downers Grove | | | | | | |

Lanes



Vehicle Volumes and Adjustments

| Approach | Eastbound | | | | Westbound | | | | Northbound | | | | Southbound | | | |
|----------------------------|-----------|---|------|---|-----------|---|------|----|------------|---|---|---|------------|----|----|----|
| | U | L | T | R | U | L | T | R | U | L | T | R | U | L | T | R |
| Movement | 1U | 1 | 2 | 3 | 4U | 4 | 5 | 6 | | 7 | 8 | 9 | | 10 | 11 | 12 |
| Priority | | | | | | | | | | | | | | | | |
| Number of Lanes | 0 | 1 | 2 | 0 | 0 | 0 | 2 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 |
| Configuration | | L | T | | | | T | TR | | | | | | | LR | |
| Volume, V (veh/h) | | 2 | 1691 | | | | 1865 | 1 | | | | | | 1 | | 7 |
| Percent Heavy Vehicles (%) | | 0 | | | | | | | | | | | | 0 | | 0 |
| Proportion Time Blocked | | | | | | | | | | | | | | | | |
| Percent Grade (%) | 0 | | | | | | | | | | | | | | | |
| Right Turn Channelized | No | | | | No | | | | No | | | | No | | | |
| Median Type/Storage | Left Only | | | | | | | | 1 | | | | | | | |

Critical and Follow-up Headways

| | | | | | | | | | | | | | | | | |
|------------------------------|--|------|--|--|--|--|--|--|--|--|--|--|--|------|--|------|
| Base Critical Headway (sec) | | 4.1 | | | | | | | | | | | | 7.5 | | 6.9 |
| Critical Headway (sec) | | 4.10 | | | | | | | | | | | | 6.80 | | 6.90 |
| Base Follow-Up Headway (sec) | | 2.2 | | | | | | | | | | | | 3.5 | | 3.3 |
| Follow-Up Headway (sec) | | 2.20 | | | | | | | | | | | | 3.50 | | 3.30 |

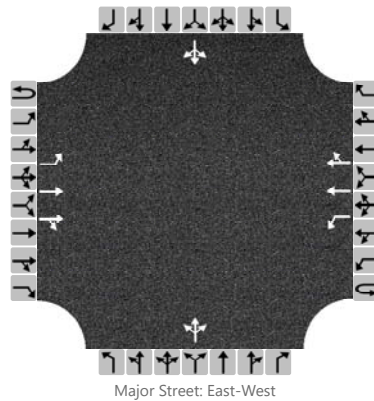
Delay, Queue Length, and Level of Service

| | | | | | | | | | | | | | | | | |
|---|-----|------|--|--|--|--|--|--|------|--|--|--|--|--|--|------|
| Flow Rate, v (veh/h) | | 2 | | | | | | | | | | | | | | 8 |
| Capacity, c (veh/h) | | 295 | | | | | | | | | | | | | | 190 |
| v/c Ratio | | 0.01 | | | | | | | | | | | | | | 0.04 |
| 95% Queue Length, Q ₉₅ (veh) | | 0.0 | | | | | | | | | | | | | | 0.1 |
| Control Delay (s/veh) | | 17.3 | | | | | | | | | | | | | | 24.7 |
| Level of Service, LOS | | C | | | | | | | | | | | | | | C |
| Approach Delay (s/veh) | 0.0 | | | | | | | | 24.7 | | | | | | | |
| Approach LOS | C | | | | | | | | C | | | | | | | |

HCS7 Two-Way Stop-Control Report

| General Information | | | | Site Information | | | |
|--------------------------|------------------------|----------------------------|---------------------------|------------------|--|--|--|
| Analyst | BSM | Intersection | Ogden with Gerber/Fairway | | | | |
| Agency/Co. | KLOA, Inc. | Jurisdiction | IDOT | | | | |
| Date Performed | 12/12/2017 | East/West Street | Ogden Avenue | | | | |
| Analysis Year | 2017 | North/South Street | Gerber/Fairway Access | | | | |
| Time Analyzed | AM Peak Hour | Peak Hour Factor | 0.95 | | | | |
| Intersection Orientation | East-West | Analysis Time Period (hrs) | 0.25 | | | | |
| Project Description | 17-273 - Downers Grove | | | | | | |

Lanes



Vehicle Volumes and Adjustments

| Approach | Eastbound | | | | Westbound | | | | Northbound | | | | Southbound | | | |
|----------------------------|-----------|---|------|----|-----------|---|------|----|------------|----|-----|----|------------|----|-----|---|
| | U | L | T | R | U | L | T | R | U | L | T | R | U | L | T | R |
| Movement | 1U | 1 | 2 | 3 | 4U | 4 | 5 | 6 | 7 | 8 | 9 | | 10 | 11 | 12 | |
| Priority | | | | | | | | | | | | | | | | |
| Number of Lanes | 0 | 1 | 2 | 0 | 0 | 1 | 2 | 0 | 0 | 1 | 0 | | 0 | 1 | 0 | |
| Configuration | | L | T | TR | | L | T | TR | | | LTR | | | | LTR | |
| Volume, V (veh/h) | | 4 | 1990 | 2 | | 0 | 1293 | 7 | | 10 | 0 | 32 | | 4 | 0 | 0 |
| Percent Heavy Vehicles (%) | | 0 | | | | 0 | | | | 0 | 0 | 0 | | 0 | 0 | 0 |
| Proportion Time Blocked | | | | | | | | | | | | | | | | |
| Percent Grade (%) | | | | | | | | | 0 | | | | 0 | | | |
| Right Turn Channelized | No | | | | No | | | | No | | | | No | | | |
| Median Type/Storage | | | | | Left Only | | | | | | | | 1 | | | |

Critical and Follow-up Headways

| | | | | | | | | | | | | | | | | |
|------------------------------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
| Base Critical Headway (sec) | | | | | | | | | | | | | | | | |
| Critical Headway (sec) | | | | | | | | | | | | | | | | |
| Base Follow-Up Headway (sec) | | | | | | | | | | | | | | | | |
| Follow-Up Headway (sec) | | | | | | | | | | | | | | | | |

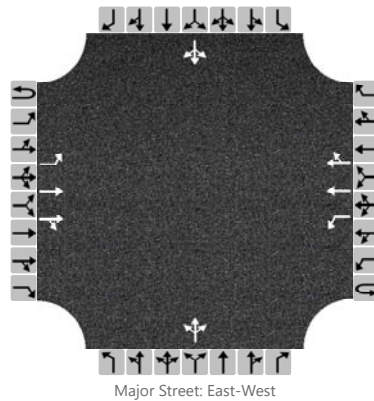
Delay, Queue Length, and Level of Service

| | | | | | | | | | | | | | | | | |
|---|-----|------|--|--|-----|------|--|--|------|--|------|--|------|--|------|--|
| Flow Rate, v (veh/h) | | 4 | | | | 0 | | | | | 45 | | | | 4 | |
| Capacity, c (veh/h) | | 509 | | | | 267 | | | | | 114 | | | | 88 | |
| v/c Ratio | | 0.01 | | | | 0.00 | | | | | 0.39 | | | | 0.05 | |
| 95% Queue Length, Q ₉₅ (veh) | | 0.0 | | | | 0.0 | | | | | 1.6 | | | | 0.1 | |
| Control Delay (s/veh) | | 12.1 | | | | 18.5 | | | | | 55.7 | | | | 47.7 | |
| Level of Service, LOS | | B | | | | C | | | | | F | | | | E | |
| Approach Delay (s/veh) | 0.0 | | | | 0.0 | | | | 55.7 | | | | 47.7 | | | |
| Approach LOS | | | | | | | | | F | | | | E | | | |

HCS7 Two-Way Stop-Control Report

| General Information | | | | Site Information | | | |
|--------------------------|------------------------|--|--|----------------------------|---------------------------|--|--|
| Analyst | BSM | | | Intersection | Ogden with Gerber/Fairway | | |
| Agency/Co. | KLOA, Inc. | | | Jurisdiction | IDOT | | |
| Date Performed | 12/12/2017 | | | East/West Street | Ogden Avenue | | |
| Analysis Year | 2017 | | | North/South Street | Gerber/Fairway Access | | |
| Time Analyzed | PM Peak Hour | | | Peak Hour Factor | 0.94 | | |
| Intersection Orientation | East-West | | | Analysis Time Period (hrs) | 0.25 | | |
| Project Description | 17-273 - Downers Grove | | | | | | |

Lanes



Vehicle Volumes and Adjustments

| Approach | Eastbound | | | | Westbound | | | | Northbound | | | | Southbound | | | |
|----------------------------|-----------|---|------|----|-----------|----|------|----|------------|---|-----|----|------------|----|-----|----|
| | U | L | T | R | U | L | T | R | U | L | T | R | U | L | T | R |
| Movement | 1U | 1 | 2 | 3 | 4U | 4 | 5 | 6 | | 7 | 8 | 9 | | 10 | 11 | 12 |
| Priority | | | | | | | | | | | | | | | | |
| Number of Lanes | 0 | 1 | 2 | 0 | 0 | 1 | 2 | 0 | | 0 | 1 | 0 | | 0 | 1 | 0 |
| Configuration | | L | T | TR | | L | T | TR | | | LTR | | | | LTR | |
| Volume, V (veh/h) | | 3 | 1675 | 14 | | 13 | 1853 | 2 | | 4 | 0 | 14 | | 2 | 0 | 9 |
| Percent Heavy Vehicles (%) | | 0 | | | | 0 | | | | 0 | 0 | 0 | | 0 | 0 | 0 |
| Proportion Time Blocked | | | | | | | | | | | | | | | | |
| Percent Grade (%) | | | | | | | | | 0 | | | | 0 | | | |
| Right Turn Channelized | No | | | | No | | | | No | | | | No | | | |
| Median Type/Storage | | | | | Left Only | | | | | | | | 1 | | | |

Critical and Follow-up Headways

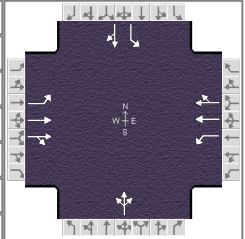
| | | | | | | | | | | | | | | | | |
|------------------------------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
| Base Critical Headway (sec) | | | | | | | | | | | | | | | | |
| Critical Headway (sec) | | | | | | | | | | | | | | | | |
| Base Follow-Up Headway (sec) | | | | | | | | | | | | | | | | |
| Follow-Up Headway (sec) | | | | | | | | | | | | | | | | |

Delay, Queue Length, and Level of Service

| | | | | | | | | | | | | | | | |
|---|--|------|--|--|------|--|--|--|--|------|--|--|------|------|--|
| Flow Rate, v (veh/h) | | 3 | | | 14 | | | | | 19 | | | | 12 | |
| Capacity, c (veh/h) | | 298 | | | 348 | | | | | 159 | | | | 145 | |
| v/c Ratio | | 0.01 | | | 0.04 | | | | | 0.12 | | | | 0.08 | |
| 95% Queue Length, Q ₉₅ (veh) | | 0.0 | | | 0.1 | | | | | 0.4 | | | | 0.3 | |
| Control Delay (s/veh) | | 17.2 | | | 15.8 | | | | | 30.7 | | | | 32.0 | |
| Level of Service, LOS | | C | | | C | | | | | D | | | | D | |
| Approach Delay (s/veh) | | 0.0 | | | 0.1 | | | | | 30.7 | | | 32.0 | | |
| Approach LOS | | | | | | | | | | D | | | D | | |

HCS7 Signalized Intersection Input Data

| General Information | | | | Intersection Information | | | |
|---------------------|--------------------------|---------------|---|--------------------------|----------|--|--|
| Agency | KLOA, Inc. | | | Duration, h | 0.25 | | |
| Analyst | BSM | Analysis Date | Dec 12, 2017 | Area Type | Other | | |
| Jurisdiction | IDOT | Time Period | AM Peak Hour | PHF | 0.96 | | |
| Urban Street | Ogden Avenue | Analysis Year | 2023 | Analysis Period | 1 > 7:00 | | |
| Intersection | Ogden Avenue with Cro... | File Name | Ogden Avenue with Cross Street - AMPR.xus | | | | |
| Project Description | AM Projected Peak Hour | | | | | | |



| Demand Information | EB | | | WB | | | NB | | | SB | | |
|--------------------|----|------|---|----|-----|-----|----|---|---|-----|---|----|
| | L | T | R | L | T | R | L | T | R | L | T | R |
| Approach Movement | | | | | | | | | | | | |
| Demand (v), veh/h | 97 | 1803 | 0 | 0 | 964 | 372 | 0 | 0 | 1 | 249 | 0 | 18 |

| Signal Information | | | | Signal Timing (s) | | | | | | | | | |
|--------------------|-------|-----------------|-------|-------------------|-----|------|------|-----|-----|-----|--|--|--|
| Cycle, s | 140.0 | Reference Phase | 2 | | | | | | | | | | |
| Offset, s | 0 | Reference Point | Begin | Green | 4.3 | 97.2 | 23.0 | 0.0 | 0.0 | 0.0 | | | |
| Uncoordinated | No | Simult. Gap E/W | On | Yellow | 3.5 | 4.5 | 4.5 | 0.0 | 0.0 | 0.0 | | | |
| Force Mode | Fixed | Simult. Gap N/S | On | Red | 0.0 | 1.5 | 1.5 | 0.0 | 0.0 | 0.0 | | | |

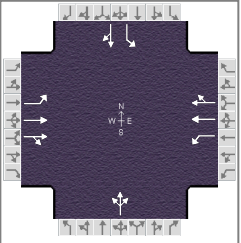
| Traffic Information | EB | | | WB | | | NB | | | SB | | |
|--|------|------|------|------|------|------|------|------|------|------|------|------|
| | L | T | R | L | T | R | L | T | R | L | T | R |
| Approach Movement | | | | | | | | | | | | |
| Demand (v), veh/h | 97 | 1803 | 0 | 0 | 964 | 372 | 0 | 0 | 1 | 249 | 0 | 18 |
| Initial Queue (Q _b), veh/h | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Base Saturation Flow Rate (s ₀), veh/h | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Parking (N _m), man/h | | None | | | None | | | None | | | None | |
| Heavy Vehicles (P _{HV}), % | 0 | 2 | | 0 | 3 | | | 0 | | 2 | 0 | |
| Ped / Bike / RTOR, /h | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Buses (N _b), buses/h | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Arrival Type (AT) | 3 | 4 | 3 | 3 | 4 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| Upstream Filtering (I) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Lane Width (W), ft | 12.0 | 12.0 | | 12.0 | 12.0 | | | 12.0 | | 12.0 | 12.0 | |
| Turn Bay Length, ft | 100 | 0 | | 0 | 0 | | | 0 | | 300 | 0 | |
| Grade (P _g), % | | 0 | | | 0 | | | 0 | | | 0 | |
| Speed Limit, mi/h | 40 | 40 | 40 | 35 | 35 | 35 | 15 | 15 | 15 | 30 | 30 | 30 |

| Phase Information | EBL | EBT | WBL | WBT | NBL | NBT | SBL | SBT |
|---|------|-------|-----|------|-----|------|-----|------|
| Maximum Green (G _{max}) or Phase Split, s | 14.0 | 111.0 | | 97.0 | | 29.0 | | 29.0 |
| Yellow Change Interval (Y), s | 3.5 | 4.5 | | 4.5 | | 4.5 | | 4.5 |
| Red Clearance Interval (R _c), s | 0.0 | 1.5 | | 1.5 | | 1.5 | | 1.5 |
| Minimum Green (G _{min}), s | 3 | 15 | 6 | 15 | 6 | 8 | 3 | 8 |
| Start-Up Lost Time (lt), s | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 |
| Extension of Effective Green (e), s | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 |
| Passage (PT), s | 3.0 | 7.0 | 2.0 | 7.0 | 2.0 | 4.0 | 2.0 | 4.0 |
| Recall Mode | Off | Min | Off | Min | Off | Off | Off | Off |
| Dual Entry | Yes | Yes | No | Yes | No | Yes | No | Yes |
| Walk (Walk), s | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Pedestrian Clearance Time (PC), s | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

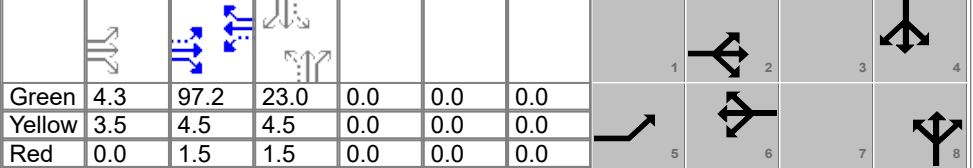
| Multimodal Information | EB | | | WB | | | NB | | | SB | | |
|---|-----|------|-----|-----|------|-----|-----|------|-----|-----|------|-----|
| 85th % Speed / Rest in Walk / Corner Radius | 0 | No | 25 | 0 | No | 25 | 0 | No | 25 | 0 | No | 25 |
| Walkway / Crosswalk Width / Length, ft | 9.0 | 12 | 0 | 9.0 | 12 | 0 | 9.0 | 12 | 0 | 9.0 | 12 | 0 |
| Street Width / Island / Curb | 0 | 0 | No | 0 | 0 | No | 0 | 0 | No | 0 | 0 | No |
| Width Outside / Bike Lane / Shoulder, ft | 12 | 5.0 | 2.0 | 12 | 5.0 | 2.0 | 12 | 5.0 | 2.0 | 12 | 5.0 | 2.0 |
| Pedestrian Signal / Occupied Parking | No | 0.50 | | No | 0.50 | | No | 0.50 | | No | 0.50 | |

HCS7 Signalized Intersection Results Summary

| General Information | | | | Intersection Information | | | |
|---------------------|--------------------------|---------------|---|--------------------------|----------|--|--|
| Agency | KLOA, Inc. | | | Duration, h | 0.25 | | |
| Analyst | BSM | Analysis Date | Dec 12, 2017 | Area Type | Other | | |
| Jurisdiction | IDOT | Time Period | AM Peak Hour | PHF | 0.96 | | |
| Urban Street | Ogden Avenue | Analysis Year | 2023 | Analysis Period | 1 > 7:00 | | |
| Intersection | Ogden Avenue with Cro... | File Name | Ogden Avenue with Cross Street - AMPR.xus | | | | |
| Project Description | AM Projected Peak Hour | | | | | | |



| Demand Information | EB | | | WB | | | NB | | | SB | | |
|---------------------|----|------|---|----|-----|-----|----|---|---|-----|---|----|
| Approach Movement | L | T | R | L | T | R | L | T | R | L | T | R |
| Demand (v), veh/h | 97 | 1803 | 0 | 0 | 964 | 372 | 0 | 0 | 1 | 249 | 0 | 18 |

| Signal Information | | | | Signal Phases | | | | | | | | | |
|--------------------|-------|-----------------|-------|--|-----|------|------|-----|-----|-----|-----|-----|-----|
| Cycle, s | 140.0 | Reference Phase | 2 |  | | | | | | | | | |
| Offset, s | 0 | Reference Point | Begin | Green | 4.3 | 97.2 | 23.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Uncoordinated | No | Simult. Gap E/W | On | Yellow | 3.5 | 4.5 | 4.5 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Force Mode | Fixed | Simult. Gap N/S | On | Red | 0.0 | 1.5 | 1.5 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

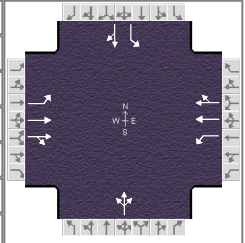
| Timer Results | EBL | EBT | WBL | WBT | NBL | NBT | SBL | SBT |
|--|------|-------|-----|-------|-----|------|-----|------|
| Assigned Phase | 5 | 2 | | 6 | | 8 | | 4 |
| Case Number | 1.0 | 4.0 | | 6.3 | | 8.0 | | 6.0 |
| Phase Duration, s | 7.8 | 111.0 | | 103.2 | | 29.0 | | 29.0 |
| Change Period, (Y+R _c), s | 3.5 | 6.0 | | 6.0 | | 6.0 | | 6.0 |
| Max Allow Headway (MAH), s | 4.0 | 0.0 | | 0.0 | | 5.1 | | 5.1 |
| Queue Clearance Time (g _s), s | 4.2 | | | | | 2.1 | | 25.0 |
| Green Extension Time (g _e), s | 0.1 | 0.0 | | 0.0 | | 1.4 | | 0.0 |
| Phase Call Probability | 1.00 | | | | | 1.00 | | 1.00 |
| Max Out Probability | 0.10 | | | | | 0.00 | | 1.00 |

| Movement Group Results | EB | | | WB | | | NB | | | SB | | |
|--|-------|-------|-------|-------|-------|-------|------|-------|----|-------|-------|----|
| Approach Movement | L | T | R | L | T | R | L | T | R | L | T | R |
| Assigned Movement | 5 | 2 | 12 | 1 | 6 | 16 | 3 | 8 | 18 | 7 | 4 | 14 |
| Adjusted Flow Rate (v), veh/h | 101 | 1878 | 0 | 0 | 724 | 667 | | 0 | | 259 | 19 | |
| Adjusted Saturation Flow Rate (s), veh/h/ln | 1810 | 1870 | 0 | 246 | 1856 | 1680 | | 0 | | 1416 | 1610 | |
| Queue Service Time (g _s), s | 2.2 | 0.0 | 0.0 | 0.0 | 8.4 | 21.2 | | 0.0 | | 22.9 | 1.4 | |
| Cycle Queue Clearance Time (g _c), s | 2.2 | 0.0 | 0.0 | 0.0 | 8.4 | 21.2 | | 0.0 | | 23.0 | 1.4 | |
| Green Ratio (g/C) | 0.74 | 0.75 | | 0.69 | 0.69 | 0.69 | | | | 0.16 | 0.16 | |
| Capacity (c), veh/h | 321 | 2806 | | 51 | 1289 | 1167 | | | | 283 | 265 | |
| Volume-to-Capacity Ratio (X) | 0.315 | 0.669 | 0.000 | 0.000 | 0.562 | 0.572 | | 0.000 | | 0.915 | 0.071 | |
| Back of Queue (Q), ft/ln (95 th percentile) | 34.8 | 22.9 | 0 | 0 | 107.7 | 257.8 | | 0 | | 446.3 | 25.8 | |
| Back of Queue (Q), veh/ln (95 th percentile) | 1.4 | 0.9 | 0.0 | 0.0 | 4.2 | 10.3 | | 0.0 | | 17.6 | 1.0 | |
| Queue Storage Ratio (RQ) (95 th percentile) | 0.35 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | | 0.00 | | 1.49 | 0.00 | |
| Uniform Delay (d ₁), s/veh | 7.6 | 0.0 | | 0.0 | 1.9 | 6.7 | | | | 59.8 | 49.5 | |
| Incremental Delay (d ₂), s/veh | 0.6 | 1.3 | 0.0 | 0.0 | 1.8 | 2.0 | | 0.0 | | 32.7 | 0.2 | |
| Initial Queue Delay (d ₃), s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | 0.0 | | 0.0 | 0.0 | |
| Control Delay (d), s/veh | 8.2 | 1.3 | | 0.0 | 3.7 | 8.7 | | | | 92.4 | 49.6 | |
| Level of Service (LOS) | A | A | | | A | A | | | | F | D | |
| Approach Delay, s/veh / LOS | 1.6 | | A | 6.1 | | A | 48.9 | | D | 89.5 | | F |
| Intersection Delay, s/veh / LOS | 10.0 | | | | | | B | | | | | |

| Multimodal Results | EB | | WB | | NB | | SB | |
|----------------------------|-----|---|-----|---|-----|---|-----|---|
| Pedestrian LOS Score / LOS | 2.0 | B | 2.2 | B | 2.9 | C | 2.9 | C |
| Bicycle LOS Score / LOS | 2.1 | B | 1.6 | B | 0.5 | A | 0.9 | A |

HCS7 Signalized Intersection Intermediate Values

| General Information | | | | Intersection Information | |
|---------------------|--------------------------|---------------|---|--------------------------|----------|
| Agency | KLOA, Inc. | | | Duration, h | 0.25 |
| Analyst | BSM | Analysis Date | Dec 12, 2017 | Area Type | Other |
| Jurisdiction | IDOT | Time Period | AM Peak Hour | PHF | 0.96 |
| Urban Street | Ogden Avenue | Analysis Year | 2023 | Analysis Period | 1 > 7:00 |
| Intersection | Ogden Avenue with Cro... | File Name | Ogden Avenue with Cross Street - AMPR.xus | | |
| Project Description | AM Projected Peak Hour | | | | |



| Demand Information | EB | | | WB | | | NB | | | SB | | |
|---------------------|----|------|---|----|-----|-----|----|---|---|-----|---|----|
| Approach Movement | L | T | R | L | T | R | L | T | R | L | T | R |
| Demand (v), veh/h | 97 | 1803 | 0 | 0 | 964 | 372 | 0 | 0 | 1 | 249 | 0 | 18 |

| Signal Information | | | | Signal Timing (s) | | | | | | | | | | |
|--------------------|-------|-----------------|-------|-------------------|-----|------|------|-----|-----|-----|-----|-----|-----|-----|
| Cycle, s | 140.0 | Reference Phase | 2 | Green | 4.3 | 97.2 | 23.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Offset, s | 0 | Reference Point | Begin | Yellow | 3.5 | 4.5 | 4.5 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Uncoordinated | No | Simult. Gap E/W | On | Red | 0.0 | 1.5 | 1.5 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Force Mode | Fixed | Simult. Gap N/S | On | | | | | | | | | | | |

| Saturation Flow / Delay | L | T | R | L | T | R | L | T | R | L | T | R |
|--|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Lane Width Adjustment Factor (f _w) | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 |
| Heavy Vehicles and Grade Factor (f _{HVg}) | 1.000 | 0.984 | 1.000 | 1.000 | 0.977 | 1.000 | 1.000 | 1.000 | 1.000 | 0.984 | 1.000 | 0.914 |
| Parking Activity Adjustment Factor (f _p) | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 |
| Bus Blockage Adjustment Factor (f _{bb}) | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 |
| Area Type Adjustment Factor (f _a) | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 |
| Lane Utilization Adjustment Factor (f _{LU}) | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 |
| Left-Turn Adjustment Factor (f _{LT}) | 0.952 | 0.000 | | 0.130 | 0.000 | | 1.000 | 0.847 | | 0.745 | 0.000 | |
| Right-Turn Adjustment Factor (f _{RT}) | | 1.000 | 1.000 | | 0.905 | 0.905 | | 0.000 | 0.847 | | 0.847 | 0.847 |
| Left-Turn Pedestrian Adjustment Factor (f _{LPB}) | 1.000 | | | 1.000 | | | 1.000 | | | 1.000 | | |
| Right-Turn Ped-Bike Adjustment Factor (f _{RPB}) | | | 1.000 | | | 1.000 | | | 1.000 | | | 1.000 |
| Work Zone Adjustment Factor (f _{wz}) | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 |
| Movement Saturation Flow Rate (s), veh/h | 1810 | 3741 | 0 | 246 | 2560 | 975 | 0 | 0 | 1610 | 1416 | 0 | 1610 |
| Proportion of Vehicles Arriving on Green (P) | 0.03 | 1.00 | 0.00 | 0.00 | 0.93 | 0.69 | 0.00 | 0.00 | 0.16 | 0.16 | 0.00 | 0.16 |
| Incremental Delay Factor (k) | 0.11 | 0.50 | | | 0.50 | 0.50 | | | | 0.44 | 0.15 | |

| Signal Timing / Movement Groups | EBL | EBT/R | WBL | WBT/R | NBL | NBT/R | SBL | SBT/R |
|---|------|-------|-----|-------|-----|-------|-----|-------|
| Lost Time (t _L) | 3.5 | 6.0 | | 6.0 | | 6.0 | | 6.0 |
| Green Ratio (g/C) | 0.74 | 0.75 | | 0.69 | | 0.16 | | 0.16 |
| Permitted Saturation Flow Rate (s _p), veh/h/ln | 394 | 0 | | 246 | | 1416 | | 1416 |
| Shared Saturation Flow Rate (s _{sh}), veh/h/ln | | | | | | 0 | | |
| Permitted Effective Green Time (g _p), s | 99.2 | 0.0 | | 0.0 | | 0.0 | | 23.0 |
| Permitted Service Time (g _u), s | 76.0 | 0.0 | | 0.0 | | 0.0 | | 22.9 |
| Permitted Queue Service Time (g _{ps}), s | 8.0 | | | 0.0 | | | | 22.9 |
| Time to First Blockage (g _i), s | 0.0 | 0.0 | | 0.0 | | 23.0 | | 0.0 |
| Queue Service Time Before Blockage (g _{fs}), s | | | | | | | | |
| Protected Right Saturation Flow (s _R), veh/h/ln | | | | | | | | |
| Protected Right Effective Green Time (g _R), s | | | | | | | | |

| Multimodal | EB | | | WB | | | NB | | | SB | | |
|--|---------|-------|--|---------|-------|--|--------|-------|--|--------|-------|--|
| Pedestrian F _w / F _v | 1.389 | 0.00 | | 1.557 | 0.00 | | 2.107 | 0.00 | | 2.107 | 0.00 | |
| Pedestrian F _s / F _{delay} | 0.000 | 0.059 | | 0.000 | 0.075 | | 0.000 | 0.156 | | 0.000 | 0.156 | |
| Pedestrian M _{corner} / M _{cw} | | | | | | | | | | | | |
| Bicycle c _b / d _b | 1500.00 | 4.38 | | 1388.94 | 6.53 | | 328.57 | 48.89 | | 328.57 | 48.89 | |
| Bicycle F _w / F _v | -3.64 | 1.63 | | -3.64 | 1.15 | | -3.64 | 0.00 | | -3.64 | 0.46 | |

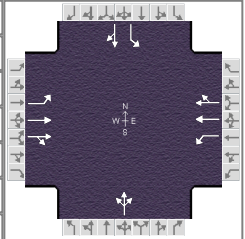
--- Messages ---

WARNING: Since queue spillover from turn lanes and spillback into upstream intersections is not accounted for in the HCM procedures, use of a simulation tool may be advised in situations where the Queue Storage Ratio exceeds 1.0.

--- Comments ---

HCS7 Signalized Intersection Input Data

| General Information | | | | Intersection Information | | | |
|---------------------|--------------------------|---------------|---|--------------------------|----------|--|--|
| Agency | KLOA, Inc. | | | Duration, h | 0.25 | | |
| Analyst | BSM | Analysis Date | Dec 12, 2017 | Area Type | Other | | |
| Jurisdiction | IDOT | Time Period | PM Peak Hour | PHF | 0.95 | | |
| Urban Street | Ogden Avenue | Analysis Year | 2023 | Analysis Period | 1 > 7:00 | | |
| Intersection | Ogden Avenue with Cro... | File Name | Ogden Avenue with Cross Street - PMPR.xus | | | | |
| Project Description | PM Projected Peak Hour | | | | | | |



| Demand Information | EB | | | WB | | | NB | | | SB | | |
|--------------------|----|------|---|----|------|-----|----|---|---|-----|---|-----|
| | L | T | R | L | T | R | L | T | R | L | T | R |
| Approach Movement | | | | | | | | | | | | |
| Demand (v), veh/h | 45 | 1245 | 1 | 1 | 1677 | 249 | 2 | 0 | 2 | 494 | 0 | 116 |

| Signal Information | | | | Signal Timing (s) | | | | | | | | Signal Phases | | | |
|--------------------|-------|-----------------|-------|-------------------|-----|------|------|-----|-----|-----|--|---------------|--|--|--|
| Cycle, s | 140.0 | Reference Phase | 2 | | | | | | | | | | | | |
| Offset, s | 0 | Reference Point | Begin | Green | 3.3 | 89.2 | 32.0 | 0.0 | 0.0 | 0.0 | | | | | |
| Uncoordinated | No | Simult. Gap E/W | On | Yellow | 3.5 | 4.5 | 4.5 | 0.0 | 0.0 | 0.0 | | | | | |
| Force Mode | Fixed | Simult. Gap N/S | On | Red | 0.0 | 1.5 | 1.5 | 0.0 | 0.0 | 0.0 | | | | | |

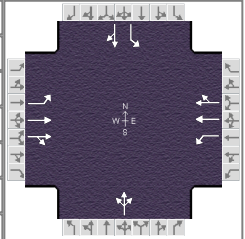
| Traffic Information | EB | | | WB | | | NB | | | SB | | |
|--|------|------|------|------|------|------|------|------|------|------|------|------|
| | L | T | R | L | T | R | L | T | R | L | T | R |
| Approach Movement | | | | | | | | | | | | |
| Demand (v), veh/h | 45 | 1245 | 1 | 1 | 1677 | 249 | 2 | 0 | 2 | 494 | 0 | 116 |
| Initial Queue (Q _b), veh/h | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Base Saturation Flow Rate (s ₀), veh/h | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Parking (N _m), man/h | | None | | | None | | | None | | | None | |
| Heavy Vehicles (P _{HV}), % | 2 | 1 | | 0 | 1 | | | 0 | | 1 | 0 | |
| Ped / Bike / RTOR, /h | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Buses (N _b), buses/h | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Arrival Type (AT) | 3 | 4 | 3 | 3 | 4 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| Upstream Filtering (I) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Lane Width (W), ft | 12.0 | 12.0 | | 12.0 | 12.0 | | | 12.0 | | 12.0 | 12.0 | |
| Turn Bay Length, ft | 100 | 0 | | 0 | 0 | | | 0 | | 300 | 0 | |
| Grade (P _g), % | | 0 | | | 0 | | | 0 | | | 0 | |
| Speed Limit, mi/h | 40 | 40 | 40 | 35 | 35 | 35 | 15 | 15 | 15 | 30 | 30 | 30 |

| Phase Information | EBL | EBT | WBL | WBT | NBL | NBT | SBL | SBT |
|---|------|-------|-----|------|-----|------|-----|------|
| Maximum Green (G _{max}) or Phase Split, s | 11.0 | 102.0 | | 91.0 | | 38.0 | | 38.0 |
| Yellow Change Interval (Y), s | 3.5 | 4.5 | | 4.5 | | 4.5 | | 4.5 |
| Red Clearance Interval (R _c), s | 0.0 | 1.5 | | 1.5 | | 1.5 | | 1.5 |
| Minimum Green (G _{min}), s | 3 | 15 | 6 | 15 | 6 | 8 | 3 | 8 |
| Start-Up Lost Time (lt), s | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 |
| Extension of Effective Green (e), s | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 |
| Passage (PT), s | 3.0 | 7.0 | 2.0 | 7.0 | 2.0 | 4.0 | 2.0 | 4.0 |
| Recall Mode | Off | Min | Off | Min | Off | Off | Off | Off |
| Dual Entry | Yes | Yes | No | Yes | No | Yes | No | Yes |
| Walk (Walk), s | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Pedestrian Clearance Time (PC), s | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

| Multimodal Information | EB | | | WB | | | NB | | | SB | | |
|---|-----|------|-----|-----|------|-----|-----|------|-----|-----|------|-----|
| 85th % Speed / Rest in Walk / Corner Radius | 0 | No | 25 | 0 | No | 25 | 0 | No | 25 | 0 | No | 25 |
| Walkway / Crosswalk Width / Length, ft | 9.0 | 12 | 0 | 9.0 | 12 | 0 | 9.0 | 12 | 0 | 9.0 | 12 | 0 |
| Street Width / Island / Curb | 0 | 0 | No | 0 | 0 | No | 0 | 0 | No | 0 | 0 | No |
| Width Outside / Bike Lane / Shoulder, ft | 12 | 5.0 | 2.0 | 12 | 5.0 | 2.0 | 12 | 5.0 | 2.0 | 12 | 5.0 | 2.0 |
| Pedestrian Signal / Occupied Parking | No | 0.50 | | No | 0.50 | | No | 0.50 | | No | 0.50 | |

HCS7 Signalized Intersection Results Summary

| General Information | | | | Intersection Information | | | |
|---------------------|--------------------------|---------------|---|--------------------------|---------|--|--|
| Agency | KLOA, Inc. | | | Duration, h | 0.25 | | |
| Analyst | BSM | Analysis Date | Dec 12, 2017 | Area Type | Other | | |
| Jurisdiction | IDOT | Time Period | PM Peak Hour | PHF | 0.95 | | |
| Urban Street | Ogden Avenue | Analysis Year | 2023 | Analysis Period | 1> 7:00 | | |
| Intersection | Ogden Avenue with Cro... | File Name | Ogden Avenue with Cross Street - PMPR.xus | | | | |
| Project Description | PM Projected Peak Hour | | | | | | |



| Demand Information | EB | | | WB | | | NB | | | SB | | |
|---------------------|----|------|---|----|------|-----|----|---|---|-----|---|-----|
| | L | T | R | L | T | R | L | T | R | L | T | R |
| Approach Movement | | | | | | | | | | | | |
| Demand (v), veh/h | 45 | 1245 | 1 | 1 | 1677 | 249 | 2 | 0 | 2 | 494 | 0 | 116 |

| Signal Information | | | | Signal Timing and Phases | | | | | | | | | | | |
|--------------------|-------|-----------------|-------|--------------------------|------|------|-----|-----|-----|--|--|--|--|--|--|
| Cycle, s | 140.0 | Reference Phase | 2 | | | | | | | | | | | | |
| Offset, s | 0 | Reference Point | Begin | | | | | | | | | | | | |
| Uncoordinated | No | Simult. Gap E/W | On | | | | | | | | | | | | |
| Force Mode | Fixed | Simult. Gap N/S | On | | | | | | | | | | | | |
| | | Green | | 3.3 | 89.2 | 32.0 | 0.0 | 0.0 | 0.0 | | | | | | |
| | | Yellow | | 3.5 | 4.5 | 4.5 | 0.0 | 0.0 | 0.0 | | | | | | |
| | | Red | | 0.0 | 1.5 | 1.5 | 0.0 | 0.0 | 0.0 | | | | | | |

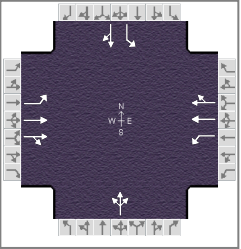
| Timer Results | EBL | EBT | WBL | WBT | NBL | NBT | SBL | SBT |
|--|------|-------|-----|------|-----|------|-----|------|
| Assigned Phase | 5 | 2 | | 6 | | 8 | | 4 |
| Case Number | 1.0 | 4.0 | | 6.3 | | 8.0 | | 6.0 |
| Phase Duration, s | 6.8 | 102.0 | | 95.2 | | 38.0 | | 38.0 |
| Change Period, (Y+R _c), s | 3.5 | 6.0 | | 6.0 | | 6.0 | | 6.0 |
| Max Allow Headway (MAH), s | 4.0 | 0.0 | | 0.0 | | 5.1 | | 5.1 |
| Queue Clearance Time (g _s), s | 3.2 | | | | | 10.9 | | 34.0 |
| Green Extension Time (g _e), s | 0.0 | 0.0 | | 0.0 | | 3.9 | | 0.0 |
| Phase Call Probability | 1.00 | | | | | 1.00 | | 1.00 |
| Max Out Probability | 0.72 | | | | | 0.04 | | 1.00 |

| Movement Group Results | EB | | | WB | | | NB | | | SB | | |
|--|-------|-------|-------|-------|-------|-------|------|-------|----|--------|-------|----|
| | L | T | R | L | T | R | L | T | R | L | T | R |
| Approach Movement | | | | | | | | | | | | |
| Assigned Movement | 5 | 2 | 12 | 1 | 6 | 16 | 3 | 8 | 18 | 7 | 4 | 14 |
| Adjusted Flow Rate (v), veh/h | 47 | 656 | 656 | 1 | 1014 | 1014 | | 4 | | 520 | 122 | |
| Adjusted Saturation Flow Rate (s), veh/h/ln | 1781 | 1885 | 1885 | 426 | 1885 | 1801 | | 1144 | | 1426 | 1610 | |
| Queue Service Time (g _s), s | 1.2 | 7.8 | 7.8 | 0.1 | 39.9 | 54.2 | | 0.0 | | 23.1 | 8.9 | |
| Cycle Queue Clearance Time (g _c), s | 1.2 | 7.8 | 7.8 | 1.2 | 39.9 | 54.2 | | 8.9 | | 32.0 | 8.9 | |
| Green Ratio (g/C) | 0.67 | 0.69 | 0.69 | 0.64 | 0.64 | 0.64 | | 0.23 | | 0.23 | 0.23 | |
| Capacity (c), veh/h | 145 | 1293 | 1292 | 320 | 1202 | 1148 | | 300 | | 287 | 368 | |
| Volume-to-Capacity Ratio (X) | 0.326 | 0.507 | 0.507 | 0.003 | 0.844 | 0.883 | | 0.014 | | 1.811 | 0.332 | |
| Back of Queue (Q), ft/ln (95 th percentile) | 36.7 | 102.8 | 102.3 | 0.6 | 334 | 596.8 | | 5.4 | | 1624.6 | 164.6 | |
| Back of Queue (Q), veh/ln (95 th percentile) | 1.4 | 4.1 | 4.1 | 0.0 | 13.3 | 23.9 | | 0.2 | | 64.5 | 6.6 | |
| Queue Storage Ratio (RQ) (95 th percentile) | 0.37 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | | 0.00 | | 5.42 | 0.00 | |
| Uniform Delay (d ₁), s/veh | 22.2 | 2.2 | 2.2 | 9.6 | 6.8 | 10.8 | | 41.9 | | 60.5 | 45.1 | |
| Incremental Delay (d ₂), s/veh | 1.3 | 1.4 | 1.4 | 0.0 | 7.3 | 9.9 | | 0.0 | | 378.6 | 0.7 | |
| Initial Queue Delay (d ₃), s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | 0.0 | | 0.0 | 0.0 | |
| Control Delay (d), s/veh | 23.5 | 3.6 | 3.7 | 9.6 | 14.1 | 20.7 | | 42.0 | | 439.1 | 45.8 | |
| Level of Service (LOS) | C | A | A | A | B | C | | D | | F | D | |
| Approach Delay, s/veh / LOS | 4.3 | | A | 17.4 | | B | 42.0 | | D | 364.3 | | F |
| Intersection Delay, s/veh / LOS | 68.3 | | | | | | E | | | | | |

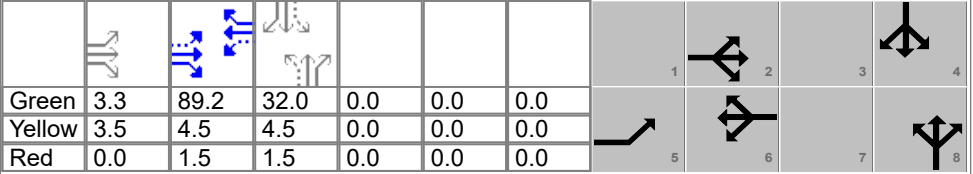
| Multimodal Results | EB | | WB | | NB | | SB | |
|----------------------------|-----|---|-----|---|-----|---|-----|---|
| Pedestrian LOS Score / LOS | 2.1 | B | 2.2 | B | 2.9 | C | 2.9 | C |
| Bicycle LOS Score / LOS | 1.6 | B | 2.2 | B | 0.5 | A | 1.5 | B |

HCS7 Signalized Intersection Intermediate Values

| General Information | | | | Intersection Information | | | |
|---------------------|--------------------------|---------------|---|--------------------------|----------|--|--|
| Agency | KLOA, Inc. | | | Duration, h | 0.25 | | |
| Analyst | BSM | Analysis Date | Dec 12, 2017 | Area Type | Other | | |
| Jurisdiction | IDOT | Time Period | PM Peak Hour | PHF | 0.95 | | |
| Urban Street | Ogden Avenue | Analysis Year | 2023 | Analysis Period | 1 > 7:00 | | |
| Intersection | Ogden Avenue with Cro... | File Name | Ogden Avenue with Cross Street - PMPR.xus | | | | |
| Project Description | PM Projected Peak Hour | | | | | | |



| Demand Information | EB | | | WB | | | NB | | | SB | | |
|---------------------|----|------|---|----|------|-----|----|---|---|-----|---|-----|
| Approach Movement | L | T | R | L | T | R | L | T | R | L | T | R |
| Demand (v), veh/h | 45 | 1245 | 1 | 1 | 1677 | 249 | 2 | 0 | 2 | 494 | 0 | 116 |

| Signal Information | | | | Signal Phases | | | | | | | | | |
|--------------------|-------|-----------------|-------|--|-----|------|------|-----|-----|-----|-----|-----|-----|
| Cycle, s | 140.0 | Reference Phase | 2 |  | | | | | | | | | |
| Offset, s | 0 | Reference Point | Begin | Green | 3.3 | 89.2 | 32.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Uncoordinated | No | Simult. Gap E/W | On | Yellow | 3.5 | 4.5 | 4.5 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Force Mode | Fixed | Simult. Gap N/S | On | Red | 0.0 | 1.5 | 1.5 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

| Saturation Flow / Delay | L | T | R | L | T | R | L | T | R | L | T | R |
|--|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Lane Width Adjustment Factor (f_w) | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 |
| Heavy Vehicles and Grade Factor (f_{HVg}) | 0.984 | 0.992 | 1.000 | 1.000 | 0.992 | 1.000 | 1.000 | 1.000 | 1.000 | 0.992 | 1.000 | 1.000 |
| Parking Activity Adjustment Factor (f_p) | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 |
| Bus Blockage Adjustment Factor (f_{bb}) | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 |
| Area Type Adjustment Factor (f_a) | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 |
| Lane Utilization Adjustment Factor (f_{LU}) | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 |
| Left-Turn Adjustment Factor (f_{LT}) | 0.952 | 0.000 | | 0.224 | 0.000 | | 0.647 | 0.602 | | 0.751 | 0.000 | |
| Right-Turn Adjustment Factor (f_{RT}) | | 1.000 | 1.000 | | 0.956 | 0.956 | | 0.000 | 0.602 | | 0.847 | 0.847 |
| Left-Turn Pedestrian Adjustment Factor (f_{LPB}) | 1.000 | | | 1.000 | | | 1.000 | | | 1.000 | | |
| Right-Turn Ped-Bike Adjustment Factor (f_{RPB}) | | | 1.000 | | | 1.000 | | | 1.000 | | | 1.000 |
| Work Zone Adjustment Factor (f_{wz}) | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 |
| Movement Saturation Flow Rate (s), veh/h | 1781 | 3767 | 3 | 426 | 3221 | 466 | 572 | 0 | 572 | 1426 | 0 | 1610 |
| Proportion of Vehicles Arriving on Green (P) | 0.02 | 0.91 | 0.69 | 0.64 | 0.85 | 0.64 | 0.23 | 0.00 | 0.23 | 0.23 | 0.00 | 0.23 |
| Incremental Delay Factor (k) | 0.11 | 0.50 | 0.50 | 0.50 | 0.50 | 0.50 | | 0.15 | | 0.50 | 0.15 | |

| Signal Timing / Movement Groups | EBL | EBT/R | WBL | WBT/R | NBL | NBT/R | SBL | SBT/R |
|---|------|-------|-----|-------|-----|-------|-----|-------|
| Lost Time (t_L) | 3.5 | 6.0 | | 6.0 | | 6.0 | | 6.0 |
| Green Ratio (g/C) | 0.67 | 0.69 | | 0.64 | | 0.23 | | 0.23 |
| Permitted Saturation Flow Rate (s_p), veh/h/ln | 210 | 0 | | 426 | | 1289 | | 1426 |
| Shared Saturation Flow Rate (s_{sh}), veh/h/ln | | | | | | 0 | | |
| Permitted Effective Green Time (g_p), s | 91.2 | 0.0 | | 89.2 | | 32.0 | | 32.0 |
| Permitted Service Time (g_u), s | 35.0 | 0.0 | | 88.2 | | 23.1 | | 23.1 |
| Permitted Queue Service Time (g_{ps}), s | 16.4 | | | 0.1 | | 0.0 | | 23.1 |
| Time to First Blockage (g_i), s | 0.0 | 0.0 | | 0.0 | | 2.0 | | 0.0 |
| Queue Service Time Before Blockage (g_{fs}), s | | | | | | 0.1 | | |
| Protected Right Saturation Flow (s_R), veh/h/ln | | | | | | | | |
| Protected Right Effective Green Time (g_R), s | | | | | | | | |

| Multimodal | EB | | | WB | | | NB | | | SB | | |
|----------------------------------|---------|-------|--|---------|-------|--|--------|-------|--|--------|-------|--|
| Pedestrian F_w / F_v | 1.389 | 0.00 | | 1.557 | 0.00 | | 2.107 | 0.00 | | 2.107 | 0.00 | |
| Pedestrian F_s / F_{delay} | 0.000 | 0.078 | | 0.000 | 0.089 | | 0.000 | 0.150 | | 0.000 | 0.150 | |
| Pedestrian M_{corner} / M_{cw} | | | | | | | | | | | | |
| Bicycle c_b / d_b | 1371.43 | 6.91 | | 1274.74 | 9.20 | | 457.15 | 41.66 | | 457.15 | 41.66 | |
| Bicycle F_w / F_v | -3.64 | 1.12 | | -3.64 | 1.67 | | -3.64 | 0.01 | | -3.64 | 1.06 | |

--- Messages ---

WARNING: If demand exceeds capacity, a multiple-period analysis should be conducted.

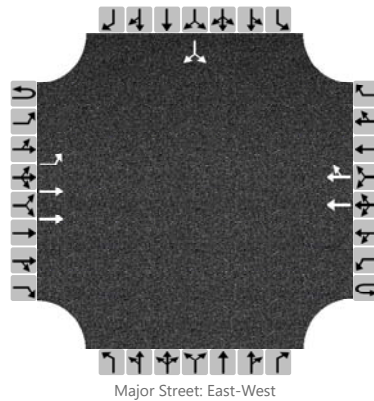
WARNING: Since queue spillover from turn lanes and spillback into upstream intersections is not accounted for in the HCM procedures, use of a simulation tool may be advised in situations where the Queue Storage Ratio exceeds 1.0.

--- Comments ---

HCS7 Two-Way Stop-Control Report

| General Information | | | | Site Information | | | |
|--------------------------|------------------------|----------------------------|-----------------------|------------------|--|--|--|
| Analyst | BSM | Intersection | Ogden with Max Madsen | | | | |
| Agency/Co. | KLOA, Inc. | Jurisdiction | IDOT | | | | |
| Date Performed | 12/12/2017 | East/West Street | Ogden Avenue | | | | |
| Analysis Year | 2023 | North/South Street | Max Madsen Access | | | | |
| Time Analyzed | AM Peak Hour | Peak Hour Factor | 0.94 | | | | |
| Intersection Orientation | East-West | Analysis Time Period (hrs) | 0.25 | | | | |
| Project Description | 17-273 - Downers Grove | | | | | | |

Lanes



Vehicle Volumes and Adjustments

| Approach | Eastbound | | | | Westbound | | | | Northbound | | | | Southbound | | | |
|----------------------------|-----------|---|------|---|-----------|---|------|----|------------|---|---|---|------------|----|----|----|
| | U | L | T | R | U | L | T | R | U | L | T | R | U | L | T | R |
| Movement | 1U | 1 | 2 | 3 | 4U | 4 | 5 | 6 | | 7 | 8 | 9 | | 10 | 11 | 12 |
| Priority | | | | | | | | | | | | | | | | |
| Number of Lanes | 0 | 1 | 2 | 0 | 0 | 0 | 2 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 |
| Configuration | | L | T | | | | T | TR | | | | | | | LR | |
| Volume, V (veh/h) | | 0 | 2052 | | | | 1335 | 3 | | | | | | 0 | | 1 |
| Percent Heavy Vehicles (%) | | 0 | | | | | | | | | | | | 0 | | 0 |
| Proportion Time Blocked | | | | | | | | | | | | | | | | |
| Percent Grade (%) | | | | | | | | | | | | | 0 | | | |
| Right Turn Channelized | No | | | | No | | | | No | | | | No | | | |
| Median Type/Storage | | | | | Left Only | | | | | | | | 1 | | | |

Critical and Follow-up Headways

| | | | | | | | | | | | | | | | | |
|------------------------------|--|------|--|--|--|--|--|--|--|--|--|--|--|------|--|------|
| Base Critical Headway (sec) | | 4.1 | | | | | | | | | | | | 7.5 | | 6.9 |
| Critical Headway (sec) | | 4.10 | | | | | | | | | | | | 6.80 | | 6.90 |
| Base Follow-Up Headway (sec) | | 2.2 | | | | | | | | | | | | 3.5 | | 3.3 |
| Follow-Up Headway (sec) | | 2.20 | | | | | | | | | | | | 3.50 | | 3.30 |

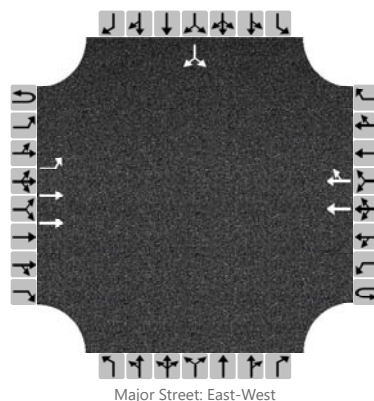
Delay, Queue Length, and Level of Service

| | | | | | | | | | | | | | | | | |
|---|-----|------|--|--|--|--|--|--|--|--|--|--|------|--|--|------|
| Flow Rate, v (veh/h) | | 0 | | | | | | | | | | | | | | 1 |
| Capacity, c (veh/h) | | 485 | | | | | | | | | | | | | | 380 |
| v/c Ratio | | 0.00 | | | | | | | | | | | | | | 0.00 |
| 95% Queue Length, Q ₉₅ (veh) | | 0.0 | | | | | | | | | | | | | | 0.0 |
| Control Delay (s/veh) | | 12.4 | | | | | | | | | | | | | | 14.5 |
| Level of Service, LOS | | B | | | | | | | | | | | | | | B |
| Approach Delay (s/veh) | 0.0 | | | | | | | | | | | | 14.5 | | | |
| Approach LOS | | | | | | | | | | | | | B | | | |

HCS7 Two-Way Stop-Control Report

| General Information | | Site Information | |
|--------------------------|------------------------|----------------------------|-----------------------|
| Analyst | BSM | Intersection | Ogden with Max Madsen |
| Agency/Co. | KLOA, Inc. | Jurisdiction | IDOT |
| Date Performed | 12/12/2017 | East/West Street | Ogden Avenue |
| Analysis Year | 2023 | North/South Street | Max Madsen Access |
| Time Analyzed | PM Peak Hour | Peak Hour Factor | 0.94 |
| Intersection Orientation | East-West | Analysis Time Period (hrs) | 0.25 |
| Project Description | 17-273 - Downers Grove | | |

Lanes



Vehicle Volumes and Adjustments

| Approach | Eastbound | | | | Westbound | | | | Northbound | | | | Southbound | | | |
|----------------------------|-----------|-----------|------|---|-----------|---|------|----|------------|---|---|---|------------|----|----|----|
| | U | L | T | R | U | L | T | R | U | L | T | R | U | L | T | R |
| Movement | 1U | 1 | 2 | 3 | 4U | 4 | 5 | 6 | | 7 | 8 | 9 | | 10 | 11 | 12 |
| Priority | | | | | | | | | | | | | | | | |
| Number of Lanes | 0 | 1 | 2 | 0 | 0 | 0 | 2 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 |
| Configuration | | L | T | | | | T | TR | | | | | | | LR | |
| Volume, V (veh/h) | | 2 | 1737 | | | | 1919 | 1 | | | | | | | 1 | 7 |
| Percent Heavy Vehicles (%) | | 0 | | | | | | | | | | | | 0 | | 0 |
| Proportion Time Blocked | | | | | | | | | | | | | | | | |
| Percent Grade (%) | | | | | | | | | | | | | | | | 0 |
| Right Turn Channelized | | No | | | No | | | | No | | | | No | | | |
| Median Type/Storage | | Left Only | | | | | | | 1 | | | | | | | |

Critical and Follow-up Headways

| | | | | | | | | | | | | | | | | |
|------------------------------|--|------|--|--|--|--|--|--|--|--|--|--|--|------|--|------|
| Base Critical Headway (sec) | | 4.1 | | | | | | | | | | | | 7.5 | | 6.9 |
| Critical Headway (sec) | | 4.10 | | | | | | | | | | | | 6.80 | | 6.90 |
| Base Follow-Up Headway (sec) | | 2.2 | | | | | | | | | | | | 3.5 | | 3.3 |
| Follow-Up Headway (sec) | | 2.20 | | | | | | | | | | | | 3.50 | | 3.30 |

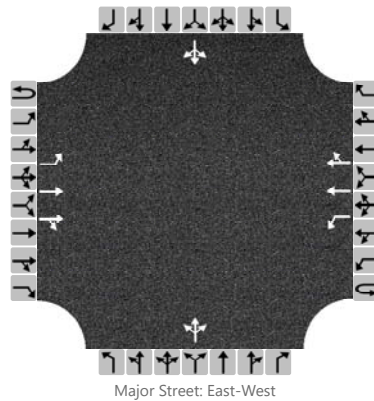
Delay, Queue Length, and Level of Service

| | | | | | | | | | | | | | | | | |
|---|--|------|--|--|--|--|--|--|------|--|--|--|--|--|--|------|
| Flow Rate, v (veh/h) | | 2 | | | | | | | | | | | | | | 8 |
| Capacity, c (veh/h) | | 280 | | | | | | | | | | | | | | 181 |
| v/c Ratio | | 0.01 | | | | | | | | | | | | | | 0.04 |
| 95% Queue Length, Q ₉₅ (veh) | | 0.0 | | | | | | | | | | | | | | 0.1 |
| Control Delay (s/veh) | | 17.9 | | | | | | | | | | | | | | 25.9 |
| Level of Service, LOS | | C | | | | | | | | | | | | | | D |
| Approach Delay (s/veh) | | 0.0 | | | | | | | 25.9 | | | | | | | |
| Approach LOS | | | | | | | | | D | | | | | | | |

HCS7 Two-Way Stop-Control Report

| General Information | | | | Site Information | | | |
|--------------------------|------------------------|--|--|----------------------------|---------------------------|--|--|
| Analyst | BSM | | | Intersection | Ogden with Gerber/Fairway | | |
| Agency/Co. | KLOA, Inc. | | | Jurisdiction | IDOT | | |
| Date Performed | 12/12/2017 | | | East/West Street | Ogden Avenue | | |
| Analysis Year | 2023 | | | North/South Street | Gerber/Fairway Access | | |
| Time Analyzed | AM Peak Hour | | | Peak Hour Factor | 0.95 | | |
| Intersection Orientation | East-West | | | Analysis Time Period (hrs) | 0.25 | | |
| Project Description | 17-273 - Downers Grove | | | | | | |

Lanes



Vehicle Volumes and Adjustments

| Approach | Eastbound | | | | Westbound | | | | Northbound | | | | Southbound | | | |
|----------------------------|-----------|---|------|----|-----------|---|------|----|------------|----|-----|----|------------|----|-----|----|
| | U | L | T | R | U | L | T | R | U | L | T | R | U | L | T | R |
| Movement | 1U | 1 | 2 | 3 | 4U | 4 | 5 | 6 | | 7 | 8 | 9 | | 10 | 11 | 12 |
| Priority | | | | | | | | | | | | | | | | |
| Number of Lanes | 0 | 1 | 2 | 0 | 0 | 1 | 2 | 0 | | 0 | 1 | 0 | | 0 | 1 | 0 |
| Configuration | | L | T | TR | | L | T | TR | | | LTR | | | | LTR | |
| Volume, V (veh/h) | | 4 | 2041 | 2 | | 0 | 1330 | 7 | | 10 | 0 | 33 | | 4 | 0 | 0 |
| Percent Heavy Vehicles (%) | | 0 | | | | 0 | | | | 0 | 0 | 0 | | 0 | 0 | 0 |
| Proportion Time Blocked | | | | | | | | | | | | | | | | |
| Percent Grade (%) | | | | | | | | | 0 | | | | 0 | | | |
| Right Turn Channelized | No | | | | No | | | | No | | | | No | | | |
| Median Type/Storage | | | | | Left Only | | | | | | | | 1 | | | |

Critical and Follow-up Headways

| | | | | | | | | | | | | | | | | |
|------------------------------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
| Base Critical Headway (sec) | | | | | | | | | | | | | | | | |
| Critical Headway (sec) | | | | | | | | | | | | | | | | |
| Base Follow-Up Headway (sec) | | | | | | | | | | | | | | | | |
| Follow-Up Headway (sec) | | | | | | | | | | | | | | | | |

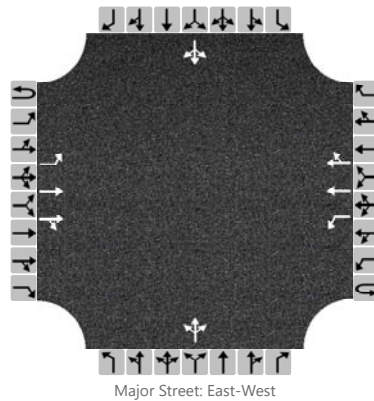
Delay, Queue Length, and Level of Service

| | | | | | | | | | | | | | | | |
|---|--|------|--|--|------|--|--|--|--|------|--|--|------|------|--|
| Flow Rate, v (veh/h) | | 4 | | | 0 | | | | | 46 | | | | 4 | |
| Capacity, c (veh/h) | | 491 | | | 254 | | | | | 108 | | | | 83 | |
| v/c Ratio | | 0.01 | | | 0.00 | | | | | 0.42 | | | | 0.05 | |
| 95% Queue Length, Q ₉₅ (veh) | | 0.0 | | | 0.0 | | | | | 1.8 | | | | 0.1 | |
| Control Delay (s/veh) | | 12.4 | | | 19.2 | | | | | 60.7 | | | | 50.4 | |
| Level of Service, LOS | | B | | | C | | | | | F | | | | F | |
| Approach Delay (s/veh) | | 0.0 | | | 0.0 | | | | | 60.7 | | | 50.4 | | |
| Approach LOS | | | | | | | | | | F | | | F | | |

HCS7 Two-Way Stop-Control Report

| General Information | | | | Site Information | | | |
|--------------------------|------------------------|--|--|----------------------------|---------------------------|--|--|
| Analyst | BSM | | | Intersection | Ogden with Gerber/Fairway | | |
| Agency/Co. | KLOA, Inc. | | | Jurisdiction | IDOT | | |
| Date Performed | 12/12/2017 | | | East/West Street | Ogden Avenue | | |
| Analysis Year | 2023 | | | North/South Street | Gerber/Fairway Access | | |
| Time Analyzed | PM Peak Hour | | | Peak Hour Factor | 0.94 | | |
| Intersection Orientation | East-West | | | Analysis Time Period (hrs) | 0.25 | | |
| Project Description | 17-273 - Downers Grove | | | | | | |

Lanes



Vehicle Volumes and Adjustments

| Approach | Eastbound | | | | Westbound | | | | Northbound | | | | Southbound | | | |
|----------------------------|-----------|---|------|----|-----------|----|------|----|------------|---|-----|----|------------|----|-----|----|
| | U | L | T | R | U | L | T | R | U | L | T | R | U | L | T | R |
| Movement | 1U | 1 | 2 | 3 | 4U | 4 | 5 | 6 | | 7 | 8 | 9 | | 10 | 11 | 12 |
| Priority | | | | | | | | | | | | | | | | |
| Number of Lanes | 0 | 1 | 2 | 0 | 0 | 1 | 2 | 0 | | 0 | 1 | 0 | | 0 | 1 | 0 |
| Configuration | | L | T | TR | | L | T | TR | | | LTR | | | | LTR | |
| Volume, V (veh/h) | | 3 | 1721 | 14 | | 13 | 1903 | 2 | | 4 | 0 | 14 | | 2 | 0 | 9 |
| Percent Heavy Vehicles (%) | | 0 | | | | 0 | | | | 0 | 0 | 0 | | 0 | 0 | 0 |
| Proportion Time Blocked | | | | | | | | | | | | | | | | |
| Percent Grade (%) | | | | | | | | | 0 | | | | 0 | | | |
| Right Turn Channelized | No | | | | No | | | | No | | | | No | | | |
| Median Type/Storage | | | | | Left Only | | | | | | | | 1 | | | |

Critical and Follow-up Headways

| | | | | | | | | | | | | | | | | |
|------------------------------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
| Base Critical Headway (sec) | | | | | | | | | | | | | | | | |
| Critical Headway (sec) | | | | | | | | | | | | | | | | |
| Base Follow-Up Headway (sec) | | | | | | | | | | | | | | | | |
| Follow-Up Headway (sec) | | | | | | | | | | | | | | | | |

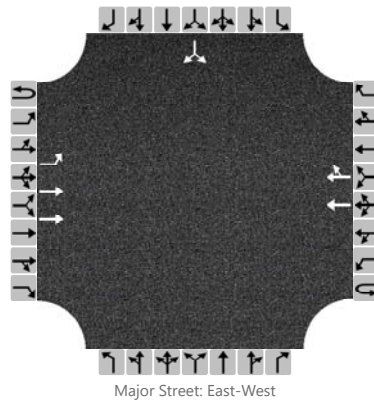
Delay, Queue Length, and Level of Service

| | | | | | | | | | | | | | | | |
|---|--|------|--|--|------|--|--|--|--|------|--|--|------|------|--|
| Flow Rate, v (veh/h) | | 3 | | | 14 | | | | | 19 | | | | 12 | |
| Capacity, c (veh/h) | | 284 | | | 334 | | | | | 150 | | | | 137 | |
| v/c Ratio | | 0.01 | | | 0.04 | | | | | 0.13 | | | | 0.09 | |
| 95% Queue Length, Q ₉₅ (veh) | | 0.0 | | | 0.1 | | | | | 0.4 | | | | 0.3 | |
| Control Delay (s/veh) | | 17.8 | | | 16.3 | | | | | 32.4 | | | | 33.8 | |
| Level of Service, LOS | | C | | | C | | | | | D | | | | D | |
| Approach Delay (s/veh) | | 0.0 | | | 0.1 | | | | | 32.4 | | | 33.8 | | |
| Approach LOS | | | | | | | | | | D | | | D | | |

HCS7 Two-Way Stop-Control Report

| General Information | | | | Site Information | | | |
|--------------------------|------------------------|--|--|----------------------------|---------------------------|--|--|
| Analyst | BSM | | | Intersection | Ogden with Proposed Acces | | |
| Agency/Co. | KLOA, Inc. | | | Jurisdiction | IDOT | | |
| Date Performed | 12/12/2017 | | | East/West Street | Ogden Avenue | | |
| Analysis Year | 2023 | | | North/South Street | Proposed Access Drive | | |
| Time Analyzed | AM Peak Hour | | | Peak Hour Factor | 0.95 | | |
| Intersection Orientation | East-West | | | Analysis Time Period (hrs) | 0.25 | | |
| Project Description | 17-273 - Downers Grove | | | | | | |

Lanes



Vehicle Volumes and Adjustments

| Approach | Eastbound | | | | Westbound | | | | Northbound | | | | Southbound | | | |
|----------------------------|-----------|---|------|---|-----------|---|------|----|------------|---|---|---|------------|----|----|----|
| | U | L | T | R | U | L | T | R | U | L | T | R | U | L | T | R |
| Movement | 1U | 1 | 2 | 3 | 4U | 4 | 5 | 6 | | 7 | 8 | 9 | | 10 | 11 | 12 |
| Priority | | | | | | | | | | | | | | | | |
| Number of Lanes | 0 | 1 | 2 | 0 | 0 | 0 | 2 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 |
| Configuration | | L | T | | | | T | TR | | | | | | | LR | |
| Volume, V (veh/h) | | 6 | 2046 | | | | 1336 | 4 | | | | | | 1 | | 2 |
| Percent Heavy Vehicles (%) | | 0 | | | | | | | | | | | | 0 | | 0 |
| Proportion Time Blocked | | | | | | | | | | | | | | | | |
| Percent Grade (%) | | | | | | | | | | | | | 0 | | | |
| Right Turn Channelized | No | | | | No | | | | No | | | | No | | | |
| Median Type/Storage | | | | | Left Only | | | | | | | | 1 | | | |

Critical and Follow-up Headways

| | | | | | | | | | | | | | | | | |
|------------------------------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
| Base Critical Headway (sec) | | | | | | | | | | | | | | | | |
| Critical Headway (sec) | | | | | | | | | | | | | | | | |
| Base Follow-Up Headway (sec) | | | | | | | | | | | | | | | | |
| Follow-Up Headway (sec) | | | | | | | | | | | | | | | | |

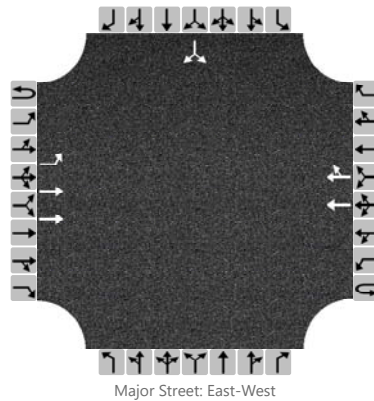
Delay, Queue Length, and Level of Service

| | | | | | | | | | | | | | | | | |
|---|-----|------|--|--|--|--|--|--|--|--|--|--|------|--|--|------|
| Flow Rate, v (veh/h) | | 6 | | | | | | | | | | | | | | 3 |
| Capacity, c (veh/h) | | 490 | | | | | | | | | | | | | | 217 |
| v/c Ratio | | 0.01 | | | | | | | | | | | | | | 0.01 |
| 95% Queue Length, Q ₉₅ (veh) | | 0.0 | | | | | | | | | | | | | | 0.0 |
| Control Delay (s/veh) | | 12.4 | | | | | | | | | | | | | | 21.8 |
| Level of Service, LOS | | B | | | | | | | | | | | | | | C |
| Approach Delay (s/veh) | 0.0 | | | | | | | | | | | | 21.8 | | | |
| Approach LOS | | | | | | | | | | | | | C | | | |

HCS7 Two-Way Stop-Control Report

| General Information | | | | Site Information | | | |
|--------------------------|------------------------|--|--|----------------------------|---------------------------|--|--|
| Analyst | BSM | | | Intersection | Ogden with Proposed Acces | | |
| Agency/Co. | KLOA, Inc. | | | Jurisdiction | IDOT | | |
| Date Performed | 12/12/2017 | | | East/West Street | Ogden Avenue | | |
| Analysis Year | 2023 | | | North/South Street | Proposed Access Drive | | |
| Time Analyzed | PM Peak Hour | | | Peak Hour Factor | 0.95 | | |
| Intersection Orientation | East-West | | | Analysis Time Period (hrs) | 0.25 | | |
| Project Description | 17-273 - Downers Grove | | | | | | |

Lanes



Vehicle Volumes and Adjustments

| Approach | Eastbound | | | | Westbound | | | | Northbound | | | | Southbound | | | |
|----------------------------|-----------|---|------|---|-----------|---|------|----|------------|---|---|---|------------|----|----|----|
| | U | L | T | R | U | L | T | R | U | L | T | R | U | L | T | R |
| Movement | 1U | 1 | 2 | 3 | 4U | 4 | 5 | 6 | | 7 | 8 | 9 | | 10 | 11 | 12 |
| Priority | | | | | | | | | | | | | | | | |
| Number of Lanes | 0 | 1 | 2 | 0 | 0 | 0 | 2 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 |
| Configuration | | L | T | | | | T | TR | | | | | | | LR | |
| Volume, V (veh/h) | | 4 | 1734 | | | | 1913 | 3 | | | | | | 4 | | 7 |
| Percent Heavy Vehicles (%) | | 0 | | | | | | | | | | | | 0 | | 0 |
| Proportion Time Blocked | | | | | | | | | | | | | | | | |
| Percent Grade (%) | | | | | | | | | | | | | 0 | | | |
| Right Turn Channelized | No | | | | No | | | | No | | | | No | | | |
| Median Type/Storage | | | | | Left Only | | | | | | | | 1 | | | |

Critical and Follow-up Headways

| | | | | | | | | | | | | | | | | |
|------------------------------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
| Base Critical Headway (sec) | | | | | | | | | | | | | | | | |
| Critical Headway (sec) | | | | | | | | | | | | | | | | |
| Base Follow-Up Headway (sec) | | | | | | | | | | | | | | | | |
| Follow-Up Headway (sec) | | | | | | | | | | | | | | | | |

Delay, Queue Length, and Level of Service

| | | | | | | | | | | | | | | | | |
|---|-----|------|--|--|--|--|--|--|--|--|--|--|------|--|--|------|
| Flow Rate, v (veh/h) | | 4 | | | | | | | | | | | | | | 11 |
| Capacity, c (veh/h) | | 286 | | | | | | | | | | | | | | 127 |
| v/c Ratio | | 0.01 | | | | | | | | | | | | | | 0.09 |
| 95% Queue Length, Q ₉₅ (veh) | | 0.0 | | | | | | | | | | | | | | 0.3 |
| Control Delay (s/veh) | | 17.8 | | | | | | | | | | | | | | 36.0 |
| Level of Service, LOS | | C | | | | | | | | | | | | | | E |
| Approach Delay (s/veh) | 0.0 | | | | | | | | | | | | 36.0 | | | |
| Approach LOS | | | | | | | | | | | | | E | | | |

DRAFT MINUTES

**VILLAGE OF DOWNERS GROVE
PLAN COMMISSION MEETING**

17-PLC-0039: A petition seeking approval of a Special Use to construct an automobile dealership. The property is currently zoned B-3, General Services and Highway Business. The property is located on the north side of Ogden Avenue, approximately 385 feet east of Cross Street, commonly known as 2410 Ogden Avenue, Downers Grove, IL (PINs 08-01-303-014, -015, -016, -017). Anas Alkhatib agent of Agri-Pes, LLC, Petitioner; Agri-Pes, LLC, Owner.

Mr. Scott Williams stated that the subject property is zoned B-3 and the petitioner proposes construction of an automobile dealership. He described the surrounding properties, and noted that the site has two access points to Ogden Avenue. The easternmost curb cut along Ogden Avenue will be eliminated. The site has been vacant for about two years and has little existing landscaping. He noted on the site plan the parking areas available on the site. He also pointed out the location of the trash enclosure. The petitioner meets or exceeds all zoning requirements for the location. He noted that there is sufficient space for both vehicle carriers and Fire Department vehicles.

Mr. Williams noted that the property line is almost on the street, and Public Works has requested the granting of a sidewalk easement. The petitioner's landscaping plan meets or exceeds Code requirements as well. The proposed 8500 square foot building is two-story and consists of the actual showroom, as well as rear service bays. He described the elevation as primarily steel, masonry and concrete with a brown colored metal clad paneling, and glazed overhead doors. He said the applicant has submitted a photometric plan with an average foot-candle rating of .1 at centerline of Ogden Avenue. With regard to the Comprehensive Plan Future Land Use Map, the location is shown as Corridor-Commercial.

Mr. Williams said that Staff believes the Special Use criteria have been met as it is an authorized special use, is a redevelopment of a vacant site, it meets the Comprehensive Plan and there have been conditions specific to limiting any potential adverse impact on adjacent properties including test drives in residential areas. Staff recommends approval subject to the seven conditions listed on page 5 of Staff's report dated January 8, 2018.

Ms. Johnson asked about plans for signage. Mr. Williams replied that signage shown will be facing Ogden Avenue.

Mr. Maurer clarified that their only request is for a Special Use for an auto dealership on Ogden Avenue in Downers Grove.

Ch. Gassen called upon the Petitioner to make its presentation.

Paul Chabez, Jr., of Phorma Designs, Inc. of Aurora, said they are taking the existing property that has an abandoned restaurant and replacing that building with a new building, new pavement, and new curb. The dealership will operate between the hours

Plan Commission Meeting Jan. 8, 2018

DRAFT MINUTES

of 10 AM to 8 PM, Monday through Friday, and 11 AM to 6 PM on Saturday and Sunday. The delivery of vehicles will be scheduled on a weekly basis, with all loading and unloading taking place on the dealership lot.

Ch. Gassen said she thought that automobile dealerships were not allowed to be opened on Sundays. Ms. Leitschuh said she was not sure if there is a law limiting activity on Sunday.

Ms. Johnson noted a different address for Agri-Pes as 857 Willow Lane and asked that the address be corrected. She said she was also surprised to see customer parking in the street yard on their proposed site. Mr. Chabez said they planned to have customer parking in front with automobile display in the back.

Mr. Boyle asked about them reusing the existing building, and Mr. Chabez said the location and condition was not usable. Mr. Boyle asked about the storm drainage.

Mr. Anas Alkhatib replied that the correct address is 857 Willow Lane. As to the existing drainage, the plan is to sheet flow to the southwest corner of the property where there is a culvert that connects to the storm sewer. They will add catch basins to the site, and will keep the same volume and same optimal release.

In response to what kind of automobiles will be sold, Mr. Alkhatib said it is to be high-end used cars with service and detailing available. They will have the site staffed every day.

Ch. Gassen called on the public for comments. There were no comments. She then closed the public portion of the hearing.

Ch. Gassen asked about the sidewalk easement, and Mr. Williams said the Village requested that so they can have access for repair and maintenance.

Mr. Maurer said this proposal looks better than what has been there, and he sees no reason to oppose this. They are asking for a Special Use that's allowed in that Zoning District. He sees it as a benefit.

Mr. Maurer moved with regard to File 17-PLC-0039 that the Plan Commission forward a positive recommendation to the Village Council to approve this request subject to Staff's seven conditions listed on page 5 of Staff's report dated January 8, 2018. Mr. Boyle seconded the Motion.

**AYES: Mr. Maurer, Mr. Boyle, Ms. Johnson, Mr. Kulovany, Ms. Rollins,
Ch. Gassen**

NAYS: None

The Motion passed unanimously.

Mr. Williams said this item would also be forwarded to the Village Council for their review at their February 6, 2018 meeting.

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