VILLAGE OF DOWNERS GROVE
Report for the Village
1/14/2025

SUBJECT:	SUBMITTED BY:
4919 Forest Avenue – Planned Unit Development, Zoning Map Amendment and Special Use	Stan Popovich, AICP Director of Community Development

SYNOPSIS

The petitioner is requesting approval of a Zoning Map Amendment, Planned Unit Development and a Special Use in the Downtown Business (DB) zoning district to permit the construction of a 62 unit apartment building at 4919 Forest Avenue.

STRATEGIC PLAN ALIGNMENT

The goals for the 2023-2025 Strategic Plan include acting as a *Strong and Diverse Local Economy* and acting as a *Steward of Financial, Environmental, and Neighborhood Sustainability.*

FISCAL IMPACT

N/A

RECOMMENDATION

UPDATE & RECOMMENDATION

This item was discussed by the Village Council at the January 7, 2025 meeting. Based upon that discussion, the petitioner has provided the following updates to the building:

- The north stair cornice will now match the same design as the cornice on the front southwest bay.
- The rear/east 2-story base has been redesigned with the grayish brick surrounding the pedestrian and overhead doors to the north, creating bays. These bays repeat along the façade to the south.

The petitioner has prepared additional elevations that appear immediately following this report on page 4 of this PDF.

Staff recommends approval on the January 14, 2025 Active Agenda.

BACKGROUND

Property Information and Zoning Request

The subject site, located approximately 175 feet south of the intersection of Franklin Street and Forest Avenue, consists of three lots that are proposed to be combined.

The development will house a total of sixty-two units: thirteen (13) one bedroom units, forty (40) two bedroom units, and nine (9) three bedroom units. The first floor will feature a residential lobby, a package room, a shared amenity space, building mechanicals, a trash room, a secure bike room, and parking accessed from Forest Avenue. The second floor will house the remainder of the parking garage that will be accessed from the alley to the east of the property. Floors three through seven will house the dwelling units, the majority of which feature terraces or balconies.

The proposed building will have a strong masonry base, in addition to brick on all four sides of the building, with cast stone and metal panels used as accent material throughout the building and cornice lines. The lower levels of the building feature extensive use of a storefront along Forest Avenue to create an open and inviting pedestrian experience. Visual interest is emphasized with building recesses and inset balconies across the building facades. Window sizes differ between larger "square" windows and smaller "vertical" windows to create a rhythm that breaks up the façade further. The primary building entry faces directly onto Forest Avenue and is capped by an awning that is framed within the broader massing articulation, creating a distinct and inviting entry to the building. While the building top is designed to articulate the massing and complement the overall design of the building.

To assist drivers using the alley entrance, the petitioner is dedicating three (3) feet of private property along the east property line to provide additional width to the alley.

Compliance with the Comprehensive Plan

The proposed development meets the Comprehensive Plan's key concepts for this subarea as summarized in the PZC staff report, including such recommendations as development that is of an area of greater residential density to facilitate a vibrant and energetic downtown while providing economic sustainability to the core, a built form consistent with transit-oriented development, and a development that reinforces the walkable nature of downtown by orienting the building towards Forest Avenue.

The Comprehensive Plan also encourages transit oriented development to take advantage of transportation opportunities. The proposed development is consistent with transit oriented development approach as it provides higher density residential uses within a 10-minute walk of the Main Street Metra station.

The Residential Policy Recommendations in the Comprehensive Plan notes that future multifamily development should be located near significant activity centers. The proposed multifamily development is located in the downtown and maintains density in the downtown area. The proposed development is consistent with the intent of the Comprehensive Plan.

Compliance with the Zoning Ordinance

The property is zoned Downtown Business (DB). Per Section 28.5.010 of the Zoning Ordinance, apartments/condominiums are allowed as Special Uses in DB zoning district. The petitioner is requesting relief from the required lot area per dwelling unit. This level of density is appropriate given the proximity to the train station and similar projects in the downtown. The proposed development meets all other bulk requirements, including height, setbacks, density, and parking, of the Zoning Ordinance as demonstrated in Table 1 of the PZC staff report.

Compliance with the Downtown Design Guidelines

The Downtown Design Guidelines provide guidance for building and site design, which will assist in creating a vibrant downtown. The guidelines are divided into seven separate sections: site design, building design, building base, building middle, building top, utility considerations, and parking facilities. Each section describes elements, which support good design, and provides visual references, which identify both

encouraged and discouraged elements. The proposed development meets the guidelines as demonstrated in Table 2 of the PZC staff report.

Public Comment

Prior to the public hearing, staff received seven letters of support for the project. During the PZC hearing, seven members of the public expressed concerns falling in the categories listed below. One member provided positive feedback on the public meetings held by the petitioner prior to the Planning and Zoning Commission hearing. Village staff offers the following comments:

Concern	Response
Height	• The proposed development meets the requirements of the DB zoning district.
Insufficient setbacks	• The proposed development meets the requirements of the DB zoning district. The build-to zone regulation along Forest Avenue requires the building to be built close to the street, in conflict with providing additional landscaping in front of the building. • During construction, areas of the building that are proposed to be built near adjacent property lines will meet all building code requirements, including shoring.
Traffic	• The proposed development provides 89 parking spaces when 87 are required. • The Traffic Impact Study finds that the traffic generated by the development can be accommodated by the existing area roadway system.

ATTACHMENTS

Revised Renderings
Aerial Map
Ordinance
Staff Report with attachments dated December 2, 2024
Draft Minutes
Public Correspondence

KENNEDY MANN

NORTH ELEVATION - RENDERED

4919 FOREST AVE, DOWNERS GROVE, IL 60515

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

SD2.16

KENNEDY MANN

EAST ELEVATION - RENDERED

4919 FOREST AVE, DOWNERS GROVE, IL 60515

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

SD2.17

VILLAGE OF DOWNERS GROVE

COUNCIL ACTION SUMMARY

INITIATED: Village Attorney (Name) **DATE:** January 14, 2025

RECOMMENDATION FROM: Planning & Zoning Commission (Board or Department) **FILE REF:** 24-PLC-0029

NATURE OF ACTION:

X Ordinance

__ Resolution

__ Motion

__ Other

STEPS NEEDED TO IMPLEMENT ACTION:

Motion to adopt "AN ORDINANCE AMENDING THE ZONING ORDINANCE OF THE VILLAGE OF DOWNERS GROVE, ILLINOIS TO DESIGNATE THE PROPERTY AT 4913, 4917 & 4921 FOREST AVENUE AS PLANNED UNIT DEVELOPMENT #70 (4919 FOREST AVENUE PLANNED UNIT DEVELOPMENT)", as presented.

SUMMARY OF ITEM:

Adoption of this ordinance shall amend the Zoning Ordinance to designate the property at 4913, 4917 & 4921 Florence Avenue (4919 Florence Avenue Planned Unit Development) as Planned Unit Development #70.

RECORD OF ACTION TAKEN:

_____

_____

_____

ORDINANCE NO. _____

AN ORDINANCE AMENDING THE ZONING ORDINANCE OF THE VILLAGE OF DOWNERS GROVE, ILLINOIS TO DESIGNATE THE PROPERTY AT 4913, 4917 & 4921 FOREST AVENUE AS PLANNED UNIT DEVELOPMENT #70 (4919 FOREST AVENUE PLANNED UNIT DEVELOPMENT)

WHEREAS, the owner(s) of the property located 175 feet from the intersection of Franklin Street and Forest Avenue, formerly known as 4913, 4917 and 4921 Forest Avenue, Downers Grove, Illinois, PINs 09-08-116-004; -005; -006 (hereinafter referred to as the "Property" and legally described below) have requested that such real estate be designated as a Planned Unit Development to be known as "4919 Forest Avenue Planned Unit Development #70" pursuant to the provisions of the Zoning Ordinance of the Village of Downers Grove, as set forth in Chapter 28 of the Downers Grove Municipal Code (hereinafter referred to as the "Zoning Ordinance"); and

WHEREAS, the owner(s) have also filed a written petition with the Village conforming to the requirements of the Zoning Ordinance and requesting approval of the 4919 Forest Avenue Planned Unit Development #70 as provided under the Zoning Ordinance; and,

WHEREAS, the Property is zoned "DB, Downtown Business District" pursuant to the Downers Grove Zoning Ordinance; and,

WHEREAS, the Planning and Zoning Commission of the Village of Downers Grove has given the required public notice and has conducted a public hearing on December 2, 2024, for the construction of a multifamily building for the 4919 Forest Avenue Planned Unit Development #70 on the Property in accordance with the statutes of the State of Illinois and the ordinances of the Village of Downers Grove and has reported its findings and recommendations to the Village Council of the Village of Downers Grove pursuant to the provisions of the Zoning Ordinance; and,

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

SECTION 1. That the provisions of the preamble are incorporated into this ordinance.

SECTION 2. The documents collectively referred to as "4919 Forest Avenue Planned Unit Development plans", are incorporated herein by reference as a part of this ordinance.

SECTION 3. That the Village Council hereby finds as follows:

(1) That the 4919 Forest Avenue Planned Unit Development #70 meets the requirements of the Zoning Ordinance as follows:

a. the zoning map amendment review and approval criteria of Sec. 28.12.030.I;

b. the proposed PUD plan and map amendment are consistent with the comprehensive plan and any other adopted plans for the subject area;

c. the PUD development plan complies with the PUD overlay district provisions of Sec. 28.4.030;

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

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

(2) That the proposed development conforms with the requirements of the Zoning Ordinance.

SECTION 4. The Zoning Ordinance is hereby amended by adding to the Zoning Map the boundaries of the following described real estate and by designating said real estate as a Planned Unit Development under the title and style "4919 Forest Avenue Planned Unit Development #70" to be stated on the face of said map within the boundaries of the real estate hereinafter described, to wit:

LOTS 18, 19, 20, IN THE RESUBDIVISION OF BLOCK 5 OF E.H. PRINCE AND COMPANY'S ADDITION TO DOWNERS GROVE, IN SECTIONS 5, 6, 7 AND 8, TOWNSHIP 38 NORTH, RANGE 11 EAST OF THE THIRD PRINCIPAL MERIDIAN, ACCORDING TO THE PLAT OF SAID RESUBDIVISION RECORDED OCTOBER 24, 1891 AS DOCUMENT 46830,IN DUPAGE COUNTY, ILLINOIS.

Commonly known as: 4913, 4917 & 4921 Forest Avenue, Downers Grove, IL 60515

PIN: 09-08-116-004, -005, & -006

SECTION 5. The 4919 Forest Avenue Planned Unit Development #70 is hereby approved to permit a Planned Unit Development authorizing the construction of a multifamily building, subject to the conditions and restrictions contained therein, and subject to the following:

1. The Special Use shall substantially conform to the staff report dated December 2, 2024, renderings, architecture plans prepared by Kennedy Mann dated August 29, 2024 and last revised November 15, 2024 and engineering drawings prepared by Cage Civil Engineering dated October 16, 2024, and landscape plans prepared by Cage Civil Engineering dated August 30, 2024 with final revisions dated October 30, 2024, except as such plans may be modified to conform to the Village codes and ordinances.

2. The petitioner shall consolidate the three lots into a single lot of record pursuant to Section 20.507 of the Subdivision Ordinance prior to the issuance of any site development or building permits.

3. Prior to issuing any site development or building permits, the petitioner shall make park and school donations in the amount of $501,400.19 ($380,356.06 to the Park District, $87,899.24 to Elementary School District 58, and $33,154.89 to High School District 99).

4. A photometric plan will be required to be submitted with site development and building permit documents.

5. All vehicles exiting the building into the alley are limited to northbound only. Appropriate signage shall be provided.

6. The building materials shall be substantially consistent with the approved plans as verified by the Village and consistent with the Downtown Design Guidelines.

SECTION 6. That all ordinances or resolutions, or parts thereof, in conflict with the provisions of this ordinance be and are hereby repealed.

SECTION 7. That this ordinance shall be in full force and effect from and after its passage and publication in the manner provided by law.

_____
Mayor

Passed:
Published:
Attest: _____
Village Clerk

1\mw\ord.25\PUD#70-Estab-4919-Forest-24-PLC-0029

VILLAGE OF DOWNERS GROVE
REPORT FOR THE PLANNING AND ZONING COMMISSION
DECEMBER 2, 2024 AGENDA

SUBJECT:	TYPE:	SUBMITTED BY:
24-PCE-0029 4919 Forest Avenue	Zoning Map Amendment, Planned Unit Development and Special Use	Emily Hepworth, AICP Planner

REQUEST
The petitioner is requesting approval of a Zoning Map Amendment, Planned Unit Development and a Special Use in the Downtown Business (DB) zoning district to permit the construction of a multifamily building.

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

GENERAL INFORMATION

OWNER: Duneland Mgmt One, LLC
2412 Marshall Ct
Naperville, IL 60565

PETITIONER: 4 Corners, LLC
Liz Butler, Taft Law
111 East Wacker Drive Ste. 2600
Chicago, IL 60605

PROPERTY INFORMATION

EXISTING ZONING: DB, Downtown Business
EXISTING LAND USE: Commercial
PROPERTY SIZE: 0.49 acres (21,213.4 square feet)
PINS: 09-08-116-004, 09-08-116-005, 09-08-116-006

SURROUNDING ZONING AND LAND USES

	ZONING	FUTURE LAND USE
NORTH:	DB, Downtown Business	Downtown
SOUTH:	DB, Downtown Business	Downtown
EAST:	DB, Downtown Business	Downtown
WEST:	DB/DT, Downtown Business, Downtown Transition	Downtown

ANALYSIS

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

1. Application/Petition for Public Hearing

2. Location Map
3. Project Narrative
4. Plat of Survey
5. Color Elevations and Renderings
6. Architectural Drawings
7. Engineering Plans
8. Landscape Plans
9. Truck Turn Exhibit
10. Traffic Impact Study
11. Neighborhood Meeting Summary
12. Building Material Samples

PROJECT DESCRIPTION

The petitioner is seeking approval to establish a seven-story multifamily residential building in the Downtown Business zoning district, at 4919 Forest Avenue. The subject site is located approximately 175 feet south of the intersection of Franklin Street and Forest Avenue. The subject site consists of three lots that are proposed to be combined. The northernmost lot is vacant, while the southernmost lots are occupied by two commercial office buildings that have been substantially vacant for the last six years.

The new multi-family residential development will be located on a 0.46 acre lot. The applicant is seeking approval of the following requests:

- Final Planned Unit Development
- Zoning Map Amendment from D-B to D-B/PUD
- Special Use for apartments

The development will house a total of sixty-two units: thirteen (13) one bedroom units, forty (40) two bedroom units, and nine (9) three bedroom units. The first floor will feature a residential lobby, a package room, a shared amenity space, building mechanicals, a trash room, a secure bike room, and parking accessed from Forest Avenue. The second floor will house the remainder of the parking garage that will be accessed from the alley to the east of the property. Floors three through seven will house the dwelling units, the majority of which feature terraces or balconies.

The proposed building will have a strong masonry base, in addition to brick on all four sides of the building, with cast stone and metal panels used as accent material throughout the building and cornice lines. The lower levels of the building feature extensive use of storefront along Forest Avenue to create an open and inviting pedestrian experience. Visual interest is emphasized with building recesses and inset balconies across the building facades. Window sizes differ between larger “square” windows and smaller “vertical” windows to create a rhythm that breaks up the façade further. The primary building entry faces directly onto Forest Avenue and is capped by an awning that is framed within the broader massing articulation, creating a distinct and inviting entry to the building. While the building top is designed to articulate the massing and complement the overall design of the building.

To assist drivers using the alley entrance, the petitioner is dedicating three (3) feet of private property along the east property line to provide additional width to the alley. These items are further discussed under Traffic and Parking,

COMPLIANCE WITH THE COMPREHENSIVE PLAN

The Comprehensive Plan places this property within the Downtown Focus Area. The Downtown Focus Area key concepts include:

- Development that is pedestrian-oriented and walkable

- Maintain a sense of enclosure
- Maintain a commitment to quality architecture
- Infill development and pedestrian-oriented redevelopment
- Future development that takes into account pedestrian-oriented design, architectural detailing and appropriate building heights

The Comprehensive Plan also places the subject site within the Downtown Functional Subarea - Downtown Edge. The Comprehensive Plan notes this area should be of greater residential density to facilitate a vibrant and energetic downtown while providing economical sustainability to the Core. The Comprehensive Plan identified the following key concepts for this subarea:

- Increased residential density
- Built form that is taller and creates a continuous street wall
- Denser development compared to the surrounding neighborhoods outside of the downtown

The Comprehensive Plan also encourages transit oriented development to take advantage of transportation opportunities. The proposed development is consistent with the transit oriented development approach as it provides higher density residential uses within a 10-minute walk of the Main Street Metra station.

Lastly, the Residential Policy Recommendations in the Comprehensive Plan notes that future multi-family development should be located near significant activity centers. The proposed multifamily development is located in the downtown and maintains density in the downtown area.

The proposed development is consistent with the intent of the Comprehensive Plan.

COMPLIANCE WITH THE ZONING ORDINANCE

The property is zoned DB, Downtown Business. Per Section 28.5.010 of the Zoning Ordinance, apartments/condos are allowed as Special Uses in the DB zoning district. Compliance with the applicable bulk and parking requirements of the Zoning Ordinance are highlighted in the table below:

Table 1: Zoning Requirements

4919 Forest Avenue	Downtown Business Bulk Requirements	Proposed
Lot Area per Dwelling Unit	800 sq. ft. (min)	**342 sq. ft. ***
Rear Setback – East property line	-	0 ft.
Side Setback – North property line	-	4 in.
Street Setback – West property line	0-10 ft. (min)	1 ft. 4 in.
Street Setback – South property line	-	3 ft.
Building Height	70 ft. (max)	70 ft.
Build-to Zone	119.76 ft. / 80%	138.5 ft. / 92.47%
Parking Spaces	1.4 spaces per unit (87)	89
Bicycle Parking	9	14

* Indicates a deviation from the Zoning Ordinance Requirements

The petitioner is requesting relief from the required minimum lot area per dwelling unit, as reflected in the table. The level of density is appropriate given the proximity to the train station and similar projects in the downtown.

Planned Unit Development Amendment Request

A Planned Unit Development is intended to accommodate development that may be difficult to carry out under applicable zoning standards and results in public benefits that are at least commensurate with the

degree of flexibility provided. Examples of development types that are appropriate for PUD approval, per Section 28.4.030.A.1 of the Zoning Ordinance include:

- Developments that provide housing variety
- Developments that are consistent with the goals and policies of the Comprehensive Plan

The proposed development provides housing variety by providing a variety of apartments with different numbers of bedrooms. The proposed development is consistent with the goals and policies of the Comprehensive Plan.

A PUD Amendment will also achieve a variety of planning goals as outlined in Section 28.4.030.A.2 of the Zoning Ordinance:

- Implementation of and consistency with the comprehensive plan and other relevant plans and policies.
- Variety in housing types and sizes to accommodate households of all ages, sizes, incomes and lifestyle choices.
- Compact, mixed-use development patterns where residential, commercial, civic and open spaces are located in close proximity to one another.
- High-quality buildings and improvements that are compatible with surrounding areas, as determined by their arrangement, massing, form, character and landscaping.

The proposed development meets the provisions of a Planned Unit Development Amendment. The requested density deviation allow for increased numbers of households to locate near the downtown. The development provides a mix of bedroom counts that can accommodate households of different ages, sizes, incomes and lifestyles. The development is in close proximity to other institutional and civic spaces in the downtown.

The development provides a high-quality building and improvements that are compatible with the surrounding area. The massing of the proposed building respects similar multi-family developments in the immediate area. The building materials and modern design of the development continues the Village's commitment to quality architecture and

Parking
The Village Zoning ordinance requires 87 parking stalls for the 62 residential unit proposal. The petitioner is providing 89 parking stalls.

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

COMPLIANCE WITH DOWNTOWN DESIGN GUIDELINES

The Downtown Design Guidelines provide guidance for building and site design which will assist in creating a vibrant downtown. The guidelines are divided into seven separate sections: site design, building design, building base, building middle, building top, utility considerations, and parking facilities. Each section describes elements which support good design and provides visual references which identify both encouraged and discouraged elements. As recommended by the Downtown Design Guidelines, the proposed development incorporates the following features:

Table 2 – Downtown Design Guideline Compliance

Downtown Design Guideline Elements	Summary of Compliance
Site Design	• The building is located in the build-to zone, contributing to a continuous

	street wall along Forest Avenue.
Building Design	• The apparent mass and bulk of the building is reduced by structural articulation, windows or other architectural and functional elements. • The façade is visually appealing through articulation, detailing, openings and materials of each elevation. • Consistent building materials and detailing on all sides of the structure that are open to public view has been provided. • Inset and protruding balconies and patios create visual appeal and interest, and follow rhythmically up the vertical plane of the building. They provide the desired solid and void.
Building Base	• Windows along the base create an open and inviting pedestrian experience along Forest Avenue. • The main entrance on Forest Avenue is capped by an awning that is framed within the broader massing articulation, creating a distinct entry. • The entrance to the parking garage is differentiated by different brick elaboration and color.
Building Middle	• Windows create and a sense of rhythm and regularity that emphasizes the play of solid and void. • Visual interest is emphasized with inset and protruding balconies across the façade. • The third floor building setback and focus on brick patterning creates a strong base. This offers a strong horizontal expression separating the first two floors from the upper floors. • Window sizing varies in a formulaic method to further break up the façade and provide additional visual interest.
Building Top	• An articulated cornice is used to create a sense of finality and add to visual interest of the building where the building steps back at the seventh floor. This contrasts the southwestern corner where the brick façade is capped by a metal coping.
Utility Considerations	• The design of maintenance, utility and service areas were integrated into the overall design of the building. Trash is kept in the interior of the building and moved into the alley for scheduled pickup.
Parking Facilities	• All proposed parking is interior. • The proposed development is decreasing the number of curb cuts on the site from two (2) to one (1) along Forest Avenue. • The proposed development also decreases the number of curb cuts on the site from two (2) to one (1) along the alley.

COMPLIANCE WITH THE SUBDIVISION AND DEVELOPMENT ORDINANCE

The Subdivision Ordinance requires that developments requesting Special Use approval for multi-family developments provide park and school donations to offset the impact of new residential units. The proposed development will include sixty-two (62) units (13 one bedroom, 40 two bedroom, and 9 three bedroom). Based upon the number of units and the number of bedrooms, the total donation is $501,400.19 ($380,356.06 to the Park District, $87,899.24 to Elementary School District 58, and $33,154.89 to High School District 99). Payment of these donations must be made to the Village prior to the issuance of any site development or building permits.

The existing 21,213 square foot site consists of three lots of record. Section 28.11.020 of the Zoning Ordinance requires the construction of a principal structure to occur on a single lot of record. Should the proposed development be approved, the petitioner will be required to administratively consolidate the three lots pursuant to Section 20.507 of the Subdivision Ordinance prior to building permit issuance.

ENGINEERING/PUBLIC IMPROVEMENTS

Currently there are two (2) curb cuts on Forest Avenue providing access to the three lots that make up this development. The petitioner is proposing to reduce the number of curb cuts to one (1), the parking garage entrance. Access to the alley is also being reduced from two (2) access points to one (1). Further information on site circulation is discussed below in Traffic and Parking.

Based on the existing impervious area on the site and the proposed impervious area, the proposed development requires Post Construction Best Management Practices (PCBMPs). Storage volume is proposed in the form of an open bottom vault on the southeastern corner of the site underneath the building. This will collect runoff onsite to allow for regulated stormwater discharge into the municipal storm sewer. The vault will also provide for the additional storage capacity that is required for the portion of the site that is located in the 100 year floodplain. The proposed development will comply with the Village's Stormwater and Flood Plain Ordinance.

Lastly, a new water service and sanitary sewer service will be provided off of main lines located underneath and along Forest Avenue. The Downers Grove Sanitary District conceptually approved the request for sanitary sewer service to this development.

TRAFFIC AND PARKING

A traffic impact study was provided by the petitioner analyzing the proposed development, and found that the traffic generated by the development can be accommodated by the existing area roadway system.

Residents will access 42 of the total 89 parking spaces on the first floor through the Forest Avenue garage entrance. Access to the second floor parking deck, which includes 47 of the total 89 parking spaces, is provided from the alley. The two parking levels are not internally connected. As a condition of approval, any traffic exiting the building onto the alley will be required to turn north (left) onto the alley towards Franklin Street. This movement is restricted by signage provided inside the building.

In order to assist drivers when accessing the alley entrance, the petitioner is dedicating three (3) feet of private property along the east property line to provide additional width to the alley. A turning exhibit is provided in the attachments following the staff report and details the turning radius into and out of the building.

PUBLIC SAFETY REQUIREMENTS

The Fire Prevention Division reviewed the proposal. Access for the Fire Department will be along Forest Avenue. All floors will be equipped with fire alarms and will be sprinkled, as required by Village regulations.

NEIGHBORHOOD COMMENT

Notice was provided to all property owners 250 feet or less from the subject property in addition to posting the public hearing sign on the property and publishing a legal notice in the *Daily Herald.* Staff has received one public comment via a phone call, generally in opposition to increased development on Forest Avenue. Staff received the attached five letters in support of the project.

The Zoning Ordinance requires the petitioner hold a neighborhood meeting. The petitioner held two meetings. One in-person meeting was held September 23, 2024 and one virtual meeting was held on September 30, 2024 via Zoom. Feedback from participants included questions on parking and traffic, building height and design, construction considerations, stormwater management, and housing details. A summary of the meetings, which includes how feedback was incorporated into a final version of the proposal is provided as an attachment to this report.

STANDARDS OF APPROVAL

The petitioner is requesting a Planned Unit Development, Zoning Map Amendment to establish a Planned Unit Development, and Special Use approval for a multifamily development with a total of sixty-two (62) units. The petitioner has submitted a narrative that attempts to address all the standards of approval. The Planning and Zoning Commission should consider the petitioner's documentation, the staff report and the discussion at the Planning and Zoning Commission meeting in determining whether the standards for approval have been met:

Planned Unit Development
Section 28.12.040.C.5 Review and Approval Criteria
The decision to amend the zoning map to approve a PUD development plan and to establish a PUD overlay district are matters of legislative discretion that are not controlled by any single standard. In making recommendations and decisions regarding approval of planned unit developments, review and decision-making bodies must consider at least the following factors:

a. The zoning map amendment review and approval criteria of Sec. 28.12.030.I.
b. Whether the proposed PUD development plan and map amendment would be consistent with the comprehensive plan and any other adopted plans for the subject area.
c. Whether PUD development plan complies with the PUD overlay district provisions of Sec. 28.4.030.
d. Whether the proposed development will result in public benefits that are greater than or at least equal to those that would have resulted from development under conventional zoning regulations.
e. Whether appropriate terms and conditions have been imposed on the approval to protect the interests of surrounding property owners and residents, existing and future residents of the PUD and the general public.

Zoning Map Amendment
Section 12.030.I. Zoning Map Amendment Review and Approval Criteria
The decision to amend the zoning map is a matter of legislative discretion that is not controlled by any single standard. In making recommendations and decisions about zoning map amendments, review and decision-making bodies must consider at least the following factors:

1. The existing use and zoning of nearby property.
2. The extent to which the particular zoning restrictions affect property values.
3. The extent to which any diminution in property value is offset by an increase in the public health, safety and welfare.
4. The suitability of the subject property for the zoned purposes.
5. The length of time that the subject property has been vacant as zoned, considering the context of land development in the vicinity.
6. The value to the community of the proposed use.
7. The comprehensive plan.

Special Use
Section 28.12.050.H Approval Criteria – Special Uses
No special use may be recommended for approval or approved unless the respective review or decision-making body determines that the proposed special use is constituent with and in substantial compliance with all Village Council policies and plans and that the petitioner 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;
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.*

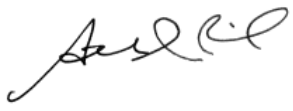
DRAFT MOTION

Staff will provide a recommendation at the December 2, 2024 meeting. Should the Planning and Zoning Commission find that the request meets the standards of approval for a Zoning Map Amendment, Planned Unit Development and Special Use staff has prepared a draft motion that the Planning and Zoning Commission may make for the recommended approval of 24-PCE-0029:

Based on the petitioner's submittal, the staff report, and the testimony presented, I find that the petitioner has met the standards of approval for a Zoning Map Amendment, Planned Unit Development and Special Use as required by the Village of Downers Grove Zoning Ordinance and is in the public interest and therefore, I move that the Planning and Zoning Commission recommend to the Village Council approval of 24-PCE-0029, subject to the following conditions:

1. The Special Use shall substantially conform to the staff report, renderings, architecture plans prepared by Kennedy Mann dated August 29, 2024 and last revised November 15, 2024 and engineering drawings prepared by Cage Civil Engineering dated October 16, 2024, and landscape plans prepared by Cage Civil Engineering dated August 30, 2024 with final revisions dated October 30, 2024, except as such plans may be modified to conform to the Village codes and ordinances.
2. The petitioner shall consolidate the three lots into a single lot of record pursuant to Section 20.507 of the Subdivision Ordinance prior to the issuance of any site development or building permits.
3. Prior to issuing any site development or building permits, the petitioner shall make park and school donations in the amount of $501,400.19 ($380,356.06 to the Park District, $87,899.24 to Elementary School District 58, and $33,154.89 to High School District 99).
4. A photometric plan will be required to be submitted with site development and building permit documents.
5. All vehicles exiting the building into the alley are limited to northbound only. Appropriate signage shall be provided.
6. The building materials shall be substantially consistent with the approved plans as verified by the Village and consistent with the Downtown Design Guidelines.

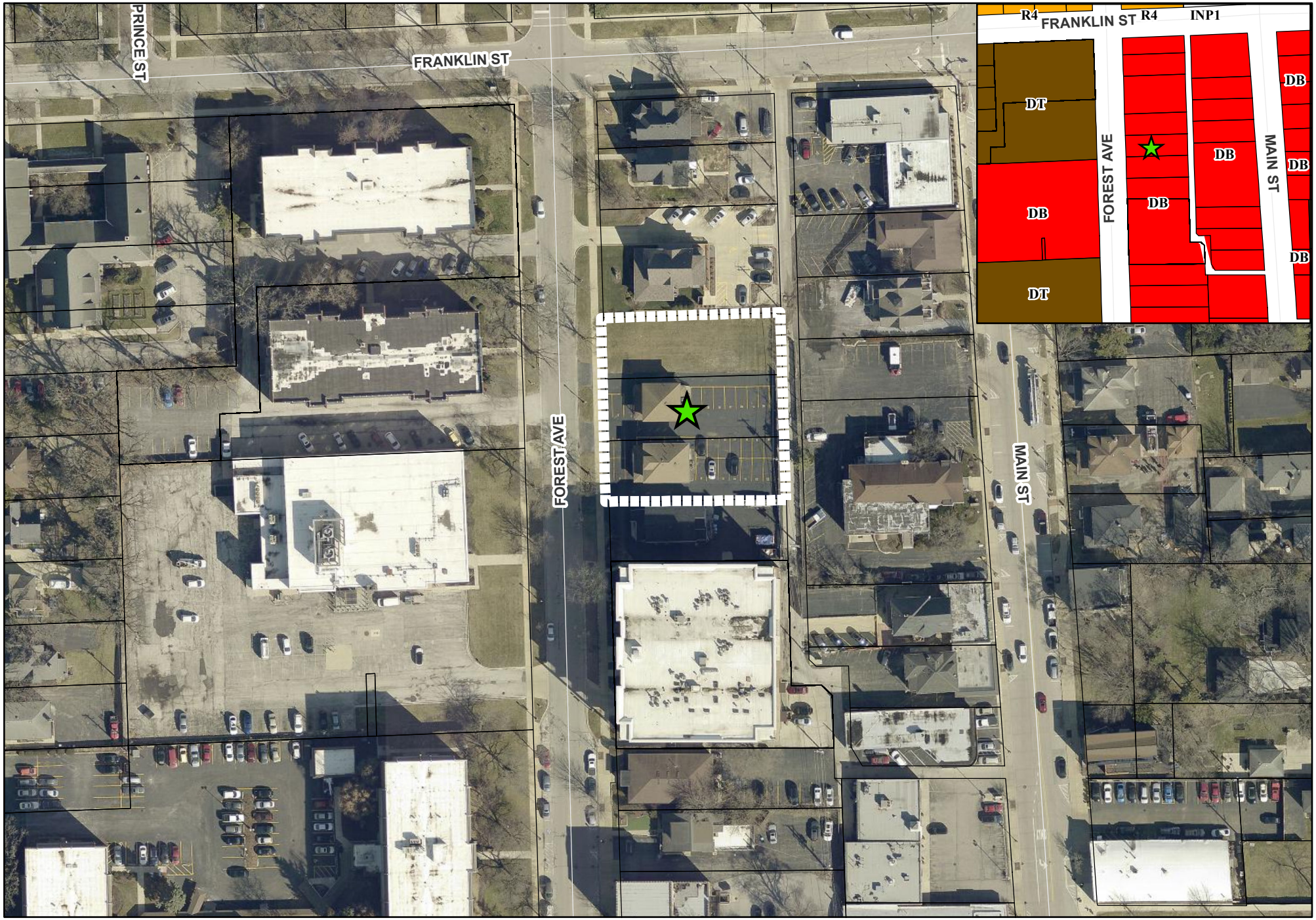
Staff Report Approved By:



Stan Popovich, AICP
Director of Community Development

-att
SP; EH

P:\P&CD\PROJECTS\PLAN COMMISSION\2024 PC Petition Files\24-PCE-0029 - 4919 (4917-4921) Forest Avenue - PUD, Special Use, Lot Consolidation\24-PCE-0029 - Staff Report.doc


PRINCE ST
FRANKLIN ST
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MAIN ST
N
0 50 100 200
Feet
4919 Forest Avenue - Location Map
Subject Property
Project Location

4CORNERS REAL ESTATE

4919 Forest Avenue
Project Narrative

4Corners, LLC ("**4Corners**" or the "**Applicant**") seeks approval of a zoning map amendment to establish a planned unit development, special use permit, planned unit development site plan approval, and lot consolidation for the redevelopment of the property located at 4919 Forest Avenue (the "**Property**"). The Applicant's development proposal involves the construction of a high-quality, seven-story multi-family residential building (the "**Proposed Development**"), designed to align with the Village's vision for a vibrant, pedestrian-friendly downtown area.

Overview of the Subject Property and Site Context

The Property consists of three existing lots of record situated on the east side of Forest Avenue within the block bordered by Franklin Street to the north, Main Street to the east, Warren Avenue to the south, and Forest Avenue to the west. Consisting of approximately 21,219 square feet of net site area, the Property is currently zoned as part of the Downtown Business District (the "**DB District**"). The surrounding land uses include medical office and personal services to the north; funeral services, office, retail and personal services to the east; and a mix of commercial and multi-unit residential uses to the south and west.

The Property is currently improved with two aging, increasingly obsolete two-story buildings and a surface parking lot. These buildings, which were previously utilized as offices, have been substantially vacant for six years despite efforts by the property owner to attract new users.

Description of the Proposed Development

The Proposed Development involves the demolition of the existing structures, consolidation of three lots into a single lot of record, and the construction of a new seven-story residential building. The development will feature 62 rental residential units and 89 vehicular parking spaces (63 regular spaces with 26 tandem spaces. No commercial space is proposed. The building design prioritizes use of high-quality building materials and appropriate bulk, height, massing and articulation, ensuring that the proposed building complements the existing character of the downtown area and adheres to the Village's Downtown Design Guidelines.

Ground Floor Features: The ground floor of the building includes a residential lobby accessible from Forest Avenue, a package room, a shared building amenity space, building mechanicals, a secure bike room with space for 14 bicycles, a fitness room, a trash room, and parking.

Residential Floors: Floors three through six will each contain thirteen residential units and level seven will contain ten units, resulting in a total of 62 units. Units will vary in size and layout to accommodate a diverse range of residents. The Proposed Development contemplates the following unit mix:

Unit Type	Quantity
Efficiency Units	0
1 Bedroom Units	13
2 Bedroom Units	40
3 Bedroom Units	9

Vehicular Access, Parking and Loading: All parking will be contained within a two-level garage located inside the building. The lower garage level will be accessed via Forest Avenue. The upper garage level will occupy the second floor of the building and will be accessible via the 14-foot-wide public alley at the rear of the Property. This design allows curb cuts on Forest Avenue to be reduced/consolidated, thereby minimizing the impact on the streetscape, reducing opportunities for conflicts between pedestrians and vehicles, and supporting and enhancing the pedestrian orientation and walkable nature of the downtown area. The use of the public alley for services functions for the Proposed Development aligns with Key Concept Recommendations identified in the Village of Downers Grove 2017 Comprehensive Plan (the "**Comprehensive Plan**") (See *Comprehensive Plan*, 2017, p. 107).

A 9'-6" x 64'-4"on-street loading area is proposed on Forest Avenue to accommodate short term loading and deliveries.

Trash Collection: The trash collection operations for the site will be organized in a way that ensures efficiency and minimizes disruption. Trash will be collected and stored within a designated trash room inside the building, as shown on the site plan. On scheduled trash pick-up days, dumpsters will be moved to the alley for collection by the garage service. This arrangement allows for proper containment and storage of waste within the building, ensuring that trash is not stored outside, and it will only be moved to the alley for collection at designated times, thereby maintaining cleanliness and minimizing any potential impact on the surrounding area.

Outdoor Spaces and Amenities: The design includes setbacks on the 3rd to 6th floors with an additional setback at the 7th floor to create private outdoor terraces facing Forest Avenue. Private terraces or balconies will be provided for 58 of the 62 units. These features provide residents with usable outdoor space while maintaining the visual cohesion of the downtown streetscape.

Building Height and Materials: The building will have a maximum height of 70 feet and will be constructed using high-quality materials that are consistent with the architectural character of the surrounding neighborhood. The design of the façade, the articulation of the building's base, middle, and top, and the overall massing have been thoughtfully planned to reduce the perceived bulk and integrate the structure into the existing urban fabric.

Conformance with Downtown Design Guidelines

The Proposed Development is carefully designed to adhere to the Village of Downers Grove Downtown Design Guidelines, which serve as a framework for all new construction in the downtown area. The project's design aligns with the guidelines in several key areas:

Downtown Design Guideline Elements	Summary of Compliance
Site Design	The building will be positioned within the build-to-zone, close to the sidewalk and street property lines, contributing to a continuous street wall that enhances the pedestrian experience. The upper-level setbacks are utilized to create green spaces and avoid gaps in the street wall, further enhancing the walkable and inviting atmosphere of downtown.

Building Design	The massing and height of the Proposed Development are proportionate to nearby buildings, with structural articulation and upper floor setbacks used to reduce the apparent mass of the building. These design choices create a sense of enclosure that is important for a downtown environment while ensuring that the building remains visually harmonious with its surroundings. The façade design reflects the principles outlined in the Design Guidelines, with an emphasis on proportionate shapes, visually appealing articulation, and the use of high-quality materials. The building's base, middle, and top are clearly defined, with attention given to the detailing of windows, balconies, and rooflines to create a cohesive and aesthetically pleasing structure.
Building Base	The lower levels of the building feature extensive use of storefront along Forest Ave to create an open and inviting pedestrian experience. The building setback at the third floor creates a distinct podium that is emphasized further with a strong masonry base and brick patterning that separates the base from the middle and top. The primary building entry faces directly onto Forest Avenue and is capped by an awning that is framed within the broader massing articulation, creating a distinct and inviting entry to the building.
Building Middle	Windows are designed to create a sense of rhythm and regularity that emphasizes the play of solid and void. Visual interest is emphasized with building recesses and inset balconies across the facade. Where windows occur, they are broken up into smaller units, creating further visual interest. Window sizes differ between larger "square" windows and smaller "vertical" windows to create a rhythm that breaks up the façade further.
Building Top	The building top is designed to articulate the massing and complement the overall design. Where the building steps back at the seventh floor, an articulated cornice is used to create a sense of finality and add to the visual interest of the building. This is in contrast to the top of the massing at the south portion of the building where the façade is capped with a formed metal coping that highlights the simple form of the massing while adding visual appeal.
Utility Considerations	The Proposed Development fully complies with the utility-related recommendations set forth in the Design Guidelines. The rear portions of the Property will be maintained in excellent condition, with trash receptacles and service areas carefully screened to

	ensure they are not visible from nearby streets or sidewalks. The rear façade is designed to be attractive, incorporating maintenance, utility, and service areas seamlessly into the overall building design.
Parking Facilities	The parking solution provided by the Proposed Development follows the standards outlined in the Design Guidelines with respect to new parking. The inclusion of 89 parking spaces within a two-level garage inside the building ensures that no surface parking lots are exposed, thereby complying with the Village's screening requirements. The design minimizes curb cuts onto neighborhood streets by consolidating the existing curb cuts into one, reducing disruptions to pedestrian pathways and reducing conflicts between pedestrians and local traffic. The internal location of the parking facility also helps buffer off-street parking with fencing and landscaping, preventing light and sound trespass to adjacent residential areas and maintaining compliance with Zoning Ordinance requirements.

Compliance with the Comprehensive Plan

The Proposed Development is in alignment with the goals and policies outlined in Comprehensive Plan, particularly those relevant to the Downtown Key Focus Area. The Comprehensive Plan emphasizes the importance of creating a vibrant, pedestrian-oriented downtown that supports a mix of uses, including residential, commercial, and civic activities. The Proposed Development directly supports these goals in several key ways:

Pedestrian-Oriented Development: The Comprehensive Plan highlights the need for downtown developments to be pedestrian-oriented, fostering a walkable environment that encourages foot traffic and supports local businesses. The Proposed Development adheres to this principle by situating residential units within easy walking distance of downtown amenities, public transportation, and services, thereby promoting the walkability and pedestrian-friendly nature of the area.

Infill Development and Redevelopment: The Comprehensive Plan encourages infill development and the redevelopment of underutilized sites within the downtown area to maximize the potential of the district. The Proposed Development will transform a long-vacant and underutilized site into a high-quality, seven-story residential building, contributing to the revitalization of the downtown area and aligning with the Plan's focus on strategic infill development.

Variety in Housing Options: The Plan stresses the importance of providing a variety of housing types and sizes to accommodate households of all ages, sizes, incomes, and lifestyle choices. The Proposed Development will introduce 62 new residential units, offering a mix of unit sizes that cater to diverse housing needs, thereby enhancing the housing stock in Downers Grove and contributing to the community's long-term sustainability.

Commitment to High-Quality Architecture: The Comprehensive Plan calls for a commitment to quality architecture that complements the existing character of the downtown area. The Proposed Development emphasizes the use of high-quality building materials and thoughtful design,

ensuring that the new building integrates seamlessly with the surrounding urban fabric and enhances the aesthetic appeal of the downtown.

Conclusion
The Proposed Development represents a thoughtful and high-quality addition to downtown Downers Grove. By adhering to the Downtown Design Guidelines and integrating well-planned site and building design elements, the project will contribute positively to the downtown's built environment and continued vitality.

The Proposed Development complies with all applicable standards of the Zoning Ordinance, including the approval criteria for zoning map amendments, special use permits, and Planned Unit Developments (PUDs). The project is designed to be an amenity to the community, providing significant public benefits, including the creation of 50-75 construction jobs. Additionally, the Proposed Development will result in donations/impact fees totaling approximately $386,200, further contributing to the Village's resources.

The Proposed Development aligns with the community’s vision for a vibrant and appealing downtown, attracting new residents, boosting walkability, and revitalizing a long-vacant site in the heart of the Village. By reactivating this underutilized property, the development introduces much-needed housing options and contributes to the overall vibrancy of Downers Grove.

4CORNERS REAL ESTATE

Project Contacts

Role	Name / Company	Contact Information
Developer	4Corners Real Estate J.P. Bartley	Mobile: (708) 935-9059 Email: jp.bartley@4cornersllc.com Mailing Address: 6405 Caton Farm Road Plainfield, IL 60586
General Contractor	4Corners Construction	Mobile: (630) 842-8843 Email: jim.roberts@4cornersllc.com
Land Use Attorney	Taft Law Liz Butler, AICP	Office: (312) 836-4121 Mobile: (786) 427-5499 Email: LButler@taftlaw.com
Project Architect	Kennedy Mann Benjamin Kennedy, AIA, NCARB Matt Mann AIA, NCARB, LEED AP BD+C	Ben Kennedy Office: (312) 384-0099 Mobile: (312) 752-7767 Email: ben@kennedymann.com Matt Mann Office: (312) 384-0099 Mobile: (773) 304-6933 Email: matt@kennedymann.com
Civil Engineer / Surveyor	CAGE Civil Tom Petermann, P.E. Claudia Welp Gaby Ptasinska, PLS	Tom Petermann Office: (630) 598-0007 Mobile: (773) 495-0242 Email: tpetermann@cagecivil.com Claudia Welp Mobile: (815) 757-0140 Office: (630) 598-0007 Email: cwelp@cagecivil.com Gaby Ptasinska Mobile: (773) 814-9880 Office: (630) 598-0007 Email: gptasinska@cagecivil.com
Traffic Engineer	KLOA Luay Aboona, PE, PTOE	Office: (847) 518-9990 Mobile: (847) 571-4331 Email: laboona@kloainc.com

4CORNERS REAL ESTATE

Neighborhood Meeting Summary

Project: 4919 Forest Avenue Redevelopment
Developer: 4Corners LLC
Location: 4913-21 Forest Avenue
Proposed Development: 7-story multi-family residential building with 62 rental residential units and 89 vehicular parking spaces.

Notification Efforts

The 4Corners LLC team undertook several efforts to notify neighbors and stakeholders about the proposal:

- **Mailed Notice**: A flyer was mailed to property owners within 250 feet of the subject property via regular mail on or around September 13, 2023. The flyer invited neighbors to attend one of two community information meetings: an in-person meeting on Monday, September 23, 2024, and a virtual meeting on Monday, September 30, 2024.

- **Meeting Invitation and Notice List**: Attached to this report is a copy of the meeting invitation flyer and the list of individuals notified.

- **Downers Grove Economic Development Corporation**: Project details and neighborhood meeting invitations were sent to certain DGEDC board members.

Methods of Sharing Information

Flyer Distribution

The flyer provided detailed information about the redevelopment proposal and meeting details, including the in-person meeting location (Loyal Order of Moose Downers Grove Lodge 1535) and the Zoom link for the virtual meeting option.

Community Information Meetings

Two community information meetings were held:

In-Person Meeting: September 23, 2024, at 6:00 PM at Loyal Order of Moose Downers Grove Lodge 1535.

The in-person meeting was attended by several neighbors, representatives from 4Corners LLC, and project attorney Liz Butler. A sign-in sheet was collected, which is attached to this report.

Virtual Meeting: September 30, 2024, at 6:00 PM via Zoom.

Attendees included property owners who could not attend the in-person meeting, as well as project representatives.

Meeting Follow Ups

Neighbors who attended the community information sessions were encouraged to reach out to project contacts with additional questions following the meeting. Neighbors who were unable to attend were also provided with project contact information and the team responded to answer questions and provide project information in response to neighbor inquiries.

Summary of Community Input

During the meetings, neighbors raised various questions and provided feedback regarding the proposed development. These discussion have been organized topically below:

Parking and Traffic

- Increased Traffic: Neighbors asked about the potential for increased traffic in the area, especially in relation to nearby train stations and intersections. Luay Aboona from KLOA addressed the traffic impact study, which indicated that the proposed development would result in minimal additional traffic.
- Parking Availability: There were questions about whether there would be adequate parking for visitors and concerns about the potential impact on surrounding streets. Suggestions were made to explore making the building's exit onto Forest Avenue one-way north to mitigate traffic flow. Notably this recommendation was not made or concurred with by KLOA or the Village.
- Alley Width: Several participants noted the narrowness of the alley at the rear of the building and inquired about how it might affect access for vehicles and service trucks. This concern has been addressed with revisions to the plans.

Building Design and Height

- Height and Neighborhood Character: Some neighbors raised comments about the building's height, asking how it might affect the character of the surrounding neighborhood. The development team clarified that the height of the proposed building is similar and in line with the adjacent condo building to the south, and is based on the average grade at the building along Forest Ave. The development team noted that the building steps back at the third and seventh floor to help reduce the sense of scale as one moves north along the site.
- Landscaping: There were inquiries about whether any landscaping or greenery would be included in front of the building to enhance its appearance and help it fit within the neighborhood.

Construction Considerations

Neighbors expressed curiosity about the construction timeline and the potential for damage to nearby property or disruption due to noise and dust. They were interested in learning more about the duration of the work and how it would be managed. The development team noted that construction would last approximately 18 months.

Stormwater Management

Several participants inquired about the stormwater management plan for the site and how runoff would be handled to prevent any negative effects on nearby properties. Claudia Welp from CAGE Civil Engineering described the project's stormwater management approach.

Housing Details

Meeting participants inquired as to whether the units would be rental or for-sale product (with a preference for condo expressed on the basis that renters are not invested in the local community), whether affordable housing would be included, and questions regarding anticipated rental ranges.

Changes to the Proposal as a Result of Neighbor Input

Overall the project was well received by neighbors and many meeting participants complimented the aesthetic/building design. Several modifications have been made or are being explored as a result of neighborhood input:

Parking Considerations: Based on feedback from the meetings, the project team is reviewing the parking allocation, including designating certain parking within the building as visitor parking.

Alley Adjustments: To address concerns regarding the alley, the building was shifted three feet off of the alley and a 3-foot-wide portion of the site will be voluntarily dedicated to the Village in order to widen the alley. The developer will also repave the alley as part of the project.

This report provides a comprehensive summary of the neighborhood meetings and their outcomes. Please review the attached meeting flyer, notification list, and sign-in sheet for additional context.

4CORNERS REAL ESTATE

NOTICE OF COMMUNITY INFORMATION MEETING

We invite you to attend a community information session presented by 4Corners, LLC regarding its application for zoning approvals for the property located at 4913-21 Forest Avenue to redevelop the site with a 7-story multi-family residential building with 62 rental residential units and 89 vehicular parking spaces. This meeting will be an opportunity to inform and answer questions regarding the proposed development.

IN PERSON MEETING OPTION
Monday, September 23, 2024 at 6:00 pm
Meeting Location: Loyal Order of Moose, Downers Grove Lodge 1535
1030 Warren Avenue, Downers Grove, IL

VIRTUAL MEETING OPTION
Monday, September 30 at 6:00 pm

Join Zoom Meeting
https://taftlaw.zoom.us/j/95306541987

Meeting ID: 953 0654 1987

Join by Telephone
1 (312) 626 6799 US (Chicago)
1 (309) 205 3325 US

For more information about the proposal
Contact Liz Butler, the attorney for the project, at (312) 836-4121 or email at LButler@taftlaw.com

TOPOGRAPHIC AND BOUNDARY SURVEY

CURRENT P.I.N.:

09-08-116-005-0000
09-08-116-006-0000
09-08-116-007-0000

0 20' 40'
1" = 20' (HORIZONTAL)

OWNER

4 CORNERS CONSTRUCTION, LLC
3945 OHIO AVENUE
ST. CHARLES, IL 60174

SURVEYED AREA

21,219 SQUARE FEET (0.487 AC±)

COORDINATES AND BEARINGS ARE BASED UPON THE ILLINOIS STATE PLANE COORDINATE SYSTEM, EAST ZONE (NAD 83), ADJUSTED TO GROUND VALUES, AS ESTABLISHED BY REAL-TIME KINEMATIC (RTK) GLOBAL NAVIGATION SATELLITE SYSTEM (GNSS) UTILIZING GPS OBSERVATIONS

LEGAL DESCRIPTION

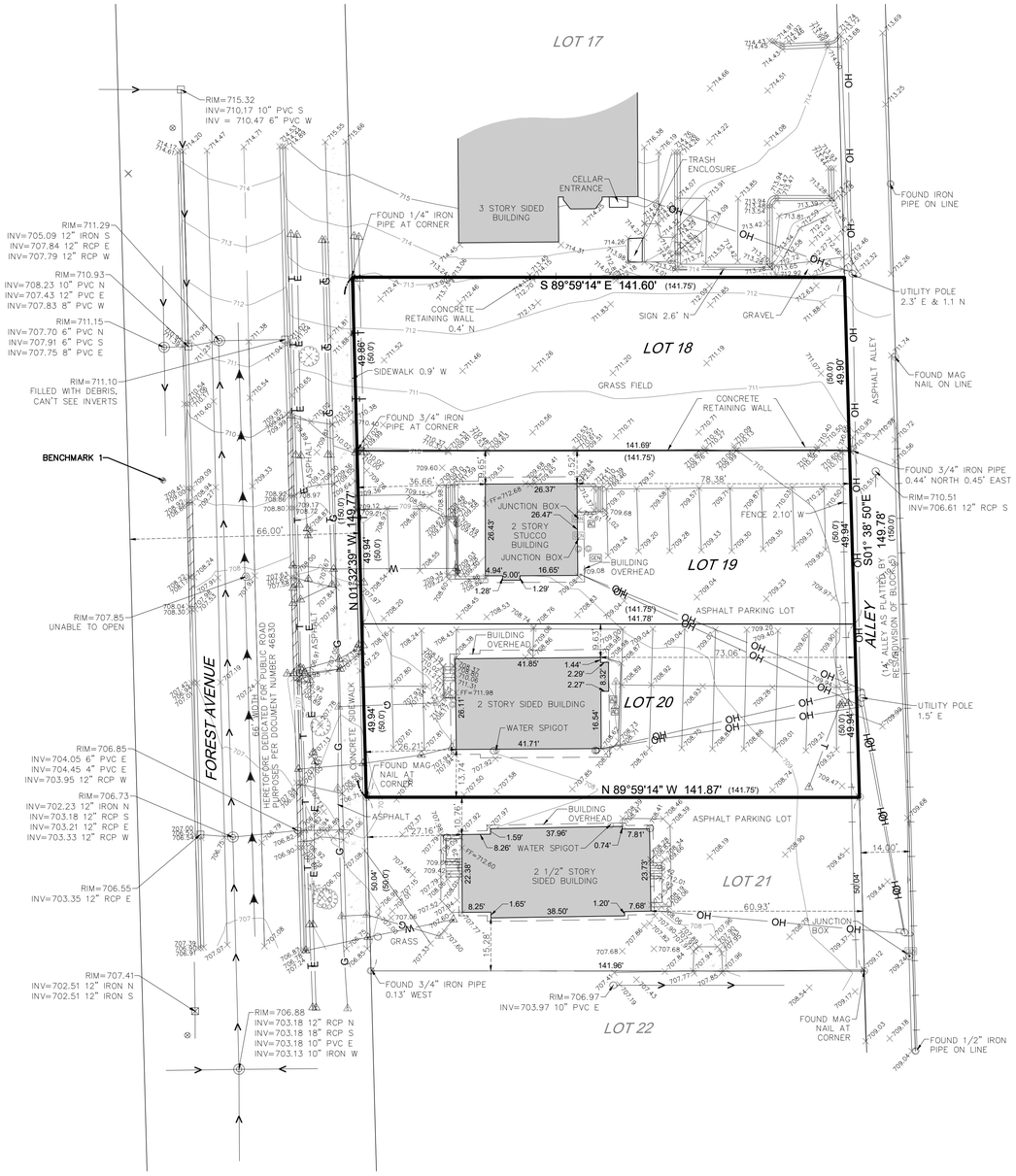
LOTS 18, 19 AND 20 IN THE RESUBDIVISION OF BLOCK 5 OF E.H. PRINCE AND COMPANY'S ADDITION TO DOWNERS GROVE, IN SECTIONS 5, 6, 7 AND 8, TOWNSHIP 38 NORTH, RANGE 11 EAST OF THE THIRD PRINCIPAL MERIDIAN, ACCORDING TO THE PLAT OF SAID RESUBDIVISION RECORDED OCTOBER 24, 1891 AS DOCUMENT 46830, IN DUPAGE COUNTY, ILLINOIS.

BENCHMARKS

REFERENCE BENCHMARK: 2006 GEODETIC SURVEY MONUMENT DK3312
3.5" BRASS DISC SET IN CONCRETE ±0.2' ABOVE GRADE AT NORTHEAST CORNER OF WASHINGTON STREET AND WARREN AVENUE. STATION IS 57.4' SOUTHEAST OF A POWER POLE, 49.5' EAST OF A LIGHT POLE, AND 79.4' NORTHEAST OF A FIRE HYDRANT.
ELEVATION: 718.78 DATUM: NAVD88-GEOID18

SITE BENCHMARK 1:
SOUTHWEST BOLT (TAGGED BOLT) FIRE HYDRANT AT 4910 FOREST AVENUE.
ELEVATION: 711.23 DATUM: NAVD88-GEOID18

SITE BENCHMARK 2:
SQUARE CONCRETE BASE OF FIRST LIGHT POLE SOUTH OF BENCHMARK 1 SQUARE CUT ON EAST SIDE OF BASE.
ELEVATION: 707.88 DATUM: NAVD88-GEOID18



SURVEYOR'S NOTES

1. DISTANCES ARE MARKED IN FEET AND DECIMAL PLACES THEREOF. NO DIMENSION SHALL BE ASSUMED BY SCALE MEASUREMENT HEREON. DISTANCES AND/OR BEARINGS SHOWN IN PARENTHESIS (123.45') ARE RECORD OR DEED VALUES, NOT FIELD MEASURED.
2. COMPARE THIS PLAT, BENCHMARKS AND ALL SURVEY MONUMENTS BEFORE BUILDING AND IMMEDIATELY REPORT ANY DISCREPANCIES TO THE SURVEYOR.
3. THIS SURVEY IS SUBJECT TO MATTERS OF TITLE, WHICH MAY BE REVEALED BY A CURRENT TITLE REPORT, EASEMENTS, SETBACKS AND OTHER RESTRICTIONS WHICH MAY BE FOUND IN A CURRENT TITLE REPORT, LOCAL ORDINANCES, DEEDS OR OTHER INSTRUMENTS OF RECORD MAY NOT BE SHOWN.
4. UNLESS OTHERWISE NOTED, ONLY THE IMPROVEMENTS WHICH WERE VISIBLE FROM ABOVE GROUND AT THE TIME OF THE SURVEY AND THROUGH A NORMAL SEARCH AND WALK THROUGH OF THE SITE ARE SHOWN ON THE FACE OF THIS PLAT. LAWN SPRINKLERS, IF ANY, ARE NOT SHOWN ON THIS SURVEY.
5. THIS SURVEY MAY NOT REFLECT ALL UTILITIES OR IMPROVEMENTS, IF SUCH ITEMS ARE HIDDEN BY LANDSCAPING OR ARE COVERED BY LEAVES OR OTHER OBSTRUCTIONS. THERE MAY BE ADDITIONAL UTILITIES OR IMPROVEMENTS THAT HAVE NOT BEEN SHOWN.
6. UNDERGROUND UTILITIES INCLUDING, BUT NOT LIMITED TO, STORM AND SANITARY SEWERS, WATER MAINS, TELEPHONE AND ELECTRIC CABLES OR CONDUITS, GAS MAINS AND ALL SERVICE LINES SHOWN HEREON ARE BASED ON THE ACTUAL OBSERVED LOCATION AT AN OPEN MANHOLE. THE EXACT LOCATION MAY DIFFER FROM THE LOCATION SHOWN HEREON.
7. OTHER THAN VISIBLE OBSERVATIONS NOTED HEREON, THIS SURVEY MAKES NO STATEMENT REGARDING THE ACTUAL PRESENCE OR ABSENCE OF ANY SERVICE OR UTILITY LINE. CONTROLLED UNDERGROUND EXPLORATORY EFFORTS TOGETHER WITH UTILITY MARKINGS (J.U.L.I.E., DIGGER, PRIVATE, ETC) IS RECOMMENDED TO DETERMINE THE FULL EXTENT OF UNDERGROUND SERVICE AND UTILITY LINES.
8. THIS SURVEY WAS PREPARED FOR DEJAMES BUILDERS, INC. (CLIENT), BASED ON A FIELD SURVEY COMPLETED ON MAY 28, 2024
9. CAGE CIVIL ENGINEERING, LLC IS A PROFESSIONAL DESIGN FIRM, CURRENT LICENSE NO. 184007577, EXPIRES APRIL 30, 2025.

LEGEND

BOUNDARY LINE =		EX. CONTOUR =	740
R.O.W. LINE =		FOUND IRON PIPE/ROD =	
EASEMENT LINE =		EX. STORM MANHOLE =	
PAVEMENT LINE =		EX. CATCH BASIN =	
CURB & GUTTER =		EX. INLET =	
CONCRETE SIDEWALK =		EX. SANITARY MANHOLE =	
SANITARY LINE =		EX. DOWN DRAIN / CLEANOUT =	
STORM LINE =		EX. WATER MAIN MARKER =	
EX. WATER MAIN =	W	EX. VALVE BOX =	
EX. UNDERGROUND ELECTRIC LINE =	E	EX. VALVE VAULT =	
EX. TELEPHONE LINE =	T	EX. BOLLARD =	
EX. OVERHEAD UTILITY LINE =	OH	EX. SIGN =	
EX. GAS MAIN =	G	EX. DECIDUOUS TREE =	12"
EX. WOODEN FENCE =		EX. GRADE SHOT =	740.00
EX. AIR CONDITIONER =	AC	EX. CONCRETE =	
EX. ELECTRICAL OUTLET =		EX. BUILDING =	
EX. TELEPHONE MANHOLE =	TH	EX. DEPRESSED CURB =	
EX. TELEPHONE MARKER =		RECORD INFORMATION =	(XXX.XX)
EX. GAS MAIN MARKER =		MEASURED INFORMATION =	XXX.XX
EX. ELECTRIC MARKER =			
EX. ELECTRIC METER =			
EX. UTILITY POLE =			
EX. ELECTRIC LIGHT POLE =			

SURVEYOR'S CERTIFICATE

STATE OF ILLINOIS)
)SS
COUNTY OF DUPAGE)

I, GABRIELA PTASINSKA, AN ILLINOIS PROFESSIONAL LAND SURVEYOR, HEREBY CERTIFY THAT THIS PLAT AND THE SURVEY UPON WHICH IT IS BASED HAS BEEN PREPARED FOR THE USES AND PURPOSES HEREIN SET FORTH.

ALL DIMENSIONS ARE GIVEN IN FEET AND DECIMALS THEREOF.

GIVEN UNDER MY HAND AND SEAL THIS 5TH DAY OF JUNE, A.D. 2024.

Gabriela Ptasinska

GABRIELA PTASINSKA
GPTASINSKA@CAGECIVIL.COM
ILLINOIS PROFESSIONAL LAND SURVEYOR NO. 3892
LICENSE EXPIRES NOVEMBER 30, 2024

DESIGN FIRM PROFESSIONAL LICENSE NO. 184007577
LICENSE EXPIRES APRIL 30, 2025.

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

DATE OF FIELD SURVEY: MAY 28, 2024

GABRIELA PTASINSKA 3893 PROFESSIONAL LAND SURVEYOR STATE OF ILLINOIS LISLE, ILLINOIS

2200 CABOT DRIVE
SUITE 325
LISLE, IL 60532
P: 630.598.0007
WWW.CAGECIVIL.COM

CAGE CIVIL ENGINEERING

REVISIONS

4 CORNERS MULTI-FAMILY HIGH RISE

DOWNERS GROVE, IL

TOPOGRAPHIC & BOUNDARY SURVEY

PROJ NO: 230368
PM: GP
DATE: 06/05/2024
SCALE: 1" = 20'

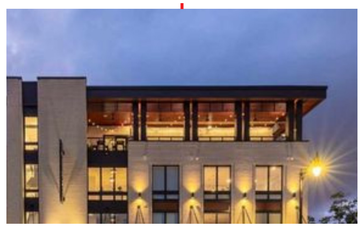
SHEET NUMBER
1 OF 1

KENNEDY MANN

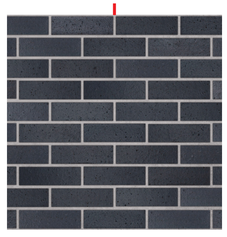
RENDERINGS

4919 FOREST AVE, DOWNERS GROVE, IL 60515

SD2.22

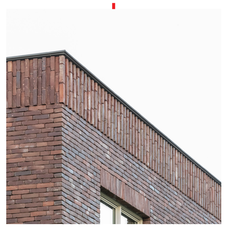


FORMED METAL ROOF OVERHANG CREATES DISTINCTIVE CAP TO BUILDING WHILE SHADING TERRACES FROM AFTERNOON SUN



MANGANESE IRONSPOT BRICK WITH VELOUR TEXTURE. MERIDIAN SIZE IS LONGER AND MORE NARROW TO CREATE MORE RESIDENTIAL FEEL

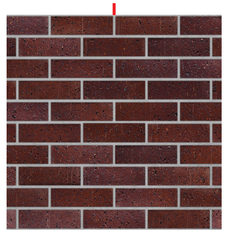
PROJECTED BRICK BANDING PROVIDES VISUAL INTEREST AND REDUCES SENSE OF BLANK FACADE



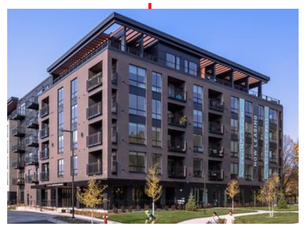
SOLDIER COURSE BANDING CREATES ARTICULATION AND BREAKS UP THE VERTICAL MASSING

MASSING IS BROKEN UP INTO MULTIPLE BAYS AND SET BACK TO REDUCE OVERWHELMING MASSING ON STREET EDGE. MASSING IS CAPPED WITH DISTINCTIVE FORMED METAL CAP TO CREATE A SENSE OF FINALITY AND VISUAL INTRIGUE

STONE SILLS AT VERTICAL MASSING



MEDIUM IRONSPOT WITH VELOUR TEXTURE AND MERIDIAN SIZE BRICK



INSET BALCONIES CREATE DEPTH AND SENSE OF RELIEF IN THE FACADE

KENNEDY MANN

MATERIAL BOARD

4919 FOREST AVE, DOWNERS GROVE, IL 60515

SD2.19

KENNEDY MANN

WEST ELEVATION - RENDERED

4919 FOREST AVE, DOWNERS GROVE, IL 60515

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

SD2.15

KENNEDY MANN

NORTH ELEVATION - RENDERED

4919 FOREST AVE, DOWNERS GROVE, IL 60515

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

SD2.16

KENNEDY MANN

EAST ELEVATION - RENDERED

4919 FOREST AVE, DOWNERS GROVE, IL 60515

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

SD2.17

KENNEDY MANN

SOUTH ELEVATION - RENDERED

4919 FOREST AVE, DOWNERS GROVE, IL 60515

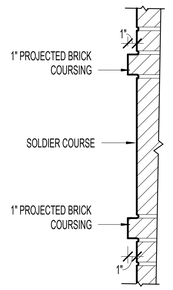
SCALE: 1/8" = 1'-0"

SD2.18

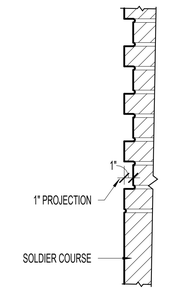
EXTERIOR MATERIAL LEGEND

- BRICK 01 - RED IRONSPOT
- BRICK 01 - RED IRONSPOT - SOLDIER COURSE
- BRICK 02 - MANGANESE BROWN
- BRICK 02 - MANGANESE BROWN - SOLDIER COURSE
- GLAZING - SPANDREL
- GLAZING - FROSTED

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



3 PROJECTED BRICK DETAIL AT SOLDIER COURSE
SCALE: 1 1/2" = 1'-0"



2 PROJECTED BRICK DETAIL
SCALE: 1 1/2" = 1'-0"

0 4' 8' 16'
0

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4CORNERS MULTI-FAMILY HIGH RISE

4 CORNERS CONSTRUCTION, LLC

3945 OHIO AVE
ST CHARLES, IL 60174

4919 FOREST AVE
DOWNERS GROVE, IL 60515

DESIGN FIRM REGISTRATION #:184.006200-0001

No.	Description	Date
	PLAN REVIEW SUBMISSION	08.29.2024
	RESPONSE TO PUD COMMENTS #1	10.18.2024
	RESPONSE TO PUD COMMENTS #2	10.31.2024
	RESPONSE TO PUD COMMENTS #3	11.15.2024

DRAWN BY	JP
CHECKED BY	BK
SCALE	As indicated
PROJECT START DATE	08.29.2024
PROJECT NUMBER	2415

WEST ELEVATION (FOREST AVE)

SD2.01

EXTERIOR MATERIAL LEGEND

- BRICK 01 - RED IRONSPOT
- BRICK 01 - RED IRONSPOT - SOLDIER COURSE
- BRICK 02 - MANGANESE BROWN
- BRICK 02 - MANGANESE BROWN - SOLDIER COURSE
- GLAZING - SPANDREL
- GLAZING - FROSTED

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

0 4' 8' 16'

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	RESPONSE TO PUD COMMENTS #2	10.31.2024

DRAWN BY	Author
CHECKED BY	Checker
SCALE	1/8" = 1'-0"
PROJECT START DATE	08.29.2024
PROJECT NUMBER	2415

NORTH ELEVATION

SD2.02

EXTERIOR MATERIAL LEGEND

- BRICK 01 - RED IRONSPOT
- BRICK 01 - RED IRONSPOT - SOLDIER COURSE
- BRICK 02 - MANGANESE BROWN
- BRICK 02 - MANGANESE BROWN - SOLDIER COURSE
- GLAZING - SPANDREL
- GLAZING - FROSTED

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

0 4' 8' 16'
0

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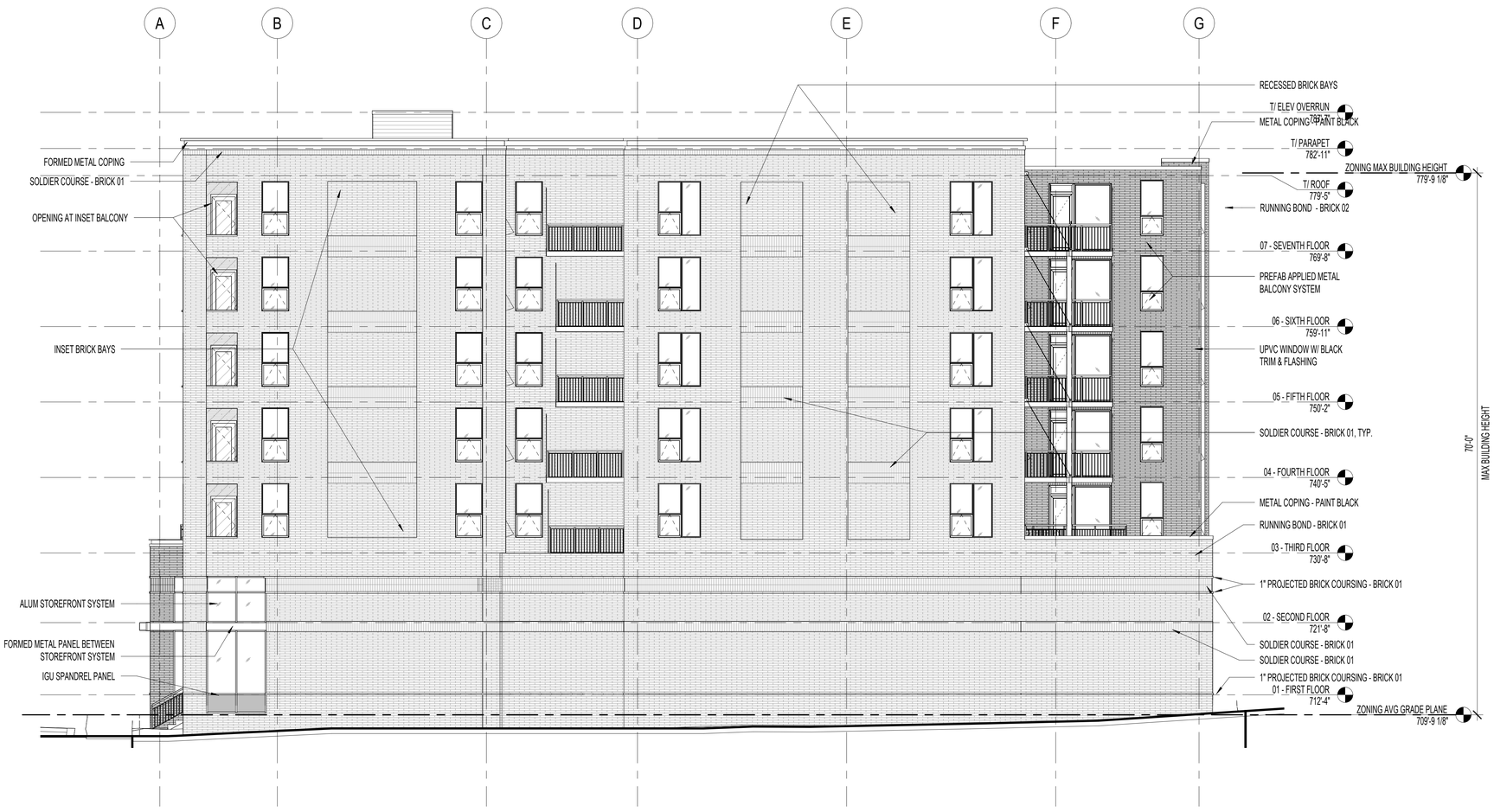
DRAWN BY	Author
CHECKED BY	Checker
SCALE	1/8" = 1'-0"
PROJECT START DATE	08.29.2024
PROJECT NUMBER	2415

EAST ELEVATION (ALLEY)

SD2.03

EXTERIOR MATERIAL LEGEND

- BRICK 01 - RED IRONSPOT
- BRICK 01 - RED IRONSPOT - SOLDIER COURSE
- BRICK 02 - MANGANESE BROWN
- BRICK 02 - MANGANESE BROWN - SOLDIER COURSE
- GLAZING - SPANDREL
- GLAZING - FROSTED



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

0 4' 8' 16'

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4CORNERS MULTI-FAMILY HIGH RISE

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DRAWN BY	Author
CHECKED BY	Checker
SCALE	1/8" = 1'-0"
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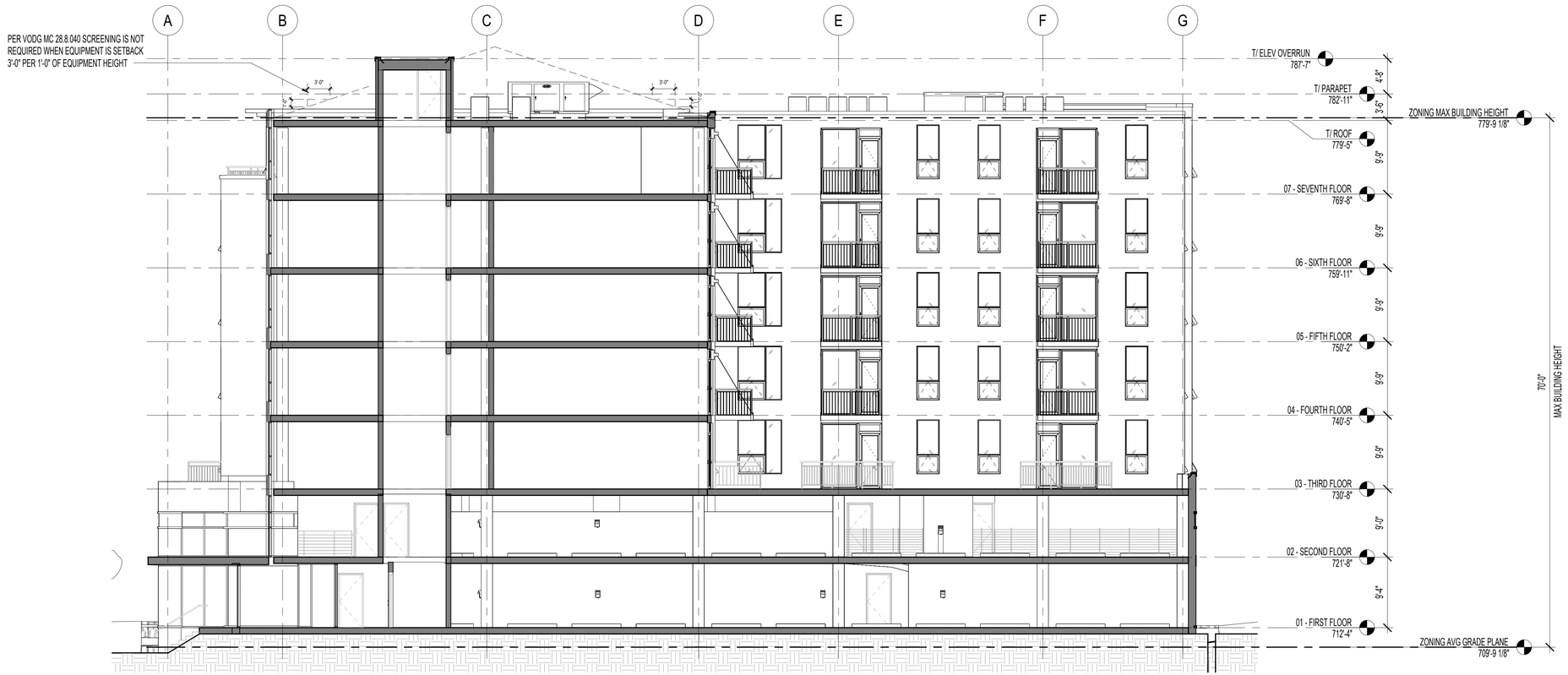
PROJECT NUMBER	2415

SOUTH ELEVATION

SD2.04



2 BUILDING SECTION THROUGH ENTRY
SCALE: 1/8" = 1'-0"

1 BUILDING SECTION THROUGH PARKING GARAGE RAMPS
SCALE: 1/8" = 1'-0"

0 4' 8' 16'
0

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DRAWN BY	JP
CHECKED BY	BK
SCALE	1/8" = 1'-0"
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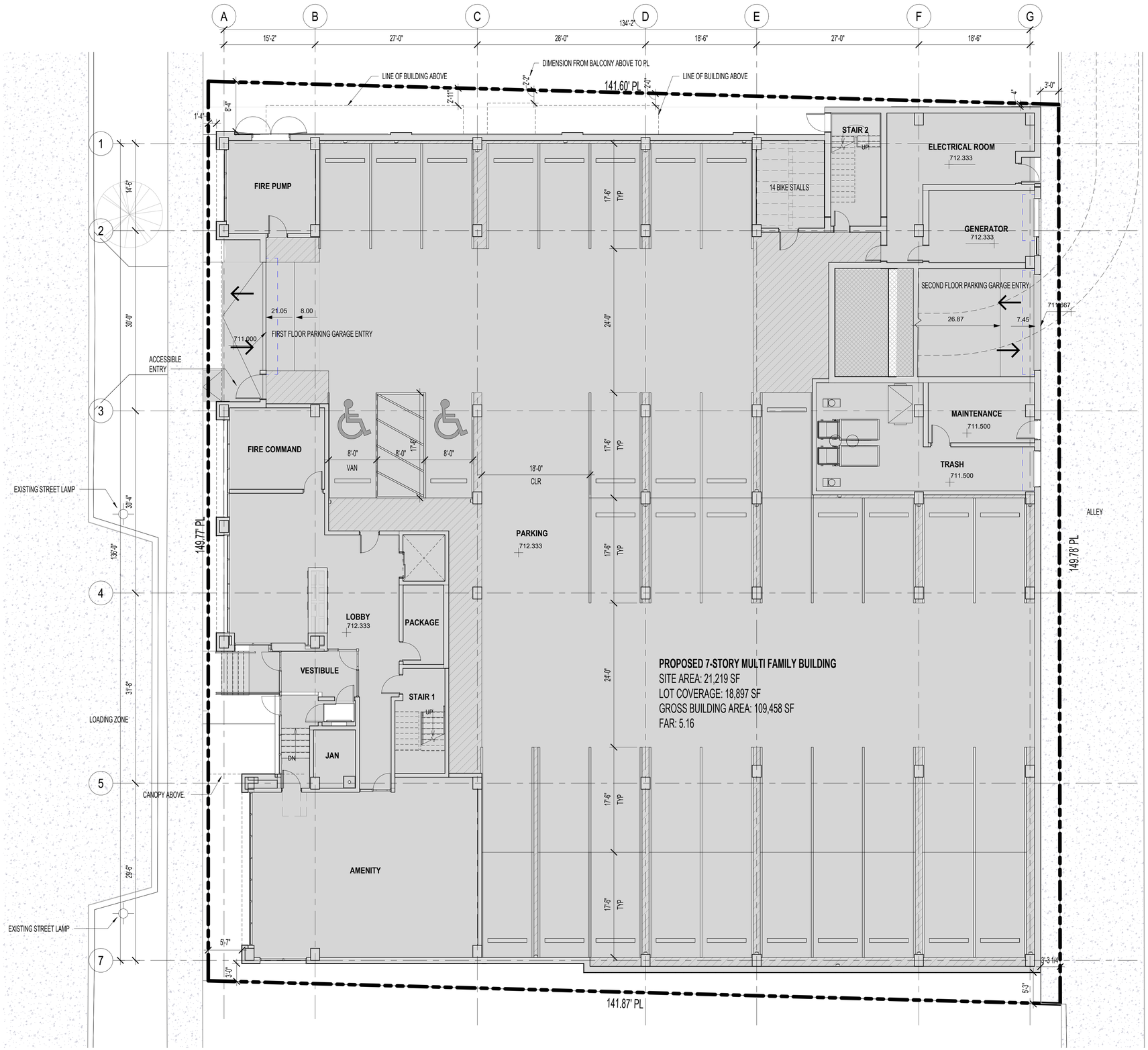
PROJECT NUMBER	2415

BUILDING SECTION

SD2.05



1 PROPOSED SITE PLAN
SCALE: 1/8" = 1'-0"

0 4' 8' 16'

OVERALL PARKING		
Count	**Stall Type**	**Stall Size**
01 - FIRST FLOOR		
2	ACCESSIBLE STALL	8'-0" x 17'-6"
18	STANDARD STALL	8'-6" x 17'-6"
22	TANDEM STALL	8'-6" x 17'-6"
42		
02 - SECOND FLOOR		
2	ACCESSIBLE STALL	8'-0" x 17'-6"
17	STANDARD STALL	8'-6" x 17'-6"
28	TANDEM STALL	8'-6" x 17'-6"
47		
TOTAL STALLS: 89		

GROSS BUILDING AREA	
Level	**Area**
01 - FIRST FLOOR	17,972 SF
02 - SECOND FLOOR	17,668 SF
03 - THIRD FLOOR	14,539 SF
04 - FOURTH FLOOR	14,539 SF
05 - FIFTH FLOOR	14,539 SF
06 - SIXTH FLOOR	14,539 SF
07 - SEVENTH FLOOR	13,912 SF
GROSS BUILDING AREA	107,707 SF

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ST CHARLES, IL 60174

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CHECKED BY	BK
SCALE	1/8" = 1'-0"
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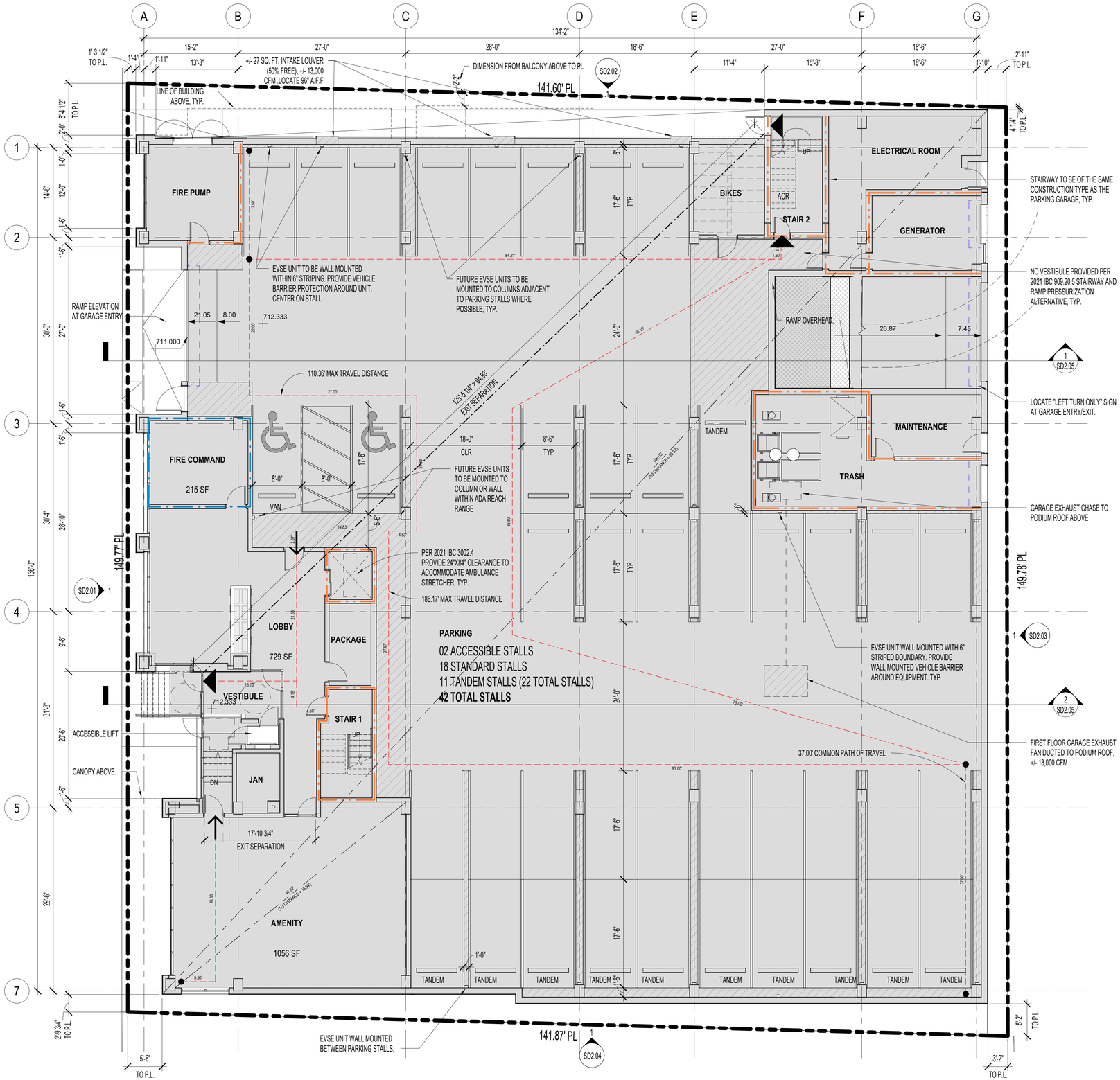
PROPOSED SITE PLAN

SD1.00



PARKING SCHEDULE		
COUNT	STALL TYPE	STALL SIZE
01 - FIRST FLOOR		
2	ACCESSIBLE STALL	8'-0" x 17'-6"
18	STANDARD STALL	8'-6" x 17'-6"
22	TANDEM STALL	8'-6" x 17'-6"
42		

CODE SEPARATION SYMBOLS

HOURLY FIRE RESISTANCE RATINGS OF WALLS AND PARTITIONS, FOR SEPARATION OF ADJACENT SPACES:

- 1-HOUR WALL OR PARTITION
- 2-HOUR WALL OR PARTITION
- 3-HOUR WALL OR PARTITION

CODE DIAGRAM SYMBOLS

- TRAVEL DISTANCE TO EXIT AND COMMON PATH OF TRAVEL
- EXIT ACCESS DIAGONAL DISTANCES AND CALCULATIONS
- EGRESS EXIT SYMBOL

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ST CHARLES, IL 60174

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DRAWN BY	JP
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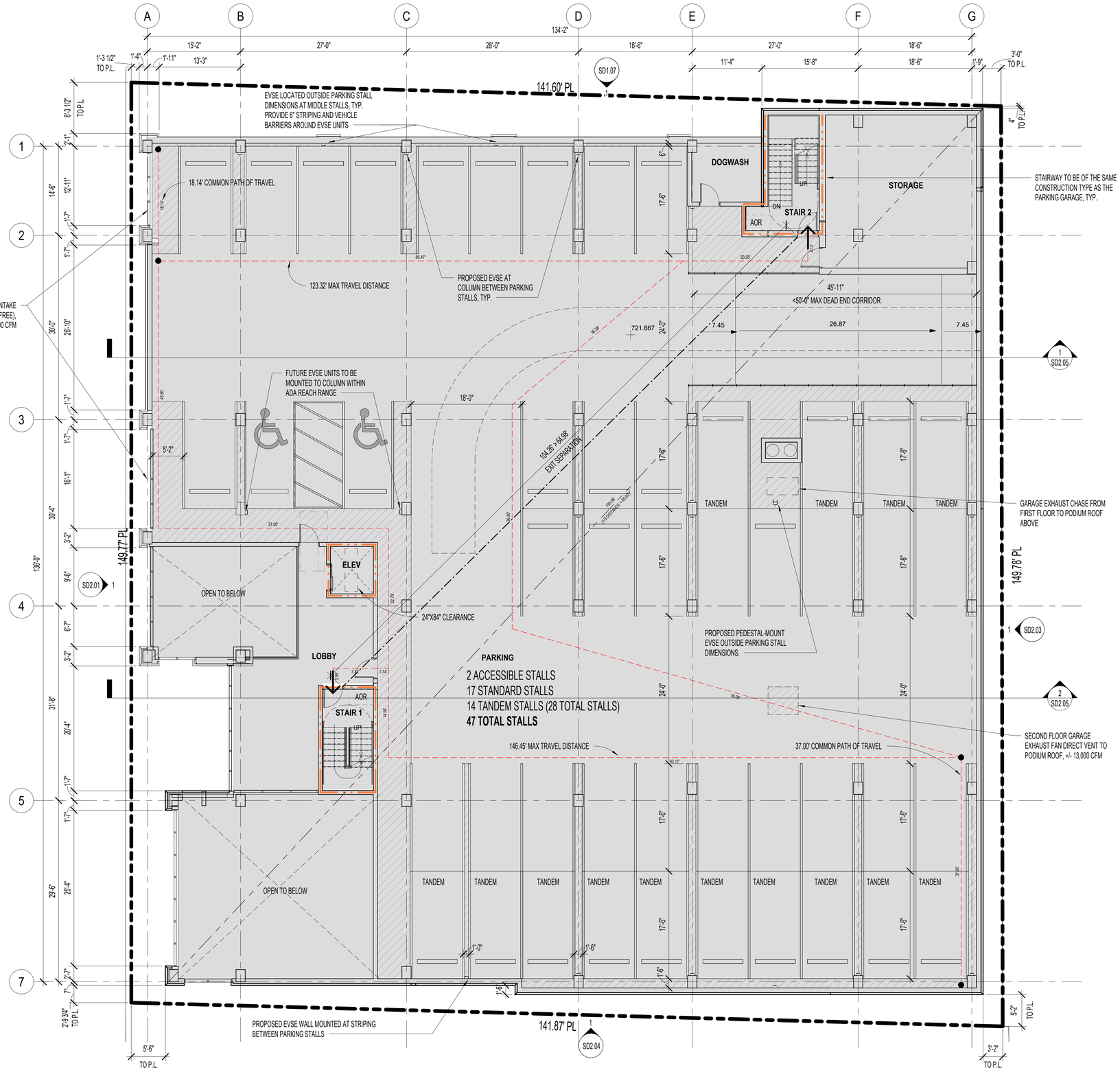
SCALE	As indicated
PROJECT START DATE	08.29.2024
PROJECT NUMBER	2415

PROPOSED FIRST FLOOR PLAN

SD1.01

0 4' 8' 16'



PARKING SCHEDULE		
COUNT	STALL TYPE	STALL SIZE
02 - SECOND FLOOR		
2	ACCESSIBLE STALL	8'-0" x 17'-6"
17	STANDARD STALL	8'-6" x 17'-6"
28	TANDEM STALL	8'-6" x 17'-6"
47		

CODE SEPARATION SYMBOLS

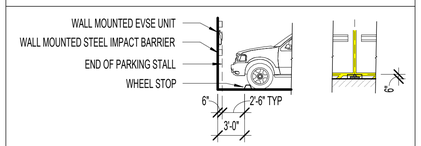
HOURLY FIRE RESISTANCE RATINGS OF WALLS AND PARTITIONS, FOR SEPARATION OF ADJACENT SPACES:

- 1-HOUR WALL OR PARTITION
- 2-HOUR WALL OR PARTITION
- 3-HOUR WALL OR PARTITION

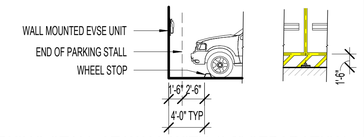
CODE DIAGRAM SYMBOLS

- 1.50' — TRAVEL DISTANCE TO EXIT AND COMMON PATH OF TRAVEL
- 1.50' (1/3 DISTANCE = 0.50') — EXIT ACCESS DIAGONAL DISTANCES AND CALCULATIONS
- EGRESS EXIT SYMBOL

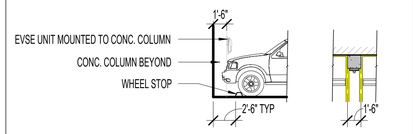
EVSE MOUNTING DETAILS



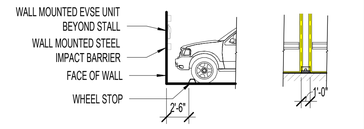
PARKING STALL AT WALL WITH 0'-6" SEPARATION



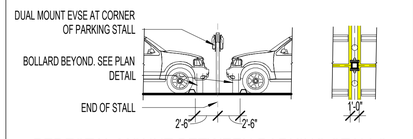
PARKING STALL AT WALL WITH 1'-6" SEPARATION



TYPICAL PARKING STALL WITH ADJACENT COLUMN BEYOND



WALL MOUNT BETWEEN PARKING STALLS



PEDESTAL MOUNT BETWEEN PARKING STALLS

0 4' 8' 16'

KENNEDY MANN

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4CORNERS MULTI-FAMILY HIGH RISE

4 CORNERS CONSTRUCTION, LLC

3945 OHIO AVE
ST CHARLES, IL 60174

4919 FOREST AVE
DOWNERS GROVE, IL 60515

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DRAWN BY	JP
CHECKED BY	BK
SCALE	As indicated
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PROJECT NUMBER	2415

PROPOSED SECOND FLOOR PLAN

SD1.02

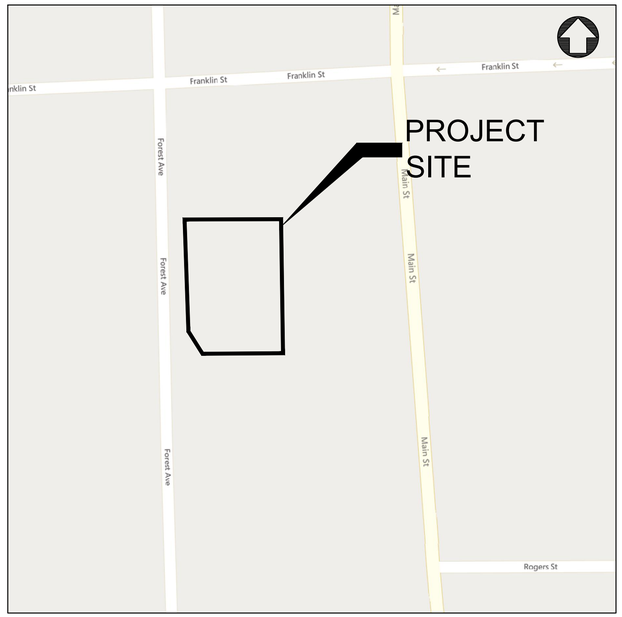
PRELIMINARY ENGINEERING FOR

4 CORNERS MULTI-FAMILY HIGH RISE

4919 FOREST AVE, DOWNERS GROVE, IL 60515

INDEX OF SHEETS

LOCATION MAP



SECTION 8, TOWNSHIP 38N, RANGE 11E

EXISTING LEGEND

- EXISTING TREE
- CURB & GUTTER
- EXISTING BUILDING
- PCC SIDEWALK
- G — GAS SERVICE
- E — ELECTRIC SERVICE
- STORM SEWER
- SANITARY SEWER
- W — WATER MAIN
- TV — CABLE LINE
- OH — OVERHEAD UTILITY LINE
- T — COMMUNICATION LINE
- FO — FIBER OPTIC LINE
- X — FENCE
- STORM STRUCTURE
- SANITARY MANHOLE
- CLEANOUT
- WATER METER
- VALVE VAULT
- VALVE BOX
- HYDRANT
- GAS METER
- ELECTRIC METER
- PARKING LOT LIGHT
- UTILITY POLE
- GUY WIRE
- TRANSFORMER
- FO — FIBER OPTIC BOX
- FIBER OPTIC PEDESTAL
- TV — CABLE PEDESTAL
- T — PHONE PEDESTAL
- E — ELECTRIC PEDESTAL
- 100 — MAJOR CONTOUR
- 100 — MINOR CONTOUR

PROPOSED LEGEND

- CURB & GUTTER
- REVERSE PITCH CURB & GUTTER
- DEPRESSED CURB & GUTTER
- PROPOSED BUILDING
- PCC SIDEWALK
- STANDARD DUTY BITUMINOUS PAVEMENT
- HEAVY DUTY CONCRETE
- G — GAS SERVICE
- E — ELECTRIC SERVICE
- STORM SEWER
- SANITARY SEWER
- W — WATER MAIN
- X — FENCE
- STORM STRUCTURE
- DOWNSPOUT CONNECTION
- SANITARY MANHOLE
- CLEANOUT
- WATER METER
- VALVE VAULT
- VALVE BOX
- HYDRANT
- GAS METER
- ELECTRIC METER
- PARKING LOT LIGHT
- FLOW ARROW
- OVERLAND FLOOD ROUTE
- 700.00 TW — TOP OF SIDEWALK GRADE
- 700.00 TC — TOP OF CURB GRADE
- 700.00 P — PAVEMENT GRADE
- 700.00 G — GROUND GRADE
- 700 — MAJOR CONTOUR
- 700 — MINOR CONTOUR

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REVISIONS

4 CORNERS LLC

4 CORNERS MULTI-FAMILY HIGH RISE

4919 FOREST AVENUE
DOWNERS GROVE, IL

PROJ NO: 230368

ENG : CW/LES/JDL

DATE : 10/16/2024

SHEET TITLE

SITE LOCATION MAP & CIVIL LEGEND

SHEET NUMBER

C0.0

1 OF 13

EX. 10" STORM SEWER (TO REMAIN)

EX. STORM MANHOLE RIM = 711.29 INV = 705.09 12" S INV = 707.84 12" E INV = 707.79 12" W (TO REMAIN)

EX. STORM INLET RIM = 710.93 INV = 708.23 10" N INV = 707.43 12" E INV = 707.83 8" W (TO REMAIN)

EX. STORM MANHOLE RIM = 711.15 INV = 707.70 6" N INV = 707.91 6" S INV = 707.75 8" E (TO REMAIN)

EX. TREE (TO REMAIN)

EX. LIGHT POLE (TO REMAIN)

EX. HYDRANT & VALVE (TO REMAIN)

EX. 12" WATERMAIN (TO REMAIN)

EX. SANITARY SEWER (TO REMAIN)

EX. SANITARY MANHOLE RIM = 707.85 UNABLE TO OPEN (TO REMAIN)

EX. 12" STORM SEWER (TO REMAIN)

EX. TREE (TO REMAIN)

EX. LIGHT POLE (TO REMAIN)

EX. STORM INLET RIM = 706.55 INV 703.35 12" E (TO REMAIN)

EX. STORM INLET RIM = 706.55 INV = 703.35 12" E (TO REMAIN)

EX. STORM MANHOLE RIM = 706.73 INV = 702.23 12" N INV = 703.18 12" S INV = 703.21 12" E INV = 703.33 12" W (TO REMAIN)

EX. TREE (TO REMAIN)

EX. TREE (TO REMAIN)

EX. GAS LINE (TO REMAIN)

EX. STORM CLEANOUT (TO REMAIN)

EX. WATER MAIN (TO REMAIN)

EX. STORM INLET RIM = 706.97 INV = 703.97 10" E (TO REMAIN)

EX. 10" STORM SEWER (TO REMAIN)

EX. OVERHEAD ELECTRIC (TO REMAIN)

EX. BOLLARD (TO REMAIN)

EX. ELECTRICAL POWER POLE (TO REMAIN)

EX. OVERHEAD ELECTRIC (TO REMAIN)

EX. FENCE (TBR)

EX. ELECTRICAL POWER POLE (TO REMAIN)

EX. STORM INLET RIM = 710.51 INV = 706.61 12" S (TO REMAIN)

EX. 12" STORM SEWER (TO REMAIN)

EX. CURB & GUTTER (TO REMAIN)

EX. RETAINING WALL (TO REMAIN)

EX. ELECTRICAL POWER POLE (TO REMAIN)

EX. STORM INLET RIM = 711.10 FILLED WITH DEBRIS (TO REMAIN)

EX. TREE (TBR)

EX. GAS LINE (TO REMAIN)

EX. TELEPHONE LINE (TO REMAIN)

EX. TELEPHONE LINE (TO REMAIN)

EX. ELECTRIC LINE (TO REMAIN)

EX. LIGHT POLE (TO REMAIN)

EX. RETAINING WALL (TBR)

EX. RETAINING WALL (TBR)

EX. STAIRS (TBR)

EX. STAIRS (TBR)

EX. PLANTER (TBR)

EX. ELECTRICAL STRUCTURES (TBR)

EX. ELECTRICAL STRUCTURE (TBR)

BFE = 709.3

EX. WATER MAIN (TBR)

EX. TELEPHONE STRUCTURE (TO REMAIN)

EX. STAIRS (TBR)

EX. GAS LINE (TBR)

EX. ELECTRICAL STRUCTURE (TBR)

EX. OVERHEAD ELECTRIC (TBR, BY OTHERS)

EX. TELEPHONE LINE (TBR)

EX. ELECTRICAL METER (TBR)

EX. WATER MAIN (TBR)

EX. STORM DOWNDRAIN (TBR)

EX. STORM DOWNDRAIN (TBR)

EX. STORM DOWNDRAIN (TO REMAIN)

EXISTING BUILDING 4925 FOREST AVE

SAWCUT PAVEMENT, FULL DEPTH (TYP.)

SAWCUT PAVEMENT, FULL DEPTH (TYP.)

SAWCUT PAVEMENT, FULL DEPTH (TYP.)

SAWCUT PAVEMENT, FULL DEPTH (TYP.)

SAWCUT PAVEMENT, FULL DEPTH (TYP.)

DISCONNECT EX. WATER SERVICE FROM MAIN EX. B-BOX TO BE REMOVED

DISCONNECT EX. WATER SERVICE FROM MAIN EX. B-BOX TO BE REMOVED

FOREST AVE

2.0'

2.0'

DEMOLITION LEGEND

- BUILDING DEMOLITION
- ASPHALT PAVEMENT REMOVAL, FULL DEPTH
- CONCRETE PAVEMENT / SIDEWALK REMOVAL, FULL DEPTH
- WOOD DECK REMOVAL
- SAWCUT PAVEMENT, FULL DEPTH
- CURB & GUTTER REMOVAL
- UTILITY REMOVAL
- TREE/BUSH REMOVAL
- UTILITY STRUCTURE REMOVAL
- **(TBR)** TO BE REMOVED

BENCHMARKS

REFERENCE BENCHMARK: 2006 GEODETIC SURVEY MONUMENT DK3312
3.5" BRASS DISC SET IN CONCRETE ±0.2' ABOVE GRADE AT NORTHEAST CORNER OF WASHINGTON STREET AND WARREN AVENUE. STATION IS 57.4' SOUTHEAST OF A POWER POLE, 49.5' EAST OF A LIGHT POLE, AND 79.4' NORTHEAST OF A FIRE HYDRANT.
ELEVATION: 718.78 DATUM: NAVD88-GEOID18

SITE BENCHMARK 1:
SOUTHWEST BOLT (TAGGED BOLT) FIRE HYDRANT AT 4910 FOREST AVENUE.
ELEVATION: 711.23 DATUM: NAVD88-GEOID18

SITE BENCHMARK 2:
SQUARE CONCRETE BASE OF FIRST LIGHT POLE SOUTH OF BENCHMARK 1 SQUARE CUT ON EAST SIDE OF BASE.
ELEVATION: 707.88 DATUM: NAVD88-GEOID18

JULIE CALL BEFORE YOU DIG 811

0 10' 20'
1" = 10' (HORIZONTAL)

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REVISIONS

4 CORNERS LLC

4 CORNERS MULTI-FAMILY HIGH RISE

4919 FOREST AVENUE
DOWNERS GROVE, IL

PROJ NO: 230368
ENG : CW/LES/JDL
DATE : 10/16/2024

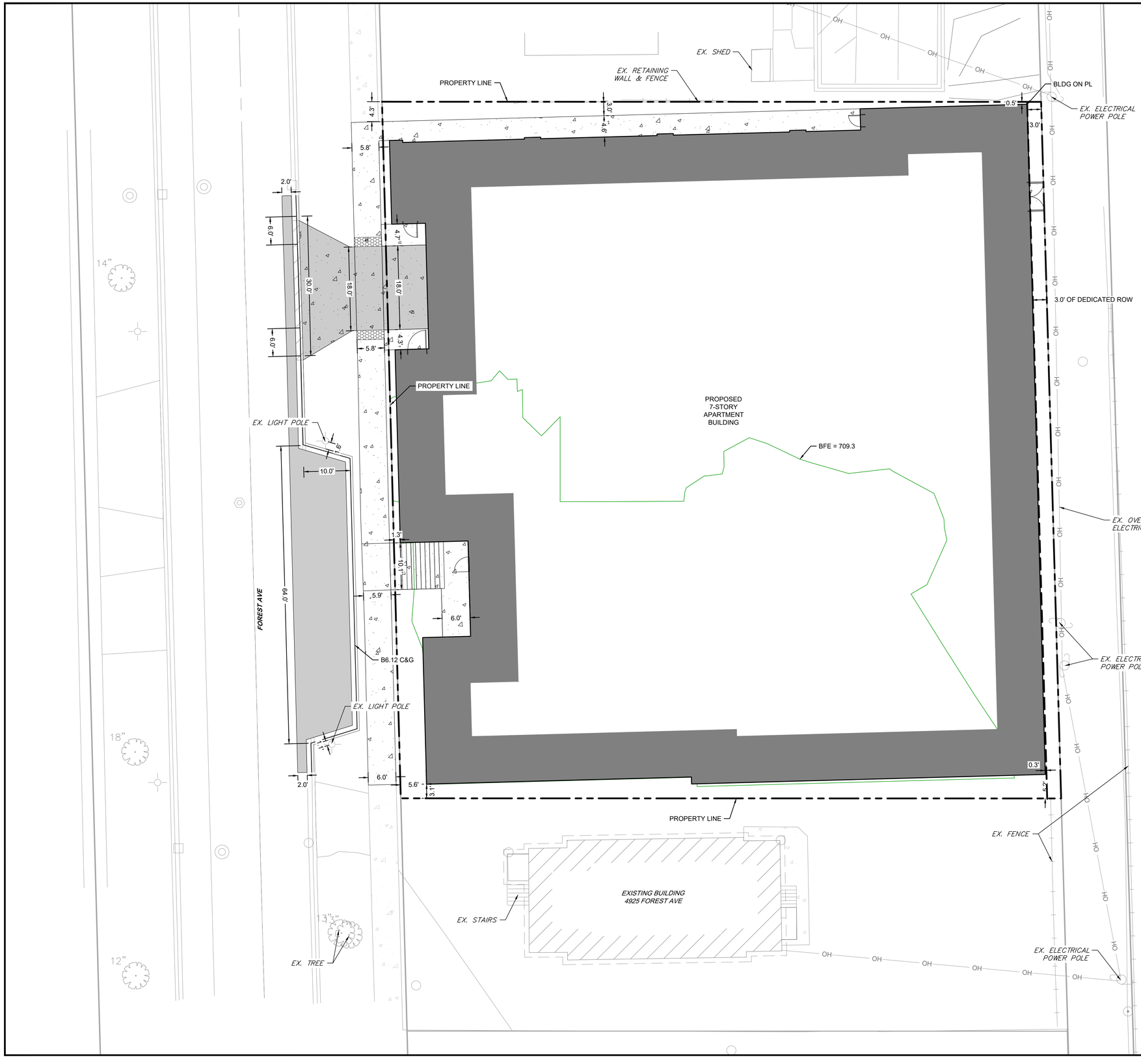
SHEET TITLE

EXISTING CONDITIONS & DEMOLITION PLAN

SHEET NUMBER

C1.0

2 OF 13



PAVEMENT LEGEND

- STANDARD DUTY BITUMINOUS PAVEMENT
- HEAVY DUTY CONCRETE PAVEMENT
- PCC SIDEWALK
- B6.12 CURB & GUTTER
- DEPRESSED CURB & GUTTER

NOTES

1. ANY CHANGES MADE TO THE SITE PLAN OR IN THE FIELD DURING CONSTRUCTION MUST BE SUBMITTED IN WRITING TO THE VILLAGE OF DOWNERS GROVE.
2. ALL CA-6 TRENCH BACKFILL, AGGREGATE BASE COURSE, AND HOT MIX ASPHALT (HMA) PLACED AS PART OF A STREET CUT PATCH MUST BE TESTED FOR PROPER COMPACTION BY AN IDOT PREQUALIFIED TESTING FIRM. TESTING REPORTS MUST BE EMAILED AT CUT@DOWNERS.US PRIOR TO ACCEPTANCE OF WORK.
3. ALL RESTORATION WITHIN LIMITS OF RIGHT-OF-WAY SHALL BE WITH TOPSOIL & SOD AND MAINTAINED UNTIL ESTABLISHED

JULIE CALL BEFORE YOU DIG 811

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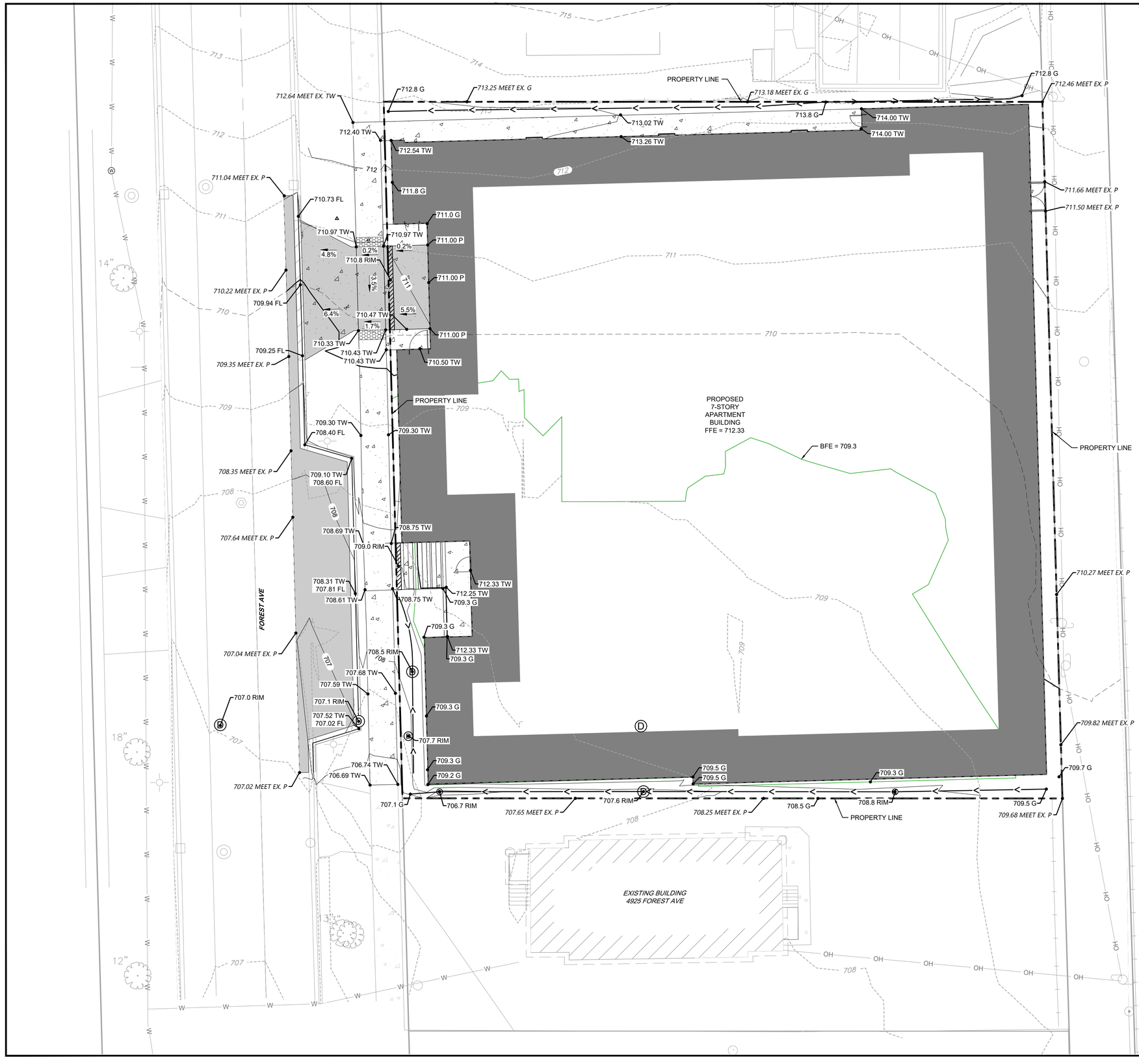
4919 FOREST AVENUE
DOWNERS GROVE, IL

PROJ NO.: 230368
ENG.: CW/LES/JDL
DATE.: 10/16/2024

SHEET TITLE
SITE LAYOUT PLAN

SHEET NUMBER
C2.0
3 OF 13



GRADING LEGEND

- 1.0% — DRAINAGE ARROW
- OVERLAND FLOOD ROUTE
- 700.00 P — SPOT ELEVATION
- PROPOSED MAJOR CONTOUR
- PROPOSED MINOR CONTOUR
- EXISTING MAJOR CONTOUR
- EXISTING MINOR CONTOUR
- PROPOSED DRAINAGE SWALE

NOTES

1. AREAS TO BE GRADED AND PREPARED FOR SEEDING OR SOD SHALL INDICATE A MINIMUM OF FOUR (4) INCHES OF TOPSOIL.
2. ONE FULL SIZE HARD COPY OF THE AS-BUILT FINAL GRADING SURVEY (PRINTED TO SCALE) MUST BE SUBMITTED PRIOR TO SCHEDULING THE FINAL STORMWATER/RIGHT-OF-WAY INSPECTION FOR THE PROJECT. AS APPLICABLE, IT SHALL INCLUDE, BUT IS NOT LIMITED TO THE ITEMS LISTED IN SECTION 26.700.C OF THE DOWNERS GROVE MUNICIPAL CODE. AS APPLICABLE, IT SHALL ALSO INCLUDE THE AS-BUILT STORAGE VOLUME OF AND RESIDENTIAL STORMWATER STORAGE (RSS) OR POST CONSTRUCTION BEST MANAGEMENT PRACTICES (PCBMPS). BEFORE THE PERMIT CAN BE CLOSED, AN ELECTRONIC COPY OF THE APPROVED AS-BUILT GRADING SURVEY IS REQUIRED.

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SITE
GRADING
PLAN

0 10' 20'
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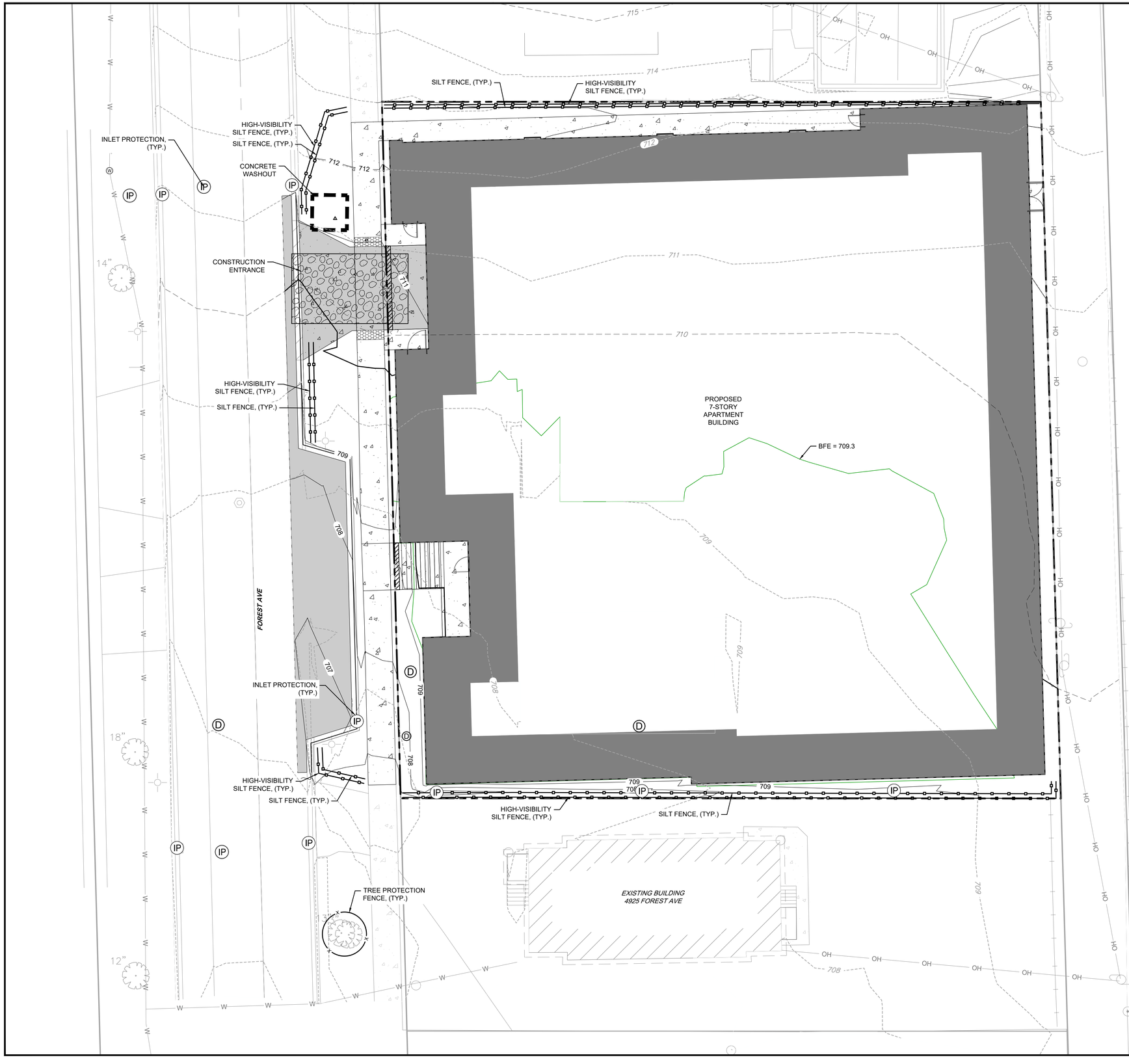
SHEET NUMBER

C3.0

4 OF 13



SESC LEGEND

- SILT FENCE
- TREE PROTECTION FENCE
- TEMPORARY CONSTRUCTION ENTRANCE
- INLET PROTECTION FILTER BASKET
- CONCRETE WASHOUT

NOTES

1. THE SEDIMENT AND EROSION CONTROL DEVICES SHALL BE FUNCTIONAL BEFORE ANY LAND IS DISTURBED ON SITE.
2. STOCKPILES OF SOIL SHALL NOT BE LOCATED WITHIN ANY DRAINAGEWAYS, FLOODPLAINS, WETLANDS, BUFFERS, OR LPDAs.
3. SEDIMENT AND EROSION CONTROL SHALL BE PROVIDED FOR ANY SOIL STOCKPILE IF IT IS TO REMAIN IN PLACE FOR MORE THAN THREE DAYS INCLUDING A DOUBLE ROW OF SILT FENCE.
4. PROPERTIES DOWNSTREAM FROM THE SITE SHALL BE PROTECTED FROM EROSION IF THE VOLUME, VELOCITY, SEDIMENT LOAD, OR PEAK FLOW RATES OF STORMWATER RUNOFF ARE TEMPORARILY INCREASED DURING CONSTRUCTION.
5. STORM SEWER INLETS SHALL BE PROTECTED WITH SEDIMENT TRAPPING OR FILTER CONTROL DEVICES DURING CONSTRUCTION.
6. THE SURFACE OF STRIPPED AREAS SHALL BE PERMANENTLY OR TEMPORARILY PROTECTED FROM SOIL EROSION WITHIN FIFTEEN DAYS AFTER INITIAL DISTURBANCE SHALL BE PROTECTED FROM EROSION.
7. WATER PUMPED OR OTHERWISE DISCHARGED FROM THE SITE DURING CONSTRUCTION DEWATERING SHALL BE FILTERED.
8. A STABILIZED CONSTRUCTION ENTRANCE SHALL BE PROVIDED TO PREVENT THE DEPOSITION OF SOIL ONTO PUBLIC OR PRIVATE ROADWAYS. ANY SOIL REACHING A PUBLIC OR PRIVATE ROADWAY SHALL BE REMOVED BEFORE THE END OF EACH WORKDAY.
9. ALL TEMPORARY EROSION CONTROL MEASURES NECESSARY TO MEET THE REQUIREMENTS OF THE VILLAGE OF DOWNERS GROVE STORMWATER AND FLOOD PLAIN ORDINANCE SHALL BE KEPT OPERATIONAL AND MAINTAINED CONTINUOUSLY THROUGHOUT THE PERIOD OF LAND DISTURBANCE UNTIL PERMANENT SEDIMENT AND EROSION CONTROL MEASURES ARE OPERATIONAL. ANY ADDITIONAL INFORMATION AS NECESSARY TO SHOW COMPLIANCE WITH THE DOWNERS GROVE MUNICIPAL CODE.

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CAGE CIVIL ENGINEERING

REVISIONS

4 CORNERS LLC

4 CORNERS MULTI-FAMILY HIGH RISE

4919 FOREST AVENUE
DOWNERS GROVE, IL

PROJ NO: 230368
ENG : CW/LES/JDL
DATE : 10/16/2024

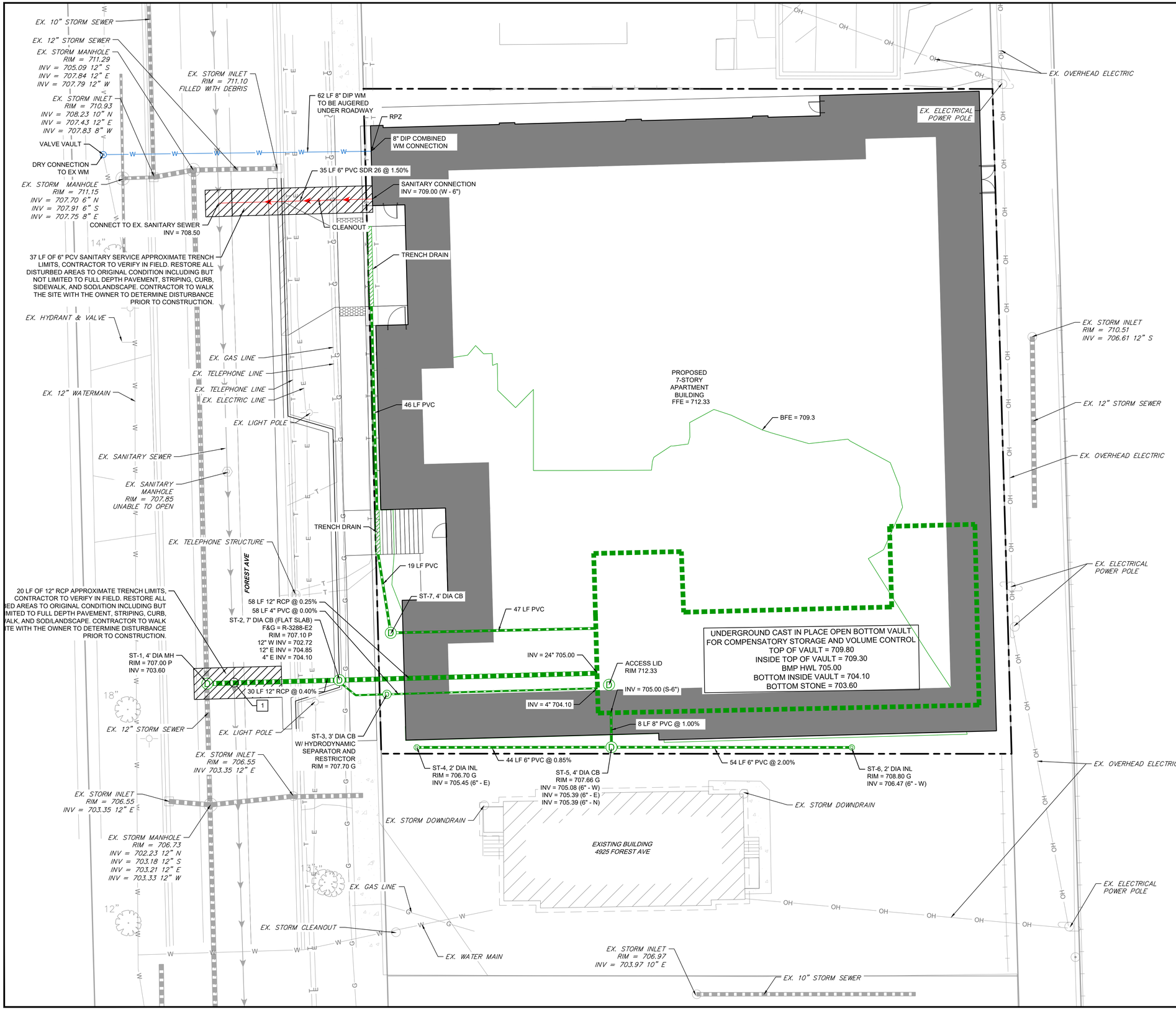
SHEET TITLE

SOIL EROSION & SEDIMENT CONTROL PLAN

SHEET NUMBER

C3.1

5 OF 13



UTILITY LEGEND

- PROPOSED SANITARY SEWER
- PROPOSED SANITARY MANHOLE
- PROPOSED SANITARY CLEANOUT
- PROPOSED WATER LINE
- PROPOSED WATER VALVE BOX
- PROPOSED STORM PIPE
- PROPOSED STORM STRUCTURE
- EXISTING SANITARY SEWER LINE
- EXISTING WATER LINE
- EXISTING STORM PIPE
- EXISTING FIRE HYDRANT
- EXISTING WATER VALVE
- EXISTING SANITARY MANHOLE

NOTES

1. THE WATER MAIN/FIRE PROTECTION LINE WILL BE PRESSURE TESTED AND CHLORINATED PER IEPA REQUIREMENTS.
2. ALL WATER MAIN CROSSINGS WILL MEET IEPA REQUIREMENTS.
3. THE EXISTING WATER METER AND MTU WILL BE RETURNED TO PUBLIC WORKS DURING WATER SERVICE DISCONNECT INSPECTION.
4. THE WATER DISCONNECTION INSPECTION, TAP INSPECTION, WATER METER INSPECTION, AND FINAL B-BOX INSPECTION WILL BE SCHEDULED WITH PUBLIC WORKS 630-434-5460 OR ONLINE AT LEAST 48 HOURS IN ADVANCE.
5. BOTH THE EXISTING WATER SERVICE AND THE PROPOSED WATER SERVICE CONNECTION SHALL BE AT THE MAIN, NO LESS THAN 18 INCHES FROM EACH OTHER.
6. ALL ROOF DRAINS DRAIN INTERIOR TO THE UNDERGROUND DETENTION VAULT

UTILITY CROSSINGS

[1] 12" SAN B/P = 706.2
12" WM T/P = 704.8

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REVISIONS

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4919 FOREST AVENUE
DOWNERS GROVE, IL

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SHEET TITLE

SITE UTILITY PLAN

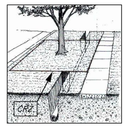
SHEET NUMBER

C4.0

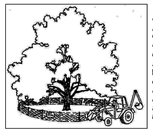
7 OF 13

Municipal Codes regarding trees, including tree protection requirements for public parkway trees, are located in Chapter 24 of the Downers Grove Municipal Code http://www.downers.us/code/chapters/24 . Parkway tree protection shall involve avoiding damage to both the above ground tree trunk, including the branches, and the below ground root system. Roots are the most vital part of a tree with the majority of nutrient and water absorbing roots in the upper 18 to 24 inches of soil. Tree roots must be protected from severing or changes in their soil environment (such as compaction or grade changes) to prevent irreversible tree decline or death in the coming years.

The Critical Root Zone, or CRZ, is the area immediately surrounding a tree that needs to be protected from damage. The size of this area, measured from the center of the tree, is ideally a circle with a radius of one foot for each inch of trunk diameter. The depth of the CRZ extends to 4 feet below the natural ground surface level. In a municipal parkway setting with utilities and paved or concrete surfaces, the CRZ cannot always be the ideal size. Instead, the CRZ has been adjusted to form a rectangle around the parkway tree trunk with the minimum dimensions listed in the following table. At a minimum, the listed CRZ shall be fenced with a 6 foot high temporary chain link construction fence secured to metal posts spaced no further than 10 feet apart. Whenever possible, the entire parkway shall be fenced in except where access has been permitted. Any exceptions shall be noted on the drawings submitted for a given permit.



PARKWAY TREE DIAMETER AT 4.5'	WIDTH FROM STREET TO PROPERTY (MINIMUM CURB TO SIDEWALK)	LENGTH ALONG STREET (MINIMUM)	DEPTH
0-12.0 INCHES	10.0 FEET	10 FEET	4 FEET
12.1-24.0 INCHES	10.0 FEET	20 FEET	4 FEET
24.1 OR MORE INCHES	10.0 FEET	30 FEET	4 FEET



For public parkway trees, roots located within the determined CRZ shall be protected from compaction, severing, and the storage of materials or equipment. Utilities must be augered underneath the tree as shown above. In cases when severing of roots within a portion of the CRZ may be unavoidable (ex. sidewalk installation, curb replacement, water main or sanitary main disconnects in the parkway), subject to the approval of the Village Forester, the smallest possible area shall be disturbed and sharp clean cuts shall be made on root ends to promote wound closure and root regeneration. All CRZ fencing shall be a 6 foot high temporary chain link construction fence secured to metal posts spaced no further than 10 feet apart, and shall be maintained daily in good condition. Any exceptions to the fence dimensions or parkway position shall be noted on the permit.

In addition to fines and citations that may be assessed for violations of any Chapter 24 municipal code (such as not maintaining fencing around the CRZ or unauthorized removal of parkway trees), violators may be subject to the following provisions:

- *issuance of an invoice for the monetary loss in tree value or partial value due to damage to either the above ground or below ground portions of the parkway tree, or unauthorized tree removal.*
- *forfeiture of bonds issued for the work should funds be sufficient to cover tree values and fines.*
- *costs of repairs, such as pruning or cabling, or costs for removal of the damaged parkway tree along with the stump if the tree cannot remain in the right-of-way.*
- *fines of $500 for the 1st offense; $1,000 for the 2nd offense; $2,500 for 3rd and subsequent offenses.*
- *each day during which a violation continues shall be construed as a separate and distinct offense.*

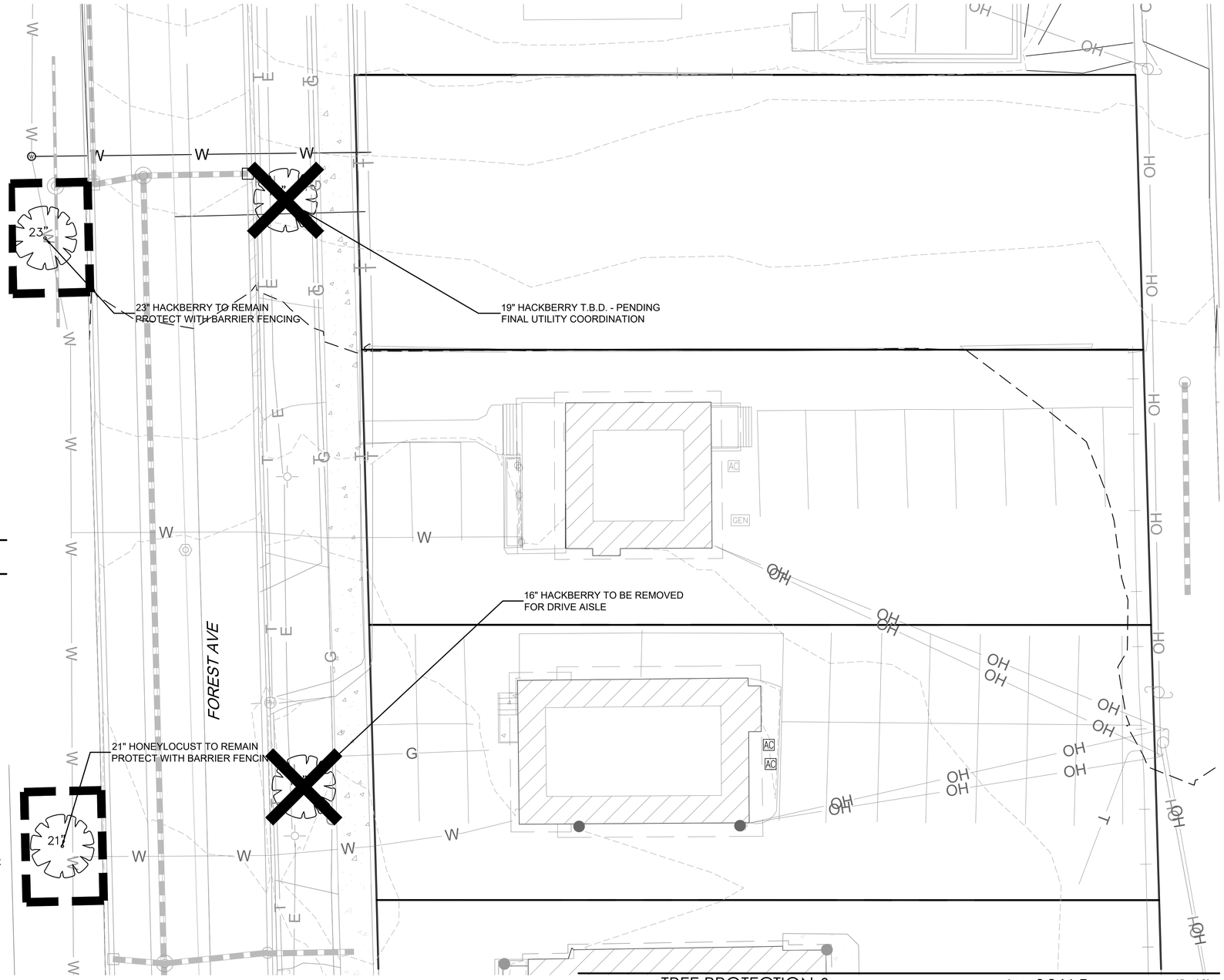
For more information, contact the Forestry Division at 630-434-5475 or 630-434-5476.

TREE CITY USA

N.T.S.	DATE	REVISIONS	DRAWN BY	APPVD BY	STANDARD DETAIL
Village of DOWNERS GROVE	02/20/07		J.M.L.	M.D.M.	PARKWAY TREE PROTECTION REQUIREMENTS
	03/25/11		S.A.V.	A.J.S.	
	03/01/15		S.A.V.	A.J.S.	
	01/01/17		N.R.H.	J.M.W.	
	01/01/18		N.R.H.	J.M.W.	
	DRAWING NO. TRE-01				
	I:\LIBRARY\DETAILS\TREES\TRE-01				

TREE PROTECTION & REMOVAL NOTES

1. A TREE REMOVAL PERMIT SHALL BE REQUIRED FOR THE REMOVAL OF ANY TREE ON VILLAGE OWNED OR MAINTAINED LAND.
2. CONTRACTOR SHALL OBTAIN ALL NECESSARY STATE AND LOCAL PERMITS AND PERMISSIONS TO PRUNE, REMOVE, AND/OR TRANSPLANT ANY TREES ON SITE.
3. DEAD AND DYING MATERIAL ON THE SITE SHALL BE REMOVED OR PRUNED. MATERIALS NOT LABELED ON THE PROTECTION PLAN SHALL BE BROUGHT TO THE ATTENTION OF THE LANDSCAPE ARCHITECT FOR REMEDIATION.
4. DURING CONSTRUCTION EXISTING TREES OVER FOUR INCHES IN CALIPER SHALL BE PROTECTED WITH BARRIER FENCING.
5. BARRIER SHALL BE CONSTRUCTED OF A MIN. 6' TALL TEMPORARY CHAINLINK OR SIMILAR AND SUPPORT POSTS MIN. 6' O.C. AND SHALL BE ERECTED ONE FOOT BEYOND THE DRIP LINE OF ALL EXISTING TREES ON SITE AND ADJACENT SITES TO REMAIN.
6. A TREE PROTECTION SIGN (AVAILABLE FROM THE VILLAGE AT TIME OF PERMIT PICK-UP) SHALL BE PLACED ON THE FENCE IDENTIFYING THE TREE PROTECTION AREA.
7. NO TRENCHING OR AUGURING MAY OCCUR PRIOR TO THE COMPLETION OF A WATER SERVICE PRE-TAP INSPECTION.
8. THE PUBLIC WORKS DEPARTMENT WILL INSPECT THE PARKWAY TREES AS PART OF THE WATER SERVICE PRE-TAP INSPECTION TO MAKE CERTAIN THAT THE INSTALLATION OF THE WATER SERVICE DOES NOT NEGATIVELY IMPACT THE TREES.
9. NO EXCESS SOIL OR ADDITIONAL FILL, BUILDING MATERIALS OR DEBRIS SHALL BE PLACED WITHIN THE PROTECTIVE BARRIER.
9. KEEP ALL EXCAVATIONS OUTSIDE THE TREE PROTECTION FENCE.
10. NO VEHICLES OR HEAVY MACHINERY SHALL BE ALLOWED TO WORK WITHIN THE BARRIER AREA.
11. NO ATTACHMENTS OR WIRES, OTHER THAN PROTECTIVE GUY WIRES, SHALL BE ATTACHED TO ANY OF THE TREES WHICH ARE WITHIN PROTECTIVE BARRIER.
12. STUMPS OR TREE REMAINS NOT TO BE FULLY EXCAVATED SHALL BE REMOVEED. A STUMP GRINDER SHALL BE USED TO REMOVE ALL REMAINING ROOTS AND WOODY MATERIAL. WITHIN A 24" RADIUS OF THE TREE TRUNK TO MIN. 6" BELOW GRADE. DISTURBED AREA SHALL BE BACKFILLED WITH COMPACTED TOPSOIL TO MEET SURROUNDING GRADES.
13. ALL RESTORATION WITHIN LIMITS OF RIGHT-OF-WAY SHALL BE WITH TOPSOIL & SOD AND MAINTAINED UNTIL ESTABLISHED



1 TREE PROTECTION & REMOVAL PLAN

N SCALE 1"=10'
0' 5' 10' 20' 30'

TREE PROTECTION & REMOVAL LEGEND

EXISTING TREE TO REMAIN

EXISTING TREE TO BE REMOVED

6' HT. TEMPORARY CHAIN LINK BARRIER FENCING

EXISTING VEGETATION DESCRIPTION

THE PROJECT SITE CONSISTS OF A THREE LOTS WITH TWO EXISTING STRUCTURES ON THEM. 2 PARKWAY TREES WILL BE REMOVED AS PART OF THIS CONTRACT. REPLACEMENT TREES FOR THE REMOVALS WILL HAVE TO BE CASH-IN-LIEU.

LG Workshop, LLC
Landscape Architecture
Master Planning
Site Planning
1955 N. Wilmot Ave
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ph. 773.697.4388
www.LGWLA.com

SEAL

LICENSED LANDSCAPE ARCHITECT
LARRY C. GLASSCOCK JR.
157-001000
STATE OF ILLINOIS
EXPIRES 08/2025

PROJECT TEAM

CIVIL ENGINEER:
CAGE CIVIL ENGINEERING

PROJECT NAME

4 CORNERS
MULTI-FAMILY
HIGH RISE

4919 FOREST AVE.
DOWNERS GROVE, IL

DRAWING ISSUED

NO.	TITLE	DATE
1.	Preliminary Review	08/30/24
2.	Rev's per Comments	10/16/24
2.	Rev's per Comments	10/30/24

SET TYPE
LANDSCAPE PLANS

PROJECT NUMBER
2408048

DATE
08-28-2024
DRAWN BY: LCG | APPROVED BY: LCG

SHEET TITLE
TREE PROTECTION & REMOVAL PLAN

SHEET NUMBER
L.1

PLANT LIST

SYM	SIZE	QTY	BOTANICAL NAME	COMMON NAME	COMMENT
DECIDUOUS SHADE TREES					
CEO	2.5" cal.		Celtis occidentalis	Common Hackberry	B&B
GDE	2.5" cal.		Gymnocladus dioicus 'Espresso'	Espresso Kentucky Coffeetree	B&B
GTS	2.5" cal.		Gleditsia triacanthos 'Shademaster'	Shademaster Honeylocust	B&B
QUM	2.5" cal.		Quercus muehlenbergii	Chinkapin Oak	B&B
ULA	2.5" cal.		Ulmus davidiana var. japonica 'Morton'	Accolade Elm	B&B
DECIDUOUS SHRUBS					
AAB	24" ht.		Aronia arbutifolia 'Brilliantissima'	Brilliant Red Chokeberry	B&B
AME	24" ht.		Aronia melanocarpa	Black Chokeberry	B&B
CEP	24" ht.		Cephalanthus occidentalis	Buttonbush	B&B
CSF	24" ht.		Cornus stolonifera 'Farrow'	Arctic Fire Redtwig Dogwood	B&B
CLA	36" ht.		Clethra alnifolia 'Ruby Spice'	Ruby Spice Clethra	B&B
HYA	24" ht.		Hydrangea arborescens 'Haas Halo'	Haas Halo Hydrangea	B&B
HYB	24" ht.		Hydrangea macrophylla 'PIIHM-II'	Bloomstruck Endless summer Hydrange	B&B
HYP	24" ht.		Hydrangea paniculata 'Peegee Improved'	Peegee Improved Hydrangea	B&B
HYQ	24" ht.		Hydrangea quercifolia 'Alice'	Alice Oakleaf Hydrangea	B&B
SBT	18" w.		Spirea betulafolia 'tor'	Tor Birchleaf Spirea	B&B
STC	18" w.		Stephanandra incisa 'Crispa'	Cutleaf Stephanandra	B&B
SYM	24" ht.		Syringa patula 'Miss Kim'	Miss Kim Korean Lilac	B&B
VCC	24" ht.		Viburnum carlesii 'Cayuga'	Cayuga Koreanspice Viburnum	B&B
VBN	24" ht.		Viburnum nudum 'Bulk'	Brandywine Smooth Witherod	B&B
VDC	24" ht.		Viburnum dentatum 'Chicago Lustre'	Chicago Lustre Arrowwood Viburnum	B&B
WFR	24" ht.		Weigela florida 'Red Prince'	Red Prince Old Fashioned Weigela	B&B
EVERGREEN SHRUBS					
BUW	24" w		Buxus micro. x. B. sem. 'Wilson's Charm'	Wilson Northern Charm Boxwood	B&B
TMH	24" ht.		Taxus x media 'Hicksii'	Hick's Yew	B&B
TMT	24" w.		Taxus x media 'Taunton'	Taunton's Yew	B&B
ORNAMENTAL GRASSES					
CAK	#1 cont.		Calamagrostis acutiflora 'Karl Foerster'	Karl Foerster Feather Reed Grass	
PAV	#1 cont.		Panicum virgatum 'Shenandoah'	Shenandoah Red Switch Grass	
GROUNDCOVER / PERENNIALS					
ALS	#1 cont.		Allium 'Summer Beauty'	Summer Beauty Onion	18" O.C.
AMB	#1 cont.		Amsonia tabernaemontana 'Blue Ice'	Blue Ice Blue Star	18" O.C.
AST	#1 cont.		Aster oblongifolius October Skies	October Skies Aromatic Aster	24" O.C.
CVM	#1 cont.		Coreopsis verticillata 'Moonbeam'	Moonbeam Coreopsis	18" O.C.
ECB	#1 cont.		Echinacea x. 'Balsomoblanc'	Sombrero Blanco Coneflower	18" O.C.
GEM	#1 cont.		Geranium sanguineum 'Max frei'	Max Frei Bloody Cranesbill	18" O.C.
HEC	#1 cont.		Hemerocallis x. 'Chicago Apache'	Chicago Apache Daylily	24" O.C.
LAV	#1 cont.		Lavendula 'Munstead strain'	Munstead English Lavender	24" O.C.
LEU	#1 cont.		Leucanthemum superbum 'becky'	Becky Shasta Daisy	24" O.C.
NFW	#1 cont.		Nepeta fasseni 'Walker's low'	Walkers Low Catmint	24" O.C.
RUD	#1 cont.		Rudbeckia fulgida 'Little Goldstar'	Little Goldstar Black-Eyed Susan	18" O.C.
SOD	sq. yd.		Sodded Lawn		

LANDSCAPE LEGEND

EXISTING TREE

PROPOSED SHADE TREE

PROPOSED LARGE SHRUB

PROPOSED MEDIUM SHRUB

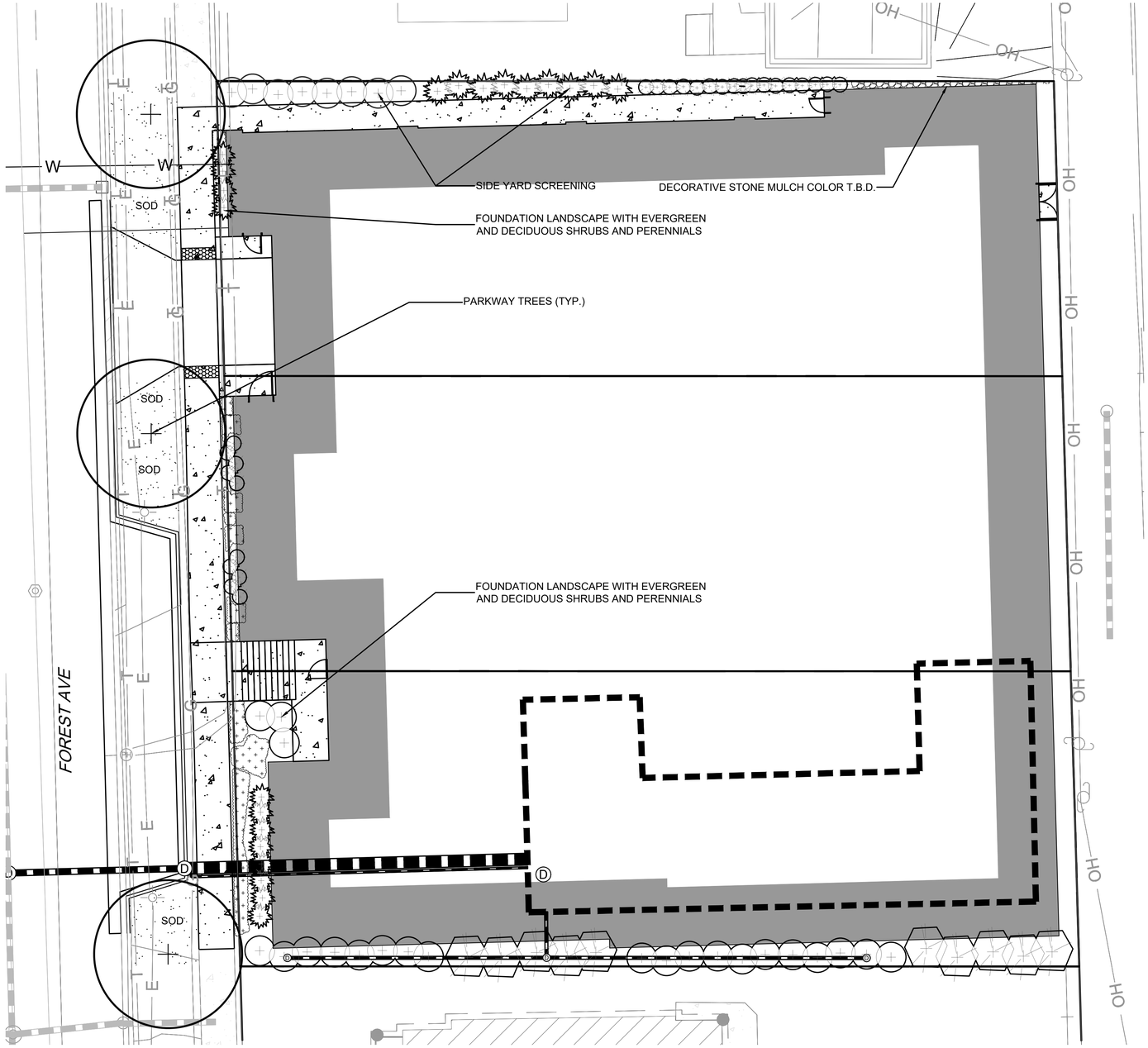
PROPOSED EVERGREEN SHRUB

PROPOSED LOW SHRUB

PROPOSED ORNAMENTAL GRASS

PROPOSED PERENNIAL PLANTING

SODDED LAWN



1 LANDSCAPE PLAN

N SCALE 1"=10'
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SET TYPE
LANDSCAPE PLANS

PROJECT NUMBER
2408048

DATE
08-28-2024

DRAWN BY: LCG | APPROVED BY: LCG

SHEET TITLE
LANDSCAPE PLAN

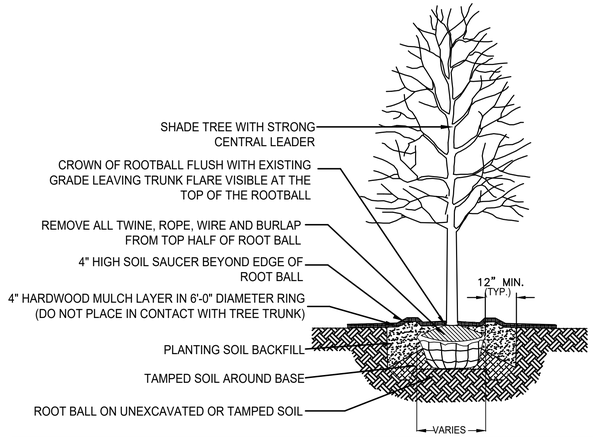
SHEET NUMBER
L.2

LANDSCAPE NOTES

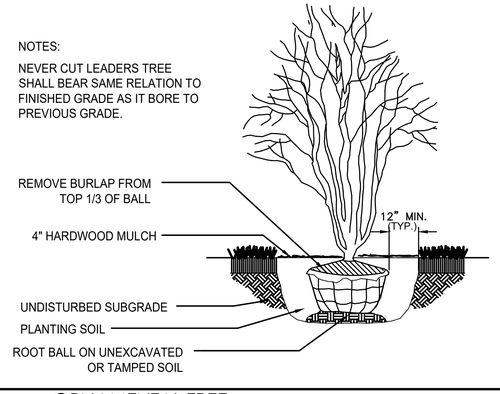
1. CONTRACTOR SHALL OBTAIN ALL NECESSARY LOCAL PERMITS AND PERMISSIONS TO INSTALL THE PROPOSED IMPROVEMENTS
2. ALL LANDSCAPE MATERIALS SHALL BE INSTALLED IN ACCORDANCE WITH THE VILLAGE OF DOWNERS GROVE LANDSCAPING CODES AND ZONING ORDINANCES.
3. PRIOR TO COMMENCING ANY WORK, CONTRACTOR SHALL HAVE DIGGERS HOTLINE LOCATE AND MARK ALL UNDERGROUND UTILITY FACILITIES AND LINES.
4. ALL PLANT MATERIALS (EXCEPT FOR GROUNDCOVER, ANNUALS, AND PERENNIALS) SHALL BE BALLED AND BURLAPPED STOCK AND MEET CURRENT STANDARDS OF THE AMERICAN ASSOCIATION OF NURSERYMEN'S STANDARD FOR NURSERY STOCK (ANSI 260.1-1986) OR EQUAL. PLANT MATERIALS MUST BE SUPPLIED WITHIN A 150 MILE RADIUS OF PROJECT SITE. CONTRACTOR MAY SUBSTITUTE CONTAINER STOCK FOR SHRUBS IF SIZES ARE EQUAL TO SPECIFIED B&B STOCK, WITH THE APPROVAL OF THE LANDSCAPE ARCHITECT.
5. IF SPECIFIED PLANTS ARE NOT AVAILABLE AT THE TIME OF ORDERING, PLANTS WITH SIMILAR WHOLESALE VALUE AND LANDSCAPE CHARACTERISTICS MAY BE SUBSTITUTED UPON THE APPROVAL OF THE LANDSCAPE ARCHITECT AND VILLAGE STAFF.
6. SOIL IN GROUNDCOVER BEDS SHALL BE AMENDED USING 2 INCHES OF MUSHROOM COMPOST INCORPORATED INTO THE TOP 4 INCHES OF SOIL.
7. DISTURBED AREAS TO RECEIVE SOD SHALL BE TILLED TO 6" DEPTH AND FINE GRADED TO PROVIDE SMOOTH BASE SURFACE. IF EXISTING SOIL IS A MAJORITY OF CLAY OR UNSUITABLE, 2" OF FINE GRADED TOPSOIL SHALL BE ADDED PRIOR TO TILLING. EXISTING SOD AREAS SHALL HAVE TURF REMOVED WITH AUTOMATED SODCUTTER OR HAND SPACE TO REMOVE ALL BLADES AND ROOTS. 1" OF FIND GRADED TOPSOIL SHALL BE TILLED AND GRADED.
8. TREE AND SHRUB BACKFILL MIXTURE SHALL BE 2 PARTS EXIST. NATIVE TOPSOIL AND 1 PART SPHAGNUM PEAT MOSS W/ DECOMPOSED MANURE.
9. ALL SHRUB BEDS AND INDIVIDUAL TREE PLANTINGS, UNLESS OTHERWISE NOTED, SHALL RECEIVE A 4 INCH LAYER OF SHREDDED HARDWOOD MULCH. ALL GROUNDCOVER, ANNUAL AND PERENNIAL BEDS SHALL RECEIVE A 2 INCH LAYER OF THE SAME MULCH MATERIAL. COSTS FOR MULCH SHALL BE CONSIDERED INCIDENTAL AND SHALL BE INCLUDED IN THE COST OF PLANTINGS.
10. NURSERY TAGS (SPECIES, SIZE) FOR ALL SHADE TREES SHALL REMAIN ATTACHED TO TREES UNTIL FINAL APPROVAL FROM MUNICIPALITY.
11. THE LANDSCAPE CONTRACTOR SHALL PROVIDE THE OWNER A BONDED WRITTEN ONE-YEAR WARRANTY AGREEMENT (BEGINNING ON THE OWNER'S POSSESSION DATE). THIS AGREEMENT SHALL COVER MAINTENANCE, REPAIR, AND REPLACEMENT OF ALL DEAD OR DAMAGED LANDSCAPING TO PRESERVE THE SAME QUANTITY AND QUALITY AS INITIALLY APPROVED.
12. CONTRACTOR SHALL PROVIDE A SEPARATE ESTIMATE FOR AN AUTOMATIC UNDERGROUND IRRIGATION SYSTEM FOR COMPLETE EFFECTIVE COVERAGE OF ALL LAWN AREAS AND SHRUB BEDS. CONTRACTOR SHALL SUBMIT SHOP DRAWINGS FOR APPROVAL AND APPLY FOR ALL NECESSARY PERMITS PRIOR TO COMMENCING WORK. IRRIGATION PLANS SHALL INCLUDE HUNTER PRO-C CONTROLLER W/WIRELESS SOLAR SYNC STATION AND HUNTER SPRAYHEADS AND NOZZLES. IRRIGATION WORK SHALL BE WARRANTY ALL LABOR AND MATERIALS FOR 1 FULL YEAR AFTER INSTALLATION AND TESTING.
13. SEEDED LAWN AREAS SHALL BE BID WITH A BID ALTERNATE FOR HYDROSEEDED LAWN. PRIOR TO SEEDING, 2" OF FINE TOPSOIL SHALL BE TILLED INTO EXIST SOIL MIXTURE. A MIX CONSISTING OF ROUGHLY 30 % BLUEGRASS / 30% FINE FESCUES / 40% RYE GRASSES (AND TACKIFIER FOR HYDROSEEDING) SHALL BE APPLIED AT MANUFACTURERS SPECIFIED RATES FOR NEW LAWNS BETWEEN 5 AND 10 LBS PER 1,0000 SF.
14. TREES AND SHRUBS SHALL NOT BE LOCATED CLOSER THAN TEN (10) FEET TO FIRE HYDRANTS, TRANSFORMERS OR OTHER ABOVE GROUND UTILITIES. ANY DISCREPANCY ON THE PLAN RELATED TO THESE PROXIMATE UTILITIES SHALL BE BROUGHT TO THE ATTENTION OF THE LANDSCAPE ARCHITECT FOR RESOLUTION.

VILLAGE LANDSCAPE REQUIREMENT CALCULATIONS

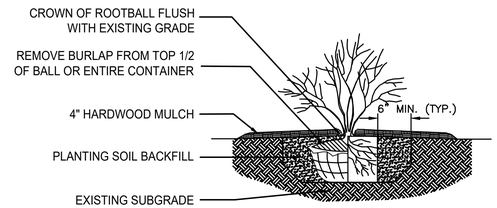
DESCRIPTION	REQUIREMENT	AREA / LENGTH	DETAILS
TOTAL SITE		21,217 SQ. FT.	
TOTAL BUILDING		18,997 SQ. FT.	
TOTAL PARKING		0 SQ. FT. AT GRADE.	
SEC 28.8.020 PARKING LOT PERIMETER LANDSCAPING		N / A	
SEC 28.8.030 PARKING LOT INTERIOR LANDSCAPING		N / A	
TREE REMOVALS		35 CAL. INCHES REMOVED FROM PARKWAY	CASH IN LIEU AS THERE IS NO OPEN SPACE FOR TREES ON-SITE.



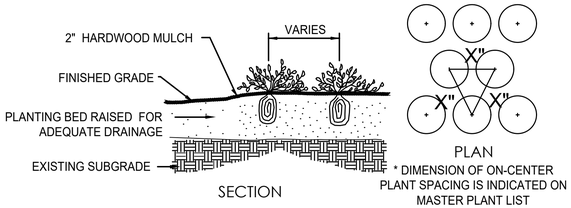
1 SHADE TREE PLANTING DETAIL — NOT TO SCALE



2 ORNAMENTAL TREE PLANTING DETAIL — NOT TO SCALE



3 SHRUB PLANTING DETAIL — NOT TO SCALE



4 PERENNIAL / ANNUAL PLANTING DETAIL — NOT TO SCALE

LG Workshop, LLC
Landscape Architecture
Master Planning
Site Planning
1955 N. Wilmot Ave
Chicago, IL 60647
ph. 773.697.4388
www.LGWLA.com

SEAL

LICENSED LANDSCAPE ARCHITECT
LARRY C. GLASSCOCK JR
157-001000
STATE OF ILLINOIS

EXPIRES 08/2025

PROJECT TEAM

CIVIL ENGINEER:

CAGE CIVIL ENGINEERING

PROJECT NAME

4 CORNERS
MULTI-FAMILY
HIGH RISE

4919 FOREST AVE.
DOWNERS GROVE, IL

DRAWING ISSUED

NO.	TITLE	DATE
1.	Preliminary Review	08/30/24
2.	Rev's per Comments	10/16/24
2.	Rev's per Comments	10/30/24

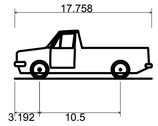
SET TYPE
LANDSCAPE PLANS

PROJECT NUMBER
2408048

DATE
08-28-2024
DRAWN BY: LCG
APPROVED BY: LCG

SHEET TITLE
LANDSCAPE DETAILS & NOTES

SHEET NUMBER
L.3



F-150 Regular Cab 4x2 STYLESIDE 6.5' Box	
Overall Length	17.758ft
Overall Width	6.575ft
Overall Body Height	6.217ft
Min Body Ground Clearance	0.717ft
Track Width	6.575ft
Lock-to-lock time	4.00s
Curb to Curb Turning Radius	20.850ft

2200 CABOT DRIVE
SUITE 325
LISLE, IL 60532
P: 630.996.0007
WWW.CAGECIVIL.COM

CAGE
CIVIL ENGINEERING

REVISIONS

4 CORNERS LLC

4 CORNERS MULTI-FAMILY HIGH RISE

4919 FOREST AVENUE
DOWNERS GROVE, IL

PROJ NO: 230368

ENG : JDL

DATE : 10/15/2024

SHEET TITLE

TRUCK TURN EXHIBIT

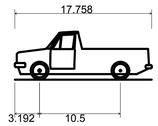
SHEET NUMBER

TR-1

1 OF 4

0 10' 20'

1" = 10' (HORIZONTAL)



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4919 FOREST AVENUE
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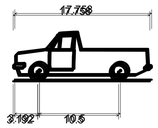
2 OF 4



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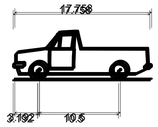
3 OF 4



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REVISIONS △

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SHEET TITLE

TRUCK TURN EXHIBIT

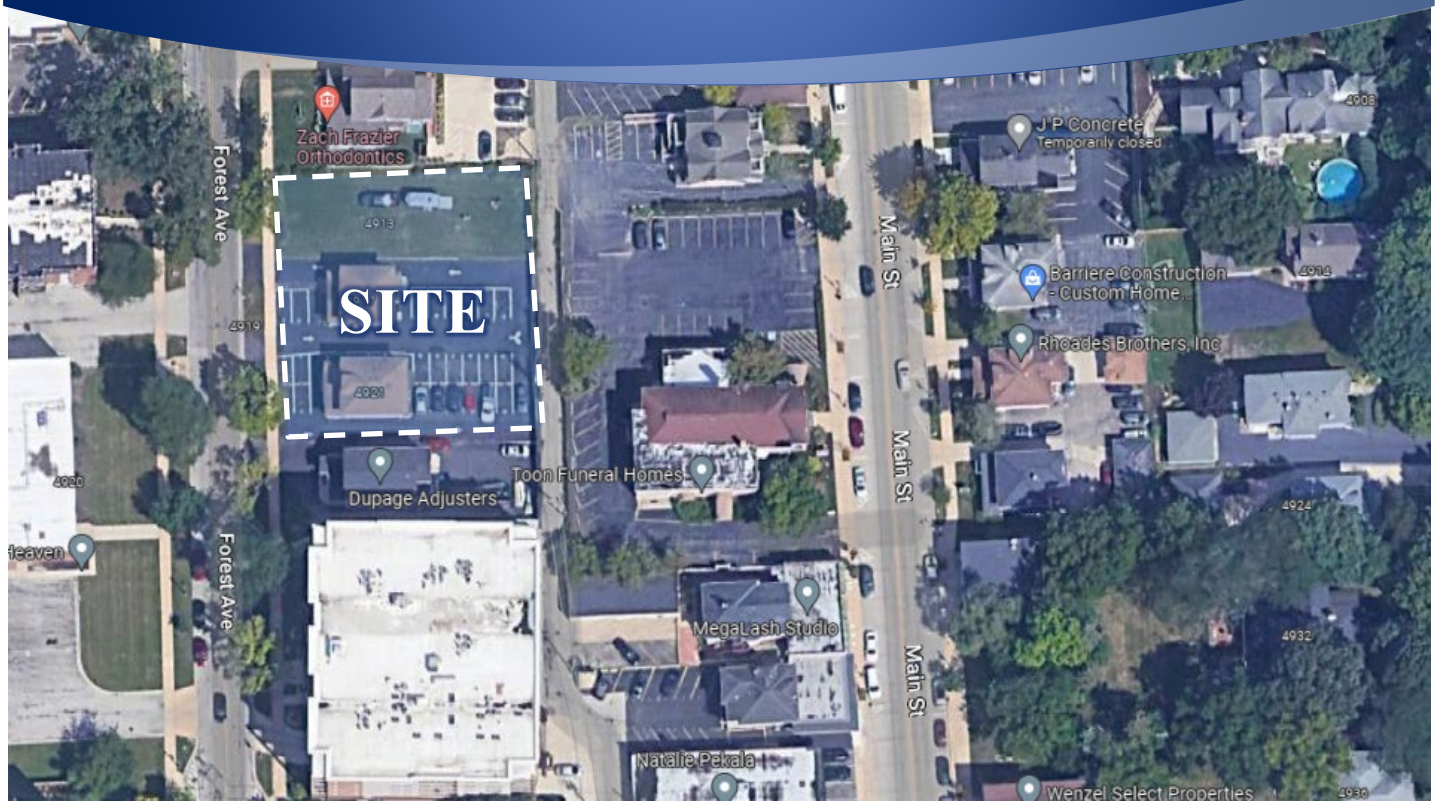
SHEET NUMBER

TR-1

4 OF 4

Traffic Impact Study
Multi-Family Residential Development

Downers Grove, Illinois



Prepared For:

CAGE CIVIL ENGINEERING

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

October 17, 2024

1. Introduction

This report summarizes the methodologies, results, and findings of a traffic impact study conducted by Kenig, Lindgren, O'Hara, Aboona, Inc. (KLOA, Inc.) for the proposed multi-family residential development to be located on the east side of Forest Avenue between Warren Avenue and Franklin Street in downtown Downers Grove, Illinois. As proposed, the site, which is currently occupied by two buildings utilized as office space and a vacant lot, will be redeveloped to provide a seven-story building with the upper floors containing residential units and the ground and second floors to be occupied by a parking garage. The plans call for 62 residential units and 89 parking spaces. Access to the garage will be provided off Forest Avenue and the alley.

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, determine if any roadway or access improvements are necessary to accommodate traffic generated by the proposed development and to provide an assessment of the alley as a feasible entry/exit for the 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 with other nearby area developments shown. 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
- Evaluation of the adequacy of the parking supply

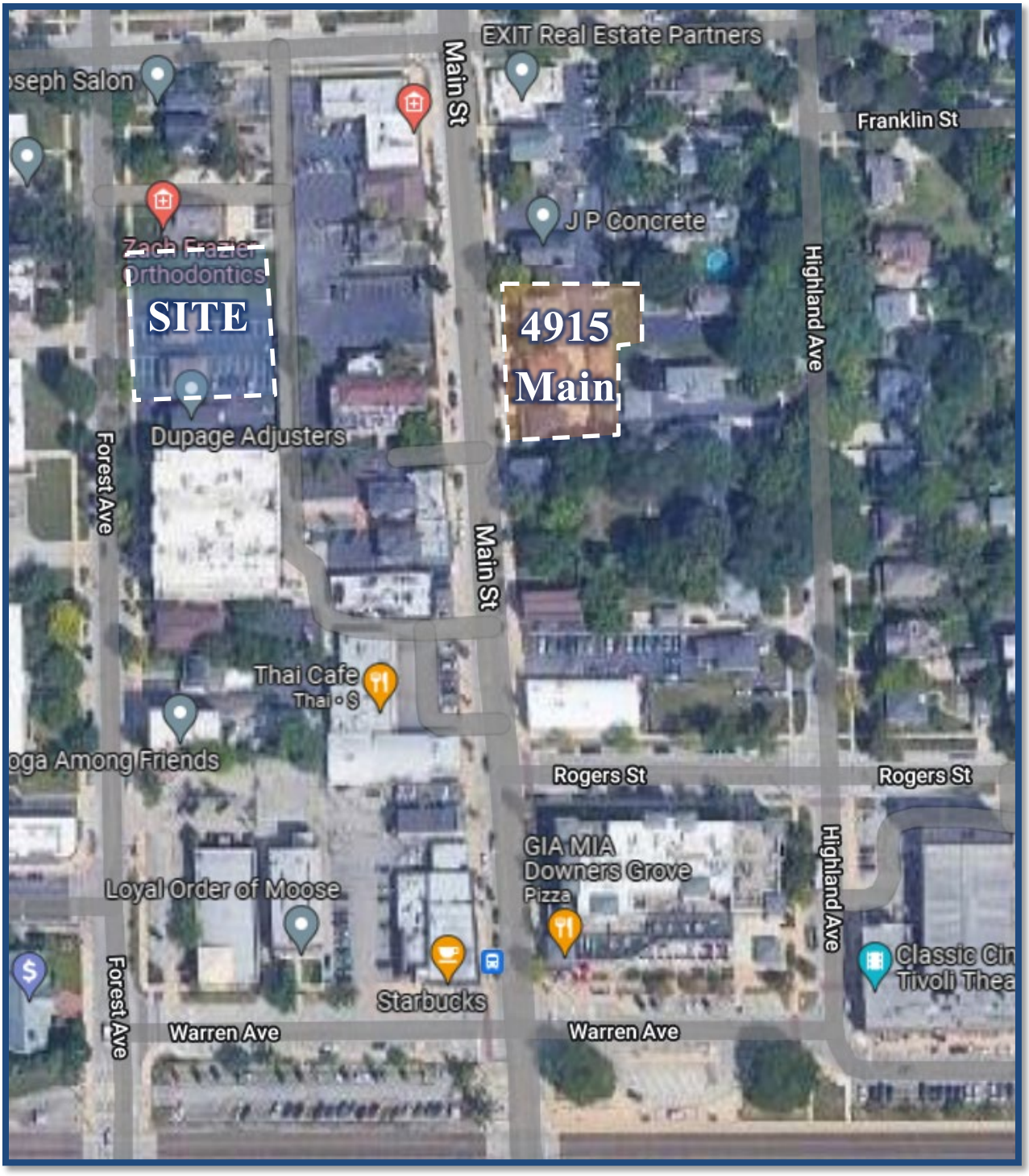
Traffic capacity analyses were conducted for the weekday morning and weekday evening peak hours for the following conditions:

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

2. Year 2030 No-Build Conditions – Analyzes the capacity of the existing roadway system using the existing traffic volumes increased by an ambient growth factor (growth not attributable to any particular development) as well as any area developments.

3. Year 2030 Projected Conditions – Analyzes the projected traffic volumes which includes the existing traffic volumes increased by an ambient area growth factor (growth not attributable to any particular development) as well as any area developments and the traffic estimated to be generated by the proposed subject development.

Site Location **Figure 1**



Aerial View of Site **Figure 2**

2. Existing Conditions

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

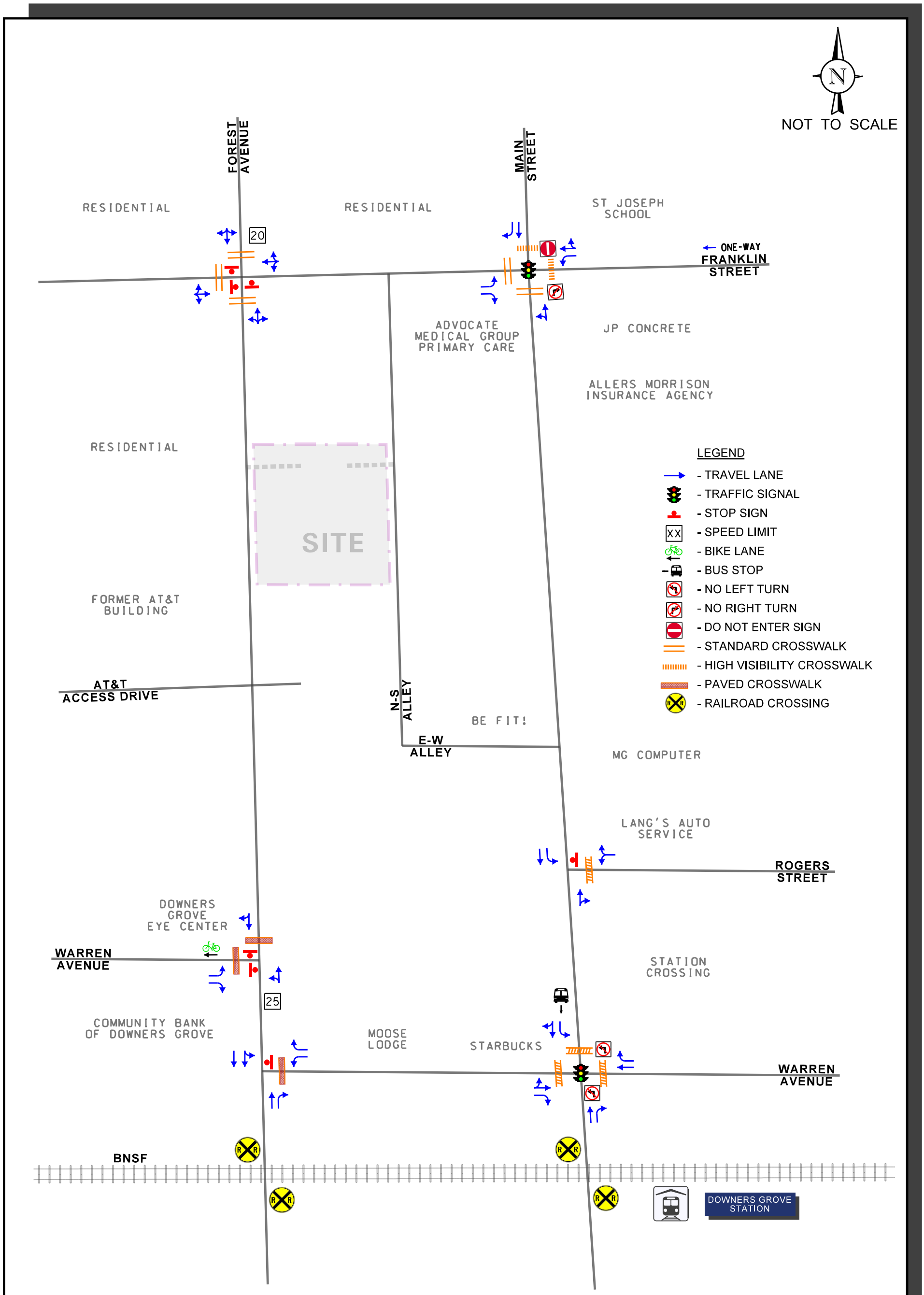
Site Location

The site is located in downtown Downers Grove on the east side of Forest Avenue between Warren Avenue and Franklin Street. The site is currently occupied by two houses utilized as office space and a vacant lot. The east side of Forest Avenue is a mix of office and residential uses. The west side of Forest Avenue is primarily residential uses. A north-south public alley borders the site to the east, providing access to businesses on Forest Avenue and Main Street. The Downers Grove Metra station is located approximately 1,100 feet southeast of the site.

Existing Roadway System Characteristics

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

Forest Avenue is a north-south roadway that generally provides one lane in each direction. North of the west leg of Warren Avenue, Forest Avenue is classified as a local roadway, south of the west leg of Warren Avenue, it is classified as a collector roadway. At its unsignalized intersection with Franklin Street, Forest Avenue provides a combined left-turn/through/right-turn lane on the northbound and southbound approaches which are under stop sign control. Standard-style crosswalks are provided on the north and south legs of the intersection. At its unsignalized intersection with the AT&T access drive, Forest Avenue provides a combined left-turn through lane on the northbound approach and a combined through/right-turn lane on the southbound approach. At its unsignalized intersection with the west leg of Warren Avenue, Forest Avenue provides a combined left-turn/through lane on the northbound approach and a combined through/right-turn lane on the southbound approach, which is under stop sign control. A paved crosswalk is provided on the north leg of the intersection. At its unsignalized intersection with the east leg of Warren Avenue, Forest Avenue provides a combined left-turn/through lane and a through lane on the southbound approach. On the northbound approach, Forest Avenue provides a through lane and a right-turn lane. At the at-grade railroad crossing of the BNSF Railway right-of-way, Forest Avenue provides two lanes in each direction. Forest Avenue carries an annual average daily traffic (AADT) volume of 400 vehicles north of the west leg of Warren Avenue, 3,400 vehicles between the west and east legs of Warren Avenue, and 4,200 vehicles south of the east leg of Warren Avenue. Forest Avenue has a posted speed limit of 20 miles per hour.



MULTI-FAMILY RESIDENTIAL DOWNERS GROVE, ILLINOIS

EXISTING ROADWAY CHARACTERISTICS

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

Job No: 24-193 Figure: 3

Main Street is a north-south minor arterial roadway that generally provides one lane in each direction. At its signalized intersection with Franklin Street, Main Street provides a combined left-turn/through lane on the northbound approach and a through lane and a right-turn lane on the southbound approach. A high-visibility crosswalk is provided on the north leg and a paved crosswalk is provided on the south leg. At its signalized intersection with Warren Avenue, Main Street provides a through lane and a right-turn lane on the northbound approach. On the southbound approach, Main Street provides a left-turn lane and a combined through/right-turn lane. A high-visibility crosswalk is provided on the north leg of the intersection. At its unsignalized intersection with Rogers Street, Main Street provides a combined through/right-turn lane on the northbound approach and a left-turn lane and a through lane on the southbound approach. At its unsignalized intersection with the public alley, Main Street provides a combined left-turn/through lane on the northbound approach and a combined through/right-turn lane on the southbound approach. Main Street carries an average annual daily traffic (AADT) volume of 6,800 vehicles (IDOT 2020). Main Street has a posted speed limit of 25 miles per hour.

Franklin Street is an east-west local roadway. East of Main Street, Franklin Street is a westbound one-way street providing two travel lanes. West of Main Street, Franklin Street provides one lane in each direction. At its signalized intersection with Main Street, Franklin Street provides a left-turn lane and a right-turn lane on the eastbound approach. On the westbound approach, Franklin Street provides a left-turn lane and a combined through/right-turn lane. A standard-style crosswalk is provided on the west leg of the intersection and a high-visibility crosswalk is provided on the east leg of the intersection. At its unsignalized intersection with Forest Avenue, Franklin Street provides combined left-turn/through/right-turn lanes on the eastbound and westbound approaches. The eastbound approach is under stop sign control. A standard-style crosswalk is provided on the west leg.

Warren Avenue is an east-west local roadway that provides one lane in each direction. At its signalized intersection with Main Street, Warren Avenue provides a combined left-turn/through lane and a right-turn lane on the eastbound approach. On the westbound approach, Warren Avenue provides a through lane and a right-turn lane. High-visibility crosswalks are provided on the east and west legs of the intersection. At its unsignalized, offset intersection with Forest Avenue, Warren Avenue provides a left-turn lane and a right-turn lane on the eastbound and westbound approaches that are under stop sign control. West of Forest Avenue, Warren Avenue provides an exclusive bike lane in each direction with both bike lanes terminating at Saratoga Avenue and the eastbound bike lane terminating at the eastbound Warren Avenue turn lanes at Forest Avenue. Paved crosswalks are provided on the east and west legs of the intersection.

North-South public alley is a north-south public alley that is approximately 14-feet-wide and extends from Franklin Street to the east-west public alley approximately 590 feet south of Frankling Street. This alley provides access to properties fronting Main Street and Forest Avenue. Two-way traffic is allowed on the alley and there is a posted speed limit of 10 miles per hour.

East-West public alley is an east-west public alley that is approximately 10 feet wide and extends from the north-south alley east to its intersection with Main Street between 4934 Main Street and 4946 Main Street. While angled parking spaces are provided on the north side of the alley which are oriented to be accessed by westbound traffic, there are no posted restrictions for one-way traffic.

Rogers Street is an east-west local roadway that provides one lane in each direction. At its unsignalized intersection with Main Street, Rogers Street provides a combined left-turn/right-turn lane that is under stop sign control.

Public Transportation

Metra commuter rail and Pace suburban bus provide public transportation options within downtown Downers Grove:

- The Metra BNSF line provides service between Union Station in downtown Chicago and downtown Aurora. Service is provided seven days a week, including holidays. Additional service may be provided for heavily attended events in Chicago. The Downers Grove station is located approximately 1,100 feet southeast of the site, in the northeast corner of Main Street with Burlington Avenue. The station provides an indoor waiting area as well as benches and covered outdoor waiting areas. A drop-off area for passenger vehicles is located in the southeast corner of the intersection of Main Street with Warren Avenue.

- Pace Bus Route 834 Joliet-Downers Grove provides weekday and Saturday service between downtown Joliet and Yorktown Center in Lombard, IL. Weekday service is provided from early morning to mid-evening. Saturday service is provided from mid-morning to early evening. The nearest southbound stop to the site is located in the northwest corner of Main Street with Warren Avenue, approximately 920 feet to the southeast. This is a curbside stop that only provides a route sign. The nearest northbound stop to the site is located on the south side of the Metra station along Main Street. A bench and covered outdoor waiting area are provided nearby as part of the Metra station.

Pedestrian and Bicycle Facilities

Sidewalks are generally provided on both sides of roadways within downtown Downers Grove. The area provides marked crosswalks at most intersections within the downtown area. Pedestrian push buttons and countdown signals are provided at the signalized intersections included in the study area.

Per the Downers Grove Village Bikeway Plan, Main Street is designated as a bike route. Warren Avenue provides a bike lane in the eastbound and westbound direction west of Forest Avenue. Bike racks are provided throughout the downtown area.

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 Tuesday, August 20, 2024, during the weekday morning (7:00 A.M. to 9:00 A.M.) and weekday afternoon (2:00 P.M. to 6:00 P.M.) peak periods at the following intersections:

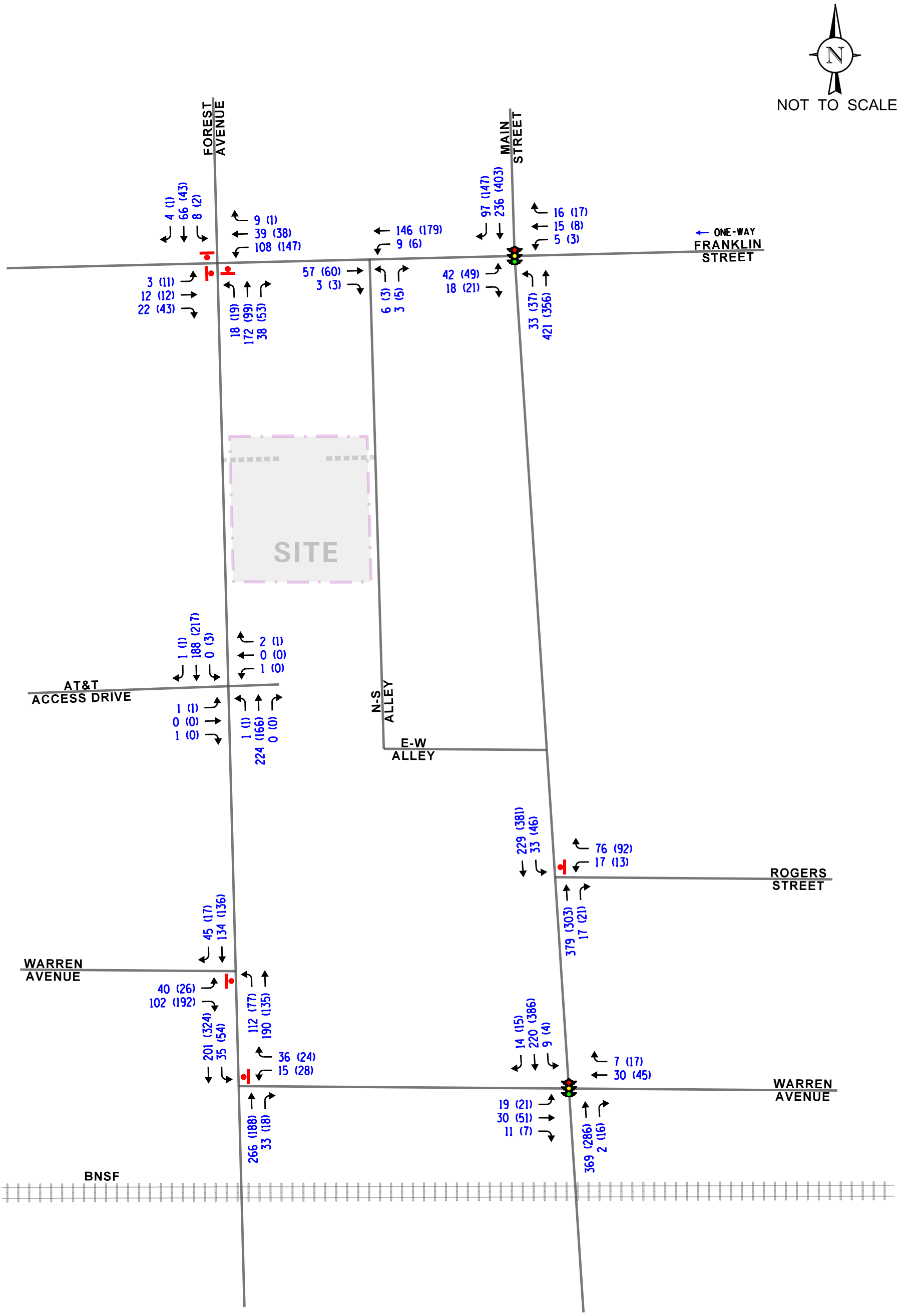
- Main Street with Franklin Street
- Main Street with Warren Avenue
- Forest Avenue with Franklin Street
- Forest Avenue with AT&T Access Drive/Apartment Access Drive
- Forest Avenue with Warren Avenue (West Leg)
- Forest Avenue with Warren Avenue (East Leg)
- Franklin Street with North-South Alley
- Main Street with Rogers Street

The results of the traffic counts showed that the weekday morning peak hour of traffic occurs from 7:30 A.M. to 8:30 A.M. and the weekday evening peak hour of traffic occurs from 5:00 P.M. to 6:00 P.M. It should be noted that during the early weekday afternoon peak hour that occurs from 3:00 P.M. to 4:00 P.M., which coincides with area school dismissal times, the overall traffic volumes are approximately 10 percent less than during the weekday evening peak hour. It should be noted that area schools were in session when the counts were conducted.

Furthermore, 24-hour two-way traffic counts were conducted for the public alley south of its intersection with Franklin Street to determine the existing daily utilization of the public alley. These counts were also conducted on Tuesday, August 20, 2024. The results of the 24-hour counts indicated that the public alley carried a two-way traffic volume of 281 vehicles of which 185 vehicles traveled northbound and 96 vehicles traveled southbound.

Copies of the traffic count summary sheets are included in the Appendix. **Figure 4** illustrates the existing traffic volumes. **Figure 5** illustrates the existing bicycle and pedestrian volumes.

As discussed later in the report, due to the configuration of the north-south alley and east-west alleys south of the proposed site access drive, all traffic accessing the site will be directed to travel to/from the north only and therefore, traffic counts were not conducted at the intersection of Main Street with the east-west public alley. However, count sheets for counts previously conducted at Main Street with the east-west public alley are included in the Appendix for reference.



LEGEND

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

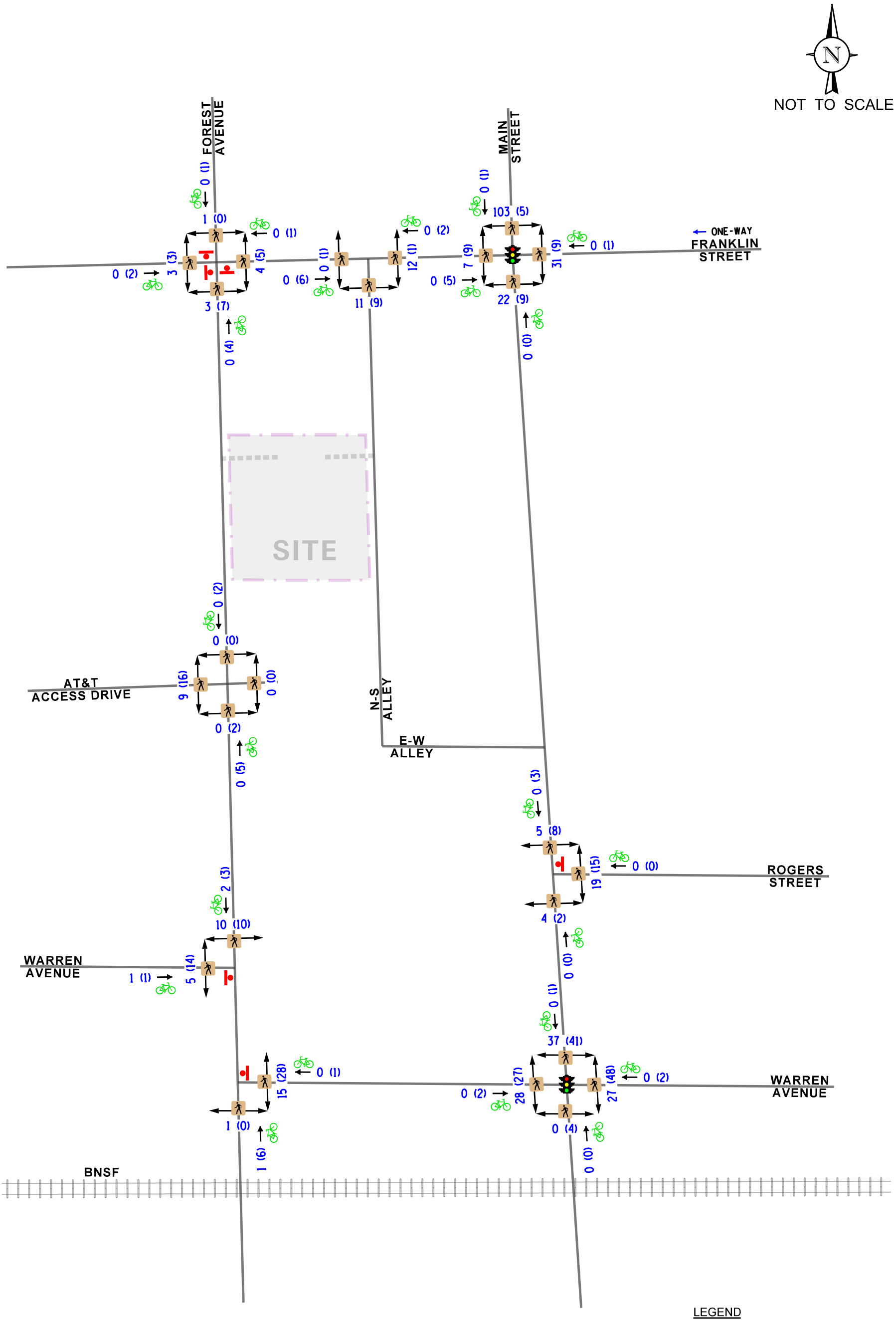
(00) - PM PEAK HOUR (5:00-6:00 PM)

MULTI-FAMILY RESIDENTIAL DOWNERS GROVE, ILLINOIS

EXISTING TRAFFIC VOLUMES

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

Job No: 24-193 Figure: 4



MULTI-FAMILY RESIDENTIAL DOWNERS GROVE, ILLINOIS

EXISTING PEDESTRIAN AND BICYCLE TRAFFIC VOLUMES

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

Job No: 24-193 Figure: 5

BNSF Right-of-Way and At-Grade Crossings

The BNSF Railway has a three-track right-of-way that runs east-west through downtown Downers Grove. At-grade crossings are provided at Forest Avenue and Main Street approximately 100 feet south of Warren Avenue. The stop bars for the approaches at these intersections are approximately 18 feet from the edge of the railroad track. Based on the Illinois Commerce Commission's (ICC) inventory, an average of 132 trains traverse these crossings on a daily basis. Of these, approximately 33 trains are inbound Metra trains and approximately 37 are outbound Metra trains. There are an additional eight Amtrak trains that traverse these crossings daily. Every at-grade crossing provides signage, lights, gates, and signals.

The traffic signal at Main Street with Warren Avenue is interconnected with the railroad crossing signal. This results in longer green times for the northbound approach so that traffic clears the railroad crossing. It was observed that when trains stop, the gates are down for approximately two minutes. During this time, southbound queues are noted to extend to the intersection of Main Street with Rogers Street, and at times past the intersection. Once the train has passed and the crossing gates are up, traffic clears the crossing and the intersection of Main Street with Warren Avenue within approximately two cycle lengths.

At the intersection of Forest Avenue with Warren Avenue (both legs), the eastbound Warren Avenue, westbound Warren Avenue, and southbound Forest Avenue approach at its intersection with the west leg of Warren Avenue are under stop-sign control. This configuration allows for northbound traffic to clear the train tracks without stopping.

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 site will be developed with a seven-story multi-family residential building providing 62 units. Parking will be accommodated in the building in an indoor garage providing 89 spaces. Access to the ground floor of the garage with 42 parking spaces (18 standard, 2 ADA, and 11 tandem (22 spaces)) will be provided off Forest Avenue, while access to the second floor or the garage with 47 parking spaces (17 standard, 2 ADA, and 14 tandem (28 spaces)) will be provided off the north-south public alley.

Each access drive will provide one inbound lane and one outbound lane and outbound movements will be under stop sign control. The ground floor access drive will be located approximately 240 feet south of Franklin Street. To maintain safety for pedestrians on Forest Avenue, a visual warning device should be posted at the garage access. The second-floor access drive will be located approximately 240 feet south of Franklin Street. Due to the configuration of the alley system south of the proposed access drive serving the second floor, all traffic utilizing this access drive will be directed to travel to/from the north via signage.

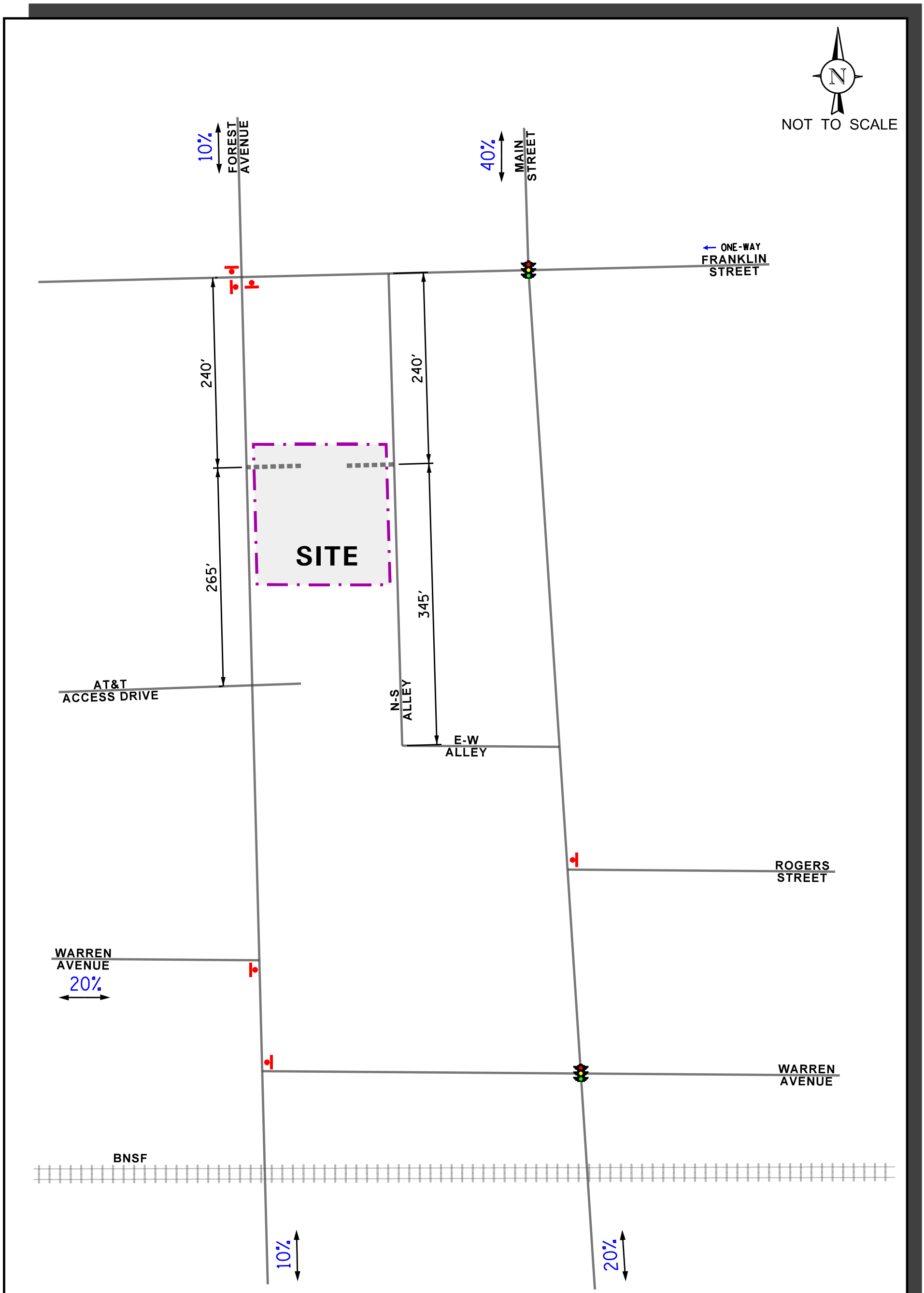
It is important to note that the site currently has multiple curb cuts on Forest Avenue which will be consolidated into one access drive. This will reduce the potential for vehicular/pedestrian conflicts and improve traffic flow on Forest Avenue. A lay-by lane which will be designated as a loading zone will also be provided along the site frontage on Forest Avenue.

Furthermore, as part of the proposed development, the building will be offset three (3) feet from the property line to increase the effective width of the alley along the site frontage to 17 feet.

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

Directional Distribution

The directions from which residents of the proposed development will approach and depart the site were estimated based on existing travel patterns, as determined from the traffic counts. **Figure 6** illustrates the directional distribution of the development-generated traffic.



MULTI-FAMILY RESIDENTIAL DOWNERS GROVE, ILLINOIS

DIRECTIONAL DISTRIBUTION

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

Job No: 24-193 Figure: 6

Estimated Site Traffic Generation

The number of peak hour and daily trips estimated to be generated by the proposed multi-family residential development was based on vehicle trip generation rates contained in *Trip Generation Manual*, 11th Edition, published by the Institute of Transportation Engineers (ITE). The "Multifamily Housing (Mid-Rise)" (ITE Land-Use Code 221) rate was utilized.

While the Chicago Metropolitan Agency for Planning (CMAP) July 2024 Community Data Snapshot shows that approximately 9.0 percent of people in the village of Downers Grove commute to work via public transportation, 2.2 percent of people walk or bike to work, and approximately 20.9 percent of people work at home. To provide a conservative analysis, no reduction was taken in the number of trips estimated to be generated by the proposed multifamily residential development.

Table 1 summarizes the trips projected to be generated by the proposed development during the peak hours. A copy of the ITE trip generation sheets is included in the Appendix.

Table 1
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	In	Out	Total
221	Multifamily Housing (Mid-Rise) – 62 Units	5	18	23	15	10	25	141	141	282

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 6). The total new traffic assignment for the residential development is illustrated in **Figure 7**. As previously indicated, all site generated traffic utilizing the second-floor parking garage will be directed to travel to/from the north on the public alley via signage.

Background (No-Build) Traffic Conditions

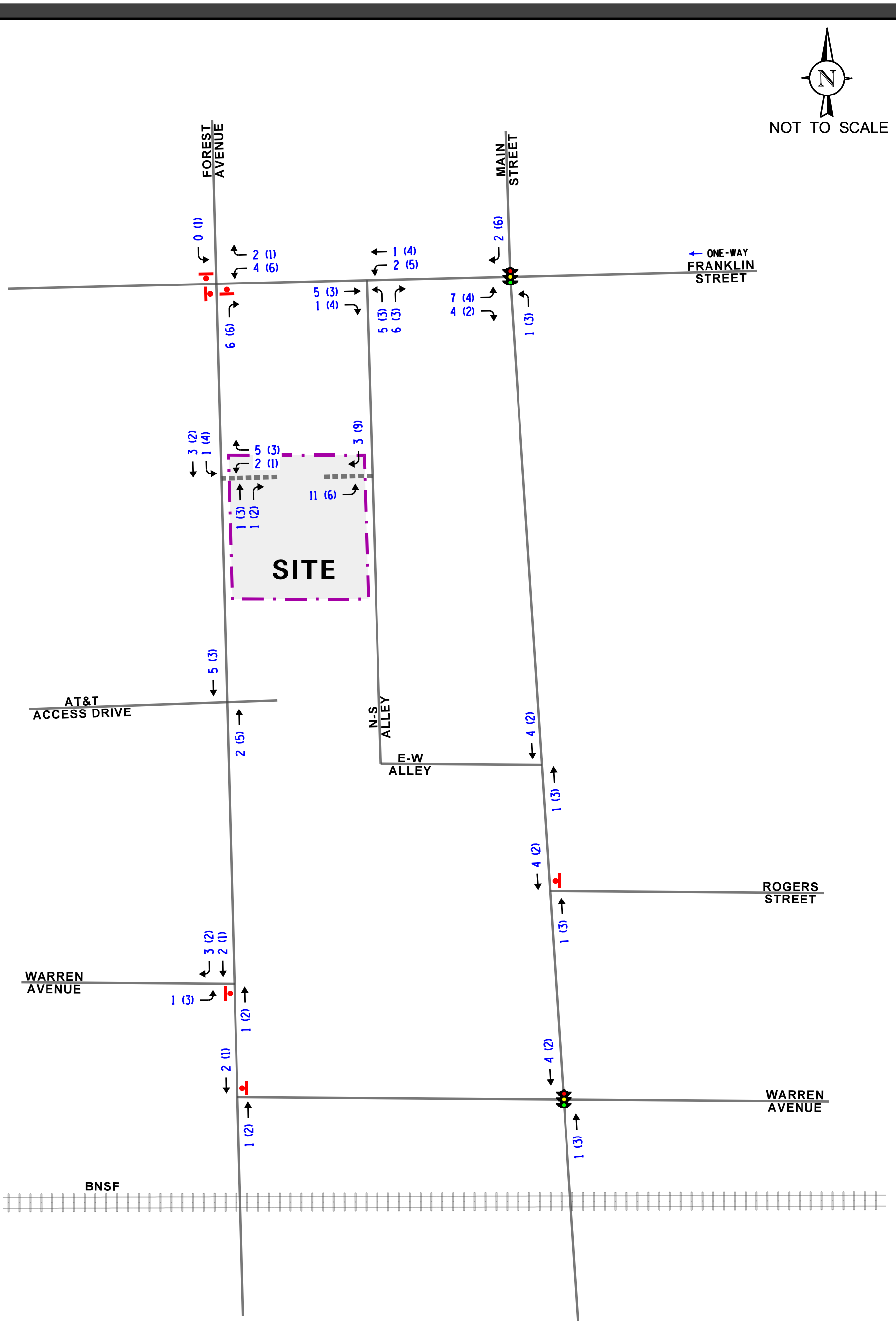
The existing traffic volumes (Figure 4) were increased by a regional growth factor to account for the increase in existing traffic related to regional growth in the area (i.e., not attributable to any particular planned development). Based on 2050 Annual Average Daily Traffic (AADT) projections provided by the Chicago Metropolitan Agency for Planning (CMAP) in a letter dated August 7, 2024, the existing traffic volume were increased by an annually compounded growth rate of 0.7 percent for six years (one-year buildout plus five years) totaling approximately five percent to represent Year 2030 no-build conditions.

Also included in the no-build traffic volumes is the traffic that will be generated by the 4915 Main Street Apartments.

A copy of the CMAP 2050 projections letter is included in the Appendix. **Figure 8** illustrates the Year 2030 no-build traffic volumes.

Total Projected Traffic Volumes

The development-generated traffic (Figure 7) was added to the existing traffic volumes increased by a regional growth factor (Figure 8) to determine the Year 2030 total projected traffic volumes, as illustrated in **Figure 9**.



LEGEND

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

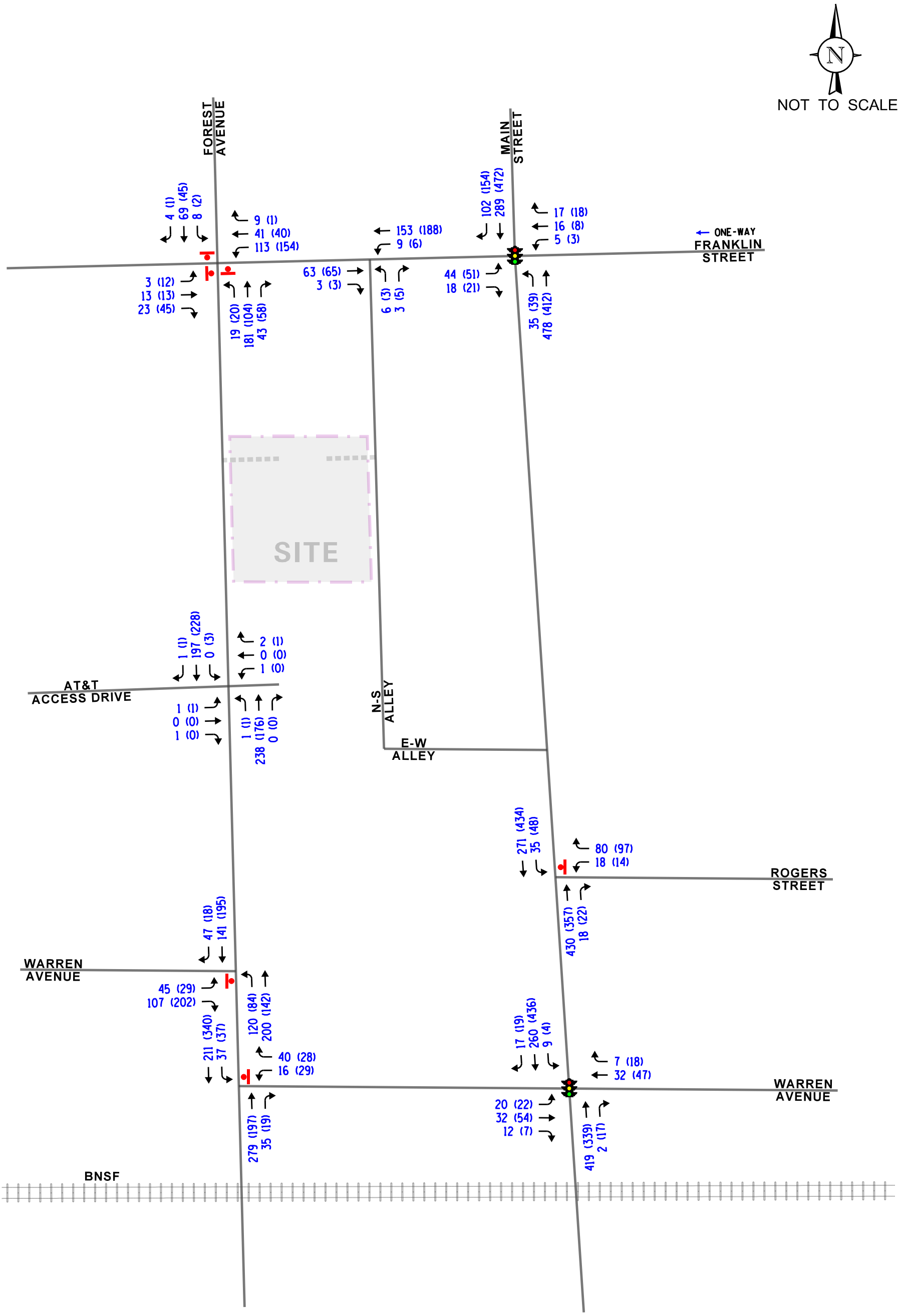
(00) - PM PEAK HOUR (5:00-6:00 PM)

MULTI-FAMILY RESIDENTIAL DOWNERS GROVE, ILLINOIS

SITE-GENERATED TRAFFIC VOLUMES

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

Job No: 24-193 Figure: 7

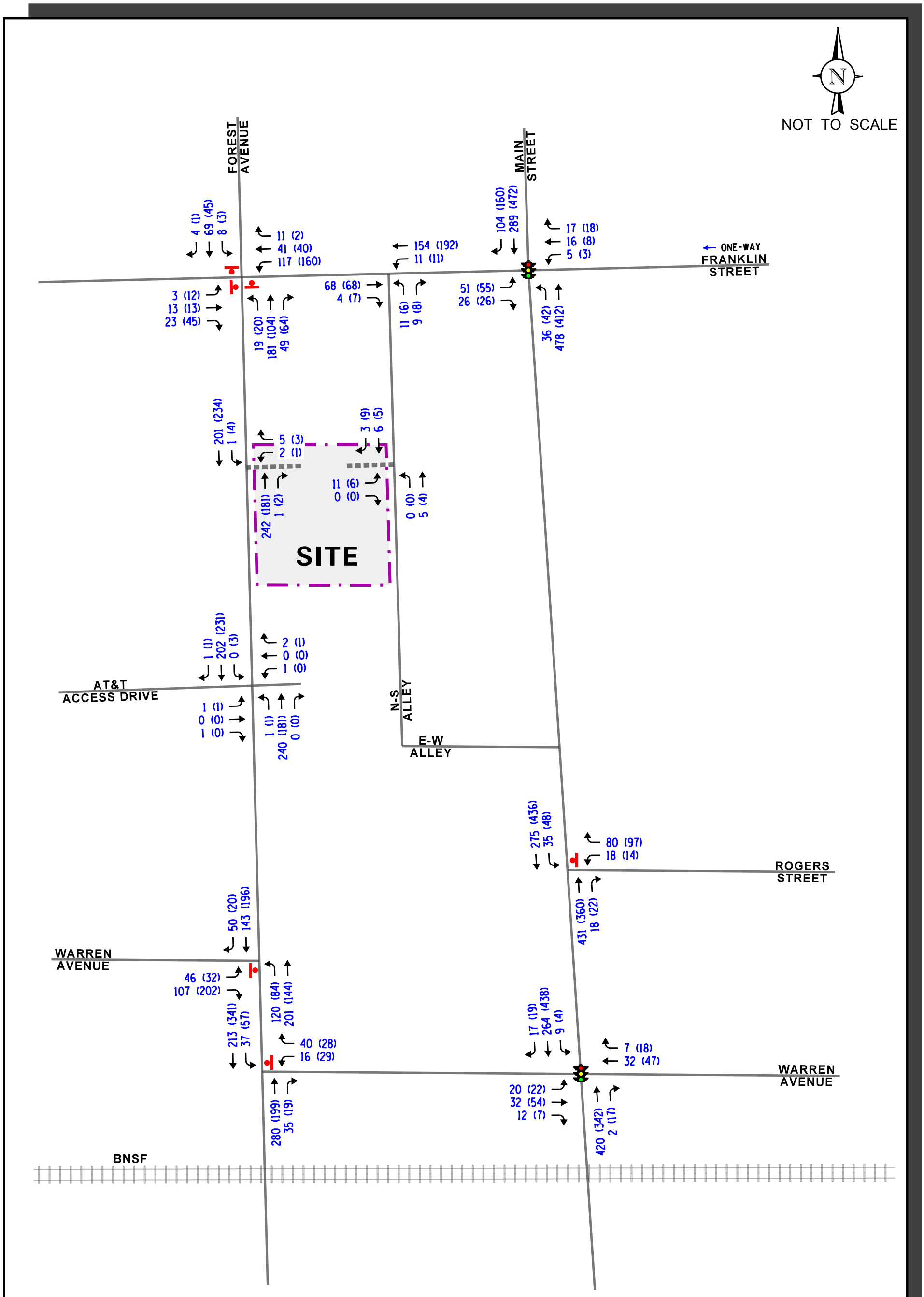


MULTI-FAMILY RESIDENTIAL DOWNERS GROVE, ILLINOIS

YEAR 2030 NO-BUILD TRAFFIC VOLUMES

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

Job No: 24-193 Figure: 8



LEGEND

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

(00) - PM PEAK HOUR (5:00-6:00 PM)

MULTI-FAMILY RESIDENTIAL DOWNERS GROVE, ILLINOIS

YEAR 2030 TOTAL TRAFFIC VOLUMES

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

Job No: 24-193 Figure: 9

5. Traffic Analysis and Recommendations

The following provides an evaluation conducted for the weekday morning and weekday evening peak hours. The analysis includes conducting capacity analyses to determine how well the roadway system and access drives are projected to operate and whether any roadway improvements or modification 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 2030 no-build, and Year 2030 total projected traffic volumes.

The traffic analyses were performed using the methodologies outlined in the Transportation Research Board's *Highway Capacity Manual (HCM),* 6th Edition and analyzed using Synchro/SimTraffic 11 computer software.

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.

Due to the unique traffic control configurations at the intersections of Forest Avenue with Franklin Street and Forest Avenue with the west leg of Warren Avenue, these intersections could not be analyzed using HCM procedures. As such, the intersections were analyzed using the Intersection Capacity Utilization (ICU) level of service. The ICU indicates how much reserve capacity is available or how much an intersection is over capacity. A description of these configurations, their purpose, and operations are included later in the report.

Summaries of the traffic analysis results showing the level of service and overall intersection delay (measured in seconds) for the base, no-build, and total projected conditions are presented in **Tables 2** through **6**. A discussion of the intersections follows. Summary sheets for the capacity analyses are included in the Appendix.

Table 2
MAIN STREET WITH FRANKLIN STREET – SIGNALIZED

	Peak Hour	Eastbound		Westbound		Northbound	Southbound		Overall
		L	R	L	T/R	L/T	T	R	
Existing Conditions	Weekday Morning	D 47.9	B 16.4	C 33.8	C 24.3	A – 2.6	A 2.2	A 0.7	A 5.7
		D – 38.4		C – 25.5			A – 1.8		
	Weekday Evening	D 45.1	B 16.5	C 34.3	C 21.2	A – 2.5	A 2.6	A 0.6	A 5.1
		D – 36.5		C – 22.6			A – 2.1		
No-Build Conditions	Weekday Morning	D 48.2	B 15.9	C 33.6	C 23.9	A – 3.2	A 2.7	A 0.7	A 5.9
		D – 37.4		C – 25.1			A – 2.2		
	Weekday Evening	D 45.3	B 16.0	C 34.3	C 20.7	A – 2.8	A 2.8	A 0.6	A 5.1
		D – 35.9		C – 22.1			A – 2.3		
Projected Conditions	Weekday Morning	D 49.0	B 14.7	C 32.8	C 23.1	A – 3.4	A 2.9	A 0.8	A 6.3
		D – 37.6		C – 24.3			A – 2.3		
	Weekday Evening	D 45.5	B 15.3	C 34.0	C 20.5	A – 2.9	A 2.9	A 0.7	A 5.3
		D – 35.8		C – 21.8			A – 2.3		

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

Table 3
MAIN STREET WITH WARREN AVENUE – SIGNALIZED

	Peak Hour	Eastbound		Westbound		Northbound		Southbound		Overall
		L/T	R	T	R	T	R	L	T/R	
Existing Conditions	Weekday Morning	D 45.0	B 14.3	D 38.7	A 8.7	A 8.7	A 0.0	A 2.2	A 2.3	B 10.3
		D – 39.3		C – 33.1		A – 8.7		A – 2.3		
	Weekday Evening	D 45.5	A 8.1	D 38.4	B 16.8	A 7.0	A 1.8	A 2.5	A 3.0	B 10.1
		D – 42.0		C – 32.6		A – 6.7		A – 3.0		
No-Build Conditions	Weekday Morning	D 45.2	B 14.7	D 38.6	A 8.6	A 9.8	A 0.0	A 2.2	A 2.4	B 10.6
		D – 39.4		C – 33.3		A – 9.7		A – 2.4		
	Weekday Evening	D 45.6	A 8.0	D 38.1	B 16.2	A 7.9	A 1.9	A 2.5	A 3.3	B 10.2
		D – 42.3		C – 32.0		A – 7.7		A – 3.3		
Projected Conditions	Weekday Morning	D 45.2	B 14.7	D 38.6	A 8.6	A 9.9	A 0.0	A 2.2	A 2.4	B 10.6
		D – 39.4		C – 33.3		A – 9.8		A – 2.4		
	Weekday Evening	D 45.6	A 8.0	D 38.1	B 16.2	A 8.0	A 1.9	A 2.5	A 3.3	B 10.2
		D – 42.3		C – 32.0		A – 7.7		A – 3.3		

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

Table 4
UNSIGNALIZED – EXISTING CONDITIONS

Intersection	Weekday Morning Peak Hour		Weekday Evening Peak Hour	
	LOS	Delay	LOS	Delay
Forest Avenue with Franklin Street[1]				
• ICU	A	37.3%	A	39.8%
Forest Avenue with Warren Avenue (West Leg)[1]				
• ICU	A	40.0%	A	36.5%
Forest Avenue with AT&T Access Drive/Apartment Access Drive[2]				
• Eastbound Approach	B	12.2	B	12.3
• Westbound Approach	B	10.5	A	9.2
• Northbound Left Turn	A	7.7	A	9.1
• Southbound Left Turn	A	0.0	A	7.6
Forest Avenue with Warren Avenue (East Leg)[2]				
• Westbound Approach	B	10.7	A	9.7
• Southbound Left Turn	A	8.0	A	7.8
Franklin Street with North-South Alley[2]				
• Northbound Approach	A	9.6	A	9.3
• Westbound Left Turn	A	7.4	A	7.4
Main Street with Rogers Street[2]				
• Westbound Left Turn	B	11.7	B	10.9
• Southbound Left Turn	A	8.4	A	8.1

LOS = Level of Service
Delay is measured in seconds.
1 – Evaluated with the Intersection Capacity Utilization (ICU) method.
2 – Two-way stop control

Table 5
UNSIGNALIZED – YEAR 2030 NO-BUILD CONDITIONS

Intersection	Weekday Morning Peak Hour		Weekday Evening Peak Hour	
	LOS	Delay	LOS	Delay
Forest Avenue with Franklin Street[1]				
• ICU	A	38.8%	A	41.0%
Forest Avenue with Warren Avenue (West Leg)[1]				
• ICU	A	41.4%	A	37.6%
Forest Avenue with AT&T Access Drive/Apartment Access Drive[2]				
• Eastbound Approach	B	12.5	B	12.6
• Westbound Approach	B	10.6	A	9.3
• Northbound Left Turn	A	7.7	A	9.2
• Southbound Left Turn	A	0.0	A	7.6
Forest Avenue with Warren Avenue (East Leg)[2]				
• Westbound Approach	B	11.0	A	9.8
• Southbound Left Turn	A	8.1	A	7.8
Franklin Street with North-South Alley[2]				
• Northbound Approach	A	9.7	A	9.3
• Westbound Left Turn	A	7.4	A	7.4
Main Street with Rogers Street[2]				
• Westbound Left Turn	B	12.6	B	11.7
• Southbound Left Turn	A	8.6	A	8.2

LOS = Level of Service
Delay is measured in seconds.
1 – Evaluated with the Intersection Capacity Utilization (ICU) method.
2 – Two-way stop control

Table 6
UNSIGNALIZED – YEAR 2030 TOTAL CONDITIONS

Intersection	Weekday Morning Peak Hour		Weekday Evening Peak Hour	
	LOS	Delay	LOS	Delay
Forest Avenue with Franklin Street[1]				
• ICU	A	39.5%	A	40.6%
Forest Avenue with Warren Avenue (West Leg)[1]				
• ICU	A	41.7%	A	37.8%
Forest Avenue with AT&T Access Drive/Apartment Access Drive[2]				
• Eastbound Approach	B	12.6	B	12.7
• Westbound Approach	B	10.7	A	9.3
• Northbound Left Turn	A	7.7	A	9.2
• Southbound Left Turn	A	0.0	A	7.6
Forest Avenue with Warren Avenue (East Leg)[2]				
• Westbound Approach	B	11.0	A	9.8
• Southbound Left Turn	A	8.1	A	7.8
Franklin Street with North-South Alley[2]				
• Northbound Approach	A	9.7	A	9.5
• Westbound Left Turn	A	7.4	A	7.4
Main Street with Rogers Street[2]				
• Westbound Left Turn	B	12.6	B	11.8
• Southbound Left Turn	A	8.6	A	8.3

LOS = Level of Service
Delay is measured in seconds.
1 – Evaluated with the Intersection Capacity Utilization (ICU) method.
2 – Two-way stop control

Table 6 – CONTINUED
UNSIGNALIZED – YEAR 2030 TOTAL CONDITIONS

Intersection	Weekday Morning Peak Hour		Weekday Evening Peak Hour	
	LOS	Delay	LOS	Delay
Forest Avenue with Garage Access Drive[2]				
• Westbound Approach	B	10.2	A	9.8
• Southbound Left Turn	A	7.7	A	7.6
North-South Alley with Garage Access Drive[2]				
• Eastbound Approach	A	8.6	A	8.6
• Northbound Left Turn	A	0.0	A	0.0

LOS = Level of Service
Delay is measured in seconds.
1 – Evaluated with the Intersection Capacity Utilization (ICU) method.
2 – Two-way stop control

Discussion and Recommendations

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

Main Street with Franklin Street

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

Under Year 2030 no-build conditions, the intersection is projected to continue operating at LOS A during the weekday morning and weekday evening peak hours with increases in delay of approximately less than one second over existing conditions. All approaches are projected to continue operating at their current LOS D or better during the peak hours.

Under Year 2030 total projected conditions, this intersection is projected to continue operating at LOS A during the weekday morning and weekday evening peak hours with increases in delay of approximately less than one second over Year 2030 no-build conditions. All approaches are projected to continue operating at their current LOS D or better during the peak hours. The proposed development is only projected to increase traffic through the intersection by less than one percent over no-build conditions. As such, the intersection has sufficient reserve to accommodate the traffic estimated to be generated by the proposed multi-family residential development and no additional roadway or traffic signal modifications are needed.

Main Street with Warren Avenue

The results of the capacity analysis indicate that the intersection currently operates overall at LOS B during the weekday morning and weekday evening peak hours. The northbound and southbound approaches currently operate at LOS A during the peak hours. The eastbound and westbound approaches currently operate at an acceptable LOS D or better during both peak hours.

Under Year 2030 no-build conditions, the intersection is projected to continue operating at LOS B during the weekday morning and weekday evening peak hours, with increases in delay of approximately less than one second over existing conditions. All approaches are projected to continue operating at LOS D or better during the peak hours with increases in delay of approximately less than one second over existing conditions.

Under Year 2030 total projected conditions, the intersection is projected to continue operating at LOS B during the weekday morning and weekday evening peak hours, with increases in delay of approximately less than one second over no-build conditions. All approaches are projected to continue operating at LOS D or better during the peak hours with increases in delay of approximately less than one second over no-build conditions.

The 95th percentile queues on the northbound and southbound approaches are projected to be three to four vehicles during the peak hours. The proposed development is projected to only increase the traffic traversing the intersection by less than one percent over no-build conditions.

As mentioned previously, this intersection is located approximately 100 feet north of the BNSF railroad crossing. As of August 2024, Metra BNSF trains utilize the crossing approximately six times during the weekday morning peak hour and approximately five times during the weekday evening peak hour. The traffic signal at Main Street with Warren Avenue is interconnected with the railroad crossing signal. This results in longer green times for the northbound approach to allow for traffic to clear the railroad crossing. During a train event, the southbound queues at the crossing can extend through the intersection with a 95th percentile queue of approximately 10 vehicles. Given that Rogers Street is approximately 255 feet north of Warren Avenue, queues can extend past its intersection with Main Street. It was observed that trains stop for approximately two minutes and once the crossing gates are up, queues typically clear within approximately two cycle lengths. Included in **Table 7** are the projected southbound maximum queues and 95th percentile queues compared to the link distance where the queues extend based on the simulation for the operation of the railroad crossing. The link distance is the distance in feet between the two intersections.

As such, this intersection has sufficient reserve capacity to accommodate the traffic projected to be generated by the proposed multi-family residential development and no roadway or traffic signal improvements will be required.

Table 7
MAXIMUM AND 95TH PERCENTILE QUEUES COMPARED TO LINK DISTANCE

	Weekday Morning Peak Hour	Weekday Evening Peak Hour
95th Percentile Queue[1]	56	111
Maximum Queue[2]	150	184
Link Distance	178	178
Queue and link distance are measured in feet.	1 – Based on Synchro 2 – Based on SimTraffic Simulation	

Forest Avenue with Franklin Street

As previously indicated, because of the traffic control configuration of this intersection in which only three of the four legs are stop sign controlled, the intersection could not be analyzed using HCM procedures. Given this traffic control configuration and the limitations of the HCM procedures, the intersection was analyzed using the Intersection Capacity Utilization (ICU) level of service. The ICU indicates how much reserve capacity is available or how much an intersection is over capacity.

Based on the ICU analysis, the intersection currently utilizes 40 percent or less of the capacity of the intersection. Under Year 2030 no-build and total conditions, it is projected that the intersection will continue to utilize approximately 41 percent or less of the capacity of the intersection. As such, no roadway or traffic control improvements are required at this intersection in conjunction with the proposed multi-family residential development.

Forest Avenue with Warren Avenue, West Leg

As previously indicated, because of the traffic control configuration of this intersection in which only two of the three legs are stop sign controlled and they are adjacent legs to each other, the intersection could not be analyzed using HCM procedures. Given this traffic control configuration and the limitations of the HCM procedures, the intersection was analyzed using the Intersection Capacity Utilization (ICU) level of service. The ICU indicates how much reserve capacity is available or how much an intersection is over capacity.

Based on the ICU analysis, the intersection currently utilizes less than 40 percent of the capacity of the intersection. Under Year 2030 no-build and total conditions, it is projected that the intersection will continue to utilize less than 42 percent of the capacity of the intersection. As such, no roadway or traffic control improvements are required at this intersection in conjunction with the proposed multi-family residential development.

Forest Avenue with AT&T Access Drive/Apartment Access Drive

The results of the capacity analysis indicate that the eastbound and westbound approaches from the AT&T facility and the apartment building, respectively, currently operate at LOS B or better during the weekday morning and weekday evening peak hours. The northbound and southbound left-turn movements currently operate at LOS A during the peak hours.

Under Year 2030 no-build and total projected conditions, the critical approaches and movements are projected to continue operating at the current levels of service, with increases in delay of less than one second over existing conditions. As such, no roadway or traffic control improvements are required at this intersection in conjunction with the proposed multi-family residential development.

Forest Avenue with Warren Avenue, East Leg

The results of the capacity analysis indicate that the westbound approach currently operates at LOS B or better during the weekday morning and weekday evening peak hours. The southbound left turn currently operates at LOS A during the peak hours. Under Year 2030 no-build and total projected conditions, the westbound approach and southbound left turn are projected to continue operating at their current levels of service during the peak hours. As such, no roadway or traffic control improvements are required at this intersection in conjunction with the proposed multi-family residential development.

Franklin Street with North-South Alley

The results of the capacity analysis indicate that the northbound approach currently operates at LOS A during the weekday morning and weekday evening peak hours. The westbound left-turn movement into the alley currently operates at LOS A during the peak hours. Under Year 2030 no-build and total projected conditions, the critical approaches and movements are projected to continue operating at the current levels of service. As such, no roadway or traffic control improvements are required at this intersection in conjunction with the proposed multi-family residential development.

Main Street with Rogers Street

The results of the capacity analysis indicate that the westbound approach currently operates at LOS B during the weekday morning and weekday evening peak hours. The southbound left turn currently operates at LOS A during the peak hours. Under Year 2030 no-build conditions, the westbound approach is projected to continue operating at LOS B during the weekday morning and weekday evening peak hours with increases in delay of approximately less than one second over existing conditions. The southbound left turn is projected to continue operating at LOS A during the peak hours.

Under Year 2030 total projected conditions, the westbound approach is projected to continue operating at LOS B during the weekday morning and weekday evening peak hours with increases in delay of approximately less than one second over Year 2030 no-build conditions. The southbound left turn is projected to continue operating at LOS A during the peak hours. As mentioned previously, during train events, the intersection is blocked by southbound queues extending from the intersection of Main Street with Warren Avenue. It should be noted that once the crossing gates are up, these queues clear within approximately two cycle lengths. As such, no roadway or traffic control improvements are required at this intersection in conjunction with the proposed multi-family residential development.

Forest Avenue with Garage Access Drive

Under Year 2030 total projected conditions, the garage will provide one inbound lane and one outbound lane with outbound movements under stop sign control. This garage access drive will serve parking spaces on the ground floor. The results of the capacity analysis indicate that the westbound approach is projected to operate at LOS B or better during the weekday morning and weekday evening peak hours.

The southbound left-turn movement into the garage is projected to operate at LOS A during the peak hours. As such, this access drive is projected to provide flexible and efficient access to the garage and no additional roadway or traffic control measures are required.

North-South Alley and Garage Access Evaluation

As previously indicated, the north-south alley that borders the site to the east is approximately 14-feet-wide. As part of the proposed development, the building will be offset three feet to the west, increasing the effective width of the alley along the site to 17-feet. Two-way traffic is allowed for the length of the alley and the posted speed limit is 10 miles per hour.

Based on the traffic counts conducted at the north end of the public alley, it was determined that the two-way traffic within the alley for a 24-hour period totaled approximately 281 vehicles. In this time period, 185 vehicles were traveling southbound and 96 vehicles were traveling northbound. The unbalanced traffic volumes are likely due to the fact that multiple commercial uses along Main Street and Forest Avenue have access drives which directly connect through their respective parking lots to the alley from those streets. Furthermore, the orientation of some parking fields result in inbound traffic from the roadway network and outbound traffic onto the public alley.

These relatively low volumes (compared to the area roadway network) combined with the additional pavement created by the commercial drives will continue to allow for two-way traffic to occur along the alley.

Access to the second-floor garage providing 47 parking spaces will be provided off the alley. While the north-south alley connects to the south to a 10-ft east-west alley that enters off Main Street, it is recommended that signs be posted at the garage exit directing traffic to travel to and from the north on the alley.

As the alley has relatively low traffic volumes throughout the day and low traffic volumes during the weekday morning and weekday evening peak hours, the minimal additional traffic generated by the proposed development will have a minimal impact on the operations of the alley. Furthermore, the parking garage will be utilized as parking for residents of the proposed building who will be familiar with the orientation, operation, and characteristics of the public alley when departing or arriving to the proposed building.

The results of the capacity analyses indicate that under Year 2030 total projected conditions, outbound movements from the access drive onto the public alley are projected to operate at LOS A during the weekday morning and weekday evening peak hours. As such, a single access drive serving the 47 proposed parking spaces will provide sufficient capacity to accommodate the traffic generated by these spaces during the peak hours.

Parking Evaluation

As previously indicated, the multi-family residential development will provide 62 residential units and a parking garage providing 89 parking spaces for the exclusive use of residents. Per the Village of Downers Grove Municipal Code, apartments/condominiums in the downtown zoning district are required to provide 1.4 parking spaces per dwelling unit. With 62 residential units in the proposed multi-family building, the parking garage should provide approximately 87 parking spaces. With 89 proposed parking spaces, the garage will meet the village requirements.

Per the Institute of Transportation Engineers, *Parking Generation Manual*, 6th Edition, the average rate of parking required is 1.23 spaces per dwelling unit. With 62 residential units in the proposed multi-family building, the parking garage should provide approximately 76 parking spaces, which is met by the proposed supply of 89 parking spaces.

Based on the above, the proposed parking supply will be adequate in meeting the parking needs of the proposed development.

6. Conclusion

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

- The traffic that will be generated by the proposed multi-family residential development can be accommodated by the existing area roadway system.
- The development will provide indoor garage parking, with access off Forest Avenue and off the north-south alley bordering the site on the east.
- The proposed development-generated traffic will have a limited impact on the traffic operations of the adjacent intersections and as such it can be accommodated by the existing roadways and traffic control.
- The consolidation of multiple access drives on Forest Avenue into a single access drive will improve the traffic along Forest Avenue.
- The proposed access system will be adequate and efficient in serving the traffic estimated to be generated by the multi-family residential development.
- At the Forest Avenue access drive, a stop sign and a visual warning device should be posted at the garage access.
- At the public alley access drive, signage should be provided directing vehicles to travel to/from the north at the public alley's intersection with Franklin Street.
- The north-south alley currently carries low traffic volumes and under projected conditions, traffic within the alley will continue to operate well with minimal conflicts.

Appendix

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

Traffic Count Summary Sheets

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

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

Count Name: Franklin+Street+and+Main+Street
TMC
Site Code:
Start Date: 08/20/2024
Page No: 1

Turning Movement Data

Start Time	Franklin Street Eastbound						Franklin Street Westbound						Main Street Northbound						Main Street Southbound						Int. Total
	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	
7:00 AM	0	12	0	2	0	14	0	0	4	0	1	4	0	5	86	0	0	91	0	0	41	12	11	53	162
7:15 AM	0	6	0	4	2	10	0	4	4	6	9	14	0	12	73	0	2	85	0	0	43	16	43	59	168
7:30 AM	0	8	0	8	2	16	0	3	6	8	16	17	0	13	114	0	10	127	0	0	53	20	62	73	233
7:45 AM	0	15	0	1	1	16	0	2	5	4	8	11	0	10	94	0	7	104	0	0	56	28	21	84	215
Hourly Total	0	41	0	15	5	56	0	9	19	18	34	46	0	40	367	0	19	407	0	0	193	76	137	269	778
8:00 AM	0	8	0	2	4	10	0	0	2	4	4	6	0	3	109	0	3	112	0	0	56	24	15	80	208
8:15 AM	0	11	0	7	0	18	0	0	2	0	3	2	0	7	104	0	2	111	0	1	71	25	5	97	228
8:30 AM	0	15	0	2	3	17	0	2	1	4	3	7	0	10	99	0	4	109	0	0	57	20	7	77	210
8:45 AM	0	12	0	4	1	16	0	0	1	1	0	2	0	5	104	0	2	109	0	0	47	19	0	66	193
Hourly Total	0	46	0	15	8	61	0	2	6	9	10	17	0	25	416	0	11	441	0	1	231	88	27	320	839
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2:00 PM	0	14	0	4	1	18	0	0	2	1	0	3	0	11	79	0	3	90	0	0	77	29	0	106	217
2:15 PM	0	11	0	3	1	14	0	0	3	0	1	3	0	10	76	0	3	86	0	0	70	23	0	93	196
2:30 PM	0	11	0	7	1	18	0	1	0	2	0	3	0	11	76	0	2	87	0	0	78	23	0	101	209
2:45 PM	0	13	0	5	0	18	0	0	0	1	1	1	0	6	72	0	9	78	0	0	77	15	0	92	189
Hourly Total	0	49	0	19	3	68	0	1	5	4	2	10	0	38	303	0	17	341	0	0	302	90	0	392	811
3:00 PM	0	15	1	5	1	21	0	0	0	1	1	1	0	5	72	0	2	77	0	0	59	23	0	82	181
3:15 PM	0	19	0	5	0	24	0	0	2	1	2	3	0	4	71	0	0	75	0	0	77	23	0	100	202
3:30 PM	0	17	0	3	8	20	0	2	3	1	0	6	0	9	60	0	1	69	0	0	98	35	0	133	228
3:45 PM	0	10	0	4	6	14	0	0	5	2	1	7	0	9	62	0	4	71	0	0	75	21	1	96	188
Hourly Total	0	61	1	17	15	79	0	2	10	5	4	17	0	27	265	0	7	292	0	0	309	102	1	411	799
4:00 PM	0	14	0	3	2	17	0	2	2	1	0	5	0	8	81	0	0	89	0	0	102	30	0	132	243
4:15 PM	0	8	0	7	11	15	0	0	4	2	10	6	0	6	67	0	7	73	0	0	90	30	1	120	214
4:30 PM	0	19	0	3	2	22	0	1	0	2	30	3	0	13	73	0	1	86	0	0	92	20	1	112	223
4:45 PM	0	11	0	0	1	11	0	0	2	0	1	2	0	7	64	0	3	71	0	0	95	32	0	127	211
Hourly Total	0	52	0	13	16	65	0	3	8	5	41	16	0	34	285	0	11	319	0	0	379	112	2	491	891
5:00 PM	0	21	1	7	6	29	0	0	3	2	1	5	0	10	92	0	4	102	0	0	80	49	0	129	265
5:15 PM	0	13	0	5	0	18	0	1	0	4	7	5	0	11	77	0	3	88	0	0	105	36	3	141	252
5:30 PM	0	10	2	5	2	17	0	2	2	9	1	13	0	3	97	0	1	100	0	0	103	27	1	130	260
5:45 PM	0	5	1	5	1	11	0	1	3	2	0	6	0	13	90	0	1	103	0	0	115	36	1	151	271
Hourly Total	0	49	4	22	9	75	0	4	8	17	9	29	0	37	356	0	9	393	0	0	403	148	5	551	1048
Grand Total	0	298	5	101	56	404	0	21	56	58	100	135	0	201	1992	0	74	2193	0	1	1817	616	172	2434	5166
Approach %	0.0	73.8	1.2	25.0	-	-	0.0	15.6	41.5	43.0	-	-	0.0	9.2	90.8	0.0	-	-	0.0	0.0	74.7	25.3	-	-	-
Total %	0.0	5.8	0.1	2.0	-	7.8	0.0	0.4	1.1	1.1	-	2.6	0.0	3.9	38.6	0.0	-	42.5	0.0	0.0	35.2	11.9	-	47.1	-
Lights	0	293	1	93	-	387	0	16	52	54	-	122	0	197	1940	0	-	2137	0	1	1775	605	-	2381	5027

% Lights	-	98.3	20.0	92.1	-	95.8	-	76.2	92.9	93.1	-	90.4	-	98.0	97.4	-	-	97.4	-	100.0	97.7	98.2	-	97.8	97.3
Buses	0	0	0	2	-	2	0	4	2	4	-	10	0	1	26	0	-	27	0	0	14	5	-	19	58
% Buses	-	0.0	0.0	2.0	-	0.5	-	19.0	3.6	6.9	-	7.4	-	0.5	1.3	-	-	1.2	-	0.0	0.8	0.8	-	0.8	1.1
Single-Unit Trucks	0	2	0	4	-	6	0	0	0	0	-	0	0	1	21	0	-	22	0	0	23	5	-	28	56
% Single-Unit Trucks	-	0.7	0.0	4.0	-	1.5	-	0.0	0.0	0.0	-	0.0	-	0.5	1.1	-	-	1.0	-	0.0	1.3	0.8	-	1.2	1.1
Articulated Trucks	0	2	0	0	-	2	0	0	0	0	-	0	0	1	4	0	-	5	0	0	5	0	-	5	12
% Articulated Trucks	-	0.7	0.0	0.0	-	0.5	-	0.0	0.0	0.0	-	0.0	-	0.5	0.2	-	-	0.2	-	0.0	0.3	0.0	-	0.2	0.2
Bicycles on Road	0	1	4	2	-	7	0	1	2	0	-	3	0	1	1	0	-	2	0	0	0	1	-	1	13
% Bicycles on Road	-	0.3	80.0	2.0	-	1.7	-	4.8	3.6	0.0	-	2.2	-	0.5	0.1	-	-	0.1	-	0.0	0.0	0.2	-	0.0	0.3
Pedestrians	-	-	-	-	56	-	-	-	-	-	100	-	-	-	-	-	74	-	-	-	-	-	172	-	-
% Pedestrians	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-

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(847)518-9990 kpachowicz@kloainc.com

Count Name: Franklin+Street+and+Main+Street
TMC
Site Code:
Start Date: 08/20/2024

Turning Movement Peak Hour Data (7:30 AM)

Start Time	Franklin Street Eastbound						Franklin Street Westbound						Main Street Northbound						Main Street Southbound						Int. Total
	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	
7:30 AM	0	8	0	8	2	16	0	3	6	8	16	17	0	13	114	0	10	127	0	0	53	20	62	73	233
7:45 AM	0	15	0	1	1	16	0	2	5	4	8	11	0	10	94	0	7	104	0	0	56	28	21	84	215
8:00 AM	0	8	0	2	4	10	0	0	2	4	4	6	0	3	109	0	3	112	0	0	56	24	15	80	208
8:15 AM	0	11	0	7	0	18	0	0	2	0	3	2	0	7	104	0	2	111	0	1	71	25	5	97	228
Total	0	42	0	18	7	60	0	5	15	16	31	36	0	33	421	0	22	454	0	1	236	97	103	334	884
Approach %	0.0	70.0	0.0	30.0	-	-	0.0	13.9	41.7	44.4	-	-	0.0	7.3	92.7	0.0	-	-	0.0	0.3	70.7	29.0	-	-	-
Total %	0.0	4.8	0.0	2.0	-	6.8	0.0	0.6	1.7	1.8	-	4.1	0.0	3.7	47.6	0.0	-	51.4	0.0	0.1	26.7	11.0	-	37.8	-
PHF	0.000	0.700	0.000	0.563	-	0.833	0.000	0.417	0.625	0.500	-	0.529	0.000	0.635	0.923	0.000	-	0.894	0.000	0.250	0.831	0.866	-	0.861	0.948
Lights	0	41	0	16	-	57	0	4	15	16	-	35	0	32	407	0	-	439	0	1	229	95	-	325	856
% Lights	-	97.6	-	88.9	-	95.0	-	80.0	100.0	100.0	-	97.2	-	97.0	96.7	-	-	96.7	-	100.0	97.0	97.9	-	97.3	96.8
Buses	0	0	0	1	-	1	0	1	0	0	-	1	0	1	5	0	-	6	0	0	3	1	-	4	12
% Buses	-	0.0	-	5.6	-	1.7	-	20.0	0.0	0.0	-	2.8	-	3.0	1.2	-	-	1.3	-	0.0	1.3	1.0	-	1.2	1.4
Single-Unit Trucks	0	1	0	1	-	2	0	0	0	0	-	0	0	0	8	0	-	8	0	0	3	1	-	4	14
% Single-Unit Trucks	-	2.4	-	5.6	-	3.3	-	0.0	0.0	0.0	-	0.0	-	0.0	1.9	-	-	1.8	-	0.0	1.3	1.0	-	1.2	1.6
Articulated Trucks	0	0	0	0	-	0	0	0	0	0	-	0	0	0	1	0	-	1	0	0	1	0	-	1	2
% Articulated Trucks	-	0.0	-	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	-	0.0	0.2	-	-	0.2	-	0.0	0.4	0.0	-	0.3	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	-	-	-	-	7	-	-	-	-	-	31	-	-	-	-	-	22	-	-	-	-	-	103	-	-
% Pedestrians	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-

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Count Name: Franklin+Street+and+Main+Street
TMC
Site Code:
Start Date: 08/20/2024

Turning Movement Peak Hour Data (5:00 PM)

Start Time	Franklin Street Eastbound						Franklin Street Westbound						Main Street Northbound						Main Street Southbound						Int. Total
	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	
5:00 PM	0	21	1	7	6	29	0	0	3	2	1	5	0	10	92	0	4	102	0	0	80	49	0	129	265
5:15 PM	0	13	0	5	0	18	0	1	0	4	7	5	0	11	77	0	3	88	0	0	105	36	3	141	252
5:30 PM	0	10	2	5	2	17	0	2	2	9	1	13	0	3	97	0	1	100	0	0	103	27	1	130	260
5:45 PM	0	5	1	5	1	11	0	1	3	2	0	6	0	13	90	0	1	103	0	0	115	36	1	151	271
Total	0	49	4	22	9	75	0	4	8	17	9	29	0	37	356	0	9	393	0	0	403	148	5	551	1048
Approach %	0.0	65.3	5.3	29.3	-	-	0.0	13.8	27.6	58.6	-	-	0.0	9.4	90.6	0.0	-	-	0.0	0.0	73.1	26.9	-	-	-
Total %	0.0	4.7	0.4	2.1	-	7.2	0.0	0.4	0.8	1.6	-	2.8	0.0	3.5	34.0	0.0	-	37.5	0.0	0.0	38.5	14.1	-	52.6	-
PHF	0.000	0.583	0.500	0.786	-	0.647	0.000	0.500	0.667	0.472	-	0.558	0.000	0.712	0.918	0.000	-	0.954	0.000	0.000	0.876	0.755	-	0.912	0.967
Lights	0	49	0	21	-	70	0	3	8	17	-	28	0	37	356	0	-	393	0	0	400	147	-	547	1038
% Lights	-	100.0	0.0	95.5	-	93.3	-	75.0	100.0	100.0	-	96.6	-	100.0	100.0	-	-	100.0	-	-	99.3	99.3	-	99.3	99.0
Buses	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	1	0	-	1	1
% Buses	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	-	-	0.0	-	-	0.2	0.0	-	0.2	0.1
Single-Unit Trucks	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	1	0	-	1	1
% Single-Unit Trucks	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	-	-	0.0	-	-	0.2	0.0	-	0.2	0.1
Articulated Trucks	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	1	0	-	1	1
% Articulated Trucks	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	-	-	0.0	-	-	0.2	0.0	-	0.2	0.1
Bicycles on Road	0	0	4	1	-	5	0	1	0	0	-	1	0	0	0	0	-	0	0	0	0	1	-	1	7
% Bicycles on Road	-	0.0	100.0	4.5	-	6.7	-	25.0	0.0	0.0	-	3.4	-	0.0	0.0	-	-	0.0	-	-	0.0	0.7	-	0.2	0.7
Pedestrians	-	-	-	-	9	-	-	-	-	-	9	-	-	-	-	-	9	-	-	-	-	-	5	-	-
% Pedestrians	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-

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

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(847)518-9990 kpachowicz@kloainc.com

Count Name: Main+St+with+Warren+Ave TMC
Site Code:
Start Date: 08/20/2024

Turning Movement Data

Start Time	Warren Avenue Eastbound						Warren Avenue Westbound						Main Street Northbound						Main Street Southbound						Int. Total
	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	
7:00 AM	0	4	4	0	2	8	0	1	6	5	0	12	0	0	79	0	0	79	0	1	35	1	5	37	136
7:15 AM	0	5	8	2	10	15	0	0	8	1	2	9	0	1	70	1	0	72	0	2	41	2	5	45	141
7:30 AM	0	7	6	5	4	18	0	0	7	1	6	8	0	0	109	1	0	110	0	1	66	3	10	70	206
7:45 AM	0	3	6	4	7	13	0	0	7	2	11	9	0	0	78	0	0	78	0	1	47	7	5	55	155
Hourly Total	0	19	24	11	23	54	0	1	28	9	19	38	0	1	336	2	0	339	0	5	189	13	25	207	638
8:00 AM	0	3	8	1	9	12	0	0	10	1	6	11	0	0	83	1	0	84	0	2	35	2	13	39	146
8:15 AM	0	6	10	1	8	17	0	1	5	3	4	9	0	0	99	0	0	99	0	5	72	2	9	79	204
8:30 AM	0	3	7	4	3	14	0	0	11	1	2	12	0	1	94	2	0	97	0	0	61	5	8	66	189
8:45 AM	0	6	6	4	11	16	0	0	2	0	5	2	0	0	93	2	0	95	0	2	41	3	12	46	159
Hourly Total	0	18	31	10	31	59	0	1	28	5	17	34	0	1	369	5	0	375	0	9	209	12	42	230	698
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2:00 PM	0	4	4	3	5	11	0	0	10	3	6	13	0	0	60	1	3	61	0	0	62	1	9	63	148
2:15 PM	0	4	9	6	16	19	0	0	5	3	8	8	0	0	69	6	0	75	0	1	84	4	9	89	191
2:30 PM	0	5	6	0	11	11	0	0	7	3	6	10	0	0	75	3	2	78	0	2	88	1	7	91	190
2:45 PM	0	3	9	1	9	13	0	0	6	1	8	7	0	0	71	2	3	73	0	3	67	1	5	71	164
Hourly Total	0	16	28	10	41	54	0	0	28	10	28	38	0	0	275	12	8	287	0	6	301	7	30	314	693
3:00 PM	0	3	7	4	7	14	0	1	6	0	25	7	0	0	56	1	0	57	0	2	64	0	18	66	144
3:15 PM	0	3	11	3	14	17	0	0	11	2	5	13	0	0	54	5	4	59	0	2	69	0	9	71	160
3:30 PM	0	4	11	6	27	21	0	1	6	2	7	9	0	0	62	1	1	63	0	0	107	5	12	112	205
3:45 PM	0	4	5	6	11	15	0	0	6	2	7	8	0	0	69	7	2	76	0	3	86	5	13	94	193
Hourly Total	0	14	34	19	59	67	0	2	29	6	44	37	0	0	241	14	7	255	0	7	326	10	52	343	702
4:00 PM	0	5	7	3	15	15	0	0	12	5	8	17	0	0	51	8	0	59	0	0	91	4	12	95	186
4:15 PM	0	4	14	3	15	21	0	0	6	2	23	8	0	0	64	8	1	72	0	0	98	2	14	100	201
4:30 PM	0	6	8	4	35	18	0	1	9	4	33	14	0	0	70	8	1	78	0	0	82	2	12	84	194
4:45 PM	0	7	15	3	22	25	0	0	10	3	8	13	0	1	59	8	6	68	0	1	86	3	16	90	196
Hourly Total	0	22	44	13	87	79	0	1	37	14	72	52	0	1	244	32	8	277	0	1	357	11	54	369	777
5:00 PM	0	10	10	2	12	22	0	0	11	7	13	18	0	0	67	4	0	71	0	1	73	5	17	79	190
5:15 PM	0	3	18	0	5	21	0	3	13	4	8	20	0	0	69	3	0	72	0	1	85	4	9	90	203
5:30 PM	0	5	11	2	3	18	0	1	6	2	6	9	0	0	75	6	3	81	0	0	123	1	6	124	232
5:45 PM	0	3	14	3	7	20	0	1	12	4	21	17	0	0	75	3	1	78	0	2	106	5	9	113	228
Hourly Total	0	21	53	7	27	81	0	5	42	17	48	64	0	0	286	16	4	302	0	4	387	15	41	406	853
Grand Total	0	110	214	70	268	394	0	10	192	61	228	263	0	3	1751	81	27	1835	0	32	1769	68	244	1869	4361
Approach %	0.0	27.9	54.3	17.8	-	-	0.0	3.8	73.0	23.2	-	-	0.0	0.2	95.4	4.4	-	-	0.0	1.7	94.6	3.6	-	-	-
Total %	0.0	2.5	4.9	1.6	-	9.0	0.0	0.2	4.4	1.4	-	6.0	0.0	0.1	40.2	1.9	-	42.1	0.0	0.7	40.6	1.6	-	42.9	-
Lights	0	108	209	67	-	384	0	10	185	61	-	256	0	2	1702	81	-	1785	0	30	1719	65	-	1814	4239

% Lights	-	98.2	97.7	95.7	-	97.5	-	100.0	96.4	100.0	-	97.3	-	66.7	97.2	100.0	-	97.3	-	93.8	97.2	95.6	-	97.1	97.2
Buses	0	1	0	0	-	1	0	0	1	0	-	1	0	0	23	0	-	23	0	0	18	0	-	18	43
% Buses	-	0.9	0.0	0.0	-	0.3	-	0.0	0.5	0.0	-	0.4	-	0.0	1.3	0.0	-	1.3	-	0.0	1.0	0.0	-	1.0	1.0
Single-Unit Trucks	0	1	2	2	-	5	0	0	1	0	-	1	0	0	19	0	-	19	0	2	25	2	-	29	54
% Single-Unit Trucks	-	0.9	0.9	2.9	-	1.3	-	0.0	0.5	0.0	-	0.4	-	0.0	1.1	0.0	-	1.0	-	6.3	1.4	2.9	-	1.6	1.2
Articulated Trucks	0	0	0	0	-	0	0	0	1	0	-	1	0	0	6	0	-	6	0	0	5	0	-	5	12
% Articulated Trucks	-	0.0	0.0	0.0	-	0.0	-	0.0	0.5	0.0	-	0.4	-	0.0	0.3	0.0	-	0.3	-	0.0	0.3	0.0	-	0.3	0.3
Bicycles on Road	0	0	3	1	-	4	0	0	4	0	-	4	0	1	1	0	-	2	0	0	2	1	-	3	13
% Bicycles on Road	-	0.0	1.4	1.4	-	1.0	-	0.0	2.1	0.0	-	1.5	-	33.3	0.1	0.0	-	0.1	-	0.0	0.1	1.5	-	0.2	0.3
Pedestrians	-	-	-	-	268	-	-	-	-	-	228	-	-	-	-	-	27	-	-	-	-	-	244	-	-
% Pedestrians	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-

Kenig Lindgren O'Hara Aboona, Inc.
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Rosemont, Illinois, United States 60018
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Count Name: Main+St+with+Warren+Ave TMC
Site Code:
Start Date: 08/20/2024

Turning Movement Peak Hour Data (7:30 AM)

Start Time	Warren Avenue Eastbound						Warren Avenue Westbound						Main Street Northbound						Main Street Southbound						
	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	Int. Total
7:30 AM	0	7	6	5	4	18	0	0	7	1	6	8	0	0	109	1	0	110	0	1	66	3	10	70	206
7:45 AM	0	3	6	4	7	13	0	0	7	2	11	9	0	0	78	0	0	78	0	1	47	7	5	55	155
8:00 AM	0	3	8	1	9	12	0	0	10	1	6	11	0	0	83	1	0	84	0	2	35	2	13	39	146
8:15 AM	0	6	10	1	8	17	0	1	5	3	4	9	0	0	99	0	0	99	0	5	72	2	9	79	204
Total	0	19	30	11	28	60	0	1	29	7	27	37	0	0	369	2	0	371	0	9	220	14	37	243	711
Approach %	0.0	31.7	50.0	18.3	-	-	0.0	2.7	78.4	18.9	-	-	0.0	0.0	99.5	0.5	-	-	0.0	3.7	90.5	5.8	-	-	-
Total %	0.0	2.7	4.2	1.5	-	8.4	0.0	0.1	4.1	1.0	-	5.2	0.0	0.0	51.9	0.3	-	52.2	0.0	1.3	30.9	2.0	-	34.2	-
PHF	0.000	0.679	0.750	0.550	-	0.833	0.000	0.250	0.725	0.583	-	0.841	0.000	0.000	0.846	0.500	-	0.843	0.000	0.450	0.764	0.500	-	0.769	0.863
Lights	0	19	30	11	-	60	0	1	29	7	-	37	0	0	360	2	-	362	0	8	211	14	-	233	692
% Lights	-	100.0	100.0	100.0	-	100.0	-	100.0	100.0	100.0	-	100.0	-	-	97.6	100.0	-	97.6	-	88.9	95.9	100.0	-	95.9	97.3
Buses	0	0	0	0	-	0	0	0	0	0	-	0	0	0	3	0	-	3	0	0	5	0	-	5	8
% Buses	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	-	-	0.8	0.0	-	0.8	-	0.0	2.3	0.0	-	2.1	1.1
Single-Unit Trucks	0	0	0	0	-	0	0	0	0	0	-	0	0	0	5	0	-	5	0	1	3	0	-	4	9
% Single-Unit Trucks	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	-	-	1.4	0.0	-	1.3	-	11.1	1.4	0.0	-	1.6	1.3
Articulated Trucks	0	0	0	0	-	0	0	0	0	0	-	0	0	0	1	0	-	1	0	0	1	0	-	1	2
% Articulated Trucks	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	-	-	0.3	0.0	-	0.3	-	0.0	0.5	0.0	-	0.4	0.3
Bicycles on Road	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0
% Bicycles on Road	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	-	-	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	0.0
Pedestrians	-	-	-	-	28	-	-	-	-	-	27	-	-	-	-	-	0	-	-	-	-	-	37	-	-
% Pedestrians	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	-	-	-	-	-	-	100.0	-	-

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Count Name: Main+St+with+Warren+Ave TMC
Site Code:
Start Date: 08/20/2024
Page No: 4

Turning Movement Peak Hour Data (5:00 PM)

Start Time	Warren Avenue Eastbound						Warren Avenue Westbound						Main Street Northbound						Main 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
5:00 PM	0	10	10	2	12	22	0	0	11	7	13	18	0	0	67	4	0	71	0	1	73	5	17	79	190
5:15 PM	0	3	18	0	5	21	0	3	13	4	8	20	0	0	69	3	0	72	0	1	85	4	9	90	203
5:30 PM	0	5	11	2	3	18	0	1	6	2	6	9	0	0	75	6	3	81	0	0	123	1	6	124	232
5:45 PM	0	3	14	3	7	20	0	1	12	4	21	17	0	0	75	3	1	78	0	2	106	5	9	113	228
Total	0	21	53	7	27	81	0	5	42	17	48	64	0	0	286	16	4	302	0	4	387	15	41	406	853
Approach %	0.0	25.9	65.4	8.6	-	-	0.0	7.8	65.6	26.6	-	-	0.0	0.0	94.7	5.3	-	-	0.0	1.0	95.3	3.7	-	-	-
Total %	0.0	2.5	6.2	0.8	-	9.5	0.0	0.6	4.9	2.0	-	7.5	0.0	0.0	33.5	1.9	-	35.4	0.0	0.5	45.4	1.8	-	47.6	-
PHF	0.000	0.525	0.736	0.583	-	0.920	0.000	0.417	0.808	0.607	-	0.800	0.000	0.000	0.953	0.667	-	0.932	0.000	0.500	0.787	0.750	-	0.819	0.919
Lights	0	21	51	7	-	79	0	5	40	17	-	62	0	0	284	16	-	300	0	4	383	15	-	402	843
% Lights	-	100.0	96.2	100.0	-	97.5	-	100.0	95.2	100.0	-	96.9	-	-	99.3	100.0	-	99.3	-	100.0	99.0	100.0	-	99.0	98.8
Buses	0	0	0	0	-	0	0	0	0	0	-	0	0	0	1	0	-	1	0	0	1	0	-	1	2
% Buses	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	-	-	0.3	0.0	-	0.3	-	0.0	0.3	0.0	-	0.2	0.2
Single-Unit Trucks	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	1	0	-	1	1
% Single-Unit Trucks	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	-	-	0.0	0.0	-	0.0	-	0.0	0.3	0.0	-	0.2	0.1
Articulated Trucks	0	0	0	0	-	0	0	0	0	0	-	0	0	0	1	0	-	1	0	0	1	0	-	1	2
% Articulated Trucks	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	-	-	0.3	0.0	-	0.3	-	0.0	0.3	0.0	-	0.2	0.2
Bicycles on Road	0	0	2	0	-	2	0	0	2	0	-	2	0	0	0	0	-	0	0	0	1	0	-	1	5
% Bicycles on Road	-	0.0	3.8	0.0	-	2.5	-	0.0	4.8	0.0	-	3.1	-	-	0.0	0.0	-	0.0	-	0.0	0.3	0.0	-	0.2	0.6
Pedestrians	-	-	-	-	27	-	-	-	-	-	48	-	-	-	-	-	4	-	-	-	-	-	41	-	-
% Pedestrians	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-

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

Rosemont, Illinois, United States 60018
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Count Name: Franklin+St+with+Forest+Ave
TMC
Site Code:
Start Date: 08/20/2024
Page No: 1

Turning Movement Data

Start Time	Franklin Street Eastbound						Franklin Street Westbound						Forest Avenue Northbound						Forest Avenue Southbound						Int. Total
	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	
7:00 AM	0	0	3	3	1	6	0	12	5	0	3	17	0	2	27	14	0	43	0	2	4	0	1	6	72
7:15 AM	0	2	4	5	0	11	0	20	5	0	3	25	0	2	32	16	1	50	0	5	5	0	0	10	96
7:30 AM	0	1	2	5	0	8	0	26	11	5	1	42	0	1	41	17	1	59	0	4	11	1	1	16	125
7:45 AM	0	1	3	5	0	9	0	38	8	2	2	48	0	5	46	8	1	59	0	0	9	1	0	10	126
Hourly Total	0	4	12	18	1	34	0	96	29	7	9	132	0	10	146	55	3	211	0	11	29	2	2	42	419
8:00 AM	0	1	4	6	3	11	0	21	7	0	1	28	0	9	56	6	1	71	0	1	27	2	0	30	140
8:15 AM	0	0	3	6	0	9	0	23	13	2	0	38	0	3	29	7	0	39	0	3	19	0	0	22	108
8:30 AM	0	0	0	9	0	9	0	26	8	1	1	35	0	1	21	11	2	33	0	0	5	1	0	6	83
8:45 AM	0	0	4	5	0	9	0	18	5	1	7	24	0	3	15	9	1	27	0	0	7	2	0	9	69
Hourly Total	0	1	11	26	3	38	0	88	33	4	9	125	0	16	121	33	4	170	0	4	58	5	0	67	400
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2:00 PM	0	0	3	4	1	7	0	34	6	0	1	40	0	1	22	13	2	36	0	0	9	0	0	9	92
2:15 PM	0	0	1	6	0	7	0	29	8	1	0	38	0	3	14	12	0	29	0	0	15	0	0	15	89
2:30 PM	0	2	4	10	0	16	0	26	5	2	1	33	0	4	17	11	2	32	0	0	10	1	0	11	92
2:45 PM	0	2	5	8	0	15	0	21	5	0	0	26	0	7	17	11	0	35	0	0	7	0	0	7	83
Hourly Total	0	4	13	28	1	45	0	110	24	3	2	137	0	15	70	47	4	132	0	0	41	1	0	42	356
3:00 PM	0	1	2	5	2	8	0	19	10	1	3	30	0	2	17	19	0	38	0	0	10	0	1	10	86
3:15 PM	0	3	2	5	0	10	0	29	6	0	6	35	0	1	28	17	1	46	0	0	19	1	0	20	111
3:30 PM	0	0	4	6	0	10	0	41	12	2	2	55	0	2	17	11	0	30	0	0	20	1	0	21	116
3:45 PM	0	2	2	10	0	14	0	26	8	2	1	36	0	5	21	9	2	35	0	2	10	0	0	12	97
Hourly Total	0	6	10	26	2	42	0	115	36	5	12	156	0	10	83	56	3	149	0	2	59	2	1	63	410
4:00 PM	0	3	2	4	0	9	0	30	10	0	1	40	0	2	32	14	7	48	0	1	19	2	0	22	119
4:15 PM	0	2	0	7	1	9	0	37	5	3	3	45	0	3	22	9	3	34	0	1	11	3	0	15	103
4:30 PM	0	2	3	3	0	8	0	29	9	0	2	38	0	6	21	15	3	42	0	1	9	0	0	10	98
4:45 PM	0	2	2	2	0	6	0	33	10	1	2	44	0	1	15	12	4	28	0	0	16	0	0	16	94
Hourly Total	0	9	7	16	1	32	0	129	34	4	8	167	0	12	90	50	17	152	0	3	55	5	0	63	414
5:00 PM	0	1	4	8	2	13	0	47	12	0	3	59	0	5	27	21	3	53	0	0	12	1	0	13	138
5:15 PM	0	3	5	14	0	22	0	39	8	1	1	48	0	5	31	13	2	49	0	1	10	0	0	11	130
5:30 PM	0	4	2	7	1	13	0	23	9	0	1	32	0	4	22	14	0	40	0	1	7	0	0	8	93
5:45 PM	0	3	3	14	0	20	0	39	9	0	0	48	0	5	21	7	2	33	0	0	15	0	0	15	116
Hourly Total	0	11	14	43	3	68	0	148	38	1	5	187	0	19	101	55	7	175	0	2	44	1	0	47	477
Grand Total	0	35	67	157	11	259	0	686	194	24	45	904	0	82	611	296	38	989	0	22	286	16	3	324	2476
Approach %	0.0	13.5	25.9	60.6	-	-	0.0	75.9	21.5	2.7	-	-	0.0	8.3	61.8	29.9	-	-	0.0	6.8	88.3	4.9	-	-	-
Total %	0.0	1.4	2.7	6.3	-	10.5	0.0	27.7	7.8	1.0	-	36.5	0.0	3.3	24.7	12.0	-	39.9	0.0	0.9	11.6	0.6	-	13.1	-
Lights	0	35	63	154	-	252	0	674	190	23	-	887	0	80	599	289	-	968	0	20	270	14	-	304	2411

% Lights	-	100.0	94.0	98.1	-	97.3	-	98.3	97.9	95.8	-	98.1	-	97.6	98.0	97.6	-	97.9	-	90.9	94.4	87.5	-	93.8	97.4
Buses	0	0	1	0	-	1	0	7	1	0	-	8	0	0	7	0	-	7	0	1	9	0	-	10	26
% Buses	-	0.0	1.5	0.0	-	0.4	-	1.0	0.5	0.0	-	0.9	-	0.0	1.1	0.0	-	0.7	-	4.5	3.1	0.0	-	3.1	1.1
Single-Unit Trucks	0	0	0	1	-	1	0	4	0	1	-	5	0	1	1	4	-	6	0	0	0	2	-	2	14
% Single-Unit Trucks	-	0.0	0.0	0.6	-	0.4	-	0.6	0.0	4.2	-	0.6	-	1.2	0.2	1.4	-	0.6	-	0.0	0.0	12.5	-	0.6	0.6
Articulated Trucks	0	0	0	0	-	0	0	0	1	0	-	1	0	0	0	0	-	0	0	0	0	0	-	0	1
% Articulated Trucks	-	0.0	0.0	0.0	-	0.0	-	0.0	0.5	0.0	-	0.1	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	0.0
Bicycles on Road	0	0	3	2	-	5	0	1	2	0	-	3	0	1	4	3	-	8	0	1	7	0	-	8	24
% Bicycles on Road	-	0.0	4.5	1.3	-	1.9	-	0.1	1.0	0.0	-	0.3	-	1.2	0.7	1.0	-	0.8	-	4.5	2.4	0.0	-	2.5	1.0
Pedestrians	-	-	-	-	11	-	-	-	-	-	45	-	-	-	-	-	38	-	-	-	-	-	3	-	-
% Pedestrians	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-

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Count Name: Franklin+St+with+Forest+Ave
TMC
Site Code:
Start Date: 08/20/2024

Turning Movement Peak Hour Data (7:30 AM)

Start Time	Franklin Street Eastbound						Franklin Street Westbound						Forest Avenue Northbound						Forest Avenue Southbound						
	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	Int. Total
7:30 AM	0	1	2	5	0	8	0	26	11	5	1	42	0	1	41	17	1	59	0	4	11	1	1	16	125
7:45 AM	0	1	3	5	0	9	0	38	8	2	2	48	0	5	46	8	1	59	0	0	9	1	0	10	126
8:00 AM	0	1	4	6	3	11	0	21	7	0	1	28	0	9	56	6	1	71	0	1	27	2	0	30	140
8:15 AM	0	0	3	6	0	9	0	23	13	2	0	38	0	3	29	7	0	39	0	3	19	0	0	22	108
Total	0	3	12	22	3	37	0	108	39	9	4	156	0	18	172	38	3	228	0	8	66	4	1	78	499
Approach %	0.0	8.1	32.4	59.5	-	-	0.0	69.2	25.0	5.8	-	-	0.0	7.9	75.4	16.7	-	-	0.0	10.3	84.6	5.1	-	-	-
Total %	0.0	0.6	2.4	4.4	-	7.4	0.0	21.6	7.8	1.8	-	31.3	0.0	3.6	34.5	7.6	-	45.7	0.0	1.6	13.2	0.8	-	15.6	-
PHF	0.000	0.750	0.750	0.917	-	0.841	0.000	0.711	0.750	0.450	-	0.813	0.000	0.500	0.768	0.559	-	0.803	0.000	0.500	0.611	0.500	-	0.650	0.891
Lights	0	3	12	22	-	37	0	105	39	9	-	153	0	18	169	38	-	225	0	7	62	3	-	72	487
% Lights	-	100.0	100.0	100.0	-	100.0	-	97.2	100.0	100.0	-	98.1	-	100.0	98.3	100.0	-	98.7	-	87.5	93.9	75.0	-	92.3	97.6
Buses	0	0	0	0	-	0	0	2	0	0	-	2	0	0	3	0	-	3	0	1	4	0	-	5	10
% Buses	-	0.0	0.0	0.0	-	0.0	-	1.9	0.0	0.0	-	1.3	-	0.0	1.7	0.0	-	1.3	-	12.5	6.1	0.0	-	6.4	2.0
Single-Unit Trucks	0	0	0	0	-	0	0	1	0	0	-	1	0	0	0	0	-	0	0	0	0	1	-	1	2
% Single-Unit Trucks	-	0.0	0.0	0.0	-	0.0	-	0.9	0.0	0.0	-	0.6	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	25.0	-	1.3	0.4
Articulated Trucks	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0
% Articulated Trucks	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	0.0
Bicycles on Road	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0
% Bicycles on Road	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	0.0
Pedestrians	-	-	-	-	3	-	-	-	-	-	4	-	-	-	-	-	3	-	-	-	-	-	1	-	-
% Pedestrians	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-

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Count Name: Franklin+St+with+Forest+Ave
TMC
Site Code:
Start Date: 08/20/2024
Page No: 4

Turning Movement Peak Hour Data (5:00 PM)

Start Time	Franklin Street Eastbound						Franklin Street Westbound						Forest Avenue Northbound						Forest Avenue Southbound						
	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	Int. Total
5:00 PM	0	1	4	8	2	13	0	47	12	0	3	59	0	5	27	21	3	53	0	0	12	1	0	13	138
5:15 PM	0	3	5	14	0	22	0	39	8	1	1	48	0	5	31	13	2	49	0	1	10	0	0	11	130
5:30 PM	0	4	2	7	1	13	0	23	9	0	1	32	0	4	22	14	0	40	0	1	7	0	0	8	93
5:45 PM	0	3	3	14	0	20	0	39	9	0	0	48	0	5	21	7	2	33	0	0	15	0	0	15	116
Total	0	11	14	43	3	68	0	148	38	1	5	187	0	19	101	55	7	175	0	2	44	1	0	47	477
Approach %	0.0	16.2	20.6	63.2	-	-	0.0	79.1	20.3	0.5	-	-	0.0	10.9	57.7	31.4	-	-	0.0	4.3	93.6	2.1	-	-	-
Total %	0.0	2.3	2.9	9.0	-	14.3	0.0	31.0	8.0	0.2	-	39.2	0.0	4.0	21.2	11.5	-	36.7	0.0	0.4	9.2	0.2	-	9.9	-
PHF	0.000	0.688	0.700	0.768	-	0.773	0.000	0.787	0.792	0.250	-	0.792	0.000	0.950	0.815	0.655	-	0.825	0.000	0.500	0.733	0.250	-	0.783	0.864
Lights	0	11	12	43	-	66	0	147	38	1	-	186	0	19	99	52	-	170	0	2	43	1	-	46	468
% Lights	-	100.0	85.7	100.0	-	97.1	-	99.3	100.0	100.0	-	99.5	-	100.0	98.0	94.5	-	97.1	-	100.0	97.7	100.0	-	97.9	98.1
Buses	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0
% Buses	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	0.0
Single-Unit Trucks	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	1	-	1	0	0	0	0	-	0	1
% Single-Unit Trucks	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	1.8	-	0.6	-	0.0	0.0	0.0	-	0.0	0.2
Articulated Trucks	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0
% Articulated Trucks	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	0.0
Bicycles on Road	0	0	2	0	-	2	0	1	0	0	-	1	0	0	2	2	-	4	0	0	1	0	-	1	8
% Bicycles on Road	-	0.0	14.3	0.0	-	2.9	-	0.7	0.0	0.0	-	0.5	-	0.0	2.0	3.6	-	2.3	-	0.0	2.3	0.0	-	2.1	1.7
Pedestrians	-	-	-	-	3	-	-	-	-	-	5	-	-	-	-	-	7	-	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	-	-	-

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Count Name: Forest Avenue with Access Drive
TMC
Site Code:
Start Date: 08/20/2024

Turning Movement Data

Start Time	Access Drive Eastbound						Access Drive Westbound						Forest Avenue Northbound						Forest Avenue Southbound						Int. Total
	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	
7:00 AM	0	0	0	0	1	0	0	0	0	0	0	0	0	0	40	0	0	40	0	1	18	0	0	19	59
7:15 AM	0	0	0	0	8	0	0	0	0	0	0	0	0	1	47	0	0	48	0	0	28	0	0	28	76
7:30 AM	0	0	0	1	2	1	0	0	0	1	0	1	0	0	60	0	0	60	0	0	38	0	0	38	100
7:45 AM	0	1	0	0	0	1	0	1	0	0	0	1	0	0	58	0	0	58	0	0	49	1	0	50	110
Hourly Total	0	1	0	1	11	2	0	1	0	1	0	2	0	1	205	0	0	206	0	1	133	1	0	135	345
8:00 AM	0	0	0	0	1	0	0	0	0	1	0	1	0	1	64	0	0	65	0	0	55	0	0	55	121
8:15 AM	0	0	0	0	6	0	0	0	0	0	0	0	0	0	42	0	0	42	0	0	46	0	0	46	88
8:30 AM	0	0	0	0	3	0	0	1	0	1	0	2	0	0	33	0	0	33	0	0	37	1	0	38	73
8:45 AM	0	0	0	1	0	1	0	0	0	0	0	0	0	0	34	0	0	34	0	0	32	0	0	32	67
Hourly Total	0	0	0	1	10	1	0	1	0	2	0	3	0	1	173	0	0	174	0	0	170	1	0	171	349
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2:00 PM	0	0	0	1	1	1	0	0	0	1	0	1	0	0	35	0	0	35	0	1	44	1	0	46	83
2:15 PM	0	0	0	0	1	0	0	0	0	1	0	1	1	0	27	0	0	28	0	0	45	1	0	46	75
2:30 PM	0	1	0	0	3	1	0	1	0	0	0	1	0	0	35	0	1	35	0	1	47	0	0	48	85
2:45 PM	0	0	0	0	4	0	0	2	0	0	0	2	0	0	34	0	0	34	0	0	41	0	1	41	77
Hourly Total	0	1	0	1	9	2	0	3	0	2	0	5	1	0	131	0	1	132	0	2	177	2	1	181	320
3:00 PM	0	0	0	0	1	0	0	0	0	1	3	1	0	0	36	0	0	36	0	0	29	0	0	29	66
3:15 PM	0	1	0	0	4	1	0	0	0	0	0	0	0	1	48	0	0	49	0	2	45	1	0	48	98
3:30 PM	0	0	0	0	4	0	0	0	0	0	0	0	0	0	33	0	0	33	0	2	62	0	0	64	97
3:45 PM	0	0	0	1	2	1	0	0	0	1	0	1	0	0	32	0	0	32	0	0	41	1	0	42	76
Hourly Total	0	1	0	1	11	2	0	0	0	2	3	2	0	1	149	0	0	150	0	4	177	2	0	183	337
4:00 PM	0	0	0	0	7	0	0	1	0	1	0	2	0	0	50	1	0	51	0	1	52	0	0	53	106
4:15 PM	0	0	0	0	6	0	0	0	0	0	0	0	0	0	36	0	0	36	0	1	52	0	0	53	89
4:30 PM	0	0	0	0	8	0	0	0	0	1	0	1	0	0	43	1	0	44	0	0	49	0	0	49	94
4:45 PM	0	0	0	0	25	0	0	0	0	0	0	0	0	1	30	1	0	32	1	1	45	1	0	48	80
Hourly Total	0	0	0	0	46	0	0	1	0	2	0	3	0	1	159	3	0	163	1	3	198	1	0	203	369
5:00 PM	0	0	0	0	6	0	0	0	0	1	0	1	0	0	51	0	0	51	0	0	63	0	0	63	115
5:15 PM	0	0	0	0	4	0	0	0	0	0	0	0	0	0	49	0	2	49	0	2	59	0	0	61	110
5:30 PM	0	1	0	0	2	1	0	0	0	0	0	0	0	0	39	0	0	39	0	0	33	0	0	33	73
5:45 PM	0	0	0	0	4	0	0	0	0	0	0	0	0	1	32	0	0	33	0	1	64	1	0	66	99
Hourly Total	0	1	0	0	16	1	0	0	0	1	0	1	0	1	171	0	2	172	0	3	219	1	0	223	397
Grand Total	0	4	0	4	103	8	0	6	0	10	3	16	1	5	988	3	3	997	1	13	1074	8	1	1096	2117
Approach %	0.0	50.0	0.0	50.0	-	-	0.0	37.5	0.0	62.5	-	-	0.1	0.5	99.1	0.3	-	-	0.1	1.2	98.0	0.7	-	-	-
Total %	0.0	0.2	0.0	0.2	-	0.4	0.0	0.3	0.0	0.5	-	0.8	0.0	0.2	46.7	0.1	-	47.1	0.0	0.6	50.7	0.4	-	51.8	-
Lights	0	2	0	4	-	6	0	6	0	10	-	16	1	4	961	3	-	969	1	13	1049	4	-	1067	2058

% Lights	-	50.0	-	100.0	-	75.0	-	100.0	-	100.0	-	100.0	100.0	80.0	97.3	100.0	-	97.2	100.0	100.0	97.7	50.0	-	97.4	97.2
Buses	0	1	0	0	-	1	0	0	0	0	-	0	0	0	6	0	-	6	0	0	10	1	-	11	18
% Buses	-	25.0	-	0.0	-	12.5	-	0.0	-	0.0	-	0.0	0.0	0.0	0.6	0.0	-	0.6	0.0	0.0	0.9	12.5	-	1.0	0.9
Single-Unit Trucks	0	1	0	0	-	1	0	0	0	0	-	0	0	1	8	0	-	9	0	0	6	1	-	7	17
% Single-Unit Trucks	-	25.0	-	0.0	-	12.5	-	0.0	-	0.0	-	0.0	0.0	20.0	0.8	0.0	-	0.9	0.0	0.0	0.6	12.5	-	0.6	0.8
Articulated Trucks	0	0	0	0	-	0	0	0	0	0	-	0	0	0	1	0	-	1	0	0	0	0	-	0	1
% Articulated Trucks	-	0.0	-	0.0	-	0.0	-	0.0	-	0.0	-	0.0	0.0	0.0	0.1	0.0	-	0.1	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	12	0	-	12	0	0	9	2	-	11	23
% Bicycles on Road	-	0.0	-	0.0	-	0.0	-	0.0	-	0.0	-	0.0	0.0	0.0	1.2	0.0	-	1.2	0.0	0.0	0.8	25.0	-	1.0	1.1
Pedestrians	-	-	-	-	103	-	-	-	-	-	3	-	-	-	-	-	3	-	-	-	-	-	1	-	-
% Pedestrians	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-

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Count Name: Forest Avenue with Access Drive
TMC
Site Code:
Start Date: 08/20/2024

Turning Movement Peak Hour Data (7:30 AM)

Start Time	Access Drive Eastbound						Access Drive Westbound						Forest Avenue Northbound						Forest Avenue Southbound						
	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	Int. Total
7:30 AM	0	0	0	1	2	1	0	0	0	1	0	1	0	0	60	0	0	60	0	0	38	0	0	38	100
7:45 AM	0	1	0	0	0	1	0	1	0	0	0	1	0	0	58	0	0	58	0	0	49	1	0	50	110
8:00 AM	0	0	0	0	1	0	0	0	0	1	0	1	0	1	64	0	0	65	0	0	55	0	0	55	121
8:15 AM	0	0	0	0	6	0	0	0	0	0	0	0	0	0	42	0	0	42	0	0	46	0	0	46	88
Total	0	1	0	1	9	2	0	1	0	2	0	3	0	1	224	0	0	225	0	0	188	1	0	189	419
Approach %	0.0	50.0	0.0	50.0	-	-	0.0	33.3	0.0	66.7	-	-	0.0	0.4	99.6	0.0	-	-	0.0	0.0	99.5	0.5	-	-	-
Total %	0.0	0.2	0.0	0.2	-	0.5	0.0	0.2	0.0	0.5	-	0.7	0.0	0.2	53.5	0.0	-	53.7	0.0	0.0	44.9	0.2	-	45.1	-
PHF	0.000	0.250	0.000	0.250	-	0.500	0.000	0.250	0.000	0.500	-	0.750	0.000	0.250	0.875	0.000	-	0.865	0.000	0.000	0.855	0.250	-	0.859	0.866
Lights	0	0	0	1	-	1	0	1	0	2	-	3	0	1	221	0	-	222	0	0	184	0	-	184	410
% Lights	-	0.0	-	100.0	-	50.0	-	100.0	-	100.0	-	100.0	-	100.0	98.7	-	-	98.7	-	-	97.9	0.0	-	97.4	97.9
Buses	0	1	0	0	-	1	0	0	0	0	-	0	0	0	2	0	-	2	0	0	3	1	-	4	7
% Buses	-	100.0	-	0.0	-	50.0	-	0.0	-	0.0	-	0.0	-	0.0	0.9	-	-	0.9	-	-	1.6	100.0	-	2.1	1.7
Single-Unit Trucks	0	0	0	0	-	0	0	0	0	0	-	0	0	0	1	0	-	1	0	0	1	0	-	1	2
% Single-Unit Trucks	-	0.0	-	0.0	-	0.0	-	0.0	-	0.0	-	0.0	-	0.0	0.4	-	-	0.4	-	-	0.5	0.0	-	0.5	0.5
Articulated Trucks	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0
% Articulated Trucks	-	0.0	-	0.0	-	0.0	-	0.0	-	0.0	-	0.0	-	0.0	0.0	-	-	0.0	-	-	0.0	0.0	-	0.0	0.0
Bicycles on Road	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0
% Bicycles on Road	-	0.0	-	0.0	-	0.0	-	0.0	-	0.0	-	0.0	-	0.0	0.0	-	-	0.0	-	-	0.0	0.0	-	0.0	0.0
Pedestrians	-	-	-	-	9	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	100.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

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Start Date: 08/20/2024

Turning Movement Peak Hour Data (5:00 PM)

Start Time	Access Drive Eastbound						Access Drive Westbound						Forest Avenue Northbound						Forest Avenue Southbound						
	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	Int. Total
5:00 PM	0	0	0	0	6	0	0	0	0	1	0	1	0	0	51	0	0	51	0	0	63	0	0	63	115
5:15 PM	0	0	0	0	4	0	0	0	0	0	0	0	0	0	49	0	2	49	0	2	59	0	0	61	110
5:30 PM	0	1	0	0	2	1	0	0	0	0	0	0	0	0	39	0	0	39	0	0	33	0	0	33	73
5:45 PM	0	0	0	0	4	0	0	0	0	0	0	0	0	1	32	0	0	33	0	1	64	1	0	66	99
Total	0	1	0	0	16	1	0	0	0	1	0	1	0	1	171	0	2	172	0	3	219	1	0	223	397
Approach %	0.0	100.0	0.0	0.0	-	-	0.0	0.0	0.0	100.0	-	-	0.0	0.6	99.4	0.0	-	-	0.0	1.3	98.2	0.4	-	-	-
Total %	0.0	0.3	0.0	0.0	-	0.3	0.0	0.0	0.0	0.3	-	0.3	0.0	0.3	43.1	0.0	-	43.3	0.0	0.8	55.2	0.3	-	56.2	-
PHF	0.000	0.250	0.000	0.000	-	0.250	0.000	0.000	0.000	0.250	-	0.250	0.000	0.250	0.838	0.000	-	0.843	0.000	0.375	0.855	0.250	-	0.845	0.863
Lights	0	1	0	0	-	1	0	0	0	1	-	1	0	0	166	0	-	166	0	3	217	1	-	221	389
% Lights	-	100.0	-	-	-	100.0	-	-	-	100.0	-	100.0	-	0.0	97.1	-	-	96.5	-	100.0	99.1	100.0	-	99.1	98.0
Buses	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0
% Buses	-	0.0	-	-	-	0.0	-	-	-	0.0	-	0.0	-	0.0	0.0	-	-	0.0	-	0.0	0.0	0.0	-	0.0	0.0
Single-Unit Trucks	0	0	0	0	-	0	0	0	0	0	-	0	0	1	0	0	-	1	0	0	0	0	-	0	1
% Single-Unit Trucks	-	0.0	-	-	-	0.0	-	-	-	0.0	-	0.0	-	100.0	0.0	-	-	0.6	-	0.0	0.0	0.0	-	0.0	0.3
Articulated Trucks	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0
% Articulated Trucks	-	0.0	-	-	-	0.0	-	-	-	0.0	-	0.0	-	0.0	0.0	-	-	0.0	-	0.0	0.0	0.0	-	0.0	0.0
Bicycles on Road	0	0	0	0	-	0	0	0	0	0	-	0	0	0	5	0	-	5	0	0	2	0	-	2	7
% Bicycles on Road	-	0.0	-	-	-	0.0	-	-	-	0.0	-	0.0	-	0.0	2.9	-	-	2.9	-	0.0	0.9	0.0	-	0.9	1.8
Pedestrians	-	-	-	-	16	-	-	-	-	-	0	-	-	-	-	-	2	-	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	100.0	-	-	-	-	-	-	-	-	-	-	-	100.0	-	-	-	-	-	-	-	-

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

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

Count Name: Forest Avenue with Warren Avenue TMC
Site Code:
Start Date: 08/20/2024

Turning Movement Data

Start Time	Warren Avenue Eastbound						Warren Avenue Westbound						Forest Avenue Northbound						Forest Avenue Southbound						Int. Total
	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	
7:00 AM	0	8	3	10	0	21	0	7	1	2	2	10	0	8	29	9	0	46	0	1	7	6	2	14	91
7:15 AM	0	9	14	21	9	44	0	7	4	4	3	15	0	17	34	6	4	57	0	1	20	6	3	27	143
7:30 AM	0	11	8	18	0	37	0	1	9	1	1	11	0	27	50	11	0	88	0	0	26	10	2	36	172
7:45 AM	0	7	4	20	2	31	0	5	9	5	3	19	0	25	44	9	0	78	0	3	32	15	2	50	178
Hourly Total	0	35	29	69	11	133	0	20	23	12	9	55	0	77	157	35	4	269	0	5	85	37	9	127	584
8:00 AM	0	17	7	14	0	38	0	7	5	1	0	13	0	19	49	4	0	72	0	0	36	14	0	50	173
8:15 AM	0	5	10	22	3	37	0	2	5	1	11	8	1	13	39	9	1	62	0	3	36	6	6	45	152
8:30 AM	0	2	6	20	1	28	0	5	8	2	3	15	0	11	29	7	0	47	0	3	25	5	1	33	123
8:45 AM	0	4	7	22	0	33	0	5	2	3	5	10	0	12	25	9	0	46	0	1	22	3	3	26	115
Hourly Total	0	28	30	78	4	136	0	19	20	7	19	46	1	55	142	29	1	227	0	7	119	28	10	154	563
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2:00 PM	0	7	3	17	1	27	0	3	4	1	0	8	0	24	24	6	1	54	0	2	31	10	4	43	132
2:15 PM	0	3	9	16	2	28	0	4	2	3	0	9	0	14	23	11	3	48	0	6	33	10	2	49	134
2:30 PM	0	12	3	23	3	38	0	6	1	2	1	9	0	16	20	8	1	44	0	1	38	11	1	50	141
2:45 PM	0	5	6	21	3	32	0	4	5	2	0	11	0	5	29	8	0	42	0	3	40	5	2	48	133
Hourly Total	0	27	21	77	9	125	0	17	12	8	1	37	0	59	96	33	5	188	0	12	142	36	9	190	540
3:00 PM	0	6	4	26	2	36	0	3	4	0	0	7	0	20	25	10	0	55	0	1	23	7	5	31	129
3:15 PM	0	11	10	25	5	46	0	7	4	4	1	15	0	20	35	10	0	65	0	1	38	5	1	44	170
3:30 PM	0	9	5	48	5	62	0	3	3	0	0	6	0	15	25	11	2	51	0	2	53	9	6	64	183
3:45 PM	0	4	6	40	0	50	0	5	3	2	2	10	0	23	23	7	1	53	0	7	40	6	6	53	166
Hourly Total	0	30	25	139	12	194	0	18	14	6	3	38	0	78	108	38	3	224	0	11	154	27	18	192	648
4:00 PM	0	11	2	37	6	50	0	8	7	4	3	19	0	34	38	11	2	83	0	1	38	8	3	47	199
4:15 PM	0	7	8	36	5	51	0	3	5	1	2	9	0	23	28	10	2	61	0	0	46	4	6	50	171
4:30 PM	0	11	6	40	16	57	0	2	6	1	6	9	0	11	28	9	1	48	0	1	43	8	6	52	166
4:45 PM	0	5	11	31	16	47	0	3	8	7	4	18	0	37	29	14	1	80	0	2	31	6	3	39	184
Hourly Total	0	34	27	144	43	205	0	16	26	13	15	55	0	105	123	44	6	272	0	4	158	26	18	188	720
5:00 PM	0	6	12	45	7	63	0	7	6	1	16	14	0	13	37	2	0	52	0	0	49	5	2	54	183
5:15 PM	0	8	12	34	1	54	0	9	5	2	7	16	0	19	37	1	0	57	0	1	46	5	5	52	179
5:30 PM	0	5	13	34	2	52	0	6	2	0	0	8	0	17	33	8	0	58	0	2	32	2	1	36	154
5:45 PM	0	7	11	32	4	50	0	6	8	1	5	15	0	8	29	8	0	45	0	3	56	5	2	64	174
Hourly Total	0	26	48	145	14	219	0	28	21	4	28	53	0	57	136	19	0	212	0	6	183	17	10	206	690
Grand Total	0	180	180	652	93	1012	0	118	116	50	75	284	1	431	762	198	19	1392	0	45	841	171	74	1057	3745
Approach %	0.0	17.8	17.8	64.4	-	-	0.0	41.5	40.8	17.6	-	-	0.1	31.0	54.7	14.2	-	-	0.0	4.3	79.6	16.2	-	-	-
Total %	0.0	4.8	4.8	17.4	-	27.0	0.0	3.2	3.1	1.3	-	7.6	0.0	11.5	20.3	5.3	-	37.2	0.0	1.2	22.5	4.6	-	28.2	-
Lights	0	175	176	639	-	990	0	117	113	45	-	275	1	422	741	196	-	1360	0	43	815	164	-	1022	3647

% Lights	-	97.2	97.8	98.0	-	97.8	-	99.2	97.4	90.0	-	96.8	100.0	97.9	97.2	99.0	-	97.7	-	95.6	96.9	95.9	-	96.7	97.4
Buses	0	0	0	2	-	2	0	0	1	0	-	1	0	2	7	1	-	10	0	0	12	2	-	14	27
% Buses	-	0.0	0.0	0.3	-	0.2	-	0.0	0.9	0.0	-	0.4	0.0	0.5	0.9	0.5	-	0.7	-	0.0	1.4	1.2	-	1.3	0.7
Single-Unit Trucks	0	3	4	1	-	8	0	0	1	2	-	3	0	3	4	0	-	7	0	0	5	5	-	10	28
% Single-Unit Trucks	-	1.7	2.2	0.2	-	0.8	-	0.0	0.9	4.0	-	1.1	0.0	0.7	0.5	0.0	-	0.5	-	0.0	0.6	2.9	-	0.9	0.7
Articulated Trucks	0	1	0	1	-	2	0	1	0	0	-	1	0	0	1	0	-	1	0	0	2	0	-	2	6
% Articulated Trucks	-	0.6	0.0	0.2	-	0.2	-	0.8	0.0	0.0	-	0.4	0.0	0.0	0.1	0.0	-	0.1	-	0.0	0.2	0.0	-	0.2	0.2
Bicycles on Road	0	1	0	9	-	10	0	0	1	3	-	4	0	4	9	1	-	14	0	2	7	0	-	9	37
% Bicycles on Road	-	0.6	0.0	1.4	-	1.0	-	0.0	0.9	6.0	-	1.4	0.0	0.9	1.2	0.5	-	1.0	-	4.4	0.8	0.0	-	0.9	1.0
Pedestrians	-	-	-	-	93	-	-	-	-	-	75	-	-	-	-	-	19	-	-	-	-	-	74	-	-
% Pedestrians	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-

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9575 W. Higgins Rd., Suite 400

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

Count Name: Forest Avenue with Warren Avenue TMC
Site Code:
Start Date: 08/20/2024

Turning Movement Peak Hour Data (7:30 AM)

Start Time	Warren Avenue Eastbound						Warren Avenue Westbound						Forest Avenue Northbound						Forest Avenue Southbound						
	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	Int. Total
7:30 AM	0	11	8	18	0	37	0	1	9	1	1	11	0	27	50	11	0	88	0	0	26	10	2	36	172
7:45 AM	0	7	4	20	2	31	0	5	9	5	3	19	0	25	44	9	0	78	0	3	32	15	2	50	178
8:00 AM	0	17	7	14	0	38	0	7	5	1	0	13	0	19	49	4	0	72	0	0	36	14	0	50	173
8:15 AM	0	5	10	22	3	37	0	2	5	1	11	8	1	13	39	9	1	62	0	3	36	6	6	45	152
Total	0	40	29	74	5	143	0	15	28	8	15	51	1	84	182	33	1	300	0	6	130	45	10	181	675
Approach %	0.0	28.0	20.3	51.7	-	-	0.0	29.4	54.9	15.7	-	-	0.3	28.0	60.7	11.0	-	-	0.0	3.3	71.8	24.9	-	-	-
Total %	0.0	5.9	4.3	11.0	-	21.2	0.0	2.2	4.1	1.2	-	7.6	0.1	12.4	27.0	4.9	-	44.4	0.0	0.9	19.3	6.7	-	26.8	-
PHF	0.000	0.588	0.725	0.841	-	0.941	0.000	0.536	0.778	0.400	-	0.671	0.250	0.778	0.910	0.750	-	0.852	0.000	0.500	0.903	0.750	-	0.905	0.948
Lights	0	40	29	72	-	141	0	15	28	8	-	51	1	81	179	33	-	294	0	6	122	43	-	171	657
% Lights	-	100.0	100.0	97.3	-	98.6	-	100.0	100.0	100.0	-	100.0	100.0	96.4	98.4	100.0	-	98.0	-	100.0	93.8	95.6	-	94.5	97.3
Buses	0	0	0	1	-	1	0	0	0	0	-	0	0	2	2	0	-	4	0	0	4	1	-	5	10
% Buses	-	0.0	0.0	1.4	-	0.7	-	0.0	0.0	0.0	-	0.0	0.0	2.4	1.1	0.0	-	1.3	-	0.0	3.1	2.2	-	2.8	1.5
Single-Unit Trucks	0	0	0	0	-	0	0	0	0	0	-	0	0	0	1	0	-	1	0	0	1	1	-	2	3
% Single-Unit Trucks	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	0.0	0.0	0.5	0.0	-	0.3	-	0.0	0.8	2.2	-	1.1	0.4
Articulated Trucks	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	1	0	-	1	1
% Articulated Trucks	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	-	0.0	-	0.0	0.8	0.0	-	0.6	0.1
Bicycles on Road	0	0	0	1	-	1	0	0	0	0	-	0	0	1	0	0	-	1	0	0	2	0	-	2	4
% Bicycles on Road	-	0.0	0.0	1.4	-	0.7	-	0.0	0.0	0.0	-	0.0	0.0	1.2	0.0	0.0	-	0.3	-	0.0	1.5	0.0	-	1.1	0.6
Pedestrians	-	-	-	-	5	-	-	-	-	-	15	-	-	-	-	-	1	-	-	-	-	-	10	-	-
% Pedestrians	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-

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(847)518-9990 kpachowicz@kloainc.com

Count Name: Forest Avenue with Warren Avenue TMC
Site Code:
Start Date: 08/20/2024

Turning Movement Peak Hour Data (5:00 PM)

Start Time	Warren Avenue Eastbound						Warren Avenue Westbound						Forest Avenue Northbound						Forest Avenue Southbound						
	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	Int. Total
5:00 PM	0	6	12	45	7	63	0	7	6	1	16	14	0	13	37	2	0	52	0	0	49	5	2	54	183
5:15 PM	0	8	12	34	1	54	0	9	5	2	7	16	0	19	37	1	0	57	0	1	46	5	5	52	179
5:30 PM	0	5	13	34	2	52	0	6	2	0	0	8	0	17	33	8	0	58	0	2	32	2	1	36	154
5:45 PM	0	7	11	32	4	50	0	6	8	1	5	15	0	8	29	8	0	45	0	3	56	5	2	64	174
Total	0	26	48	145	14	219	0	28	21	4	28	53	0	57	136	19	0	212	0	6	183	17	10	206	690
Approach %	0.0	11.9	21.9	66.2	-	-	0.0	52.8	39.6	7.5	-	-	0.0	26.9	64.2	9.0	-	-	0.0	2.9	88.8	8.3	-	-	-
Total %	0.0	3.8	7.0	21.0	-	31.7	0.0	4.1	3.0	0.6	-	7.7	0.0	8.3	19.7	2.8	-	30.7	0.0	0.9	26.5	2.5	-	29.9	-
PHF	0.000	0.813	0.923	0.806	-	0.869	0.000	0.778	0.656	0.500	-	0.828	0.000	0.750	0.919	0.594	-	0.914	0.000	0.500	0.817	0.850	-	0.805	0.943
Lights	0	26	48	144	-	218	0	28	21	3	-	52	0	56	131	18	-	205	0	6	178	17	-	201	676
% Lights	-	100.0	100.0	99.3	-	99.5	-	100.0	100.0	75.0	-	98.1	-	98.2	96.3	94.7	-	96.7	-	100.0	97.3	100.0	-	97.6	98.0
Buses	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0
% Buses	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	0.0
Single-Unit Trucks	0	0	0	0	-	0	0	0	0	0	-	0	0	0	1	0	-	1	0	0	2	0	-	2	3
% Single-Unit Trucks	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	-	0.0	0.7	0.0	-	0.5	-	0.0	1.1	0.0	-	1.0	0.4
Articulated Trucks	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0
% Articulated Trucks	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	0.0
Bicycles on Road	0	0	0	1	-	1	0	0	0	1	-	1	0	1	4	1	-	6	0	0	3	0	-	3	11
% Bicycles on Road	-	0.0	0.0	0.7	-	0.5	-	0.0	0.0	25.0	-	1.9	-	1.8	2.9	5.3	-	2.8	-	0.0	1.6	0.0	-	1.5	1.6
Pedestrians	-	-	-	-	14	-	-	-	-	-	28	-	-	-	-	-	0	-	-	-	-	-	10	-	-
% Pedestrians	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	-	-	-	-	-	-	100.0	-	-

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

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

Count Name: Franklin Street with Access Drive
TMC
Site Code:
Start Date: 08/20/2024

Turning Movement Data

Start Time	Franklin Street Eastbound					Franklin Street Westbound					Access Drive Northbound					
	U-Turn	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Peds	App. Total	U-Turn	Left	Right	Peds	App. Total	Int. Total
7:00 AM	0	20	0	0	20	0	0	17	0	17	0	0	0	0	0	37
7:15 AM	0	23	0	0	23	0	2	25	2	27	0	0	1	4	1	51
7:30 AM	0	21	1	0	22	0	2	46	11	48	0	0	2	2	2	72
7:45 AM	0	10	1	0	11	0	3	42	1	45	0	2	1	4	3	59
Hourly Total	0	74	2	0	76	0	7	130	14	137	0	2	4	10	6	219
8:00 AM	0	12	0	0	12	0	2	29	0	31	0	0	0	4	0	43
8:15 AM	0	14	1	0	15	0	2	29	0	31	0	4	0	1	4	50
8:30 AM	0	13	0	0	13	0	1	35	0	36	0	2	3	2	5	54
8:45 AM	0	12	1	0	13	0	3	21	0	24	0	2	3	1	5	42
Hourly Total	0	51	2	0	53	0	8	114	0	122	0	8	6	8	14	189
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2:00 PM	0	13	1	0	14	0	6	35	0	41	0	2	1	1	3	58
2:15 PM	0	14	0	0	14	0	2	32	0	34	0	1	2	0	3	51
2:30 PM	0	15	0	0	15	0	4	30	0	34	0	1	3	2	4	53
2:45 PM	0	15	1	0	16	1	0	24	0	25	0	2	1	3	3	44
Hourly Total	0	57	2	0	59	1	12	121	0	134	0	6	7	6	13	206
3:00 PM	0	19	0	1	19	0	0	34	1	34	0	0	3	3	3	56
3:15 PM	0	19	1	1	20	0	0	34	1	34	0	2	3	2	5	59
3:30 PM	0	15	0	0	15	0	0	42	0	42	0	6	4	0	10	67
3:45 PM	0	12	1	0	13	0	1	37	0	38	0	3	2	1	5	56
Hourly Total	0	65	2	2	67	0	1	147	2	148	0	11	12	6	23	238
4:00 PM	0	19	1	0	20	0	2	36	0	38	0	1	0	4	1	59
4:15 PM	0	10	0	0	10	0	0	41	0	41	0	4	3	3	7	58
4:30 PM	0	17	0	1	17	0	0	38	5	38	0	2	3	3	5	60
4:45 PM	0	15	0	0	15	0	2	44	0	46	0	2	1	4	3	64
Hourly Total	0	61	1	1	62	0	4	159	5	163	0	9	7	14	16	241
5:00 PM	0	25	0	0	25	0	0	56	0	56	0	0	3	2	3	84
5:15 PM	0	15	1	1	16	0	1	48	1	49	0	1	0	2	1	66
5:30 PM	0	16	2	0	18	0	1	32	0	33	0	1	2	3	3	54
5:45 PM	0	10	0	0	10	1	3	45	0	49	0	1	0	2	1	60
Hourly Total	0	66	3	1	69	1	5	181	1	187	0	3	5	9	8	264
Grand Total	0	374	12	4	386	2	37	852	22	891	0	39	41	53	80	1357
Approach %	0.0	96.9	3.1	-	-	0.2	4.2	95.6	-	-	0.0	48.8	51.3	-	-	-
Total %	0.0	27.6	0.9	-	28.4	0.1	2.7	62.8	-	65.7	0.0	2.9	3.0	-	5.9	-
Lights	0	356	11	-	367	2	36	832	-	870	0	39	41	-	80	1317
% Lights	-	95.2	91.7	-	95.1	100.0	97.3	97.7	-	97.6	-	100.0	100.0	-	100.0	97.1

Buses	0	2	0	-	2	0	0	5	-	5	0	0	0	-	0	7
% Buses	-	0.5	0.0	-	0.5	0.0	0.0	0.6	-	0.6	-	0.0	0.0	-	0.0	0.5
Single-Unit Trucks	0	8	0	-	8	0	0	7	-	7	0	0	0	-	0	15
% Single-Unit Trucks	-	2.1	0.0	-	2.1	0.0	0.0	0.8	-	0.8	-	0.0	0.0	-	0.0	1.1
Articulated Trucks	0	0	0	-	0	0	0	2	-	2	0	0	0	-	0	2
% Articulated Trucks	-	0.0	0.0	-	0.0	0.0	0.0	0.2	-	0.2	-	0.0	0.0	-	0.0	0.1
Bicycles on Road	0	8	1	-	9	0	1	6	-	7	0	0	0	-	0	16
% Bicycles on Road	-	2.1	8.3	-	2.3	0.0	2.7	0.7	-	0.8	-	0.0	0.0	-	0.0	1.2
Pedestrians	-	-	-	4	-	-	-	-	22	-	-	-	-	53	-	-
% Pedestrians	-	-	-	100.0	-	-	-	-	100.0	-	-	-	-	100.0	-	-

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

Rosemont, Illinois, United States 60018
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Count Name: Franklin Street with Access Drive
TMC
Site Code:
Start Date: 08/20/2024

Turning Movement Peak Hour Data (7:30 AM)

Start Time	Franklin Street Eastbound					Franklin Street Westbound					Access Drive Northbound					
	U-Turn	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Peds	App. Total	U-Turn	Left	Right	Peds	App. Total	Int. Total
7:30 AM	0	21	1	0	22	0	2	46	11	48	0	0	2	2	2	72
7:45 AM	0	10	1	0	11	0	3	42	1	45	0	2	1	4	3	59
8:00 AM	0	12	0	0	12	0	2	29	0	31	0	0	0	4	0	43
8:15 AM	0	14	1	0	15	0	2	29	0	31	0	4	0	1	4	50
Total	0	57	3	0	60	0	9	146	12	155	0	6	3	11	9	224
Approach %	0.0	95.0	5.0	-	-	0.0	5.8	94.2	-	-	0.0	66.7	33.3	-	-	-
Total %	0.0	25.4	1.3	-	26.8	0.0	4.0	65.2	-	69.2	0.0	2.7	1.3	-	4.0	-
PHF	0.000	0.679	0.750	-	0.682	0.000	0.750	0.793	-	0.807	0.000	0.375	0.375	-	0.563	0.778
Lights	0	54	3	-	57	0	9	144	-	153	0	6	3	-	9	219
% Lights	-	94.7	100.0	-	95.0	-	100.0	98.6	-	98.7	-	100.0	100.0	-	100.0	97.8
Buses	0	1	0	-	1	0	0	1	-	1	0	0	0	-	0	2
% Buses	-	1.8	0.0	-	1.7	-	0.0	0.7	-	0.6	-	0.0	0.0	-	0.0	0.9
Single-Unit Trucks	0	2	0	-	2	0	0	1	-	1	0	0	0	-	0	3
% Single-Unit Trucks	-	3.5	0.0	-	3.3	-	0.0	0.7	-	0.6	-	0.0	0.0	-	0.0	1.3
Articulated Trucks	0	0	0	-	0	0	0	0	-	0	0	0	0	-	0	0
% Articulated Trucks	-	0.0	0.0	-	0.0	-	0.0	0.0	-	0.0	-	0.0	0.0	-	0.0	0.0
Bicycles on Road	0	0	0	-	0	0	0	0	-	0	0	0	0	-	0	0
% Bicycles on Road	-	0.0	0.0	-	0.0	-	0.0	0.0	-	0.0	-	0.0	0.0	-	0.0	0.0
Pedestrians	-	-	-	0	-	-	-	-	12	-	-	-	-	11	-	-
% Pedestrians	-	-	-	-	-	-	-	-	100.0	-	-	-	-	100.0	-	-

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Count Name: Franklin Street with Access Drive
TMC
Site Code:
Start Date: 08/20/2024
Page No: 4

Turning Movement Peak Hour Data (5:00 PM)

Start Time	Franklin Street Eastbound					Franklin Street Westbound					Access Drive Northbound					
	U-Turn	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Peds	App. Total	U-Turn	Left	Right	Peds	App. Total	Int. Total
5:00 PM	0	25	0	0	25	0	0	56	0	56	0	0	3	2	3	84
5:15 PM	0	15	1	1	16	0	1	48	1	49	0	1	0	2	1	66
5:30 PM	0	16	2	0	18	0	1	32	0	33	0	1	2	3	3	54
5:45 PM	0	10	0	0	10	1	3	45	0	49	0	1	0	2	1	60
Total	0	66	3	1	69	1	5	181	1	187	0	3	5	9	8	264
Approach %	0.0	95.7	4.3	-	-	0.5	2.7	96.8	-	-	0.0	37.5	62.5	-	-	-
Total %	0.0	25.0	1.1	-	26.1	0.4	1.9	68.6	-	70.8	0.0	1.1	1.9	-	3.0	-
PHF	0.000	0.660	0.375	-	0.690	0.250	0.417	0.808	-	0.835	0.000	0.750	0.417	-	0.667	0.786
Lights	0	60	3	-	63	1	5	178	-	184	0	3	5	-	8	255
% Lights	-	90.9	100.0	-	91.3	100.0	100.0	98.3	-	98.4	-	100.0	100.0	-	100.0	96.6
Buses	0	0	0	-	0	0	0	0	-	0	0	0	0	-	0	0
% Buses	-	0.0	0.0	-	0.0	0.0	0.0	0.0	-	0.0	-	0.0	0.0	-	0.0	0.0
Single-Unit Trucks	0	0	0	-	0	0	0	1	-	1	0	0	0	-	0	1
% Single-Unit Trucks	-	0.0	0.0	-	0.0	0.0	0.0	0.6	-	0.5	-	0.0	0.0	-	0.0	0.4
Articulated Trucks	0	0	0	-	0	0	0	0	-	0	0	0	0	-	0	0
% Articulated Trucks	-	0.0	0.0	-	0.0	0.0	0.0	0.0	-	0.0	-	0.0	0.0	-	0.0	0.0
Bicycles on Road	0	6	0	-	6	0	0	2	-	2	0	0	0	-	0	8
% Bicycles on Road	-	9.1	0.0	-	8.7	0.0	0.0	1.1	-	1.1	-	0.0	0.0	-	0.0	3.0
Pedestrians	-	-	-	1	-	-	-	-	1	-	-	-	-	9	-	-
% Pedestrians	-	-	-	100.0	-	-	-	-	100.0	-	-	-	-	100.0	-	-

Study Name	Main Street with Access Drive TMC
Start Date	Tuesday, August 20, 2024 7:00 AM
End Date	Tuesday, August 20, 2024 6:00 PM
Site Code	

Report Summary

		Eastbound						Northbound						Southbound						Southeastbound								Crosswalk	
Time Period	**Class.**	**U**	**HL**	**L**	**R**	**I**	**O**	**U**	**L**	**BL**	**T**	**I**	**O**	**U**	**T**	**R**	**HR**	**I**	**O**	**U**	**HL**	**BR**	**HR**	**I**	**O**	**Total**		**:destria**	**Total**
Peak 1	Lights	0	0	0	1	1	0	0	0	0	435	435	244	0	243	0	0	243	435	0	0	0	0	0	0	679	EB	13	13
Specified Period	%	0%	0%	0%	100%	100%	0%	0%	0%	0%	97%	97%	96%	0%	96%	0%	0%	96%	97%	0%	0%	0%	0%	0%	0%	96%		100%	
7:30 AM - 8:30 AM	Buses	0	0	0	0	0	0	0	0	0	6	6	5	0	5	0	0	5	6	0	0	0	0	0	0	11	NB	0	0
One Hour Peak	%	0%	0%	0%	0%	0%	0%	0%	0%	0%	1%	1%	2%	0%	2%	0%	0%	2%	1%	0%	0%	0%	0%	0%	0%	2%		0%	
7:30 AM - 8:30 AM	ngle-Unit Truc	0	0	0	0	0	0	0	0	0	8	8	4	0	4	0	0	4	8	0	0	0	0	0	0	12	SB	0	0
	%	0%	0%	0%	0%	0%	0%	0%	0%	0%	2%	2%	2%	0%	2%	0%	0%	2%	2%	0%	0%	0%	0%	0%	0%	2%		0%	
	ticulated Truc	0	0	0	0	0	0	0	0	0	1	1	1	0	1	0	0	1	1	0	0	0	0	0	0	2	SEB	13	13
	%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%		100%	
	icycles on Roa	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		**26**	**26**
	%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%			
	Total	**0**	**0**	**0**	**1**	**1**	**0**	**0**	**0**	**0**	**450**	**450**	**254**	**0**	**253**	**0**	**0**	**253**	**450**	**0**	**0**	**0**	**0**	**0**	**0**	**704**			
	PHF	0	0	0	0.25	0.25	0	0	0	0	0.9	0.9	0.84	0	0.83	0	0	0.83	0.9	0	0	0	0	0	0	0.93			
	Approach %					0%	0%					64%	36%					36%	64%					0%	0%				
Peak 2	Lights	0	0	0	0	0	0	0	0	0	390	390	427	0	427	0	0	427	391	0	1	0	0	1	0	818	EB	13	13
Specified Period	%	0%	0%	0%	0%	0%	0%	0%	0%	0%	99%	99%	99%	0%	99%	0%	0%	99%	99%	0%	100%	0%	0%	100%	0%	99%		100%	
5:00 PM - 6:00 PM	Buses	0	0	0	0	0	0	0	0	0	1	1	1	0	1	0	0	1	1	0	0	0	0	0	0	2	NB	0	0
One Hour Peak	%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%		0%	
5:00 PM - 6:00 PM	ngle-Unit Truc	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	1	0	0	0	0	0	0	0	1	SB	1	1
	%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%		100%	
	ticulated Truc	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	1	0	0	0	0	0	0	0	1	SEB	12	12
	%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%		100%	
	icycles on Roa	0	0	0	0	0	0	0	0	0	1	1	2	0	2	0	0	2	1	0	0	0	0	0	0	3		**26**	**26**
	%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%			
	Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**392**	**392**	**432**	**0**	**432**	**0**	**0**	**432**	**393**	**0**	**1**	**0**	**0**	**1**	**0**	**825**			
	PHF	0	0	0	0	0	0	0	0	0	0.9	0.9	0.89	0	0.89	0	0	0.89	0.9	0	0.25	0	0	0.25	0	0.9			
	Approach %					0%	0%					48%	52%					52%	48%					0%	0%				

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

Count Name: Main+St+with+Rogers+St TMC
Site Code:
Start Date: 08/20/2024
Page No: 1

Turning Movement Data

Start Time	Rogers Street Westbound					Main Street Northbound					Main Street Southbound					
	U-Turn	Left	Right	Peds	App. Total	U-Turn	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Peds	App. Total	Int. Total
7:00 AM	0	3	14	1	17	0	73	4	0	77	0	7	30	1	37	131
7:15 AM	0	5	17	1	22	0	75	6	0	81	1	6	37	0	44	147
7:30 AM	0	7	17	3	24	0	113	8	2	121	0	4	57	2	61	206
7:45 AM	0	6	18	8	24	0	80	3	2	83	0	4	51	2	55	162
Hourly Total	0	21	66	13	87	0	341	21	4	362	1	21	175	5	197	646
8:00 AM	0	2	22	5	24	0	103	3	0	106	0	12	49	0	61	191
8:15 AM	0	2	19	3	21	0	83	3	0	86	1	12	72	1	85	192
8:30 AM	0	9	16	1	25	1	100	4	0	105	0	3	57	1	60	190
8:45 AM	0	3	15	1	18	0	103	3	0	106	0	7	45	0	52	176
Hourly Total	0	16	72	10	88	1	389	13	0	403	1	34	223	2	258	749
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2:00 PM	0	3	13	0	16	0	78	2	2	80	0	6	85	2	91	187
2:15 PM	0	3	13	2	16	0	71	4	1	75	0	10	73	1	83	174
2:30 PM	0	5	14	3	19	0	69	7	0	76	0	8	79	1	87	182
2:45 PM	0	2	9	1	11	0	63	5	3	68	1	5	78	3	84	163
Hourly Total	0	13	49	6	62	0	281	18	6	299	1	29	315	7	345	706
3:00 PM	0	3	12	2	15	0	62	2	5	64	0	11	50	0	61	140
3:15 PM	0	4	11	3	15	0	70	2	3	72	0	3	90	3	93	180
3:30 PM	0	7	16	2	23	0	57	1	2	58	0	4	78	2	82	163
3:45 PM	0	6	8	2	14	0	56	6	3	62	0	1	93	4	94	170
Hourly Total	0	20	47	9	67	0	245	11	13	256	0	19	311	9	330	653
4:00 PM	2	0	15	3	17	0	69	6	0	75	0	4	102	2	106	198
4:15 PM	0	6	15	3	21	0	60	8	1	68	0	15	83	6	98	187
4:30 PM	0	3	19	33	22	0	74	6	0	80	0	19	79	0	98	200
4:45 PM	0	6	17	7	23	0	57	5	4	62	0	8	89	0	97	182
Hourly Total	2	15	66	46	83	0	260	25	5	285	0	46	353	8	399	767
5:00 PM	0	3	17	3	20	0	84	7	2	91	0	12	79	0	91	202
5:15 PM	0	3	18	6	21	0	73	4	0	77	0	11	95	5	106	204
5:30 PM	2	5	22	5	29	0	76	3	0	79	0	8	109	1	117	225
5:45 PM	0	0	35	1	35	0	70	7	0	77	0	15	101	2	116	228
Hourly Total	2	11	92	15	105	0	303	21	2	324	0	46	384	8	430	859
Grand Total	4	96	392	99	492	1	1819	109	30	1929	3	195	1761	39	1959	4380
Approach %	0.8	19.5	79.7	-	-	0.1	94.3	5.7	-	-	0.2	10.0	89.9	-	-	-
Total %	0.1	2.2	8.9	-	11.2	0.0	41.5	2.5	-	44.0	0.1	4.5	40.2	-	44.7	-
Lights	4	94	382	-	480	1	1772	104	-	1877	3	191	1701	-	1895	4252
% Lights	100.0	97.9	97.4	-	97.6	100.0	97.4	95.4	-	97.3	100.0	97.9	96.6	-	96.7	97.1

Buses	0	0	5	-	5	0	23	1	-	24	0	2	17	-	19	48
% Buses	0.0	0.0	1.3	-	1.0	0.0	1.3	0.9	-	1.2	0.0	1.0	1.0	-	1.0	1.1
Single-Unit Trucks	0	2	3	-	5	0	20	2	-	22	0	2	33	-	35	62
% Single-Unit Trucks	0.0	2.1	0.8	-	1.0	0.0	1.1	1.8	-	1.1	0.0	1.0	1.9	-	1.8	1.4
Articulated Trucks	0	0	0	-	0	0	4	1	-	5	0	0	7	-	7	12
% Articulated Trucks	0.0	0.0	0.0	-	0.0	0.0	0.2	0.9	-	0.3	0.0	0.0	0.4	-	0.4	0.3
Bicycles on Road	0	0	2	-	2	0	0	1	-	1	0	0	3	-	3	6
% Bicycles on Road	0.0	0.0	0.5	-	0.4	0.0	0.0	0.9	-	0.1	0.0	0.0	0.2	-	0.2	0.1
Pedestrians	-	-	-	99	-	-	-	-	30	-	-	-	-	39	-	-
% Pedestrians	-	-	-	100.0	-	-	-	-	100.0	-	-	-	-	100.0	-	-

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Count Name: Main+St+with+Rogers+St TMC
Site Code:
Start Date: 08/20/2024

Turning Movement Peak Hour Data (7:30 AM)

Start Time	Rogers Street Westbound					Main Street Northbound					Main Street Southbound					
	U-Turn	Left	Right	Peds	App. Total	U-Turn	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Peds	App. Total	Int. Total
7:30 AM	0	7	17	3	24	0	113	8	2	121	0	4	57	2	61	206
7:45 AM	0	6	18	8	24	0	80	3	2	83	0	4	51	2	55	162
8:00 AM	0	2	22	5	24	0	103	3	0	106	0	12	49	0	61	191
8:15 AM	0	2	19	3	21	0	83	3	0	86	1	12	72	1	85	192
Total	0	17	76	19	93	0	379	17	4	396	1	32	229	5	262	751
Approach %	0.0	18.3	81.7	-	-	0.0	95.7	4.3	-	-	0.4	12.2	87.4	-	-	-
Total %	0.0	2.3	10.1	-	12.4	0.0	50.5	2.3	-	52.7	0.1	4.3	30.5	-	34.9	-
PHF	0.000	0.607	0.864	-	0.969	0.000	0.838	0.531	-	0.818	0.250	0.667	0.795	-	0.771	0.911
Lights	0	17	72	-	89	0	369	17	-	386	1	31	217	-	249	724
% Lights	-	100.0	94.7	-	95.7	-	97.4	100.0	-	97.5	100.0	96.9	94.8	-	95.0	96.4
Buses	0	0	3	-	3	0	3	0	-	3	0	1	6	-	7	13
% Buses	-	0.0	3.9	-	3.2	-	0.8	0.0	-	0.8	0.0	3.1	2.6	-	2.7	1.7
Single-Unit Trucks	0	0	1	-	1	0	6	0	-	6	0	0	5	-	5	12
% Single-Unit Trucks	-	0.0	1.3	-	1.1	-	1.6	0.0	-	1.5	0.0	0.0	2.2	-	1.9	1.6
Articulated Trucks	0	0	0	-	0	0	1	0	-	1	0	0	1	-	1	2
% Articulated Trucks	-	0.0	0.0	-	0.0	-	0.3	0.0	-	0.3	0.0	0.0	0.4	-	0.4	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	0.0
Pedestrians	-	-	-	19	-	-	-	-	4	-	-	-	-	5	-	-
% Pedestrians	-	-	-	100.0	-	-	-	-	100.0	-	-	-	-	100.0	-	-

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Rosemont, Illinois, United States 60018
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Count Name: Main+St+with+Rogers+St TMC
Site Code:
Start Date: 08/20/2024
Page No: 4

Turning Movement Peak Hour Data (5:00 PM)

Start Time	Rogers Street Westbound					Main Street Northbound					Main Street Southbound					
	U-Turn	Left	Right	Peds	App. Total	U-Turn	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Peds	App. Total	Int. Total
5:00 PM	0	3	17	3	20	0	84	7	2	91	0	12	79	0	91	202
5:15 PM	0	3	18	6	21	0	73	4	0	77	0	11	95	5	106	204
5:30 PM	2	5	22	5	29	0	76	3	0	79	0	8	109	1	117	225
5:45 PM	0	0	35	1	35	0	70	7	0	77	0	15	101	2	116	228
Total	2	11	92	15	105	0	303	21	2	324	0	46	384	8	430	859
Approach %	1.9	10.5	87.6	-	-	0.0	93.5	6.5	-	-	0.0	10.7	89.3	-	-	-
Total %	0.2	1.3	10.7	-	12.2	0.0	35.3	2.4	-	37.7	0.0	5.4	44.7	-	50.1	-
PHF	0.250	0.550	0.657	-	0.750	0.000	0.902	0.750	-	0.890	0.000	0.767	0.881	-	0.919	0.942
Lights	2	11	92	-	105	0	302	21	-	323	0	46	378	-	424	852
% Lights	100.0	100.0	100.0	-	100.0	-	99.7	100.0	-	99.7	-	100.0	98.4	-	98.6	99.2
Buses	0	0	0	-	0	0	0	0	-	0	0	0	1	-	1	1
% Buses	0.0	0.0	0.0	-	0.0	-	0.0	0.0	-	0.0	-	0.0	0.3	-	0.2	0.1
Single-Unit Trucks	0	0	0	-	0	0	0	0	-	0	0	0	1	-	1	1
% Single-Unit Trucks	0.0	0.0	0.0	-	0.0	-	0.0	0.0	-	0.0	-	0.0	0.3	-	0.2	0.1
Articulated Trucks	0	0	0	-	0	0	1	0	-	1	0	0	1	-	1	2
% Articulated Trucks	0.0	0.0	0.0	-	0.0	-	0.3	0.0	-	0.3	-	0.0	0.3	-	0.2	0.2
Bicycles on Road	0	0	0	-	0	0	0	0	-	0	0	0	3	-	3	3
% Bicycles on Road	0.0	0.0	0.0	-	0.0	-	0.0	0.0	-	0.0	-	0.0	0.8	-	0.7	0.3
Pedestrians	-	-	-	15	-	-	-	-	2	-	-	-	-	8	-	-
% Pedestrians	-	-	-	100.0	-	-	-	-	100.0	-	-	-	-	100.0	-	-

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Count Name: Public Alley South of Franklin - Full
Site Code:
Start Date: 08/20/2024

Direction (Southbound)

Start Time	Lights	Buses	Single-Unit Trucks	Articulated Trucks	Bicycles on Road	Total
08/20/2024 12:00 AM	0	0	0	0	0	0
12:15 AM	0	0	0	0	0	0
12:30 AM	0	0	0	0	0	0
12:45 AM	0	0	0	0	0	0
1:00 AM	0	0	0	0	0	0
1:15 AM	0	0	0	0	0	0
1:30 AM	0	0	0	0	0	0
1:45 AM	0	0	0	0	0	0
2:00 AM	0	0	0	0	0	0
2:15 AM	0	0	0	0	0	0
2:30 AM	0	0	0	0	0	0
2:45 AM	0	0	0	0	0	0
3:00 AM	0	0	0	0	0	0
3:15 AM	0	0	0	0	0	0
3:30 AM	0	0	0	0	0	0
3:45 AM	0	0	0	0	0	0
4:00 AM	0	0	0	0	0	0
4:15 AM	0	0	0	0	0	0
4:30 AM	0	0	0	0	0	0
4:45 AM	0	0	0	0	0	0
5:00 AM	0	0	0	0	0	0
5:15 AM	0	0	0	0	0	0
5:30 AM	0	0	0	0	0	0
5:45 AM	0	0	0	0	0	0
6:00 AM	0	0	0	0	0	0
6:15 AM	0	0	0	0	0	0
6:30 AM	0	0	0	0	0	0
6:45 AM	1	0	1	0	0	2
7:00 AM	0	0	0	0	0	0
7:15 AM	2	0	0	0	0	2
7:30 AM	3	0	0	0	0	3
7:45 AM	4	0	0	0	0	4
8:00 AM	2	0	0	0	0	2
8:15 AM	3	0	0	0	0	3
8:30 AM	1	0	0	0	0	1
8:45 AM	4	0	0	0	0	4
9:00 AM	5	0	0	0	0	5
9:15 AM	4	0	0	0	0	4
9:30 AM	2	0	0	0	0	2

9:45 AM	1	0	0	0	0	1
10:00 AM	3	0	0	0	0	3
10:15 AM	1	0	0	0	0	1
10:30 AM	1	0	0	0	0	1
10:45 AM	1	0	0	0	0	1
11:00 AM	1	0	0	0	0	1
11:15 AM	1	0	0	0	0	1
11:30 AM	4	0	0	0	0	4
11:45 AM	2	0	0	0	0	2
12:00 PM	3	0	0	0	0	3
12:15 PM	4	0	0	0	0	4
12:30 PM	2	0	0	0	0	2
12:45 PM	0	0	0	0	0	0
1:00 PM	3	0	0	0	0	3
1:15 PM	2	0	0	0	0	2
1:30 PM	2	0	0	0	0	2
1:45 PM	0	0	0	0	0	0
2:00 PM	7	0	0	0	0	7
2:15 PM	2	0	0	0	0	2
2:30 PM	4	0	0	0	0	4
2:45 PM	0	0	0	0	0	0
3:00 PM	0	0	0	0	0	0
3:15 PM	1	0	0	0	0	1
3:30 PM	0	0	0	0	0	0
3:45 PM	0	0	0	0	2	2
4:00 PM	3	0	0	0	0	3
4:15 PM	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0
4:45 PM	2	0	0	0	0	2
5:00 PM	0	0	0	0	0	0
5:15 PM	2	0	0	0	0	2
5:30 PM	3	0	0	0	0	3
5:45 PM	3	0	0	0	0	3
6:00 PM	0	0	0	0	0	0
6:15 PM	0	0	0	0	0	0
6:30 PM	0	0	0	0	0	0
6:45 PM	0	0	0	0	0	0
7:00 PM	0	0	0	0	0	0
7:15 PM	1	0	0	0	0	1
7:30 PM	0	0	0	0	0	0
7:45 PM	1	0	0	0	0	1
8:00 PM	0	0	0	0	0	0
8:15 PM	0	0	0	0	0	0
8:30 PM	1	0	0	0	0	1
8:45 PM	0	0	0	0	0	0
9:00 PM	1	0	0	0	0	1
9:15 PM	0	0	0	0	0	0
9:30 PM	0	0	0	0	0	0
9:45 PM	0	0	0	0	0	0
10:00 PM	0	0	0	0	0	0
10:15 PM	0	0	0	0	0	0
10:30 PM	0	0	0	0	0	0

10:45 PM	0	0	0	0	0	0
11:00 PM	0	0	0	0	0	0
11:15 PM	0	0	0	0	0	0
11:30 PM	0	0	0	0	0	0
11:45 PM	0	0	0	0	0	0
Total	93	0	1	0	2	96
Total %	96.9	0.0	1.0	0.0	2.1	100.0
AM Times	8:30 AM	12:00 AM	6:00 AM	12:00 AM	12:00 AM	8:30 AM
AM Peaks	14	0	1	0	0	14
PM Times	1:45 PM	12:00 PM	12:00 PM	12:00 PM	3:00 PM	1:45 PM
PM Peaks	13	0	0	0	2	13

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Rosemont, Illinois, United States 60018
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Count Name: Public Alley South of Franklin - Full
Site Code:
Start Date: 08/20/2024

Direction (Northbound)

Start Time	Lights	Buses	Single-Unit Trucks	Articulated Trucks	Bicycles on Road	Total
08/20/2024 12:00 AM	0	0	0	0	0	0
12:15 AM	0	0	0	0	0	0
12:30 AM	0	0	0	0	0	0
12:45 AM	0	0	0	0	0	0
1:00 AM	0	0	0	0	0	0
1:15 AM	0	0	0	0	0	0
1:30 AM	0	0	0	0	0	0
1:45 AM	0	0	0	0	0	0
2:00 AM	0	0	0	0	0	0
2:15 AM	0	0	0	0	0	0
2:30 AM	0	0	0	0	0	0
2:45 AM	0	0	0	0	0	0
3:00 AM	0	0	0	0	0	0
3:15 AM	0	0	0	0	0	0
3:30 AM	0	0	0	0	0	0
3:45 AM	0	0	0	0	0	0
4:00 AM	0	0	0	0	0	0
4:15 AM	0	0	0	0	0	0
4:30 AM	0	0	0	0	0	0
4:45 AM	0	0	0	0	0	0
5:00 AM	0	0	0	0	0	0
5:15 AM	0	0	0	0	0	0
5:30 AM	0	0	0	0	0	0
5:45 AM	0	0	0	0	0	0
6:00 AM	0	0	0	0	0	0
6:15 AM	0	0	0	0	0	0
6:30 AM	0	0	0	0	0	0
6:45 AM	0	0	1	0	0	1
7:00 AM	0	0	0	0	0	0
7:15 AM	1	0	0	0	0	1
7:30 AM	2	0	0	0	0	2
7:45 AM	3	0	0	0	0	3
8:00 AM	0	0	0	0	0	0
8:15 AM	4	0	0	0	0	4
8:30 AM	5	0	0	0	0	5
8:45 AM	5	0	0	0	0	5
9:00 AM	5	0	0	0	0	5
9:15 AM	4	0	0	0	0	4
9:30 AM	1	0	0	0	0	1

9:45 AM	6	0	0	0	0	6
10:00 AM	3	0	0	0	0	3
10:15 AM	3	0	0	0	0	3
10:30 AM	4	0	0	0	0	4
10:45 AM	4	0	0	0	0	4
11:00 AM	4	0	0	0	0	4
11:15 AM	4	0	0	0	0	4
11:30 AM	4	0	0	0	0	4
11:45 AM	6	0	0	0	0	6
12:00 PM	5	0	0	0	0	5
12:15 PM	6	0	0	0	0	6
12:30 PM	4	0	0	0	0	4
12:45 PM	1	0	1	0	0	2
1:00 PM	2	0	0	0	0	2
1:15 PM	4	0	0	0	0	4
1:30 PM	4	0	0	0	0	4
1:45 PM	4	0	0	0	0	4
2:00 PM	4	0	0	0	0	4
2:15 PM	7	0	0	0	0	7
2:30 PM	6	0	0	0	0	6
2:45 PM	4	0	0	0	0	4
3:00 PM	3	0	0	0	0	3
3:15 PM	5	0	0	0	0	5
3:30 PM	10	0	0	0	0	10
3:45 PM	5	0	0	0	0	5
4:00 PM	1	0	0	0	0	1
4:15 PM	8	0	0	0	0	8
4:30 PM	5	0	0	0	0	5
4:45 PM	3	0	0	0	0	3
5:00 PM	3	0	0	0	0	3
5:15 PM	1	0	0	0	0	1
5:30 PM	3	0	0	0	0	3
5:45 PM	1	0	0	0	0	1
6:00 PM	3	0	0	0	0	3
6:15 PM	2	0	0	0	0	2
6:30 PM	3	0	0	0	0	3
6:45 PM	2	0	0	0	0	2
7:00 PM	1	0	0	0	0	1
7:15 PM	0	0	0	0	0	0
7:30 PM	0	0	0	0	0	0
7:45 PM	1	0	0	0	0	1
8:00 PM	1	0	0	0	0	1
8:15 PM	0	0	0	0	0	0
8:30 PM	1	0	0	0	0	1
8:45 PM	0	0	0	0	0	0
9:00 PM	1	0	0	0	0	1
9:15 PM	0	0	0	0	0	0
9:30 PM	0	0	0	0	0	0
9:45 PM	0	0	0	0	0	0
10:00 PM	0	0	0	0	0	0
10:15 PM	1	0	0	0	0	1
10:30 PM	0	0	0	0	0	0

10:45 PM	0	0	0	0	0	0
11:00 PM	0	0	0	0	0	0
11:15 PM	0	0	0	0	0	0
11:30 PM	0	0	0	0	0	0
11:45 PM	0	0	0	0	0	0
Total	183	0	2	0	0	185
Total %	98.9	0.0	1.1	0.0	0.0	100.0
AM Times	8:30 AM	12:00 AM	6:00 AM	12:00 AM	12:00 AM	8:30 AM
AM Peaks	19	0	1	0	0	19
PM Times	1:45 PM	12:00 PM	12:00 PM	12:00 PM	3:00 PM	1:45 PM
PM Peaks	21	0	1	0	0	21

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Count Name: Main St with Alley
Site Code:
Start Date: 05/17/2022

Turning Movement Data

Start Time	Alley Eastbound					Main St Northbound					Main St Southbound					
	U-Turn	Left	Right	Peds	App. Total	U-Turn	Left	Thru	Peds	App. Total	U-Turn	Thru	Right	Peds	App. Total	Int. Total
7:00 AM	0	0	0	1	0	0	2	65	0	67	0	34	1	0	35	102
7:15 AM	0	0	1	1	1	0	1	92	0	93	0	50	0	0	50	144
7:30 AM	0	0	0	1	0	0	2	114	0	116	0	72	0	0	72	188
7:45 AM	0	1	2	3	3	0	3	97	0	100	0	69	2	0	71	174
Hourly Total	0	1	3	6	4	0	8	368	0	376	0	225	3	0	228	608
8:00 AM	0	0	0	1	0	0	1	98	0	99	0	68	1	0	69	168
8:15 AM	0	0	0	4	0	0	5	85	0	90	0	58	1	0	59	149
8:30 AM	0	0	1	0	1	0	1	88	0	89	0	53	3	0	56	146
8:45 AM	0	0	0	2	0	0	0	83	0	83	0	60	2	1	62	145
Hourly Total	0	0	1	7	1	0	7	354	0	361	0	239	7	1	246	608
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4:00 PM	0	0	2	3	2	0	0	99	0	99	0	103	1	0	104	205
4:15 PM	0	0	0	0	0	0	0	81	0	81	0	83	1	0	84	165
4:30 PM	0	1	1	3	2	0	3	98	0	101	0	93	1	0	94	197
4:45 PM	0	1	0	3	1	0	1	79	0	80	0	110	1	1	111	192
Hourly Total	0	2	3	9	5	0	4	357	0	361	0	389	4	1	393	759
5:00 PM	0	1	2	0	3	0	3	108	0	111	0	97	0	0	97	211
5:15 PM	0	1	1	1	2	0	2	90	0	92	0	78	0	0	78	172
5:30 PM	0	1	1	0	2	0	1	92	1	93	0	113	4	0	117	212
5:45 PM	0	1	1	1	2	1	1	67	0	69	0	76	3	1	79	150
Hourly Total	0	4	5	2	9	1	7	357	1	365	0	364	7	1	371	745
Grand Total	0	7	12	24	19	1	26	1436	1	1463	0	1217	21	3	1238	2720
Approach %	0.0	36.8	63.2	-	-	0.1	1.8	98.2	-	-	0.0	98.3	1.7	-	-	-
Total %	0.0	0.3	0.4	-	0.7	0.0	1.0	52.8	-	53.8	0.0	44.7	0.8	-	45.5	-
Lights	0	7	12	-	19	1	26	1391	-	1418	0	1173	20	-	1193	2630
% Lights	-	100.0	100.0	-	100.0	100.0	100.0	96.9	-	96.9	-	96.4	95.2	-	96.4	96.7
Buses	0	0	0	-	0	0	0	15	-	15	0	13	0	-	13	28
% Buses	-	0.0	0.0	-	0.0	0.0	0.0	1.0	-	1.0	-	1.1	0.0	-	1.1	1.0
Single-Unit Trucks	0	0	0	-	0	0	0	20	-	20	0	24	1	-	25	45
% Single-Unit Trucks	-	0.0	0.0	-	0.0	0.0	0.0	1.4	-	1.4	-	2.0	4.8	-	2.0	1.7
Articulated Trucks	0	0	0	-	0	0	0	7	-	7	0	3	0	-	3	10
% Articulated Trucks	-	0.0	0.0	-	0.0	0.0	0.0	0.5	-	0.5	-	0.2	0.0	-	0.2	0.4
Bicycles on Road	0	0	0	-	0	0	0	3	-	3	0	4	0	-	4	7
% Bicycles on Road	-	0.0	0.0	-	0.0	0.0	0.0	0.2	-	0.2	-	0.3	0.0	-	0.3	0.3
Pedestrians	-	-	-	24	-	-	-	-	1	-	-	-	-	3	-	-
% Pedestrians	-	-	-	100.0	-	-	-	-	100.0	-	-	-	-	100.0	-	-

Kenig Lindgren O'Hara Aboona, Inc.
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Count Name: Main St with Alley
Site Code:
Start Date: 05/17/2022
Page No: 2

Turning Movement Peak Hour Data (7:30 AM)

Start Time	Alley Eastbound					Main St Northbound					Main St Southbound					
	U-Turn	Left	Right	Peds	App. Total	U-Turn	Left	Thru	Peds	App. Total	U-Turn	Thru	Right	Peds	App. Total	Int. Total
7:30 AM	0	0	0	1	0	0	2	114	0	116	0	72	0	0	72	188
7:45 AM	0	1	2	3	3	0	3	97	0	100	0	69	2	0	71	174
8:00 AM	0	0	0	1	0	0	1	98	0	99	0	68	1	0	69	168
8:15 AM	0	0	0	4	0	0	5	85	0	90	0	58	1	0	59	149
Total	0	1	2	9	3	0	11	394	0	405	0	267	4	0	271	679
Approach %	0.0	33.3	66.7	-	-	0.0	2.7	97.3	-	-	0.0	98.5	1.5	-	-	-
Total %	0.0	0.1	0.3	-	0.4	0.0	1.6	58.0	-	59.6	0.0	39.3	0.6	-	39.9	-
PHF	0.000	0.250	0.250	-	0.250	0.000	0.550	0.864	-	0.873	0.000	0.927	0.500	-	0.941	0.903
Lights	0	1	2	-	3	0	11	379	-	390	0	254	4	-	258	651
% Lights	-	100.0	100.0	-	100.0	-	100.0	96.2	-	96.3	-	95.1	100.0	-	95.2	95.9
Buses	0	0	0	-	0	0	0	3	-	3	0	3	0	-	3	6
% Buses	-	0.0	0.0	-	0.0	-	0.0	0.8	-	0.7	-	1.1	0.0	-	1.1	0.9
Single-Unit Trucks	0	0	0	-	0	0	0	7	-	7	0	9	0	-	9	16
% Single-Unit Trucks	-	0.0	0.0	-	0.0	-	0.0	1.8	-	1.7	-	3.4	0.0	-	3.3	2.4
Articulated Trucks	0	0	0	-	0	0	0	2	-	2	0	1	0	-	1	3
% Articulated Trucks	-	0.0	0.0	-	0.0	-	0.0	0.5	-	0.5	-	0.4	0.0	-	0.4	0.4
Bicycles on Road	0	0	0	-	0	0	0	3	-	3	0	0	0	-	0	3
% Bicycles on Road	-	0.0	0.0	-	0.0	-	0.0	0.8	-	0.7	-	0.0	0.0	-	0.0	0.4
Pedestrians	-	-	-	9	-	-	-	-	0	-	-	-	-	0	-	-
% Pedestrians	-	-	-	100.0	-	-	-	-	-	-	-	-	-	-	-	-

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

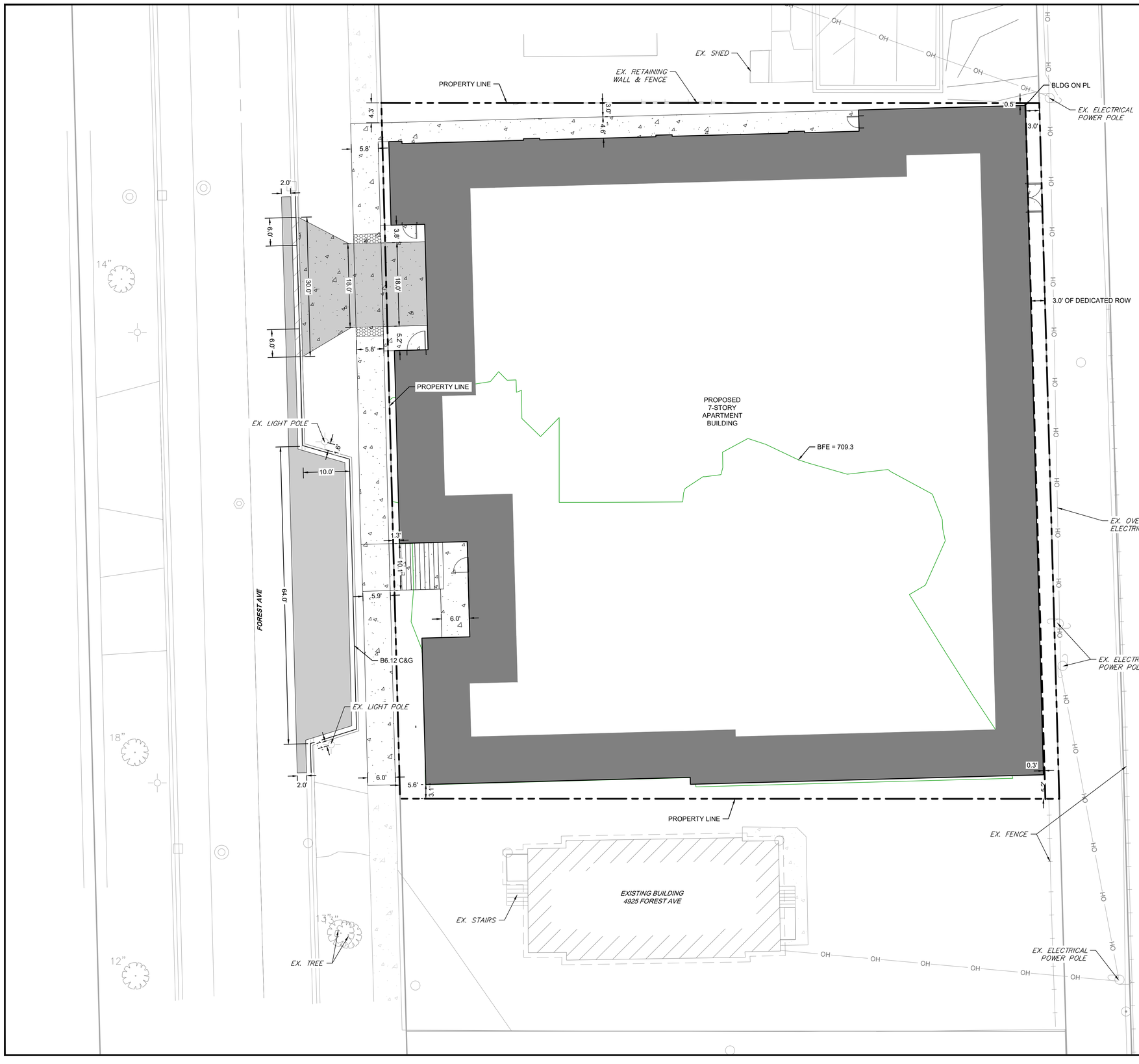
Rosemont, Illinois, United States 60018
(847)518-9990 kpachowicz@kloainc.com

Count Name: Main St with Alley
Site Code:
Start Date: 05/17/2022
Page No: 3

Turning Movement Peak Hour Data (4:45 PM)

Start Time	Alley Eastbound					Main St Northbound					Main St Southbound					Int. Total
	U-Turn	Left	Right	Peds	App. Total	U-Turn	Left	Thru	Peds	App. Total	U-Turn	Thru	Right	Peds	App. Total	
4:45 PM	0	1	0	3	1	0	1	79	0	80	0	110	1	1	111	192
5:00 PM	0	1	2	0	3	0	3	108	0	111	0	97	0	0	97	211
5:15 PM	0	1	1	1	2	0	2	90	0	92	0	78	0	0	78	172
5:30 PM	0	1	1	0	2	0	1	92	1	93	0	113	4	0	117	212
Total	0	4	4	4	8	0	7	369	1	376	0	398	5	1	403	787
Approach %	0.0	50.0	50.0	-	-	0.0	1.9	98.1	-	-	0.0	98.8	1.2	-	-	-
Total %	0.0	0.5	0.5	-	1.0	0.0	0.9	46.9	-	47.8	0.0	50.6	0.6	-	51.2	-
PHF	0.000	1.000	0.500	-	0.667	0.000	0.583	0.854	-	0.847	0.000	0.881	0.313	-	0.861	0.928
Lights	0	4	4	-	8	0	7	360	-	367	0	389	5	-	394	769
% Lights	-	100.0	100.0	-	100.0	-	100.0	97.6	-	97.6	-	97.7	100.0	-	97.8	97.7
Buses	0	0	0	-	0	0	0	1	-	1	0	2	0	-	2	3
% Buses	-	0.0	0.0	-	0.0	-	0.0	0.3	-	0.3	-	0.5	0.0	-	0.5	0.4
Single-Unit Trucks	0	0	0	-	0	0	0	5	-	5	0	2	0	-	2	7
% Single-Unit Trucks	-	0.0	0.0	-	0.0	-	0.0	1.4	-	1.3	-	0.5	0.0	-	0.5	0.9
Articulated Trucks	0	0	0	-	0	0	0	3	-	3	0	2	0	-	2	5
% Articulated Trucks	-	0.0	0.0	-	0.0	-	0.0	0.8	-	0.8	-	0.5	0.0	-	0.5	0.6
Bicycles on Road	0	0	0	-	0	0	0	0	-	0	0	3	0	-	3	3
% Bicycles on Road	-	0.0	0.0	-	0.0	-	0.0	0.0	-	0.0	-	0.8	0.0	-	0.7	0.4
Pedestrians	-	-	-	4	-	-	-	-	1	-	-	-	-	1	-	-
% Pedestrians	-	-	-	100.0	-	-	-	-	100.0	-	-	-	-	100.0	-	-

Site Plan



PAVEMENT LEGEND

- STANDARD DUTY BITUMINOUS PAVEMENT
- HEAVY DUTY CONCRETE PAVEMENT
- PCC SIDEWALK
- B6.12 CURB & GUTTER
- DEPRESSED CURB & GUTTER

NOTES

1. ANY CHANGES MADE TO THE SITE PLAN OR IN THE FIELD DURING CONSTRUCTION MUST BE SUBMITTED IN WRITING TO THE VILLAGE OF DOWNERS GROVE.
2. ALL CA-6 TRENCH BACKFILL, AGGREGATE BASE COURSE, AND HOT MIX ASPHALT (HMA) PLACED AS PART OF A STREET CUT PATCH MUST BE TESTED FOR PROPER COMPACTION BY AN IDOT PREQUALIFIED TESTING FIRM. TESTING REPORTS MUST BE EMAILED AT CUT@DOWNERS.US PRIOR TO ACCEPTANCE OF WORK.
3. ALL RESTORATION WITHIN LIMITS OF RIGHT-OF-WAY SHALL BE WITH TOPSOIL & SOD AND MAINTAINED UNTIL ESTABLISHED

JULIE
CALL BEFORE
YOU DIG
811

0 10' 20'
1" = 10' (HORIZONTAL)

2200 CABOT DRIVE
SUITE 325
LISLE, IL 60532
P: 630.598.0007
WWW.CAGECIVIL.COM

CAGE
CIVIL ENGINEERING

THOMAS S. PETRUNIA
062057192
LICENSED PROFESSIONAL ENGINEER
ILLINOIS

REVISIONS △

4 CORNERS LLC

4 CORNERS MULTI-FAMILY HIGH RISE

4919 FOREST AVENUE
DOWNERS GROVE, IL

PROJ NO.: 230368
ENG.: CW/LES/JDL
DATE.: 10/16/2024

SHEET TITLE

SITE LAYOUT PLAN

SHEET NUMBER

C2.0

3 OF 12

ITE Trip Generation Sheets

Multifamily Housing (Mid-Rise)
Not Close to Rail Transit (221)

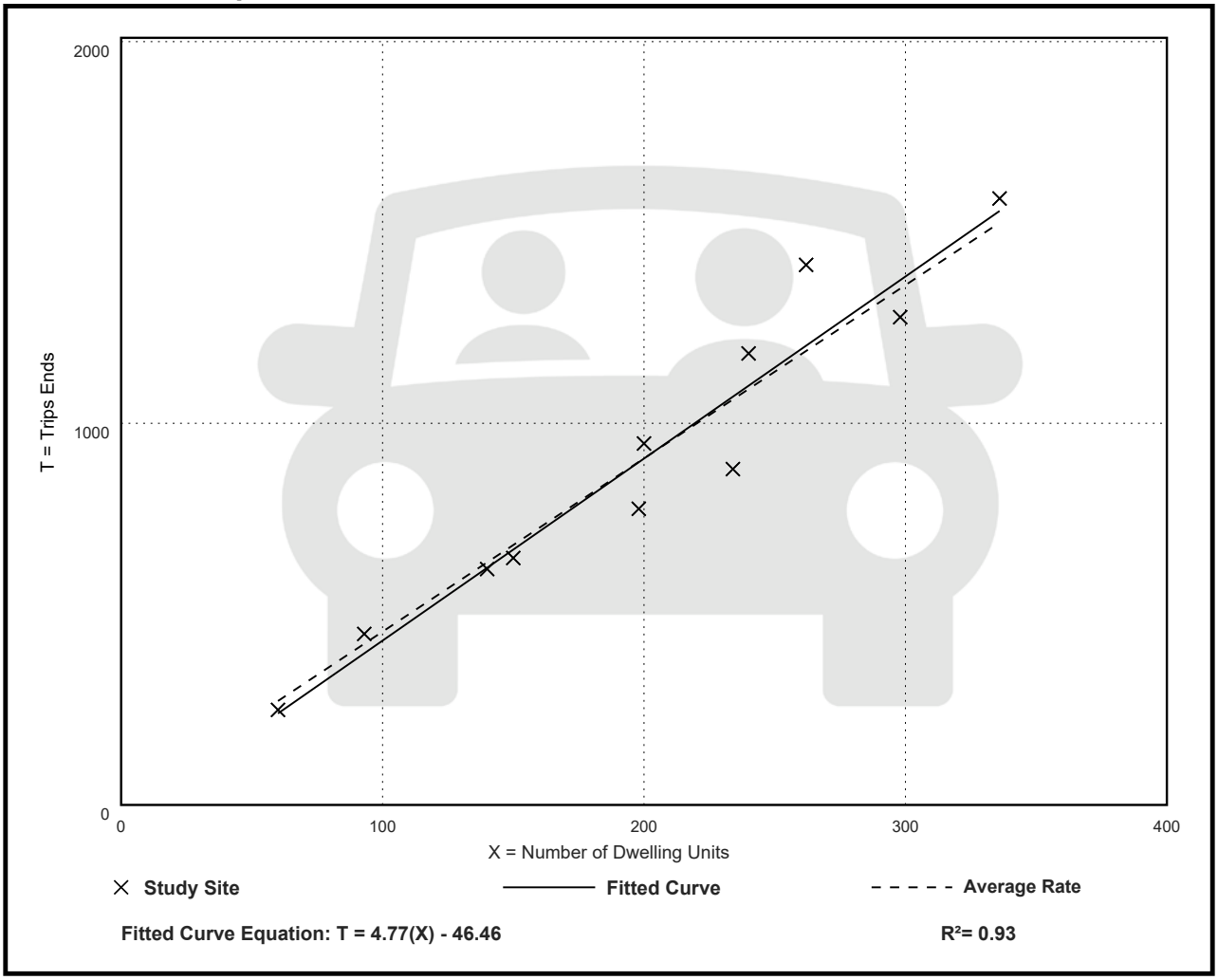
Vehicle Trip Ends vs: Dwelling Units
On a: Weekday

Setting/Location: General Urban/Suburban
Number of Studies: 11
Avg. Num. of Dwelling Units: 201
Directional Distribution: 50% entering, 50% exiting

Vehicle Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
4.54	3.76 - 5.40	0.51

Data Plot and Equation



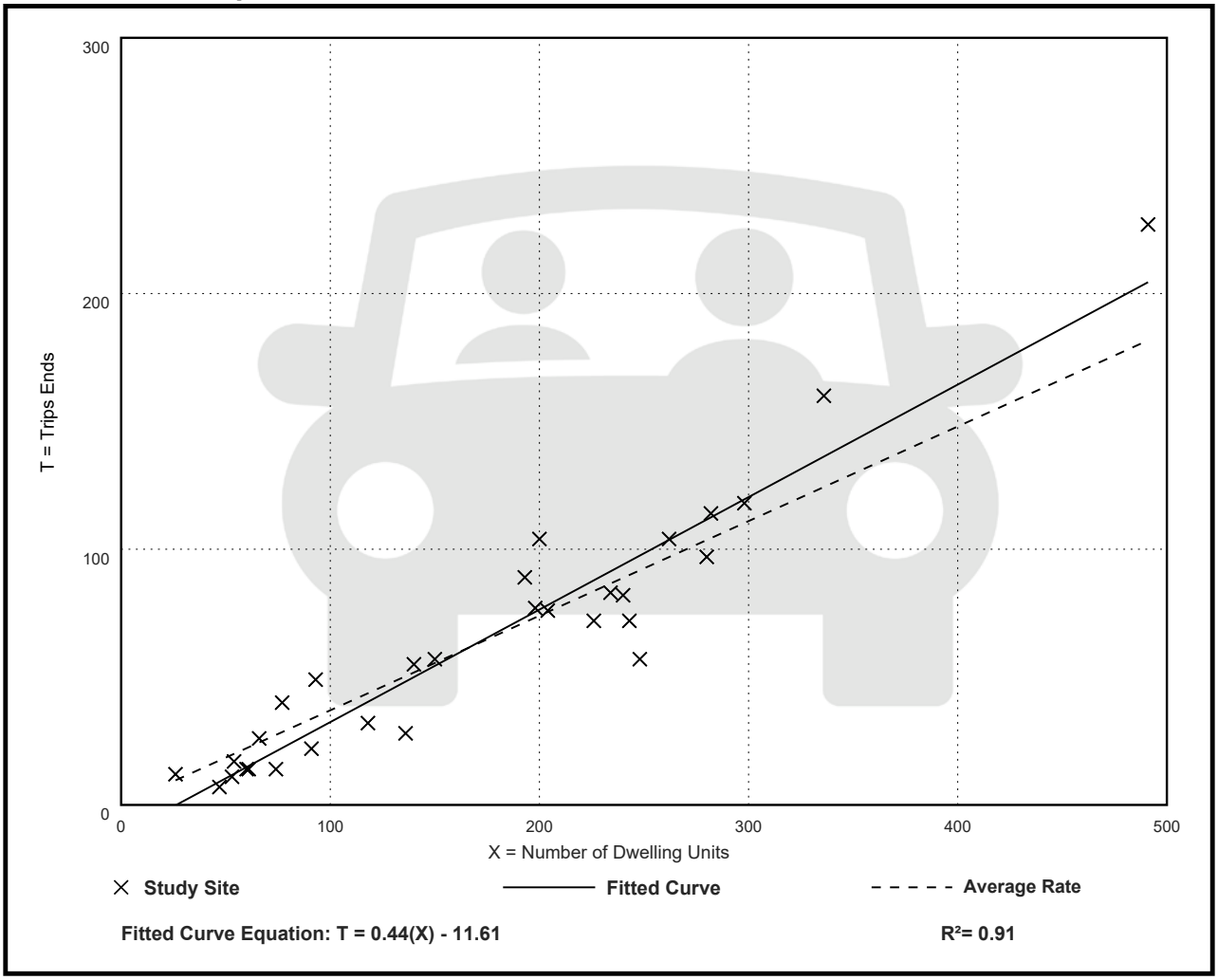
Multifamily Housing (Mid-Rise)
Not Close to Rail Transit (221)

Vehicle Trip Ends vs: Dwelling Units
On a: Weekday,
Peak Hour of Adjacent Street Traffic,
One Hour Between 7 and 9 a.m.
Setting/Location: General Urban/Suburban
Number of Studies: 30
Avg. Num. of Dwelling Units: 173
Directional Distribution: 23% entering, 77% exiting

Vehicle Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
0.37	0.15 - 0.53	0.09

Data Plot and Equation



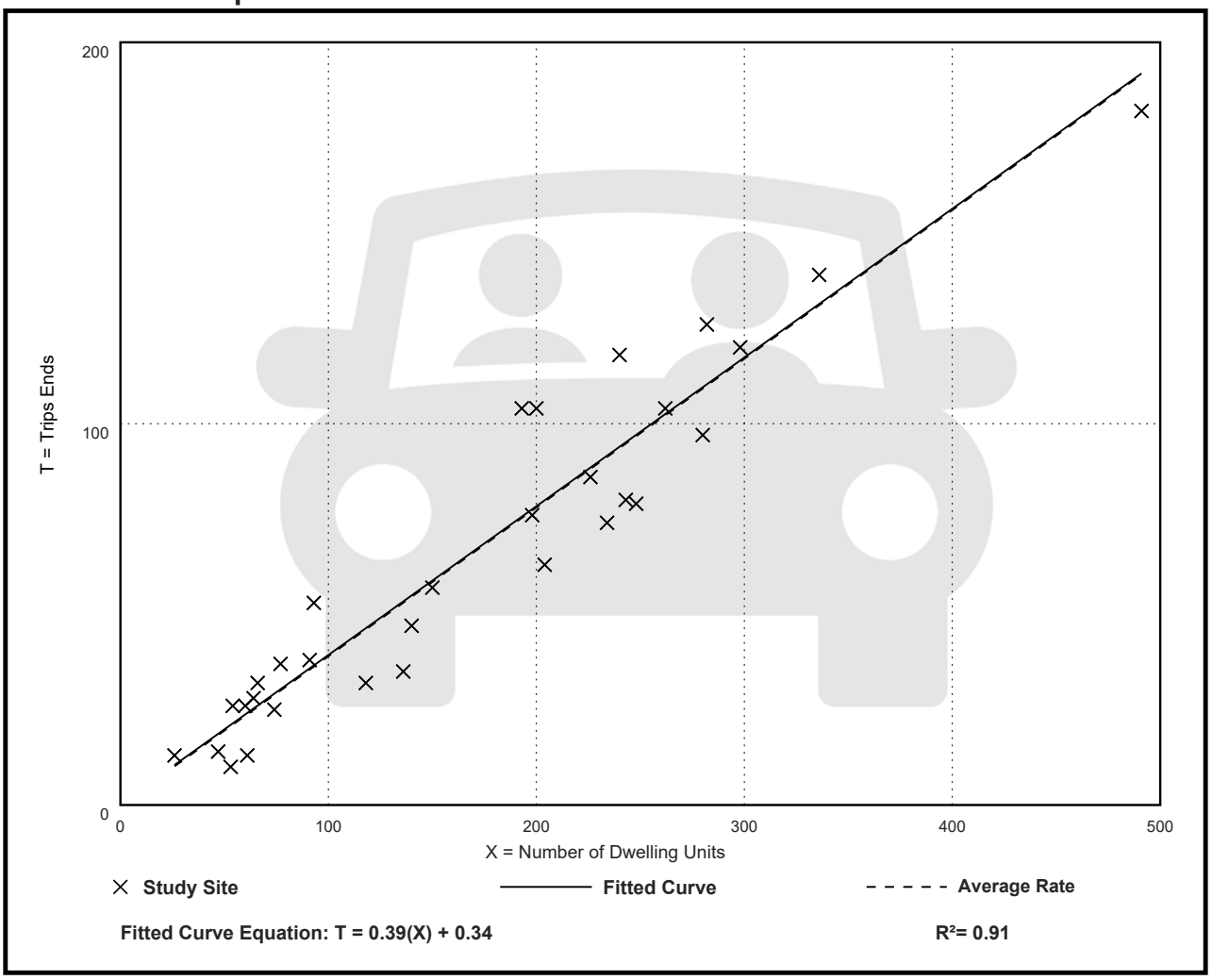
Multifamily Housing (Mid-Rise)
Not Close to Rail Transit (221)

Vehicle Trip Ends vs: Dwelling Units
On a: Weekday,
Peak Hour of Adjacent Street Traffic,
One Hour Between 4 and 6 p.m.
Setting/Location: General Urban/Suburban
Number of Studies: 31
Avg. Num. of Dwelling Units: 169
Directional Distribution: 61% entering, 39% exiting

Vehicle Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
0.39	0.19 - 0.57	0.08

Data Plot and Equation



CMAP 2050 Projections Letter

Chicago Metropolitan Agency for Planning

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

August 7, 2024

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

Subject: Forest Ave, Warren Ave, Main St, Rogers St
IDOT

Dear Ms. May:

In response to a request made on your behalf and dated 8/2/2024, we have developed year 2050 average daily traffic (ADT) projections for the subject location.

ROAD SEGMENT	Current ADT	Year 2050 ADT
Forest Avenue north of Warren Avenue (west)	400	515
Forest Avenue south of Warren Avenue (west)	3,400	4,400
Warren Avenue (west) at Forest Avenue	1,550	2,000
Warren Avenue (east) at Forest Avenue	1,400	1,800
Forest Avenue south of Warren Avenue (east)	4,200	5,400
Main Street at Warren Avenue	6,800	7,800
Rogers Street at Main Street	1,400	1,600

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

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

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

cc: Rios (IDOT)
2024_TrafficForecasts\DownersGrove\du-36-24\du-36-24.docx

Level of Service Criteria

LEVEL OF SERVICE CRITERIA

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

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

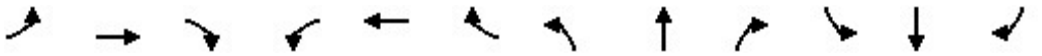
Source: *Highway Capacity Manual*, 6th Edition.

Capacity Analysis Summary Sheets

Existing Weekday Morning Peak Hour

Lanes, Volumes, Timings
1: Main Street & Franklin Street

08/23/2024



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	42	0	18	5	15	16	33	421	0	0	236	97
Future Volume (vph)	42	0	18	5	15	16	33	421	0	0	236	97
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	2000	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	35		0	0		0	0		0	0		0
Storage Lanes	1		1	1		0	0		0	0		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor	0.75		0.93	0.94	0.86			1.00				0.96
Frt			0.850		0.923							0.850
Flt Protected	0.950			0.950				0.996				
Satd. Flow (prot)	1770	0	1455	1504	1508	0	0	1837	0	0	1942	1583
Flt Permitted	0.736			0.950				0.967				
Satd. Flow (perm)	1034	0	1347	1421	1508	0	0	1782	0	0	1942	1525
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			19		17							102
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		180			382			220			418	
Travel Time (s)		4.9			10.4			6.0			11.4	
Confl. Peds. (#/hr)	103		22	22		103	7		31	31		7
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	0%	11%	20%	0%	0%	3%	3%	0%	0%	3%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	44	0	19	5	33	0	0	478	0	0	248	102
Turn Type	Perm		Perm	Perm	NA		Perm	NA			NA	Perm
Protected Phases					8			2			6	
Permitted Phases	4		4	8			2					6
Detector Phase	4		4	8	8		2	2			6	6
Switch Phase												
Minimum Initial (s)	5.0		5.0	5.0	5.0		8.0	8.0			8.0	8.0
Minimum Split (s)	22.5		22.5	22.5	22.5		22.5	22.5			22.5	22.5
Total Split (s)	30.0		30.0	30.0	30.0		60.0	60.0			60.0	60.0
Total Split (%)	33.3%		33.3%	33.3%	33.3%		66.7%	66.7%			66.7%	66.7%
Yellow Time (s)	3.5		3.5	3.0	3.0		3.0	3.0			3.0	3.0
All-Red Time (s)	1.0		1.0	1.0	1.0		1.0	1.0			1.0	1.0
Lost Time Adjust (s)	0.0		0.0	0.0	0.0			0.0			0.0	0.0
Total Lost Time (s)	4.5		4.5	4.0	4.0			4.0			4.0	4.0
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None		None	None	None		C-Min	C-Min			C-Min	C-Min
Act Effct Green (s)	9.4		9.4	9.3	9.3			78.1			78.1	78.1
Actuated g/C Ratio	0.10		0.10	0.10	0.10			0.87			0.87	0.87

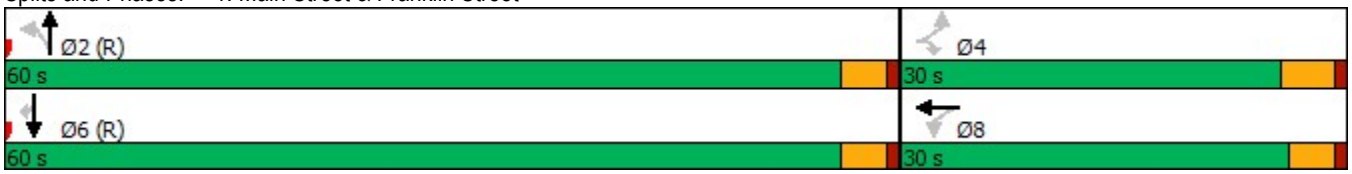
Lanes, Volumes, Timings
1: Main Street & Franklin Street

08/23/2024

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio	0.41		0.12	0.03	0.19			0.31			0.15	0.08
Control Delay	47.9		16.4	33.8	24.3			2.6			2.2	0.7
Queue Delay	0.0		0.0	0.0	0.0			0.0			0.0	0.0
Total Delay	47.9		16.4	33.8	24.3			2.6			2.2	0.7
LOS	D		B	C	C			A			A	A
Approach Delay		38.4			25.5			2.6			1.8	
Approach LOS		D			C			A			A	
Queue Length 50th (ft)	24		0	3	8			50			23	0
Queue Length 95th (ft)	55		20	12	34			90			52	10
Internal Link Dist (ft)		100			302			140			338	
Turn Bay Length (ft)	35											
Base Capacity (vph)	292		395	410	447			1546			1685	1336
Starvation Cap Reductn	0		0	0	0			0			0	0
Spillback Cap Reductn	0		0	0	0			0			0	0
Storage Cap Reductn	0		0	0	0			0			0	0
Reduced v/c Ratio	0.15		0.05	0.01	0.07			0.31			0.15	0.08

Intersection Summary			
Area Type:	Other		
Cycle Length: 90			
Actuated Cycle Length: 90			
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBT, Start of Green			
Natural Cycle: 45			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.41			
Intersection Signal Delay: 5.7		Intersection LOS: A	
Intersection Capacity Utilization 63.7%		ICU Level of Service B	
Analysis Period (min) 15			

Splits and Phases: 1: Main Street & Franklin Street



Lanes, Volumes, Timings
2: Main Street & Warren Avenue

08/23/2024

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	19	30	11	0	30	7	0	369	2	9	220	14
Future Volume (vph)	19	30	11	0	30	7	0	369	2	9	220	14
Ideal Flow (vphpl)	1900	1900	1900	1900	2000	1900	1900	2000	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		60	0		55	0		0	60		0
Storage Lanes	0		1	0		1	0		1	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor		0.97				0.89			0.91	0.97	1.00	
Frt			0.850			0.850			0.850		0.991	
Flt Protected		0.981								0.950		
Satd. Flow (prot)	0	1864	1615	0	2000	1615	0	1961	1615	1626	1809	0
Flt Permitted		0.858								0.508		
Satd. Flow (perm)	0	1575	1615	0	2000	1436	0	1961	1476	843	1809	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			18			18			18		7	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		405			420			116			254	
Travel Time (s)		11.0			11.5			3.2			6.9	
Confl. Peds. (#/hr)	37					37	28		27	27		28
Confl. Bikes (#/hr)												
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	0%	2%	0%	11%	4%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	57	13	0	35	8	0	429	2	10	272	0
Turn Type	Perm	NA	Prot		NA	Perm		NA	Perm	Perm	NA	
Protected Phases		4	4		8			2			6	
Permitted Phases	4					8			2	6		
Detector Phase	4	4	4		8	8		2	2	6	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0		5.0	5.0		5.0	5.0	5.0	5.0	
Minimum Split (s)	22.5	22.5	22.5		22.5	22.5		22.5	22.5	22.5	22.5	
Total Split (s)	30.0	30.0	30.0		30.0	30.0		60.0	60.0	60.0	60.0	
Total Split (%)	33.3%	33.3%	33.3%		33.3%	33.3%		66.7%	66.7%	66.7%	66.7%	
Yellow Time (s)	3.5	3.5	3.5		3.5	3.5		3.5	3.5	3.5	3.5	
All-Red Time (s)	1.0	1.0	1.0		1.0	1.0		1.0	1.0	1.0	1.0	
Lost Time Adjust (s)		0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	
Total Lost Time (s)		4.5	4.5		4.5	4.5		4.5	4.5	4.5	4.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None	None		None	None		C-Min	C-Min	C-Min	C-Min	
Act Effct Green (s)		8.5	8.5		8.5	8.5		75.4	75.4	75.4	75.4	
Actuated g/C Ratio		0.09	0.09		0.09	0.09		0.84	0.84	0.84	0.84	

Lanes, Volumes, Timings
2: Main Street & Warren Avenue

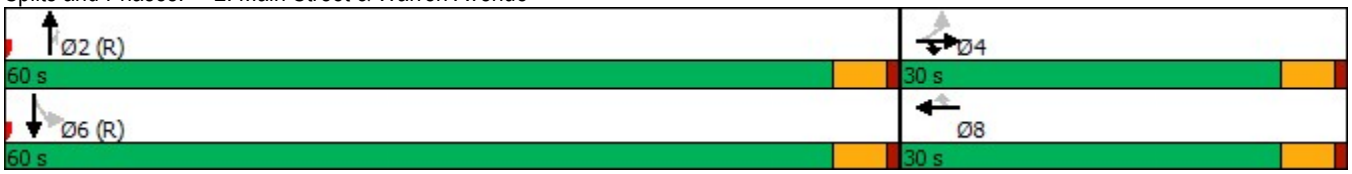
08/23/2024

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio		0.39	0.08		0.19	0.05		0.26	0.00	0.01	0.18	
Control Delay		45.0	14.3		38.7	8.7		2.7	0.0	2.2	2.3	
Queue Delay		0.0	0.0		0.0	0.0		6.0	0.0	0.0	0.0	
Total Delay		45.0	14.3		38.7	8.7		8.7	0.0	2.2	2.3	
LOS		D	B		D	A		A	A	A	A	
Approach Delay		39.3			33.1			8.7			2.3	
Approach LOS		D			C			A			A	
Queue Length 50th (ft)		31	0		19	0		44	0	1	24	
Queue Length 95th (ft)		63	13		43	7		79	0	4	46	
Internal Link Dist (ft)		325			340			36			174	
Turn Bay Length (ft)			60			55				60		
Base Capacity (vph)		446	470		566	419		1642	1239	706	1516	
Starvation Cap Reductn		0	0		0	0		1144	1131	0	0	
Spillback Cap Reductn		0	0		0	0		0	0	0	0	
Storage Cap Reductn		0	0		0	0		0	0	0	0	
Reduced v/c Ratio		0.13	0.03		0.06	0.02		0.86	0.02	0.01	0.18	

Intersection Summary

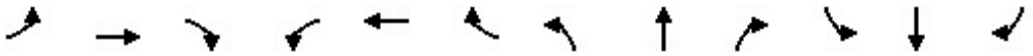
Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 90
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBTL, Start of Green
Natural Cycle: 45
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.39
Intersection Signal Delay: 10.3 Intersection LOS: B
Intersection Capacity Utilization 45.7% ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 2: Main Street & Warren Avenue



Intersection Capacity Utilization
3: Forest Avenue & Franklin Street

08/23/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	3	12	22	108	39	9	18	172	38	8	66	4
Pedestrians	1		3	3		1	3		4	4		3
Ped Button		Yes			Yes			Yes			Yes	
Pedestrian Timing (s)		16.0			16.0			16.0			16.0	
Free Right			No			No			No			No
Ideal Flow	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Green (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Refr Cycle Length (s)	120	120	120	120	120	120	120	120	120	120	120	120
Volume Combined (vph)	0	37	0	0	156	0	0	228	0	0	78	0
Lane Utilization Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Factor (vph)	0.95	0.91	0.85	0.95	0.96	0.85	0.95	0.97	0.85	0.95	0.99	0.85
Saturated Flow (vph)	0	1724	0	0	1818	0	0	1845	0	0	1876	0
Ped Intf Time (s)	0.0	0.2	0.4	0.0	0.0	0.1	0.0	0.1	0.5	0.0	0.0	0.4
Pedestrian Frequency (%)		0.10			0.03			0.12			0.10	
Protected Option Allowed		No			No			No			No	
Reference Time (s)			0.0			0.0			0.0			0.0
Adj Reference Time (s)			0.0			0.0			0.0			0.0
Permitted Option												
Adj Saturation A (vph)	0	1756		0	372		0	1487		0	1330	
Reference Time A (s)	0.0	2.8		0.0	50.4		0.0	18.5		0.0	7.1	
Adj Saturation B (vph	0	0		0	0		0	0		NA	NA	
Reference Time B (s)	8.2	10.8		15.2	18.3		9.2	22.9		NA	NA	
Reference Time (s)		2.8			18.3			18.5			7.1	
Adj Reference Time (s)		9.1			22.3			22.5			11.9	
Split Option												
Ref Time Combined (s)	0.0	2.8		0.0	10.3		0.0	14.9		0.0	5.0	
Ref Time Seperate (s)	0.2	1.1		7.2	2.5		1.2	11.3		0.5	4.2	
Reference Time (s)	2.8	2.8		10.3	10.3		14.9	14.9		5.0	5.0	
Adj Reference Time (s)	9.1	9.1		14.5	14.5		19.0	19.0		10.1	10.1	

Summary	EB WB	NB SB	Combined
Protected Option (s)	NA	NA	
Permitted Option (s)	22.3	22.5	
Split Option (s)	23.6	29.1	
Minimum (s)	22.3	22.5	44.8

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

Intersection Summary			
Intersection Capacity Utilization	37.3%	ICU Level of Service	A

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

Intersection Capacity Utilization
5: Forest Avenue & Warren Avenue

08/23/2024

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (vph)	40	102	112	190	134	45
Pedestrians	10		5			5
Ped Button					Yes	
Pedestrian Timing (s)					16.0	
Free Right		No				No
Ideal Flow	1900	1900	1900	1900	1900	1900
Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Green (s)	4.0	4.0	4.0	4.0	4.0	4.0
Refr Cycle Length (s)	120	120	120	120	120	120
Volume Combined (vph)	40	102	0	302	179	0
Lane Utilization Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Factor (vph)	0.95	0.85	0.95	0.98	0.96	0.85
Saturated Flow (vph)	1805	1615	0	1865	1828	0
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.2	0.6
Pedestrian Frequency (%)	0.00			0.00	0.15	
Protected Option Allowed	No			No	No	
Reference Time (s)		7.6				0.0
Adj Reference Time (s)		11.6				0.0
Permitted Option						
Adj Saturation A (vph)	120		0	276	1828	
Reference Time A (s)	39.9		0.0	131.4	11.9	
Adj Saturation B (vph	NA		NA	NA	NA	
Reference Time B (s)	NA		NA	NA	NA	
Reference Time (s)				131.4	11.9	
Adj Reference Time (s)				135.4	16.5	
Split Option						
Ref Time Combined (s)	2.7		0.0	19.4	11.9	
Ref Time Seperate (s)	2.7		7.4	12.0	9.0	
Reference Time (s)	2.7		19.4	19.4	11.9	
Adj Reference Time (s)	8.0		23.4	23.4	16.5	

Summary	EB	NB SB	Combined
Protected Option (s)	NA	NA	
Permitted Option (s)	Err	135.4	
Split Option (s)	8.0	40.0	
Minimum (s)	8.0	40.0	48.0

Right Turns	EBR
Adj Reference Time (s)	11.6
Cross Thru Ref Time (s)	16.5
Oncoming Left Ref Time (s)	0.0
Combined (s)	28.1

Intersection Summary			
Intersection Capacity Utilization	40.0%	ICU Level of Service	A

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

HCM 6th TWSC
4: Forest Avenue & AT&T Access Drive/Apartment Access Drive 08/23/2024

Intersection	
Int Delay, s/veh	0.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	1	0	1	1	0	2	1	224	0	0	188	1
Future Vol, veh/h	1	0	1	1	0	2	1	224	0	0	188	1
Conflicting Peds, #/hr	0	0	0	0	0	0	9	0	0	0	0	9
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	87	87	87	87	87	87	87	87	87	87	87	87
Heavy Vehicles, %	100	0	0	0	0	0	0	1	0	0	2	100
Mvmt Flow	1	0	1	1	0	2	1	257	0	0	216	1

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	486	485	226	476	485	257	226	0	0	257	0	0
Stage 1	226	226	-	259	259	-	-	-	-	-	-	-
Stage 2	260	259	-	217	226	-	-	-	-	-	-	-
Critical Hdwy	8.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	7.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	7.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	4.4	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	364	485	818	503	485	787	1354	-	-	1320	-	-
Stage 1	600	721	-	750	697	-	-	-	-	-	-	-
Stage 2	572	697	-	790	721	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	360	480	811	502	480	787	1342	-	-	1320	-	-
Mov Cap-2 Maneuver	360	480	-	502	480	-	-	-	-	-	-	-
Stage 1	594	715	-	749	696	-	-	-	-	-	-	-
Stage 2	570	696	-	789	715	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	12.2	10.5	0	0
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1342	-	-	499	662	1320	-	-
HCM Lane V/C Ratio	0.001	-	-	0.005	0.005	-	-	-
HCM Control Delay (s)	7.7	0	-	12.2	10.5	0	-	-
HCM Lane LOS	A	A	-	B	B	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0	0	0	-	-

HCM 6th TWSC
6: Warren Avenue & Forest Avenue 08/23/2024

Intersection	
Int Delay, s/veh	1.5

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	15	36	266	33	35	201
Future Vol, veh/h	15	36	266	33	35	201
Conflicting Peds, #/hr	1	0	0	15	15	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	0	-	0	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	0	0	2	0	0	3
Mvmt Flow	16	38	280	35	37	212

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	476	295	0	0	330	0
Stage 1	295	-	-	-	-	-
Stage 2	181	-	-	-	-	-
Critical Hdwy	6.6	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.8	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	537	749	-	-	1241	-
Stage 1	760	-	-	-	-	-
Stage 2	838	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	511	738	-	-	1223	-
Mov Cap-2 Maneuver	511	-	-	-	-	-
Stage 1	749	-	-	-	-	-
Stage 2	809	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	10.7	0	1.3
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	511	738	1223	-
HCM Lane V/C Ratio	-	-	0.031	0.051	0.03	-
HCM Control Delay (s)	-	-	12.3	10.1	8	0.1
HCM Lane LOS	-	-	B	B	A	A
HCM 95th %tile Q(veh)	-	-	0.1	0.2	0.1	-

HCM 6th TWSC
8: N-S Alley & Franklin Street 08/23/2024

Intersection	
Int Delay, s/veh	0.7

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	57	3	9	146	6	3
Future Vol, veh/h	57	3	9	146	6	3
Conflicting Peds, #/hr	0	11	11	0	0	12
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	78	78	78	78	78	78
Heavy Vehicles, %	5	0	0	1	0	0
Mvmt Flow	73	4	12	187	8	4

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	88	0	297	98
Stage 1	-	-	-	-	86	-
Stage 2	-	-	-	-	211	-
Critical Hdwy	-	-	4.1	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	1520	-	755	963
Stage 1	-	-	-	-	942	-
Stage 2	-	-	-	-	869	-
Platoon blocked, %	-	-		-	1	
Mov Cap-1 Maneuver	-	-	1504	-	741	942
Mov Cap-2 Maneuver	-	-	-	-	741	-
Stage 1	-	-	-	-	933	-
Stage 2	-	-	-	-	861	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.4	9.6
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	798	-	-	1504	-
HCM Lane V/C Ratio	0.014	-	-	0.008	-
HCM Control Delay (s)	9.6	-	-	7.4	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0	-	-	0	-

HCM 6th TWSC
9: Main Street & Oakley Access Drive 08/23/2024

Intersection	
Int Delay, s/veh	0

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	0	0	450	253	0
Future Vol, veh/h	0	0	0	450	253	0
Conflicting Peds, #/hr	0	0	13	0	0	13
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	93	93	93	93	93	93
Heavy Vehicles, %	0	0	0	3	4	0
Mvmt Flow	0	0	0	484	272	0

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	769	285	285	0	-	0
Stage 1	285	-	-	-	-	-
Stage 2	484	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	*494	871	1321	-	-	-
Stage 1	*827	-	-	-	-	-
Stage 2	*676	-	-	-	-	-
Platoon blocked, %	1	1	1	-	-	-
Mov Cap-1 Maneuver	*482	860	1304	-	-	-
Mov Cap-2 Maneuver	*482	-	-	-	-	-
Stage 1	*817	-	-	-	-	-
Stage 2	*668	-	-	-	-	-

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

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1304	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-	-
HCM Control Delay (s)	0	-	0	-	-
HCM Lane LOS	A	-	A	-	-
HCM 95th %tile Q(veh)	0	-	-	-	-

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

HCM 6th TWSC
10: Main Street & Funeral Home North Access Drive 08/23/2024

Intersection	
Int Delay, s/veh	0

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	1	0	450	253	0
Future Vol, veh/h	0	1	0	450	253	0
Conflicting Peds, #/hr	0	0	13	0	0	13
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	93	93	93	93	93	93
Heavy Vehicles, %	0	0	0	3	4	0
Mvmt Flow	0	1	0	484	272	0

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	769	285	285	0	-	0
Stage 1	285	-	-	-	-	-
Stage 2	484	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	*494	871	1321	-	-	-
Stage 1	*827	-	-	-	-	-
Stage 2	*676	-	-	-	-	-
Platoon blocked, %	1	1	1	-	-	-
Mov Cap-1 Maneuver	*482	860	1304	-	-	-
Mov Cap-2 Maneuver	*482	-	-	-	-	-
Stage 1	*817	-	-	-	-	-
Stage 2	*668	-	-	-	-	-

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

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1304	-	860	-	-
HCM Lane V/C Ratio	-	-	0.001	-	-
HCM Control Delay (s)	0	-	9.2	-	-
HCM Lane LOS	A	-	A	-	-
HCM 95th %tile Q(veh)	0	-	0	-	-

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

HCM 6th TWSC
11: Main Street & Rogers Street 08/23/2024

Intersection	
Int Delay, s/veh	1.8

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	17	76	379	17	33	229
Future Vol, veh/h	17	76	379	17	33	229
Conflicting Peds, #/hr	4	5	0	19	19	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	60	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	91	91	91	91	91	91
Heavy Vehicles, %	0	5	3	0	3	5
Mvmt Flow	19	84	416	19	36	252

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	773	450	0	0	454	0
Stage 1	445	-	-	-	-	-
Stage 2	328	-	-	-	-	-
Critical Hdwy	6.4	6.25	-	-	4.13	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.345	-	-	2.227	-
Pot Cap-1 Maneuver	450	731	-	-	1117	-
Stage 1	713	-	-	-	-	-
Stage 2	784	-	-	-	-	-
Platoon blocked, %	1	1	-	-	1	-
Mov Cap-1 Maneuver	426	715	-	-	1097	-
Mov Cap-2 Maneuver	426	-	-	-	-	-
Stage 1	700	-	-	-	-	-
Stage 2	755	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	11.7	0	1.1
HCM LOS	B		

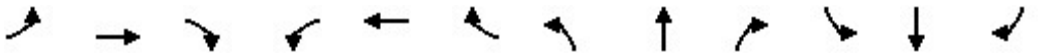
Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	636	1097	-
HCM Lane V/C Ratio	-	-	0.161	0.033	-
HCM Control Delay (s)	-	-	11.7	8.4	-
HCM Lane LOS	-	-	B	A	-
HCM 95th %tile Q(veh)	-	-	0.6	0.1	-

Capacity Analysis Summary Sheets

Existing Weekday Evening Peak Hour

Lanes, Volumes, Timings
1: Main Street & Franklin Street

08/23/2024



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	49	0	21	3	8	17	37	356	0	0	403	147
Future Volume (vph)	49	0	21	3	8	17	37	356	0	0	403	147
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	2000	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	35		0	0		0	0		0	0		0
Storage Lanes	1		1	1		0	0		0	0		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor	0.99		0.95	0.98	0.98			1.00				0.96
Frt			0.850		0.896							0.850
Flt Protected	0.950			0.950				0.995				
Satd. Flow (prot)	1805	0	1615	1805	1663	0	0	1890	0	0	1980	1615
Flt Permitted	0.740			0.950				0.941				
Satd. Flow (perm)	1389	0	1537	1764	1663	0	0	1786	0	0	1980	1546
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			22		18							152
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		180			382			220			418	
Travel Time (s)		4.9			10.4			6.0			11.4	
Confl. Peds. (#/hr)	5		9	9		5	9		9	9		9
Confl. Bikes (#/hr)			5			1						1
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	1%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	51	0	22	3	26	0	0	405	0	0	415	152
Turn Type	Perm		Perm	Perm	NA		Perm	NA			NA	Perm
Protected Phases					8			2			6	
Permitted Phases	4		4	8			2					6
Detector Phase	4		4	8	8		2	2			6	6
Switch Phase												
Minimum Initial (s)	5.0		5.0	5.0	5.0		8.0	8.0			8.0	8.0
Minimum Split (s)	22.5		22.5	22.5	22.5		22.5	22.5			22.5	22.5
Total Split (s)	30.0		30.0	30.0	30.0		60.0	60.0			60.0	60.0
Total Split (%)	33.3%		33.3%	33.3%	33.3%		66.7%	66.7%			66.7%	66.7%
Yellow Time (s)	3.5		3.5	3.0	3.0		3.0	3.0			3.0	3.0
All-Red Time (s)	1.0		1.0	1.0	1.0		1.0	1.0			1.0	1.0
Lost Time Adjust (s)	0.0		0.0	0.0	0.0			0.0			0.0	0.0
Total Lost Time (s)	4.5		4.5	4.0	4.0			4.0			4.0	4.0
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None		None	None	None		C-Min	C-Min			C-Min	C-Min
Act Effct Green (s)	8.8		8.8	9.2	9.2			75.5			75.5	75.5
Actuated g/C Ratio	0.10		0.10	0.10	0.10			0.84			0.84	0.84

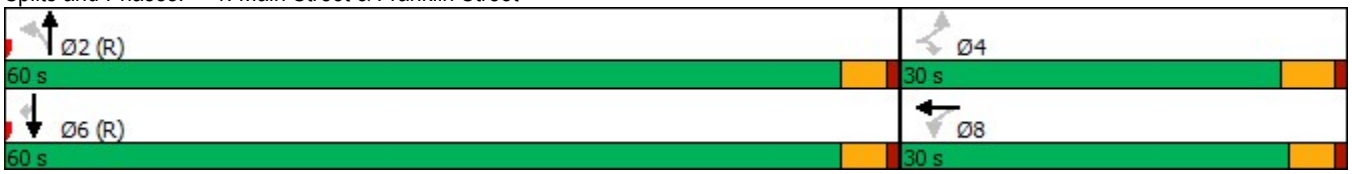
Lanes, Volumes, Timings
1: Main Street & Franklin Street

08/23/2024

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio	0.38		0.13	0.02	0.14			0.27			0.25	0.12
Control Delay	45.1		16.5	34.3	21.2			2.5			2.6	0.6
Queue Delay	0.0		0.0	0.0	0.0			0.0			0.0	0.0
Total Delay	45.1		16.5	34.3	21.2			2.5			2.6	0.6
LOS	D		B	C	C			A			A	A
Approach Delay		36.5			22.6			2.5			2.1	
Approach LOS		D			C			A			A	
Queue Length 50th (ft)	28		0	2	4			39			41	0
Queue Length 95th (ft)	61		22	10	27			74			82	11
Internal Link Dist (ft)		100			302			140			338	
Turn Bay Length (ft)	35											
Base Capacity (vph)	393		451	509	493			1498			1661	1321
Starvation Cap Reductn	0		0	0	0			0			0	0
Spillback Cap Reductn	0		0	0	0			0			0	0
Storage Cap Reductn	0		0	0	0			0			0	0
Reduced v/c Ratio	0.13		0.05	0.01	0.05			0.27			0.25	0.12

Intersection Summary			
Area Type:	Other		
Cycle Length: 90			
Actuated Cycle Length: 90			
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBT, Start of Green			
Natural Cycle: 45			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.38			
Intersection Signal Delay: 5.1		Intersection LOS: A	
Intersection Capacity Utilization 61.3%		ICU Level of Service B	
Analysis Period (min) 15			

Splits and Phases: 1: Main Street & Franklin Street



Lanes, Volumes, Timings
2: Main Street & Warren Avenue

08/23/2024

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	21	51	7	0	45	17	0	286	16	4	386	15
Future Volume (vph)	21	51	7	0	45	17	0	286	16	4	386	15
Ideal Flow (vphpl)	1900	1900	1900	1900	2000	1900	1900	2000	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		60	0		55	0		0	60		0
Storage Lanes	0		1	0		1	0		1	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor		0.97				0.88			0.86	0.93	1.00	
Frt			0.850			0.850			0.850		0.994	
Flt Protected		0.985								0.950		
Satd. Flow (prot)	0	1872	1615	0	2000	1615	0	1980	1615	1805	1867	0
Flt Permitted		0.883								0.571		
Satd. Flow (perm)	0	1630	1615	0	2000	1417	0	1980	1393	1007	1867	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			18			18			18		4	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		405			420			116			254	
Travel Time (s)		11.0			11.5			3.2			6.9	
Confl. Peds. (#/hr)	41		4	4		41	27		48	48		27
Confl. Bikes (#/hr)			2			2						1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	0%	1%	0%	0%	1%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	78	8	0	49	18	0	311	17	4	436	0
Turn Type	Perm	NA	Prot		NA	Perm		NA	Perm	Perm	NA	
Protected Phases		4	4		8			2			6	
Permitted Phases	4					8			2	6		
Detector Phase	4	4	4		8	8		2	2	6	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0		5.0	5.0		5.0	5.0	5.0	5.0	
Minimum Split (s)	22.5	22.5	22.5		22.5	22.5		22.5	22.5	22.5	22.5	
Total Split (s)	30.0	30.0	30.0		30.0	30.0		60.0	60.0	60.0	60.0	
Total Split (%)	33.3%	33.3%	33.3%		33.3%	33.3%		66.7%	66.7%	66.7%	66.7%	
Yellow Time (s)	3.5	3.5	3.5		3.5	3.5		3.5	3.5	3.5	3.5	
All-Red Time (s)	1.0	1.0	1.0		1.0	1.0		1.0	1.0	1.0	1.0	
Lost Time Adjust (s)		0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	
Total Lost Time (s)		4.5	4.5		4.5	4.5		4.5	4.5	4.5	4.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None	None		None	None		C-Min	C-Min	C-Min	C-Min	
Act Effct Green (s)		9.5	9.5		9.4	9.4		74.5	74.5	74.5	74.5	
Actuated g/C Ratio		0.11	0.11		0.10	0.10		0.83	0.83	0.83	0.83	

Lanes, Volumes, Timings
2: Main Street & Warren Avenue

08/23/2024

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio		0.45	0.04		0.23	0.11		0.19	0.01	0.00	0.28	
Control Delay		45.5	8.1		38.4	16.8		2.7	1.2	2.5	3.0	
Queue Delay		0.0	0.0		0.0	0.0		4.3	0.6	0.0	0.0	
Total Delay		45.5	8.1		38.4	16.8		7.0	1.8	2.5	3.0	
LOS		D	A		D	B		A	A	A	A	
Approach Delay		42.0			32.6			6.7			3.0	
Approach LOS		D			C			A			A	
Queue Length 50th (ft)		42	0		26	0		32	0	1	49	
Queue Length 95th (ft)		83	7		57	19		65	4	m2	92	
Internal Link Dist (ft)		325			340			36			174	
Turn Bay Length (ft)			60			55				60		
Base Capacity (vph)		461	470		566	414		1638	1155	833	1545	
Starvation Cap Reductn		0	0		0	0		1235	1027	0	0	
Spillback Cap Reductn		0	0		0	0		0	0	0	0	
Storage Cap Reductn		0	0		0	0		0	0	0	0	
Reduced v/c Ratio		0.17	0.02		0.09	0.04		0.77	0.13	0.00	0.28	

Intersection Summary

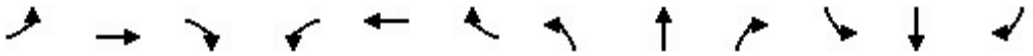
Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 90
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBTL, Start of Green
Natural Cycle: 45
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.45
Intersection Signal Delay: 10.1 Intersection LOS: B
Intersection Capacity Utilization 44.1% ICU Level of Service A
Analysis Period (min) 15

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

Splits and Phases: 2: Main Street & Warren Avenue

Intersection Capacity Utilization
3: Forest Avenue & Franklin Street

08/23/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	11	12	43	147	38	1	19	99	53	2	43	1
Pedestrians			7	7			3		5	5		3
Ped Button		Yes						Yes			Yes	
Pedestrian Timing (s)		16.0						16.0			16.0	
Free Right			No			No			No			No
Ideal Flow	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Green (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Refr Cycle Length (s)	120	120	120	120	120	120	120	120	120	120	120	120
Volume Combined (vph)	0	66	0	0	186	0	0	171	0	0	46	0
Lane Utilization Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Factor (vph)	0.95	0.89	0.85	0.95	0.96	0.85	0.95	0.95	0.85	0.95	0.99	0.85
Saturated Flow (vph)	0	1700	0	0	1823	0	0	1802	0	0	1890	0
Ped Intf Time (s)	0.0	0.6	0.9	0.0	0.0	0.0	0.0	0.2	0.6	0.0	0.0	0.4
Pedestrian Frequency (%)		0.21			0.00			0.15			0.10	
Protected Option Allowed		No			No			No			No	
Reference Time (s)			0.0			0.0			0.0			0.0
Adj Reference Time (s)			0.0			0.0			0.0			0.0
Permitted Option												
Adj Saturation A (vph)	0	1773		0	520		0	1062		0	1694	
Reference Time A (s)	0.0	5.0		0.0	43.0		0.0	19.5		0.0	3.3	
Adj Saturation B (vph	0	0		0	0		0	0		NA	NA	
Reference Time B (s)	8.7	13.2		17.8	20.2		9.3	19.6		NA	NA	
Reference Time (s)		5.0			20.2			19.5			3.3	
Adj Reference Time (s)		11.3			24.2			23.5			9.1	
Split Option												
Ref Time Combined (s)	0.0	5.2		0.0	12.2		0.0	11.6		0.0	2.9	
Ref Time Seperate (s)	0.7	1.4		9.8	2.4		1.3	6.8		0.1	2.7	
Reference Time (s)	5.2	5.2		12.2	12.2		11.6	11.6		2.9	2.9	
Adj Reference Time (s)	11.5	11.5		16.2	16.2		16.3	16.3		9.1	9.1	

Summary	EB WB	NB SB	Combined
Protected Option (s)	NA	NA	
Permitted Option (s)	24.2	23.5	
Split Option (s)	27.7	25.4	
Minimum (s)	24.2	23.5	47.8

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

Intersection Summary			
Intersection Capacity Utilization	39.8%	ICU Level of Service	A

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

Intersection Capacity Utilization
5: Forest Avenue & Warren Avenue

08/23/2024

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (vph)	26	192	77	135	186	17
Pedestrians	10		14			14
Ped Button					Yes	
Pedestrian Timing (s)					16.0	
Free Right		No				No
Ideal Flow	1900	1900	1900	1900	1900	1900
Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Green (s)	4.0	4.0	4.0	4.0	4.0	4.0
Refr Cycle Length (s)	120	120	120	120	120	120
Volume Combined (vph)	26	192	0	212	203	0
Lane Utilization Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Factor (vph)	0.95	0.85	0.95	0.98	0.99	0.85
Saturated Flow (vph)	1805	1615	0	1865	1876	0
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.1	1.7
Pedestrian Frequency (%)	0.00			0.00	0.37	
Protected Option Allowed	No			No	No	
Reference Time (s)		14.3				0.0
Adj Reference Time (s)		18.3				0.0
Permitted Option						
Adj Saturation A (vph)	120		0	281	1876	
Reference Time A (s)	25.9		0.0	90.5	13.1	
Adj Saturation B (vph	NA		NA	NA	NA	
Reference Time B (s)	NA		NA	NA	NA	
Reference Time (s)				90.5	13.1	
Adj Reference Time (s)				94.5	18.2	
Split Option						
Ref Time Combined (s)	1.7		0.0	13.6	13.1	
Ref Time Seperate (s)	1.7		5.1	8.5	12.0	
Reference Time (s)	1.7		13.6	13.6	13.1	
Adj Reference Time (s)	8.0		17.6	17.6	18.2	

Summary	EB	NB SB	Combined
Protected Option (s)	NA	NA	
Permitted Option (s)	Err	94.5	
Split Option (s)	8.0	35.8	
Minimum (s)	8.0	35.8	43.8

Right Turns	EBR
Adj Reference Time (s)	18.3
Cross Thru Ref Time (s)	18.2
Oncoming Left Ref Time (s)	0.0
Combined (s)	36.5

Intersection Summary			
Intersection Capacity Utilization	36.5%	ICU Level of Service	A

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

HCM 6th TWSC
4: Forest Avenue & AT&T Access Drive/Apartment Access Drive 08/23/2024

Intersection	
Int Delay, s/veh	0.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	1	0	0	0	0	1	1	166	0	3	217	1
Future Vol, veh/h	1	0	0	0	0	1	1	166	0	3	217	1
Conflicting Peds, #/hr	0	0	2	2	0	0	16	0	0	0	0	16
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	86	86	86	86	86	86	86	86	86	86	86	86
Heavy Vehicles, %	0	0	0	0	0	0	100	0	0	0	0	0
Mvmt Flow	1	0	0	0	0	1	1	193	0	3	252	1

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	471	470	271	456	470	193	269	0	0	193	0	0
Stage 1	275	275	-	195	195	-	-	-	-	-	-	-
Stage 2	196	195	-	261	275	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	5.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	3.1	-	-	2.2	-	-
Pot Cap-1 Maneuver	506	495	773	518	495	854	889	-	-	1392	-	-
Stage 1	736	686	-	811	743	-	-	-	-	-	-	-
Stage 2	810	743	-	748	686	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	496	486	760	515	486	854	875	-	-	1392	-	-
Mov Cap-2 Maneuver	496	486	-	515	486	-	-	-	-	-	-	-
Stage 1	724	674	-	810	742	-	-	-	-	-	-	-
Stage 2	808	742	-	744	674	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	12.3	9.2	0.1	0.1
HCM LOS	B	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	875	-	-	496	854	1392	-	-
HCM Lane V/C Ratio	0.001	-	-	0.002	0.001	0.003	-	-
HCM Control Delay (s)	9.1	0	-	12.3	9.2	7.6	0	-
HCM Lane LOS	A	A	-	B	A	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0	0	0	-	-

HCM 6th TWSC
6: Warren Avenue & Forest Avenue 08/23/2024

Intersection	
Int Delay, s/veh	1.6

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	28	24	188	18	54	324
Future Vol, veh/h	28	24	188	18	54	324
Conflicting Peds, #/hr	0	0	0	28	28	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	0	-	0	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	0	0	1	0	0	1
Mvmt Flow	30	26	200	19	57	345

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	515	228	0	0	247	0
Stage 1	228	-	-	-	-	-
Stage 2	287	-	-	-	-	-
Critical Hdwy	6.6	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.8	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	*767	*935	-	-	*1403	-
Stage 1	*882	-	-	-	-	-
Stage 2	*742	-	-	-	-	-
Platoon blocked, %	1	1	-	-	1	-
Mov Cap-1 Maneuver	*707	*910	-	-	*1366	-
Mov Cap-2 Maneuver	*707	-	-	-	-	-
Stage 1	*858	-	-	-	-	-
Stage 2	*703	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9.7	0	1.3
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	707	910	* 1366	-
HCM Lane V/C Ratio	-	-	0.042	0.028	0.042	-
HCM Control Delay (s)	-	-	10.3	9.1	7.8	0.2
HCM Lane LOS	-	-	B	A	A	A
HCM 95th %tile Q(veh)	-	-	0.1	0.1	0.1	-

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

HCM 6th TWSC
8: N-S Alley & Franklin Street 08/23/2024

Intersection	
Int Delay, s/veh	0.4

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	60	3	6	179	3	5
Future Vol, veh/h	60	3	6	179	3	5
Conflicting Peds, #/hr	0	9	9	0	1	1
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	79	79	79	79	79	79
Heavy Vehicles, %	0	0	0	1	0	0
Mvmt Flow	76	4	8	227	4	6

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	89	0	331	88
Stage 1	-	-	-	-	87	-
Stage 2	-	-	-	-	244	-
Critical Hdwy	-	-	4.1	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	1519	-	716	976
Stage 1	-	-	-	-	941	-
Stage 2	-	-	-	-	835	-
Platoon blocked, %	-	-		-	1	
Mov Cap-1 Maneuver	-	-	1506	-	704	967
Mov Cap-2 Maneuver	-	-	-	-	704	-
Stage 1	-	-	-	-	933	-
Stage 2	-	-	-	-	829	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.2	9.3
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	848	-	-	1506	-
HCM Lane V/C Ratio	0.012	-	-	0.005	-
HCM Control Delay (s)	9.3	-	-	7.4	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0	-	-	0	-

HCM 6th TWSC
9: Main Street & Oakley Access Drive 08/23/2024

Intersection	
Int Delay, s/veh	0

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	1	0	0	392	432	0
Future Vol, veh/h	1	0	0	392	432	0
Conflicting Peds, #/hr	1	0	12	0	0	12
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	0	0	0	1	0	0
Mvmt Flow	1	0	0	436	480	0

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	929	492	492	0	-	0
Stage 1	492	-	-	-	-	-
Stage 2	437	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	*349	*730	*1095	-	-	-
Stage 1	*689	-	-	-	-	-
Stage 2	*722	-	-	-	-	-
Platoon blocked, %	1	1	1	-	-	-
Mov Cap-1 Maneuver	*341	*722	*1083	-	-	-
Mov Cap-2 Maneuver	*341	-	-	-	-	-
Stage 1	*681	-	-	-	-	-
Stage 2	*714	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	15.6	0	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	* 1083	-	341	-	-
HCM Lane V/C Ratio	-	-	0.003	-	-
HCM Control Delay (s)	0	-	15.6	-	-
HCM Lane LOS	A	-	C	-	-
HCM 95th %tile Q(veh)	0	-	0	-	-

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

HCM 6th TWSC
10: Main Street & Funeral Home North Access Drive 08/23/2024

Intersection	
Int Delay, s/veh	0

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	0	0	391	430	0
Future Vol, veh/h	0	0	0	391	430	0
Conflicting Peds, #/hr	0	0	13	0	0	13
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	0	0	0	0	1	0
Mvmt Flow	0	0	0	434	478	0

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	925	491	491	0	-	0
Stage 1	491	-	-	-	-	-
Stage 2	434	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	*314	*730	*1095	-	-	-
Stage 1	*689	-	-	-	-	-
Stage 2	*722	-	-	-	-	-
Platoon blocked, %	1	1	1	-	-	-
Mov Cap-1 Maneuver	*306	*721	*1082	-	-	-
Mov Cap-2 Maneuver	*306	-	-	-	-	-
Stage 1	*680	-	-	-	-	-
Stage 2	*713	-	-	-	-	-

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

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	* 1082	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-	-
HCM Control Delay (s)	0	-	0	-	-
HCM Lane LOS	A	-	A	-	-
HCM 95th %tile Q(veh)	0	-	-	-	-

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

HCM 6th TWSC
11: Main Street & Rogers Street 08/23/2024

Intersection	
Int Delay, s/veh	1.8

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	13	92	303	21	46	381
Future Vol, veh/h	13	92	303	21	46	381
Conflicting Peds, #/hr	2	8	0	15	15	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	60	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	0	0	0	0	0	1
Mvmt Flow	14	98	322	22	49	405

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	853	356	0	0	359	0
Stage 1	348	-	-	-	-	-
Stage 2	505	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	*429	*825	-	-	*1238	-
Stage 1	*778	-	-	-	-	-
Stage 2	*669	-	-	-	-	-
Platoon blocked, %	1	1	-	-	1	-
Mov Cap-1 Maneuver	*405	*807	-	-	*1220	-
Mov Cap-2 Maneuver	*405	-	-	-	-	-
Stage 1	*767	-	-	-	-	-
Stage 2	*641	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	10.9	0	0.9
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	719 *	1220	-
HCM Lane V/C Ratio	-	-	0.155	0.04	-
HCM Control Delay (s)	-	-	10.9	8.1	-
HCM Lane LOS	-	-	B	A	-
HCM 95th %tile Q(veh)	-	-	0.5	0.1	-

Notes

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

Capacity Analysis Summary Sheets

Year 2030 No-Build Weekday Morning Peak Hour

Lanes, Volumes, Timings
1: Main Street & Franklin Street

08/23/2024

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	44	0	22	5	16	17	35	478	0	0	289	102
Future Volume (vph)	44	0	22	5	16	17	35	478	0	0	289	102
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	2000	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	35		0	0		0	0		0	0		0
Storage Lanes	1		1	1		0	0		0	0		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor	0.75		0.93	0.94	0.86			1.00				0.96
Frt			0.850		0.923							0.850
Flt Protected	0.950			0.950				0.997				
Satd. Flow (prot)	1770	0	1455	1504	1508	0	0	1839	0	0	1942	1583
Flt Permitted	0.734			0.950				0.965				
Satd. Flow (perm)	1032	0	1347	1421	1508	0	0	1779	0	0	1942	1525
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			23		18							107
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		180			382			220			418	
Travel Time (s)		4.9			10.4			6.0			11.4	
Confl. Peds. (#/hr)	103		22	22		103	7		31	31		7
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	0%	11%	20%	0%	0%	3%	3%	0%	0%	3%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	46	0	23	5	35	0	0	540	0	0	304	107
Turn Type	Perm		Perm	Perm	NA		Perm	NA			NA	Perm
Protected Phases					8			2			6	
Permitted Phases	4		4	8			2					6
Detector Phase	4		4	8	8		2	2			6	6
Switch Phase												
Minimum Initial (s)	5.0		5.0	5.0	5.0		8.0	8.0			8.0	8.0
Minimum Split (s)	22.5		22.5	22.5	22.5		22.5	22.5			22.5	22.5
Total Split (s)	30.0		30.0	30.0	30.0		60.0	60.0			60.0	60.0
Total Split (%)	33.3%		33.3%	33.3%	33.3%		66.7%	66.7%			66.7%	66.7%
Yellow Time (s)	3.5		3.5	3.0	3.0		3.0	3.0			3.0	3.0
All-Red Time (s)	1.0		1.0	1.0	1.0		1.0	1.0			1.0	1.0
Lost Time Adjust (s)	0.0		0.0	0.0	0.0			0.0			0.0	0.0
Total Lost Time (s)	4.5		4.5	4.0	4.0			4.0			4.0	4.0
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None		None	None	None		C-Min	C-Min			C-Min	C-Min
Act Effct Green (s)	9.5		9.5	9.9	9.9			74.8			74.8	74.8
Actuated g/C Ratio	0.11		0.11	0.11	0.11			0.83			0.83	0.83

Lanes, Volumes, Timings
1: Main Street & Franklin Street

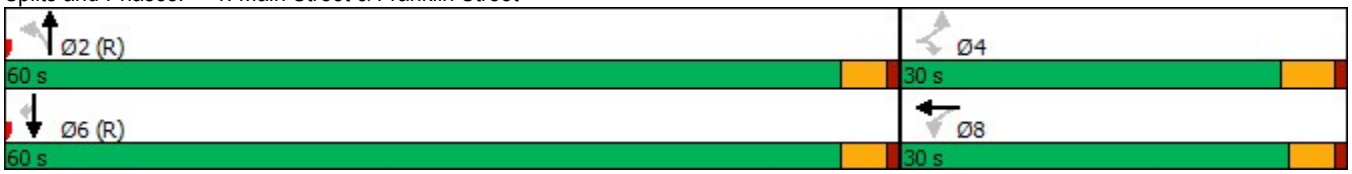
08/23/2024

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio	0.42		0.14	0.03	0.19			0.37			0.19	0.08
Control Delay	48.2		15.9	33.6	23.9			3.2			2.7	0.7
Queue Delay	0.0		0.0	0.0	0.0			0.0			0.0	0.0
Total Delay	48.2		15.9	33.6	23.9			3.2			2.7	0.7
LOS	D		B	C	C			A			A	A
Approach Delay		37.4			25.1			3.2			2.2	
Approach LOS		D			C			A			A	
Queue Length 50th (ft)	25		0	3	9			61			30	0
Queue Length 95th (ft)	57		22	12	35			98			65	11
Internal Link Dist (ft)		100			302			140			338	
Turn Bay Length (ft)	35											
Base Capacity (vph)	292		398	410	448			1477			1613	1284
Starvation Cap Reductn	0		0	0	0			0			0	0
Spillback Cap Reductn	0		0	0	0			0			0	0
Storage Cap Reductn	0		0	0	0			0			0	0
Reduced v/c Ratio	0.16		0.06	0.01	0.08			0.37			0.19	0.08

Intersection Summary

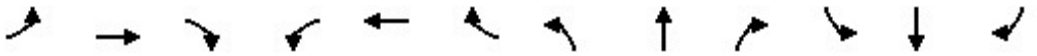
Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 90
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBT, Start of Green
Natural Cycle: 50
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.42
Intersection Signal Delay: 5.9 Intersection LOS: A
Intersection Capacity Utilization 66.8% ICU Level of Service C
Analysis Period (min) 15

Splits and Phases: 1: Main Street & Franklin Street



Lanes, Volumes, Timings
2: Main Street & Warren Avenue

08/23/2024



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	20	32	12	0	32	7	0	419	2	9	260	17
Future Volume (vph)	20	32	12	0	32	7	0	419	2	9	260	17
Ideal Flow (vphpl)	1900	1900	1900	1900	2000	1900	1900	2000	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		60	0		55	0		0	60		0
Storage Lanes	0		1	0		1	0		1	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor		0.97				0.89			0.91	0.97	1.00	
Frt			0.850			0.850			0.850		0.991	
Flt Protected		0.981								0.950		
Satd. Flow (prot)	0	1864	1615	0	2000	1615	0	1961	1615	1626	1809	0
Flt Permitted		0.858								0.475		
Satd. Flow (perm)	0	1575	1615	0	2000	1436	0	1961	1476	792	1809	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			18			18			18		7	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		405			420			116			254	
Travel Time (s)		11.0			11.5			3.2			6.9	
Confl. Peds. (#/hr)	37					37	28		27	27		28
Confl. Bikes (#/hr)												
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	0%	2%	0%	11%	4%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	60	14	0	37	8	0	487	2	10	322	0
Turn Type	Perm	NA	Prot		NA	Perm		NA	Perm	Perm	NA	
Protected Phases		4	4		8			2			6	
Permitted Phases	4					8			2	6		
Detector Phase	4	4	4		8	8		2	2	6	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0		5.0	5.0		5.0	5.0	5.0	5.0	
Minimum Split (s)	22.5	22.5	22.5		22.5	22.5		22.5	22.5	22.5	22.5	
Total Split (s)	30.0	30.0	30.0		30.0	30.0		60.0	60.0	60.0	60.0	
Total Split (%)	33.3%	33.3%	33.3%		33.3%	33.3%		66.7%	66.7%	66.7%	66.7%	
Yellow Time (s)	3.5	3.5	3.5		3.5	3.5		3.5	3.5	3.5	3.5	
All-Red Time (s)	1.0	1.0	1.0		1.0	1.0		1.0	1.0	1.0	1.0	
Lost Time Adjust (s)		0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	
Total Lost Time (s)		4.5	4.5		4.5	4.5		4.5	4.5	4.5	4.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None	None		None	None		C-Min	C-Min	C-Min	C-Min	
Act Effct Green (s)		8.6	8.6		8.6	8.6		75.3	75.3	75.3	75.3	
Actuated g/C Ratio		0.10	0.10		0.10	0.10		0.84	0.84	0.84	0.84	

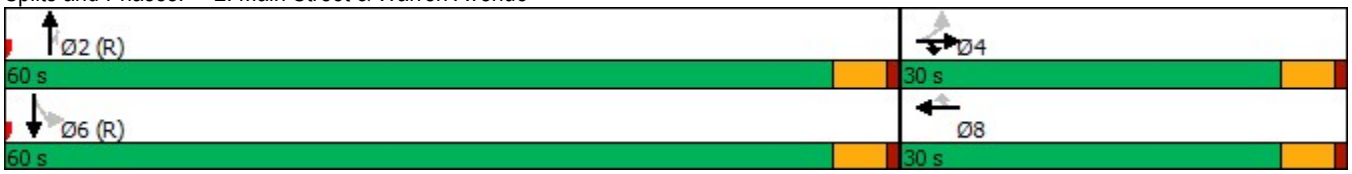
Lanes, Volumes, Timings
2: Main Street & Warren Avenue

08/23/2024

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio		0.40	0.08		0.19	0.05		0.30	0.00	0.02	0.21	
Control Delay		45.2	14.7		38.6	8.6		2.9	0.0	2.2	2.4	
Queue Delay		0.0	0.0		0.0	0.0		6.9	0.0	0.0	0.0	
Total Delay		45.2	14.7		38.6	8.6		9.8	0.0	2.2	2.4	
LOS		D	B		D	A		A	A	A	A	
Approach Delay		39.4			33.3			9.7			2.4	
Approach LOS		D			C			A			A	
Queue Length 50th (ft)		33	0		20	0		52	0	1	30	
Queue Length 95th (ft)		66	14		45	7		93	0	4	55	
Internal Link Dist (ft)		325			340			36			174	
Turn Bay Length (ft)			60			55				60		
Base Capacity (vph)		446	470		566	419		1640	1237	662	1513	
Starvation Cap Reductn		0	0		0	0		1093	1128	0	0	
Spillback Cap Reductn		0	0		0	0		0	0	0	0	
Storage Cap Reductn		0	0		0	0		0	0	0	0	
Reduced v/c Ratio		0.13	0.03		0.07	0.02		0.89	0.02	0.02	0.21	

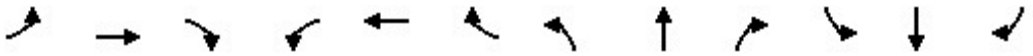
Intersection Summary			
Area Type:	Other		
Cycle Length: 90			
Actuated Cycle Length: 90			
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBTL, Start of Green			
Natural Cycle: 45			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.40			
Intersection Signal Delay: 10.6		Intersection LOS: B	
Intersection Capacity Utilization 48.2%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 2: Main Street & Warren Avenue



Intersection Capacity Utilization
3: Forest Avenue & Franklin Street

08/23/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	3	13	23	113	41	9	19	181	43	8	69	4
Pedestrians	1		3	3		1	3		4	4		3
Ped Button		Yes			Yes			Yes			Yes	
Pedestrian Timing (s)		16.0			16.0			16.0			16.0	
Free Right			No			No			No			No
Ideal Flow	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Green (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Refr Cycle Length (s)	120	120	120	120	120	120	120	120	120	120	120	120
Volume Combined (vph)	0	39	0	0	163	0	0	243	0	0	81	0
Lane Utilization Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Factor (vph)	0.95	0.91	0.85	0.95	0.96	0.85	0.95	0.97	0.85	0.95	0.99	0.85
Saturated Flow (vph)	0	1725	0	0	1819	0	0	1842	0	0	1877	0
Ped Intf Time (s)	0.0	0.2	0.4	0.0	0.0	0.1	0.0	0.1	0.5	0.0	0.0	0.4
Pedestrian Frequency (%)		0.10			0.03			0.12			0.10	
Protected Option Allowed		No			No			No			No	
Reference Time (s)			0.0			0.0			0.0			0.0
Adj Reference Time (s)			0.0			0.0			0.0			0.0
Permitted Option												
Adj Saturation A (vph)	0	1757		0	361		0	1477		0	1344	
Reference Time A (s)	0.0	2.9		0.0	54.2		0.0	19.8		0.0	7.3	
Adj Saturation B (vph	0	0		0	0		0	0		NA	NA	
Reference Time B (s)	8.2	10.9		15.5	18.8		9.3	23.9		NA	NA	
Reference Time (s)		2.9			18.8			19.8			7.3	
Adj Reference Time (s)		9.1			22.8			23.8			12.1	
Split Option												
Ref Time Combined (s)	0.0	2.9		0.0	10.8		0.0	15.9		0.0	5.2	
Ref Time Seperate (s)	0.2	1.1		7.5	2.7		1.3	11.9		0.5	4.4	
Reference Time (s)	2.9	2.9		10.8	10.8		15.9	15.9		5.2	5.2	
Adj Reference Time (s)	9.1	9.1		14.9	14.9		19.9	19.9		10.2	10.2	

Summary	EB WB	NB SB	Combined
Protected Option (s)	NA	NA	
Permitted Option (s)	22.8	23.8	
Split Option (s)	24.1	30.2	
Minimum (s)	22.8	23.8	46.6

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

Intersection Summary			
Intersection Capacity Utilization	38.8%	ICU Level of Service	A

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

Intersection Capacity Utilization
5: Forest Avenue & Warren Avenue

08/23/2024

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (vph)	45	107	120	200	141	47
Pedestrians	10		5			5
Ped Button					Yes	
Pedestrian Timing (s)					16.0	
Free Right		No				No
Ideal Flow	1900	1900	1900	1900	1900	1900
Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Green (s)	4.0	4.0	4.0	4.0	4.0	4.0
Refr Cycle Length (s)	120	120	120	120	120	120
Volume Combined (vph)	45	107	0	320	188	0
Lane Utilization Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Factor (vph)	0.95	0.85	0.95	0.98	0.96	0.85
Saturated Flow (vph)	1805	1615	0	1864	1829	0
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.2	0.6
Pedestrian Frequency (%)	0.00			0.00	0.15	
Protected Option Allowed	No			No	No	
Reference Time (s)		8.0				0.0
Adj Reference Time (s)		12.0				0.0
Permitted Option						
Adj Saturation A (vph)	120		0	273	1829	
Reference Time A (s)	44.9		0.0	140.6	12.5	
Adj Saturation B (vph	NA		NA	NA	NA	
Reference Time B (s)	NA		NA	NA	NA	
Reference Time (s)				140.6	12.5	
Adj Reference Time (s)				144.6	17.0	
Split Option						
Ref Time Combined (s)	3.0		0.0	20.6	12.5	
Ref Time Seperate (s)	3.0		8.0	12.6	9.4	
Reference Time (s)	3.0		20.6	20.6	12.5	
Adj Reference Time (s)	8.0		24.6	24.6	17.0	

Summary	EB	NB SB	Combined
Protected Option (s)	NA	NA	
Permitted Option (s)	Err	144.6	
Split Option (s)	8.0	41.6	
Minimum (s)	8.0	41.6	49.6

Right Turns	EBR
Adj Reference Time (s)	12.0
Cross Thru Ref Time (s)	17.0
Oncoming Left Ref Time (s)	0.0
Combined (s)	29.0

Intersection Summary			
Intersection Capacity Utilization	41.4%	ICU Level of Service	A

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

HCM 6th TWSC
4: Forest Avenue & AT&T Access Drive/Apartment Access Drive 08/23/2024

Intersection	
Int Delay, s/veh	0.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	1	0	1	1	0	2	1	238	0	0	197	1
Future Vol, veh/h	1	0	1	1	0	2	1	238	0	0	197	1
Conflicting Peds, #/hr	0	0	0	0	0	0	9	0	0	0	0	9
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	87	87	87	87	87	87	87	87	87	87	87	87
Heavy Vehicles, %	100	0	0	0	0	0	0	1	0	0	2	100
Mvmt Flow	1	0	1	1	0	2	1	274	0	0	226	1

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	513	512	236	503	512	274	236	0	0	274	0	0
Stage 1	236	236	-	276	276	-	-	-	-	-	-	-
Stage 2	277	276	-	227	236	-	-	-	-	-	-	-
Critical Hdwy	8.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	7.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	7.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	4.4	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	347	468	808	482	468	770	1343	-	-	1301	-	-
Stage 1	591	713	-	735	685	-	-	-	-	-	-	-
Stage 2	559	685	-	780	713	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	343	463	801	481	463	770	1331	-	-	1301	-	-
Mov Cap-2 Maneuver	343	463	-	481	463	-	-	-	-	-	-	-
Stage 1	585	707	-	734	684	-	-	-	-	-	-	-
Stage 2	557	684	-	779	707	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	12.5	10.6	0	0
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1331	-	-	480	642	1301	-	-
HCM Lane V/C Ratio	0.001	-	-	0.005	0.005	-	-	-
HCM Control Delay (s)	7.7	0	-	12.5	10.6	0	-	-
HCM Lane LOS	A	A	-	B	B	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0	0	0	-	-

HCM 6th TWSC
6: Warren Avenue & Forest Avenue 08/23/2024

Intersection	
Int Delay, s/veh	1.5

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	16	40	279	35	37	211
Future Vol, veh/h	16	40	279	35	37	211
Conflicting Peds, #/hr	1	0	0	15	15	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	0	-	0	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	0	0	2	0	0	3
Mvmt Flow	17	42	294	37	39	222

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	499	309	0	0	346	0
Stage 1	309	-	-	-	-	-
Stage 2	190	-	-	-	-	-
Critical Hdwy	6.6	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.8	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	520	736	-	-	1224	-
Stage 1	749	-	-	-	-	-
Stage 2	829	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	493	725	-	-	1207	-
Mov Cap-2 Maneuver	493	-	-	-	-	-
Stage 1	739	-	-	-	-	-
Stage 2	797	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	11	0	1.3
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	493	725	1207	-
HCM Lane V/C Ratio	-	-	0.034	0.058	0.032	-
HCM Control Delay (s)	-	-	12.6	10.3	8.1	0.1
HCM Lane LOS	-	-	B	B	A	A
HCM 95th %tile Q(veh)	-	-	0.1	0.2	0.1	-

HCM 6th TWSC
8: N-S Alley & Franklin Street 08/23/2024

Intersection	
Int Delay, s/veh	0.6

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	63	3	9	153	6	3
Future Vol, veh/h	63	3	9	153	6	3
Conflicting Peds, #/hr	0	11	11	0	0	12
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	78	78	78	78	78	78
Heavy Vehicles, %	5	0	0	1	0	0
Mvmt Flow	81	4	12	196	8	4

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	96	0	314	106
Stage 1	-	-	-	-	94	-
Stage 2	-	-	-	-	220	-
Critical Hdwy	-	-	4.1	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	1510	-	737	954
Stage 1	-	-	-	-	935	-
Stage 2	-	-	-	-	860	-
Platoon blocked, %	-	-		-	1	
Mov Cap-1 Maneuver	-	-	1494	-	723	933
Mov Cap-2 Maneuver	-	-	-	-	723	-
Stage 1	-	-	-	-	926	-
Stage 2	-	-	-	-	852	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.4	9.7
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	782	-	-	1494	-
HCM Lane V/C Ratio	0.015	-	-	0.008	-
HCM Control Delay (s)	9.7	-	-	7.4	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0	-	-	0	-

HCM 6th TWSC
9: Main Street & Oakley Access Drive 08/23/2024

Intersection	
Int Delay, s/veh	0

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	0	0	494	289	0
Future Vol, veh/h	0	0	0	494	289	0
Conflicting Peds, #/hr	0	0	13	0	0	13
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	93	93	93	93	93	93
Heavy Vehicles, %	0	0	0	3	4	0
Mvmt Flow	0	0	0	531	311	0

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	855	324	324	0	-	0
Stage 1	324	-	-	-	-	-
Stage 2	531	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	*426	849	1280	-	-	-
Stage 1	*803	-	-	-	-	-
Stage 2	*642	-	-	-	-	-
Platoon blocked, %	1	1	1	-	-	-
Mov Cap-1 Maneuver	*416	839	1264	-	-	-
Mov Cap-2 Maneuver	*416	-	-	-	-	-
Stage 1	*793	-	-	-	-	-
Stage 2	*634	-	-	-	-	-

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

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1264	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-	-
HCM Control Delay (s)	0	-	0	-	-
HCM Lane LOS	A	-	A	-	-
HCM 95th %tile Q(veh)	0	-	-	-	-

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

HCM 6th TWSC
10: Main Street & Funeral Home North Access Drive 08/23/2024

Intersection	
Int Delay, s/veh	0

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	1	0	517	302	0
Future Vol, veh/h	0	1	0	517	302	0
Conflicting Peds, #/hr	0	0	13	0	0	13
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	93	93	93	93	93	93
Heavy Vehicles, %	0	0	0	3	4	0
Mvmt Flow	0	1	0	556	325	0

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	894	338	338	0	-	0
Stage 1	338	-	-	-	-	-
Stage 2	556	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	*411	*825	*1238	-	-	-
Stage 1	*778	-	-	-	-	-
Stage 2	*608	-	-	-	-	-
Platoon blocked, %	1	1	1	-	-	-
Mov Cap-1 Maneuver	*401	*815	*1223	-	-	-
Mov Cap-2 Maneuver	*401	-	-	-	-	-
Stage 1	*769	-	-	-	-	-
Stage 2	*601	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9.4	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	* 1223	-	815	-	-
HCM Lane V/C Ratio	-	-	0.001	-	-
HCM Control Delay (s)	0	-	9.4	-	-
HCM Lane LOS	A	-	A	-	-
HCM 95th %tile Q(veh)	0	-	0	-	-

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

HCM 6th TWSC
11: Main Street & Rogers Street 08/23/2024

Intersection	
Int Delay, s/veh	1.8

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	18	80	430	18	35	271
Future Vol, veh/h	18	80	430	18	35	271
Conflicting Peds, #/hr	4	5	0	19	19	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	60	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	91	91	91	91	91	91
Heavy Vehicles, %	0	5	3	0	3	5
Mvmt Flow	20	88	473	20	38	298

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	880	507	0	0	512	0
Stage 1	502	-	-	-	-	-
Stage 2	378	-	-	-	-	-
Critical Hdwy	6.4	6.25	-	-	4.13	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.345	-	-	2.227	-
Pot Cap-1 Maneuver	*365	*707	-	-	*1062	-
Stage 1	*676	-	-	-	-	-
Stage 2	*749	-	-	-	-	-
Platoon blocked, %	1	1	-	-	1	-
Mov Cap-1 Maneuver	*344	*691	-	-	*1043	-
Mov Cap-2 Maneuver	*344	-	-	-	-	-
Stage 1	*664	-	-	-	-	-
Stage 2	*719	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	12.6	0	1
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	583 *	1043	-
HCM Lane V/C Ratio	-	-	0.185	0.037	-
HCM Control Delay (s)	-	-	12.6	8.6	-
HCM Lane LOS	-	-	B	A	-
HCM 95th %tile Q(veh)	-	-	0.7	0.1	-

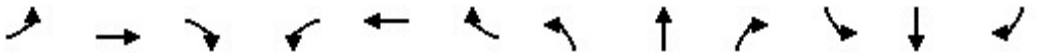
Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Capacity Analysis Summary Sheets

Year 2030 No-Build Weekday Evening Peak Hour

Lanes, Volumes, Timings
1: Main Street & Franklin Street

08/23/2024



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	51	0	24	3	8	18	39	412	0	0	472	154
Future Volume (vph)	51	0	24	3	8	18	39	412	0	0	472	154
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	2000	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	35		0	0		0	0		0	0		0
Storage Lanes	1		1	1		0	0		0	0		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor	0.99		0.95	0.98	0.98			1.00				0.96
Frt			0.850		0.894							0.850
Flt Protected	0.950			0.950				0.996				
Satd. Flow (prot)	1805	0	1615	1805	1659	0	0	1892	0	0	1980	1615
Flt Permitted	0.740			0.950				0.938				
Satd. Flow (perm)	1389	0	1537	1764	1659	0	0	1781	0	0	1980	1546
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			25		19							159
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		180			382			220			418	
Travel Time (s)		4.9			10.4			6.0			11.4	
Confl. Peds. (#/hr)	5		9	9		5	9		9	9		9
Confl. Bikes (#/hr)			5			1						1
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	1%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	53	0	25	3	27	0	0	465	0	0	487	159
Turn Type	Perm		Perm	Perm	NA		Perm	NA			NA	Perm
Protected Phases					8			2			6	
Permitted Phases	4		4	8			2					6
Detector Phase	4		4	8	8		2	2			6	6
Switch Phase												
Minimum Initial (s)	5.0		5.0	5.0	5.0		8.0	8.0			8.0	8.0
Minimum Split (s)	22.5		22.5	22.5	22.5		22.5	22.5			22.5	22.5
Total Split (s)	30.0		30.0	30.0	30.0		60.0	60.0			60.0	60.0
Total Split (%)	33.3%		33.3%	33.3%	33.3%		66.7%	66.7%			66.7%	66.7%
Yellow Time (s)	3.5		3.5	3.0	3.0		3.0	3.0			3.0	3.0
All-Red Time (s)	1.0		1.0	1.0	1.0		1.0	1.0			1.0	1.0
Lost Time Adjust (s)	0.0		0.0	0.0	0.0			0.0			0.0	0.0
Total Lost Time (s)	4.5		4.5	4.0	4.0			4.0			4.0	4.0
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None		None	None	None		C-Min	C-Min			C-Min	C-Min
Act Effct Green (s)	8.9		8.9	9.3	9.3			75.4			75.4	75.4
Actuated g/C Ratio	0.10		0.10	0.10	0.10			0.84			0.84	0.84

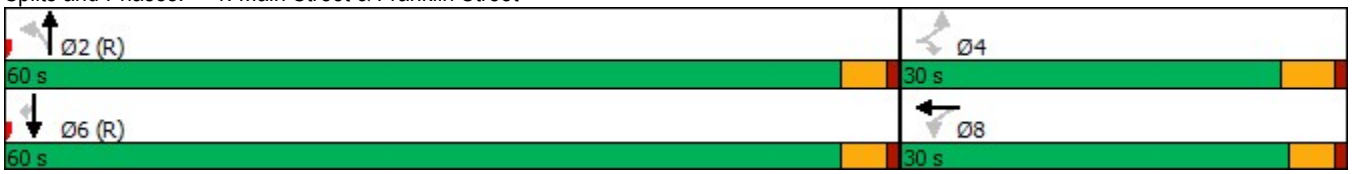
Lanes, Volumes, Timings
1: Main Street & Franklin Street

08/23/2024

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio	0.39		0.14	0.02	0.14			0.31			0.29	0.12
Control Delay	45.3		16.0	34.3	20.7			2.8			2.8	0.6
Queue Delay	0.0		0.0	0.0	0.0			0.0			0.0	0.0
Total Delay	45.3		16.0	34.3	20.7			2.8			2.8	0.6
LOS	D		B	C	C			A			A	A
Approach Delay		35.9			22.1			2.8			2.3	
Approach LOS		D			C			A			A	
Queue Length 50th (ft)	29		0	2	4			47			51	0
Queue Length 95th (ft)	63		23	9	28			90			101	11
Internal Link Dist (ft)		100			302			140			338	
Turn Bay Length (ft)	35											
Base Capacity (vph)	393		453	509	492			1492			1658	1321
Starvation Cap Reductn	0		0	0	0			0			0	0
Spillback Cap Reductn	0		0	0	0			0			0	0
Storage Cap Reductn	0		0	0	0			0			0	0
Reduced v/c Ratio	0.13		0.06	0.01	0.05			0.31			0.29	0.12

Intersection Summary			
Area Type:	Other		
Cycle Length: 90			
Actuated Cycle Length: 90			
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBT, Start of Green			
Natural Cycle: 45			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.39			
Intersection Signal Delay: 5.1		Intersection LOS: A	
Intersection Capacity Utilization 67.9%		ICU Level of Service C	
Analysis Period (min) 15			

Splits and Phases: 1: Main Street & Franklin Street



Lanes, Volumes, Timings
2: Main Street & Warren Avenue

08/23/2024

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	22	54	7	0	47	18	0	339	17	4	436	19
Future Volume (vph)	22	54	7	0	47	18	0	339	17	4	436	19
Ideal Flow (vphpl)	1900	1900	1900	1900	2000	1900	1900	2000	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		60	0		55	0		0	60		0
Storage Lanes	0		1	0		1	0		1	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor		0.97				0.88			0.86	0.94	1.00	
Frt			0.850			0.850			0.850		0.994	
Flt Protected		0.986								0.950		
Satd. Flow (prot)	0	1873	1615	0	2000	1615	0	1980	1615	1805	1867	0
Flt Permitted		0.886								0.542		
Satd. Flow (perm)	0	1637	1615	0	2000	1417	0	1980	1393	965	1867	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			18			20			18		5	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		405			420			116			254	
Travel Time (s)		11.0			11.5			3.2			6.9	
Confl. Peds. (#/hr)	41		4	4		41	27		48	48		27
Confl. Bikes (#/hr)			2			2						1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	0%	1%	0%	0%	1%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	83	8	0	51	20	0	368	18	4	495	0
Turn Type	Perm	NA	Prot		NA	Perm		NA	Perm	Perm	NA	
Protected Phases		4	4		8			2			6	
Permitted Phases	4					8			2	6		
Detector Phase	4	4	4		8	8		2	2	6	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0		5.0	5.0		5.0	5.0	5.0	5.0	
Minimum Split (s)	22.5	22.5	22.5		22.5	22.5		22.5	22.5	22.5	22.5	
Total Split (s)	30.0	30.0	30.0		30.0	30.0		60.0	60.0	60.0	60.0	
Total Split (%)	33.3%	33.3%	33.3%		33.3%	33.3%		66.7%	66.7%	66.7%	66.7%	
Yellow Time (s)	3.5	3.5	3.5		3.5	3.5		3.5	3.5	3.5	3.5	
All-Red Time (s)	1.0	1.0	1.0		1.0	1.0		1.0	1.0	1.0	1.0	
Lost Time Adjust (s)		0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	
Total Lost Time (s)		4.5	4.5		4.5	4.5		4.5	4.5	4.5	4.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None	None		None	None		C-Min	C-Min	C-Min	C-Min	
Act Effct Green (s)		9.7	9.7		9.7	9.7		74.2	74.2	74.2	74.2	
Actuated g/C Ratio		0.11	0.11		0.11	0.11		0.82	0.82	0.82	0.82	

Lanes, Volumes, Timings
2: Main Street & Warren Avenue

08/23/2024

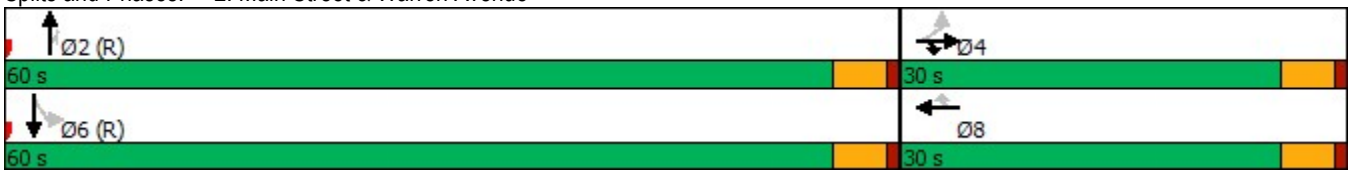
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio		0.47	0.04		0.24	0.12		0.23	0.02	0.01	0.32	
Control Delay		45.6	8.0		38.1	16.2		2.9	1.2	2.5	3.3	
Queue Delay		0.0	0.0		0.0	0.0		5.0	0.6	0.0	0.0	
Total Delay		45.6	8.0		38.1	16.2		7.9	1.9	2.5	3.3	
LOS		D	A		D	B		A	A	A	A	
Approach Delay		42.3			32.0			7.7			3.3	
Approach LOS		D			C			A			A	
Queue Length 50th (ft)		45	0		27	0		40	0	1	59	
Queue Length 95th (ft)		87	7		59	20		79	5	m2	110	
Internal Link Dist (ft)		325			340			36			174	
Turn Bay Length (ft)			60			55				60		
Base Capacity (vph)		463	470		566	415		1633	1152	796	1541	
Starvation Cap Reductn		0	0		0	0		1184	1022	0	0	
Spillback Cap Reductn		0	0		0	0		0	0	0	0	
Storage Cap Reductn		0	0		0	0		0	0	0	0	
Reduced v/c Ratio		0.18	0.02		0.09	0.05		0.82	0.14	0.01	0.32	

Intersection Summary

Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 90
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBTL, Start of Green
Natural Cycle: 45
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.47
Intersection Signal Delay: 10.2 Intersection LOS: B
Intersection Capacity Utilization 46.1% ICU Level of Service A
Analysis Period (min) 15

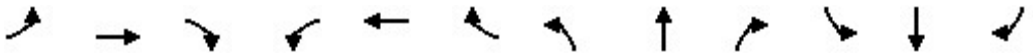
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 2: Main Street & Warren Avenue



Intersection Capacity Utilization
3: Forest Avenue & Franklin Street

08/23/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	12	13	45	154	40	1	20	104	58	2	45	1
Pedestrians			7	7			3		5	5		3
Ped Button		Yes						Yes			Yes	
Pedestrian Timing (s)		16.0						16.0			16.0	
Free Right			No			No			No			No
Ideal Flow	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Green (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Refr Cycle Length (s)	120	120	120	120	120	120	120	120	120	120	120	120
Volume Combined (vph)	0	70	0	0	195	0	0	182	0	0	48	0
Lane Utilization Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Factor (vph)	0.95	0.90	0.85	0.95	0.96	0.85	0.95	0.95	0.85	0.95	0.99	0.85
Saturated Flow (vph)	0	1702	0	0	1824	0	0	1799	0	0	1890	0
Ped Intf Time (s)	0.0	0.6	0.9	0.0	0.0	0.0	0.0	0.2	0.6	0.0	0.0	0.4
Pedestrian Frequency (%)		0.21			0.00			0.15			0.10	
Protected Option Allowed		No			No			No			No	
Reference Time (s)			0.0			0.0			0.0			0.0
Adj Reference Time (s)			0.0			0.0			0.0			0.0
Permitted Option												
Adj Saturation A (vph)	0	1776		0	530		0	1054		0	1700	
Reference Time A (s)	0.0	5.3		0.0	44.1		0.0	20.9		0.0	3.4	
Adj Saturation B (vph	0	0		0	0		0	0		NA	NA	
Reference Time B (s)	8.8	13.5		18.2	20.8		9.3	20.3		NA	NA	
Reference Time (s)		5.3			20.8			20.3			3.4	
Adj Reference Time (s)		11.5			24.8			24.3			9.1	
Split Option												
Ref Time Combined (s)	0.0	5.5		0.0	12.8		0.0	12.3		0.0	3.1	
Ref Time Seperate (s)	0.8	1.5		10.2	2.5		1.3	7.1		0.1	2.9	
Reference Time (s)	5.5	5.5		12.8	12.8		12.3	12.3		3.1	3.1	
Adj Reference Time (s)	11.7	11.7		16.8	16.8		16.9	16.9		9.1	9.1	

Summary	EB WB	NB SB	Combined
Protected Option (s)	NA	NA	
Permitted Option (s)	24.8	24.3	
Split Option (s)	28.5	26.0	
Minimum (s)	24.8	24.3	49.2

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

Intersection Summary			
Intersection Capacity Utilization	41.0%	ICU Level of Service	A

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

Intersection Capacity Utilization
5: Forest Avenue & Warren Avenue

08/23/2024

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (vph)	29	202	84	142	195	18
Pedestrians	10		14			14
Ped Button					Yes	
Pedestrian Timing (s)					16.0	
Free Right		No				No
Ideal Flow	1900	1900	1900	1900	1900	1900
Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Green (s)	4.0	4.0	4.0	4.0	4.0	4.0
Refr Cycle Length (s)	120	120	120	120	120	120
Volume Combined (vph)	29	202	0	226	213	0
Lane Utilization Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Factor (vph)	0.95	0.85	0.95	0.98	0.99	0.85
Saturated Flow (vph)	1805	1615	0	1865	1876	0
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.1	1.7
Pedestrian Frequency (%)	0.00			0.00	0.37	
Protected Option Allowed	No			No	No	
Reference Time (s)		15.0				0.0
Adj Reference Time (s)		19.0				0.0
Permitted Option						
Adj Saturation A (vph)	120		0	275	1876	
Reference Time A (s)	28.9		0.0	98.5	13.8	
Adj Saturation B (vph	NA		NA	NA	NA	
Reference Time B (s)	NA		NA	NA	NA	
Reference Time (s)				98.5	13.8	
Adj Reference Time (s)				102.5	18.6	
Split Option						
Ref Time Combined (s)	1.9		0.0	14.5	13.8	
Ref Time Seperate (s)	1.9		5.6	9.0	12.6	
Reference Time (s)	1.9		14.5	14.5	13.8	
Adj Reference Time (s)	8.0		18.5	18.5	18.6	

Summary	EB	NB SB	Combined
Protected Option (s)	NA	NA	
Permitted Option (s)	Err	102.5	
Split Option (s)	8.0	37.1	
Minimum (s)	8.0	37.1	45.1

Right Turns	EBR
Adj Reference Time (s)	19.0
Cross Thru Ref Time (s)	18.6
Oncoming Left Ref Time (s)	0.0
Combined (s)	37.6

Intersection Summary			
Intersection Capacity Utilization	37.6%	ICU Level of Service	A

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

HCM 6th TWSC
4: Forest Avenue & AT&T Access Drive/Apartment Access Drive 08/23/2024

Intersection	
Int Delay, s/veh	0.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	1	0	0	0	0	1	1	176	0	3	228	1
Future Vol, veh/h	1	0	0	0	0	1	1	176	0	3	228	1
Conflicting Peds, #/hr	0	0	2	2	0	0	16	0	0	0	0	16
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	86	86	86	86	86	86	86	86	86	86	86	86
Heavy Vehicles, %	0	0	0	0	0	0	100	0	0	0	0	0
Mvmt Flow	1	0	0	0	0	1	1	205	0	3	265	1

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	496	495	284	481	495	205	282	0	0	205	0	0
Stage 1	288	288	-	207	207	-	-	-	-	-	-	-
Stage 2	208	207	-	274	288	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	5.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	3.1	-	-	2.2	-	-
Pot Cap-1 Maneuver	487	479	760	499	479	841	877	-	-	1378	-	-
Stage 1	724	677	-	800	734	-	-	-	-	-	-	-
Stage 2	799	734	-	736	677	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	477	470	747	497	470	841	864	-	-	1378	-	-
Mov Cap-2 Maneuver	477	470	-	497	470	-	-	-	-	-	-	-
Stage 1	712	665	-	799	733	-	-	-	-	-	-	-
Stage 2	797	733	-	732	665	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	12.6	9.3	0.1	0.1
HCM LOS	B	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	864	-	-	477	841	1378	-	-
HCM Lane V/C Ratio	0.001	-	-	0.002	0.001	0.003	-	-
HCM Control Delay (s)	9.2	0	-	12.6	9.3	7.6	0	-
HCM Lane LOS	A	A	-	B	A	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0	0	0	-	-

HCM 6th TWSC
6: Warren Avenue & Forest Avenue 08/23/2024

Intersection	
Int Delay, s/veh	1.6

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	29	28	197	19	57	340
Future Vol, veh/h	29	28	197	19	57	340
Conflicting Peds, #/hr	0	0	0	28	28	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	0	-	0	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	0	0	1	0	0	1
Mvmt Flow	31	30	210	20	61	362

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	541	238	0	0	258	0
Stage 1	238	-	-	-	-	-
Stage 2	303	-	-	-	-	-
Critical Hdwy	6.6	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.8	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	*753	*928	-	-	*1392	-
Stage 1	*875	-	-	-	-	-
Stage 2	*729	-	-	-	-	-
Platoon blocked, %	1	1	-	-	1	-
Mov Cap-1 Maneuver	*692	*903	-	-	*1355	-
Mov Cap-2 Maneuver	*692	-	-	-	-	-
Stage 1	*852	-	-	-	-	-
Stage 2	*688	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9.8	0	1.3
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	692	903	* 1355	-
HCM Lane V/C Ratio	-	-	0.045	0.033	0.045	-
HCM Control Delay (s)	-	-	10.4	9.1	7.8	0.2
HCM Lane LOS	-	-	B	A	A	A
HCM 95th %tile Q(veh)	-	-	0.1	0.1	0.1	-

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

HCM 6th TWSC
8: N-S Alley & Franklin Street 08/23/2024

Intersection	
Int Delay, s/veh	0.4

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	65	3	6	188	3	5
Future Vol, veh/h	65	3	6	188	3	5
Conflicting Peds, #/hr	0	9	9	0	1	1
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	79	79	79	79	79	79
Heavy Vehicles, %	0	0	0	1	0	0
Mvmt Flow	82	4	8	238	4	6

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	95	0	348	94
Stage 1	-	-	-	-	93	-
Stage 2	-	-	-	-	255	-
Critical Hdwy	-	-	4.1	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	1512	-	717	968
Stage 1	-	-	-	-	936	-
Stage 2	-	-	-	-	837	-
Platoon blocked, %	-	-		-	1	
Mov Cap-1 Maneuver	-	-	1499	-	705	959
Mov Cap-2 Maneuver	-	-	-	-	705	-
Stage 1	-	-	-	-	928	-
Stage 2	-	-	-	-	832	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.2	9.3
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	845	-	-	1499	-
HCM Lane V/C Ratio	0.012	-	-	0.005	-
HCM Control Delay (s)	9.3	-	-	7.4	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0	-	-	0	-

HCM 6th TWSC
9: Main Street & Oakley Access Drive 08/23/2024

Intersection	
Int Delay, s/veh	0

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	1	0	0	435	478	0
Future Vol, veh/h	1	0	0	435	478	0
Conflicting Peds, #/hr	1	0	12	0	0	12
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	0	0	0	1	0	0
Mvmt Flow	1	0	0	483	531	0

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1027	543	543	0	-	0
Stage 1	543	-	-	-	-	-
Stage 2	484	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	*269	*695	*1043	-	-	-
Stage 1	*656	-	-	-	-	-
Stage 2	*689	-	-	-	-	-
Platoon blocked, %	1	1	1	-	-	-
Mov Cap-1 Maneuver	*264	*687	*1031	-	-	-
Mov Cap-2 Maneuver	*264	-	-	-	-	-
Stage 1	*649	-	-	-	-	-
Stage 2	*681	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	18.7	0	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	* 1031	-	264	-	-
HCM Lane V/C Ratio	-	-	0.004	-	-
HCM Control Delay (s)	0	-	18.7	-	-
HCM Lane LOS	A	-	C	-	-
HCM 95th %tile Q(veh)	0	-	0	-	-

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

HCM 6th TWSC
10: Main Street & Funeral Home North Access Drive 08/23/2024

Intersection	
Int Delay, s/veh	0

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	0	0	454	499	0
Future Vol, veh/h	0	0	0	454	499	0
Conflicting Peds, #/hr	0	0	13	0	0	13
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	0	0	0	0	1	0
Mvmt Flow	0	0	0	504	554	0

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1071	567	567	0	-	0
Stage 1	567	-	-	-	-	-
Stage 2	504	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	220	663	1012	-	-	-
Stage 1	632	-	-	-	-	-
Stage 2	680	-	-	-	-	-
Platoon blocked, %	1	1	1	-	-	-
Mov Cap-1 Maneuver	215	655	999	-	-	-
Mov Cap-2 Maneuver	215	-	-	-	-	-
Stage 1	624	-	-	-	-	-
Stage 2	672	-	-	-	-	-

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

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	999	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-	-
HCM Control Delay (s)	0	-	0	-	-
HCM Lane LOS	A	-	A	-	-
HCM 95th %tile Q(veh)	0	-	-	-	-

HCM 6th TWSC
11: Main Street & Rogers Street 08/23/2024

Intersection	
Int Delay, s/veh	1.7

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	14	97	357	22	48	434
Future Vol, veh/h	14	97	357	22	48	434
Conflicting Peds, #/hr	2	8	0	15	15	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	60	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	0	0	0	0	0	1
Mvmt Flow	15	103	380	23	51	462

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	973	415	0	0	418	0
Stage 1	407	-	-	-	-	-
Stage 2	566	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	*336	788	-	-	1179	-
Stage 1	*744	-	-	-	-	-
Stage 2	*624	-	-	-	-	-
Platoon blocked, %	1	1	-	-	1	-
Mov Cap-1 Maneuver	*317	771	-	-	1163	-
Mov Cap-2 Maneuver	*317	-	-	-	-	-
Stage 1	*734	-	-	-	-	-
Stage 2	*595	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	11.7	0	0.8
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	653	1163	-
HCM Lane V/C Ratio	-	-	0.181	0.044	-
HCM Control Delay (s)	-	-	11.7	8.2	-
HCM Lane LOS	-	-	B	A	-
HCM 95th %tile Q(veh)	-	-	0.7	0.1	-

Notes

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

Capacity Analysis Summary Sheets

Year 2030 Total Projected Weekday Morning Peak Hour

Lanes, Volumes, Timings
1: Main Street & Franklin Street

08/26/2024

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	51	0	26	5	16	17	36	478	0	0	289	104
Future Volume (vph)	51	0	26	5	16	17	36	478	0	0	289	104
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	2000	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	35		0	0		0	0		0	0		0
Storage Lanes	1		1	1		0	0		0	0		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor	0.75		0.93	0.94	0.86			1.00				0.96
Frt			0.850		0.923							0.850
Flt Protected	0.950			0.950				0.997				
Satd. Flow (prot)	1770	0	1455	1504	1508	0	0	1839	0	0	1942	1583
Flt Permitted	0.734			0.950				0.964				
Satd. Flow (perm)	1032	0	1347	1421	1508	0	0	1777	0	0	1942	1525
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			27		18							109
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		180			382			220			418	
Travel Time (s)		4.9			10.4			6.0			11.4	
Confl. Peds. (#/hr)	103		22	22		103	7		31	31		7
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	0%	11%	20%	0%	0%	3%	3%	0%	0%	3%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	54	0	27	5	35	0	0	541	0	0	304	109
Turn Type	Perm		Perm	Perm	NA		Perm	NA			NA	Perm
Protected Phases					8			2			6	
Permitted Phases	4		4	8			2					6
Detector Phase	4		4	8	8		2	2			6	6
Switch Phase												
Minimum Initial (s)	5.0		5.0	5.0	5.0		8.0	8.0			8.0	8.0
Minimum Split (s)	22.5		22.5	22.5	22.5		22.5	22.5			22.5	22.5
Total Split (s)	30.0		30.0	30.0	30.0		60.0	60.0			60.0	60.0
Total Split (%)	33.3%		33.3%	33.3%	33.3%		66.7%	66.7%			66.7%	66.7%
Yellow Time (s)	3.5		3.5	3.0	3.0		3.0	3.0			3.0	3.0
All-Red Time (s)	1.0		1.0	1.0	1.0		1.0	1.0			1.0	1.0
Lost Time Adjust (s)	0.0		0.0	0.0	0.0			0.0			0.0	0.0
Total Lost Time (s)	4.5		4.5	4.0	4.0			4.0			4.0	4.0
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None		None	None	None		C-Min	C-Min			C-Min	C-Min
Act Effct Green (s)	10.2		10.2	10.6	10.6			74.1			74.1	74.1
Actuated g/C Ratio	0.11		0.11	0.12	0.12			0.82			0.82	0.82

Lanes, Volumes, Timings
1: Main Street & Franklin Street

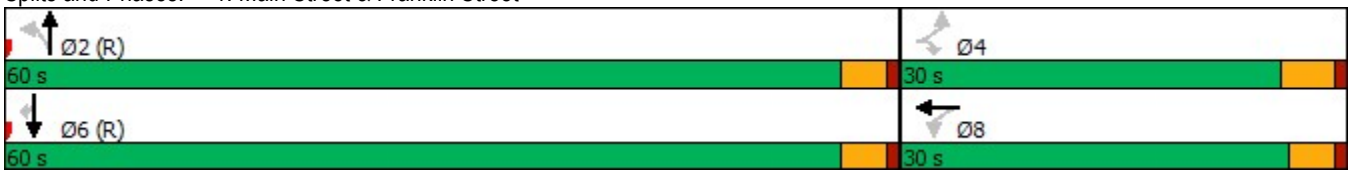
08/26/2024

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio	0.47		0.15	0.03	0.18			0.37			0.19	0.09
Control Delay	49.0		14.7	32.8	23.1			3.4			2.9	0.8
Queue Delay	0.0		0.0	0.0	0.0			0.0			0.0	0.0
Total Delay	49.0		14.7	32.8	23.1			3.4			2.9	0.8
LOS	D		B	C	C			A			A	A
Approach Delay		37.6			24.3			3.4			2.3	
Approach LOS		D			C			A			A	
Queue Length 50th (ft)	29		0	3	9			65			32	0
Queue Length 95th (ft)	63		23	12	34			103			69	11
Internal Link Dist (ft)		100			302			140			338	
Turn Bay Length (ft)	35											
Base Capacity (vph)	292		401	410	448			1463			1599	1275
Starvation Cap Reductn	0		0	0	0			0			0	0
Spillback Cap Reductn	0		0	0	0			0			0	0
Storage Cap Reductn	0		0	0	0			0			0	0
Reduced v/c Ratio	0.18		0.07	0.01	0.08			0.37			0.19	0.09

Intersection Summary

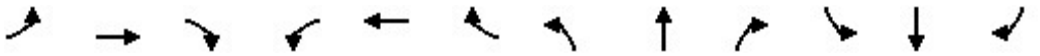
Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 90
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBT, Start of Green
Natural Cycle: 50
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.47
Intersection Signal Delay: 6.3 Intersection LOS: A
Intersection Capacity Utilization 66.8% ICU Level of Service C
Analysis Period (min) 15

Splits and Phases: 1: Main Street & Franklin Street



Lanes, Volumes, Timings
2: Main Street & Warren Avenue

08/26/2024



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	20	32	12	0	32	7	0	420	2	9	264	17
Future Volume (vph)	20	32	12	0	32	7	0	420	2	9	264	17
Ideal Flow (vphpl)	1900	1900	1900	1900	2000	1900	1900	2000	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		60	0		55	0		0	60		0
Storage Lanes	0		1	0		1	0		1	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor		0.97				0.89			0.91	0.97	1.00	
Frt			0.850			0.850			0.850		0.991	
Flt Protected		0.981								0.950		
Satd. Flow (prot)	0	1864	1615	0	2000	1615	0	1961	1615	1626	1809	0
Flt Permitted		0.858								0.475		
Satd. Flow (perm)	0	1575	1615	0	2000	1436	0	1961	1476	792	1809	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			18			18			18		7	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		405			420			116			254	
Travel Time (s)		11.0			11.5			3.2			6.9	
Confl. Peds. (#/hr)	37					37	28		27	27		28
Confl. Bikes (#/hr)												
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	0%	2%	0%	11%	4%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	60	14	0	37	8	0	488	2	10	327	0
Turn Type	Perm	NA	Prot		NA	Perm		NA	Perm	Perm	NA	
Protected Phases		4	4		8			2			6	
Permitted Phases	4					8			2	6		
Detector Phase	4	4	4		8	8		2	2	6	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0		5.0	5.0		5.0	5.0	5.0	5.0	
Minimum Split (s)	22.5	22.5	22.5		22.5	22.5		22.5	22.5	22.5	22.5	
Total Split (s)	30.0	30.0	30.0		30.0	30.0		60.0	60.0	60.0	60.0	
Total Split (%)	33.3%	33.3%	33.3%		33.3%	33.3%		66.7%	66.7%	66.7%	66.7%	
Yellow Time (s)	3.5	3.5	3.5		3.5	3.5		3.5	3.5	3.5	3.5	
All-Red Time (s)	1.0	1.0	1.0		1.0	1.0		1.0	1.0	1.0	1.0	
Lost Time Adjust (s)		0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	
Total Lost Time (s)		4.5	4.5		4.5	4.5		4.5	4.5	4.5	4.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None	None		None	None		C-Min	C-Min	C-Min	C-Min	
Act Effct Green (s)		8.6	8.6		8.6	8.6		75.3	75.3	75.3	75.3	
Actuated g/C Ratio		0.10	0.10		0.10	0.10		0.84	0.84	0.84	0.84	

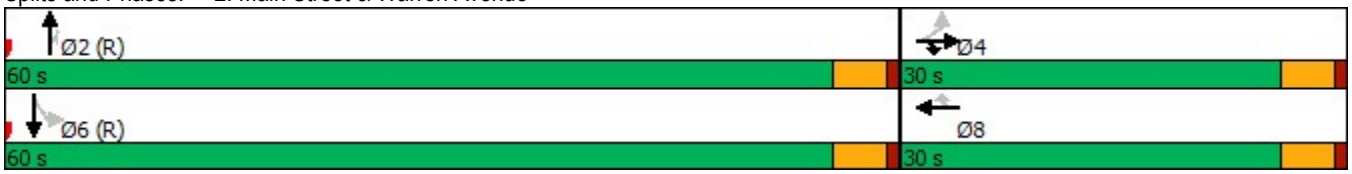
Lanes, Volumes, Timings
2: Main Street & Warren Avenue

08/26/2024

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio		0.40	0.08		0.19	0.05		0.30	0.00	0.02	0.22	
Control Delay		45.2	14.7		38.6	8.6		2.9	0.0	2.2	2.4	
Queue Delay		0.0	0.0		0.0	0.0		7.0	0.0	0.0	0.0	
Total Delay		45.2	14.7		38.6	8.6		9.9	0.0	2.2	2.4	
LOS		D	B		D	A		A	A	A	A	
Approach Delay		39.4			33.3			9.8			2.4	
Approach LOS		D			C			A			A	
Queue Length 50th (ft)		33	0		20	0		52	0	1	31	
Queue Length 95th (ft)		66	14		45	7		93	0	4	56	
Internal Link Dist (ft)		325			340			36			174	
Turn Bay Length (ft)			60			55				60		
Base Capacity (vph)		446	470		566	419		1640	1237	662	1513	
Starvation Cap Reductn		0	0		0	0		1093	1128	0	0	
Spillback Cap Reductn		0	0		0	0		0	0	0	0	
Storage Cap Reductn		0	0		0	0		0	0	0	0	
Reduced v/c Ratio		0.13	0.03		0.07	0.02		0.89	0.02	0.02	0.22	

Intersection Summary			
Area Type:	Other		
Cycle Length: 90			
Actuated Cycle Length: 90			
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBTL, Start of Green			
Natural Cycle: 45			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.40			
Intersection Signal Delay: 10.6		Intersection LOS: B	
Intersection Capacity Utilization 48.3%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 2: Main Street & Warren Avenue



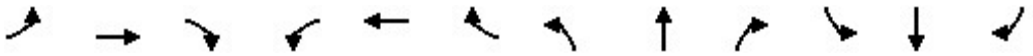
Queuing and Blocking Report
Year 2030 Total Weekday Morning Peak Hour 08/27/2024

Intersection: 2: Main Street & Warren Avenue

Movement	EB	EB	WB	WB	NB	NB	SB	SB
Directions Served	LT	R	T	R	T	R	L	TR
Maximum Queue (ft)	64	30	60	43	65	8	48	150
Average Queue (ft)	29	8	16	4	42	0	6	50
95th Queue (ft)	58	29	45	22	68	4	29	114
Link Distance (ft)	320		373		45	45		178
Upstream Blk Time (%)					10			
Queuing Penalty (veh)					20			
Storage Bay Dist (ft)		60		55			60	
Storage Blk Time (%)	1		1	0			0	4
Queuing Penalty (veh)	0		0	0			0	0

Intersection Capacity Utilization
3: Forest Avenue & Franklin Street

08/26/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		✣			✣			✣			✣	
Volume (vph)	3	13	23	117	41	10	19	181	49	8	69	4
Pedestrians	1		3	3		1	3		4	4		3
Ped Button		Yes			Yes			Yes			Yes	
Pedestrian Timing (s)		16.0			16.0			16.0			16.0	
Free Right			No			No			No			No
Ideal Flow	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Green (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Refr Cycle Length (s)	120	120	120	120	120	120	120	120	120	120	120	120
Volume Combined (vph)	0	39	0	0	168	0	0	249	0	0	81	0
Lane Utilization Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Factor (vph)	0.95	0.91	0.85	0.95	0.96	0.85	0.95	0.97	0.85	0.95	0.99	0.85
Saturated Flow (vph)	0	1725	0	0	1817	0	0	1837	0	0	1877	0
Ped Intf Time (s)	0.0	0.2	0.4	0.0	0.0	0.1	0.0	0.1	0.5	0.0	0.0	0.4
Pedestrian Frequency (%)		0.10			0.03			0.12			0.10	
Protected Option Allowed		No			No			No			No	
Reference Time (s)			0.0			0.0			0.0			0.0
Adj Reference Time (s)			0.0			0.0			0.0			0.0
Permitted Option												
Adj Saturation A (vph)	0	1757		0	359		0	1481		0	1336	
Reference Time A (s)	0.0	2.9		0.0	56.1		0.0	20.3		0.0	7.3	
Adj Saturation B (vph	0	0		0	0		0	0		NA	NA	
Reference Time B (s)	8.2	10.9		15.8	19.1		9.3	24.4		NA	NA	
Reference Time (s)		2.9			19.1			20.3			7.3	
Adj Reference Time (s)		9.1			23.1			24.3			12.1	
Split Option												
Ref Time Combined (s)	0.0	2.9		0.0	11.1		0.0	16.4		0.0	5.2	
Ref Time Seperate (s)	0.2	1.1		7.8	2.7		1.3	11.9		0.5	4.4	
Reference Time (s)	2.9	2.9		11.1	11.1		16.4	16.4		5.2	5.2	
Adj Reference Time (s)	9.1	9.1		15.3	15.3		20.4	20.4		10.2	10.2	

Summary	EB WB	NB SB	Combined
Protected Option (s)	NA	NA	
Permitted Option (s)	23.1	24.3	
Split Option (s)	24.4	30.6	
Minimum (s)	23.1	24.3	47.4

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

Intersection Summary			
Intersection Capacity Utilization	39.5%	ICU Level of Service	A

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

Intersection Capacity Utilization
5: Forest Avenue & Warren Avenue

08/26/2024

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (vph)	46	107	120	201	143	50
Pedestrians	10		5			5
Ped Button					Yes	
Pedestrian Timing (s)					16.0	
Free Right		No				No
Ideal Flow	1900	1900	1900	1900	1900	1900
Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Green (s)	4.0	4.0	4.0	4.0	4.0	4.0
Refr Cycle Length (s)	120	120	120	120	120	120
Volume Combined (vph)	46	107	0	321	193	0
Lane Utilization Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Factor (vph)	0.95	0.85	0.95	0.98	0.96	0.85
Saturated Flow (vph)	1805	1615	0	1864	1826	0
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.2	0.6
Pedestrian Frequency (%)	0.00			0.00	0.15	
Protected Option Allowed	No			No	No	
Reference Time (s)		8.0				0.0
Adj Reference Time (s)		12.0				0.0
Permitted Option						
Adj Saturation A (vph)	120		0	274	1826	
Reference Time A (s)	45.9		0.0	140.6	12.8	
Adj Saturation B (vph	NA		NA	NA	NA	
Reference Time B (s)	NA		NA	NA	NA	
Reference Time (s)				140.6	12.8	
Adj Reference Time (s)				144.6	17.3	
Split Option						
Ref Time Combined (s)	3.1		0.0	20.7	12.8	
Ref Time Seperate (s)	3.1		8.0	12.7	9.6	
Reference Time (s)	3.1		20.7	20.7	12.8	
Adj Reference Time (s)	8.0		24.7	24.7	17.3	

Summary	EB	NB SB	Combined
Protected Option (s)	NA	NA	
Permitted Option (s)	Err	144.6	
Split Option (s)	8.0	42.0	
Minimum (s)	8.0	42.0	50.0

Right Turns	EBR
Adj Reference Time (s)	12.0
Cross Thru Ref Time (s)	17.3
Oncoming Left Ref Time (s)	0.0
Combined (s)	29.3

Intersection Summary			
Intersection Capacity Utilization	41.7%	ICU Level of Service	A

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

HCM 6th TWSC
4: Forest Avenue & AT&T Access Drive/Apartment Access Drive 08/26/2024

Intersection	
Int Delay, s/veh	0.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	1	0	1	1	0	2	1	240	0	0	202	1
Future Vol, veh/h	1	0	1	1	0	2	1	240	0	0	202	1
Conflicting Peds, #/hr	0	0	0	0	0	0	9	0	0	0	0	9
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	87	87	87	87	87	87	87	87	87	87	87	87
Heavy Vehicles, %	100	0	0	0	0	0	0	1	0	0	2	100
Mvmt Flow	1	0	1	1	0	2	1	276	0	0	232	1

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	521	520	242	511	520	276	242	0	0	276	0	0
Stage 1	242	242	-	278	278	-	-	-	-	-	-	-
Stage 2	279	278	-	233	242	-	-	-	-	-	-	-
Critical Hdwy	8.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	7.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	7.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	4.4	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	343	463	802	476	463	768	1336	-	-	1299	-	-
Stage 1	586	709	-	733	684	-	-	-	-	-	-	-
Stage 2	557	684	-	775	709	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	339	458	795	475	458	768	1325	-	-	1299	-	-
Mov Cap-2 Maneuver	339	458	-	475	458	-	-	-	-	-	-	-
Stage 1	580	703	-	732	683	-	-	-	-	-	-	-
Stage 2	555	683	-	774	703	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	12.6	10.7	0	0
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1325	-	-	475	637	1299	-	-
HCM Lane V/C Ratio	0.001	-	-	0.005	0.005	-	-	-
HCM Control Delay (s)	7.7	0	-	12.6	10.7	0	-	-
HCM Lane LOS	A	A	-	B	B	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0	0	0	-	-

HCM 6th TWSC
6: Warren Avenue & Forest Avenue 08/26/2024

Intersection	
Int Delay, s/veh	1.5

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	16	40	280	35	37	213
Future Vol, veh/h	16	40	280	35	37	213
Conflicting Peds, #/hr	1	0	0	15	15	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	0	-	0	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	0	0	2	0	0	3
Mvmt Flow	17	42	295	37	39	224

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	501	310	0	0	347	0
Stage 1	310	-	-	-	-	-
Stage 2	191	-	-	-	-	-
Critical Hdwy	6.6	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.8	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	519	735	-	-	1223	-
Stage 1	748	-	-	-	-	-
Stage 2	828	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	493	725	-	-	1206	-
Mov Cap-2 Maneuver	493	-	-	-	-	-
Stage 1	738	-	-	-	-	-
Stage 2	797	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	11	0	1.3
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	493	725	1206	-
HCM Lane V/C Ratio	-	-	0.034	0.058	0.032	-
HCM Control Delay (s)	-	-	12.6	10.3	8.1	0.1
HCM Lane LOS	-	-	B	B	A	A
HCM 95th %tile Q(veh)	-	-	0.1	0.2	0.1	-

HCM 6th TWSC
8: N-S Alley & Franklin Street 08/26/2024

Intersection	
Int Delay, s/veh	1.1

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	68	4	11	154	11	9
Future Vol, veh/h	68	4	11	154	11	9
Conflicting Peds, #/hr	0	11	11	0	0	12
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	78	78	78	78	78	78
Heavy Vehicles, %	5	0	0	1	0	0
Mvmt Flow	87	5	14	197	14	12

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	103	0	326	113
Stage 1	-	-	-	-	101	-
Stage 2	-	-	-	-	225	-
Critical Hdwy	-	-	4.1	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	1502	-	724	945
Stage 1	-	-	-	-	928	-
Stage 2	-	-	-	-	855	-
Platoon blocked, %	-	-		-	1	
Mov Cap-1 Maneuver	-	-	1486	-	709	924
Mov Cap-2 Maneuver	-	-	-	-	709	-
Stage 1	-	-	-	-	919	-
Stage 2	-	-	-	-	845	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.5	9.7
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	792	-	-	1486	-
HCM Lane V/C Ratio	0.032	-	-	0.009	-
HCM Control Delay (s)	9.7	-	-	7.4	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0.1	-	-	0	-

HCM 6th TWSC
9: Main Street & Oakley Access Drive 08/26/2024

Intersection	
Int Delay, s/veh	0

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	0	0	518	306	0
Future Vol, veh/h	0	0	0	518	306	0
Conflicting Peds, #/hr	0	0	13	0	0	13
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	93	93	93	93	93	93
Heavy Vehicles, %	0	0	0	3	4	0
Mvmt Flow	0	0	0	557	329	0

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	899	342	342	0	-	0
Stage 1	342	-	-	-	-	-
Stage 2	557	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	*358	*825	*1238	-	-	-
Stage 1	*778	-	-	-	-	-
Stage 2	*608	-	-	-	-	-
Platoon blocked, %	1	1	1	-	-	-
Mov Cap-1 Maneuver	*349	*815	*1223	-	-	-
Mov Cap-2 Maneuver	*349	-	-	-	-	-
Stage 1	*769	-	-	-	-	-
Stage 2	*601	-	-	-	-	-

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

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	* 1223	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-	-
HCM Control Delay (s)	0	-	0	-	-
HCM Lane LOS	A	-	A	-	-
HCM 95th %tile Q(veh)	0	-	-	-	-

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

HCM 6th TWSC
10: Main Street & Funeral Home North Access Drive 08/26/2024

Intersection	
Int Delay, s/veh	0

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	0	0	518	306	0
Future Vol, veh/h	0	0	0	518	306	0
Conflicting Peds, #/hr	0	0	13	0	0	13
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	93	93	93	93	93	93
Heavy Vehicles, %	0	0	0	3	4	0
Mvmt Flow	0	0	0	557	329	0

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	899	342	342	0	-	0
Stage 1	342	-	-	-	-	-
Stage 2	557	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	*411	*825	*1238	-	-	-
Stage 1	*778	-	-	-	-	-
Stage 2	*608	-	-	-	-	-
Platoon blocked, %	1	1	1	-	-	-
Mov Cap-1 Maneuver	*401	*815	*1223	-	-	-
Mov Cap-2 Maneuver	*401	-	-	-	-	-
Stage 1	*769	-	-	-	-	-
Stage 2	*601	-	-	-	-	-

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

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	* 1223	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-	-
HCM Control Delay (s)	0	-	0	-	-
HCM Lane LOS	A	-	A	-	-
HCM 95th %tile Q(veh)	0	-	-	-	-

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

HCM 6th TWSC
11: Main Street & Rogers Street 08/26/2024

Intersection	
Int Delay, s/veh	1.8

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	18	80	431	18	35	275
Future Vol, veh/h	18	80	431	18	35	275
Conflicting Peds, #/hr	4	5	0	19	19	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	60	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	91	91	91	91	91	91
Heavy Vehicles, %	0	5	3	0	3	5
Mvmt Flow	20	88	474	20	38	302

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	885	508	0	0	513	0
Stage 1	503	-	-	-	-	-
Stage 2	382	-	-	-	-	-
Critical Hdwy	6.4	6.25	-	-	4.13	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.345	-	-	2.227	-
Pot Cap-1 Maneuver	*359	*707	-	-	*1062	-
Stage 1	*676	-	-	-	-	-
Stage 2	*745	-	-	-	-	-
Platoon blocked, %	1	1	-	-	1	-
Mov Cap-1 Maneuver	*339	*691	-	-	*1043	-
Mov Cap-2 Maneuver	*339	-	-	-	-	-
Stage 1	*664	-	-	-	-	-
Stage 2	*715	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	12.6	0	1
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	580 *	1043	-
HCM Lane V/C Ratio	-	-	0.186	0.037	-
HCM Control Delay (s)	-	-	12.6	8.6	-
HCM Lane LOS	-	-	B	A	-
HCM 95th %tile Q(veh)	-	-	0.7	0.1	-

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

HCM 6th TWSC
12: Forest Avenue & Garage Access Drive 08/26/2024

Intersection	
Int Delay, s/veh	0.2

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	2	5	242	1	1	201
Future Vol, veh/h	2	5	242	1	1	201
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	0	0	1	0	0	2
Mvmt Flow	2	5	255	1	1	212

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	470	256	0	0	256	0
Stage 1	256	-	-	-	-	-
Stage 2	214	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	556	788	-	-	1321	-
Stage 1	791	-	-	-	-	-
Stage 2	826	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	555	788	-	-	1321	-
Mov Cap-2 Maneuver	555	-	-	-	-	-
Stage 1	791	-	-	-	-	-
Stage 2	825	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	10.2	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	704	1321	-
HCM Lane V/C Ratio	-	-	0.01	0.001	-
HCM Control Delay (s)	-	-	10.2	7.7	0
HCM Lane LOS	-	-	B	A	A
HCM 95th %tile Q(veh)	-	-	0	0	-

HCM 6th TWSC
13: N-S Alley & Garage Access Drive 08/26/2024

Intersection	
Int Delay, s/veh	3.8

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	11	0	0	5	6	3
Future Vol, veh/h	11	0	0	5	6	3
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	12	0	0	5	6	3

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	13	8	9	0	-	0
Stage 1	8	-	-	-	-	-
Stage 2	5	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	1011	1080	1624	-	-	-
Stage 1	1020	-	-	-	-	-
Stage 2	1023	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	1011	1080	1624	-	-	-
Mov Cap-2 Maneuver	1011	-	-	-	-	-
Stage 1	1020	-	-	-	-	-
Stage 2	1023	-	-	-	-	-

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

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1624	-	1011	-	-
HCM Lane V/C Ratio	-	-	0.011	-	-
HCM Control Delay (s)	0	-	8.6	-	-
HCM Lane LOS	A	-	A	-	-
HCM 95th %tile Q(veh)	0	-	0	-	-

Capacity Analysis Summary Sheets

Year 2030 Total Projected Weekday Evening Peak Hour

Lanes, Volumes, Timings
1: Main Street & Franklin Street

08/26/2024

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	55	0	26	3	8	18	42	412	0	0	472	160
Future Volume (vph)	55	0	26	3	8	18	42	412	0	0	472	160
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	2000	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	35		0	0		0	0		0	0		0
Storage Lanes	1		1	1		0	0		0	0		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor	0.99		0.95	0.98	0.98			1.00				0.96
Frt			0.850		0.894							0.850
Flt Protected	0.950			0.950				0.995				
Satd. Flow (prot)	1805	0	1615	1805	1659	0	0	1890	0	0	1980	1615
Flt Permitted	0.740			0.950				0.932				
Satd. Flow (perm)	1389	0	1537	1764	1659	0	0	1769	0	0	1980	1546
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			27		19							165
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		180			382			220			418	
Travel Time (s)		4.9			10.4			6.0			11.4	
Confl. Peds. (#/hr)	5		9	9		5	9		9	9		9
Confl. Bikes (#/hr)			5			1						1
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	1%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	57	0	27	3	27	0	0	468	0	0	487	165
Turn Type	Perm		Perm	Perm	NA		Perm	NA			NA	Perm
Protected Phases					8			2			6	
Permitted Phases	4		4	8			2					6
Detector Phase	4		4	8	8		2	2			6	6
Switch Phase												
Minimum Initial (s)	5.0		5.0	5.0	5.0		8.0	8.0			8.0	8.0
Minimum Split (s)	22.5		22.5	22.5	22.5		22.5	22.5			22.5	22.5
Total Split (s)	30.0		30.0	30.0	30.0		60.0	60.0			60.0	60.0
Total Split (%)	33.3%		33.3%	33.3%	33.3%		66.7%	66.7%			66.7%	66.7%
Yellow Time (s)	3.5		3.5	3.0	3.0		3.0	3.0			3.0	3.0
All-Red Time (s)	1.0		1.0	1.0	1.0		1.0	1.0			1.0	1.0
Lost Time Adjust (s)	0.0		0.0	0.0	0.0			0.0			0.0	0.0
Total Lost Time (s)	4.5		4.5	4.0	4.0			4.0			4.0	4.0
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None		None	None	None		C-Min	C-Min			C-Min	C-Min
Act Effct Green (s)	9.1		9.1	9.5	9.5			75.2			75.2	75.2
Actuated g/C Ratio	0.10		0.10	0.11	0.11			0.84			0.84	0.84

Lanes, Volumes, Timings
1: Main Street & Franklin Street

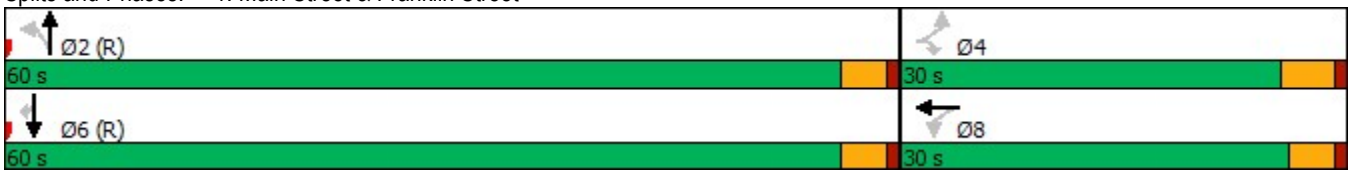
08/26/2024

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio	0.41		0.15	0.02	0.14			0.32			0.29	0.13
Control Delay	45.5		15.3	34.0	20.5			2.9			2.9	0.7
Queue Delay	0.0		0.0	0.0	0.0			0.0			0.0	0.0
Total Delay	45.5		15.3	34.0	20.5			2.9			2.9	0.7
LOS	D		B	C	C			A			A	A
Approach Delay		35.8			21.8			2.9			2.3	
Approach LOS		D			C			A			A	
Queue Length 50th (ft)	31		0	2	4			49			52	0
Queue Length 95th (ft)	66		23	9	27			92			103	12
Internal Link Dist (ft)		100			302			140			338	
Turn Bay Length (ft)	35											
Base Capacity (vph)	393		454	509	492			1477			1653	1318
Starvation Cap Reductn	0		0	0	0			0			0	0
Spillback Cap Reductn	0		0	0	0			0			0	0
Storage Cap Reductn	0		0	0	0			0			0	0
Reduced v/c Ratio	0.15		0.06	0.01	0.05			0.32			0.29	0.13

Intersection Summary

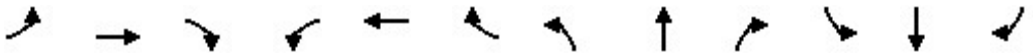
Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 90
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBT, Start of Green
Natural Cycle: 45
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.41
Intersection Signal Delay: 5.3 Intersection LOS: A
Intersection Capacity Utilization 68.3% ICU Level of Service C
Analysis Period (min) 15

Splits and Phases: 1: Main Street & Franklin Street



Lanes, Volumes, Timings
2: Main Street & Warren Avenue

08/26/2024



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	22	54	7	0	47	18	0	342	17	4	438	19
Future Volume (vph)	22	54	7	0	47	18	0	342	17	4	438	19
Ideal Flow (vphpl)	1900	1900	1900	1900	2000	1900	1900	2000	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		60	0		55	0		0	60		0
Storage Lanes	0		1	0		1	0		1	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor		0.97				0.88			0.86	0.94	1.00	
Frt			0.850			0.850			0.850		0.994	
Flt Protected		0.986								0.950		
Satd. Flow (prot)	0	1873	1615	0	2000	1615	0	1980	1615	1805	1867	0
Flt Permitted		0.886								0.540		
Satd. Flow (perm)	0	1637	1615	0	2000	1417	0	1980	1393	962	1867	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			18			20			18		5	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		405			420			116			254	
Travel Time (s)		11.0			11.5			3.2			6.9	
Confl. Peds. (#/hr)	41		4	4		41	27		48	48		27
Confl. Bikes (#/hr)			2			2						1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	0%	1%	0%	0%	1%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	83	8	0	51	20	0	372	18	4	497	0
Turn Type	Perm	NA	Prot		NA	Perm		NA	Perm	Perm	NA	
Protected Phases		4	4		8			2			6	
Permitted Phases	4					8			2	6		
Detector Phase	4	4	4		8	8		2	2	6	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0		5.0	5.0		5.0	5.0	5.0	5.0	
Minimum Split (s)	22.5	22.5	22.5		22.5	22.5		22.5	22.5	22.5	22.5	
Total Split (s)	30.0	30.0	30.0		30.0	30.0		60.0	60.0	60.0	60.0	
Total Split (%)	33.3%	33.3%	33.3%		33.3%	33.3%		66.7%	66.7%	66.7%	66.7%	
Yellow Time (s)	3.5	3.5	3.5		3.5	3.5		3.5	3.5	3.5	3.5	
All-Red Time (s)	1.0	1.0	1.0		1.0	1.0		1.0	1.0	1.0	1.0	
Lost Time Adjust (s)		0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	
Total Lost Time (s)		4.5	4.5		4.5	4.5		4.5	4.5	4.5	4.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None	None		None	None		C-Min	C-Min	C-Min	C-Min	
Act Effct Green (s)		9.7	9.7		9.7	9.7		74.2	74.2	74.2	74.2	
Actuated g/C Ratio		0.11	0.11		0.11	0.11		0.82	0.82	0.82	0.82	

Lanes, Volumes, Timings
2: Main Street & Warren Avenue

08/26/2024

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio		0.47	0.04		0.24	0.12		0.23	0.02	0.01	0.32	
Control Delay		45.6	8.0		38.1	16.2		2.9	1.2	2.5	3.3	
Queue Delay		0.0	0.0		0.0	0.0		5.1	0.6	0.0	0.0	
Total Delay		45.6	8.0		38.1	16.2		8.0	1.9	2.5	3.3	
LOS		D	A		D	B		A	A	A	A	
Approach Delay		42.3			32.0			7.7			3.3	
Approach LOS		D			C			A			A	
Queue Length 50th (ft)		45	0		27	0		40	0	1	59	
Queue Length 95th (ft)		87	7		59	20		80	5	m2	111	
Internal Link Dist (ft)		325			340			36			174	
Turn Bay Length (ft)			60			55				60		
Base Capacity (vph)		463	470		566	415		1633	1152	793	1541	
Starvation Cap Reductn		0	0		0	0		1181	1022	0	0	
Spillback Cap Reductn		0	0		0	0		0	0	0	0	
Storage Cap Reductn		0	0		0	0		0	0	0	0	
Reduced v/c Ratio		0.18	0.02		0.09	0.05		0.82	0.14	0.01	0.32	

Intersection Summary

Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 90
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBTL, Start of Green
Natural Cycle: 45
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.47
Intersection Signal Delay: 10.2 Intersection LOS: B
Intersection Capacity Utilization 46.2% ICU Level of Service A
Analysis Period (min) 15

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

Splits and Phases: 2: Main Street & Warren Avenue

Queuing and Blocking Report
Year 2030 Total Weekday Evening Peak Hour

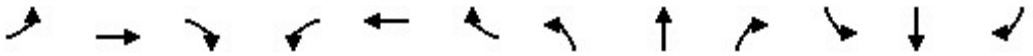
08/27/2024

Intersection: 2: Main Street & Warren Avenue

Movement	EB	EB	WB	WB	NB	NB	SB	SB
Directions Served	LT	R	T	R	T	R	L	TR
Maximum Queue (ft)	106	44	75	47	67	32	44	184
Average Queue (ft)	46	6	23	10	43	5	4	91
95th Queue (ft)	89	27	56	33	68	21	24	157
Link Distance (ft)	320		373		45	45		178
Upstream Blk Time (%)					9	0		1
Queuing Penalty (veh)					16	0		2
Storage Bay Dist (ft)		60		55			60	
Storage Blk Time (%)	6	0	1	0				10
Queuing Penalty (veh)	0	0	0	0				0

Intersection Capacity Utilization
3: Forest Avenue & Franklin Street

08/26/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	12	13	45	160	40	2	20	104	64	3	45	1
Pedestrians			7	7			3		5	5		3
Ped Button		Yes						Yes			Yes	
Pedestrian Timing (s)		16.0						16.0			16.0	
Free Right			No			No			No			No
Ideal Flow	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Green (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Refr Cycle Length (s)	120	120	120	120	120	120	120	120	120	120	120	120
Volume Combined (vph)	0	70	0	0	202	0	0	188	0	0	49	0
Lane Utilization Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Factor (vph)	0.95	0.90	0.85	0.95	0.96	0.85	0.95	0.94	0.85	0.95	0.99	0.85
Saturated Flow (vph)	0	1702	0	0	1822	0	0	1793	0	0	1888	0
Ped Intf Time (s)	0.0	0.6	0.9	0.0	0.0	0.0	0.0	0.2	0.6	0.0	0.0	0.4
Pedestrian Frequency (%)		0.21			0.00			0.15			0.10	
Protected Option Allowed		No			No			No			No	
Reference Time (s)			0.0			0.0			0.0			0.0
Adj Reference Time (s)			0.0			0.0			0.0			0.0
Permitted Option												
Adj Saturation A (vph)	0	1776		0	529		0	1176		0	1607	
Reference Time A (s)	0.0	5.3		0.0	45.9		0.0	19.4		0.0	3.7	
Adj Saturation B (vph	0	0		0	0		0	0		NA	NA	
Reference Time B (s)	8.8	13.5		18.6	21.3		9.3	20.8		NA	NA	
Reference Time (s)		5.3			21.3			19.4			3.7	
Adj Reference Time (s)		11.5			25.3			23.4			9.1	
Split Option												
Ref Time Combined (s)	0.0	5.5		0.0	13.3		0.0	12.8		0.0	3.1	
Ref Time Seperate (s)	0.8	1.5		10.6	2.5		1.3	7.2		0.2	2.9	
Reference Time (s)	5.5	5.5		13.3	13.3		12.8	12.8		3.1	3.1	
Adj Reference Time (s)	11.7	11.7		17.3	17.3		17.3	17.3		9.1	9.1	

Summary	EB WB	NB SB	Combined
Protected Option (s)	NA	NA	
Permitted Option (s)	25.3	23.4	
Split Option (s)	29.0	26.4	
Minimum (s)	25.3	23.4	48.7

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

Intersection Summary			
Intersection Capacity Utilization	40.6%	ICU Level of Service	A

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

Intersection Capacity Utilization
5: Forest Avenue & Warren Avenue

08/26/2024

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (vph)	32	202	84	144	196	20
Pedestrians	10		14			14
Ped Button					Yes	
Pedestrian Timing (s)					16.0	
Free Right		No				No
Ideal Flow	1900	1900	1900	1900	1900	1900
Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Green (s)	4.0	4.0	4.0	4.0	4.0	4.0
Refr Cycle Length (s)	120	120	120	120	120	120
Volume Combined (vph)	32	202	0	228	216	0
Lane Utilization Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Factor (vph)	0.95	0.85	0.95	0.98	0.99	0.85
Saturated Flow (vph)	1805	1615	0	1865	1874	0
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.2	1.7
Pedestrian Frequency (%)	0.00			0.00	0.37	
Protected Option Allowed	No			No	No	
Reference Time (s)		15.0				0.0
Adj Reference Time (s)		19.0				0.0
Permitted Option						
Adj Saturation A (vph)	120		0	277	1874	
Reference Time A (s)	31.9		0.0	98.6	14.0	
Adj Saturation B (vph	NA		NA	NA	NA	
Reference Time B (s)	NA		NA	NA	NA	
Reference Time (s)				98.6	14.0	
Adj Reference Time (s)				102.6	18.7	
Split Option						
Ref Time Combined (s)	2.1		0.0	14.7	14.0	
Ref Time Seperate (s)	2.1		5.6	9.1	12.7	
Reference Time (s)	2.1		14.7	14.7	14.0	
Adj Reference Time (s)	8.0		18.7	18.7	18.7	

Summary	EB	NB SB	Combined
Protected Option (s)	NA	NA	
Permitted Option (s)	Err	102.6	
Split Option (s)	8.0	37.4	
Minimum (s)	8.0	37.4	45.4

Right Turns	EBR
Adj Reference Time (s)	19.0
Cross Thru Ref Time (s)	18.7
Oncoming Left Ref Time (s)	0.0
Combined (s)	37.7

Intersection Summary			
Intersection Capacity Utilization	37.8%	ICU Level of Service	A

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

HCM 6th TWSC
4: Forest Avenue & AT&T Access Drive/Apartment Access Drive 08/26/2024

Intersection	
Int Delay, s/veh	0.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	1	0	0	0	0	1	1	181	0	3	231	1
Future Vol, veh/h	1	0	0	0	0	1	1	181	0	3	231	1
Conflicting Peds, #/hr	0	0	2	2	0	0	16	0	0	0	0	16
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	86	86	86	86	86	86	86	86	86	86	86	86
Heavy Vehicles, %	0	0	0	0	0	0	100	0	0	0	0	0
Mvmt Flow	1	0	0	0	0	1	1	210	0	3	269	1

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	505	504	288	490	504	210	286	0	0	210	0	0
Stage 1	292	292	-	212	212	-	-	-	-	-	-	-
Stage 2	213	212	-	278	292	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	5.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	3.1	-	-	2.2	-	-
Pot Cap-1 Maneuver	481	473	756	492	473	835	874	-	-	1373	-	-
Stage 1	720	675	-	795	731	-	-	-	-	-	-	-
Stage 2	794	731	-	733	675	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	471	464	743	490	464	835	861	-	-	1373	-	-
Mov Cap-2 Maneuver	471	464	-	490	464	-	-	-	-	-	-	-
Stage 1	708	663	-	794	730	-	-	-	-	-	-	-
Stage 2	792	730	-	729	663	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	12.7	9.3	0.1	0.1
HCM LOS	B	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	861	-	-	471	835	1373	-	-
HCM Lane V/C Ratio	0.001	-	-	0.002	0.001	0.003	-	-
HCM Control Delay (s)	9.2	0	-	12.7	9.3	7.6	0	-
HCM Lane LOS	A	A	-	B	A	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0	0	0	-	-

HCM 6th TWSC
6: Warren Avenue & Forest Avenue 08/26/2024

Intersection	
Int Delay, s/veh	1.6

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	29	28	199	19	57	341
Future Vol, veh/h	29	28	199	19	57	341
Conflicting Peds, #/hr	0	0	0	28	28	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	0	-	0	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	0	0	1	0	0	1
Mvmt Flow	31	30	212	20	61	363

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	544	240	0	0	260	0
Stage 1	240	-	-	-	-	-
Stage 2	304	-	-	-	-	-
Critical Hdwy	6.6	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.8	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	*750	*928	-	-	*1392	-
Stage 1	*875	-	-	-	-	-
Stage 2	*728	-	-	-	-	-
Platoon blocked, %	1	1	-	-	1	-
Mov Cap-1 Maneuver	*689	*903	-	-	*1355	-
Mov Cap-2 Maneuver	*689	-	-	-	-	-
Stage 1	*852	-	-	-	-	-
Stage 2	*687	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9.8	0	1.3
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	689	903	* 1355	-
HCM Lane V/C Ratio	-	-	0.045	0.033	0.045	-
HCM Control Delay (s)	-	-	10.5	9.1	7.8	0.2
HCM Lane LOS	-	-	B	A	A	A
HCM 95th %tile Q(veh)	-	-	0.1	0.1	0.1	-

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

HCM 6th TWSC
8: N-S Alley & Franklin Street 08/26/2024

Intersection	
Int Delay, s/veh	0.7

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	68	7	11	192	6	8
Future Vol, veh/h	68	7	11	192	6	8
Conflicting Peds, #/hr	0	9	9	0	1	1
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	79	79	79	79	79	79
Heavy Vehicles, %	0	0	0	1	0	0
Mvmt Flow	86	9	14	243	8	10

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	104	0	372	101
Stage 1	-	-	-	-	100	-
Stage 2	-	-	-	-	272	-
Critical Hdwy	-	-	4.1	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	1500	-	691	960
Stage 1	-	-	-	-	929	-
Stage 2	-	-	-	-	821	-
Platoon blocked, %	-	-		-	1	
Mov Cap-1 Maneuver	-	-	1487	-	676	951
Mov Cap-2 Maneuver	-	-	-	-	676	-
Stage 1	-	-	-	-	921	-
Stage 2	-	-	-	-	811	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.4	9.5
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	810	-	-	1487	-
HCM Lane V/C Ratio	0.022	-	-	0.009	-
HCM Control Delay (s)	9.5	-	-	7.4	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0.1	-	-	0	-

HCM 6th TWSC
9: Main Street & Oakley Access Drive 08/26/2024

Intersection	
Int Delay, s/veh	0

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	1	0	0	458	502	0
Future Vol, veh/h	1	0	0	458	502	0
Conflicting Peds, #/hr	1	0	12	0	0	12
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	0	0	0	1	0	0
Mvmt Flow	1	0	0	509	558	0

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1080	570	570	0	-	0
Stage 1	570	-	-	-	-	-
Stage 2	510	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	*227	*660	*991	-	-	-
Stage 1	*623	-	-	-	-	-
Stage 2	*673	-	-	-	-	-
Platoon blocked, %	1	1	1	-	-	-
Mov Cap-1 Maneuver	*222	*653	*979	-	-	-
Mov Cap-2 Maneuver	*222	-	-	-	-	-
Stage 1	*616	-	-	-	-	-
Stage 2	*666	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	21.3	0	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	* 979	-	222	-	-
HCM Lane V/C Ratio	-	-	0.005	-	-
HCM Control Delay (s)	0	-	21.3	-	-
HCM Lane LOS	A	-	C	-	-
HCM 95th %tile Q(veh)	0	-	0	-	-

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

HCM 6th TWSC
10: Main Street & Funeral Home North Access Drive 08/26/2024

Intersection	
Int Delay, s/veh	0

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	0	0	457	501	0
Future Vol, veh/h	0	0	0	457	501	0
Conflicting Peds, #/hr	0	0	13	0	0	13
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	0	0	0	0	1	0
Mvmt Flow	0	0	0	508	557	0

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1078	570	570	0	-	0
Stage 1	570	-	-	-	-	-
Stage 2	508	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	*216	*660	*991	-	-	-
Stage 1	*623	-	-	-	-	-
Stage 2	*676	-	-	-	-	-
Platoon blocked, %	1	1	1	-	-	-
Mov Cap-1 Maneuver	*211	*652	*978	-	-	-
Mov Cap-2 Maneuver	*211	-	-	-	-	-
Stage 1	*615	-	-	-	-	-
Stage 2	*668	-	-	-	-	-

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

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	* 978	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-	-
HCM Control Delay (s)	0	-	0	-	-
HCM Lane LOS	A	-	A	-	-
HCM 95th %tile Q(veh)	0	-	-	-	-

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

HCM 6th TWSC
11: Main Street & Rogers Street 08/26/2024

Intersection	
Int Delay, s/veh	1.7

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	14	97	360	22	48	436
Future Vol, veh/h	14	97	360	22	48	436
Conflicting Peds, #/hr	2	8	0	15	15	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	60	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	0	0	0	0	0	1
Mvmt Flow	15	103	383	23	51	464

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	978	418	0	0	421	0
Stage 1	410	-	-	-	-	-
Stage 2	568	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	*331	784	-	-	1175	-
Stage 1	*744	-	-	-	-	-
Stage 2	*622	-	-	-	-	-
Platoon blocked, %	1	1	-	-	1	-
Mov Cap-1 Maneuver	*311	767	-	-	1158	-
Mov Cap-2 Maneuver	*311	-	-	-	-	-
Stage 1	*734	-	-	-	-	-
Stage 2	*593	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	11.8	0	0.8
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	647	1158	-
HCM Lane V/C Ratio	-	-	0.183	0.044	-
HCM Control Delay (s)	-	-	11.8	8.3	-
HCM Lane LOS	-	-	B	A	-
HCM 95th %tile Q(veh)	-	-	0.7	0.1	-

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

HCM 6th TWSC
12: Forest Avenue & Garage Access Drive 08/26/2024

Intersection	
Int Delay, s/veh	0.1

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	1	3	181	2	4	234
Future Vol, veh/h	1	3	181	2	4	234
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	1	3	191	2	4	246

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	446	192	0	0	193	0
Stage 1	192	-	-	-	-	-
Stage 2	254	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	574	855	-	-	1392	-
Stage 1	845	-	-	-	-	-
Stage 2	793	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	572	855	-	-	1392	-
Mov Cap-2 Maneuver	572	-	-	-	-	-
Stage 1	845	-	-	-	-	-
Stage 2	791	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9.8	0	0.1
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	761	1392	-
HCM Lane V/C Ratio	-	-	0.006	0.003	-
HCM Control Delay (s)	-	-	9.8	7.6	0
HCM Lane LOS	-	-	A	A	A
HCM 95th %tile Q(veh)	-	-	0	0	-

HCM 6th TWSC
13: N-S Alley & Garage Access Drive 08/26/2024

Intersection	
Int Delay, s/veh	2.2

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	6	0	0	4	5	9
Future Vol, veh/h	6	0	0	4	5	9
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	6	0	0	4	5	9

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	14	10	14	0	-	0
Stage 1	10	-	-	-	-	-
Stage 2	4	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	1010	1077	1617	-	-	-
Stage 1	1018	-	-	-	-	-
Stage 2	1024	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	1010	1077	1617	-	-	-
Mov Cap-2 Maneuver	1010	-	-	-	-	-
Stage 1	1018	-	-	-	-	-
Stage 2	1024	-	-	-	-	-

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

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1617	-	1010	-	-
HCM Lane V/C Ratio	-	-	0.006	-	-
HCM Control Delay (s)	0	-	8.6	-	-
HCM Lane LOS	A	-	A	-	-
HCM 95th %tile Q(veh)	0	-	0	-	-

11/21, 2024

Chairman Rickard
Village of Downers Grove Civic Center
Planning and Zoning Commission
890 Curtiss Avenue
Downers Grove, IL 60515
Attn: Jason Zawila, jzawila@downers.us

Re: Letter of Support for 4Corners, LLC
Redevelopment of 4919 Forest Avenue
Request for Zoning Map Amendment, Special Use, PUD & Site Plan Approval

Dear Chairman Rickard,

As the owner of All Creatures Great & Small, a local business and neighbor of the property located at 4919 Forest Avenue (the "**Property**"), I am writing to express my support for 4Corners, LLC (the "**Applicant**") and its application for a zoning map amendment, planned unit development designation, special use permit, and site plan approval for the redevelopment of the Property..

The Applicant proposes to construct a seven-story multi-family residential building at the Property, containing 62 rental residential units, 89 vehicular parking spaces, and no commercial space. Currently, the Property is zoned as part of the Downtown Business District and consists of three existing lots that are improved with two aging, increasingly obsolete two-story buildings and a surface parking lot. These buildings have been substantially vacant for the last six years.

I have reviewed the plans for the development and believe that the proposal is appropriate for the surrounding neighborhood. As a local business owner, I believe that activating a vacant and underutilized lot with a high quality multi-family residential building is in the interest of the public convenience and will not have any adverse impact on the general welfare of the neighborhood. The proposed development will increase the diversity and availability of housing options in the neighborhood which in turn will contribute to the downtown's vitality. For these reasons, I strongly support the proposed development and requested zoning change.

Sincerely,

DVM/Owner

Cc (vie e-mail):
Liz Butler, Taft Stettinius & Hollister LLP (LButler@taftlaw.com)

November 19, 2024

Chairman Rickard
Village of Downers Grove Civic Center
Planning and Zoning Commission
890 Curtiss Avenue
Downers Grove, IL 60515
Attn: Jason Zawila, jzawila@downers.us

Re: Letter of Support for 4Corners, LLC
Redevelopment of 4919 Forest Avenue
Request for Zoning Map Amendment, Special Use, PUD & Site Plan Approval

Dear Chairman Rickard,

As the owner of the property located at 4920 Main St. and a neighbor of the property located at 4919 Forest Avenue (the "**Property**"), I am writing to express my strong support for 4Corners, LLC (the "**Applicant**") and its application for a zoning map amendment, planned unit development, special use permit, and site plan approval for the redevelopment of the Property.

The Applicant proposes to construct a high-quality, seven-story multi-family residential building at the Property. The development will contain 62 rental residential units, 89 vehicular parking spaces, and no commercial space. Currently, the Property contains two aging, increasingly obsolete two-story buildings and a surface parking lot which have remained substantially vacant for the last six years.

I have reviewed the plans for the proposed development and believe the project is well-suited to the character of the surrounding community. As a local business owner, I support activating this vacant and underutilized site with a high-quality multi-family residential building that will contribute to the neighborhood's growth. In addition to providing more housing options and bringing more residents to the area, this redevelopment will increase the local tax base by reactivating a long-vacant site and enhancing surrounding property values, further supporting the downtown's vitality. For these reasons, I strongly support the proposed development and requested zoning change.

Sincerely,

Cc (vie e-mail):
Liz Butler, Taft Stettinius & Hollister LLP (LButler@taftlaw.com)

135777619v2

11/18, 2024

Chairman Rickard
Village of Downers Grove Civic Center
Planning and Zoning Commission
890 Curtiss Avenue
Downers Grove, IL 60515
Attn: Jason Zawila, jzawila@downers.us

Re: ***Letter of Support for 4Corners, LLC***
Redevelopment of 4919 Forest Avenue
Request for Zoning Map Amendment, Special Use, PUD & Site Plan Approval

Dear Chairman Rickard,

As the owner of Bertoi's Deli, a local business and neighbor of the property located at 4919 Forest Avenue (the "**Property**"), I am writing to express my support for 4Corners, LLC (the "**Applicant**") and its application for a zoning map amendment, planned unit development designation, special use permit, and site plan approval for the redevelopment of the Property..

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I have reviewed the plans for the development and believe that the proposal is appropriate for the surrounding neighborhood. As a local business owner, I believe that activating a vacant and underutilized lot with a high quality multi-family residential building is in the interest of the public convenience and will not have any adverse impact on the general welfare of the neighborhood. The proposed development will increase the diversity and availability of housing options in the neighborhood which in turn will contribute to the downtown's vitality. For these reasons, I strongly support the proposed development and requested zoning change.

Sincerely,

Cc (vie e-mail):
Liz Butler, Taft Stettinius & Hollister LLP (LButler@taftlaw.com)

November 19, 2024

Chairman Rickard
Village of Downers Grove Civic Center
Planning and Zoning Commission
890 Curtiss Avenue
Downers Grove, IL 60515
Attn: Jason Zawila, jzawila@downers.us

Re: Letter of Support for 4Corners, LLC
Redevelopment of 4919 Forest Avenue
Request for Zoning Map Amendment, Special Use, PUD & Site Plan Approval

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_____, 2024

Chairman Rickard
Village of Downers Grove Civic Center
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890 Curtiss Avenue
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Attn: Jason Zawila, jzawila@downers.us

Re: Letter of Support for 4Corners, LLC
Redevelopment of 4919 Forest Avenue
Request for Zoning Map Amendment, Special Use, PUD & Site Plan Approval

Dear Chairman Rickard,

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Sincerely,

DocuSigned by:
Steve Lytle
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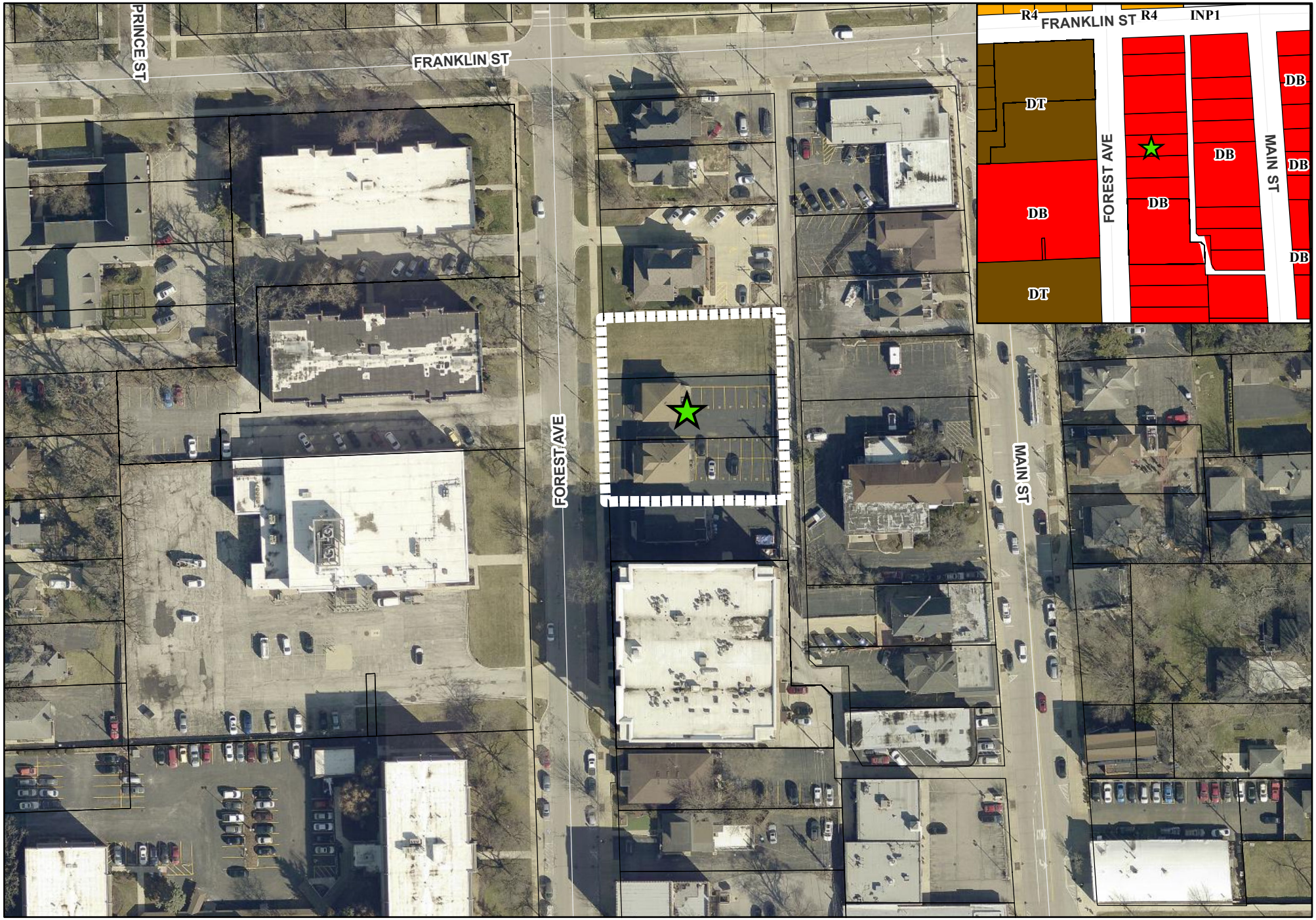
11/21/2024

Cc (vie e-mail):
Liz Butler, Taft Stettinius & Hollister LLP (LButler@taftlaw.com)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4919 Forest Avenue - Location Map
Subject Property
Project Location

11/21, 2024

Chairman Rickard
Village of Downers Grove Civic Center
Planning and Zoning Commission
890 Curtiss Avenue
Downers Grove, IL 60515
Attn: Jason Zawila, jzawila@downers.us

Re: Letter of Support for 4Corners, LLC
Redevelopment of 4919 Forest Avenue
Request for Zoning Map Amendment, Special Use, PUD & Site Plan Approval

Dear Chairman Rickard,

As the owner of All Creatures Great & Small, a local business and neighbor of the property located at 4919 Forest Avenue (the "**Property**"), I am writing to express my support for 4Corners, LLC (the "**Applicant**") and its application for a zoning map amendment, planned unit development designation, special use permit, and site plan approval for the redevelopment of the Property..

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Sincerely,

DVM/owner

Cc (vie e-mail):
Liz Butler, Taft Stettinius & Hollister LLP (LButler@taftlaw.com)

November 19, 2024

Chairman Rickard
Village of Downers Grove Civic Center
Planning and Zoning Commission
890 Curtiss Avenue
Downers Grove, IL 60515
Attn: Jason Zawila, jzawila@downers.us

Re: ***Letter of Support for 4Corners, LLC***
Redevelopment of 4919 Forest Avenue
Request for Zoning Map Amendment, Special Use, PUD & Site Plan Approval

Dear Chairman Rickard,

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11/18, 2024

Chairman Rickard
Village of Downers Grove Civic Center
Planning and Zoning Commission
890 Curtiss Avenue
Downers Grove, IL 60515
Attn: Jason Zawila, jzawila@downers.us

Re: ***Letter of Support for 4Corners, LLC***
Redevelopment of 4919 Forest Avenue
Request for Zoning Map Amendment, Special Use, PUD & Site Plan Approval

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Liz Butler, Taft Stettinius & Hollister LLP (LButler@taftlaw.com)

November 19, 2024

Chairman Rickard
Village of Downers Grove Civic Center
Planning and Zoning Commission
890 Curtiss Avenue
Downers Grove, IL 60515
Attn: Jason Zawila, jzawila@downers.us

Re: Letter of Support for 4Corners, LLC
Redevelopment of 4919 Forest Avenue
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Liz Butler, Taft Stettinius & Hollister LLP (LButler@taftlaw.com)

_____, 2024

Chairman Rickard
Village of Downers Grove Civic Center
Planning and Zoning Commission
890 Curtiss Avenue
Downers Grove, IL 60515
Attn: Jason Zawila, jzawila@downers.us

Re: Letter of Support for 4Corners, LLC
Redevelopment of 4919 Forest Avenue
Request for Zoning Map Amendment, Special Use, PUD & Site Plan Approval

Dear Chairman Rickard,

As a representative of the Moose Lodge, local business and neighbor of the property located at 4919 Forest Avenue (the "**Property**"), I am writing to express my support for 4Corners, LLC (the "**Applicant**") and its application for a zoning map amendment, planned unit development designation, special use permit, and site plan approval for the redevelopment of the Property..

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Sincerely,

DocuSigned by:
Steve Lytle
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11/21/2024

Cc (vie e-mail):
Liz Butler, Taft Stettinius & Hollister LLP (LButler@taftlaw.com)

HINSDALE BANK®
& TRUST COMPANY, N.A.

November 26, 2024

Chairman Rickard

Village of Downers Grove Civic Center

Planning and Zoning Commission

890 Curtis Avenue

Downers Grove, IL 60515

Attn: Jason Zawila

Dear Chairman Rickard,

I write representing Community Bank of Downers Grove located at 1111 Warren Avenue and in support of the redevelopment located at 4919 Forest Avenue by 4Corners LLC. The proposed multifamily rental property containing sixty-two rental units will increase the availability and diversity of rental options in downtown Downers Grove and continue to enhance the vibrancy of the community with minimal, if any, adverse impact.

I have personally reviewed the plans for the development and believe it is appropriate for the surrounding community and generally consistent with the Vision Statement of the Downers Grove Comprehensive Plan as well as the land use map contained in the "Guiding DG" documents, albeit requiring a zoning map amendment. As an aside, it is heartening to see private development dollars and economic development flowing to the downtown area north of the railroad tracks.

Take note that Hinsdale Bank & Trust, the parent organization of Community Bank of Downers Grove, has a long standing and mutually beneficial relationship with Michael Gatto, a member of ownership of the subject development, and would look favorably on financing this development if requested to do so.

Respectfully,

Dennis J. Jones

Chairman

Hinsdale Bank & Trust Co.

Downers Grove Economic Development Corporation
5159 Mochel Downers Grove, IL 60515
630.729.0380 www.dgedc.com

November 22, 2024

Chairman Rickard
Village of Downers Grove Civic Center
Planning and Zoning Commission
890 Curtiss Avenue
Downers Grove, IL 60515
Attn: Jason Zawila, jzawila@downers.us

Re: Letter of Support for 4Corners, LLC
4919 Forest Avenue
Request for Zoning Map Amendment, Special Use, PUD & Site Plan Approval

Dear Chairman Rickard,

On behalf of the Downers Grove Economic Development Corporation, I am writing to express our strong support for 4Corners, LLC (the "Applicant") and its application for a zoning map amendment, planned unit development designation, special use permit, and site plan approval for the redevelopment of the property located at 4919 Forest Avenue (the "Property").

The Applicant proposes to construct a high-quality, seven-story multi-family residential building at the Property. The development will contain 62 rental residential units, 89 vehicular parking spaces, and no commercial space. Currently, the Property consists of two aging, increasingly obsolete two-story buildings and a surface parking lot that have remained substantially vacant for the last six years.

We have reviewed the plans for the proposed development and believe the project is well-suited to the character of the surrounding community, aligning with the Village's Comprehensive Plan in terms of use, density, scale, and design. Approval of this application will allow for the revitalization of an underutilized property with a high-quality multi-family residential building, increasing the diversity and availability of housing options, supporting the local tax base, and contributing positively to downtown's vitality. For these reasons, the Downers Grove Economic Development Corporation strongly supports the proposed development and requested zoning change.

Please do not hesitate to contact us at bryan@dgedc.com or 630.729.0380 with any questions.

Sincerely,

Bryan Gay
President & CEO
Downers Grove Economic Development Corporation

Cc (vie e-mail):
Liz Butler, Taft Stettinius & Hollister LLP (LButler@taftlaw.com)

VILLAGE OF DOWNERS GROVE
PLAN COMMISSION MEETING

December 2, 2024, 7:00 P.M.

FILE 24-PCE-0034: A PETITION SEEKING APPROVAL FOR A PLANNED UNIT DEVELOPMENT AMENDMENT. THE PROPERTY IS CURRENTLY ZONED DOWNTOWN BUSINESS/PLANNED UNIT DEVELOPMENT 61, DB/PD #61. THE PROPERTY IS LOCATED AT THE NORTHEAST CORNER OF THE INTERSECTION OF WASHINGTON STREET AND WARREN AVENUE, COMMONLY KNOWN AS 844 WARREN AVENUE, DOWNERS GROVE, IL (PINS: 09-08-125-004). ERIC SYTER, PETITIONER AND TIMOTHY CANNING OWNER

Chairman Rickard stated they received a memo from staff asking to continue this public hearing to the January 6 meeting.

Motion to continue by Commissioner Toth, seconded by Commissioner Rutledge.

FILE 24-PCE-0029: A PETITION SEEKING APPROVAL FOR A PLANNED UNIT DEVELOPMENT, MAP AMENDMENT AND A SPECIAL USE TO ALLOW FOR AN APARTMENT BUILDING. THE PROPERTY IS CURRENTLY ZONED DB, DOWNTOWN BUSINESS. THE PROPERTY IS LOCATED 175 FEET FROM THE INTERSECTION OF FRANKLIN STREET AND FOREST AVENUE, COMMONLY KNOWN AS 4919 FOREST AVENUE, DOWNERS GROVE, IL (PINS: 09-08-116-004, 09-08-116-006). LIZ BUTLER, PETITIONER AND DUNELAND MANAGEMENT ONE LLC, OWNER.

Liz Butler, attorney at Taft, Stettinius & Hollister, stated that the petitioner, 4Corners Development, LLC, is a real estate development and construction firm that enhances communities while prioritizing integrity, transparency, and collaboration with the community. She gave a brief overview of the proposed development, which involves the demolition of two existing structures, consolidation of three lots into a single, and construction of a new second story all residential building. The development will have 62 rental residential units, 89 vehicular parking spaces with 26 of those being tandem spaces, high quality building materials, appropriate bulk, height, and massing articulation, and will complement the existing character of the area and will adhere to the Village's downtown design guidelines. She stated they are seeking favorable recommendation of a planned unit development, zoning map amendment from downtown business to downtown business PUD, and special use approval for the multiunit residential building. Ms. Butler went over the key factors they wish the commission to consider with the project. She expressed that the 62 new residential units will address the critical housing need in Downers Grove and the project will revitalize a site that has been underutilized. She gave an overview of the site context and location, existing conditions on the site, and changes that resulted from the community engagement process, including operations in the alley that abuts the property.

Ben Kennedy, Kennedy Mann Architecture, explained how they designed the building to adhere to the downtown design guidelines, community, and planning. He discussed curb cuts, the three foot dedication off of the alley side, and loading zone at the front of the building. He went over details

of the first floor, including the main entry, lobby, amenity space, internal package room, water room, electric room, generator room, bike room, rear drive, maintenance room, and internal trash room. He then discussed some details of the second floor, which include a lobby, storage room, domestic hot water tanks, and dog wash area. Mr. Kennedy went over parking, which includes 42 parking on the first floor and 47 on the second floor. He added there will be 62 regular spaces and 25 tandem, with 2 internal guest parking spots. He stated there will be a variety of unit types, with the average one bedroom unit being 868 square feet and, the two-bedroom at 983 square feet, and three-bedroom at 1,545 square feet. He noted that the third floor is stepped back, which result in terraces for a lot of the third floor units. On floors 4 through 6, the terraces will become balconies. There are 10 larger units on the 7th floor, with 1 one-bedroom, 4 two-bedroom, and 5 three-bedroom units. Mr. Kennedy went over the building elevation design, building materials and colors, utility service rooms, egress and ingress, and mentioned the revisions that came through the process of community engagement and discussing the project with staff. This included the dedication of three feet of the alley, revisions to window and balcony patterns on the building facade, and requiring left turns only out of the garage entrance on the alley.

Ms. Butler stated the project conforms with the recommendations of the comprehensive plan in a number of ways. She talked about the project benefits, including creating 50 to 75 jobs during construction, increase in property tax revenue, and transformation of the underutilized vacant site into a vibrant residential development. She said they worked closely with staff on the review of the proposed development and thanked them for their guidance. She noted the proposed development complies with all the standards of the zoning ordinance, and it is designed to be an amenity and provide benefits to the community.

Chairman Rickard asked for any questions for the petitioner.

Chairman Rickard asked Ms. Butler to talk about the improvement in the alley. Ms. Butler responded that the alley will be repaved.

Commissioner Boyle asked about the impervious area decreasing. Claudia Welp, Civil Engineer for the project, stated the total amount of impervious area is not decreasing, but not increasing enough to require stormwater management. She said they were provided more than 20,000 square feet of impervious area and had to provide detention and additional storage prior to releasing water to the city sewer, but since they are not increasing the restriction of 20,000 square feet, they only have to provide post-construction and best management practices.

Commissioner Frankovic asked if the alley was currently one way traffic going north. Ms. Butler expressed the project will install signage to direct people from the proposed development using the alley. Jason Zawila, Planning Manager, added there is traffic in both directions in the alley.

Commissioner Rutledge asked what the door in the renderings for the north elevation was for. Mr. Kennedy explained that door is for the water room.

Chairman Rickard asked for public input.

Scott Richards, shared his disappointed in the seventh floor and the lack of greenery on the project. He stated the front of the building is so close to the sidewalk that there is not any room to put any trees or bushes and greenery adds beauty to the buildings. He wished there was more of a setback

in regard to the entry way on the west side so they could have something of interest as the entry way and wished the building was more of a natural transition. Mr. Richards added that parking on Forest Avenue during the day is very full.

Judy Donofrio, stated that the team did a great job with meeting the community and went over the issues came up at meeting and in conversations, which included flooding issues, additional traffic on the street, parking, and the bad shape of the alley.

Zach Frazier, talked about the north setback being 4 inches directly from his property line. He voiced concerns on how they are going to erect a wall and build the building 4 inches from his property line without disrupting his property. He discussed the report stating the building is 70 feet high, but all elevations are showing it going above 70 feet. He shared the downtown area has an 800 square foot minimum lot area per dwelling unit but 342 square feet per dwelling unit is proposed, and wanted to know why they are being allowed a deviation from the standard.

Barbara Koran reiterated the comment about the traffic flow. She explained that with Main Steet going down to one lane, and bringing in more units will cause more issues with traffic. She was also concerned that 1.44 parking spaces with having three and two bedroom apartments is not going to be enough, and only two guest parking spaces for 62 units is not enough.

Peggy Spiegel talked about the beauty of the front of the building. She said Downers Grove has beautiful front lawns, and they should setback the building a little more to add some bushes and a few trees.

Jenna Winningham echoed the concerns on parking and traffic, specifically when they mentioned if they are over capacity, they can park in paid lots. She stated she was not sure which paid lots they were talking about and 1.4 spaces per unit is not enough. She added that it is not fair for the taxpayers to have to support supplying parking because they do not have enough parking.

Charles Data (ph) also addressed the traffic and parking. He said it is clear there is not enough parking unless 62 units have no friends or family. He said there is a lot of traffic on Forest that they cannot even get out of their building at times.

Ron Welfler stated that they live on the southwest corner of their building, where they can see and hear the constant traffic. He said that between 4 and 6 p.m., when there is a train, it is common for traffic turning off of Main Street to use Forest Avenue and it backs up traffic on Forest and Franklin. He shared that with this additional traffic, they will not be able to get out of their building and access for emergency vehicles will be a problem.

Chairman Rickard then asked for the staff report.

Emily Hepworth, Development Planner, explained the petition was for a special unit and a planned unit development and rezoning at 4919 Forest Avenue. She stated that a mailing notice was provided to all property owners within 250 feet, a legal notice was posted in the Daily Herald, and a public notice sign was posted along Forest Avenue. The petitioner held two neighborhood meetings and staff received one public comment in opposition and seven support letters. She expressed that the project is a seven story multifamily residential building with a total of 62 units, with parking on the first and second floor and a total of 89 parking stalls, and a restriction on all right turns out of

the second floor parking deck into the alley. Ms. Hepworth shared that the petition requested a deviation from the required minimum lot area per dwelling unit, and staff found the proposed level of density to be appropriate. She also discussed the front elevation, windows, building materials, and articulation. She talked about design guidelines, comprehensive plan elements for the development, and reviewed development criteria. Staff found they met the criteria for approval standards for a planned unit development, rezoning, and a special use.

Chairman Rickard asked for clarification that on a build-to-zone and that they are required to build within a certain distance of the sidewalk for a certain percentage of frontage. He said they are encouraging them to put the building along the sidewalk, which eliminates landscape space. He asked if there are any landscape requirements for a PUD like this or if it just based on landscape space available. Ms. Hepworth responded that the build-to-zone requires 80% of the primary façade to be within 0 to 10 feet of the property line, so they would encourage that build-to regulation to be met and any landscaping they can fit would be additional.

Chairman Rickard asked who was responsible for maintaining any improvements in the alley. Mr. Zawila answered that the Village is responsible for that.

Chairman Rickard asked if the building being 4 inches off the north property line was a building department and engineering issue. Mr. Zawila stated that would be reviewed during the permit review process.

Commissioner Frankovic asked what the distance was from the current structure on the north property to the property line. Mr. Kennedy stated it appears to be at least 10 feet.

Commissioner Boyle asked for clarification of a door on the north side of the building, particularly if it would house utilities. Mr. Kennedy responded yes.

Commissioner Boyle asked if there were no requirements for rear and side setbacks. Ms. Hepworth answered that was correct.

Commissioner Boyle asked for a clarification on the 70 feet building max height. Ms. Hepworth explained that they measure height from the established grade and take two spot elevations from the front corners of the building, and then take the average and measure from the top of the roof structure.

Chairman Rickard noted there are certain allowed extensions to go above that. Commissioner asked Ms. Hepworth for any thoughts on the seven floors versus six in terms of the design guidelines.

Ms. Hepworth deferred to the petitioner on why they chose that, but it does meet regulation. Commissioner Frankovic asked if there were any plans for the Village to add more public parking in the future. Mr. Zawila responded they are currently going through the comprehensive plan project which will look at the recommendations for the downtown area, which will review parking.

Chairman Rickard stated 1.4 parking ratio does meet the parking ordinance and other properties that have been built in the last few years have had less than that. He asked if there has been any known history of issues, problems, or complaints from lack of parking for residents in those buildings.

Mr. Zawila answered that the only time they hear it is in meetings like this, but they do have an understanding that the buildings approved and constructed have sufficient parking.

Chairman Rickard said the standards they have are based on data and types of amenities in the neighborhood and is standard in other towns as well. Mr. Zawila expressed reduced parking is intentional for zoning districts close to the train station.

Commissioner Rutledge asked about concerns on flooding and how that was being addressed. Ms. Hepworth responded that any future development would have to adhere to the stormwater ordinance and not cause any extra burden or affects to neighboring properties. Mr. Zawila added that if approved, it will follow all building, fire, and stormwater ordinance codes.

Chairman Rickard asked for the petitioner to come back and address any issues or comments.

Ms. Butler invited the traffic engineer to come up and address traffic concerns. Javier Midlan, traffic engineer, expressed the traffic study followed all guidelines and the Village of Downers Grove requirements. He stated that due to the location of the site being in close proximity to the train station, it is anticipated that estimated traffic will be reduced and it was indicated that 21% of the Downers Grove population work from home, 9% use transit, and 2% either walk or drive to work. He said data translated to one additional vehicle every 8 minutes potentially with this development. He shared that the average peak parking demand for the development of this size is 1.23 spaces per dwelling unit, which translates into a parking demand of 76 spaces.

Commissioner Toth asked how tandem parking spots work. Mr. Midlan explained tandem parking sports and added they work here because there tends to be less traffic and parking demand near a train station for transit.

Commissioner Boyle asked if the intention for the development to assign parking for each tenant. Mr. Midlan responded that is typically how it works for apartment, by being assigned to one unit.

Commissioner Patel asked if the apartment will plan to assign parking spots by unit. Mr. Midlan explained that parking demand is typically controlled by the leasing company assigning spaces.

Ms. Butler asked the civil engineer to come to the podium to address questions related to stormwater. Ms. Welp discussed the stormwater approach the project is taking. She said they are required to follow the county and Village requirements and described the stormwater storage structure that will be built as a part of this development.

Ms. Butler reminded the Commission that the proposed development meets all the standards of the zoning ordinance in respect to height, parking, and setbacks, and the only deviation being requested is with the respect to residential density.

Ben Kennedy, project architect, discussed how they arrived at the proposed density and how the building will be constructed 4 inches off of the property line. He noted they are 4 inches at one end but 8.4 at the other end. He shared that when the finalized the engineering design of the building, they will determine how they have to support soil from their property to the other property, typically this is done with some type of shoring. In regards to the density, he stated that the average of the 62 units is about a 1040 square foot average overall and they wanted more family sized, larger units.

Commissioner Toth asked about the shoring that would be between the property lines. Mr. Kennedy said they are usually about 4 to 6 inches in width and it will done in a way that it can be monitored to make sure there is no disturbances to the adjacent properties. J. P. Bartley, member of the ownership group, talked about how parking is allocated during the leasing process. He said the spots are going to be assigned on a tenant by tenant basis and the tenant will have the option to rent a space or two, and they will carefully monitor the parking count to make sure parking is available to every unit. He added that once it is fully leased up, they usually are left with spots leftover that could be used for guests or could be rented to other apartments that have higher demand, but is it first come, first serve.

Ms. Butler added that access is controlled to the parking facility so not anyone can just come in and park. She also said they received a number of letters in support for the proposed development and the Economic Development Commission is in support and a number of surrounding business owners and members of the community.

Chairman Rickard asked for discussion from the commissioners.

Chairman Rickard stated the building has the potential to be one of nicest buildings they have downtown and all design standards were met and likely exceeded and they are trying to increase density around downtown. He noted some people have issues with the parking, but the parking standards here have been met. He shared that he lives a couple blocks north of the proposed development and it does get busy with traffic during rush hours, but he knew that when he bought the property and that comes with living near a downtown area. Chairman Rickard expressed this is exactly what the comprehensive plan is telling developers and builders that we want to see in that area and the standards had been met.

Commissioner Toth expressed that he appreciated the traffic explanation and analysis and the parking explanation also made sense and was helpful. He stated it was a good project and was in support.

Chairman Rickard said a lot of residents are looking for smaller scale, more affordable housing, and these smaller units allowed younger people to get into town and rent, because currently there are not a whole lot of smaller units for younger professional types, singles, or empty nesters.

Commissioner Frankovic voiced the standard had been met for approval. She said the design was very well thought out and all of the main concerns they had were addressed and this would be a great asset to the area. She added a lot of the traffic issues can be addressed as part of the updated Comprehensive Plan. She was in support.

Commissioner Rutledge stated the standards have been met and exceeded in some cases. She appreciated the innovation of the design and is alignment with the plan in Downers Grove. She also liked the mixed dwellings and variety of room options. She was in support.

Chairman Rickard asked if anyone wanted to make a motion.

Commissioner Toth made the motion.

WITH RESPECT TO FILE 24-PCE-0029 AND BASED ON THE PETITIONER'S SUBMITTAL, THE STAFF REPORT, AND THE TESTIMONY PRESENTED, IT IS FOUNDED THE PETITIONER HAS MET THE STANDARDS OF APPROVAL FOR THE ZONING MAP AMENDMENT, PLANNED UNIT DEVELOPMENT AMENDMENT AND SPECIAL USE AS REQUIRED BY THE VILLAGE OF DOWNERS GROVE ZONING ORDINANCE AND IS IN THE PUBLIC INTEREST, AND THEREFORE, COMMISSIONER TOTH MADE A MOTION THAT THE PLANNING AND ZONING COMMISSION RECOMMEND TO THE VILLAGE COUNCIL APPROVAL OF FILE 24-PCE-0029, SUBJECT TO THE CONDITIONS AS LISTED.

SECOND BY COMMISSIONER V. PATEL

ROLL CALL:

AYE: TOTH, V. PATEL, BOYLE, FRANKOVIC, K. PATEL, RUTLEDGE, CHAIRMAN RICKARD

NAY: NONE

MOTION APPROVED. VOTE: 7-0

/s/ Celeste K. Weilandt
Recording Secretary

(As transcribed by Ditto Transcripts)