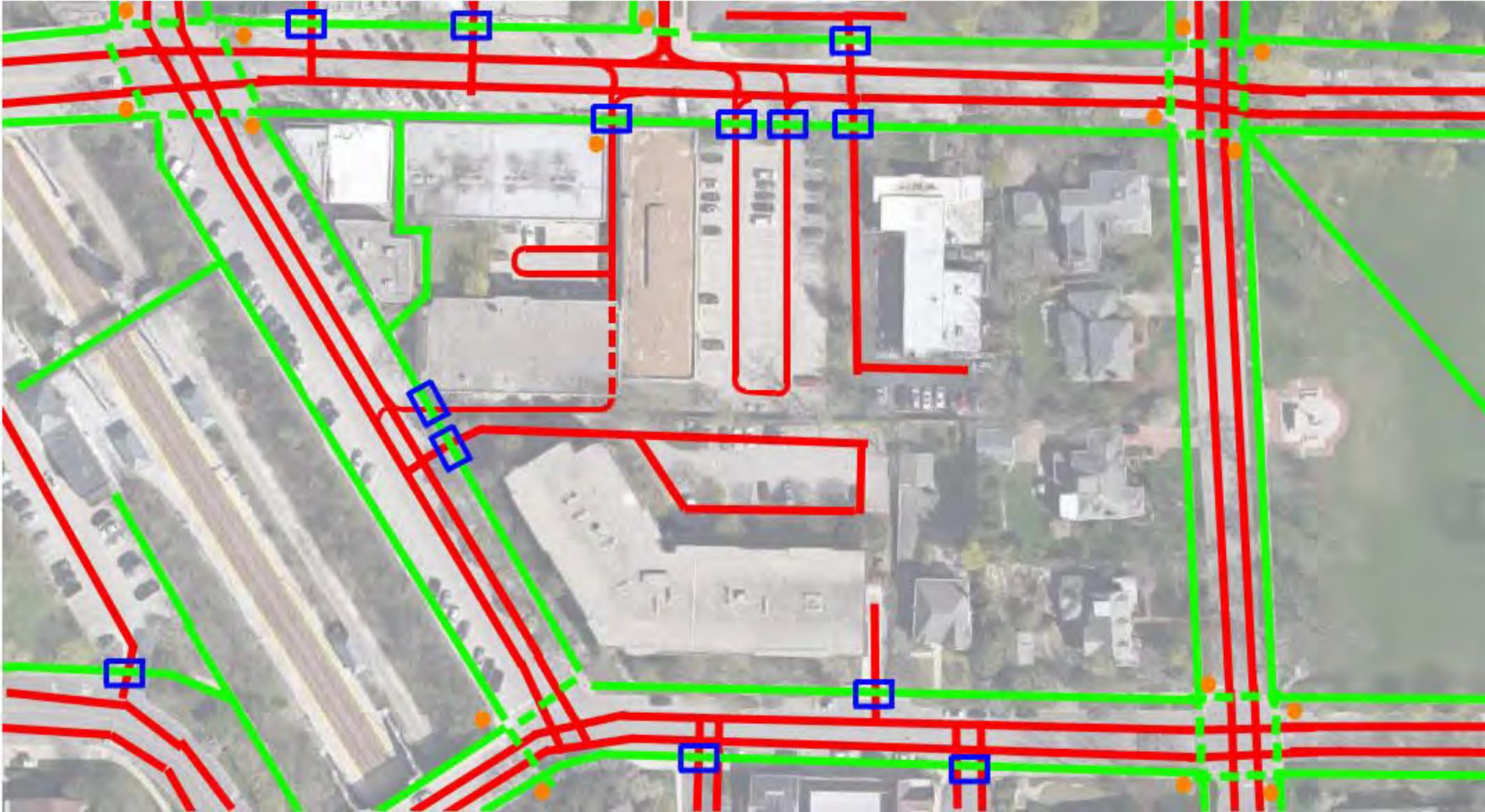


ONE WINNETKA

Supporting Documentation

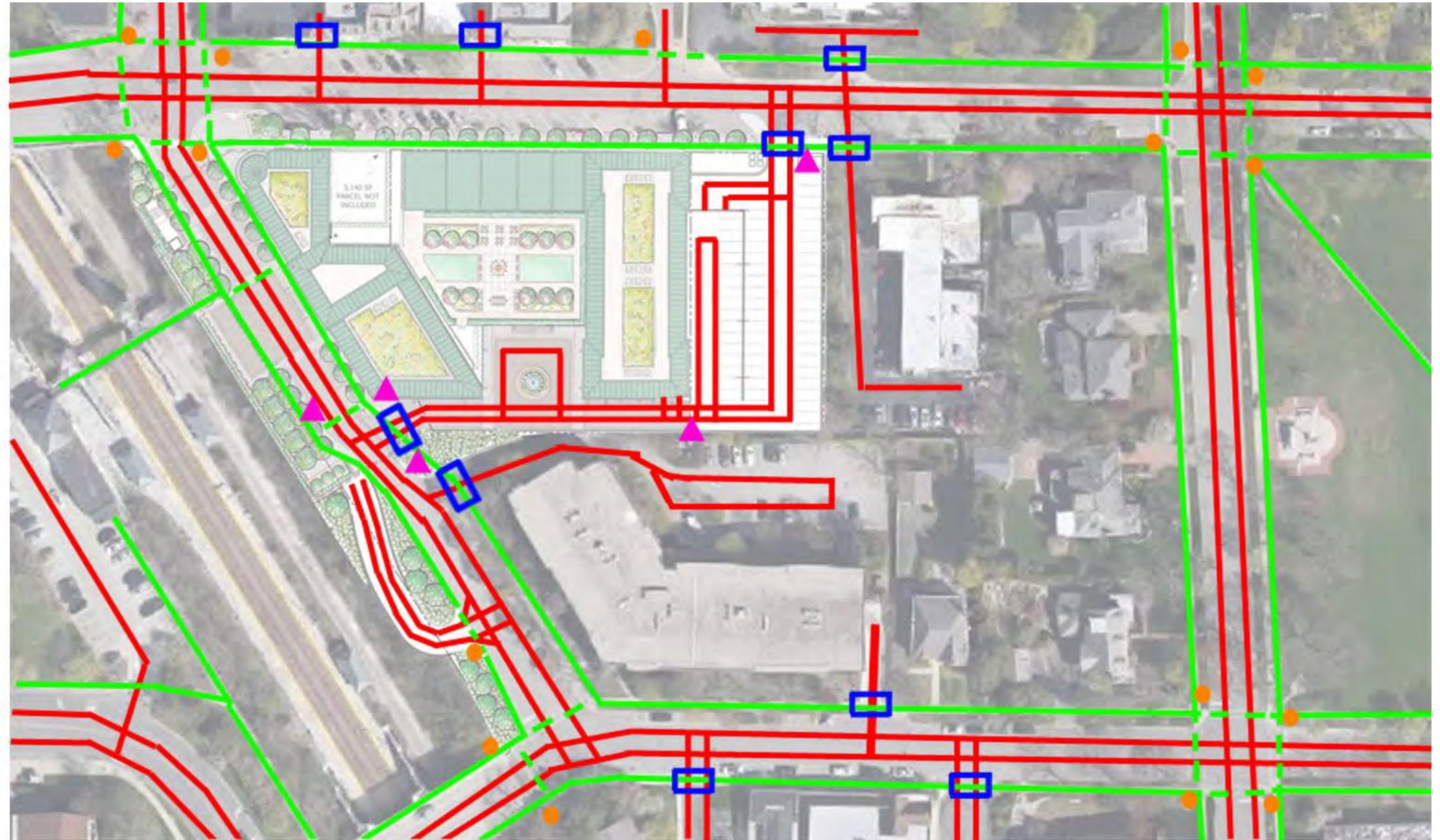
EXISTING TRAFFIC

-  EXISTING VEHICULAR TRAFFIC
-  EXISTING PEDESTRIAN TRAFFIC
-  EXISTING CURB CUTS (EXCEPT SINGLE FAMILY HOMES)
-  EXISTING STOP SIGNS



PROPOSED TRAFFIC

-  VEHICULAR TRAFFIC
-  PEDESTRIAN TRAFFIC
-  CURB CUTS (EXCEPT SINGLE FAMILY HOMES)
-  STOP SIGNS
-  PROPOSED YIELD SIGNS



EXISTING INTERSECTION UTILIZATION

LINCOLN AVE. & ELM ST.
OPERATING AT :

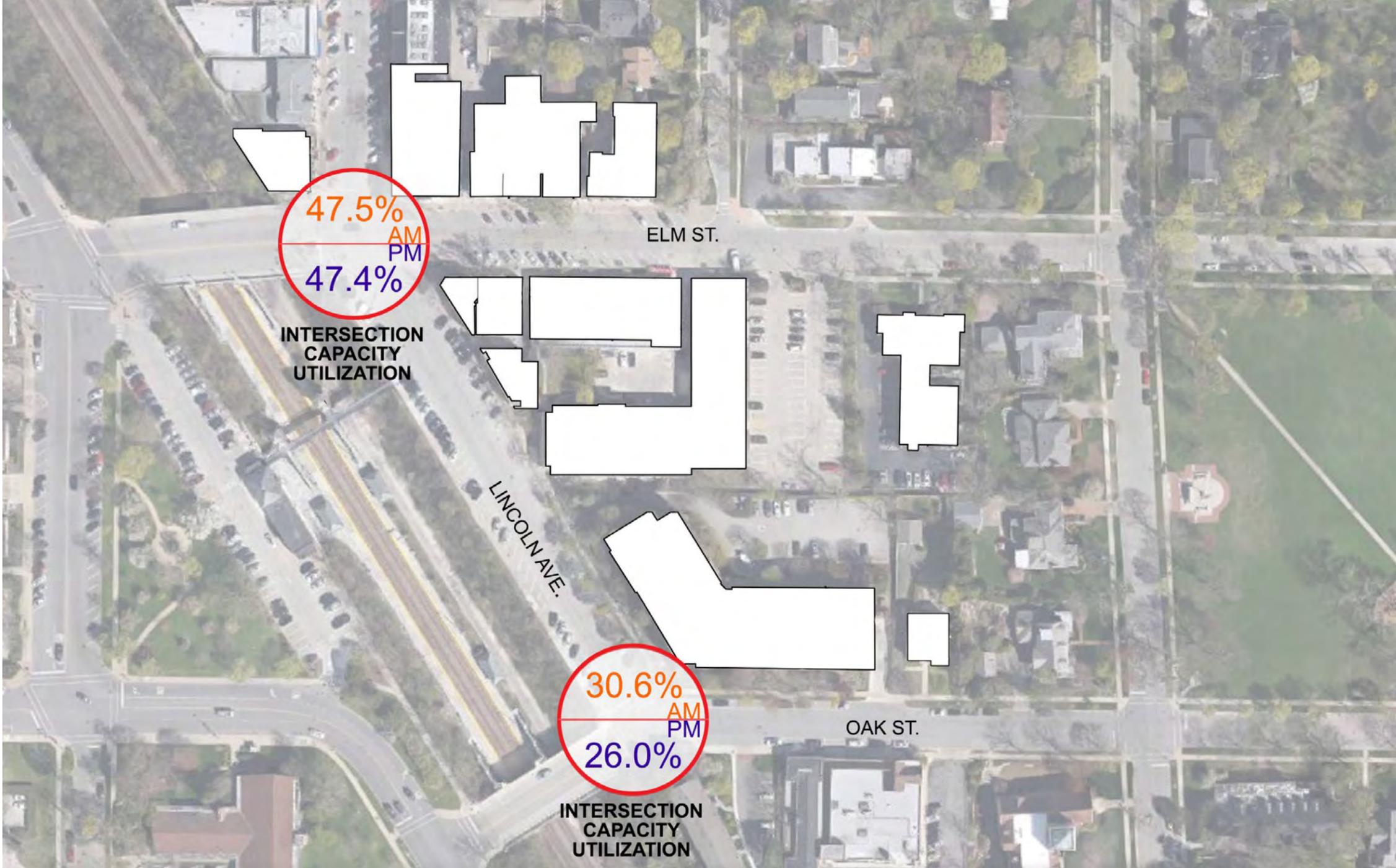
AM: 47.5% OF CAPACITY

PM: 47.4% OF CAPACITY

LINCOLN AVE. & OAK ST.
OPERATING AT :

AM: 30.6% OF CAPACITY

PM: 26.0% OF CAPACITY



PROPOSED INTERSECTION UTILIZATION

LINCOLN AVE. & ELM ST.
OPERATING AT :

AM: 54.5% OF CAPACITY (+7.0%)

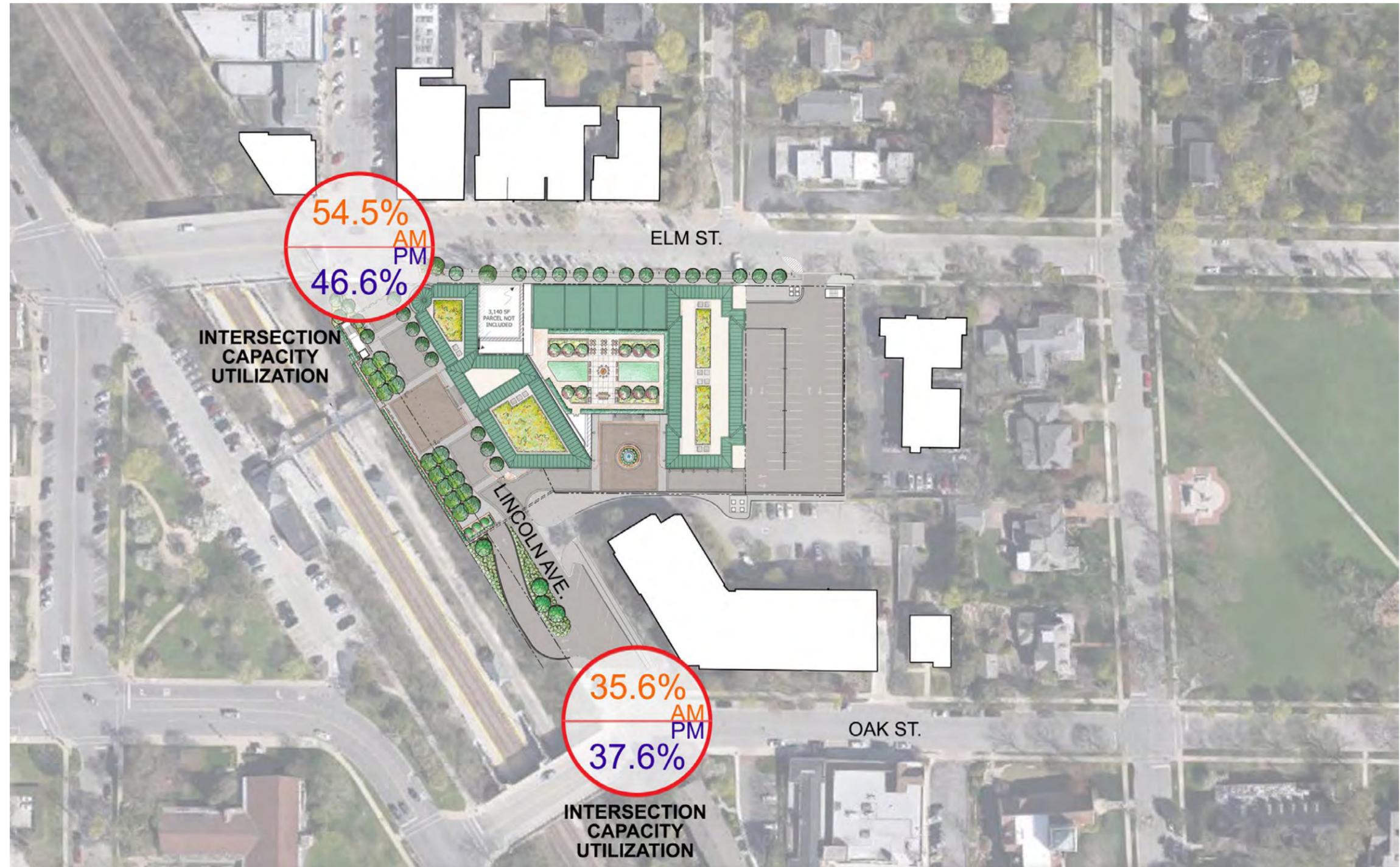
PM: 46.6% OF CAPACITY (-0.8%)

LINCOLN AVE. & OAK ST.
OPERATING AT :

AM: 35.6% OF CAPACITY (+5.0%)

PM: 37.6% OF CAPACITY (+11.6%)

AVERAGE CHANGE: +5.7%



EXISTING PARKING

-  UNDERGROUND PARKING
-  PARKING TO BE RELOCATED OR SUBSTANTIALLY MODIFIED
-  PARKING TO REMAIN IN PLACE WITH MINOR MODIFICATIONS

24 SPACES: VILLAGE OWNED EXISTING ELM ST. ANGLE PARKING MODIFIED FOR ADA COMPLIANCE

21 SPACES: VILLAGE OWNED EXISTING 90 MIN. RETAIL PARKING 13 SPACES TO REMAIN ON LINCOLN, 8 RELOCATED TO NEW GARAGE UNDER LINCOLN AVE.

41 SPACES: VILLAGE OWNED 9 EXISTING 90 MIN. RETAIL SPACES 32 EXISTING ZONE C COMMUTER SPACES, ALL RELOCATED TO NEW GARAGE UNDER LINCOLN AVE.

27 SPACES: PRIVATELY OWNED SPACES FOR USE OF EXISTING BUILDINGS, RELOCATED TO GARAGE UNDER NEW BUILDING

62 SPACES: VILLAGE OWNED RETAIL SPACES TO BE RELOCATED TO NEW GARAGE AT SAME LOCATION



PROPOSED PARKING

 UNDERGROUND PARKING

 GRADE LEVEL PARKING

28 SPACES: VILLAGE OWNED;
EXISTING ELM STREET ANGLE PARKING,
MODIFIED FOR ADA COMPLIANCE

13 SPACES: VILLAGE OWNED;
NEW AT GRADE RETAIL PARKING IN &
AROUND NEW LINCOLN AVE. PLAZA

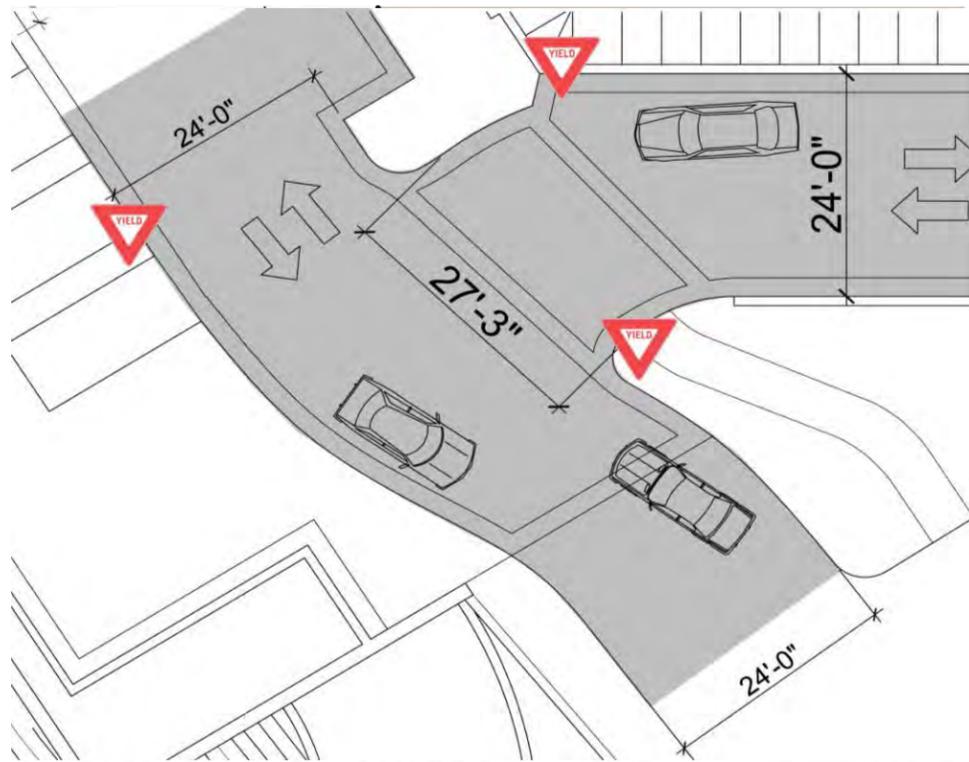
194 SPACES: VILLAGE OWNED;
NEW COMMUTER & RETAIL OVERFLOW
PARKING STRUCTURE UNDER NEW
LINCOLN AVE PLAZA, ACCESS
CONTROLLED

116 SPACES: VILLAGE OWNED;
NEW RETAIL PARKING STRUCTURE

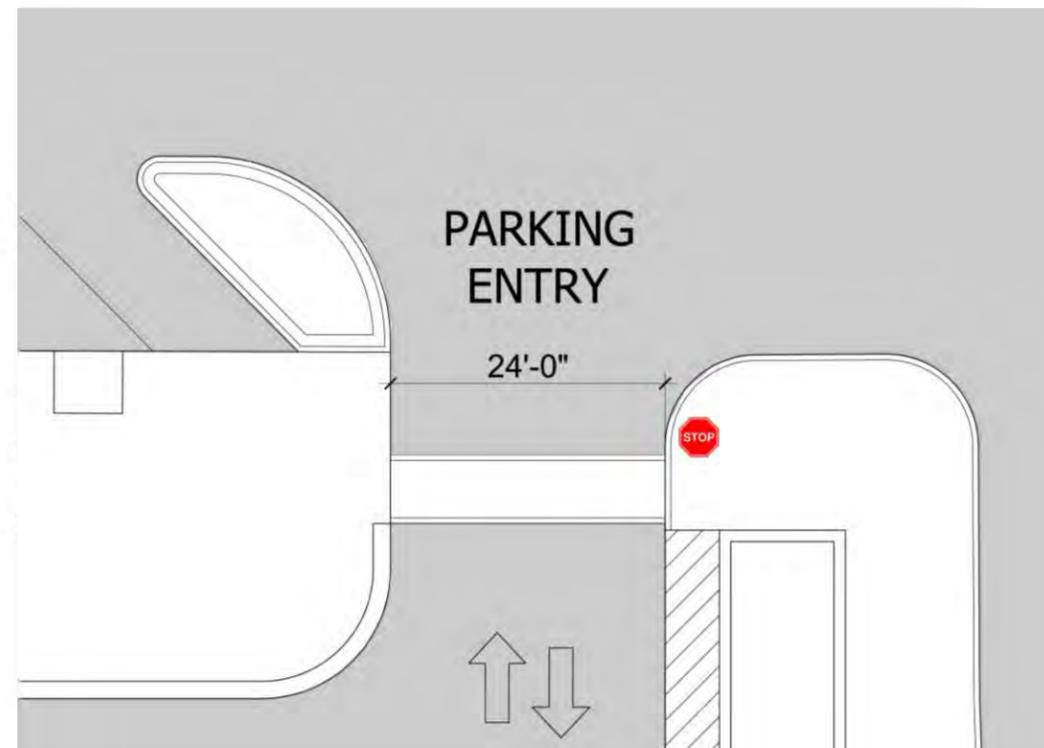
122 SPACES: PRIVATELY OWNED;
PRIVATE GARAGE FOR RESIDENTS AND
OTHER BUILDING TENANTS, ACCESS
CONTROLLED



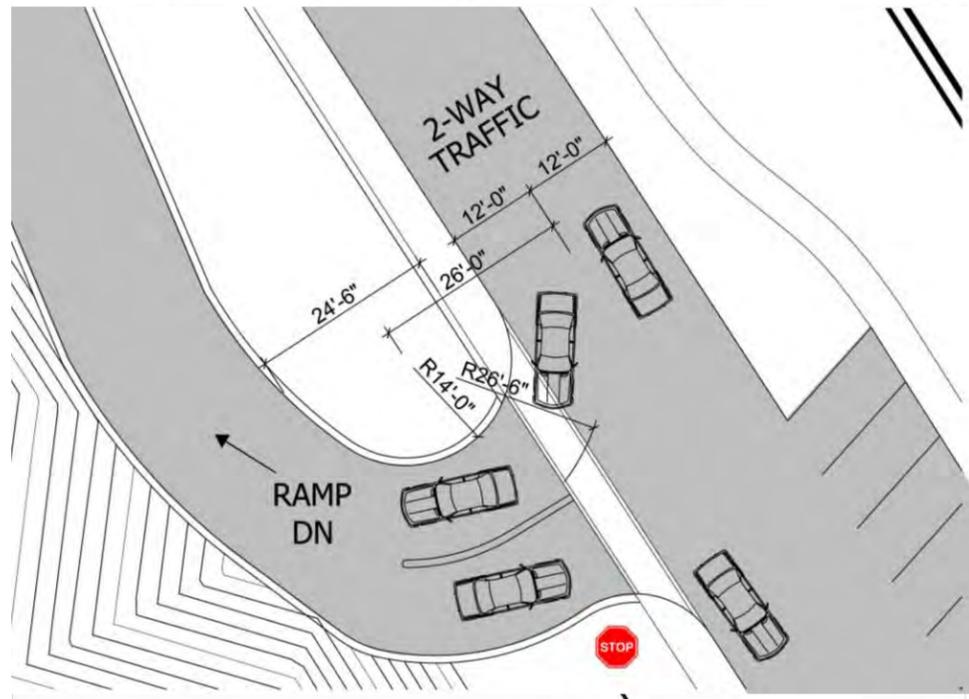




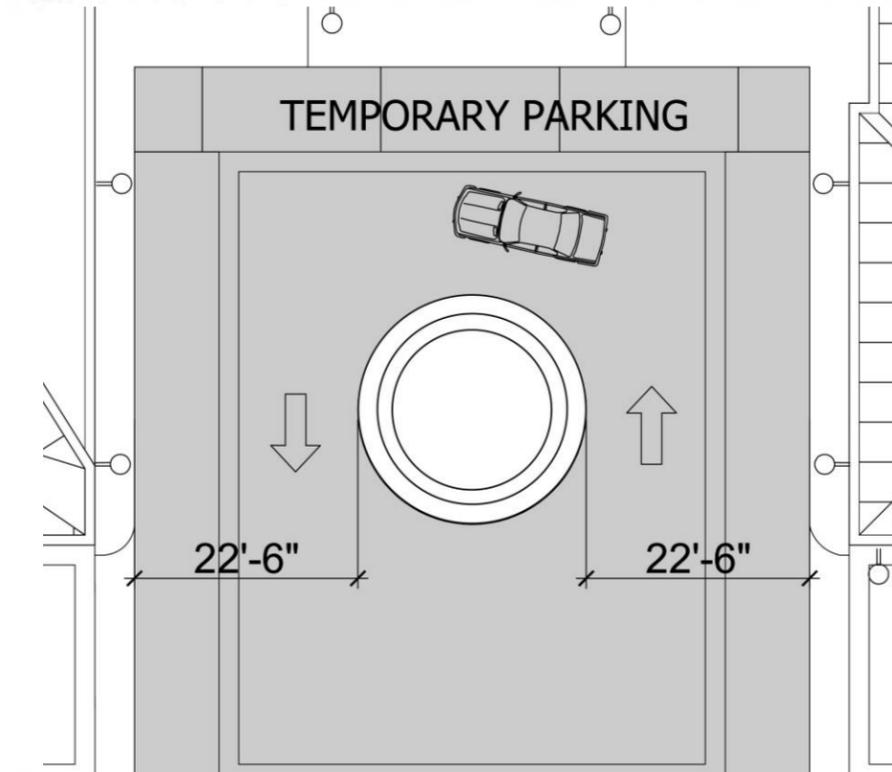
1 PLAN VIGNETTE - ENTR TO BUILDING OFF LINCOLN AVE
SCALE: 1/16" = 1'-0"



2 PLAN VIGNETTE - ENTR TO E PARKING OFF ELM STREET
SCALE: 1/16" = 1'-0"



3 PLAN VIGNETTE - ENTRANCE TO COMMUTER GARAGE
SCALE: 1/16" = 1'-0"



4 PLAN VIGNETTE - AT THE MOTOR COURT
SCALE: 1/16" = 1'-0"

March 17, 2016

David Trandel
Winnetka Station, LLC.
515 Lincoln Ave
Winnetka, IL 60093

Location: Traffic Study Addendum
ONE Winnetka Mixed-Use Development
Winnetka, Illinois

Dear David:

Kenig, Lindgren, O'Hara, Aboona, Inc. (KLOA, Inc.) has reviewed the new plans for the proposed ONE Winnetka development and offers the following:

Trip Generation

The original plan called for 120 apartments, approximately 46,440 square feet of specialty retail and a 144 space commuter lot. **Table 1** shows the original plan projected site generated traffic volumes.

Table 1
PROJECTED SITE-GENERATED TRAFFIC VOLUMES (**ORIGINAL PLAN**)

ITE Land Use Code	Land Use	Size	Weekday Morning Peak Hour		Weekday Evening Peak Hour	
			In	Out	In	Out
220	Apartments	120 Units	12	50	55	29
		35 percent reduction ¹	<u>(-4)</u>	<u>(-18)</u>	<u>(-19)</u>	<u>(-10)</u>
		Subtotal	8	32	36	19
826	Specialty Retail	46,440 s.f.	20	12	59	75
--	Commuter Lot ²	144 spaces	<u>88</u>	<u>6</u>	<u>4</u>	<u>78</u>
	Total		116	50	99	172

¹Trip generation reduced by 35 percent to account for proximity to train station

²Trip generation based on survey of the existing Winnetka Metra parking lot on the west side of the tracks between Elm Street and Oak Street/Green Bay Road

Under the original plan, all of the studied intersections were projected to operate at a level of service B or better.

The current plan has reduced the number of apartment units to 71 and the retail space to 40,249 square feet. **Table 2** shows the estimated trip generation under the current plan.

Table 2

PROJECTED SITE-GENERATED TRAFFIC VOLUMES (CURRENT PLAN)

ITE Land Use Code	Land Use	Size	Weekday Morning Peak Hour		Weekday Evening Peak Hour	
			In	Out	In	Out
220	Apartments	71 Units	8	30	37	20
		35 percent reduction ¹	<u>(-3)</u>	<u>(-11)</u>	<u>(-13)</u>	<u>(-7)</u>
		Subtotal	5	19	24	13
826	Specialty Retail	40,249 s.f.	17	11	52	66
--	Commuter Lot ²	144 spaces	<u>88</u>	<u>6</u>	<u>4</u>	<u>78</u>
	Total		110	36	80	157

¹Trip generation reduced by 35 percent to account for proximity to train station

²Trip generation based on survey of the existing Winnetka Metra parking lot on the west side of the tracks between Elm Street and Oak Street/Green Bay Road

An alternate plan that would include the 736 Elm Street building is being considered. Under this plan, the number of residential units and the commuter lot spaces would remain the same. However, the retail component of the development would increase to 44,330 square feet. **Table 3** shows the estimated trip generation under the alternate plan.

Table 3

PROJECTED SITE-GENERATED TRAFFIC VOLUMES (ALTERNATE PLAN)

ITE Land Use Code	Land Use	Size	Weekday Morning Peak Hour		Weekday Evening Peak Hour	
			In	Out	In	Out
220	Apartments	71 Units	8	30	37	20
		35 percent reduction ¹	<u>(-3)</u>	<u>(-11)</u>	<u>(-13)</u>	<u>(-7)</u>
		Subtotal	5	19	24	13
826	Specialty Retail	44,330 s.f.	19	12	56	72
--	Commuter Lot ²	144 spaces	<u>88</u>	<u>6</u>	<u>4</u>	<u>78</u>
	Total		112	37	84	163

¹Trip generation reduced by 35 percent to account for proximity to train station

²Trip generation based on survey of the existing Winnetka Metra parking lot on the west side of the tracks between Elm Street and Oak Street/Green Bay Road

Based on a comparison of Tables 1 and 2, the current plan will generate 20 and 34 less total (in/out) trips during the morning and evening peak hours, respectively. This translates into an approximate 12 percent reduction. Inspection of Table 3 indicates that the addition of the 736 Elm Street building will have a minimal increase in the estimated traffic volumes when compared to the current plan. However, even with the increase in trip generation, the alternate plan would still generate less traffic than the original plan.

Given that all of the studied intersections were projected to operate at acceptable levels of service under the original plan, a reduction on the number of trips generated by the proposed development will have a positive impact on the adjacent intersections with less traffic and potentially shorter delays.

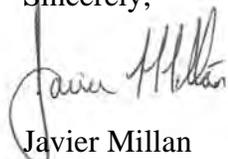
Lincoln Avenue and Oak Street

There have been some discussions about the impact this development will have on pedestrian traffic at the intersection of Lincoln Avenue and Oak Street. Based on our field visits, the Lincoln Avenue approach is under stop sign control while Oak Street flows uninterrupted. It was also observed that there are two marked crosswalks at the intersection. These are on Lincoln Avenue and on the westbound approach of Oak Street. These crosswalks are striped with two solid lines on each side of the crosswalk. In order to enhance the visibility of the crosswalks and better alert vehicles of the presence of pedestrians in the area, the following should be considered:

- The crosswalks should be restriped with a high-visibility crosswalk marking material and with either a ladder design similar to the striped crosswalks on Winnetka Avenue at Woodland Avenue adjacent to New Trier High School or with a diagonal design (see attached figure).
- A “State Law, Stop for Pedestrians at Crosswalk” sign could be installed on Oak Street and Lincoln Avenue to alert motorists.

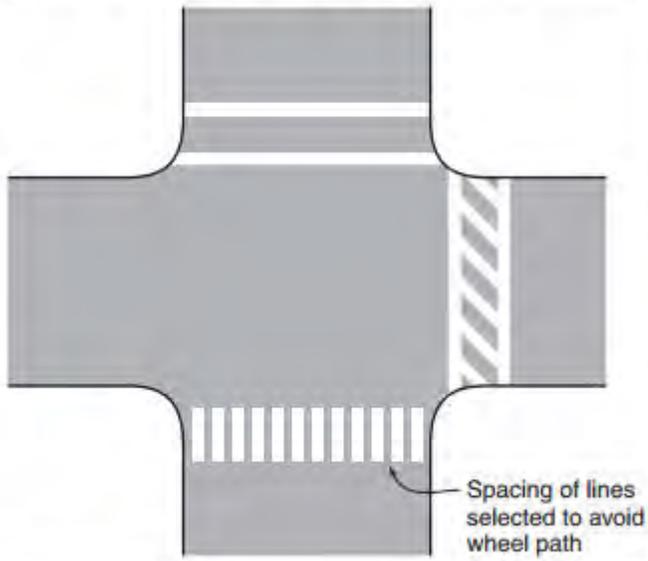
Should you have any questions or require additional information, please let me know.

Sincerely,



Javier Millan
Senior Consultant

Figure 3B-19. Examples of Crosswalk Markings



December 3, 2015

David Trandel
Stonestreet Partners
515 Lincoln Ave
Winnetka, IL 60093

Location: Parking Demand/Need Evaluation
One Winnetka Mixed-Use Development
Winnetka, Illinois

Dear David:

Kenig, Lindgren, O'Hara, Aboona, Inc. (KLOA, Inc.) has reviewed the comments raised by the Village of Winnetka Zoning Board of Appeals in connection with the proposed One Winnetka development and offers the following:

As part of the traffic study conducted by KLOA, Inc. and in order to determine the availability of parking within close proximity to the site, a parking survey of the East Elm Street District per block and per side was conducted. Based on the surveys, the following is the average parking demand of the commuter designated spaces from 8:00 A.M. to 3:00 P.M.

- | | | |
|-----------------------------------|---|--------------------|
| 1. Metra Parking Lot | - | 88 percent |
| 2. Lincoln Avenue Commuter Spaces | - | 100 percent |
| 3. Oak Street Commuter Spaces | - | <u>100 percent</u> |
| 4. Average Parking Demand | - | 96 percent |

Based on the above and given that industry standards consider occupancies/demands greater than 85 percent to be at capacity, the commuter parking spaces are currently at capacity. For comparison purposes, KLOA, Inc. also reviewed a parking study that was conducted in 2006 for the Village of Winnetka and based on the results of the study, the commuter parking spaces had an average parking occupancy/demand of 94 percent which is consistent with what KLOA, Inc. observed. It is important to note that the KLOA, Inc. parking surveys also indicated that availability of on-street parking spaces along Lincoln Avenue, Elm Street, Green Bay Road and the Zone A parking spaces within the Lincoln Avenue parking lot is very limited and it experiences an average parking occupancy/demand in excess of 85 percent specifically during the 9:00 A.M. to 2:00 P.M. hours which also indicates these on-street parking spaces are at capacity. When the on-street parking area occupancy approaches 85 percent, very few parking spaces are readily available and leads motorists to drive around trying to find the best parking space thus unnecessarily increasing traffic circulation on Village's streets and potentially driving away customers that would otherwise visit the area businesses.

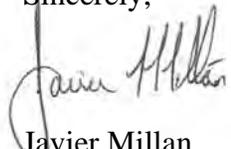
Per the Village of Winnetka Zoning Ordinance, a multi-unit residential development should provide 1.25 parking spaces for one bedroom units, 1.5 parking spaces for two bedroom units and 2.0 spaces for three bedroom units or larger. In addition the retail portion of the development should provide 2.0 parking spaces per 1,000 net square feet. Based on the proposed composition of the apartment units and the above requirements, One Winnetka should be providing a minimum of 116 parking spaces for the apartments and a minimum of 64 parking spaces for the proposed retail component.

Based on a review of the plans, the One Winnetka development will be providing 116 spaces for the residential portion therefore meeting the requirements of the zoning ordinance. For the retail component of the development, the plans call for replacing the existing 62 parking spaces on the Elm Street Parking Lot and 17 on-street parking spaces along Lincoln Avenue within the underground garage. In addition 68 new retail spaces will be provided (4 on-street spaces on Elm Street, 53 off-street spaces within the underground garage, 5 spaces within the motor court and 6 retail employee spaces within the underground garage), therefore, meeting the minimum required number of parking spaces per the zoning ordinance.

The proposed One Winnetka development will relocate the existing 33 commuter parking spaces along Lincoln Avenue to the new underground parking garage and add an additional 108 commuter parking spaces. The provision of covered underground parking spaces will provide protection from inclement weather and make it more attractive to commuters to park their vehicles. Therefore, the demand that is currently experienced on the commuter on-street parking spaces could be reduced and some of these off-street parking spaces could be better utilized to serve the area businesses.

Should you have any questions or require additional information, please let me know.

Sincerely,

A handwritten signature in black ink, appearing to read "Javier Millan". The signature is written in a cursive style with a large initial "J".

Javier Millan
Senior Consultant

June 4, 2015

David Trandel
Stonestreet Partners
515 Lincoln Ave
Winnetka, IL 60093

Location: One Winnetka Planned Development
Winnetka, Illinois

Dear David:

Kenig, Lindgren, O'Hara, Aboona, Inc. (KLOA, Inc.) has reviewed the comments raised by Village of Winnetka staff in connection with the proposed One Winnetka development. Our response to these comments is in the same order as they appeared in their letter dated March 10, 2015.

1. While it is true that pedestrian volumes could be higher during the 12:00 Noon hour, traffic volumes are typically much lower (40 to 50 percent lower) during this time than during the morning and evening peak hours. As such, the impact to pedestrian traffic is much lower at other times.

In order to make crosswalks more visible, the provision of high visibility continental style crosswalks should be considered at the intersection of Lincoln and Oak. Also, as indicated in the staff memo, the brick crosswalk at the intersection of Elm and Lincoln should be reconstructed as part of the project. This type of treatment will also provide a high visibility crosswalk that will enhance pedestrian safety.

2. When KLOA, Inc. was conducting the traffic study, accident data differentiating the type of accidents at the studied intersection was requested. However, at the time, the Village did not have the time or manpower available to provide such detailed data. We subsequently received this data and based on this additional information, over a five year period (2009 to 2013), there were only two accidents involving a pedestrian at the intersection of Green Bay Road and Elm Street (one in 2009 and another in 2012) and two accidents involving a bicyclist at the intersection of Oak Street and Green Bay Road (one in 2009 and another in 2010). No fatalities were reported at any of the intersections.
3. The reduction used in the traffic study to take into account the use of public transportation is based on Census data for Winnetka within a ¼ mile radius from the train station. Attached to this response letter is a copy of the Census data summary compiled by the Center for Transit Oriented Development.

With regards to the statement in the traffic study that the traffic volumes are conservative because the existing traffic at the current parking lot was left in the counts, we offer the following:

- Based on information provided to us by Staff, at the time the traffic study was being conducted there were nine vacancies within the East Elm Street District with five of those located within the proposed development. As such, the majority of the vacancies will be occupied by the proposed development
- To account for background growth and the rest of the vacancies, the existing traffic volumes were increased by 1.5 percent per year for six years (a total of nine percent growth). This growth factor was based on data provided by the Chicago Metropolitan Agency for Planning (CMAP) Year 2040 population and employment forecast.

Lastly, the LOS D stated in the traffic study for the Lincoln Avenue egress drive from the proposed underground parking lot was a typo. The correct level of service is B and not D.

4. At the time the traffic study was conducted, the ordinance did not require parking for the retail portion of the development. Since then, the ordinance has changed and based on our understanding the new plan (71 apartments and 40,250 square feet of retail) would require the following:
 - 116 parking spaces for the apartments
 - 64 parking spaces for the retail

Based on a review of the new plan, the development will provide 116 parking spaces for the residents in an underground parking garage. For the retail component of the development, the plans call for replacing the existing 62 parking spaces on the Elm Street Parking Lot and provide an additional 54 public parking spaces within this lot. Furthermore, an additional 59 public parking spaces will be located within underground parking garage. Taking into account some of the losses and gains on on-street parking spaces, the development will be providing an approximate net gain of 99 public parking spaces which is more than adequate to accommodate the required 64 parking spaces for the retail component.

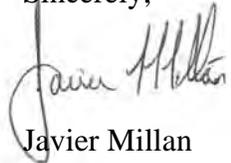
The TOD related reduction was based on Census data for Winnetka within a ¼ mile of the train station which indicated that auto ownership of rental units within ¼ mile of the train station is 1.05 vehicles and auto ownership of owned homes within ¼ mile of the train station is 2.09 vehicles. This is consistent with parking data of other communities/areas within close proximity to a train station.

Lastly, the development will explore providing enclosed, secure storage facilities for

bicycles, unbundling parking by separating parking costs from unit leases and providing car sharing spaces.

Should you have any questions or require additional information, please let me know.

Sincerely,

A handwritten signature in black ink, appearing to read "Javier Millan". The signature is written in a cursive style with a large initial "J".

Javier Millan
Senior Consultant

Enc.

[LOG OUT](#)

[USER GUIDE](#)

[STATION DOWNLOADS](#)

Transit Zone: .25 mile .5 mile Smart Zoom

[Data](#) [Geographies](#)

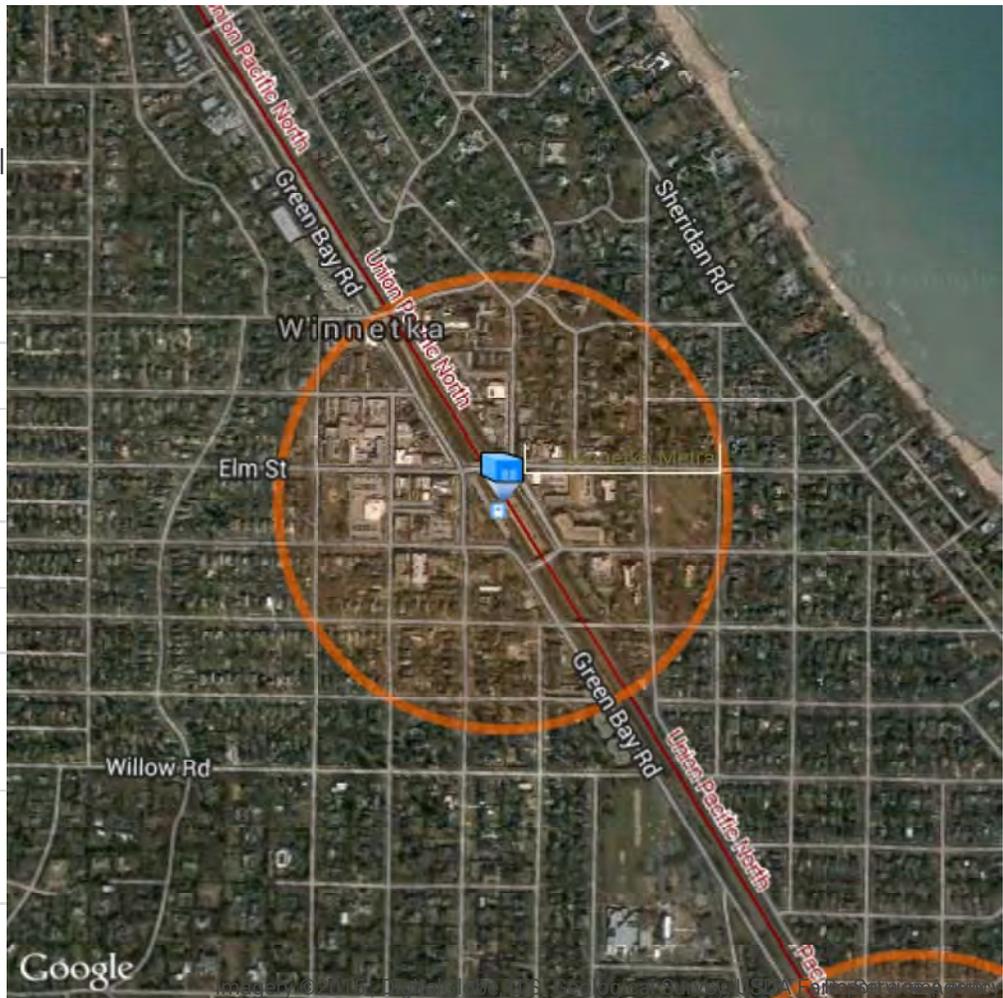
Selected Station Station Existing Transit Potential Transit Transit Region

TOD Report

View as: [Table](#) | [List](#) Download as: [Word](#) | [Excel](#) | [CSV](#)

Chicago Transit Region:

Average Travel Time to Work: ⁽³⁾	31.34
Median Household Income 2009: ⁽⁴⁾	61,502
Percent who take public transportation 2009: ⁽⁵⁾	12.40
Percent who bicycle 2009: ⁽⁶⁾	0.55
Percent who walk 2009: ⁽⁷⁾	3.16
Percent who take public transportation, bicycle or walk 2009: ⁽⁸⁾	16.10
Average number of vehicles available per household 2009: ⁽⁹⁾	1.62
Average number of vehicles available per household 2009: Owner Occupied: ⁽¹⁰⁾	1.91
Average number of vehicles available per household 2009: Renter Occupied: ⁽¹¹⁾	1.02
Percent of households with 0 or 1 vehicle available 2009: ⁽¹²⁾	47.62
Median Year Structure Built 2009: ⁽¹³⁾	1,965



**Station .25 Mile Transit Zone:
Metra Union Pacific North
(UP-N); Winnetka Metra**

Year Opened: ⁽¹⁾	Pre-2000
Latitude: ⁽²⁾	42.1052778
Longitude: ⁽²⁾	-87.7327778
Average Travel Time to Work: ⁽³⁾	32.73
Median Household Income 2009: ⁽⁴⁾	170,478
Percent who take public transportation 2009: ⁽⁵⁾	30.51
Percent who bicycle 2009: ⁽⁶⁾	0.00
Percent who walk 2009: ⁽⁷⁾	4.23
Percent who take public transportation, bicycle or walk 2009: ⁽⁸⁾	34.75
Average number of vehicles available per household 2009: ⁽⁹⁾	1.83
Average number of vehicles available per household 2009: Owner Occupied: ⁽¹⁰⁾	2.09
Average number of vehicles available per household 2009: Renter Occupied: ⁽¹¹⁾	1.05
Percent of households with 0 or 1 vehicle available 2009: ⁽¹²⁾	28.38
Median Year Structure Built 2009: ⁽¹³⁾	1,939

¹ The year in which this station opened. This value is intended to inform the analysis of available statistics, and therefore all stations open prior to 2000 report as "Pre-2000", the year of the earliest available statistic.

² Station location, current as of April 1, 2015. Station locations are updated (as necessary) on a quarterly basis which may result in changes in aggregated data.

³ American Community Survey 2005-2009 5-Year Estimates b08013_001 / b08132_001 aggregated from Census 2009 Tracts

⁴ American Community Survey 2005-2009 5-Year Estimates b19013_001 aggregated from Census 2009 Block Groups

⁵ American Community Survey 2005-2009 5-Year Estimates (b08301_010) / (b08301_001) aggregated from Census 2009 Block Groups

⁶ American Community Survey 2005-2009 5-Year Estimates (b08301_018) / (b08301_001) aggregated from Census 2009 Block Groups

⁷ American Community Survey 2005-2009 5-Year Estimates (b08301_019) / (b08301_001) aggregated from Census 2009 Block Groups

⁸ American Community Survey 2005-2009 5-Year Estimates (b08301_010 + b08301_018 + b08301_019) / (b08301_001) aggregated from Census 2009 Block Groups

⁹ American Community Survey 2005-2009 5-Year Estimates b25046_001 / b25044_001 aggregated from Census 2009 Block Groups

¹⁰ American Community Survey 2005-2009 5-Year Estimates b25046_002 / b25044_002 aggregated from Census 2009 Block Groups

¹¹ American Community Survey 2005-2009 5-Year Estimates b25046_003 / b25044_009 aggregated from Census 2009 Block Groups

¹² American Community Survey 2005-2009 5-Year Estimates (b25044_003+b25044_004+b25044_010+b25044_011) / b25044_001 aggregated from Census 2009 Block Groups

¹³ American Community Survey 2005-2009 5-Year Estimates b25035_001 aggregated from Census 2009 Block Groups

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**Traffic and Parking Impact Study
for
Proposed One Winnetka
Winnetka, Illinois**



Prepared by



March 4, 2015

Contents

List of Figures and Tables, ii

1.	Introduction.....	1
2.	Existing Conditions.....	3
	Site Location	3
	Existing Roadway System Characteristics.....	6
	Existing Traffic Volumes.....	8
	Area Traffic Observations.....	11
	Accident Analysis	11
	Alternative Modes of Transportation.....	12
3.	Traffic Characteristics of the Proposed Transit Oriented Development.....	13
	Proposed Site and Development Plan	13
	Parking	13
	Access	14
	Pedestrian Access to the Development	14
	Directional Distribution of Development Traffic	14
	Development Traffic Generation	16
	Development Traffic Assignment.....	17
4.	Total Projected Traffic Conditions	19
	Background Development Traffic	19
	Total Projected Traffic Volumes	19
5.	Traffic Analysis and Recommendations.....	21
	Discussion and Recommendations	25
6.	Parking Analysis	28
	Existing Parking Characteristics	28
	East Elm Street District.....	28
	Parking Requirements Per Village Code	30
	TOD Parking Characteristics	30
	Future Parking Demand Conditions.....	32
7.	Conclusion	33

List of Figures and Tables

Figures

1.	Site Location	4
2.	Aerial View of Site Area.....	5
3.	Existing Geometrics and Traffic Control.....	7
4.	Existing Traffic Volumes.....	9
5.	Existing Pedestrian and Bicycle Volumes	10
6.	Estimated Directional Distribution	15
7.	Site Trips.....	18
8.	Total Traffic	20
9.	East Elm Street District Parking Survey Locations	29

Tables

1.	Accident Data Summary	11
2.	Projected Site-Generated Traffic Volumes	16
3.	Level of Service Criteria.....	22
4.	Capacity Analyses Results—Existing Conditions	23
5.	Capacity Analyses Results—Future Conditions.....	24
6.	East Elm Street District Parking Occupancy Counts	
7.	Estimated Residential Peak Parking Demand.....	32

1. Introduction

This report summarizes the methodologies, results and findings of a traffic and parking impact study conducted by Kenig, Lindgren, O'Hara, Aboona, Inc. (KLOA, Inc.) for the proposed One Winnetka, a mixed-use transit oriented development (TOD) to be located on the east and west sides of Lincoln Avenue just south of Elm Street in Winnetka, Illinois. The site is located within the East Elm Street District and is bordered by Elm Street to the north, the Hadley School for the Blind to the east, the Union Pacific/North Line railroad tracks to the west and a condominium building to the south.

The plans call for demolishing the existing buildings and removing the existing surface public parking lot (approximately 62 spaces) in order to develop the site with the following uses:

- 120 apartment units
- 46,440 square feet of retail

In addition, the development proposes surface and underground parking spaces. The parking area east of Lincoln Avenue will provide 97 public parking spaces and 257 underground parking spaces to be utilized by residents of the development (159 spaces) and as public parking (98 spaces). The second parking area will be an underground parking garage located below Lincoln Avenue and will provide 144 parking spaces for commuters. Access to the parking lots will be provided on Elm Street and Lincoln Avenue.

The primary pedestrian entry to the residential portion of the development will be from Lincoln Avenue while entrances to the various retail storefronts will be located along Elm Street. In addition, a motor court will be provided on the south side of the development that will allow pick-up/drop-off operations to occur internally.

The following sections of this report present the following.

- Existing roadway conditions including vehicle, pedestrian, and bicycle traffic volumes for the weekday morning and weekday evening peak hours
- A detailed description of the proposed development
- Vehicle trip generation for the proposed development
- Directional distribution of development-generated traffic
- Future transportation conditions including access to and from the development
- Existing parking demand of the East Elm Street District
- Future parking demand and adequacy of the proposed number of parking spaces

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

1. Existing Condition - Analyzes the capacity of the existing roadway system using existing peak hour traffic volumes in the surrounding area.
2. Future Condition – The future projected traffic volumes include the existing traffic volumes increased by nine percent to reflect traffic to be generated by the existing vacancies in the immediate area and background growth, and the traffic estimated to be generated by the proposed subject development.

The purpose of this study was to:

1. Examine existing vehicle, pedestrian, and bicycle traffic conditions to establish a base condition
2. Determine the vehicle trips to be generated by the proposed development and then determine its impact on the surrounding neighborhood street network
3. Recommend improvements to effectively mitigate and accommodate the projected traffic conditions resulting from the proposed development.
4. Determine the appropriate parking ratio in accommodating the projected demand of the commuter parking garage, the future residents and customers of the proposed retail portion of the development taking into account their proximity to the Metra train station and downtown Winnetka.

2. Existing Conditions

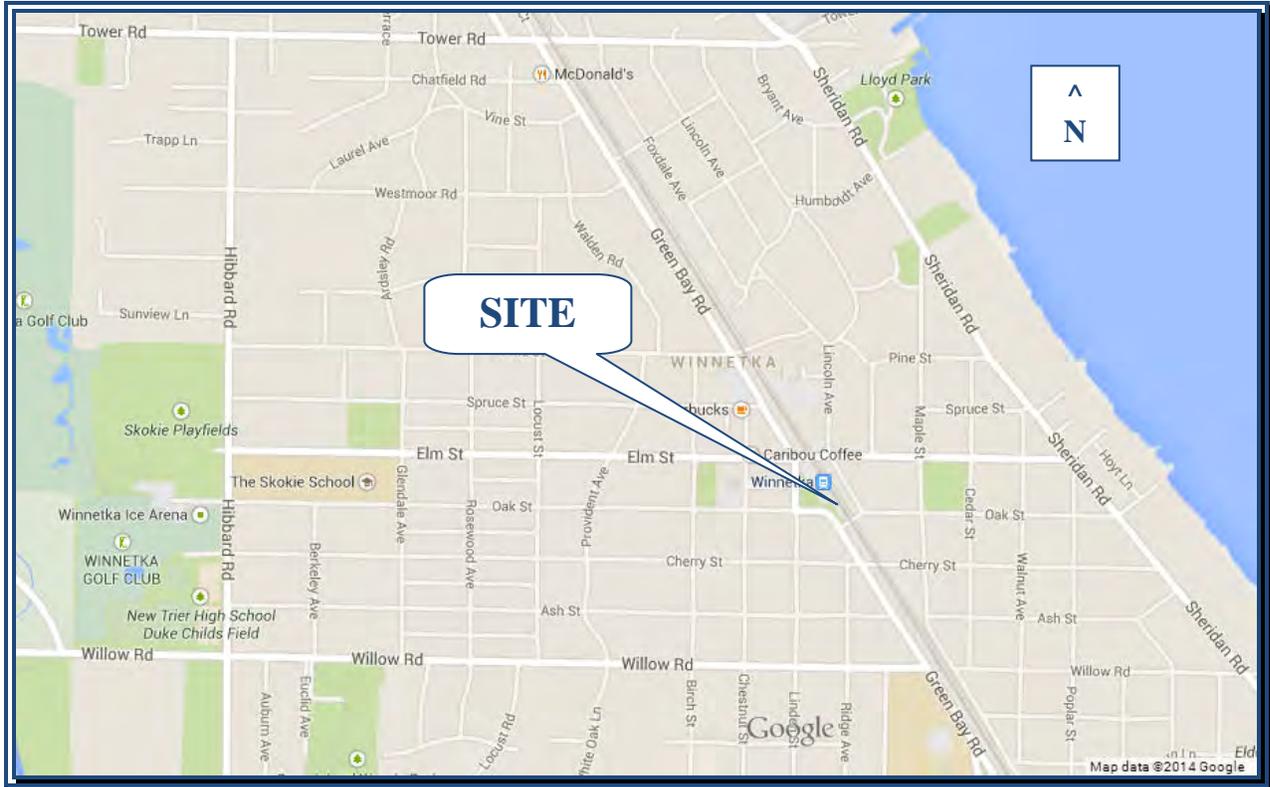
Transportation conditions in the vicinity of the site were inventoried to obtain a basis for projecting future conditions. Four components of existing conditions were considered:

1. The geographic location of the site
2. The characteristics of the adjacent roadway system, including lane geometry, traffic orientation (e.g. one-way roads) and intersection traffic controls
3. The weekday peak-hour vehicle, bicycle, and pedestrian traffic volumes at the study intersections
4. The locations and availability of alternative modes of transportation, including public transportation, bicycle lanes, and pedestrian amenities

Site Location

The development site is located on the east and west sides of Lincoln Avenue just south of Elm Street and is currently occupied by various retail storefronts (some vacant) and the East Elm Street District public parking lot (approximately 62 parking spaces). The development is surrounded by retail uses to the north, the Hadley School for the blind to the east, the Winnetka Metra station to the west and the 711 Oak Street condominium building to the south. The Village Green Park (passive park) is located further east on the south side of Elm Street between Maple Street and Oak Street.

Figure 1 shows the site location with respect to the surrounding roadway system. **Figure 2** shows an aerial view of the site area.



Site Location

Figure 1

*One Winnetka
Winnetka, Illinois*





Aerial View of Site Area

Figure 2

*One Winnetka
Winnetka, Illinois*

5



7

Existing Roadway System Characteristics

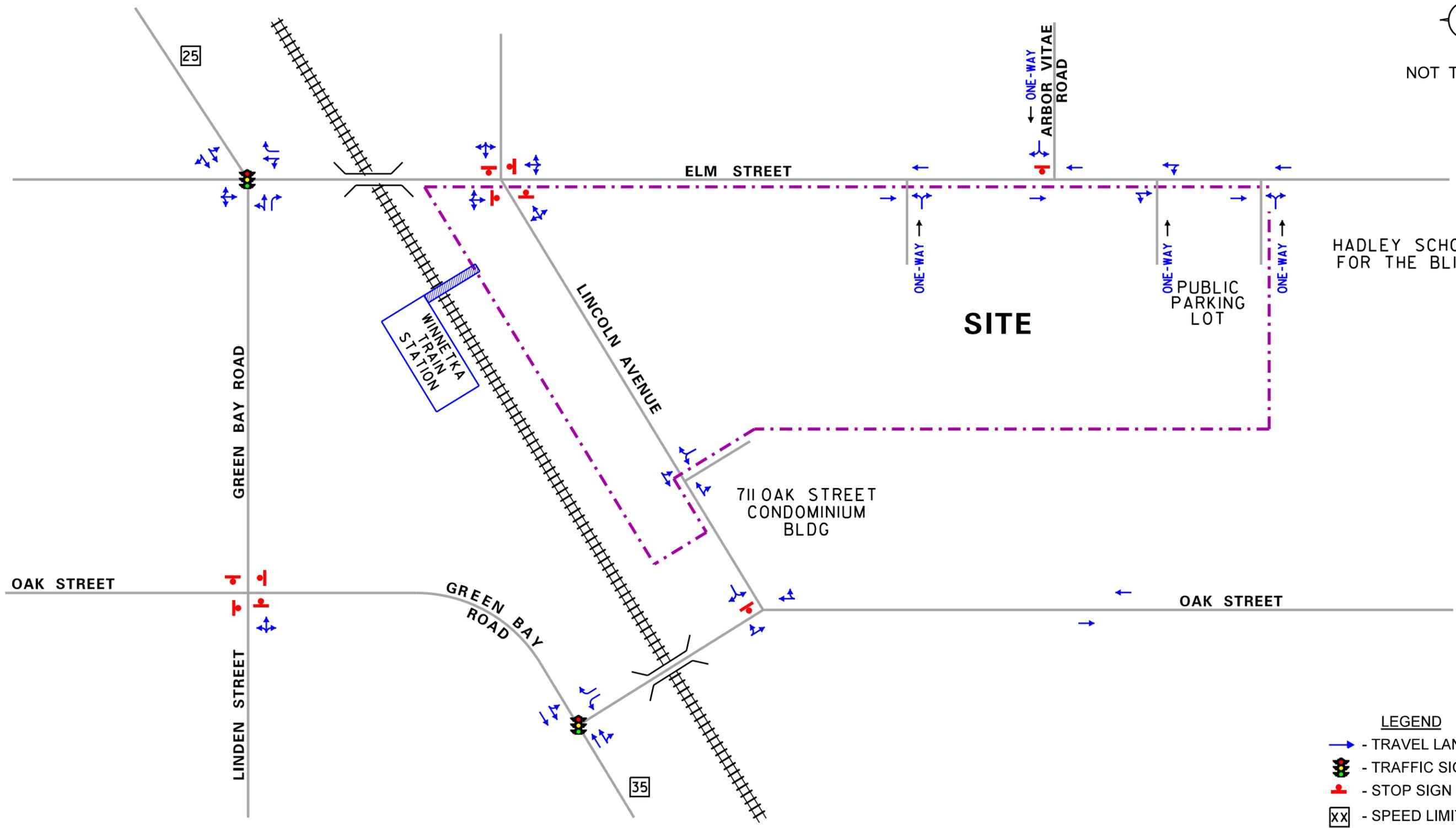
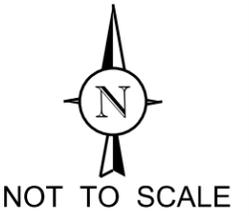
The characteristics of the existing streets that surround the proposed development are illustrated in **Figure 3** and described below.

Green Bay Road is a north-south arterial roadway that generally provides two through lanes in each direction. No exclusive turn lanes are provided at its signalized intersections with Oak Street or Elm Street. Angle parking is provided on both sides of the road between Elm Street and Oak Street/Green Bay Road. The parking spaces on the east side of the road are limited to Zone C (commuter parking) only from 8:00 A.M. to 4:00 P.M. Monday through Friday. The parking spaces on the west side of the road are a combination of 90 minute parking from 8:00 A.M. to 6:00 P.M. and Zone A (employee parking) permit only from 8:00 A.M. to 5:00 P.M. Green Bay Road is under the jurisdiction of the Illinois Department of Transportation (IDOT) and carries an average daily traffic (ADT) of approximately 10,200 vehicles.

Elm Street is a two-way road that borders the northern portion of the proposed subject development. At its signalized intersection with Green Bay Road, the road is wide enough on the east approach to provide a combined left-turn/through lane and an exclusive right-turn lane. The west approach provides a combined left/through/right-turn lane. No exclusive turn lanes are provided at its all-way stop control intersection with Lincoln Avenue or at its intersections with the Elm Street public parking lot. On-street parking on both sides of the road is provided between Lincoln Avenue and Arbor Vitae Road limited to one hour from 8:00 A.M. to 6:00 P.M. On-street parking limited to four hours from 8:00 A.M. to 6:00 P.M. is provided on the south side of the road between Arbor Vitae Road and Maple Street. Elm Street is under the jurisdiction of the Village of Winnetka.

Lincoln Avenue is a north-south roadway that provides one lane in each direction in the vicinity of the site. No exclusive turn lanes are provided at its all-way stop control intersection with Elm Street. At its “T” intersection with Oak Street, Lincoln Avenue is under stop sign control and provides a combined left/right-turn lane. On-street parking is generally provided on both sides of the road. These parking spaces limited to 90 minutes from 8:00 A.M. to 6:00 P.M. or Zone C permit parking from 8:00 A.M. to 10:30 P.M. Lincoln Avenue is under the jurisdiction of the Village of Winnetka.

Oak Street is an east-west roadway that provides one lane in each direction in the vicinity of the site. No exclusive turn lanes are provided at its intersection with Lincoln Avenue. At its signalized “T” intersection with Lincoln Avenue, Oak Street is widened to provide an exclusive left-turn lane and an exclusive right-turn lane. Oak Street is under the jurisdiction of the Village of Winnetka.



- LEGEND**
- TRAVEL LANE
 - TRAFFIC SIGNAL
 - STOP SIGN
 - SPEED LIMIT

PROJECT:
One Winnetka
Winnetka, Illinois

TITLE:
Existing Geometrics and Traffic Control

KLOA
Job No: 14-125
Figure: 3

Arbor Vitae Road is a one-way southbound residential road that is under stop sign control at its intersection with Elm Street. On-street parking is not allowed on the west side of the road. *Arbor Vitae Road* is under the jurisdiction of the Village of Winnetka.

Pedestrian Facilities. All of the roads within the immediate area have sidewalks on both sides of the road. Lastly, crosswalks are provided at all of the intersections within the immediate area.

Existing Traffic Volumes

Manual turning movement vehicle, pedestrian, and bicycle traffic counts were conducted during the weekday morning (7:00 to 9:00 A.M.) and the evening (4:00 to 6:00 P.M.) peak periods on Wednesday, May 21, 2014 at the following intersections.

1. Green Bay Road and Elm Street
2. Green Bay Road and Oak Street
3. Elm Street and Lincoln Avenue
4. Lincoln Avenue and Oak Street
5. Lincoln Avenue and condominium building access drive
6. Elm Street and site's outbound only access drive
7. Elm Street and *Arbor Vitae Road*
8. Elm Street and public parking lot inbound and outbound access drives

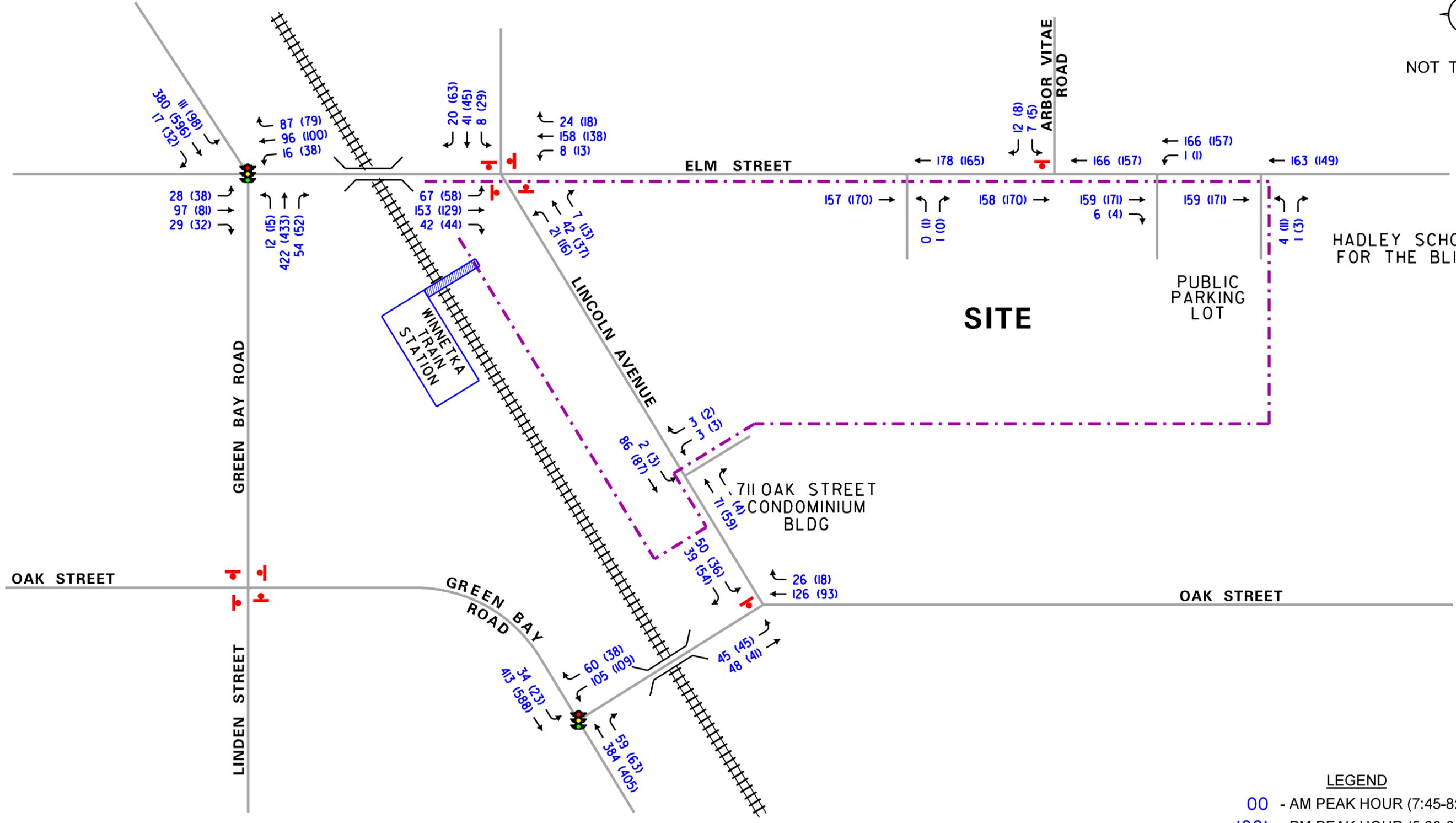
From the manual turning movement count data, it was determined that the weekday morning peak hour generally occurs between 7:45 and 8:45 A.M. and the weekday evening peak hour generally occurs between 5:00 and 6:00 P.M. These two respective peak hours will be used for the traffic capacity analyses and are presented later in this report.

The existing peak hour vehicle traffic volumes are shown in **Figure 4**.

The existing peak hour pedestrian and bicycle traffic volumes are shown in **Figure 5**.



NOT TO SCALE



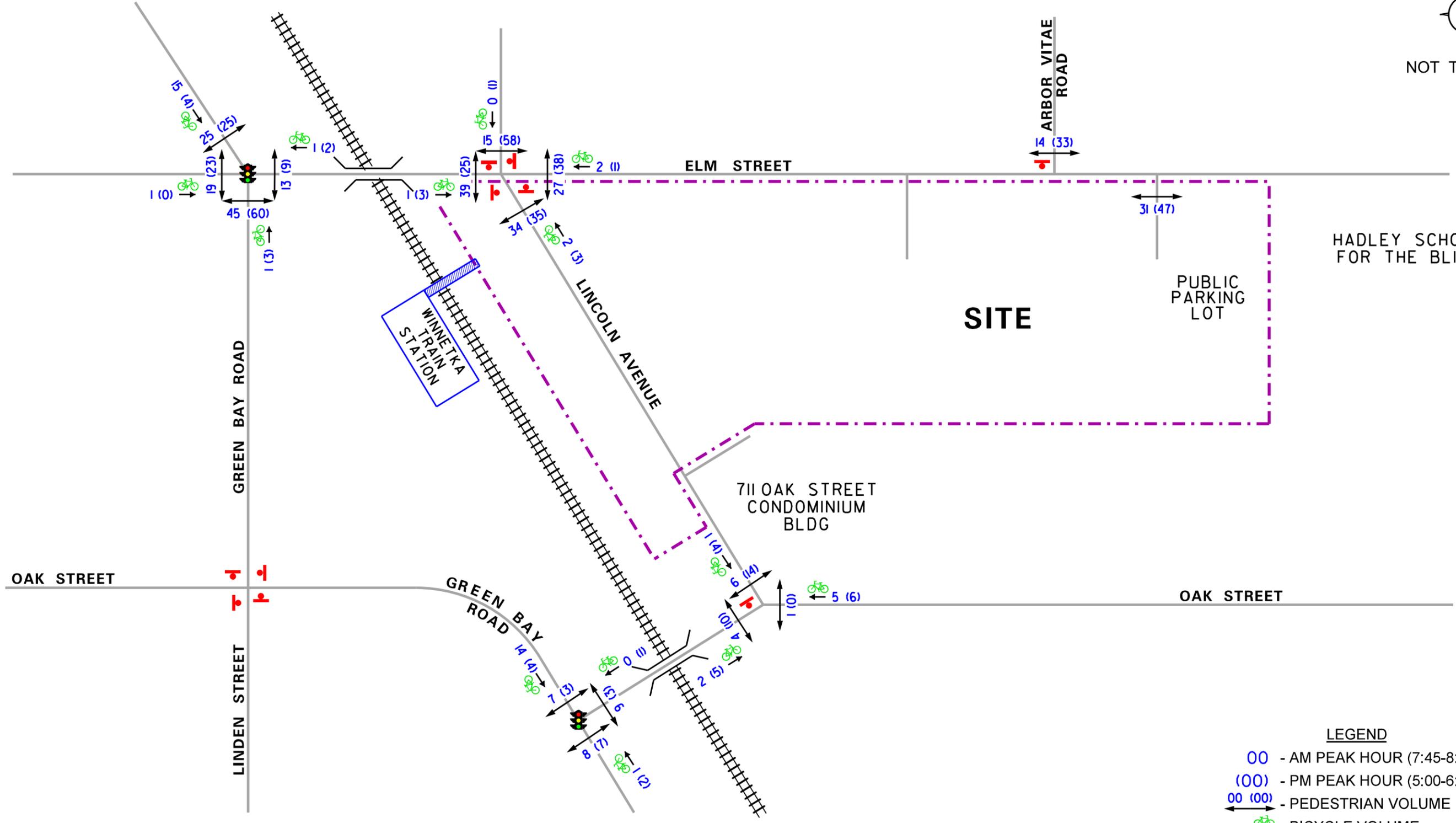
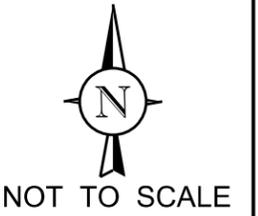
LEGEND

- 00 - AM PEAK HOUR (7:45-8:45 AM)
- (00) - PM PEAK HOUR (5:00-6:00 PM)

PROJECT:
One Winnetka
Winnetka, Illinois

TITLE:
Existing Traffic Volumes

KLOA
Job No: 14-125
Figure: 4



LEGEND

- 00 - AM PEAK HOUR (7:45-8:45 AM)
- (00) - PM PEAK HOUR (5:00-6:00 PM)
- 00 (00) - PEDESTRIAN VOLUME
- 00 (00) → - BICYCLE VOLUME

PROJECT: One Winnetka
Winnetka, Illinois

TITLE: Existing Pedestrian and Bicycle Traffic Volumes

KLOA
Job No: 14-125
Figure: 5

Area Traffic Observations

Traffic flow in the area was observed during the peak periods. Below is a summary of these observations.

- No excessive backups were observed at any of the study intersection during the morning or evening peak periods
- Southbound queues on Green Bay Road at its intersection with Elm Street occasionally extended over 250 feet. However, these queues were also observed to typically clear with every cycle length.

Accident Analysis

KLOA, Inc. obtained accident data from the Village of Winnetka for the past five years (2009 to 2013) for all of the studied intersections. **Table 1** summarizes the accident data:

Table 1
ACCIDENT DATA SUMMARY

Location	Year					Total
	2009	2010	2011	2012	2013	
Elm Street/Green Bay Road	7	7	12	10	9	45
Elm Street/Lincoln Avenue	2	1	3	6	3	15
Oak Street/Lincoln Avenue	1	0	0	1	1	3
Oak Street/Green Bay Road	3	4	1	7	6	21
Elm Street/Arbor Vitae Road/Municipal Lot Access Drive	1	0	3	1	2	7
Lincoln Avenue/Condominium Drive	<u>0</u>	<u>0</u>	<u>1</u>	<u>0</u>	<u>0</u>	<u>1</u>
Total	14	12	20	25	21	92

A review of the accident data indicated that there were no fatalities reported. Furthermore, none of the study intersections are considered high accident locations as they are not listed in IDOT's Five Percent Report which presents the five percent of highway locations exhibiting the most pressing safety needs.

Alternative Modes of Transportation

The area is served by two modes of public transportation: The Metra commuter rail and the Pace Bus line. The following summarizes the services provided by both modes to the area.

- *The Metra Union Pacific North Line-Winnetka Metra station* is located west of the site and provides service from Kenosha Station in Wisconsin to Ogilvie Transportation Center in Chicago. The line provides 35 inbound and outbound trains daily on weekdays. The first inbound train departs the Waukegan station at 4:20 A.M. with the last train departing the Kenosha station at 11:35 P.M.
- *Pace Bus Route 213- Green Bay Road* runs parallel a portion of the Metra Union Pacific North Line with stops on Green Bay Road at Elm Street and Oak Street. This line provides service from Northbrook Court to the Davis Street CTA Purple Line Station in Evanston making stops near New Trier High School, Ravinia Festival, and the Chicago Botanic Gardens.
- *Pace Bus Route 423 – Linden CTA-* The Glen-Harlem CTA runs along Elm Street with a stop on Elm Street at Lincoln Avenue. This line provides weekday service from Wilmette to Chicago (Northwest side). Service operates from Linden CTA Purple Line station to Harlem CTA Blue Line station passing through Winnetka, Northfield, Glenview and Niles. Serves the following major destinations: Linden CTA Purple Line station, Plaza del Lago, Metra Union Pacific North Line (Winnetka), Northfield Village Hall, New Trier H.S. (Northfield), Loyola Academy, Regina Dominican H.S., Kraft Headquarters, The Glen Town Center, Metra Milwaukee District North Line stations (Glen of North Glenview and Glenview), Kraft (Glenview), Notre Dame H.S., Renaissance Condominiums of Niles and Harlem CTA Blue Line station.

3.

Traffic Characteristics of the Proposed Transit Oriented Development

To evaluate the impact of the subject development on the area roadway system, it was necessary to quantify the number of vehicle trips the overall site will generate during the weekday morning and the weekday evening peak hours and then determine the directions from which this traffic will approach and depart the site.

Proposed Site and Development Plan

The development site is located within the East Elm Street District and is currently occupied by various retail storefronts (some vacant) and the Elm Street public parking lot.

The plans call for demolishing the existing building and developing the site with 120 apartment units and approximately 46,440 square feet of ground floor retail.

Parking

As part of the development, surface and underground parking spaces will be provided. The parking area east of Lincoln Avenue will provide the following:

- 97 public parking spaces on the east retail lot
- 257 parking spaces to be utilized by residents of the development (159 parking spaces) and the public (98 parking spaces).

The second parking area will be an underground parking garage located below Lincoln Avenue and will provide 144 parking spaces for commuters (The existing 33 Zone C on-street parking spaces along Lincoln Avenue that will be removed as part of the development will be accommodated within the proposed underground commuter parking lot). It should be noted that approximately twenty-three on-street parking spaces along Lincoln Avenue will be lost as a result of the development. However, this loss of parking will be replaced by the additional parking spaces provided in the public and commuter parking garages.

Access

Primary access to the public and residential parking will be provided via one access drive on Elm Street approximately 85 feet east of Arbor Vitae Road. The access drive will provide one inbound lane and one outbound lane with outbound movements under stop sign control. Secondary access to the parking will also be provided via a full ingress/egress drive on Lincoln Avenue approximately 300 feet north of Oak Street. This access drive will also serve a motor court area for drop-off and pick-up activities for the apartments.

The underground parking lot for commuters will be accessed via a full ingress/egress access drive on Lincoln Avenue located approximately 140 feet north of Oak Street. The access drive will provide one inbound lane and one outbound lane with outbound movements under stop sign control.

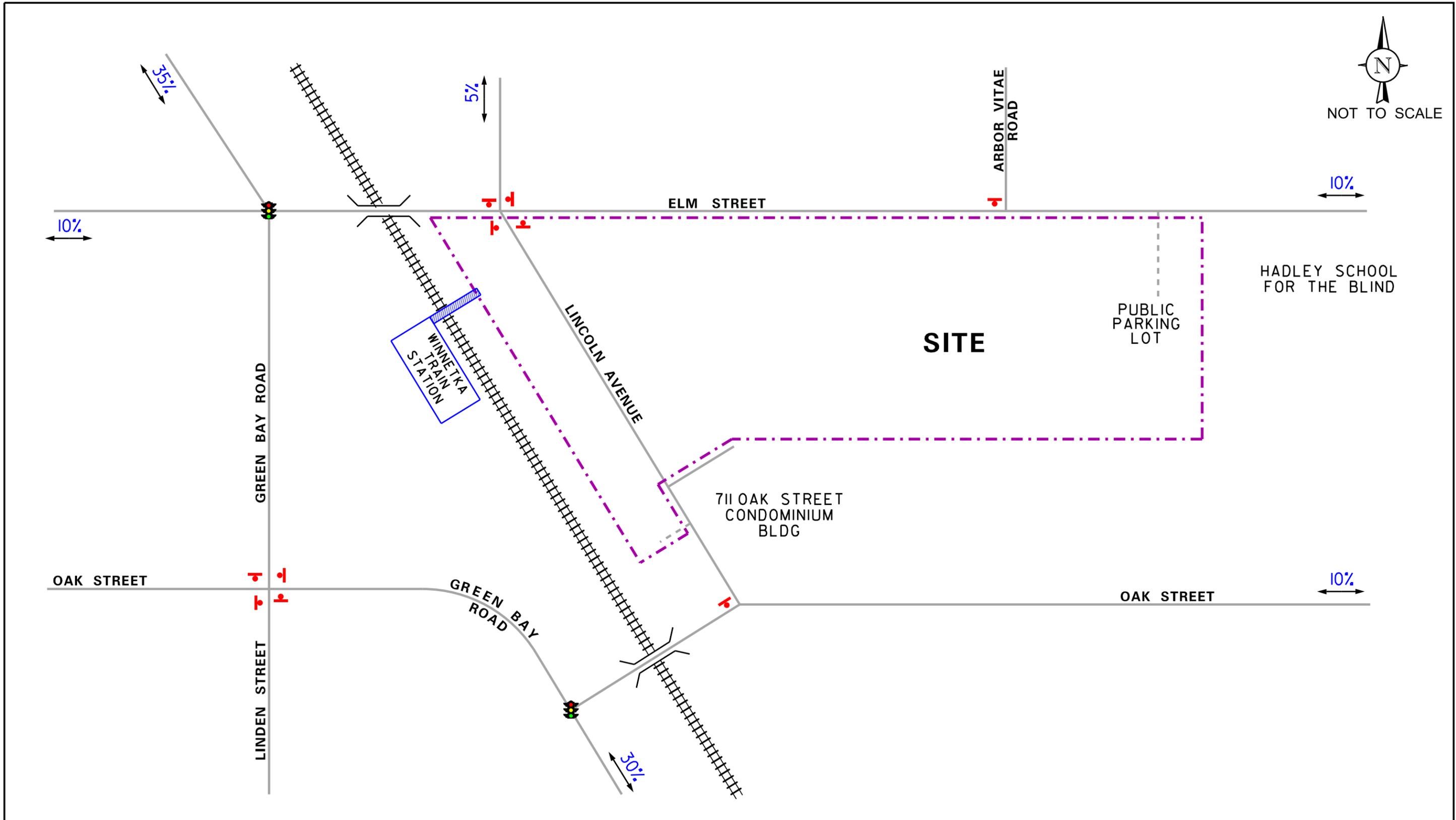
Pedestrian Access to the Development

The primary pedestrian entry to the residential portion of the development will be from Lincoln Avenue while the retail access will be along Elm Street. An elevator and a stairwell will be provided within the proposed commuter parking lot allowing commuters to travel from the underground parking to the street level along Lincoln Avenue and connect with the existing pedestrian bridge to the Metra station.

Directional Distribution of Development Traffic

The directional distribution of how traffic will approach and depart the site was estimated based on a combination of existing travel patterns and the orientation and physical restrictions of the surrounding roadway system.

The estimated directional distribution for the proposed development was established and is illustrated in **Figure 6**.



PROJECT:
One Winnetka
Winnetka, Illinois

TITLE:
Estimated Directional Distribution

KLOA
Job No: 14-125
Figure: 6

Development Traffic Generation

The peak hour traffic volumes that will be generated by the proposed mixed-use development were estimated based on trip generation rates provided in the Institute of Transportation Engineers (ITE) *Trip Generation Manual*, 9th Edition. However, the trip rates assume that the primary mode of transportation is the automobile. The location of the site within downtown Winnetka, its proximity to the train station and the Pace Bus Routes fit the criteria of a transit oriented development (TOD) that results in less dependence on automobile use. Based on inspection of Census 2010 data within one quarter mile from the train station, approximately 35 percent of the residents in the immediate area use other means of transportation to commute to work. As such, the estimated trips by the future residents of the proposed development were reduced by 35 percent. Although it is expected that a large portion of the customer traffic for the retail portion of the site will be captured by the pedestrian activity in the area, no reduction was applied to the retail generation of the development.

The trips to be generated by the commuter underground parking were based on surveys of the Winnetka Metra parking lot located on the west side of the tracks between Elm Street and Oak Street/Green Bay Road. For the purpose of the study, it was assumed that the garage will be fully utilized by commuters.

Table 2 shows the estimated peak hour traffic to be generated by the proposed mixed-use development.

Table 2

PROJECTED SITE-GENERATED TRAFFIC VOLUMES

ITE Land Use Code	Land Use	Size	Weekday Morning Peak Hour		Weekday Evening Peak Hour	
			In	Out	In	Out
220	Apartments	120 Units	12	50	55	29
		35 percent reduction ¹	<u>(-4)</u>	<u>(-18)</u>	<u>(-19)</u>	<u>(-10)</u>
		Subtotal	8	32	36	19
826	Specialty Retail	46,440 s.f.	20	12	59	75
--	Commuter Lot ²	144 spaces	<u>88</u>	<u>6</u>	<u>4</u>	<u>78</u>
	Total		116	50	99	172

¹Trip generation reduced by 35 percent to account for proximity to train station

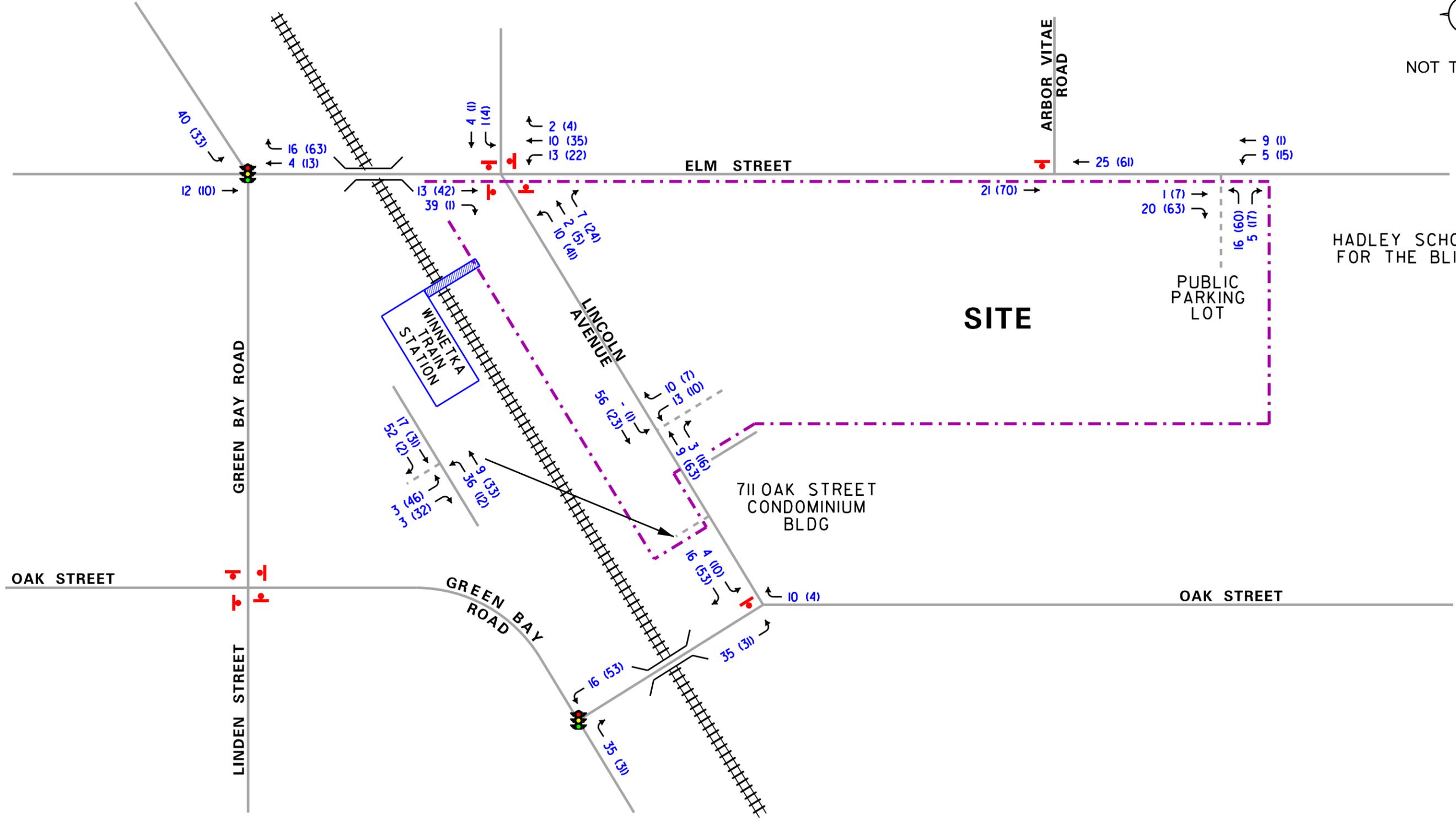
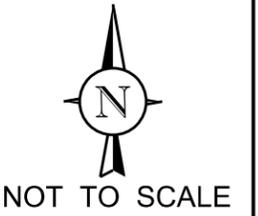
²Trip generation based on survey of the existing Winnetka Metra parking lot on the west side of the tracks between Elm Street and Oak Street/Green Bay Road

Development Traffic Assignment

The peak hour traffic volumes projected to be generated by the proposed development (refer to Table 1) were assigned to the area roadways based on the directional distribution analysis (Figure 6).

Figure 7 shows the assignment of the development-generated traffic volumes.

It is important to note that traffic currently generated by the existing East Elm Street District public parking lot on the site was not removed from the traffic study area. As such, the projected traffic volumes are conservative.



PROJECT:
One Winnetka
Winnetka, Illinois

TITLE:
Site Traffic Assignment

KLOA
Job No: 14-125
Figure: 7

4. Total Projected Traffic Conditions

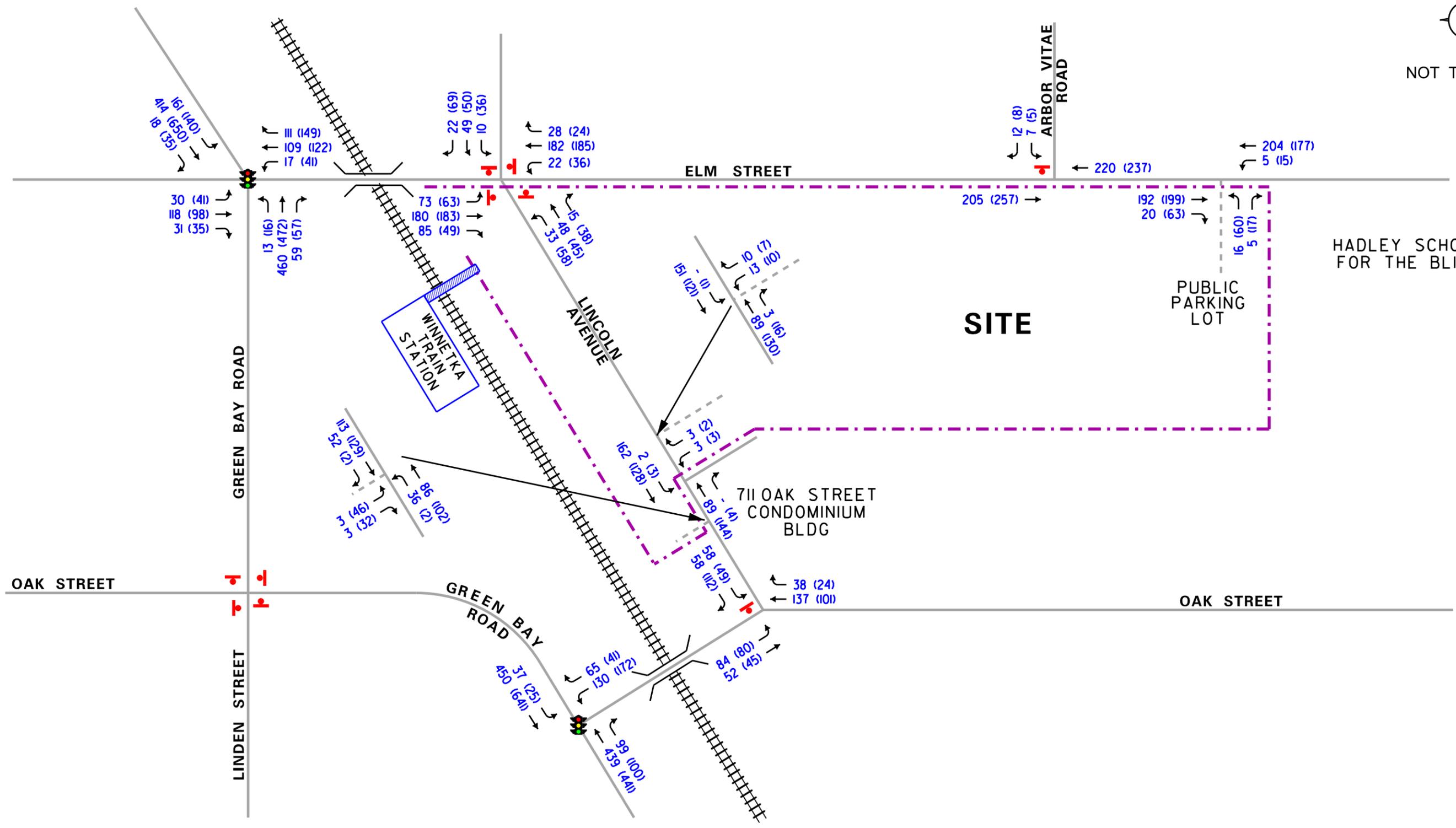
The total projected traffic volumes include the existing traffic volumes, background growth in the area, and the traffic estimated to be generated by the proposed subject development.

Background Development Traffic

In order to account for background growth and the existing vacancies within the East Elm Street district and based on the Chicago Metropolitan Agency for Planning (CMAP) Year 2040 population and employment forecast, the existing traffic volumes were increased by 1.5 percent per year for six years (a total of nine percent) to reflect Year 2020 traffic conditions.

Total Projected Traffic Volumes

Total projected traffic volumes include the existing traffic volumes increased by nine percent and the traffic estimated to be generated by the proposed subject development (refer to Figure 7). **Figure 8** shows the total projected traffic volumes. As previously indicated, the traffic that is currently generated by the existing Elm Street public parking lot was not removed from the study area but reassigned to the new access drive off Elm Street.



PROJECT: One Winnetka
Winnetka, Illinois

TITLE: Year 2020 Total Traffic

KLOA
Job No: 14-125
Figure: 8

5. Traffic Analysis and Recommendations

Capacity analyses were performed for the key intersections included in the study area to determine the ability of the existing street system to accommodate existing and future traffic demands. Analyses were performed for the existing and total projected peak hour traffic conditions.

The traffic analyses were performed using the methodologies outlined in the Transportation Research Board's *Highway Capacity Manual (HCM), 2010* and using Synchro/SimTraffic 9 software.

The analysis for the traffic-signal controlled intersections were accomplished using existing signal timing data provided by the Village of Winnetka to determine the average overall vehicle delay, volume-to-capacity ratios, and levels of service.

The analyses for the unsignalized intersections determine the average control delay to vehicles at an intersection. Control delay is the elapsed time from a vehicle joining the queue at a stop sign (includes the time required to decelerate to a stop) until its departure from the stop sign and resumption of free flow speed. The methodology analyzes each intersection approach controlled by a stop sign and considers traffic volumes on all approaches and lane characteristics.

The ability of an intersection to accommodate traffic flow is expressed in terms of level of service, which is assigned a letter grade from A to F based on the average control delay experienced by vehicles passing through the intersection. Control delay is that portion of the total delay attributed to the traffic signal or stop sign control operation, and includes initial deceleration delay, queue move-up time, stopped delay, and final acceleration delay. Level of Service A is the highest grade (best traffic flow and least delay), Level of Service E represents saturated or at-capacity conditions, and Level of Service F is the lowest grade (oversaturated conditions, extensive delays).

The Highway Capacity Manual definitions for levels of service and the corresponding control delay for both signalized and unsignalized intersections are shown in **Table 3**. A summary of the level of service/delay results for both existing and future conditions are presented in **Table 4** and **Table 5**, respectively.

A discussion of the intersections and recommendations follows.

Table 3
LEVEL OF SERVICE CRITERIA

Signalized Intersections		
Level of Service	Interpretation	Average Control Delay (seconds per vehicle)
A	Favorable progression. Most vehicles arrive during the green indication and travel through the intersection without stopping.	≤10
B	Good progression, with more vehicles stopping than for Level of Service A.	>10 - 20
C	Individual cycle failures (i.e., one or more queued vehicles are not able to depart as a result of insufficient capacity during the cycle) may begin to appear. Number of vehicles stopping is significant, although many vehicles still pass through the intersection without stopping.	>20 - 35
D	The volume-to-capacity ratio is high and either progression is ineffective or the cycle length is too long. Many vehicles stop and individual cycle failures are noticeable.	>35 - 55
E	Progression is unfavorable. The volume-to-capacity ratio is high and the cycle length is long. Individual cycle failures are frequent.	>55 - 80
F	The volume-to-capacity ratio is very high, progression is very poor and the cycle length is long. Most cycles fail to clear the queue.	>80.0
Unsignalized Intersections		
Level of Service	Average Total Delay (SEC/VEH)	
A	0 - 10	
B	> 10 - 15	
C	> 15 - 25	
D	> 25 - 35	
E	> 35 - 50	
F	> 50	

Source: *Highway Capacity Manual*, 2010.

Table 4
CAPACITY ANALYSES RESULTS—EXISTING CONDITIONS

Intersection	Weekday A.M. Peak Hour		Weekday P.M. Peak Hour	
	LOS	Delay	LOS	Delay
Green Bay Road and Elm Street (signal)	B	11.7	B	12.1
Green Bay Road and Oak Street (signal)	A	7.2	A	8.0
Elm Street and Lincoln Avenue (AWSC)	A	9.3	A	9.3
Lincoln Avenue and Oak Street (TWSC)	B	10.5	B	10.1
Lincoln Avenue and 711 Oak Street Condominium Drive (TWSC)	A	9.1	A	9.1
Elm Street and Outbound Drive (TWSC)	A	9.4	B	11.3
Elm Street and Arbor Vitae Road (TWSC)	A	9.9	B	10.2
Elm Street and Public Lot Outbound Drive (TWSC)	B	10.7	B	11.0

LOS = Level of Service

Delay is measured in seconds.

AWSC – All way stop control

TWSC – two-way stop control

LOS represents the intersection as a whole for signalized intersections and all-way stop; for two-way stop sign-controlled intersections, the LOS represents the minor approach.

Table 5
CAPACITY ANALYSES RESULTS—FUTURE CONDITIONS

Intersection	Weekday A.M. Peak Hour		Weekday P.M. Peak Hour	
	LOS	Delay	LOS	Delay
Green Bay Road and Elm Street (signal)	B	12.6	B	13.3
Green Bay Road and Oak Street (signal)	A	7.8	A	9.9
Elm Street and Lincoln Avenue (AWSC)	B	10.6	B	11.4
Lincoln Avenue and Oak Street (TWSC)	B	11.5	B	11.0
Lincoln Avenue and 711 Oak Street Condominium Drive	A	9.4	A	9.8
Lincoln Avenue and Site Access Drive (TWSC)	A	9.5	A	9.7
Lincoln Avenue and Commuter Lot Drive (TWSC)	A	9.8	B	10.0
Elm Street and Arbor Vitae Road (TWSC)	B	10.5	B	11.1
Elm Street and Public Lot Access Drive (TWSC)	B	11.0	B	12.0

LOS = Level of Service

Delay is measured in seconds.

AWSC – All way stop control

TWSC – two-way stop control

LOS represents the intersection as a whole for signalized intersections and all-way stop; for two-way stop sign-controlled intersections, the LOS represents the minor approach.

Discussion and Recommendations

The results of the capacity analyses show that with the addition of the development traffic and the background growth in the area, all of the intersections are projected to continue to operate at an acceptable level of service. A discussion of each intersection is provided below.

Green Bay Road and Elm Street

This intersection is operating at an overall Level of Service B during the morning and evening peak hours and will continue to do so under Year 2020 future traffic conditions. A review of the capacity analyses indicate that the overall delay experienced at this intersection will increase by less than two seconds. As such, no street and/or traffic control improvements are recommended at this intersection in conjunction with the proposed subject development.

Green Bay Road and Oak Street

This intersection is operating at an overall acceptable level of service during the morning and evening peak hours and will continue to do so under Year 2020 future traffic conditions. A review of the capacity analyses indicate that the overall delay experienced at this intersection will increase by less than three seconds. Further inspection of the capacity analyses indicate that the westbound queues will not exceed 125 feet and will not have an impact on the intersection of Oak Street with Lincoln Avenue. As such, no street and/or traffic control improvements are recommended at this intersection in conjunction with the proposed subject development.

Elm Street and Lincoln Avenue

This all-way stop control intersection is currently operating at a Level of Service A during the morning and evening peak hours. Under future conditions and based on the results of the capacity analyses, the intersection will operate at a Level of Service B during the morning and evening peak hours with an increase in the overall delay experienced at this intersection of less than three seconds. As such, no other street and/or traffic control improvements are recommended at this intersection in conjunction with the proposed subject development.

Lincoln Avenue and Oak Street

This intersection is operating at an overall Level of Service B during the morning and evening peak hours and will continue to do so under Year 2020 future traffic conditions. A review of the capacity analyses indicate that the overall delay experienced at this intersection will increase by approximately one second. Further inspection of the capacity analyses indicate that the southbound queues will not exceed 50 feet and will not have an impact on the intersections of Lincoln Avenue with the commuter parking lot access drive or the site access drive/711 Oak Street condominium access drive. As such, no street and/or traffic control improvements are recommended at this intersection in conjunction with the proposed subject development.

Lincoln Avenue and 711 Oak Street Condominium Drive

This condominium drive is located approximately 200 feet northwest of Oak Street. Based on the results of the capacity analyses, this intersection is operating and will continue operating under future conditions at a Level of Service A during morning and evening peak hours with an increase in delay of less than one second. As previously indicated, the projected queues of traffic on Lincoln Avenue at its intersection with Oak Street will not extend to this access drive and as such will not have a negative impact on the traffic operations of this intersection. Therefore, no street and/or traffic control improvements are recommended at this intersection in conjunction with the proposed subject development.

Lincoln Avenue and Commuter Lot Access Drive

The commuter lot access drive will be located approximately 60 feet south of the site access drive/711 Oak Street condominium access drive and approximately 140 feet north of Oak Street. Based on the results of the capacity analyses, this intersection will operate at a Level of Service A and B during the morning and evening peak hours, respectively. Further inspection of the capacity analyses indicate that the outbound movement queues will not exceed 50 feet. As previously indicated, the projected queues of traffic on Lincoln Avenue at its intersection with Oak Street will not extend to this access drive and as such will not have a negative impact on the traffic operations of this intersection. Therefore, no street and/or traffic control improvements are recommended at this intersection in conjunction with the proposed subject development.

Lincoln Avenue and Underground Parking Access Drive

This full ingress/egress access drive will be located approximately 300 feet north of Oak Street. Based on the results of the capacity analyses, the intersection will operate at a Level of Service A and D during the morning and evening peak hours, respectively. A review of the projected traffic volumes coupled with the results of the capacity analyses indicate that the provision of an exclusive left or right-turn lane into the proposed access drive will not be necessary. Therefore, no street and/or traffic control improvements are recommended at this intersection in conjunction with the proposed subject development.

Elm Street and Arbor Vitae Road

The intersection of Elm Street and Arbor Vitae Road is currently operating at a Level of Service A and B during the morning and evening peak hours, respectively. Under future conditions and based on the results of the capacity analyses, the intersection will operate at a Level of Service B during the morning and evening peak hours. Therefore, no street and/or traffic control improvements are recommended at this intersection in conjunction with the proposed subject development.

Elm Street and Public Lot Access Drive

The access drive into the public surface parking lot will be located approximately 85 feet east of Arbor Vitae Road (approximately the same location of the existing outbound only access drive serving the public parking lot). Based on the results of the capacity analyses, this intersection will operate at a Level of Service B during the morning and evening peak hours. Further inspection of the capacity analyses indicate that the outbound movement queues will not exceed 50 feet. A review of the projected traffic volumes coupled with the results of the capacity analyses indicate that the provision of an exclusive left or right-turn lane into the proposed access drive will not be necessary. Therefore, no street and/or traffic control improvements are recommended at this intersection in conjunction with the proposed subject development.

6. Parking Analysis

Existing Parking Characteristics

The East Elm Street District general boundaries are Pine Street to the north, Maple Street to the east, Oak Street to the south and the Metra tracks to the west.

Based on discussions with the Village of Winnetka, the downtown area has three parking zones/permits. These are Zone A - Employee Parking, Zone B - Post Office Employee Parking and Zone C - Commuter Parking. In addition, free parking ranging from 90 minutes to four hours is provided throughout the downtown area. Furthermore, current apartment residents can purchase a Zone C pass (valid for six months) if they need additional parking and are allowed to park overnight on the public parking lots.

In order to determine the availability of parking within close proximity to the site, a parking survey of the East Elm Street District per block and per side was conducted. The surveys were conducted on Thursday, May 22, 2014 every hour from 8:00 A.M. to 6:00 P.M. **Figure 9** shows the parking survey locations of the East Elm Street District.

East Elm Street District

The survey area, at the request of Village Staff, extended from 550 feet north of Elm Street south to Oak Street along Lincoln Avenue, from Green Bay Road east to Cedar Street on Elm Street and Oak Street as well as Maple Street and Cedar Street between Elm Street and Oak Street. **Table 6** in the Appendix summarizes the on-street and off-street parking occupancy data for the weekday. The East Elm Street District provides approximately 379 regular parking spaces and 294 permit spaces for a total of 673 parking spaces. Approximately 71 of the permit spaces are designated for a Zone C permit.



East Elm Street District Parking Survey Locations

Figure 9

As can be seen from Table 6 (see Appendix), the study area has a peak parking demand on Thursday of 481 vehicles occurring at 12:00 P.M. which translates into an occupancy of approximately 71 percent. This means that approximately 192 parking spaces are available during the peak hour. In addition, the Lincoln Avenue public parking lot had 14 regular parking spaces available and the Elm Street public parking lot had 21 parking spaces available.

However, it should be noted that during the peak hour, the parking areas surrounding the site and those within close proximity were at least 85 percent occupied with few parking spaces available. This indicates that the immediate area is reaching its theoretical capacity thus suggesting that additional parking is necessary. The proposed development is addressing this need for additional parking by providing additional commuter parking spaces and retail/public parking spaces.

Parking Requirements Per Village Code

A review of the Village of Winnetka Zoning Ordinance indicates that a multi-unit residential development should provide two parking spaces per unit and 0.25 parking spaces per unit for visitor parking. This translates into 270 parking spaces. No parking for the retail portion of the development is required based on Village of Winnetka Zoning Ordinance.

TOD Parking Characteristics

Parking demand/requirements at a TOD development are much lower than the parking demand of mixed-use developments located far away from public transportation. Based on a 2008 report titled Effects of TOD on Housing, Parking and Travel, published by the Federal Transit Administration (FTA), the Transportation Research Board (TRB) and the Transit Development Corporation, typically TOD residents are almost twice as likely to not own a car and own almost half the number of cars of other households.

Based on a review of the Census 2010 data, as well as on an analysis prepared by the Center for Transit-Oriented Development in cooperation with the Center for Neighborhood Technology, the following is a breakdown of the vehicle ownership within close proximity to the Winnetka train station and other vehicle ownership characteristics.

- Auto ownership of owned homes within ¼ mile of train station = 2.09 vehicles
- Auto ownership of rental units within ¼ mile of train station = 1.05 vehicles
- Twenty-eight (28) percent of the areas' households within ¼ mile of the train station have only one or no vehicle at all

KLOA, Inc. also reviewed previous parking surveys conducted at condominium developments in Evanston within close proximity to transit stations to determine their parking characteristics. Based on these surveys the peak parking demand ranged from 0.90 to 1.05 spaces per dwelling unit with an average peak parking demand of 0.95 parking spaces per unit. KLOA, Inc. also

reviewed a study conducted by the University of California Transportation Center of 31 different TOD sites in California and Oregon. The surveys indicated that the average peak parking demand was 1.0 parking space per unit. Therefore, all of this data validates the fact that TOD developments do have lower parking demands than developments located farther away from public transportation.

In addition to the Census data and the TOD surveys, KLOA, Inc. also reviewed the Institute of Transportation Engineers (ITE) *Parking Generation Manual*, 4th Edition. Based on the manual, a 120-unit apartment in a suburban setting will have a peak parking demand of 132 vehicles. However, it is important to note that these surveys are of suburban locations with little to no public transportation available.

Best Parking Practices

As it was previously mentioned, the proximity of the Winnetka Metra train station and the Pace Bus Routes 213 and 423 stops to the site as well as its location within downtown Winnetka qualifies the project as a TOD.

Best practices with respect to parking policies that are supportive of Smart Growth and TOD's include strategies that promote walking, biking and the use of public transit while reducing or eliminating the need for private automobiles. These strategies include the following:

- Incorporate transit-friendly parking design behind street-facing retail
- Manage/limit the amount of parking provided
- Reserve parking space for carsharing services
- Allow for parking to be shared by multiple uses
- Provide enclosed, secured storage facilities for bicycles
- Unbundle parking by separating parking costs from unit leases, which provides economic incentives for tenants to opt out of parking and make better use of alternative travel modes

Carsharing programs provide participants with convenient and flexible access to centrally-owned and maintained vehicles. Carsharing offers an alternative to individual car ownership, which effectively increases the number of users per vehicle and contributes to lower auto ownership rates and reduced parking demand. According to recent North American studies and carsharing member surveys, each carsharing vehicle removes an average of 15 privately-owned cars from the community.

The incorporation of the above-noted strategies into a development is recognized by the U.S. Green Building Council in the form of credits towards LEED certification of the project.

Parking Demand Evaluation

Based on the above, **Table 7** presents a summary of the estimated peak parking demand for the proposed development based on the three aforementioned sources.

Table 7

ESTIMATED RESIDENTIAL PEAK PARKING DEMAND (120 Apartments)

Estimated Peak Parking Demand Per:		
2010 Census Data	TOD Surveys	ITE Rates
126 spaces (1.05 spaces per unit)	120 spaces (1.0 space per unit)	132 spaces (1.1 space per unit)

As can be seen, the projected peak parking demand for the proposed apartments will range from a low of 120 parking spaces to 132 parking spaces with an average of 126 parking spaces.

Based on a review of the site plan, the development is planning to provide 159 parking spaces for residents of the proposed apartment building. This parking supply for the apartment building translates into approximately 1.33 parking spaces per unit which is approximately 27 percent greater than the 2010 Census Data parking demand. As such, the proposed number of residential parking spaces will be sufficient to accommodate the projected peak parking demand of 126 spaces.

Lastly, the proposed development will provide an increase in the number of commuter spaces and retail/public parking spaces available in the immediate vicinity of the site which will have a positive impact on parking conditions within the East Elm Street District.

7. Conclusion

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

- The site of the proposed development will be located in close proximity to the train station.
- The amount of traffic that will be generated by the proposed development will be reduced due to the availability of public transportation serving the area.
- The results of the capacity analyses indicate that the studied intersections are and will continue operating at acceptable levels of service with minimal increases in delays and that queues will not impact adjacent intersections.
- The proposed access system will provide maximum access flexibility for residents and customers and commuters entering and departing the site.
- The proposed parking supply of 164 spaces for the proposed apartments will be adequate in accommodating the projected peak parking demand.
- The proposed public and commuter parking garage will more than adequately offset the loss of existing parking and will provide additional supply for future uses of the East Elm Street District.

Appendix

*One Winnetka
Winnetka, Illinois*



On-Street/Off-Street Parking Occupancy Data

*One Winnetka
Winnetka, Illinois*



Table 6

Village of Winnetka East Elm Street District

East Elm Street District Parking Occupancy Counts

Thursday May 22, 2014

Block No.	Block	Side	Capacity	Parking Regulation	Number of Spaces Occupied										
					8:00 AM	9:00 AM	10:00 AM	11:00 AM	12:00 PM	1:00 PM	2:00 PM	3:00 PM	4:00 PM	5:00 P.M.	6:00 PM
1	Elm Street (Lincoln Ave. to Arbor Vitae Rd.)	North	15	1-hr parking 8 AM - 6 PM (14 spaces)/15-min. parking (1 space)	1	10	9	13	12	14	12	8	12	10	7
		South	20	1-hr parking 8 AM - 6 PM	6	14	13	19	20	20	20	15	15	16	12
2	Elm Street (Arbor Vitae Rd. to Maple St.)	North	0	No Parking	0	0	0	0	0	0	0	0	0	0	0
		South	11	1-hr parking 8 AM - 6 PM	1	3	3	2	7	5	5	1	7	5	3
3	Maple Street (Elm St. to Oak St.)	East	18	No Parking 7-9 AM Monday - Friday	0	0	2	8	4	3	3	3	4	2	1
		West	17	No Parking 7-9 AM Monday - Friday	0	1	1	5	2	3	3	3	3	2	2
4	Elm Street (Maple St. to Cedar St.)	North	18	No Restrictions	2	2	2	3	3	3	2	2	1	2	1
		South	18	No Restrictions	3	5	5	4	4	4	4	4	4	2	3
5	Cedar Street (Elm St. to Oak St.)	East	0	No Parking	0	0	0	0	0	0	0	0	0	0	0
		West	18	No Restrictions	4	5	3	4	3	2	3	5	4		0
6	Oak Street (Maple St. to Cedar St.)	North	15	No Parking 7-9 AM Monday - Friday except Zone A permit	0	0	0	2	1	0	1	1	2	0	0
		South	15	No Restrictions	1	0	1	1	3	1	1	1	1	1	1
7	Oak Street (Lincoln Ave. to Maple St.)	North	14	4-hr parking 8 AM - 6 PM	12	14	11	14	11	12	13	10	9	6	2
		South	14	2-hr parking 8 AM - 6 PM (12 spaces)/Zone C parking (2 spaces)	0/2	8/2	6/2	12/2	9/2	5/2	10/2	5/2	2/2	1/2	4/1
8	Lincoln Avenue (Elm St. to Oak St.)	East	32	90 min. parking (21 spaces)/Zone C parking (11 spaces)	5/11	5/11	10/11	18/11	20/11	17/11	20/11	16/10	16/11	16/9	11/4
		West	42	90 min. parking (9 spaces)/Zone C parking (33 spaces)	4/33	4/33	5/33	9/33	9/33	9/33	8/33	6/29	9/27	9/23	8/17
9	Green Bay Road (Elm St. to Oak St.)	East	25	Zone C 8 AM - 4 PM Monday - Friday	19	25	24	24	24	23	23	23	23	19	8
		West	21	90 min. parking (14 spaces)/Zone A parking (7 spaces)	1/6	6/7	8/7	9/7	3/7	2/7	8/7	12/7	9/5	2/3	0/0
10	Metra Parking Lot (Elm St. to Oak St.)		63	Permit	59	60	56	55	54	54	53	53	48	45	27
11	Lincoln Avenue (Elm St. to Parking Lot Drive)	East	35	90 min. parking	26	32	29	29	28	30	31	30	30	31	26
		West	30	90 min. parking	21	26	27	25	25	27	20	22	25	25	27
12	Lincoln Avenue (Parking Lot Drive to Pine St.)	East	0	No Parking	0	0	0	0	0	0	0	0	0	0	0
		West	11	No Restrictions	4	10	6	3	10	11	6	2	2	6	4
13	Lincoln Avenue Parking Lot		159	90 min. parking and 2hr. Parking (68 spaces)	20	41	48	43	54	47	34	25	21	15	9
				Zone A parking (91 spaces)	48	58	71	72	81	85	85	77	72	51	28
14	Elm Street Parking Lot		62	Zone A or 2hr. Parking (8 AM - 5 PM)	24	25	38	43	41	42	49	47	40	35	20
Total			673		313	407	434	470	481	472	467	419	404	341	202

Capacity Analyses

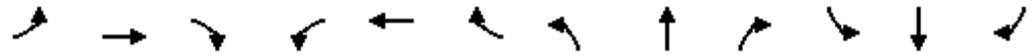
Existing Traffic Conditions

*One Winnetka
Winnetka, Illinois*



Lanes, Volumes, Timings
1: Green Bay Road & Elm Street

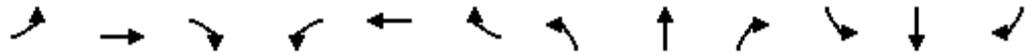
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Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕	↕		↕			↕	
Volume (vph)	28	97	29	16	96	87	12	422	54	111	380	17
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		50	0		50	0		0
Storage Lanes	0		0	0		1	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95	0.95	0.95	0.95
Ped Bike Factor		0.98			0.99	0.96		1.00			1.00	
Frt		0.974				0.850		0.983			0.995	
Flt Protected		0.991			0.993			0.999			0.989	
Satd. Flow (prot)	0	1777	0	0	1850	1370	0	3461	0	0	3476	0
Flt Permitted		0.923			0.945			0.939			0.733	
Satd. Flow (perm)	0	1648	0	0	1751	1315	0	3252	0	0	2571	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		14				92		27			7	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		424			290			99			376	
Travel Time (s)		9.6			6.6			2.3			8.5	
Confl. Peds. (#/hr)	25		45	45		25	19		13	13		19
Confl. Bikes (#/hr)			1			1			1			15
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
Parking (#/hr)	5		7			7	18		18	10		7
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	162	0	0	118	92	0	514	0	0	535	0
Turn Type	Perm	NA		Perm	NA	Perm	Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8		8	2			6		
Detector Phase	4	4		8	8	8	2	2		6	6	
Switch Phase												
Minimum Initial (s)	3.0	3.0		3.0	3.0	3.0	15.0	15.0		15.0	15.0	
Minimum Split (s)	29.0	29.0		29.0	29.0	29.0	36.0	36.0		36.0	36.0	
Total Split (s)	29.0	29.0		29.0	29.0	29.0	56.0	56.0		56.0	56.0	
Total Split (%)	34.1%	34.1%		34.1%	34.1%	34.1%	65.9%	65.9%		65.9%	65.9%	
Yellow Time (s)	4.5	4.5		4.5	4.5	4.5	4.5	4.5		4.5	4.5	
All-Red Time (s)	1.5	1.5		1.5	1.5	1.5	1.5	1.5		1.5	1.5	
Lost Time Adjust (s)		0.0			0.0	0.0		0.0			0.0	
Total Lost Time (s)		6.0			6.0	6.0		6.0			6.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None	None	C-Max	C-Max		C-Max	C-Max	
Act Effct Green (s)		16.7			16.7	16.7		56.3			56.3	
Actuated g/C Ratio		0.20			0.20	0.20		0.66			0.66	
v/c Ratio		0.49			0.34	0.28		0.24			0.31	
Control Delay		31.8			31.1	8.3		6.2			7.2	
Queue Delay		0.0			0.0	0.0		0.0			0.0	
Total Delay		31.8			31.1	8.3		6.2			7.2	
LOS		C			C	A		A			A	
Approach Delay		31.8			21.1			6.2			7.2	
Approach LOS		C			C			A			A	

Lanes, Volumes, Timings
 1: Green Bay Road & Elm Street

9/16/2014

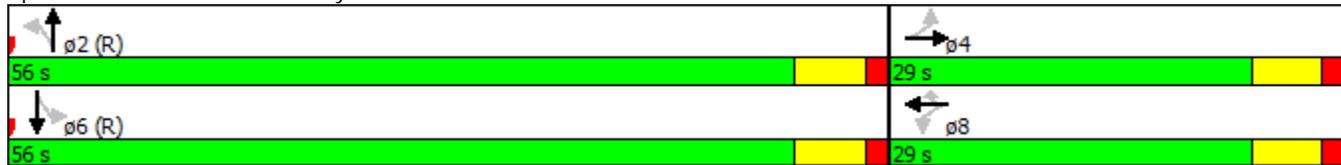


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Queue Length 50th (ft)		71			55	0		47			54	
Queue Length 95th (ft)		119			94	35		84			99	
Internal Link Dist (ft)		344			210			19			296	
Turn Bay Length (ft)						50						
Base Capacity (vph)		456			473	422		2164			1706	
Starvation Cap Reductn		0			0	0		0			0	
Spillback Cap Reductn		0			0	0		0			0	
Storage Cap Reductn		0			0	0		0			0	
Reduced v/c Ratio		0.36			0.25	0.22		0.24			0.31	

Intersection Summary

Area Type:	Other
Cycle Length:	85
Actuated Cycle Length:	85
Offset:	0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle:	65
Control Type:	Actuated-Coordinated
Maximum v/c Ratio:	0.49
Intersection Signal Delay:	11.7
Intersection LOS:	B
Intersection Capacity Utilization:	83.4%
ICU Level of Service:	E
Analysis Period (min):	15

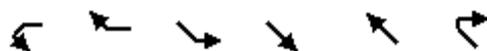
Splits and Phases: 1: Green Bay Road & Elm Street



Lanes, Volumes, Timings

7: Green Bay Road & Oak Street

9/16/2014



Lane Group	WBL	WBR	SEL	SET	NWT	NWR
Lane Configurations						
Volume (vph)	105	60	34	413	384	59
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	25	0			0
Storage Lanes	1	1	0			0
Taper Length (ft)	25		25			
Lane Util. Factor	1.00	1.00	0.95	0.95	0.95	0.95
Ped Bike Factor	1.00	0.98		1.00	1.00	
Frt		0.850			0.980	
Flt Protected	0.950			0.996		
Satd. Flow (prot)	1770	1583	0	3525	3455	0
Flt Permitted	0.757			0.899		
Satd. Flow (perm)	1403	1555	0	3181	3455	0
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)		63			39	
Link Speed (mph)	30			30	30	
Link Distance (ft)	230			161	167	
Travel Time (s)	5.2			3.7	3.8	
Confl. Peds. (#/hr)	8	7	9			9
Confl. Bikes (#/hr)						1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)						
Lane Group Flow (vph)	111	63	0	471	466	0
Turn Type	Perm	Perm	Perm	NA	NA	
Protected Phases				6	2	
Permitted Phases	3	3	6			
Detector Phase	3	3	6	6	2	
Switch Phase						
Minimum Initial (s)	4.0	4.0	15.0	15.0	15.0	
Minimum Split (s)	25.0	25.0	35.0	35.0	35.0	
Total Split (s)	25.0	25.0	35.0	35.0	35.0	
Total Split (%)	41.7%	41.7%	58.3%	58.3%	58.3%	
Yellow Time (s)	4.0	4.0	4.5	4.5	4.5	
All-Red Time (s)	1.0	1.0	1.5	1.5	1.5	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	
Total Lost Time (s)	5.0	5.0		6.0	6.0	
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	None	None	C-Max	C-Max	C-Max	
Act Effct Green (s)	10.0	10.0		42.3	42.3	
Actuated g/C Ratio	0.17	0.17		0.70	0.70	
v/c Ratio	0.47	0.20		0.21	0.19	
Control Delay	28.4	7.7		4.9	4.4	
Queue Delay	0.0	0.0		0.0	0.0	
Total Delay	28.4	7.7		4.9	4.4	
LOS	C	A		A	A	
Approach Delay	20.9			4.9	4.4	
Approach LOS	C			A	A	
Queue Length 50th (ft)	37	0		30	26	

Lanes, Volumes, Timings
 7: Green Bay Road & Oak Street

9/16/2014

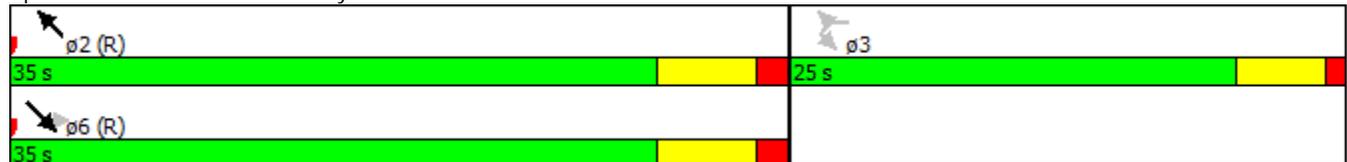


Lane Group	WBL	WBR	SEL	SET	NWT	NWR
Queue Length 95th (ft)	72	25		60	54	
Internal Link Dist (ft)	150			81	87	
Turn Bay Length (ft)		25				
Base Capacity (vph)	467	560		2243	2448	
Starvation Cap Reductn	0	0		0	0	
Spillback Cap Reductn	0	0		0	0	
Storage Cap Reductn	0	0		0	0	
Reduced v/c Ratio	0.24	0.11		0.21	0.19	

Intersection Summary

Area Type:	Other
Cycle Length:	60
Actuated Cycle Length:	60
Offset:	0 (0%), Referenced to phase 2:NWT and 6:SETL, Start of Green
Natural Cycle:	60
Control Type:	Actuated-Coordinated
Maximum v/c Ratio:	0.47
Intersection Signal Delay:	7.2
Intersection LOS:	A
Intersection Capacity Utilization	54.7%
ICU Level of Service	A
Analysis Period (min)	15

Splits and Phases: 7: Green Bay Road & Oak Street



HCM Unsignalized Intersection Capacity Analysis

2: Lincoln Avenue & Elm Street

9/16/2014

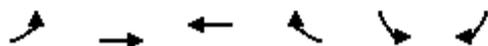


Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	67	153	42	8	158	24	21	42	7	8	41	20
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	71	161	44	8	166	25	22	44	7	8	43	21
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total (vph)	276	200	74	73								
Volume Left (vph)	71	8	22	8								
Volume Right (vph)	44	25	7	21								
Hadj (s)	-0.01	-0.03	0.03	-0.12								
Departure Headway (s)	4.5	4.6	5.1	5.0								
Degree Utilization, x	0.35	0.25	0.11	0.10								
Capacity (veh/h)	770	748	631	645								
Control Delay (s)	9.9	9.1	8.8	8.6								
Approach Delay (s)	9.9	9.1	8.8	8.6								
Approach LOS	A	A	A	A								
Intersection Summary												
Delay			9.3									
Level of Service			A									
Intersection Capacity Utilization			47.5%	ICU Level of Service	A							
Analysis Period (min)			15									

HCM Unsignalized Intersection Capacity Analysis

5: Oak Street & Lincoln Avenue

9/16/2014



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (veh/h)	45	48	126	26	50	39
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	47	51	133	27	53	41
Pedestrians		4	1		6	
Lane Width (ft)		12.0	12.0		12.0	
Walking Speed (ft/s)		4.0	4.0		4.0	
Percent Blockage		0	0		1	
Right turn flare (veh)						
Median type		None	None			
Median storage (veh)						
Upstream signal (ft)		230				
pX, platoon unblocked						
vC, conflicting volume	166				299	156
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	166				299	156
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	97				92	95
cM capacity (veh/h)	1405				665	882

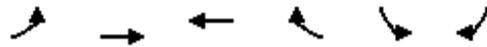
Direction, Lane #	EB 1	WB 1	SB 1
Volume Total	98	160	94
Volume Left	47	0	53
Volume Right	0	27	41
cSH	1405	1700	746
Volume to Capacity	0.03	0.09	0.13
Queue Length 95th (ft)	3	0	11
Control Delay (s)	3.8	0.0	10.5
Lane LOS	A		B
Approach Delay (s)	3.8	0.0	10.5
Approach LOS			B

Intersection Summary			
Average Delay		3.9	
Intersection Capacity Utilization		30.6%	ICU Level of Service
Analysis Period (min)		15	A

HCM Unsignalized Intersection Capacity Analysis

13: Elm Street & Arbor Vitae

9/16/2014



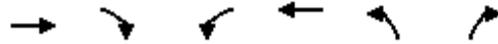
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑	↑		↘	
Volume (veh/h)	0	158	170	0	7	12
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	0	166	179	0	7	13
Pedestrians					14	
Lane Width (ft)					12.0	
Walking Speed (ft/s)					4.0	
Percent Blockage					1	
Right turn flare (veh)						
Median type		None	None			
Median storage (veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	193				359	193
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	193				359	193
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	100				99	98
cM capacity (veh/h)	1364				632	839

Direction, Lane #	EB 1	WB 1	SB 1
Volume Total	166	179	20
Volume Left	0	0	7
Volume Right	0	0	13
cSH	1700	1700	748
Volume to Capacity	0.10	0.11	0.03
Queue Length 95th (ft)	0	0	2
Control Delay (s)	0.0	0.0	9.9
Lane LOS			A
Approach Delay (s)	0.0	0.0	9.9
Approach LOS			A

Intersection Summary			
Average Delay		0.5	
Intersection Capacity Utilization	20.6%		ICU Level of Service A
Analysis Period (min)	15		

HCM Unsignalized Intersection Capacity Analysis
 15: Public Lot Access Drive & Elm Street

9/16/2014



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	→			←	↙	↘
Volume (veh/h)	159	6	1	166	4	1
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	167	6	1	175	4	1
Pedestrians					31	
Lane Width (ft)					12.0	
Walking Speed (ft/s)					4.0	
Percent Blockage					3	
Right turn flare (veh)						
Median type	None			None		
Median storage (veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			205		378	202
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			205		378	202
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		99	100
cM capacity (veh/h)			1331		607	818

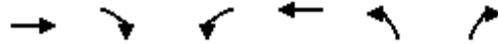
Direction, Lane #	EB 1	WB 1	NB 1
Volume Total	174	176	5
Volume Left	0	1	4
Volume Right	6	0	1
cSH	1700	1331	640
Volume to Capacity	0.10	0.00	0.01
Queue Length 95th (ft)	0	0	1
Control Delay (s)	0.0	0.1	10.7
Lane LOS		A	B
Approach Delay (s)	0.0	0.1	10.7
Approach LOS			B

Intersection Summary			
Average Delay		0.2	
Intersection Capacity Utilization	21.7%		ICU Level of Service A
Analysis Period (min)		15	

HCM Unsignalized Intersection Capacity Analysis

17: Outbound Drive & Elm Street

9/16/2014



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑			↑	↘	
Volume (veh/h)	157	0	0	182	0	1
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	165	0	0	192	0	1
Pedestrians					31	
Lane Width (ft)					12.0	
Walking Speed (ft/s)					4.0	
Percent Blockage					3	
Right turn flare (veh)						
Median type	None			None		
Median storage (veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			196		388	196
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			196		388	196
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		100	100
cM capacity (veh/h)			1341		600	823

Direction, Lane #	EB 1	WB 1	NB 1
Volume Total	165	192	1
Volume Left	0	0	0
Volume Right	0	0	1
cSH	1700	1700	823
Volume to Capacity	0.10	0.11	0.00
Queue Length 95th (ft)	0	0	0
Control Delay (s)	0.0	0.0	9.4
Lane LOS			A
Approach Delay (s)	0.0	0.0	9.4
Approach LOS			A

Intersection Summary			
Average Delay		0.0	
Intersection Capacity Utilization		21.5%	ICU Level of Service
Analysis Period (min)		15	A

HCM Unsignalized Intersection Capacity Analysis

20: Lincoln Avenue & Condominium Drive

9/16/2014



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	3	3	71	0	2	86
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	3	3	75	0	2	91
Pedestrians	1					
Lane Width (ft)	12.0					
Walking Speed (ft/s)	4.0					
Percent Blockage	0					
Right turn flare (veh)						
Median type			None			None
Median storage (veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	170	76			76	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	170	76			76	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	100	100			100	
cM capacity (veh/h)	818	985			1522	

Direction, Lane #	WB 1	NB 1	SB 1
Volume Total	6	75	93
Volume Left	3	0	2
Volume Right	3	0	0
cSH	894	1700	1522
Volume to Capacity	0.01	0.04	0.00
Queue Length 95th (ft)	1	0	0
Control Delay (s)	9.1	0.0	0.2
Lane LOS	A		A
Approach Delay (s)	9.1	0.0	0.2
Approach LOS	A		

Intersection Summary			
Average Delay		0.4	
Intersection Capacity Utilization		16.1%	ICU Level of Service A
Analysis Period (min)		15	

Lanes, Volumes, Timings
1: Green Bay Road & Elm Street

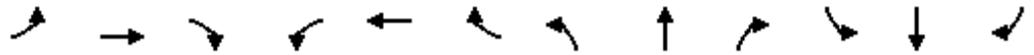
9/16/2014



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕	↕		↕			↕	
Volume (vph)	38	81	32	38	100	79	15	433	52	98	596	32
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		50	0		50	0		0
Storage Lanes	0		0	0		1	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95	0.95	0.95	0.95
Ped Bike Factor		0.98			0.99	0.96		1.00			1.00	
Frt		0.971				0.850		0.984			0.993	
Flt Protected		0.988			0.986			0.998			0.993	
Satd. Flow (prot)	0	1758	0	0	1837	1370	0	3463	0	0	3481	0
Flt Permitted		0.879			0.870			0.925			0.792	
Satd. Flow (perm)	0	1555	0	0	1598	1314	0	3209	0	0	2774	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		17				83		22			8	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		424			290			99			376	
Travel Time (s)		9.6			6.6			2.3			8.5	
Confl. Peds. (#/hr)	25		60	60		25	23		9	9		23
Confl. Bikes (#/hr)						2			3			4
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Parking (#/hr)	5		7			7	18		18	10		7
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	159	0	0	145	83	0	527	0	0	764	0
Turn Type	Perm	NA		Perm	NA	Perm	Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8		8	2			6		
Detector Phase	4	4		8	8	8	2	2		6	6	
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0		4.0	4.0	
Minimum Split (s)	29.0	29.0		29.0	29.0	29.0	36.0	36.0		36.0	36.0	
Total Split (s)	35.0	35.0		35.0	35.0	35.0	50.0	50.0		50.0	50.0	
Total Split (%)	41.2%	41.2%		41.2%	41.2%	41.2%	58.8%	58.8%		58.8%	58.8%	
Yellow Time (s)	4.5	4.5		4.5	4.5	4.5	4.5	4.5		4.5	4.5	
All-Red Time (s)	1.5	1.5		1.5	1.5	1.5	1.5	1.5		1.5	1.5	
Lost Time Adjust (s)		0.0			0.0	0.0		0.0			0.0	
Total Lost Time (s)		6.0			6.0	6.0		6.0			6.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None	None	C-Max	C-Max		C-Max	C-Max	
Act Effct Green (s)		17.0			17.0	17.0		56.0			56.0	
Actuated g/C Ratio		0.20			0.20	0.20		0.66			0.66	
v/c Ratio		0.49			0.45	0.25		0.25			0.42	
Control Delay		31.0			33.5	8.2		6.6			8.3	
Queue Delay		0.0			0.0	0.0		0.0			0.0	
Total Delay		31.0			33.5	8.2		6.6			8.3	
LOS		C			C	A		A			A	
Approach Delay		31.0			24.3			6.6			8.3	
Approach LOS		C			C			A			A	

Lanes, Volumes, Timings
 1: Green Bay Road & Elm Street

9/16/2014

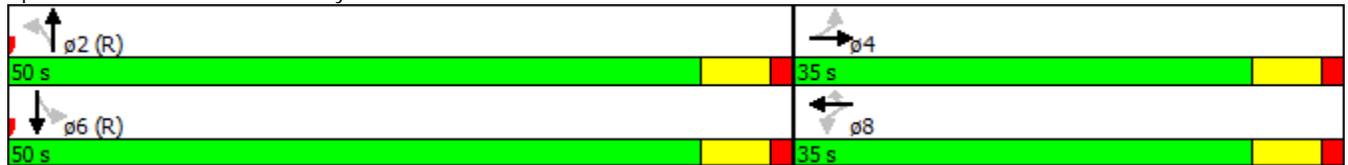


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Queue Length 50th (ft)		68			69	0		49			86	
Queue Length 95th (ft)		115			113	33		91			153	
Internal Link Dist (ft)		344			210			19			296	
Turn Bay Length (ft)						50						
Base Capacity (vph)		541			545	502		2120			1829	
Starvation Cap Reductn		0			0	0		0			0	
Spillback Cap Reductn		0			0	0		0			0	
Storage Cap Reductn		0			0	0		0			0	
Reduced v/c Ratio		0.29			0.27	0.17		0.25			0.42	

Intersection Summary

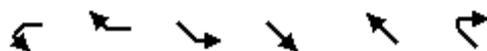
Area Type:	Other
Cycle Length:	85
Actuated Cycle Length:	85
Offset:	0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle:	65
Control Type:	Actuated-Coordinated
Maximum v/c Ratio:	0.49
Intersection Signal Delay:	12.1
Intersection LOS:	B
Intersection Capacity Utilization:	83.7%
ICU Level of Service:	E
Analysis Period (min):	15

Splits and Phases: 1: Green Bay Road & Elm Street



Lanes, Volumes, Timings
7: Green Bay Road & Oak Street

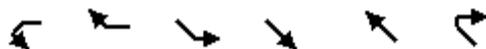
9/16/2014



Lane Group	WBL	WBR	SEL	SET	NWT	NWR
Lane Configurations						
Volume (vph)	109	38	23	588	405	63
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	25	0			0
Storage Lanes	1	1	0			0
Taper Length (ft)	25		25			
Lane Util. Factor	1.00	1.00	0.95	0.95	0.95	0.95
Ped Bike Factor	1.00	0.98		1.00	1.00	
Frt		0.850			0.980	
Flt Protected	0.950			0.998		
Satd. Flow (prot)	1531	1370	0	3532	3457	0
Flt Permitted	0.757			0.929		
Satd. Flow (perm)	1214	1349	0	3288	3457	0
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)		40			40	
Link Speed (mph)	30			30	30	
Link Distance (ft)	230			161	167	
Travel Time (s)	5.2			3.7	3.8	
Confl. Peds. (#/hr)	7	3	3			3
Confl. Bikes (#/hr)		1				2
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Parking (#/hr)	7	7				
Shared Lane Traffic (%)						
Lane Group Flow (vph)	115	40	0	643	492	0
Turn Type	Perm	Perm	Perm	NA	NA	
Protected Phases				6	2	
Permitted Phases	3	3	6			
Detector Phase	3	3	6	6	2	
Switch Phase						
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	
Minimum Split (s)	25.0	25.0	35.0	35.0	35.0	
Total Split (s)	25.0	25.0	35.0	35.0	35.0	
Total Split (%)	41.7%	41.7%	58.3%	58.3%	58.3%	
Yellow Time (s)	4.0	4.0	4.5	4.5	4.5	
All-Red Time (s)	1.0	1.0	1.5	1.5	1.5	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	
Total Lost Time (s)	5.0	5.0		6.0	6.0	
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	None	None	C-Max	C-Max	C-Max	
Act Effct Green (s)	13.2	13.2		39.7	39.7	
Actuated g/C Ratio	0.22	0.22		0.66	0.66	
v/c Ratio	0.43	0.12		0.30	0.21	
Control Delay	24.2	7.1		6.8	5.8	
Queue Delay	0.0	0.0		0.0	0.0	
Total Delay	24.2	7.1		6.8	5.8	
LOS	C	A		A	A	
Approach Delay	19.8			6.8	5.8	
Approach LOS	B			A	A	

Lanes, Volumes, Timings
7: Green Bay Road & Oak Street

9/16/2014

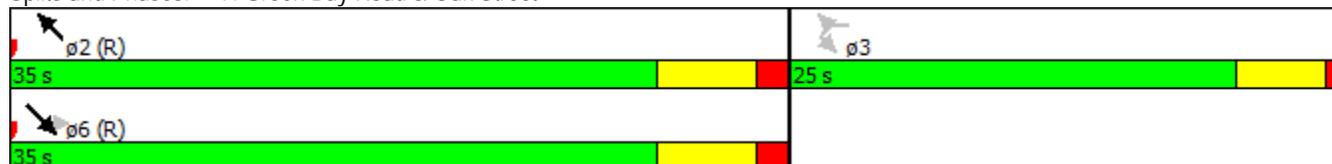


Lane Group	WBL	WBR	SEL	SET	NWT	NWR
Queue Length 50th (ft)	36	0		53	34	
Queue Length 95th (ft)	70	18		99	68	
Internal Link Dist (ft)	150			81	87	
Turn Bay Length (ft)		25				
Base Capacity (vph)	404	476		2174	2299	
Starvation Cap Reductn	0	0		0	0	
Spillback Cap Reductn	0	0		0	0	
Storage Cap Reductn	0	0		0	0	
Reduced v/c Ratio	0.28	0.08		0.30	0.21	

Intersection Summary

Area Type:	Other
Cycle Length:	60
Actuated Cycle Length:	60
Offset:	0 (0%), Referenced to phase 2:NWT and 6:SETL, Start of Green
Natural Cycle:	60
Control Type:	Actuated-Coordinated
Maximum v/c Ratio:	0.43
Intersection Signal Delay:	8.0
Intersection LOS:	A
Intersection Capacity Utilization	49.3%
ICU Level of Service	A
Analysis Period (min)	15

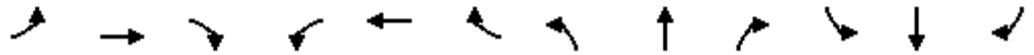
Splits and Phases: 7: Green Bay Road & Oak Street



HCM Unsignalized Intersection Capacity Analysis

2: Lincoln Avenue & Elm Street

9/16/2014

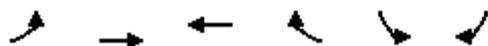


Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	58	129	44	13	138	18	16	37	13	29	45	63
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	61	136	46	14	145	19	17	39	14	31	47	66
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total (vph)	243	178	69	144								
Volume Left (vph)	61	14	17	31								
Volume Right (vph)	46	19	14	66								
Hadj (s)	-0.03	-0.01	-0.04	-0.20								
Departure Headway (s)	4.6	4.7	5.1	4.8								
Degree Utilization, x	0.31	0.23	0.10	0.19								
Capacity (veh/h)	732	715	638	681								
Control Delay (s)	9.7	9.2	8.6	9.0								
Approach Delay (s)	9.7	9.2	8.6	9.0								
Approach LOS	A	A	A	A								
Intersection Summary												
Delay			9.3									
Level of Service			A									
Intersection Capacity Utilization			47.4%	ICU Level of Service	A							
Analysis Period (min)			15									

HCM Unsignalized Intersection Capacity Analysis

5: Oak Street & Lincoln Avenue

9/16/2014

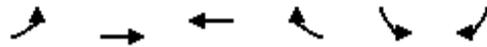


Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (veh/h)	45	41	93	18	36	54
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	47	43	98	19	38	57
Pedestrians		10			14	
Lane Width (ft)		12.0			12.0	
Walking Speed (ft/s)		4.0			4.0	
Percent Blockage		1			1	
Right turn flare (veh)						
Median type		None	None			
Median storage (veh)						
Upstream signal (ft)		230				
pX, platoon unblocked						
vC, conflicting volume	131				259	131
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	131				259	131
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	97				95	94
cM capacity (veh/h)	1437				697	900
Direction, Lane #	EB 1	WB 1	SB 1			
Volume Total	91	117	95			
Volume Left	47	0	38			
Volume Right	0	19	57			
cSH	1437	1700	806			
Volume to Capacity	0.03	0.07	0.12			
Queue Length 95th (ft)	3	0	10			
Control Delay (s)	4.1	0.0	10.1			
Lane LOS	A		B			
Approach Delay (s)	4.1	0.0	10.1			
Approach LOS			B			
Intersection Summary						
Average Delay			4.4			
Intersection Capacity Utilization			26.0%		ICU Level of Service	A
Analysis Period (min)			15			

HCM Unsignalized Intersection Capacity Analysis

13: Elm Street & Arbor Vitae

9/16/2014



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑	↑		↘	
Volume (veh/h)	0	170	168	0	5	8
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	0	179	177	0	5	8
Pedestrians					33	
Lane Width (ft)					12.0	
Walking Speed (ft/s)					4.0	
Percent Blockage					3	
Right turn flare (veh)						
Median type		None	None			
Median storage (veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	210				389	210
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	210				389	210
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	100				99	99
cM capacity (veh/h)	1323				598	808

Direction, Lane #	EB 1	WB 1	SB 1
Volume Total	179	177	14
Volume Left	0	0	5
Volume Right	0	0	8
cSH	1700	1700	712
Volume to Capacity	0.11	0.10	0.02
Queue Length 95th (ft)	0	0	1
Control Delay (s)	0.0	0.0	10.2
Lane LOS			B
Approach Delay (s)	0.0	0.0	10.2
Approach LOS			B

Intersection Summary			
Average Delay		0.4	
Intersection Capacity Utilization		21.8%	ICU Level of Service
Analysis Period (min)		15	A

HCM Unsignalized Intersection Capacity Analysis

15: Public Lot Drive & Elm Street

9/16/2014



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	→			←	←	↘
Volume (veh/h)	171	4	1	157	11	3
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	180	4	1	165	12	3
Pedestrians					47	
Lane Width (ft)					12.0	
Walking Speed (ft/s)					4.0	
Percent Blockage					4	
Right turn flare (veh)						
Median type	None			None		
Median storage (veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			231		396	229
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			231		396	229
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		98	100
cM capacity (veh/h)			1284		584	778

Direction, Lane #	EB 1	WB 1	NB 1
Volume Total	184	166	15
Volume Left	0	1	12
Volume Right	4	0	3
cSH	1700	1284	617
Volume to Capacity	0.11	0.00	0.02
Queue Length 95th (ft)	0	0	2
Control Delay (s)	0.0	0.1	11.0
Lane LOS		A	B
Approach Delay (s)	0.0	0.1	11.0
Approach LOS			B

Intersection Summary			
Average Delay		0.5	
Intersection Capacity Utilization	22.5%		ICU Level of Service A
Analysis Period (min)		15	

HCM Unsignalized Intersection Capacity Analysis

17: Outbound Drive & Elm Street

9/16/2014



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑			↑	↘	
Volume (veh/h)	170	0	0	176	1	0
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	179	0	0	185	1	0
Pedestrians					47	
Lane Width (ft)					12.0	
Walking Speed (ft/s)					4.0	
Percent Blockage					4	
Right turn flare (veh)						
Median type	None			None		
Median storage (veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			226		411	226
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			226		411	226
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		100	100
cM capacity (veh/h)			1290		573	782

Direction, Lane #	EB 1	WB 1	NB 1
Volume Total	179	185	1
Volume Left	0	0	1
Volume Right	0	0	0
cSH	1700	1700	573
Volume to Capacity	0.11	0.11	0.00
Queue Length 95th (ft)	0	0	0
Control Delay (s)	0.0	0.0	11.3
Lane LOS			B
Approach Delay (s)	0.0	0.0	11.3
Approach LOS			B

Intersection Summary			
Average Delay		0.0	
Intersection Capacity Utilization		22.4%	ICU Level of Service A
Analysis Period (min)		15	

HCM Unsignalized Intersection Capacity Analysis

20: Lincoln Avenue & Condominium Drive

9/16/2014



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	3	2	59	4	3	87
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	3	2	62	4	3	92
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage (veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	162	64			66	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	162	64			66	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	100	100			100	
cM capacity (veh/h)	827	1000			1535	

Direction, Lane #	WB 1	NB 1	SB 1
Volume Total	5	66	95
Volume Left	3	0	3
Volume Right	2	4	0
cSH	889	1700	1535
Volume to Capacity	0.01	0.04	0.00
Queue Length 95th (ft)	0	0	0
Control Delay (s)	9.1	0.0	0.3
Lane LOS	A		A
Approach Delay (s)	9.1	0.0	0.3
Approach LOS	A		

Intersection Summary			
Average Delay		0.4	
Intersection Capacity Utilization		17.0%	ICU Level of Service
Analysis Period (min)		15	A

Capacity Analyses

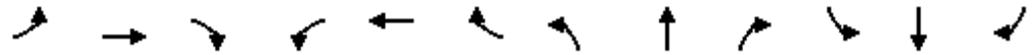
Total Projected Traffic Conditions

*One Winnetka
Winnetka, Illinois*



Lanes, Volumes, Timings
1: Green Bay Road & Elm Street

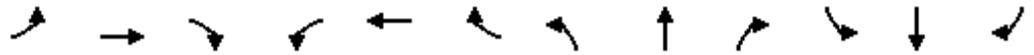
2/18/2015



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕	↕		↕			↕	
Volume (vph)	30	118	31	17	109	111	13	460	59	161	414	18
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		50	0		50	0		0
Storage Lanes	0		0	0		1	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95	0.95	0.95	0.95
Ped Bike Factor		0.98			0.99	0.96		1.00			1.00	
Frt		0.976				0.850		0.983			0.995	
Flt Protected		0.992			0.993			0.999			0.987	
Satd. Flow (prot)	0	1782	0	0	1850	1370	0	3460	0	0	3470	0
Flt Permitted		0.923			0.948			0.936			0.675	
Satd. Flow (perm)	0	1651	0	0	1757	1310	0	3241	0	0	2367	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		12				117		27			6	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		424			290			94			376	
Travel Time (s)		9.6			6.6			2.1			8.5	
Confl. Peds. (#/hr)	28		50	50		28	21		14	14		21
Confl. Bikes (#/hr)			1			1			1			15
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
Parking (#/hr)	5		7			7	18		18	10		7
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	189	0	0	133	117	0	560	0	0	624	0
Turn Type	Perm	NA		Perm	NA	Perm	Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8		8	2			6		
Detector Phase	4	4		8	8	8	2	2		6	6	
Switch Phase												
Minimum Initial (s)	3.0	3.0		3.0	3.0	3.0	15.0	15.0		15.0	15.0	
Minimum Split (s)	29.0	29.0		29.0	29.0	29.0	36.0	36.0		36.0	36.0	
Total Split (s)	29.0	29.0		29.0	29.0	29.0	56.0	56.0		56.0	56.0	
Total Split (%)	34.1%	34.1%		34.1%	34.1%	34.1%	65.9%	65.9%		65.9%	65.9%	
Yellow Time (s)	4.5	4.5		4.5	4.5	4.5	4.5	4.5		4.5	4.5	
All-Red Time (s)	1.5	1.5		1.5	1.5	1.5	1.5	1.5		1.5	1.5	
Lost Time Adjust (s)		0.0			0.0	0.0		0.0			0.0	
Total Lost Time (s)		6.0			6.0	6.0		6.0			6.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None	None	C-Max	C-Max		C-Max	C-Max	
Act Effct Green (s)		17.8			17.8	17.8		55.2			55.2	
Actuated g/C Ratio		0.21			0.21	0.21		0.65			0.65	
v/c Ratio		0.53			0.36	0.32		0.26			0.41	
Control Delay		32.8			30.5	7.7		6.9			8.6	
Queue Delay		0.0			0.0	0.0		0.0			0.0	
Total Delay		32.8			30.5	7.7		6.9			8.6	
LOS		C			C	A		A			A	
Approach Delay		32.8			19.8			6.9			8.6	
Approach LOS		C			B			A			A	

Lanes, Volumes, Timings
 1: Green Bay Road & Elm Street

2/18/2015

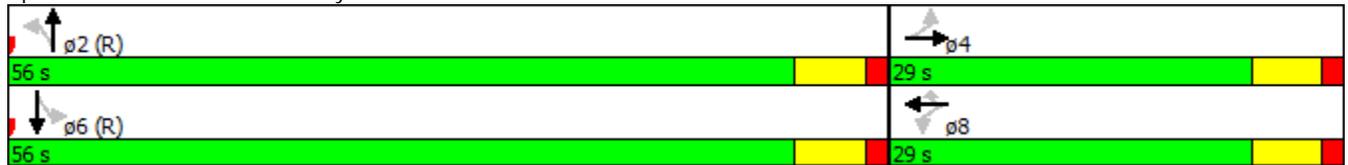


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Queue Length 50th (ft)		84			61	0		55			73	
Queue Length 95th (ft)		138			103	39		95			127	
Internal Link Dist (ft)		344			210			14			296	
Turn Bay Length (ft)						50						
Base Capacity (vph)		455			475	439		2114			1539	
Starvation Cap Reductn		0			0	0		0			0	
Spillback Cap Reductn		0			0	0		0			0	
Storage Cap Reductn		0			0	0		0			0	
Reduced v/c Ratio		0.42			0.28	0.27		0.26			0.41	

Intersection Summary

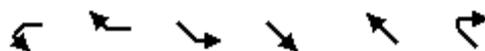
Area Type:	Other
Cycle Length:	85
Actuated Cycle Length:	85
Offset:	0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle:	65
Control Type:	Actuated-Coordinated
Maximum v/c Ratio:	0.53
Intersection Signal Delay:	12.6
Intersection LOS:	B
Intersection Capacity Utilization	83.8%
ICU Level of Service	E
Analysis Period (min)	15

Splits and Phases: 1: Green Bay Road & Elm Street



Lanes, Volumes, Timings
7: Green Bay Road & Oak Street

2/18/2015



Lane Group	WBL	WBR	SEL	SET	NWT	NWR
Lane Configurations						
Volume (vph)	130	65	37	450	439	99
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	25	0			0
Storage Lanes	1	1	0			0
Taper Length (ft)	25		25			
Lane Util. Factor	1.00	1.00	0.95	0.95	0.95	0.95
Ped Bike Factor	0.99	0.98		1.00	0.99	
Frt		0.850			0.972	
Flt Protected	0.950			0.996		
Satd. Flow (prot)	1770	1583	0	3525	3421	0
Flt Permitted	0.757			0.887		
Satd. Flow (perm)	1402	1553	0	3138	3421	0
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)		68			62	
Link Speed (mph)	30			30	30	
Link Distance (ft)	230			161	167	
Travel Time (s)	5.2			3.7	3.8	
Confl. Peds. (#/hr)	9	8	10			10
Confl. Bikes (#/hr)						1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)						
Lane Group Flow (vph)	137	68	0	513	566	0
Turn Type	Perm	Perm	Perm	NA	NA	
Protected Phases				6	2	
Permitted Phases	3	3	6			
Detector Phase	3	3	6	6	2	
Switch Phase						
Minimum Initial (s)	4.0	4.0	15.0	15.0	15.0	
Minimum Split (s)	25.0	25.0	35.0	35.0	35.0	
Total Split (s)	25.0	25.0	35.0	35.0	35.0	
Total Split (%)	41.7%	41.7%	58.3%	58.3%	58.3%	
Yellow Time (s)	4.0	4.0	4.5	4.5	4.5	
All-Red Time (s)	1.0	1.0	1.5	1.5	1.5	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	
Total Lost Time (s)	5.0	5.0		6.0	6.0	
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	None	None	C-Max	C-Max	C-Max	
Act Effct Green (s)	11.1	11.1		41.3	41.3	
Actuated g/C Ratio	0.18	0.18		0.69	0.69	
v/c Ratio	0.53	0.20		0.24	0.24	
Control Delay	28.6	7.0		5.6	4.9	
Queue Delay	0.0	0.0		0.0	0.0	
Total Delay	28.6	7.0		5.6	4.9	
LOS	C	A		A	A	
Approach Delay	21.5			5.6	4.9	
Approach LOS	C			A	A	
Queue Length 50th (ft)	45	0		36	34	

Lanes, Volumes, Timings
7: Green Bay Road & Oak Street

2/18/2015

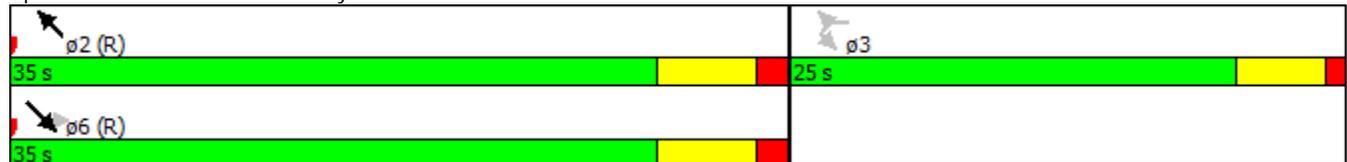


Lane Group	WBL	WBR	SEL	SET	NWT	NWR
Queue Length 95th (ft)	83	25		72	70	
Internal Link Dist (ft)	150			81	87	
Turn Bay Length (ft)		25				
Base Capacity (vph)	467	563		2162	2376	
Starvation Cap Reductn	0	0		0	0	
Spillback Cap Reductn	0	0		0	0	
Storage Cap Reductn	0	0		0	0	
Reduced v/c Ratio	0.29	0.12		0.24	0.24	

Intersection Summary

Area Type:	Other
Cycle Length:	60
Actuated Cycle Length:	60
Offset:	0 (0%), Referenced to phase 2:NWT and 6:SETL, Start of Green
Natural Cycle:	60
Control Type:	Actuated-Coordinated
Maximum v/c Ratio:	0.53
Intersection Signal Delay:	7.8
Intersection LOS:	A
Intersection Capacity Utilization	59.3%
ICU Level of Service	B
Analysis Period (min)	15

Splits and Phases: 7: Green Bay Road & Oak Street



HCM Unsignalized Intersection Capacity Analysis

2: Lincoln Avenue & Elm Street

2/18/2015



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	73	180	85	22	182	28	33	48	15	10	49	22
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
Hourly flow rate (vph)	77	189	89	23	192	29	35	51	16	11	52	23

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total (vph)	356	244	101	85
Volume Left (vph)	77	23	35	11
Volume Right (vph)	89	29	16	23
Hadj (s)	-0.07	-0.02	0.01	-0.10
Departure Headway (s)	4.7	4.8	5.5	5.4
Degree Utilization, x	0.46	0.33	0.15	0.13
Capacity (veh/h)	735	703	575	582
Control Delay (s)	11.6	10.2	9.5	9.2
Approach Delay (s)	11.6	10.2	9.5	9.2
Approach LOS	B	B	A	A

Intersection Summary			
Delay		10.6	
Level of Service		B	
Intersection Capacity Utilization	54.5%		ICU Level of Service A
Analysis Period (min)		15	

HCM Unsignalized Intersection Capacity Analysis

3: Public Lot Access Drive & Elm Street

2/18/2015



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	→			←	↔	↔
Volume (veh/h)	192	20	5	204	16	5
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	202	21	5	215	17	5
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage (veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			223		438	213
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			223		438	213
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		97	99
cM capacity (veh/h)			1346		574	827

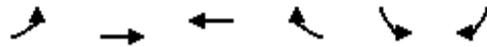
Direction, Lane #	EB 1	WB 1	NB 1
Volume Total	223	220	22
Volume Left	0	5	17
Volume Right	21	0	5
cSH	1700	1346	619
Volume to Capacity	0.13	0.00	0.04
Queue Length 95th (ft)	0	0	3
Control Delay (s)	0.0	0.2	11.0
Lane LOS		A	B
Approach Delay (s)	0.0	0.2	11.0
Approach LOS			B

Intersection Summary			
Average Delay		0.6	
Intersection Capacity Utilization	24.8%		ICU Level of Service A
Analysis Period (min)		15	

HCM Unsignalized Intersection Capacity Analysis

5: Oak Street & Lincoln Avenue

2/18/2015



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (veh/h)	84	52	137	38	58	58
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	88	55	144	40	61	61
Pedestrians		4	1		7	
Lane Width (ft)		12.0	12.0		12.0	
Walking Speed (ft/s)		4.0	4.0		4.0	
Percent Blockage		0	0		1	
Right turn flare (veh)						
Median type		None	None			
Median storage (veh)						
Upstream signal (ft)		230				
pX, platoon unblocked						
vC, conflicting volume	191				404	175
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	191				404	175
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	94				89	93
cM capacity (veh/h)	1374				560	860

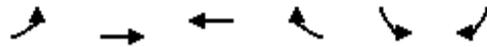
Direction, Lane #	EB 1	WB 1	SB 1
Volume Total	143	184	122
Volume Left	88	0	61
Volume Right	0	40	61
cSH	1374	1700	679
Volume to Capacity	0.06	0.11	0.18
Queue Length 95th (ft)	5	0	16
Control Delay (s)	5.0	0.0	11.5
Lane LOS	A		B
Approach Delay (s)	5.0	0.0	11.5
Approach LOS			B

Intersection Summary			
Average Delay		4.7	
Intersection Capacity Utilization		35.6%	ICU Level of Service
Analysis Period (min)		15	A

HCM Unsignalized Intersection Capacity Analysis

13: Elm Street & Arbor Vitae

2/18/2015



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑	↑		↘	
Volume (veh/h)	0	205	220	0	7	12
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	0	216	232	0	7	13
Pedestrians					15	
Lane Width (ft)					12.0	
Walking Speed (ft/s)					4.0	
Percent Blockage					1	
Right turn flare (veh)						
Median type		None	None			
Median storage veh						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	247				462	247
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	247				462	247
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	100				99	98
cM capacity (veh/h)	1303				551	782

Direction, Lane #	EB 1	WB 1	SB 1
Volume Total	216	232	20
Volume Left	0	0	7
Volume Right	0	0	13
cSH	1700	1700	677
Volume to Capacity	0.13	0.14	0.03
Queue Length 95th (ft)	0	0	2
Control Delay (s)	0.0	0.0	10.5
Lane LOS			B
Approach Delay (s)	0.0	0.0	10.5
Approach LOS			B

Intersection Summary			
Average Delay		0.4	
Intersection Capacity Utilization		22.3%	ICU Level of Service
Analysis Period (min)		15	A

HCM Unsignalized Intersection Capacity Analysis

16: Lincoln Avenue & Site Access Drive

2/18/2015



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	13	10	89	3	1	151
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	14	11	94	3	1	159
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage (veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	256	95			97	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	256	95			97	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	98	99			100	
cM capacity (veh/h)	732	961			1497	

Direction, Lane #	WB 1	NB 1	SB 1
Volume Total	24	97	160
Volume Left	14	0	1
Volume Right	11	3	0
cSH	817	1700	1497
Volume to Capacity	0.03	0.06	0.00
Queue Length 95th (ft)	2	0	0
Control Delay (s)	9.5	0.0	0.1
Lane LOS	A		A
Approach Delay (s)	9.5	0.0	0.1
Approach LOS	A		

Intersection Summary			
Average Delay		0.9	
Intersection Capacity Utilization		18.7%	ICU Level of Service
Analysis Period (min)		15	A

HCM Unsignalized Intersection Capacity Analysis

20: Lincoln Avenue & Condominium Drive

2/18/2015



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	3	3	89	1	2	162
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	3	3	94	1	2	171
Pedestrians	1					
Lane Width (ft)	12.0					
Walking Speed (ft/s)	4.0					
Percent Blockage	0					
Right turn flare (veh)						
Median type			None			None
Median storage (veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	270	95			96	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	270	95			96	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	100	100			100	
cM capacity (veh/h)	718	961			1497	

Direction, Lane #	WB 1	NB 1	SB 1
Volume Total	6	95	173
Volume Left	3	0	2
Volume Right	3	1	0
cSH	822	1700	1497
Volume to Capacity	0.01	0.06	0.00
Queue Length 95th (ft)	1	0	0
Control Delay (s)	9.4	0.0	0.1
Lane LOS	A		A
Approach Delay (s)	9.4	0.0	0.1
Approach LOS	A		

Intersection Summary			
Average Delay		0.3	
Intersection Capacity Utilization		20.1%	ICU Level of Service A
Analysis Period (min)		15	

HCM Unsignalized Intersection Capacity Analysis

23: Lincoln Avenue & Commuter Drive

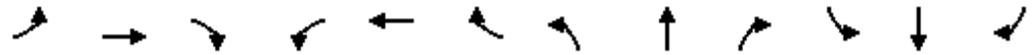
2/18/2015



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (veh/h)	3	3	36	86	113	52
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	3	3	38	91	119	55
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type						
Median storage (veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	313	146	174			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	313	146	174			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	100	100	97			
cM capacity (veh/h)	662	901	1403			
Direction, Lane #						
	EB 1	NB 1	SB 1			
Volume Total	6	128	174			
Volume Left	3	38	0			
Volume Right	3	0	55			
cSH	763	1403	1700			
Volume to Capacity	0.01	0.03	0.10			
Queue Length 95th (ft)	1	2	0			
Control Delay (s)	9.8	2.4	0.0			
Lane LOS	A	A				
Approach Delay (s)	9.8	2.4	0.0			
Approach LOS	A					
Intersection Summary						
Average Delay			1.2			
Intersection Capacity Utilization		29.0%		ICU Level of Service		A
Analysis Period (min)			15			

Lanes, Volumes, Timings
1: Green Bay Road & Elm Street

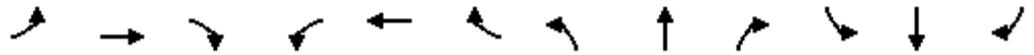
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Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕	↕		↕			↕	
Volume (vph)	41	98	35	41	122	149	16	472	57	140	650	35
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		50	0		50	0		0
Storage Lanes	0		0	0		1	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95	0.95	0.95	0.95
Ped Bike Factor		0.98			0.99	0.96		1.00			1.00	
Frt		0.973				0.850		0.984			0.994	
Flt Protected		0.988			0.988			0.999			0.992	
Satd. Flow (prot)	0	1760	0	0	1840	1370	0	3466	0	0	3481	0
Flt Permitted		0.881			0.872			0.920			0.732	
Satd. Flow (perm)	0	1561	0	0	1603	1310	0	3191	0	0	2566	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		16				157		22			8	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		424			290			99			376	
Travel Time (s)		9.6			6.6			2.3			8.5	
Confl. Peds. (#/hr)	28		66	66		28	25		10	10		25
Confl. Bikes (#/hr)						2			3			4
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Parking (#/hr)	5		7			7	18		18	10		7
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	183	0	0	171	157	0	574	0	0	868	0
Turn Type	Perm	NA		Perm	NA	Perm	Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8		8	2			6		
Detector Phase	4	4		8	8	8	2	2		6	6	
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0		4.0	4.0	
Minimum Split (s)	29.0	29.0		29.0	29.0	29.0	36.0	36.0		36.0	36.0	
Total Split (s)	35.0	35.0		35.0	35.0	35.0	50.0	50.0		50.0	50.0	
Total Split (%)	41.2%	41.2%		41.2%	41.2%	41.2%	58.8%	58.8%		58.8%	58.8%	
Yellow Time (s)	4.5	4.5		4.5	4.5	4.5	4.5	4.5		4.5	4.5	
All-Red Time (s)	1.5	1.5		1.5	1.5	1.5	1.5	1.5		1.5	1.5	
Lost Time Adjust (s)		0.0			0.0	0.0		0.0			0.0	
Total Lost Time (s)		6.0			6.0	6.0		6.0			6.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None	None	C-Max	C-Max		C-Max	C-Max	
Act Effct Green (s)		18.9			18.9	18.9		54.1			54.1	
Actuated g/C Ratio		0.22			0.22	0.22		0.64			0.64	
v/c Ratio		0.51			0.48	0.38		0.28			0.53	
Control Delay		30.2			32.1	7.0		7.8			10.9	
Queue Delay		0.0			0.0	0.0		0.0			0.0	
Total Delay		30.2			32.1	7.0		7.8			10.9	
LOS		C			C	A		A			B	
Approach Delay		30.2			20.1			7.8			10.9	
Approach LOS		C			C			A			B	

Lanes, Volumes, Timings
 1: Green Bay Road & Elm Street

2/18/2015

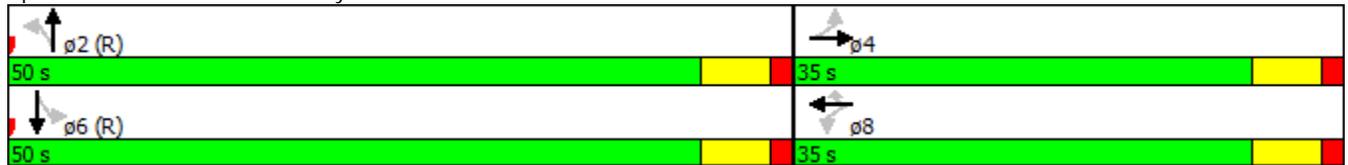


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Queue Length 50th (ft)		79			80	0		60			117	
Queue Length 95th (ft)		125			124	42		111			213	
Internal Link Dist (ft)		344			210			19			296	
Turn Bay Length (ft)						50						
Base Capacity (vph)		543			546	550		2037			1634	
Starvation Cap Reductn		0			0	0		0			0	
Spillback Cap Reductn		0			0	0		0			0	
Storage Cap Reductn		0			0	0		0			0	
Reduced v/c Ratio		0.34			0.31	0.29		0.28			0.53	

Intersection Summary

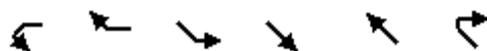
Area Type:	Other
Cycle Length:	85
Actuated Cycle Length:	85
Offset:	0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle:	65
Control Type:	Actuated-Coordinated
Maximum v/c Ratio:	0.53
Intersection Signal Delay:	13.3
Intersection LOS:	B
Intersection Capacity Utilization:	103.3%
ICU Level of Service:	G
Analysis Period (min):	15

Splits and Phases: 1: Green Bay Road & Elm Street



Lanes, Volumes, Timings
7: Green Bay Road & Oak Street

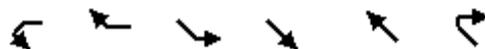
2/18/2015



Lane Group	WBL	WBR	SEL	SET	NWT	NWR
Lane Configurations						
Volume (vph)	172	41	25	641	441	100
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	25	0			0
Storage Lanes	1	1	0			0
Taper Length (ft)	25		25			
Lane Util. Factor	1.00	1.00	0.95	0.95	0.95	0.95
Ped Bike Factor	1.00	0.98		1.00	1.00	
Frt		0.850			0.972	
Flt Protected	0.950			0.998		
Satd. Flow (prot)	1531	1370	0	3532	3425	0
Flt Permitted	0.757			0.923		
Satd. Flow (perm)	1214	1349	0	3267	3425	0
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)		43			63	
Link Speed (mph)	30			30	30	
Link Distance (ft)	230			161	167	
Travel Time (s)	5.2			3.7	3.8	
Confl. Peds. (#/hr)	8	3	3			3
Confl. Bikes (#/hr)		1				2
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Parking (#/hr)	7	7				
Shared Lane Traffic (%)						
Lane Group Flow (vph)	181	43	0	701	569	0
Turn Type	Perm	Perm	Perm	NA	NA	
Protected Phases				6	2	
Permitted Phases	3	3	6			
Detector Phase	3	3	6	6	2	
Switch Phase						
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	
Minimum Split (s)	25.0	25.0	35.0	35.0	35.0	
Total Split (s)	25.0	25.0	35.0	35.0	35.0	
Total Split (%)	41.7%	41.7%	58.3%	58.3%	58.3%	
Yellow Time (s)	4.0	4.0	4.5	4.5	4.5	
All-Red Time (s)	1.0	1.0	1.5	1.5	1.5	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	
Total Lost Time (s)	5.0	5.0		6.0	6.0	
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	None	None	C-Max	C-Max	C-Max	
Act Effct Green (s)	15.7	15.7		37.5	37.5	
Actuated g/C Ratio	0.26	0.26		0.62	0.62	
v/c Ratio	0.57	0.11		0.34	0.26	
Control Delay	25.8	6.1		8.4	7.0	
Queue Delay	0.0	0.0		0.0	0.0	
Total Delay	25.8	6.1		8.4	7.0	
LOS	C	A		A	A	
Approach Delay	22.0			8.4	7.0	
Approach LOS	C			A	A	

Lanes, Volumes, Timings
 7: Green Bay Road & Oak Street

2/18/2015

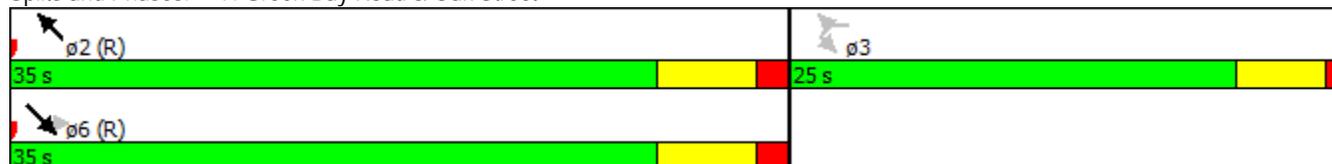


Lane Group	WBL	WBR	SEL	SET	NWT	NWR
Queue Length 50th (ft)	56	0		69	46	
Queue Length 95th (ft)	101	18		119	83	
Internal Link Dist (ft)	150			81	87	
Turn Bay Length (ft)		25				
Base Capacity (vph)	404	478		2042	2164	
Starvation Cap Reductn	0	0		0	0	
Spillback Cap Reductn	0	0		0	0	
Storage Cap Reductn	0	0		0	0	
Reduced v/c Ratio	0.45	0.09		0.34	0.26	

Intersection Summary

Area Type:	Other
Cycle Length:	60
Actuated Cycle Length:	60
Offset:	0 (0%), Referenced to phase 2:NWT and 6:SETL, Start of Green
Natural Cycle:	60
Control Type:	Actuated-Coordinated
Maximum v/c Ratio:	0.57
Intersection Signal Delay:	9.9
Intersection LOS:	A
Intersection Capacity Utilization	55.4%
ICU Level of Service	B
Analysis Period (min)	15

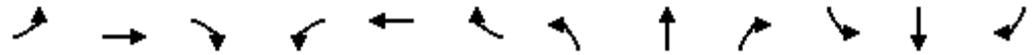
Splits and Phases: 7: Green Bay Road & Oak Street



HCM Unsignalized Intersection Capacity Analysis

2: Lincoln Avenue & Elm Street

2/18/2015



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	63	183	49	36	185	24	58	45	38	36	50	69
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
Hourly flow rate (vph)	66	193	52	38	195	25	61	47	40	38	53	73

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total (vph)	311	258	148	163
Volume Left (vph)	66	38	61	38
Volume Right (vph)	52	25	40	73
Hadj (s)	-0.02	0.00	-0.05	-0.19
Departure Headway (s)	5.2	5.3	5.7	5.5
Degree Utilization, x	0.45	0.38	0.23	0.25
Capacity (veh/h)	653	636	559	581
Control Delay (s)	12.3	11.5	10.4	10.3
Approach Delay (s)	12.3	11.5	10.4	10.3
Approach LOS	B	B	B	B

Intersection Summary			
Delay		11.4	
Level of Service		B	
Intersection Capacity Utilization	46.6%		ICU Level of Service A
Analysis Period (min)		15	

HCM Unsignalized Intersection Capacity Analysis

3: Public Lot Drive & Elm Street

2/18/2015



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (veh/h)	199	63	15	177	60	17
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	209	66	16	186	63	18
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage (veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			276		461	243
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			276		461	243
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			99		89	98
cM capacity (veh/h)			1287		552	796

Direction, Lane #	EB 1	WB 1	NB 1
Volume Total	276	202	81
Volume Left	0	16	63
Volume Right	66	0	18
cSH	1700	1287	592
Volume to Capacity	0.16	0.01	0.14
Queue Length 95th (ft)	0	1	12
Control Delay (s)	0.0	0.7	12.0
Lane LOS		A	B
Approach Delay (s)	0.0	0.7	12.0
Approach LOS			B

Intersection Summary			
Average Delay		2.0	
Intersection Capacity Utilization		32.7%	ICU Level of Service
Analysis Period (min)		15	A

HCM Unsignalized Intersection Capacity Analysis

5: Oak Street & Lincoln Avenue

2/18/2015



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (veh/h)	80	45	101	24	49	112
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	84	47	106	25	52	118
Pedestrians		11			15	
Lane Width (ft)		12.0			12.0	
Walking Speed (ft/s)		4.0			4.0	
Percent Blockage		1			1	
Right turn flare (veh)						
Median type		None	None			
Median storage (veh)						
Upstream signal (ft)		230				
pX, platoon unblocked						
vC, conflicting volume	147				350	145
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	147				350	145
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	94				91	87
cM capacity (veh/h)	1417				601	883

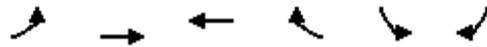
Direction, Lane #	EB 1	WB 1	SB 1
Volume Total	132	132	169
Volume Left	84	0	52
Volume Right	0	25	118
cSH	1417	1700	773
Volume to Capacity	0.06	0.08	0.22
Queue Length 95th (ft)	5	0	21
Control Delay (s)	5.1	0.0	11.0
Lane LOS	A		B
Approach Delay (s)	5.1	0.0	11.0
Approach LOS			B

Intersection Summary			
Average Delay		5.8	
Intersection Capacity Utilization	37.6%		ICU Level of Service A
Analysis Period (min)	15		

HCM Unsignalized Intersection Capacity Analysis

13: Elm Street & Arbor Vitae

2/18/2015



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑	↑		↘	
Volume (veh/h)	0	257	237	0	5	8
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	0	271	249	0	5	8
Pedestrians					36	
Lane Width (ft)					12.0	
Walking Speed (ft/s)					4.0	
Percent Blockage					3	
Right turn flare (veh)						
Median type		None	None			
Median storage (veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	285				556	285
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	285				556	285
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	100				99	99
cM capacity (veh/h)	1238				477	731

Direction, Lane #	EB 1	WB 1	SB 1
Volume Total	271	249	14
Volume Left	0	0	5
Volume Right	0	0	8
cSH	1700	1700	607
Volume to Capacity	0.16	0.15	0.02
Queue Length 95th (ft)	0	0	2
Control Delay (s)	0.0	0.0	11.1
Lane LOS			B
Approach Delay (s)	0.0	0.0	11.1
Approach LOS			B

Intersection Summary			
Average Delay		0.3	
Intersection Capacity Utilization		23.5%	ICU Level of Service
Analysis Period (min)		15	A

HCM Unsignalized Intersection Capacity Analysis

15: Lincoln Avenue & Commuter Drive

2/18/2015



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (veh/h)	46	32	2	102	129	2
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	48	34	2	107	136	2
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage (veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	248	137	138			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	248	137	138			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	93	96	100			
cM capacity (veh/h)	739	912	1446			
Direction, Lane #	EB 1	NB 1	SB 1			
Volume Total	82	109	138			
Volume Left	48	2	0			
Volume Right	34	0	2			
cSH	801	1446	1700			
Volume to Capacity	0.10	0.00	0.08			
Queue Length 95th (ft)	9	0	0			
Control Delay (s)	10.0	0.2	0.0			
Lane LOS	B	A				
Approach Delay (s)	10.0	0.2	0.0			
Approach LOS	B					
Intersection Summary						
Average Delay			2.5			
Intersection Capacity Utilization		18.1%		ICU Level of Service		A
Analysis Period (min)			15			

HCM Unsignalized Intersection Capacity Analysis

20: Lincoln Avenue & Condominium Drive

2/18/2015



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	3	2	144	4	3	128
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	3	2	152	4	3	135
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage (veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	295	154			156	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	295	154			156	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	100	100			100	
cM capacity (veh/h)	695	892			1424	

Direction, Lane #	WB 1	NB 1	SB 1
Volume Total	5	156	138
Volume Left	3	0	3
Volume Right	2	4	0
cSH	762	1700	1424
Volume to Capacity	0.01	0.09	0.00
Queue Length 95th (ft)	1	0	0
Control Delay (s)	9.8	0.0	0.2
Lane LOS	A		A
Approach Delay (s)	9.8	0.0	0.2
Approach LOS	A		

Intersection Summary			
Average Delay		0.3	
Intersection Capacity Utilization		19.1%	ICU Level of Service A
Analysis Period (min)		15	

HCM Unsignalized Intersection Capacity Analysis

23: Lincoln Avenue & Site Access Drive

2/18/2015



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	10	7	130	16	1	121
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	11	7	137	17	1	127
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage (veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	275	145			154	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	275	145			154	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	99	99			100	
cM capacity (veh/h)	714	902			1427	

Direction, Lane #	WB 1	NB 1	SB 1
Volume Total	18	154	128
Volume Left	11	0	1
Volume Right	7	17	0
cSH	781	1700	1427
Volume to Capacity	0.02	0.09	0.00
Queue Length 95th (ft)	2	0	0
Control Delay (s)	9.7	0.0	0.1
Lane LOS	A		A
Approach Delay (s)	9.7	0.0	0.1
Approach LOS	A		

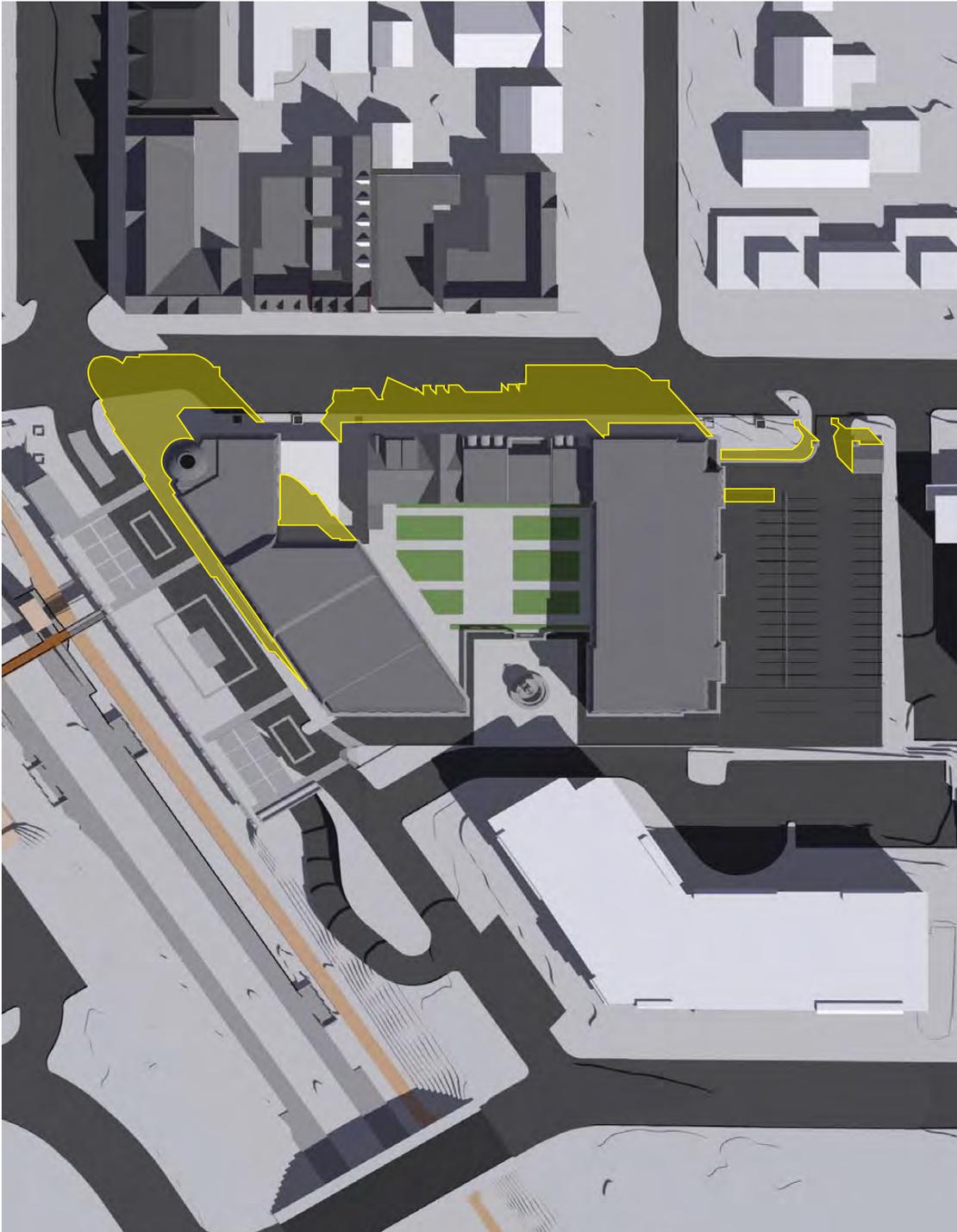
Intersection Summary			
Average Delay		0.6	
Intersection Capacity Utilization		17.8%	ICU Level of Service A
Analysis Period (min)		15	

Shadow Impact Analysis

Proposed One Winnetka

Prepared for
Stonestreet Partners
120 North LaSalle Street
Suite 3200
Chicago, Illinois 60602

Prepared by
Okrent Kisiel Associates, Inc.
February 2016



SUBJECT OF STUDY

Okrent Kisiel Associates, Inc. was asked to prepare a shadow track study for a mixed use development proposed for the site at the southeast corner of the intersection of Lincoln Avenue and Elm Street in Winnetka, Illinois.

The highest point on the project would rise ± 70 feet above grade. The study was conducted to determine the extent to which shadows from the new project would affect the overall shadow condition within the surrounding area.

METHODOLOGY

This study was based on a computer-generated 3-dimensional model of the area produced by the project architect and augmented by Okrent Associates.

The study area includes the subject property and the immediate area directly affected by shadows cast within the daily time frame specified for the study.

Data on solar declination (angle) by date, and position by time of day, were by calculated and rendered using the computer software program Vector-Works.

Project shadow conditions are shown for the spring and fall equinox (March 20, September 22), the summer solstice (June 22), and the winter solstice (December 21). Daily times of coverage begin at 8:00 AM and end at 4:00 PM for December, begin at 9:00 AM and end at 6:00 PM for March/September, and begin at 8:00 AM and end at 7:00 PM for June.

The sun reaches its highest point at solar noon (1:00 PM Central Daylight Time [CDT]) at the summer solstice (June 22) and its lowest midday elevation at solar noon (12:00 PM Central Standard Time [CST]) at the winter solstice (December 21). The equinoxes, when daylight and darkness each last for 12 hours, occur on March 20 and September 22. It is these four key dates that establish the framework for the current study. All times are referenced as standard or daylight savings time, in keeping with local practice.

EXPLANATION OF GRAPHIC REPRESENTATIONS

Simulations are presented in plan view. The additional shadow impact from the project is highlighted in yellow. The level of solar illumination on each date specified varies with the angle of the sun. As such, overall light levels are darker in early morning and late afternoon and brighter at midday.

SHADOW STUDY RESULTS

For all dates, the most significant shadow effect occurs in the early morning and late afternoon, as expected, when the sun is lowest in the sky and shadows are lengthiest. Shadow coverage diminishes as the sun reaches its peak position, and begins to lengthen again in the afternoon.

MARCH AND SEPTEMBER SIMULATIONS

The sun follows the same arc across the sky on the first day of spring and on the first day of autumn. As the sun rises due east and sets due west on these dates, all shadows theoretically extend indefinitely when the sun intersects the horizon. In consideration of the effect of surrounding buildings, shadows first become a factor at approximately 9:00 AM daylight savings time and cease to be so by 6:00 PM.

In September and March, the shadow from the proposed building falls onto the intersection of Elm Street and Lincoln Avenue at 9:00 AM. The shadow falls primarily onto the roadway and the railroad right-of-way. Between 9:00 AM and 5:00 PM, any additional shadows fall primarily on roadways and have no impact on surrounding buildings or public open space. By 5:00 PM, the building shadow begins to reach the property immediately east of the site, on the south side of Elm Street. Even as late as 6:00 PM, no additional shadow reaches residential properties to the east. In late afternoon simulations, the impact will be minimal and primarily restricted to the west faces, due to the low angle of the sun at this time of day, the presence of mature trees, and the proximity of the buildings to one another,

DECEMBER SIMULATION

Between September 22 and December 21, the position of the rising sun moves farther south on the eastern horizon with each succeeding day, and the sun sets farther south on the western horizon. The reverse process occurs after the winter solstice. The corresponding reduction in the duration of daylight coincides with a reduction of the duration of shadow effect.

Indeed, as the simulation demonstrates, as late as 8:00 AM and as early as 4:00 PM, there is little discernible additive shadow effect. In the 4-hour period between 10:00 AM (CST) and 2:00 PM (CST), such shadow effect as there is falls within a narrow wedge between northwest and northeast. Due to the location of the site and the length of shadows at this time of year, a significant portion of any additive shadow during this time will fall on the roadway, while much of any other additional shadow impact during this time will be to single faces of a limited number of buildings located on the north side of Elm Street, adjacent to the site. In the 4:00 PM simulations, there is limited shadow impact on the south faces of two residential buildings northeast of the site, along the north side Elm Street, most if not all of which will be mitigated by existing trees.

JUNE SIMULATION

At the summer solstice, the sun rises in the northeast and sets in the northwest. As the sun rises into the sky at its steepest angle of the year, shadows are at their lengthiest very early and very late in the day. However, at solar noon (1:00 PM CDT) when the sun has reached its highest point in the sky, shadows are shorter than at any other time of the year and ambient light levels are at their brightest. Since the position of the sun on May 21 and July 21 is only 3 degrees lower than at the solstice, this condition varies only modestly during the period under consideration.

As such, there is no significant additional shadow impact from the project until the 7:00 PM simulation, when some additive shadow reaches a small number of properties immediately east and southeast of the site. Given the low angle of the sun at this time of day, the presence of mature trees, and the proximity of the buildings to one another, the impact will be minimal and primarily restricted to the west faces of buildings until it shifts to the north faces as the sun reaches its lowest angle approaching sunset.

SUMMARY OF FINDINGS

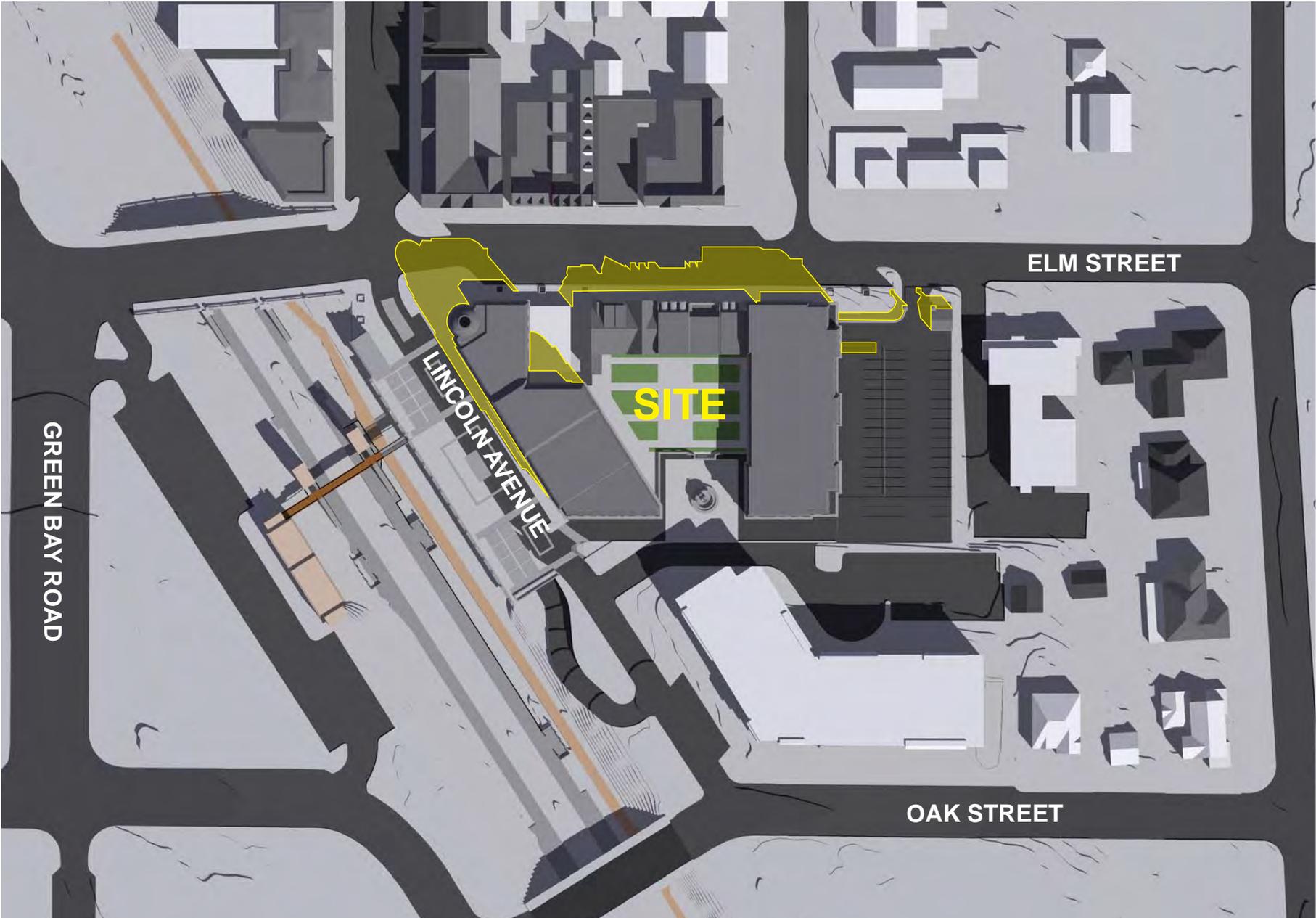
While the proposed project will cast some additional shadow, particularly in the late afternoon, much of this impact will be mitigated by the shadow mass of the existing context, including mature trees not included in the simulation. The location of the site on a corner lot with parking located on the east side also results in a significant portion of the additive shadow falling onto roadways and parking areas, rather than neighboring buildings, especially in the summer months and midday hours.

Shadows are in constant motion, and any resulting impact of shadows on specific buildings is of limited duration. In this instance, only a handful of surrounding buildings are affected by the project's shadow and, in most instances, for only a short period of time.

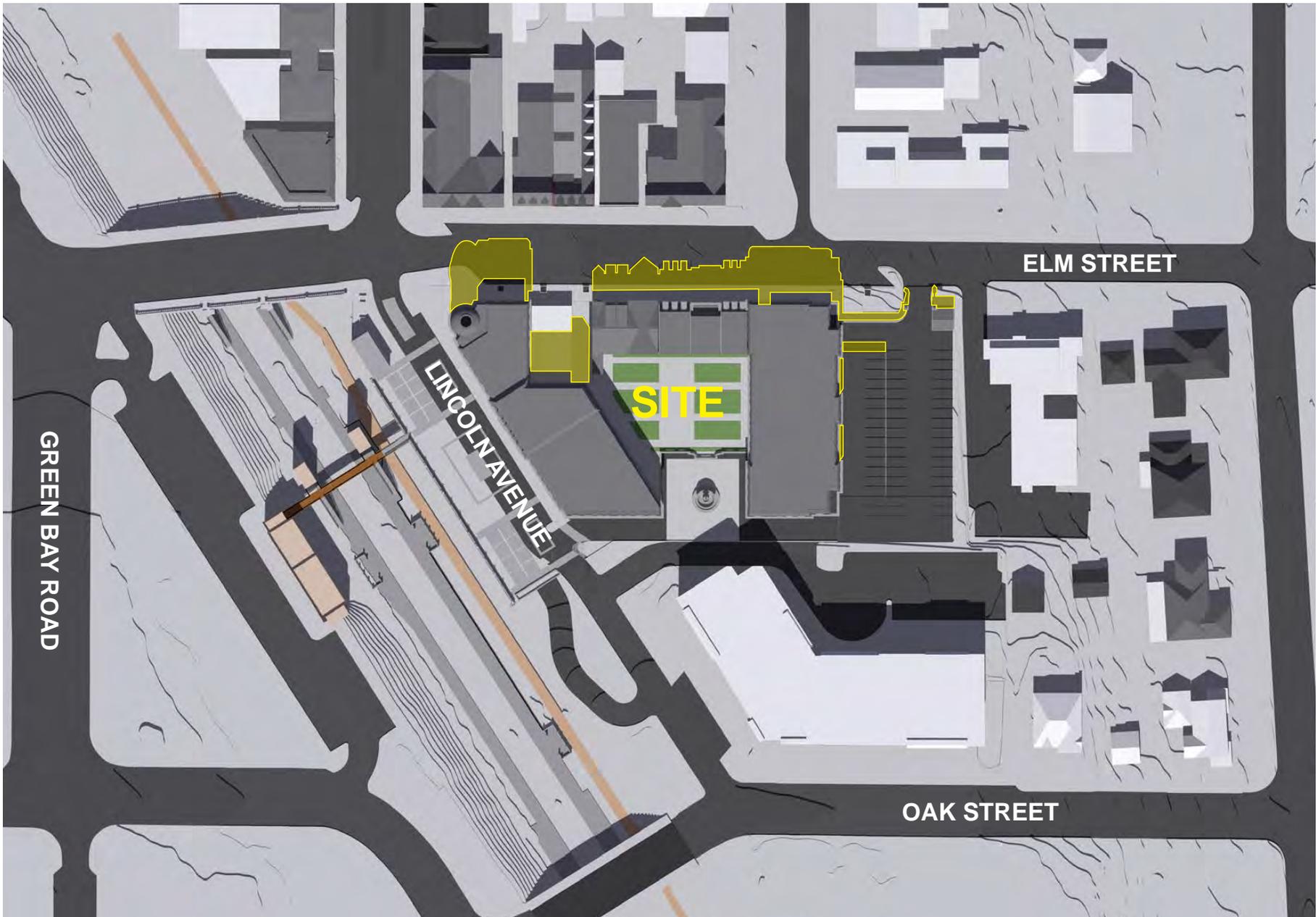
It is important to recognize that the shadow conditions depicted in the computer-generated illustrations make no allowance for cloud cover or overcast skies, which occur randomly, but with the greatest frequency and duration in the late fall, and in winter. These factors can only have the effect of reducing the actual (and perceived) shadow gain.



March 20/September 22: 9:00 AM CDT



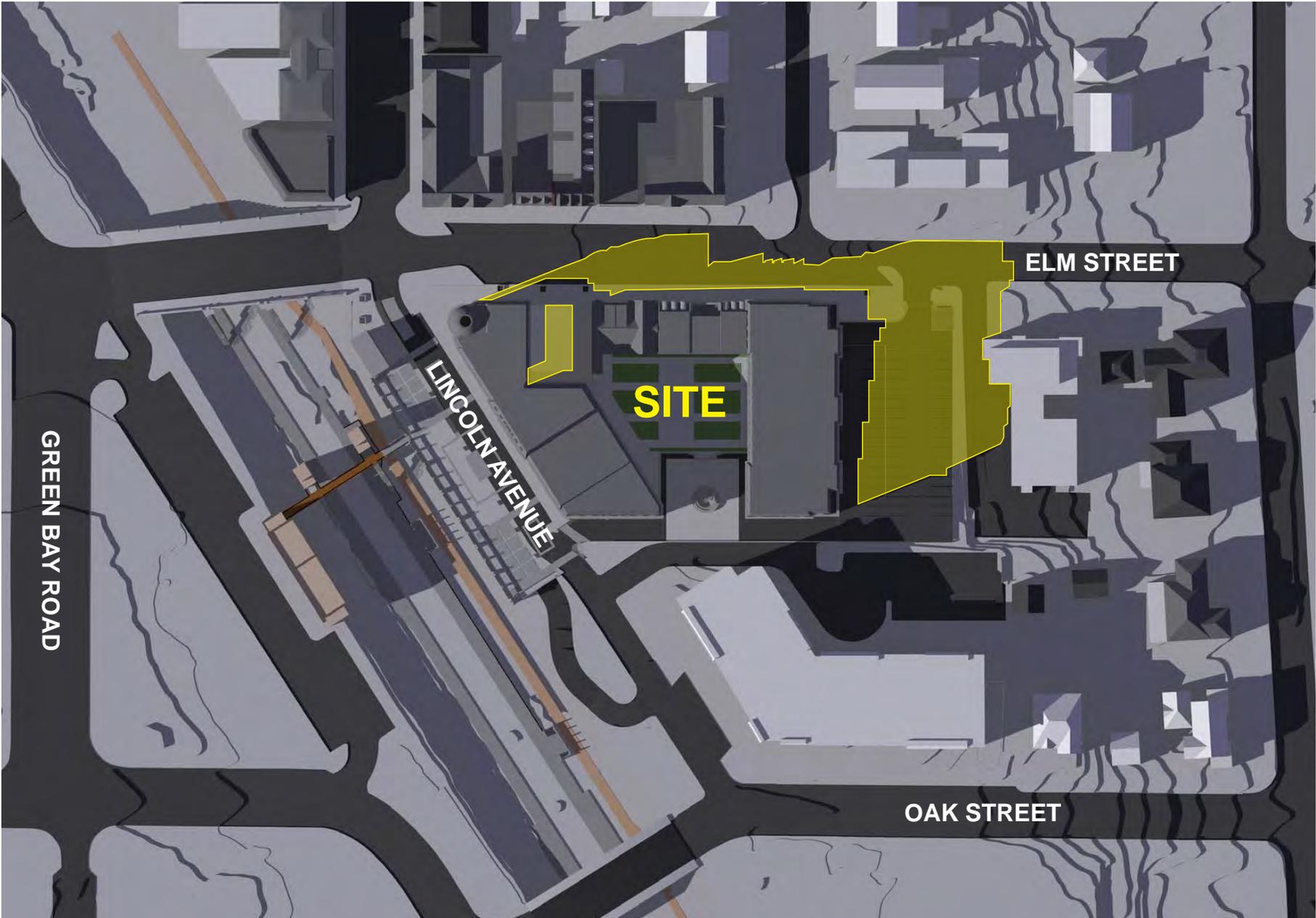
March 20/September 2: 11:00 AM CDT



March 20/September 22: 1:00 PM CDT



March 20/September 22: 3:00 PM CDT



March 20/September 22: 5:00 PM CDT



March 20/September 22 : 6:00 PM CDT



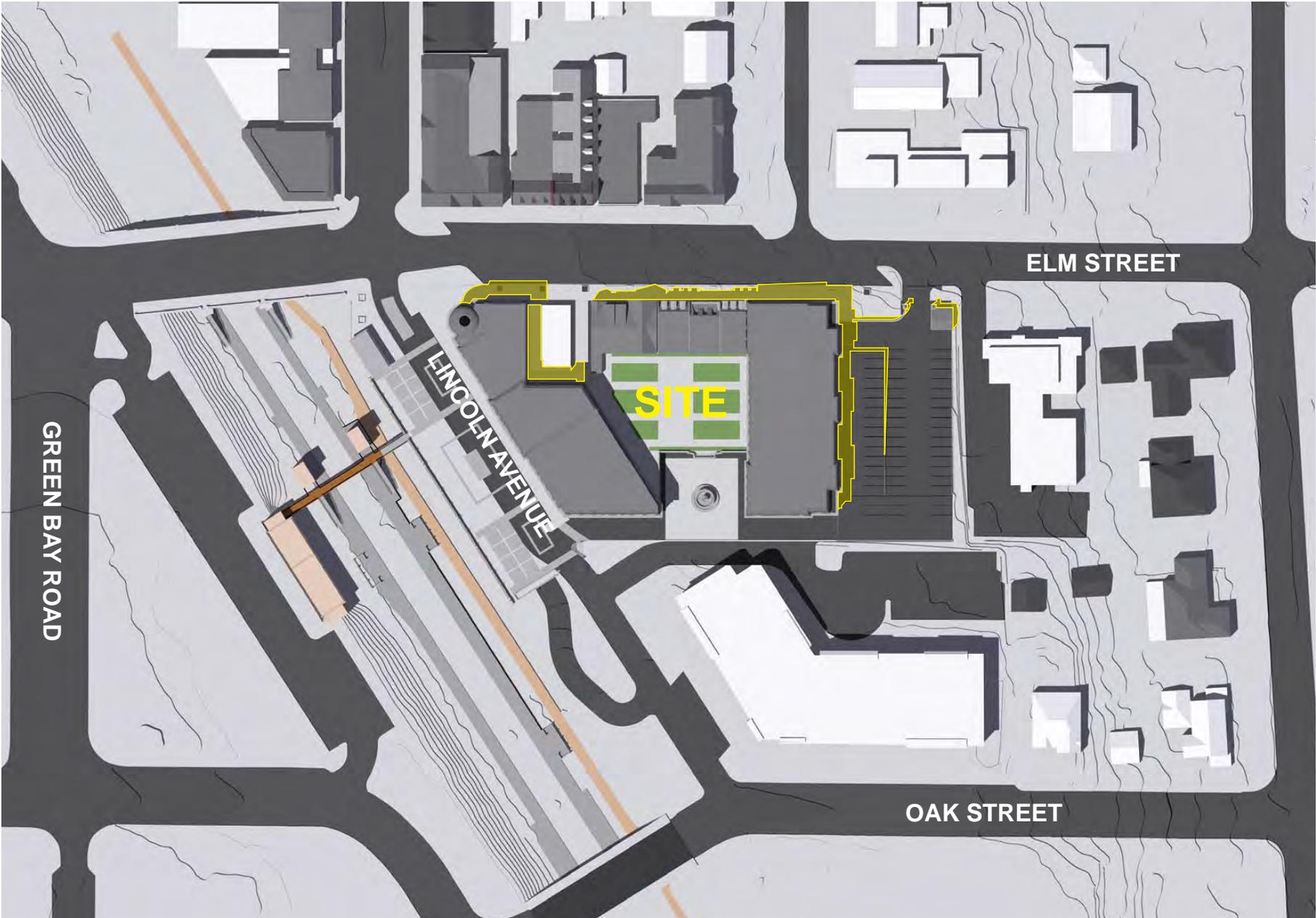
June 22: 8:00 AM CDT



June 22: 10:00 AM CDT



June 22: 12:00 PM CDT



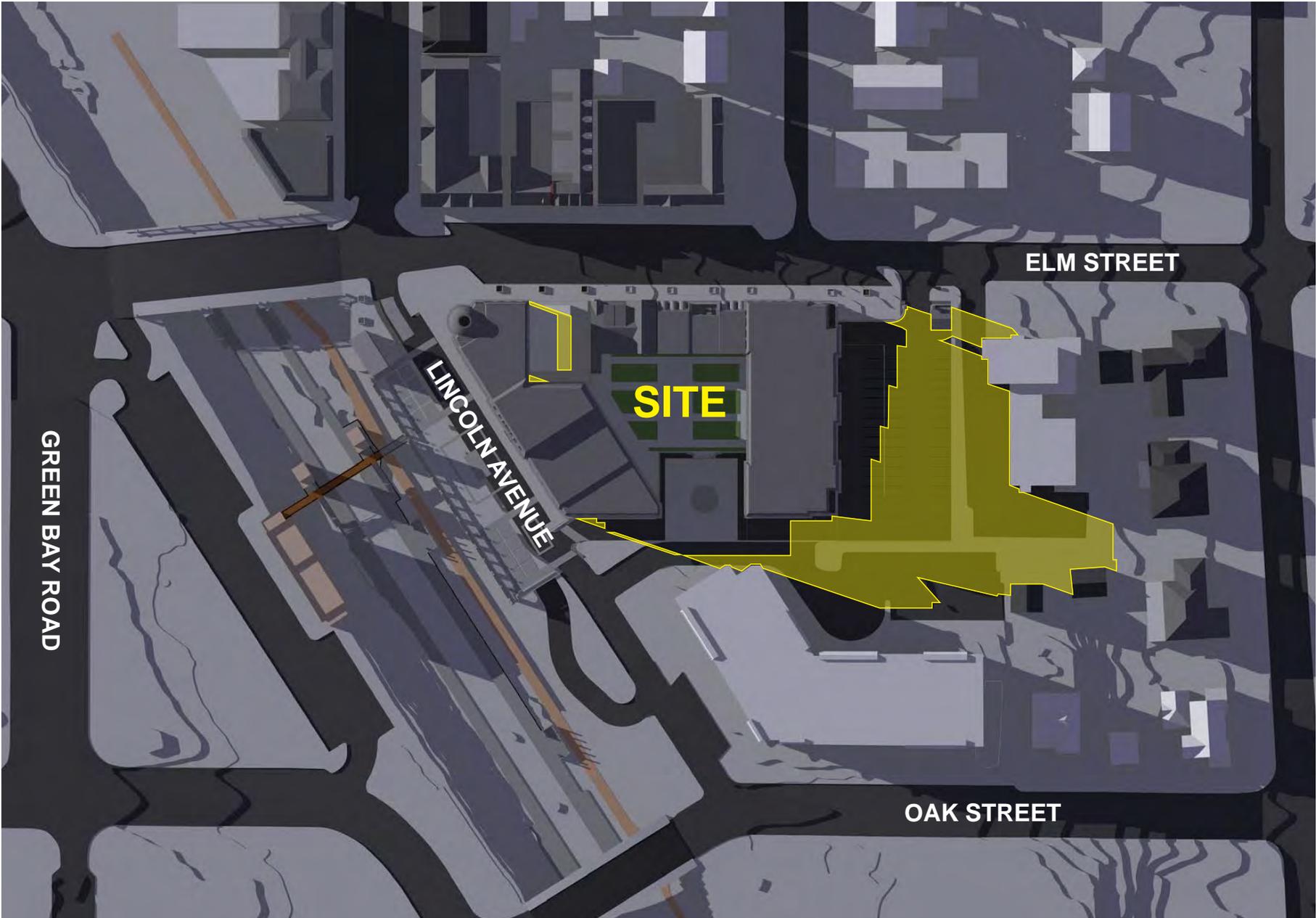
June 22: 2:00 PM CDT



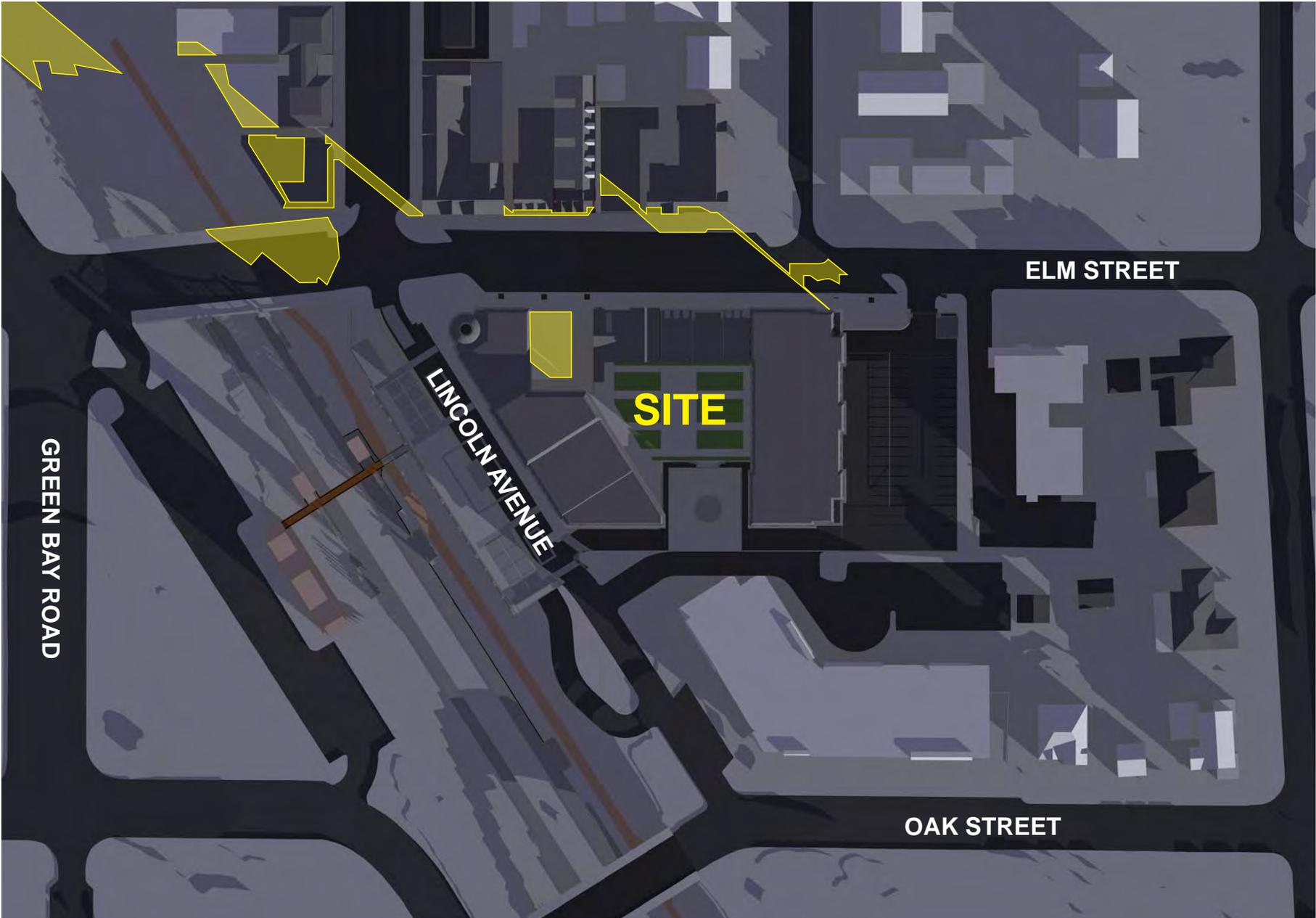
June 22: 4:00 PM CDT



June 22: 6:00 PM CDT



June 22: 7:00 PM CDT



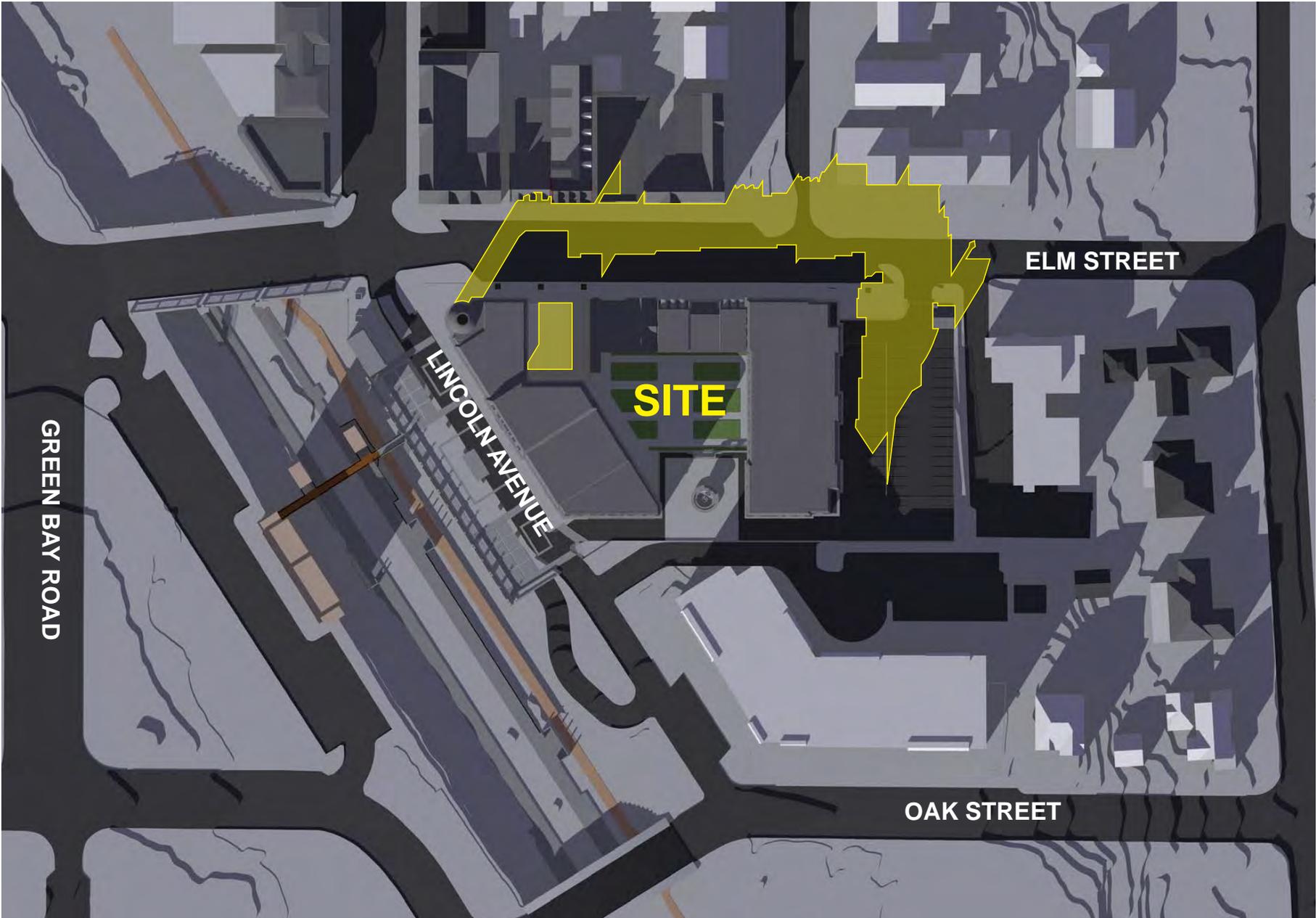
December 21: 8:00 AM CST



December 21: 10:00 AM CST



December 21: 12:00 PM CST



December 21: 2:00 PM CST



December 21: 4:00 PM CST

GREMLEY & BIEDERMANN

A DIVISION OF
PLCS Corporation
LICENSE NO. 184-05532

PROFESSIONAL LAND SURVEYORS

4505 NORTH ELSTON AVENUE, CHICAGO, IL 60630
TELEPHONE: (773) 685-5102 FAX: (773) 286-4184 EMAIL: INFO@PLCS-SURVEY.COM

Plat of Survey

PARCEL 1: THE EAST 106 FEET OF THE WEST 106 FEET OF THE NORTH 251 FEET OF BLOCK 24 OF WINNETKA, BEING A SUBDIVISION OF THE NORTH EAST QUARTER OF SECTION 20 AND THE NORTH HALF OF FRACTIONAL SECTION 21, TOWNSHIP 42 NORTH, RANGE 13, EAST OF THE THIRD PRINCIPAL MERIDIAN, EXCEPT THEREFROM THE NORTH 40 FEET TAKEN FOR ELM STREET, ALSO EXCEPT THAT PART THEREOF DESCRIBED AS FOLLOWS: COMMENCING AT A POINT ON WEST LINE OF SAID EAST 106 FEET AT A DISTANCE OF 10 FEET SOUTH OF SOUTH LINE OF ELM STREET THENCE EAST PARALLEL WITH SOUTH LINE OF ELM STREET 10 FEET THENCE SOUTH PARALLEL WITH THE WEST LINE OF SAID EAST 106 FEET A DISTANCE OF 48 FEET TO THE NORTH WALL OF A ONE STORY BRICK BUILDING; THENCE WEST ALONG NORTH WALL OF SAID BRICK BUILDING 10 FEET TO WEST LINE OF SAID EAST 106 FEET; THENCE NORTH ALONG WEST LINE OF SAID EAST 106 FEET A DISTANCE OF 48 FEET TO PLACE OF BEGINNING ALSO EXCEPT THAT PART THEREOF DESCRIBED AS FOLLOWS: BEGINNING AT SOUTH WEST CORNER OF THE ABOVE DESCRIBED PROPERTY AND RUNNING THENCE NORTH ALONG WEST LINE THEREOF 48 FEET TO INTERSECTION WITH A CURVED LINE OF 1163 FOOT RADIUS CONVEX NORTHEASTERLY; THENCE SOUTHEASTERLY ALONG SAID CURVED LINE OF 1163 FOOT RADIUS, 25.88 FEET, AS MEASURED ALONG THE CHORD TO A POINT OF REVERSE CURVE; THENCE SOUTHERLY ALONG A CURVED LINE OF 109 FEET RADIUS CONVEX SOUTHWESTERLY 28.98 FEET MEASURED ALONG THE CHORD TO A POINT IN SOUTH LINE OF AFORESAID EAST 106 FEET OF WEST 106 FEET OF THE NORTH 251 FEET OF BLOCK 24 WINNETKA, 22.26 FEET EAST OF THE SOUTHWEST CORNER THEREOF; THENCE WEST ALONG SAID SOUTH LINE 22.26 FEET TO PLACE OF BEGINNING ALSO, THE EAST 54 FEET OF THE WEST 106 FEET OF THE NORTH 211 FEET OF THAT PART OF BLOCK 24 OF CHARLES E. PECK'S SUBDIVISION LYING SOUTH OF THE SOUTH LINE OF ELM STREET, EXCEPT THAT PART OF BLOCK 24 LYING SOUTH OF THE SOUTH LINE OF ELM STREET, IN FRACTIONAL SECTION 21, TOWNSHIP 42 NORTH, RANGE 13, EAST OF THE THIRD PRINCIPAL MERIDIAN, IN COOK COUNTY, ILLINOIS.

PARCEL 2: EASEMENT FOR THE BENEFIT OF PARCEL 1 CREATED BY GRANT FROM KATHARINE ROACH JACKSON AND HER HUSBAND TO AYNES BOAL, JR., AS TRUSTEE UNDER LAST WILL AND TESTAMENT OF LESLEY J. BOAL, DECEASED, DATED DECEMBER 4, 1990 AND RECORDED DECEMBER 4, 1990 AS DOCUMENT 1498666 AND FILED IN REGISTRAR OFFICE OF COOK COUNTY, ILLINOIS ON DECEMBER 4, 1990 AS DOCUMENT 1498666 FOR LIGHT AND AIR AND FOR INGRESS AND EGRESS FOR PEDESTRIAN USE ONLY (INCLUDING RIGHT TO OPEN WINDOWS IN ANY PRESENT OR FUTURE WALLS ON GRANTEE'S PROPERTY ADJOINING) OVER THAT PORTION OF LOT 1 AND AN EASEMENT FOR UTILITIES UNDER SAID EASEMENT UNDER SAID LOT 1 DESCRIBED AS FOLLOWS: THAT PORTION OF LOT 1 IN PRUITY HOMESTEAD SUBDIVISION OF PARTS OF BLOCKS 24 AND 25 OF WINNETKA, A SUBDIVISION OF THE NORTH EAST QUARTER OF SECTION 20 AND THE NORTH HALF OF FRACTIONAL SECTION 21, TOWNSHIP 42 NORTH, RANGE 13, EAST OF THE THIRD PRINCIPAL MERIDIAN, DESCRIBED AS FOLLOWS: COMMENCING AT A POINT ON EAST LINE OF LOT 1, 131 FEET SOUTH OF SOUTH LINE OF ELM STREET, THENCE SOUTH ALONG EAST LINE OF SAID LOT 1, 33.15 FEET TO NORTHEASTLY CORNER OF SAID LOT 1, 197.85 FEET EAST OF THE NORTHWEST CORNER OF SAID LOT 1, THENCE SOUTH ALONG SAID EAST LINE OF SAID LOT 1, 197.85 FEET TO THE NORTHWEST CORNER THEREOF; THENCE EAST ALONG SAID NORTH LINE 10.00 FEET TO THE INTERSECTION OF SAID CURVED LINE TO THE NORTHEAST, WITH A RADIUS OF 1163 FEET, 106.94 FEET TO THE INTERSECTION OF SAID CURVED LINE WITH A LINE DRAWN 72.00 FEET SOUTH OF AND PARALLEL WITH THE NORTH LINE OF SAID LOT 1 AT A POINT 51.15 FEET WEST OF THE EAST LINE OF SAID LOT 1; THENCE EAST ALONG SAID PARALLEL LINE 41.15 FEET; THENCE NORTH PARALLEL WITH SAID PARALLEL LINE TO THE PLACE OF BEGINNING, IN COOK COUNTY, ILLINOIS.

PARCEL 3: THAT PART OF THE EAST 106.00 FEET OF THE WEST 106.00 FEET OF THE NORTH 251.00 FEET EXCEPT THE NORTH 40.00 FEET TAKEN FOR ELM STREET OF BLOCK 24 IN WINNETKA, BEING A SUBDIVISION OF THE NORTH EAST QUARTER OF SECTION 20 AND THE NORTH 1/2 OF SECTION 21, TOWNSHIP 42 NORTH, RANGE 13, EAST OF THE THIRD PRINCIPAL MERIDIAN, DESCRIBED AS FOLLOWS: COMMENCING AT A POINT ON THE WEST LINE OF SAID EAST 106.00 FEET AT A DISTANCE OF 83.00 FEET SOUTH OF THE SOUTH LINE OF ELM STREET; THENCE EAST PARALLEL WITH THE SOUTH LINE OF ELM STREET 10.00 FEET; THENCE SOUTH PARALLEL WITH THE WEST LINE OF SAID EAST 106.00 FEET, A DISTANCE OF 48.84 FEET TO A POINT; THENCE WEST 10.00 FEET TO THE WEST LINE OF SAID EAST 106.00 FEET; THENCE NORTH ALONG THE WEST LINE OF SAID EAST 106.00 FEET, A DISTANCE OF 46.00 FEET TO THE PLACE OF BEGINNING, ALL IN COOK COUNTY, ILLINOIS.

PARCEL 4: EASEMENT FOR THE BENEFIT OF THE ABOVE PARCEL AS CREATED BY DEED FROM AYNES BOAL, JR., TRUSTEE UNDER THE LAST WILL AND TESTAMENT OF LESLEY J. BOAL, DECEASED, TO KATHARINE ROACH JACKSON DATED DECEMBER 4, 1990 AND RECORDED DECEMBER 4, 1990 AS DOCUMENT 1498666 FOR INGRESS AND EGRESS, LIGHT AND AIR OVER A STRIP OF LAND 4.00 FEET WIDE, AND FOR UNDERGROUND PUBLIC UTILITIES UNDER SAID 4.00 FEET STRIP, WHICH 4.00 FEET STRIP IS MORE PARTICULARLY DESCRIBED AS FOLLOWS: COMMENCING AT A POINT ON THE WEST LINE OF SAID EAST 106.00 FEET AT A DISTANCE OF 81.00 FEET SOUTH OF AND PARALLEL TO THE SOUTH LINE OF ELM STREET; THENCE EAST PARALLEL WITH THE NORTH LINE OF SAID LOT 1, 153.3 FEET TO THE INTERSECTION OF SAID CURVED LINE TO THE NORTHEAST, WITH A RADIUS OF 1163 FEET, 10.00 FEET; THENCE WEST PARALLEL WITH THE SOUTH LINE OF ELM STREET, 10.00 FEET TO THE WEST LINE OF SAID EAST 106.00 FEET; THENCE NORTH ALONG THE WEST LINE OF SAID EAST 106.00 FEET, A DISTANCE OF 4.00 FEET TO THE POINT OF BEGINNING, ALL IN COOK COUNTY, ILLINOIS.

PARCEL 5: THE EAST 54 FEET OF THE WEST 218.4 FEET OF THE NORTH 211 FEET OF THAT PART OF BLOCK 24 LYING SOUTH OF ELM STREET IN THE VILLAGE OF WINNETKA IN SECTION 20 AND SECTION 21, TOWNSHIP 42 NORTH, RANGE 13, EAST OF THE THIRD PRINCIPAL MERIDIAN, IN COOK COUNTY, ILLINOIS.

PARCEL 6: THAT PART OF LOT 1 IN PRUITY HOMESTEAD SUBDIVISION OF ALL OF BLOCKS 24 AND 25 LYING NORTHEASTERLY OF THE RIGHT OF WAY OF THE CHICAGO AND MILWAUKEE ELECTRIC RAILROAD EXCEPT THE NORTH 211 FEET OF SAID BLOCK 24 ALSO THE WEST 3.00 FEET OF THE NORTH 211 FEET OF SAID BLOCK 24, ALL IN WINNETKA, A SUBDIVISION BY CHARLES E. PECK OF THE NORTHEAST 1/4 OF SECTION 20, AND THE FRACTIONAL NORTH 1/2 OF FRACTIONAL SECTION 21, TOWNSHIP 42 NORTH, RANGE 13, EAST OF THE THIRD PRINCIPAL MERIDIAN DESCRIBED AS FOLLOWS: BEGINNING AT A POINT IN THE NORTH LINE OF SAID LOT 1, 153.3 FEET EAST OF THE NORTHWEST CORNER OF SAID LOT 1, THENCE EAST ALONG THE NORTH LINE OF SAID LOT 1, 4.43 FEET; THENCE SOUTH PARALLEL WITH THE EAST LINE OF SAID LOT 1, 7.72 FEET; THENCE WEST PARALLEL WITH THE NORTH LINE OF SAID LOT 1, 153.3 FEET TO THE INTERSECTION OF A CURVED LINE CONVEX NORTHEASTERLY WITH A RADIUS OF 1163 FEET; THENCE NORTHEASTERLY ALONG SAID CURVED LINE 6.16 FEET AS MEASURED ALONG THE CHORD TO ITS INTERSECTION WITH A LINE DRAWN PARALLEL WITH THE EAST LINE OF SAID LOT 1 FROM A POINT IN THE NORTH LINE OF SAID LOT 1, 153.3 FEET EAST OF NORTHWEST CORNER OF SAID LOT 1; THENCE EAST PARALLEL WITH THE NORTH LINE OF SAID LOT 1, 3.20 FEET TO A POINT OF INTERSECTION WITH THE PROLONGATION OF SAID CURVED LINE OF 1163 FEET RADIUS HEREBEFORE DESCRIBED; THENCE SOUTHEASTERLY ALONG SAID CURVED LINE 105.94 FEET AS MEASURED ALONG THE CHORD TO A POINT IN THE EAST LINE OF SAID LOT 1, 44.35 FEET NORTH OF THE SOUTH LINE OF THE NORTH 211 FEET OF BLOCK 24 OF AFORESAID; THENCE NORTHEASTERLY ALONG SAID CURVED LINE 105.94 FEET AS MEASURED ALONG THE CHORD TO A POINT IN THE EAST LINE OF SAID LOT 1, 197.85 FEET EAST OF THE NORTHWEST CORNER OF SAID LOT 1; THENCE EAST ALONG SAID NORTH LINE 10 FEET TO THE NORTHWEST CORNER OF SAID LOT 1; THENCE SOUTH ALONG THE EAST LINE OF SAID LOT 1 TO A POINT 48.35 FEET NORTH OF THE SOUTH LINE OF THE NORTH 211 FEET OF BLOCK 24 AFORESAID; THENCE NORTHEASTERLY ALONG SAID CURVED LINE CONVEX TO THE NORTHEAST WITH A RADIUS OF 1163 FEET, 105.94 FEET TO THE INTERSECTION OF SAID CURVED LINE WITH A LINE DRAWN 72 FEET SOUTH OF AND PARALLEL WITH THE NORTH LINE OF SAID LOT 1 AT A POINT 51.15 FEET WEST OF THE EAST LINE OF SAID LOT 1; THENCE EAST ALONG SAID PARALLEL LINE 41.15 FEET; THENCE NORTH PARALLEL WITH SAID EAST LINE TO THE POINT OF BEGINNING, IN COOK COUNTY, ILLINOIS.

TOTAL PROPERTY AREA= 82,549 SQ. FT. OR 1.20 ACRES MORE OR LESS.

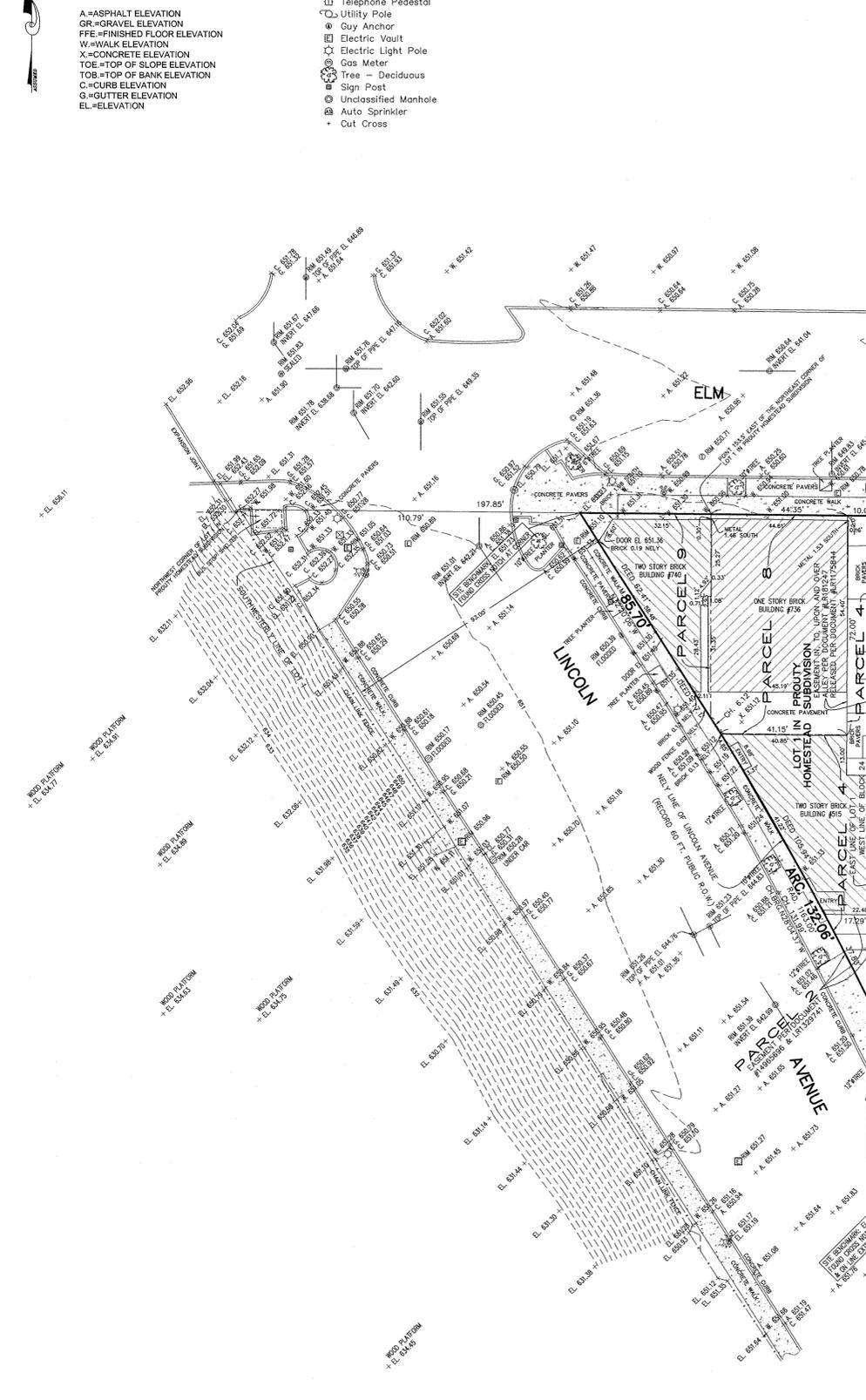
GRAPHIC SCALE



LEGEND

- Storm CB
- Storm Inlet
- San MH
- Water MH
- Water Buffalo Box
- Telephone MH
- Telephone Pedestal
- Utility Pole
- Guy Anchor
- Electric Vault
- Electric Light Pole
- Gas Meter
- Tree - Deciduous
- Sign Post
- Unclassified Manhole
- Auto Sprinkler
- Cut Cross

- A=ASPHALT ELEVATION
- GR=GRAVEL ELEVATION
- FFE=FINISHED FLOOR ELEVATION
- W=WALK ELEVATION
- X=CONCRETE ELEVATION
- TOE=TOP OF SLOPE ELEVATION
- TOB=TOP OF BANK ELEVATION
- C=CURB ELEVATION
- G=GUTTER ELEVATION
- EL=ELEVATION



ADDITIONAL WORK ADDED DECEMBER 23, 2013

ORDERED BY: JOSH WOHLREICH	CHECKED: [initials]	DRAWN: RL
ADDRESS: GREMLEY & BIEDERMANN PLCS CORPORATION 4505 NORTH ELSTON AVENUE, CHICAGO, IL 60630 TELEPHONE: (773) 685-5102 FAX: (773) 286-4184 EMAIL: INFO@PLCS-SURVEY.COM		
DATE: DECEMBER 12, 2013	PAGE NO: 1	SCALE: 1" = 20' FEET
ORDER NO: 2013-18686-001		

G:\CAD\2013\2013-18686\2013-18686-001.dwg

SURVEY NOTES:
Note R & M denotes Record and Measured distances respectively.
Distances are marked in feet and decimal parts thereof. Compare all points BEFORE building by same and at once report any differences BEFORE damage is done.
For easements, building lines and other restrictions not shown on survey plat refer to your abstract, deed, contract, title policy and local building line regulations.
NO dimensions shall be assumed by scale measurement upon this plat.
Monumentation or witness points were not set at the clients request.
Unless otherwise noted hereon the Bearing Basis, Elevation Datum and Coordinate Datum if used is ASSUMED.
COPYRIGHT GREMLEY & BIEDERMANN, INC. 2013 "All Rights Reserved"

BENCHMARK:
ELEVATION: 645.10
LOCATION: 8742 PINE STREET.
ALUMINUM CAP IN CONCRETE.
MONUMENT IS 57.26' NELY OF IRON PIPE AT NORTHWEST CORNER OF SECTION 21-42-13 N. 1,982,594.103 E. 1,147,444.453

SURVEY NOTES:
PREMISES COVERED BY ICE & SNOW MAY OBSCURE ADDITIONAL IMPROVEMENTS.
UTILITY WARNING
The underground utilities shown have been located from field survey information and existing drawings. The surveyor makes NO guarantee that the underground utilities shown comprise all such utilities in the area, either in service or abandoned. The surveyor further does not warrant that the underground utilities shown are in the exact location indicated although he does certify that they are located as accurately as possible from information available. The surveyor has not physically located the underground utilities.
Call DIGGER - (312) 744-7000 within the City of Chicago.
My license expires November 30, 2014
Outside of the City of Chicago call J.U.L.I.E. (800) 892-1123 prior to construction or excavation.

State of Illinois
County of Cook

We, GREMLEY & BIEDERMANN, INC. hereby certify that we have surveyed the above described property and that the plat hereon drawn is a correct representation of said survey corrected to a temperature of 62° Fahrenheit.

Field measurements completed on December 23, 2013.

Signed on Dec 31, 2013.

By: [Signature]

Professional Illinois Land Surveyor No. 2302
My license expires November 30, 2014
This professional service conforms to the current Illinois minimum standards for a boundary survey.

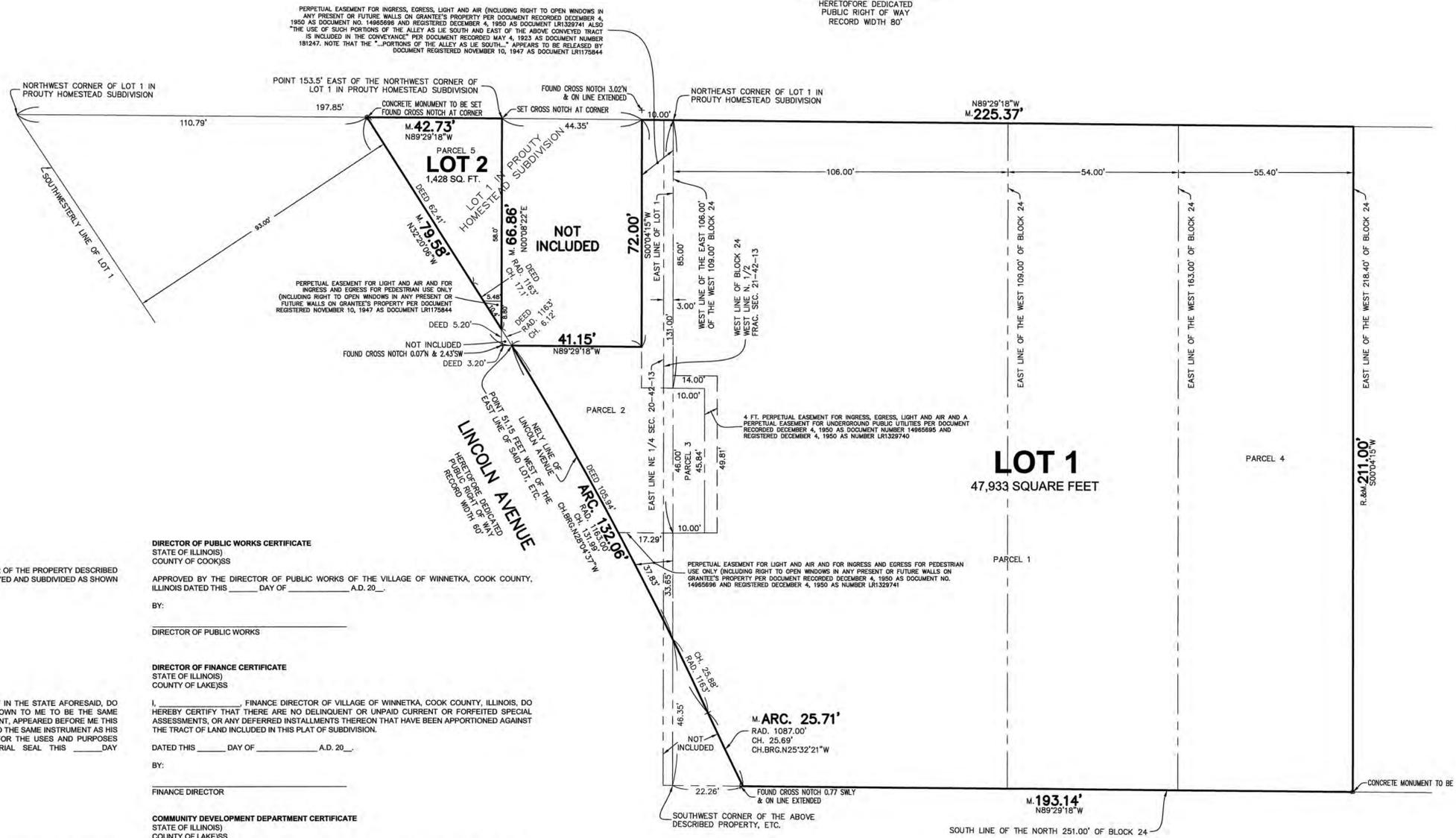
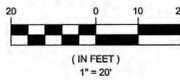
Winnetka Station

BEING A RESUBDIVISION OF PART OF LOT 1 IN PROUTY HOMESTEAD SUBDIVISION, TOGETHER WITH A PART OF BLOCK 24 IN WINNETKA, BOTH SUBDIVISIONS IN THE NORTHEAST 1/4 OF SECTION 20, AND THE FRACTIONAL NORTH 1/2 OF FRACTIONAL SECTION 21, TOWNSHIP 42 NORTH, RANGE 13, EAST OF THE THIRD PRINCIPAL MERIDIAN, IN COOK COUNTY, ILLINOIS.

ELM STREET

HEREFORE DEDICATED
PUBLIC RIGHT OF WAY
RECORD WIDTH 80'

GRAPHIC SCALE



OWNER CERTIFICATE
STATE OF ILLINOIS
COUNTY OF COOK/SS

_____, DOES HEREBY CERTIFY THAT IT IS THE OWNER OF THE PROPERTY DESCRIBED HEREON AND THAT IT HAS CAUSED THE SAID PROPERTY TO BE SURVEYED AND SUBDIVIDED AS SHOWN HEREON.

DATED: _____ A.D. 20__

BY: _____
DIRECTOR OF PUBLIC WORKS

STATE OF ILLINOIS
COUNTY OF COOK/SS

I, _____, A NOTARY PUBLIC IN AND FOR THE COUNTY IN THE STATE AFORESAID, DO HEREBY CERTIFY THAT _____ IS PERSONALLY KNOWN TO ME TO BE THE SAME PERSON WHOSE NAME IS SUBSCRIBED TO THE FOREGOING INSTRUMENT, APPEARED BEFORE ME THIS DAY IN PERSON AND ACKNOWLEDGED THAT HE SIGNED AND DELIVERED THE SAME INSTRUMENT AS HIS OWN FREE AND VOLUNTARY ACT, AS OWNER OF THE PROPERTY, FOR THE USES AND PURPOSES THEREIN SET FORTH. GIVEN UNDER MY HAND AND NOTARIAL SEAL THIS _____ DAY OF _____ A.D. 20__

NOTARY PUBLIC

PLAN COMMISSION CERTIFICATE
STATE OF ILLINOIS
COUNTY OF COOK/SS

APPROVED BY THE PLAN COMMISSION OF THE VILLAGE OF WINNETKA, COOK COUNTY, ILLINOIS THIS _____ DAY OF _____ A.D. 20__

BY: _____

PLAN COMMISSION CHAIRMAN

ATTEST: _____

SECRETARY

DIRECTOR OF PUBLIC WORKS CERTIFICATE
STATE OF ILLINOIS
COUNTY OF COOK/SS

APPROVED BY THE DIRECTOR OF PUBLIC WORKS OF THE VILLAGE OF WINNETKA, COOK COUNTY, ILLINOIS DATED THIS _____ DAY OF _____ A.D. 20__

BY: _____

DIRECTOR OF PUBLIC WORKS

DIRECTOR OF FINANCE CERTIFICATE
STATE OF ILLINOIS
COUNTY OF LAKE/SS

I, _____, FINANCE DIRECTOR OF VILLAGE OF WINNETKA, COOK COUNTY, ILLINOIS, DO HEREBY CERTIFY THAT THERE ARE NO DELINQUENT OR UNPAID CURRENT OR FORFEITED SPECIAL ASSESSMENTS, OR ANY DEFERRED INSTALLMENTS THEREON THAT HAVE BEEN APPORTIONED AGAINST THE TRACT OF LAND INCLUDED IN THIS PLAT OF SUBDIVISION.

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

BY: _____

FINANCE DIRECTOR

COMMUNITY DEVELOPMENT DEPARTMENT CERTIFICATE
STATE OF ILLINOIS
COUNTY OF LAKE/SS

APPROVED BY THE DIRECTOR OF COMMUNITY DEVELOPMENT DEPARTMENT OF THE VILLAGE OF WINNETKA, COOK COUNTY, ILLINOIS.

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

BY: _____

COMMUNITY DEVELOPMENT DEPARTMENT DIRECTOR

WATER AND ELECTRIC DEPARTMENT CERTIFICATE
STATE OF ILLINOIS
COUNTY OF LAKE/SS

APPROVED BY THE DIRECTOR OF THE WATER AND ELECTRIC DEPARTMENT OF THE VILLAGE OF WINNETKA, COOK COUNTY, ILLINOIS.

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

BY: _____

WATER AND ELECTRIC DEPARTMENT DIRECTOR

VILLAGE COUNCIL CERTIFICATE
STATE OF ILLINOIS
COUNTY OF COOK/SS

APPROVED BY THE PRESIDENT OF THE VILLAGE COUNCIL OF THE VILLAGE OF WINNETKA, COOK COUNTY, ILLINOIS DATED THIS _____ DAY OF _____ A.D. 20__

BY: _____

VILLAGE COUNCIL PRESIDENT

SURVEYOR CERTIFICATE

STATE OF ILLINOIS
COUNTY OF COOK/SS

I, ROBERT G. BIEDERMANN, A PROFESSIONAL ILLINOIS LAND SURVEYOR, DO HEREBY CERTIFY THAT I HAVE SURVEYED AND SUBDIVIDED:

PARCEL 1: THE EAST 106 FEET OF THE WEST 109 FEET OF THE NORTH 251 FEET OF BLOCK 24 OF WINNETKA, BEING A SUBDIVISION OF THE NORTHEAST QUARTER OF SECTION 20 AND THE NORTH HALF OF FRACTIONAL SECTION 21, TOWNSHIP 42 NORTH, RANGE 13, EAST OF THE THIRD PRINCIPAL MERIDIAN, (EXCEPT THEREFROM THE NORTH 40 FEET TAKEN FOR ELM STREET) ALSO (EXCEPT THAT PART THEREOF DESCRIBED AS FOLLOWS: COMMENCING AT A POINT ON WEST LINE OF SAID EAST 106 FEET AT A DISTANCE OF 85 FEET SOUTH OF SOUTH LINE OF ELM STREET THENCE EAST PARALLEL WITH SOUTH LINE OF ELM STREET 10 FEET THENCE SOUTH PARALLEL WITH THE WEST LINE OF SAID EAST 106 FEET A DISTANCE OF 45.84 FEET TO THE NORTH WALL OF A ONE STORY BRICK BUILDING; THENCE WEST ALONG NORTH WALL OF SAID BRICK BUILDING 10 FEET TO WEST LINE OF SAID EAST 106 FEET; THENCE NORTH ALONG THE WEST LINE OF SAID EAST 106 FEET A DISTANCE OF 46 FEET TO PLACE OF BEGINNING) ALSO (EXCEPT THAT PART THEREOF DESCRIBED AS FOLLOWS: BEGINNING AT SOUTHWEST CORNER OF THE ABOVE DESCRIBED PROPERTY AND RUNNING THENCE NORTH ALONG WEST LINE THEREOF 46.35 FEET TO INTERSECTION WITH A CURVED LINE OF 1163 FOOT RADIUS CONVEX NORTHEASTERLY; THENCE SOUTHEASTERLY ALONG SAID CURVED LINE OF SAID LOT TO POINT 46.35 FEET NORTH OF THE SOUTH LINE OF SAID LOT 1, 62.41 FEET TO POINT; THENCE WEST 10.00 FEET TO THE WEST LINE OF SAID EAST 106.00 FEET; THENCE NORTH ALONG THE WEST LINE OF SAID EAST 106.00 FEET, A DISTANCE OF 46.00 FEET TO THE PLACE OF BEGINNING, IN THE VILLAGE OF WINNETKA, IN COOK COUNTY, ILLINOIS;

PARCEL 2: THAT PART OF LOT 1 IN PROUTY HOMESTEAD SUBDIVISION OF ALL OF BLOCKS 24 AND 25, LYING NORTHEASTERLY OF THE RIGHT OF WAY OF THE CHICAGO AND MILWAUKEE ELECTRIC RAILROAD, EXCEPT THE NORTH 211.00 FEET OF SAID BLOCK 24, ALSO THE WEST 3.00 FEET OF THE NORTH 211.00 FEET OF SAID BLOCK 24, ALL IN WINNETKA, A SUBDIVISION BY CHARLES E. PECK OF THE NORTHEAST 1/4 OF SECTION 20, AND THE FRACTIONAL NORTH 1/2 OF FRACTIONAL SECTION 21, TOWNSHIP 42 NORTH, RANGE 13, EAST OF THE THIRD PRINCIPAL MERIDIAN, DESCRIBED AS FOLLOWS: BEGINNING IN THE NORTH LINE OF SAID LOT, 197.85 FEET EAST OF THE NORTHWEST CORNER THEREOF; THENCE EAST ALONG SAID NORTH LINE 10.00 FEET TO THE NORTHEAST CORNER OF SAID LOT; THENCE SOUTH ALONG THE EAST LINE OF SAID LOT TO POINT 46.35 FEET NORTH OF THE SOUTH LINE OF SAID LOT 1, 62.41 FEET TO POINT; THENCE WEST 10.00 FEET TO THE WEST LINE OF SAID EAST 106.00 FEET; THENCE NORTH ALONG THE WEST LINE OF SAID EAST 106.00 FEET, A DISTANCE OF 46.00 FEET TO THE PLACE OF BEGINNING, IN THE VILLAGE OF WINNETKA, IN COOK COUNTY, ILLINOIS;

PARCEL 3: THAT PART OF THE EAST 106.00 FEET OF THE WEST 109.00 FEET OF THE NORTH 251.00 FEET (EXCEPT THE NORTH 40.00 FEET TAKEN FOR ELM STREET) OF BLOCK 24 IN WINNETKA, BEING A SUBDIVISION OF THE NORTHEAST 1/4 OF SECTION 20 AND THE NORTH 1/2 OF FRACTIONAL SECTION 21, TOWNSHIP 42 NORTH, RANGE 13, EAST OF THE THIRD PRINCIPAL MERIDIAN, DESCRIBED AS FOLLOWS: COMMENCING AT A POINT ON THE WEST LINE OF SAID EAST 106.00 FEET AT A DISTANCE OF 85.00 FEET SOUTH OF THE SOUTH LINE OF ELM STREET; THENCE EAST PARALLEL WITH THE SOUTH LINE OF ELM STREET, 10.00 FEET; THENCE SOUTH PARALLEL WITH THE WEST LINE OF SAID EAST 106.00 FEET, A DISTANCE OF 45.84 FEET TO A POINT; THENCE WEST 10.00 FEET TO THE WEST LINE OF SAID EAST 106.00 FEET; THENCE NORTH ALONG THE WEST LINE OF SAID EAST 106.00 FEET, A DISTANCE OF 46.00 FEET TO THE PLACE OF BEGINNING, ALL IN COOK COUNTY, ILLINOIS;

PARCEL 4: THE EAST 55.4 FEET OF THE WEST 218.4 FEET OF THE NORTH 211 FEET OF THAT PART OF BLOCK 24 LYING SOUTH OF ELM STREET IN THE VILLAGE OF WINNETKA IN SECTION 20 AND SECTION 21, TOWNSHIP 42 NORTH, RANGE 13, EAST OF THE THIRD PRINCIPAL MERIDIAN, IN COOK COUNTY, ILLINOIS;

PARCEL 5: LOT 1 IN PROUTY HOMESTEAD SUBDIVISION OF ALL OF BLOCKS 24 AND 25, LYING NORTHEASTERLY OF THE RIGHT OF WAY OF THE CHICAGO AND MILWAUKEE ELECTRIC RAILROAD, EXCEPT THE NORTH 211 FEET OF SAID BLOCK 24 ALSO THE WEST 3 FEET OF THE NORTH 211 FEET OF SAID BLOCK 24, ALL IN WINNETKA, A SUBDIVISION BY CHARLES E. PECK OF THE NORTHEAST 1/4 OF SECTION 20, AND THE FRACTIONAL NORTH 1/2 OF FRACTIONAL SECTION 21, ALL IN TOWNSHIP 42 NORTH, RANGE 13, EAST OF THE THIRD PRINCIPAL MERIDIAN, EXCEPT THAT PART OF SAID LOT 1 DESCRIBED AS FOLLOWS: BEGINNING AT A POINT IN THE NORTH LINE OF SAID LOT 1, 153.5 FEET EAST OF THE NORTHWEST CORNER OF SAID LOT 1, THENCE EAST ALONG THE NORTH LINE OF SAID LOT 1, 44.35 FEET, THENCE SOUTH PARALLEL WITH THE EAST LINE OF SAID LOT 1, 72 FEET, THENCE WEST PARALLEL WITH THE NORTH LINE OF SAID LOT 1, 44.35 FEET, THENCE NORTH 72 FEET MORE OR LESS TO THE POINT OF BEGINNING; AND ALSO EXCEPT THAT PART OF SAID LOT 1 LYING SOUTHWESTERLY OF A LINE DESCRIBED AS FOLLOWS: BEGINNING AT A POINT IN THE NORTH LINE OF SAID LOT 1, BEING THE SOUTH LINE OF ELM STREET, 110.79 FEET EAST OF THE NORTHWEST CORNER OF SAID LOT 1 AND RUNNING THENCE SOUTHEASTERLY PARALLEL WITH AND 93 FEET NORTHEASTERLY OF AS MEASURED AT RIGHT ANGLES TO THE SOUTHWESTERLY LINE OF SAID LOT 1, 62.41 FEET TO A POINT OF CURVE, THENCE SOUTHEASTERLY ALONG A CURVED LINE CONVEX NORTHEASTERLY AND HAVING A RADIUS OF 1163 FEET, 17.1 FEET AS MEASURED ALONG THE CHORD OF SAID CURVE TO A POINT IN A LINE DRAWN PARALLEL WITH THE EAST LINE OF SAID LOT 1 FROM A POINT IN THE NORTH LINE OF SAID LOT 1, 153.5 FEET EAST OF THE NORTHWEST CORNER OF SAID LOT 1, THENCE SOUTH ALONG SAID PARALLEL LINE, 5.20 FEET TO A POINT 72 FEET SOUTH OF THE NORTH LINE OF SAID LOT 1, THENCE EAST PARALLEL WITH THE NORTH LINE OF SAID LOT 1, 3.20 FEET TO A POINT OF INTERSECTION WITH THE PROLONGATION OF A CURVED LINE OF 1163 FEET RADIUS HEREINBEFORE DESCRIBED, THENCE SOUTHEASTERLY ALONG SAID CURVED LINE 105.94 FEET AS MEASURED ALONG THE CHORD TO A POINT IN THE EAST LINE OF SAID LOT 1, 46.35 FEET NORTH OF THE SOUTH LINE OF THE NORTH 211 FEET OF BLOCK 24; AND ALSO EXCEPT THAT PART OF LOT 1 DESCRIBED AS FOLLOWS: BEGINNING IN THE NORTH LINE OF SAID LOT 1, 197.85 FEET EAST OF THE NORTHWEST CORNER THEREOF; THENCE EAST ALONG SAID NORTH LINE 10 FEET TO THE NORTHEAST CORNER OF SAID LOT 1; THENCE SOUTH ALONG THE EAST LINE OF SAID LOT 1 TO A POINT 46.35 FEET NORTH OF THE SOUTH LINE OF THE NORTH 211 FEET OF BLOCK 24 AFORESAID; THENCE NORTHEASTERLY ALONG A CURVED LINE CONVEX TO THE NORTHEAST WITH A RADIUS OF 1163 FEET, 105.94 FEET TO THE INTERSECTION OF SAID CURVED LINE WITH A LINE DRAWN 72 FEET SOUTH OF AND PARALLEL WITH THE NORTH LINE OF SAID LOT 1 AT A POINT 51.15 FEET WEST OF THE EAST LINE OF SAID LOT 1; THENCE EAST ALONG SAID PARALLEL LINE 41.15 FEET; THENCE NORTH PARALLEL WITH SAID EAST LINE TO THE POINT OF BEGINNING, IN COOK COUNTY, ILLINOIS, IN THE MANNER REPRESENTED ON THE PLAT HEREON DRAWN.

CONTAINING 49,361 SQUARE FEET OR 1.13 ACRES, MORE OR LESS.

I FURTHER CERTIFY THAT THE PROPERTY DESCRIBED HEREON IS LOCATED WITHIN THE CORPORATE LIMITS OF THE VILLAGE OF WINNETKA, COOK COUNTY, ILLINOIS.

I FURTHER CERTIFY THAT ALL OF THE PROPERTY APPEARS IN ZONE X ON THE FLOOD INSURANCE RATE MAP, COOK COUNTY, ILLINOIS, AND INCORPORATED AREAS, COMMUNITY PANEL NO. 17031C0251J, EFFECTIVE DATE OF AUGUST 19, 2008.

THE DIMENSIONS ARE SHOWN IN FEET AND DECIMAL PARTS THEREOF AND ARE CORRECTED TO A TEMPERATURE OF 62° FAHRENHEIT.

FIELD MEASUREMENTS COMPLETED ON DECEMBER 23, 2013

SIGNED ON _____

BY: _____

PROFESSIONAL ILLINOIS LAND SURVEYOR NO. 2802
MY LICENSE EXPIRES NOVEMBER 30, 2014

SURVEY NOTES:

MONUMENTATION AT ALL LOT CORNERS INDICATED BY SYMBOL OR NOTATION ESTABLISHED PRIOR TO PLAT RECORDATION.

IRON PIPE IS TO BE SET AT REMAINING LOT CORNERS AFTER PLAT RECORDATION UNLESS OTHERWISE INDICATED OR NOTED HEREON.

NO DIMENSIONS SHALL BE ASSUMED BY SCALE MEASUREMENT ON THIS PLAT.

ORDERED BY: JOSH WOHLREICH	CHECKED: DRW/J
ADDRESS: SE CORNER OF ELM & LINCOLN (WINNETKA STATION)	DATE: JULY 23, 2014
GREMLEY & BIEDERMANN PLCS CORPORATION Professional Land Surveyors License No. 184-005322 4505 NORTH ELSTON AVENUE, CHICAGO, IL 60630 TELEPHONE: (773) 695-5102 FAX: (773) 286-4184 EMAIL: INFO@PLCS-SURVEY.COM	
ORDER NO. 2014-19592-002	PAGE NO. 1 OF 1

Winnetka Station

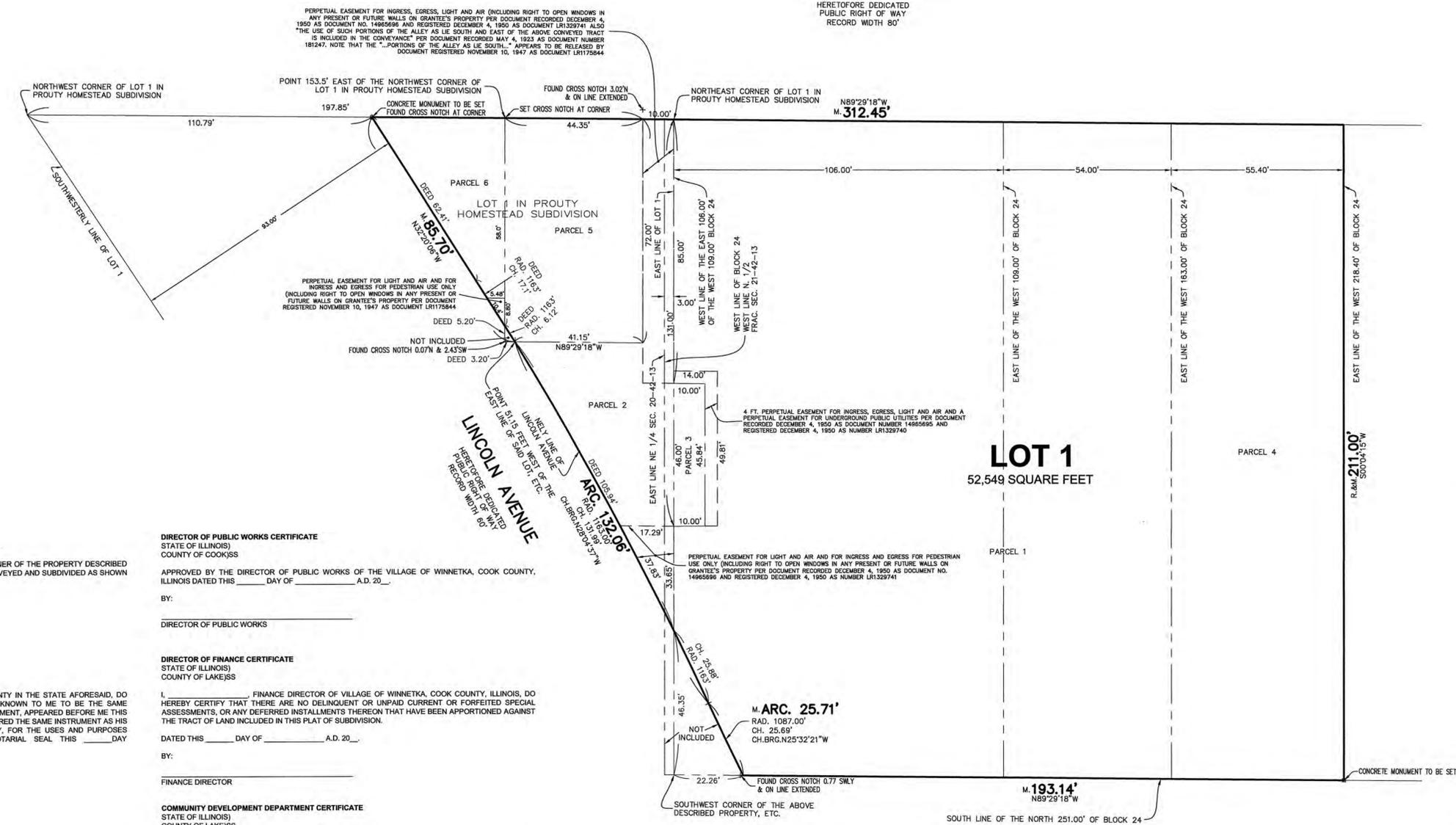
BEING A RESUBDIVISION OF PART OF LOT 1 IN PROUTY HOMESTEAD SUBDIVISION, TOGETHER WITH A PART OF BLOCK 24 IN WINNETKA, BOTH SUBDIVISIONS IN THE NORTHEAST 1/4 OF SECTION 20, AND THE FRACTIONAL NORTH 1/2 OF FRACTIONAL SECTION 21, TOWNSHIP 42 NORTH, RANGE 13, EAST OF THE THIRD PRINCIPAL MERIDIAN, IN COOK COUNTY, ILLINOIS.

ELM STREET

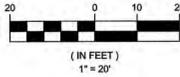
HEREFORE DEDICATED
PUBLIC RIGHT OF WAY
RECORD WIDTH 60'

LOT 1
52,549 SQUARE FEET

LINCOLN AVENUE
HEREFORE DEDICATED
PUBLIC RIGHT OF WAY
RECORD WIDTH 60'



GRAPHIC SCALE



SURVEYOR CERTIFICATE
STATE OF ILLINOIS
COUNTY OF COOK

I, ROBERT G. BIEDERMANN, A PROFESSIONAL ILLINOIS LAND SURVEYOR, DO HEREBY CERTIFY THAT I HAVE SURVEYED AND SUBDIVIDED:

PARCEL 1: THE EAST 106 FEET OF THE WEST 109 FEET OF THE NORTH 251 FEET OF BLOCK 24 IN WINNETKA, BEING A SUBDIVISION OF THE NORTHEAST 1/4 OF SECTION 20 AND THE NORTH HALF OF FRACTIONAL SECTION 21, TOWNSHIP 42 NORTH, RANGE 13, EAST OF THE THIRD PRINCIPAL MERIDIAN, (EXCEPT THEREFROM THE NORTH 40 FEET TAKEN FOR ELM STREET) ALSO (EXCEPT THAT PART THEREOF DESCRIBED AS FOLLOWS: COMMENCING AT A POINT ON WEST LINE OF SAID EAST 106 FEET AT A DISTANCE OF 85 FEET SOUTH OF SOUTH LINE OF ELM STREET THENCE EAST PARALLEL WITH SOUTH LINE OF ELM STREET 10 FEET THENCE SOUTH PARALLEL WITH THE WEST LINE OF SAID EAST 106 FEET A DISTANCE OF 45.84 FEET TO THE NORTH WALL OF A ONE STORY BRICK BUILDING; THENCE WEST ALONG NORTH WALL OF SAID BRICK BUILDING 10 FEET TO WEST LINE OF SAID EAST 106 FEET; THENCE NORTH ALONG THE WEST LINE OF SAID EAST 106 FEET A DISTANCE OF 46 FEET TO PLACE OF BEGINNING) ALSO (EXCEPT THAT PART THEREOF DESCRIBED AS FOLLOWS: BEGINNING AT SOUTHWEST CORNER OF THE ABOVE DESCRIBED PROPERTY AND RUNNING THENCE NORTH ALONG WEST LINE THEREOF 46.35 FEET TO INTERSECTION WITH A CURVED LINE OF 1163 FOOT RADIUS CONVEX NORTHEASTERLY; THENCE SOUTHEASTERLY ALONG SAID CURVED LINE OF 1163 FOOT RADIUS, 25.88 FEET, AS MEASURED ALONG THE CHORD TO A POINT OF REVERSE CURVE; THENCE SOUTHERLY ALONG A CURVED LINE OF 1087 FEET RADIUS CONVEX SOUTHWESTERLY 25.89 FEET MEASURED ALONG THE CHORD TO A POINT IN SOUTH LINE OF AFORESAID EAST 106 FEET WEST 109 FEET OF THE NORTH 251 FEET OF BLOCK 24 IN WINNETKA, 22.26 FEET EAST OF THE SOUTHWEST CORNER THEREOF AND THENCE WEST ALONG SAID SOUTH LINE 22.26 FEET TO PLACE OF BEGINNING) ALSO, THE EAST 54 FEET OF THE WEST 163 FEET OF THE NORTH 211 FEET OF BLOCK 24 OF CHARLES E. PECK'S SUBDIVISION LYING SOUTH OF THE SOUTH LINE OF ELM STREET IN FRACTIONAL SECTION 21, TOWNSHIP 42 NORTH, RANGE 13, EAST OF THE THIRD PRINCIPAL MERIDIAN, IN COOK COUNTY, ILLINOIS;

PARCEL 2: THAT PART OF LOT 1 IN PROUTY HOMESTEAD SUBDIVISION OF ALL OF BLOCKS 24 AND 25 LYING NORTHEASTERLY OF THE RIGHT OF WAY OF THE CHICAGO AND MILWAUKEE ELECTRIC RAILROAD, EXCEPT THE NORTH 211.00 FEET OF SAID BLOCK 24, ALSO THE WEST 3.00 FEET OF THE NORTH 211.00 FEET OF SAID BLOCK 24, ALL IN WINNETKA, A SUBDIVISION BY CHARLES E. PECK OF THE NORTHEAST 1/4 OF SECTION 20, AND THE FRACTIONAL NORTH 1/2 OF FRACTIONAL SECTION 21, TOWNSHIP 42 NORTH, RANGE 13, EAST OF THE THIRD PRINCIPAL MERIDIAN, DESCRIBED AS FOLLOWS: COMMENCING AT A POINT ON THE WEST LINE OF SAID EAST 106.00 FEET AT A DISTANCE OF 85.00 FEET SOUTH OF THE SOUTH LINE OF ELM STREET; THENCE EAST PARALLEL WITH THE SOUTH LINE OF ELM STREET, 10.00 FEET; THENCE SOUTH PARALLEL WITH THE WEST LINE OF SAID EAST 106.00 FEET, A DISTANCE OF 45.84 FEET TO A POINT; THENCE WEST 10.00 FEET TO THE WEST LINE OF SAID EAST 106.00 FEET; THENCE NORTH ALONG THE WEST LINE OF SAID EAST 106.00 FEET, A DISTANCE OF 46.00 FEET TO THE PLACE OF BEGINNING, ALL IN COOK COUNTY, ILLINOIS;

PARCEL 3: THAT PART OF THE EAST 106.00 FEET OF THE WEST 109.00 FEET OF THE NORTH 251.00 FEET (EXCEPT THE NORTH 40.00 FEET TAKEN FOR ELM STREET) OF BLOCK 24 IN WINNETKA, BEING A SUBDIVISION OF THE NORTHEAST 1/4 OF SECTION 20 AND THE NORTH 1/2 OF FRACTIONAL SECTION 21, TOWNSHIP 42 NORTH, RANGE 13, EAST OF THE THIRD PRINCIPAL MERIDIAN, DESCRIBED AS FOLLOWS: COMMENCING AT A POINT ON THE WEST LINE OF SAID EAST 106.00 FEET AT A DISTANCE OF 85.00 FEET SOUTH OF THE SOUTH LINE OF ELM STREET; THENCE EAST PARALLEL WITH THE SOUTH LINE OF ELM STREET, 10.00 FEET; THENCE SOUTH PARALLEL WITH THE WEST LINE OF SAID EAST 106.00 FEET, A DISTANCE OF 45.84 FEET TO A POINT; THENCE WEST 10.00 FEET TO THE WEST LINE OF SAID EAST 106.00 FEET; THENCE NORTH ALONG THE WEST LINE OF SAID EAST 106.00 FEET, A DISTANCE OF 46.00 FEET TO THE PLACE OF BEGINNING, ALL IN COOK COUNTY, ILLINOIS;

PARCEL 4: THE EAST 55.4 FEET OF THE WEST 218.4 FEET OF THE NORTH 211 FEET OF THAT PART OF BLOCK 24 LYING SOUTH OF ELM STREET IN THE VILLAGE OF WINNETKA IN SECTION 20 AND SECTION 21, TOWNSHIP 42 NORTH, RANGE 13, EAST OF THE THIRD PRINCIPAL MERIDIAN, IN COOK COUNTY, ILLINOIS;

PARCEL 5: THAT PART OF LOT 1 IN PROUTY HOMESTEAD SUBDIVISION OF ALL OF BLOCKS 24 AND 25 LYING NORTHEASTERLY OF THE RIGHT OF WAY OF THE CHICAGO AND MILWAUKEE ELECTRIC RAILROAD, EXCEPT THE NORTH 211 FEET OF SAID BLOCK 24 ALSO THE WEST 3 FEET OF THE NORTH 211 FEET OF SAID LOT 24, ALL IN WINNETKA, A SUBDIVISION BY CHARLES E. PECK OF THE NORTHEAST 1/4 OF SECTION 20, AND THE FRACTIONAL NORTH 1/2 OF FRACTIONAL SECTION 21, TOWNSHIP 42 NORTH, RANGE 13, EAST OF THE THIRD PRINCIPAL MERIDIAN DESCRIBED AS FOLLOWS: BEGINNING AT A POINT IN THE NORTH LINE OF SAID LOT 1, 153.5 FEET EAST OF THE NORTHWEST CORNER OF SAID LOT 1, THENCE EAST ALONG THE NORTH LINE OF SAID LOT 1, 44.35 FEET, THENCE SOUTH PARALLEL WITH THE EAST LINE OF SAID LOT 1, 7.2 FEET, THENCE WEST PARALLEL WITH THE NORTH LINE OF SAID LOT 1, 11.63 FEET, THENCE NORTHWESTERLY ALONG SAID CURVED LINE WITH A RADIUS OF 1,163 FEET, THENCE NORTHWESTERLY ALONG SAID CURVED LINE 6.12 FEET AS MEASURED ALONG THE CHORD TO ITS INTERSECTION WITH THE EAST LINE OF SAID LOT 1, 62.41 FEET TO A POINT OF BEGINNING; AND ALSO EXCEPT THAT PART OF SAID LOT 1 LYING SOUTHWESTERLY OF A LINE DESCRIBED AS FOLLOWS: BEGINNING AT A POINT IN THE NORTH LINE OF SAID LOT 1, BEING THE SOUTH LINE OF ELM STREET, 110.79 FEET EAST OF THE NORTHWEST CORNER OF SAID LOT 1 AND RUNNING THENCE SOUTHEASTERLY PARALLEL WITH AND 93 FEET NORTHEASTERLY OF AS MEASURED AT RIGHT ANGLES TO THE SOUTHWESTERLY LINE OF SAID LOT 1, 62.41 FEET TO A POINT OF CURVE, THENCE SOUTHEASTERLY ALONG A CURVED LINE CONVEX NORTHEASTERLY AND HAVING A RADIUS OF 1163 FEET, 17.1 FEET AS MEASURED ALONG THE CHORD OF SAID CURVE TO A POINT IN THE NORTH LINE OF SAID LOT 1, 153.5 FEET EAST OF THE NORTHWEST CORNER OF SAID LOT 1, THENCE SOUTH ALONG SAID PARALLEL LINE, 5.20 FEET TO A POINT 72 FEET SOUTH OF THE NORTH LINE OF SAID LOT 1, THENCE EAST PARALLEL WITH THE NORTH LINE OF SAID LOT 1, 3.20 FEET TO A POINT OF INTERSECTION WITH THE PROLONGATION OF A CURVED LINE OF 1163 FEET RADIUS HEREINBEFORE DESCRIBED, THENCE SOUTHEASTERLY ALONG SAID CURVED LINE 105.94 FEET AS MEASURED ALONG THE CHORD TO A POINT IN THE EAST LINE OF SAID LOT 1, 46.35 FEET NORTH OF THE SOUTH LINE OF THE NORTH 211 FEET OF BLOCK 24; AND ALSO EXCEPT THAT PART OF LOT 1 DESCRIBED AS FOLLOWS: BEGINNING IN THE NORTH LINE OF SAID LOT 1, 197.85 FEET EAST OF THE NORTHWEST CORNER THEREOF; THENCE EAST ALONG THE EAST LINE OF SAID LOT 1 TO A POINT 46.35 FEET NORTH OF THE SOUTH LINE OF THE NORTH 211 FEET OF BLOCK 24 AFORESAID; THENCE NORTHWESTERLY ALONG A CURVED LINE CONVEX TO THE NORTHEAST WITH A RADIUS OF 1163 FEET, 105.94 FEET TO THE INTERSECTION OF SAID CURVED LINE WITH A LINE DRAWN 72 FEET SOUTH OF AND PARALLEL WITH THE NORTH LINE OF SAID LOT 1 AT A POINT 51.15 FEET WEST OF THE EAST LINE OF SAID LOT 1; THENCE EAST ALONG SAID PARALLEL LINE 41.15 FEET; THENCE NORTH PARALLEL WITH SAID EAST LINE TO THE POINT OF BEGINNING, IN COOK COUNTY, ILLINOIS, IN THE MANNER REPRESENTED ON THE PLAT HEREON DRAWN.

PARCEL 6: LOT 1 IN PROUTY HOMESTEAD SUBDIVISION OF ALL OF BLOCKS 24 AND 25, LYING NORTHEASTERLY OF THE RIGHT OF WAY OF THE CHICAGO AND MILWAUKEE ELECTRIC RAILROAD, EXCEPT THE NORTH 211 FEET OF SAID BLOCK 24 ALSO THE WEST 3 FEET OF THE NORTH 211 FEET OF SAID BLOCK 24, ALL IN WINNETKA, A SUBDIVISION BY CHARLES E. PECK OF THE NORTHEAST 1/4 OF SECTION 20, AND THE FRACTIONAL NORTH 1/2 OF FRACTIONAL SECTION 21, TOWNSHIP 42 NORTH, RANGE 13, EAST OF THE THIRD PRINCIPAL MERIDIAN, DESCRIBED AS FOLLOWS: BEGINNING AT A POINT IN THE NORTH LINE OF SAID LOT 1, 153.5 FEET EAST OF THE NORTHWEST CORNER OF SAID LOT 1, THENCE EAST ALONG THE NORTH LINE OF SAID LOT 1, 44.35 FEET, THENCE SOUTH PARALLEL WITH THE EAST LINE OF SAID LOT 1, 7.2 FEET, THENCE WEST PARALLEL WITH THE NORTH LINE OF SAID LOT 1, 11.63 FEET, THENCE NORTHWESTERLY ALONG SAID CURVED LINE WITH A RADIUS OF 1,163 FEET, THENCE NORTHWESTERLY ALONG SAID CURVED LINE 6.12 FEET AS MEASURED ALONG THE CHORD TO ITS INTERSECTION WITH THE EAST LINE OF SAID LOT 1, 62.41 FEET TO A POINT OF BEGINNING; AND ALSO EXCEPT THAT PART OF SAID LOT 1 LYING SOUTHWESTERLY OF A LINE DESCRIBED AS FOLLOWS: BEGINNING AT A POINT IN THE NORTH LINE OF SAID LOT 1, BEING THE SOUTH LINE OF ELM STREET, 110.79 FEET EAST OF THE NORTHWEST CORNER OF SAID LOT 1 AND RUNNING THENCE SOUTHEASTERLY PARALLEL WITH AND 93 FEET NORTHEASTERLY OF AS MEASURED AT RIGHT ANGLES TO THE SOUTHWESTERLY LINE OF SAID LOT 1, 62.41 FEET TO A POINT OF CURVE, THENCE SOUTHEASTERLY ALONG A CURVED LINE CONVEX NORTHEASTERLY AND HAVING A RADIUS OF 1163 FEET, 17.1 FEET AS MEASURED ALONG THE CHORD OF SAID CURVE TO A POINT IN THE NORTH LINE OF SAID LOT 1, 153.5 FEET EAST OF THE NORTHWEST CORNER OF SAID LOT 1, THENCE SOUTH ALONG SAID PARALLEL LINE, 5.20 FEET TO A POINT 72 FEET SOUTH OF THE NORTH LINE OF SAID LOT 1, THENCE EAST PARALLEL WITH THE NORTH LINE OF SAID LOT 1, 3.20 FEET TO A POINT OF INTERSECTION WITH THE PROLONGATION OF A CURVED LINE OF 1163 FEET RADIUS HEREINBEFORE DESCRIBED, THENCE SOUTHEASTERLY ALONG SAID CURVED LINE 105.94 FEET AS MEASURED ALONG THE CHORD TO A POINT IN THE EAST LINE OF SAID LOT 1, 46.35 FEET NORTH OF THE SOUTH LINE OF THE NORTH 211 FEET OF BLOCK 24; AND ALSO EXCEPT THAT PART OF LOT 1 DESCRIBED AS FOLLOWS: BEGINNING IN THE NORTH LINE OF SAID LOT 1, 197.85 FEET EAST OF THE NORTHWEST CORNER THEREOF; THENCE EAST ALONG THE EAST LINE OF SAID LOT 1 TO A POINT 46.35 FEET NORTH OF THE SOUTH LINE OF THE NORTH 211 FEET OF BLOCK 24 AFORESAID; THENCE NORTHWESTERLY ALONG A CURVED LINE CONVEX TO THE NORTHEAST WITH A RADIUS OF 1163 FEET, 105.94 FEET TO THE INTERSECTION OF SAID CURVED LINE WITH A LINE DRAWN 72 FEET SOUTH OF AND PARALLEL WITH THE NORTH LINE OF SAID LOT 1 AT A POINT 51.15 FEET WEST OF THE EAST LINE OF SAID LOT 1; THENCE EAST ALONG SAID PARALLEL LINE 41.15 FEET; THENCE NORTH PARALLEL WITH SAID EAST LINE TO THE POINT OF BEGINNING, IN COOK COUNTY, ILLINOIS, IN THE MANNER REPRESENTED ON THE PLAT HEREON DRAWN.

CONTAINING 52,549 SQUARE FEET OR 1.20 ACRES, MORE OR LESS.
I FURTHER CERTIFY THAT THE PROPERTY DESCRIBED HEREON IS LOCATED WITHIN THE CORPORATE LIMITS OF THE VILLAGE OF WINNETKA, COOK COUNTY, ILLINOIS.

I FURTHER CERTIFY THAT ALL OF THE PROPERTY APPEARS IN ZONE X ON THE FLOOD INSURANCE RATE MAP, COOK COUNTY, ILLINOIS, AND INCORPORATED AREAS, COMMUNITY PANEL NO. 17031C0251J, EFFECTIVE DATE OF AUGUST 19, 2008.
DIMENSIONS ARE SHOWN IN FEET AND DECIMAL PARTS THEREOF AND ARE CORRECTED TO A TEMPERATURE OF 62° FAHRENHEIT.

FIELD MEASUREMENTS COMPLETED ON DECEMBER 23, 2013
SIGNED ON _____
BY:

PROFESSIONAL ILLINOIS LAND SURVEYOR NO. 2802
MY LICENSE EXPIRES NOVEMBER 30, 2014

OWNER CERTIFICATE
STATE OF ILLINOIS
COUNTY OF COOK

_____ DOES HEREBY CERTIFY THAT IT IS THE OWNER OF THE PROPERTY DESCRIBED HEREON AND THAT IT HAS CAUSED THE SAID PROPERTY TO BE SURVEYED AND SUBDIVIDED AS SHOWN HEREON.

DATED: _____ A.D. 20__

BY: _____

STATE OF ILLINOIS
COUNTY OF COOK

I, _____ A NOTARY PUBLIC IN AND FOR THE COUNTY IN THE STATE AFORESAID, DO HEREBY CERTIFY THAT _____ IS PERSONALLY KNOWN TO ME TO BE THE SAME PERSON WHOSE NAME IS SUBSCRIBED TO THE FOREGOING INSTRUMENT, APPEARED BEFORE ME THIS DAY IN PERSON AND ACKNOWLEDGED THAT HE SIGNED AND DELIVERED THE SAME INSTRUMENT AS HIS OWN FREE AND VOLUNTARY ACT, AS OWNER OF THE PROPERTY, FOR THE USES AND PURPOSES THEREIN SET FORTH GIVEN UNDER MY HAND AND NOTARIAL SEAL THIS _____ DAY OF _____ A.D. 20__

NOTARY PUBLIC

PLAN COMMISSION CERTIFICATE
STATE OF ILLINOIS
COUNTY OF COOK

APPROVED BY THE PLAN COMMISSION OF THE VILLAGE OF WINNETKA, COOK COUNTY, ILLINOIS THIS _____ DAY OF _____ A.D. 20__

BY: _____

PLAN COMMISSION CHAIRMAN

ATTEST:

SECRETARY

DIRECTOR OF PUBLIC WORKS CERTIFICATE
STATE OF ILLINOIS
COUNTY OF COOK

APPROVED BY THE DIRECTOR OF PUBLIC WORKS OF THE VILLAGE OF WINNETKA, COOK COUNTY, ILLINOIS DATED THIS _____ DAY OF _____ A.D. 20__

BY: _____

DIRECTOR OF PUBLIC WORKS

DIRECTOR OF FINANCE CERTIFICATE
STATE OF ILLINOIS
COUNTY OF LAKE

I, _____ FINANCE DIRECTOR OF VILLAGE OF WINNETKA, COOK COUNTY, ILLINOIS, DO HEREBY CERTIFY THAT THERE ARE NO DELINQUENT OR UNPAID CURRENT OR FORFEITED SPECIAL ASSESSMENTS, OR ANY DEFERRED INSTALLMENTS THEREON THAT HAVE BEEN APPORTIONED AGAINST THE TRACT OF LAND INCLUDED IN THIS PLAT OF SUBDIVISION.

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

BY: _____

FINANCE DIRECTOR

COMMUNITY DEVELOPMENT DEPARTMENT CERTIFICATE
STATE OF ILLINOIS
COUNTY OF LAKE

APPROVED BY THE DIRECTOR OF COMMUNITY DEVELOPMENT DEPARTMENT OF THE VILLAGE OF WINNETKA, COOK COUNTY, ILLINOIS.

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

BY: _____

COMMUNITY DEVELOPMENT DEPARTMENT DIRECTOR

WATER AND ELECTRIC DEPARTMENT CERTIFICATE
STATE OF ILLINOIS
COUNTY OF LAKE

APPROVED BY THE DIRECTOR OF THE WATER AND ELECTRIC DEPARTMENT OF THE VILLAGE OF WINNETKA, COOK COUNTY, ILLINOIS.

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

BY: _____

WATER AND ELECTRIC DEPARTMENT DIRECTOR

VILLAGE COUNCIL CERTIFICATE
STATE OF ILLINOIS
COUNTY OF COOK

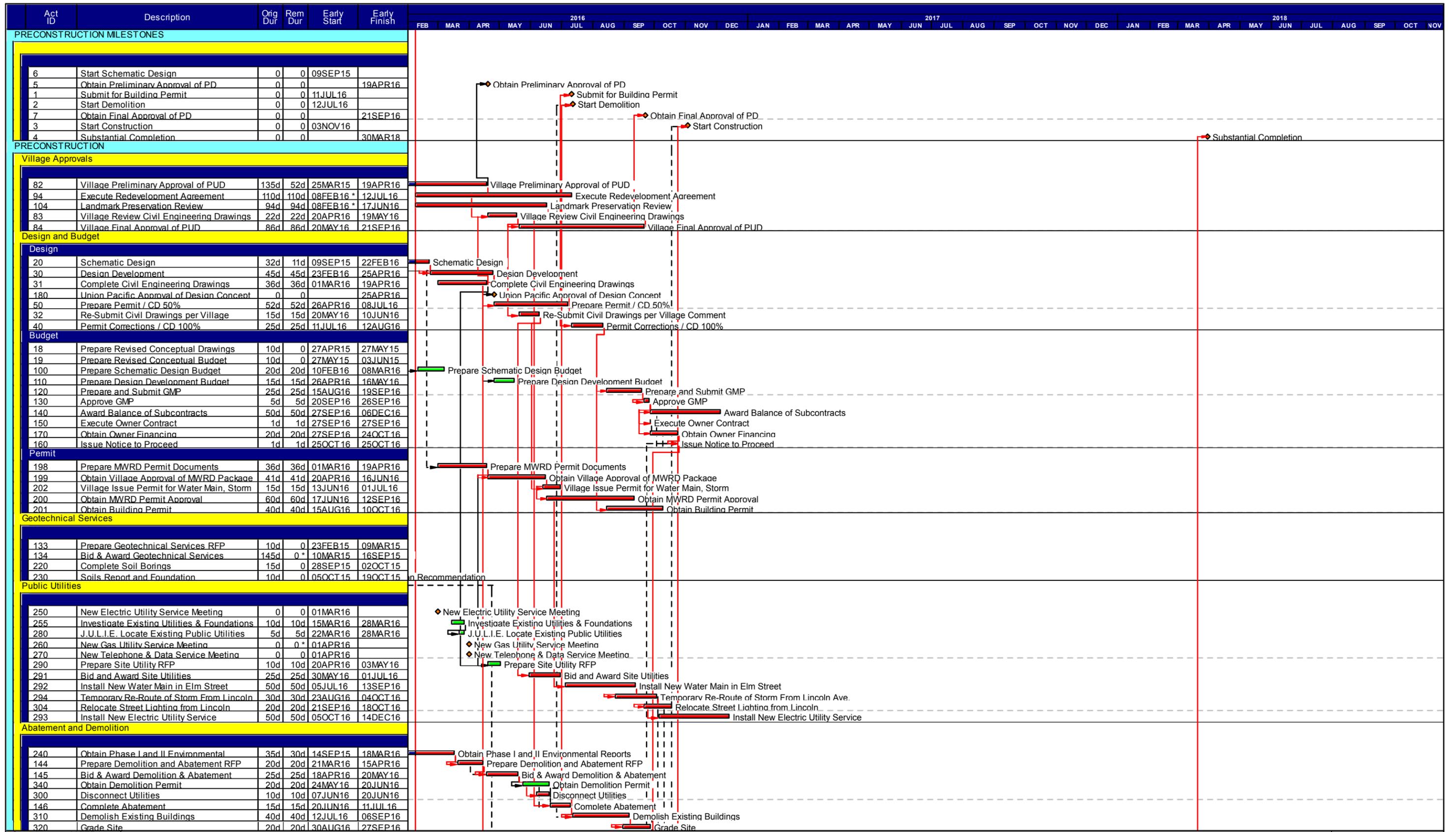
APPROVED BY THE PRESIDENT OF THE VILLAGE COUNCIL OF THE VILLAGE OF WINNETKA, COOK COUNTY, ILLINOIS DATED THIS _____ DAY OF _____ A.D. 20__

BY: _____

VILLAGE COUNCIL PRESIDENT

SURVEY NOTES:
MONUMENTATION AT ALL LOT CORNERS INDICATED BY SYMBOL OR NOTATION ESTABLISHED PRIOR TO PLAT RECORDATION.
IRON PIPE IS TO BE SET AT REMAINING LOT CORNERS AFTER PLAT RECORDATION UNLESS OTHERWISE INDICATED OR NOTED HEREON.
NO DIMENSIONS SHALL BE ASSUMED BY SCALE MEASUREMENT UPON THIS PLAT.

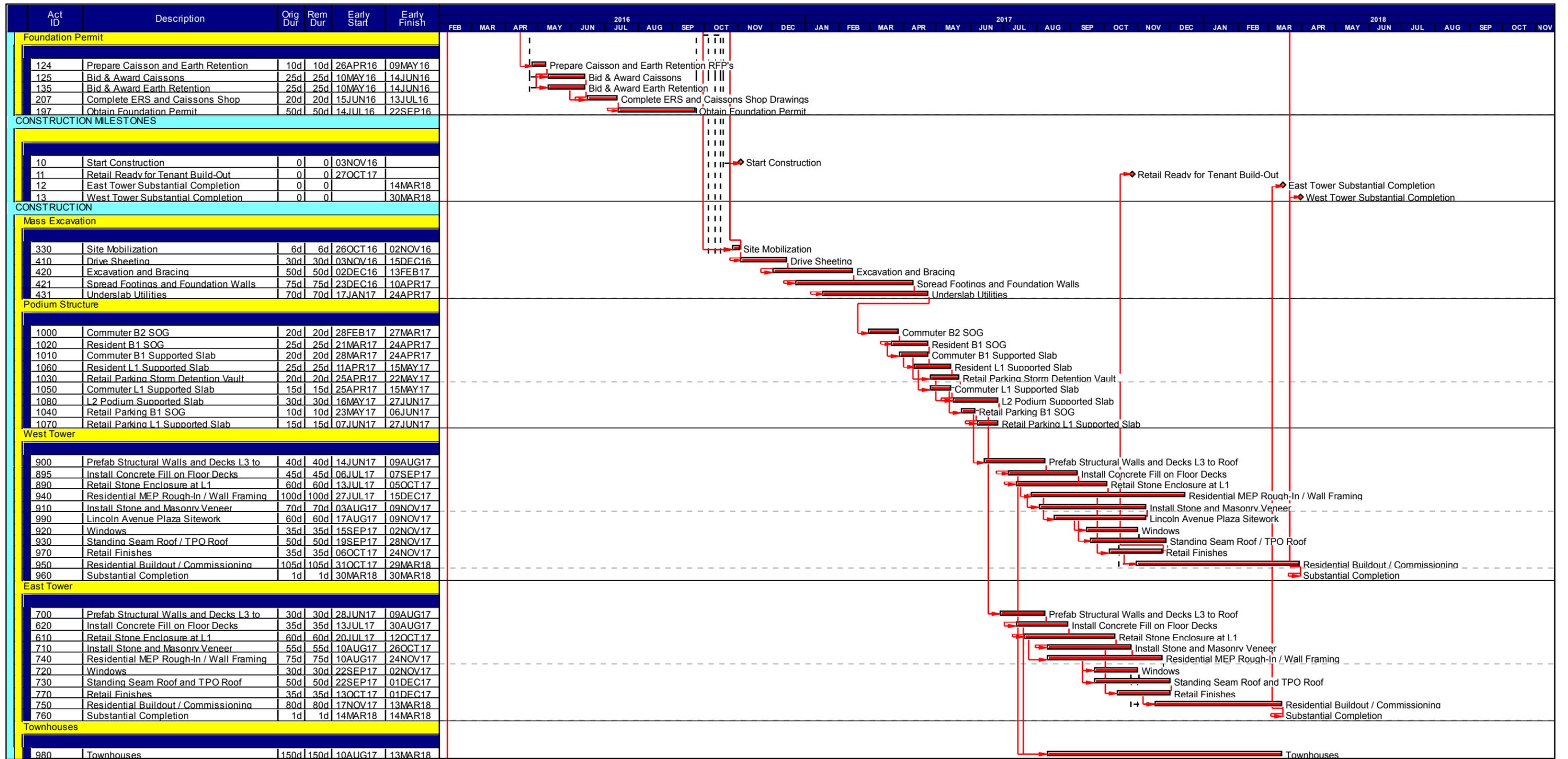
ORDERED BY: JOSH WOHLREICH	CHECKED: DRAWN: R/GT
ADDRESS: SE CORNER OF ELM & LINCOLN (WINNETKA STATION)	
GREMLEY & BIEDERMANN A Division of P.L.C.S. CORPORATION LICENSE NO. 184-00522 PROFESSIONAL LAND SURVEYORS	
4505 NORTH ELSTON AVENUE, CHICAGO, IL 60630 TELEPHONE: (773) 685-5102 FAX: (773) 286-4184 EMAIL: INFO@P.L.C.S.-SURVEY.COM	
ORDER NO. 2014-19592-001	DATE: JULY 15, 2014
SCALE: 1 INCH = 20 FEET	PAGE NO. 1 OF 1



Start date 02FEB15
 Finish date 30MAR18
 Data date 08FEB16
 Run date 11FEB16
 Page number 1A
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W. E. O'Neil Construction Company
 One Winnetka Light Gauge Framing Option
 February 10, 2016
 Project Schedule

Early bar
 Progress bar
 Critical bar
 Summary bar
 Start milestone point
 Finish milestone point



Start date 02FEB15
 Finish date 30MAR18
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