DES PLAINES
ILLINOIS

Community & Economic Development
1420 Miner Street, Des Plaines, IL 60016
P: 847.391.5392 | W: desplaines.org

Planning and Zoning Board Agenda
October 24, 2023
Room 102 – 7:00 P.M.

Call to Order and Roll Call

Approval of Minutes, October 10, 2023

Public Comment: For matters that are not on the agenda

Pending Applications:

1. **Address:** 900 Graceland Avenue and 1217 Thacker Street **Case Number:** 23-039-MAP-PUD-TSUB

The petitioner has requested the following items: (i) a Map Amendment to rezone from M-2 General Manufacturing to R-3 Townhouse Residential District; (ii) a Preliminary Planned Unit Development (PUD) with exceptions; (iii) a Tentative Plat of Subdivision to consolidate eight lots into two lots; and (iv) any other variations, waivers, and zoning relief as may be necessary.

PINs: 09-20-105-016-0000, 09-20-105-017-0000, 09-20-105-020-0000, 09-20-105-021-0000, 09-20-105-022-0000, 09-20-105-023-0000, 09-20-105-024-0000, 09-20-105-045-0000

Petitioner: Luz and Associates #1, LLC, 2030 West Wabansia Avenue, Chicago, IL 60611

Owner: Contour Saws, Inc., 100 Lakeview Parkway, Ste. 100, Vernon Hills, 60061

2. **Address:** Citywide **Case Number:** 23-061-TA

The City is proposing text amendments to the Zoning Ordinance related to landscape buffers and screening requirements.

PIN: Citywide
Petitioner: City of Des Plaines, 1420 Miner Street, Des Plaines, IL, 60016
Owner: N/A

New Business

1. Discussion of availability of the Planning and Zoning Board (PZB) to host a workshop for a proposed development at 414 East Golf Road.

City of Des Plaines, in compliance with the Americans With Disabilities Act, requests that persons with disabilities, who require certain accommodations to allow them to observe and/or participate in the meeting(s) or have questions about the accessibility of the meeting(s) or facilities, contact the ADA Coordinator at 847-391-5486 to allow the City to make reasonable accommodations for these persons. The public hearing may be continued to a further date, time and place without publication of a further published notice such as this notice.

DES PLAINES PLANNING AND ZONING BOARD MEETING
October 10, 2023
DRAFT MINUTES

The Des Plaines Planning and Zoning Board held its regularly scheduled meeting on Tuesday, October 10, 2023, at 7:00 p.m. in Room 102 of the Des Plaines Civic Center.

Chair Szabo called the meeting to order at 7:00 p.m. and roll call was established.

PRESENT:	Weaver, Fowler, Hofherr, Saletnik, Szabo,
ABSENT:	Catalano, Veremis
ALSO PRESENT:	Ryan Johnson, Asst Director of Community & Economic Development Jonathan Stytz, Senior Planner Margie Mosele, CED Executive Assistant

A quorum was present.

Call to Order and Roll Call

Approval of Minutes: September 26, 2023

APPROVAL OF MINUTES

A motion was made by Board Member Fowler seconded by Board Member Hofherr to approve the meeting minutes of September 26, 2023.

AYES:	Fowler, Hofherr, Weaver, Saletnik, Szabo
NAYES:	None
ABSTAIN:	None

*****MOTION CARRIES UNANIMOUSLY ****

PUBLIC COMMENT ON NON-AGENDA ITEM

Chair Szabo asked if anyone was here to discuss items not on the agenda. – None

1. **Address: 607 E. Oakton Street** **Case Number: 23-055-CU**

The petitioner has requested a Conditional Use for an auto service repair use in the C-3 General Commercial district at 607 E. Oakton Street, and any other variations, waivers, and zoning relief as may be necessary.

Petitioner:	Mykola Tsakhniv,601 Huntington Commons, Mt Prospect, IL 60056
Owner:	607 Oakton, LLC, 2241 W. Howard Street, Chicago, IL 60645
PIN:	09-30-202-008-0000
Ward:	#5, Alderman Carla Brookman
Existing Zoning:	C-3, General Commercial District
Existing Land Use:	Vacant Building (former Auto Service Repair use)
Surrounding Zoning:	North: R-3, Townhouse Residential District South: R-1, Single Family Residential District East: C-3, General Commercial District West: M-2, General Manufacturing District
Surrounding Land Use:	North: Townhouses (residential) South: High School (institutional) East: Animal Hospital (commercial) West: Warehouse (industrial)
Street Classification:	Oakton Street and Wolf Road are Minor Arterial roads, both under Illinois Department of Transportation (IDOT) jurisdiction.
Comprehensive Plan:	Commercial is the recommended use of the property.
Zoning/Property History:	Based on City records, the subject property was annexed into the City in 1955. It was utilized as an auto repair use, Elmer's Service, until 2014 when it was vacated. The subject property has been vacant since 2014. Auto service repair was not a conditional use in past zoning ordinances, so no zoning entitlements were necessary for the prior repair shop and thus no conditional use permits are on record for this address.

Project Description:

Overview

Petitioner Mykola Tsakhniv has requested a Conditional Use Permit to operate an auto service repair facility, BOGO Shop, at 607 E. Oakton Street. The subject property contains a stand-alone building with a surface parking area as shown in the attached ALTA/NSPS Land Title Survey. The subject property is located on the southeast corner of Oakton Street and Wolf Road and is accessed by four existing curb cuts, two from Oakton Street and Wolf Road. The subject property is located within the C-3, General Commercial district and auto service repair requires a conditional use permit in the C-3 zoning district.

Floor Plan and Elevations

The existing one-story, 2,437-square foot building is made up of three service bays, 120-square feet of office space, restroom, utility rooms, and storage spaces. While the petitioner is not proposing a change to the size or location of the building, the proposal includes adjustments to the existing floor plan, which are summarized below and illustrated on the attached Floor Plans:

- Repurpose the existing front office space into a customer lobby area;
- Repurpose the existing front storage area into an office;
- Expand the existing restroom space; and
- Repurpose the existing rear utility room as a parts assembly area.

The existing structure is comprised of a mixture of board and batten siding and concrete masonry units. The petitioner does not propose to replace the existing materials but rather repaint all exterior building materials as illustrated in the attached Elevations and the attached Renderings.

Off-Street Parking and Access

Pursuant to Section 12-9-7 of the Des Plaines Zoning Ordinance, auto service repair facilities are required to provide two parking spaces per service bay and one space for every 200 square feet of accessory retail. Thus, a total of seven off-street parking spaces are required including one handicap accessible parking space. The attached Site Plan proposes 15 total parking spaces on the property, including a handicap accessible space. There are currently four access points on the subject property, two are in close proximity to the Oakton/Wolf intersection. Public Works and Engineering (PWE) staff have recommended that these two curb cuts be removed and replaced with turf and curb to minimize vehicle/pedestrian interactions and traffic cutting through the subject property. However, the proposal does not include the removal of any curb cuts. Instead, it includes the closing off the westernmost curb cut off Oakton Street and northernmost curb cut off Wolf Road with the addition of two planter boxes in front of each entrance. A proposed condition of approval is that the landscaper boxes need to be located within the property line. No other changes to the existing curb cuts are proposed. The existing pavement in the parking area is in disrepair. As such, the petitioner intends to either replace, retain, or sealcoat portions of the parking area based on its condition and restripe parking spaces as illustrated on the attached Site Plan.

Landscaping and Screening

The existing property is void of any landscaping. However, the petitioner's proposal includes (i) the installation of a landscaped area with curb at the northwest corner of the property and (ii) the addition of four planter boxes—two located in front of the westernmost curb cut off Oakton Street and two located in front of the northernmost curb cut off Wolf Road—as illustrated in the attached landscape plan. A proposed condition of approval is that the landscaper boxes need to be located within the property line.

The Comprehensive Plan seeks to encourage and actively pursue beautification opportunities and efforts, including the installation of landscaping, street furniture, lighting, and other amenities, to establish a more attractive environment and achieve stronger corridor identity in Des Plaines. Due to the small lot and prominent location, conditions are being recommended by staff to enhance the property and minimize any visual impacts. While the proposal includes the addition of some landscaping, staff has added a condition requiring a minimum five-foot-landscape bed around the perimeter of the north row of six parking spaces and along the entire west property line maintaining the access through the southernmost curb cut off Wolf Road to provide a more pronounced buffer between the streets, building, and parking areas.

A dumpster will be located behind the building within a fenced in area. Staff has added a condition that the dumpster is located within an enclosure in compliance with Section 12-10-11 of the Des Plaines Zoning Ordinance. The enclosure is noted on the Floor Plan.

Business Operations

BOGO Shop will be open 7:00 a.m. to 6:00 p.m. Monday through Friday, 9 a.m. to 1 p.m. on Saturdays and closed on Sundays. Their services will include: (i) engine diagnostics and repairs; (ii) brake system inspections and repairs; (iii) suspension and steering repairs; (iv) transmissions maintenance and repairs; (v) AC and heating system servicing; (vi) electrical system diagnostics and repairs; and (vii) routine maintenance (e.g., oil changes, tire rotations, etc.). A maximum of four employees will be present on site at a given time. Please see the attached Project Narrative for more details. Proposed conditions of approval related to business operations include providing a dedicated area for used tires and a tire disposal contract provided with the business registration, if applicable to business operations. Another condition of approval limits use of the existing waste oil tank until proper approvals are received from local, state, or federal entities.

Conditional Use Findings: Conditional Use requests are subject to the standards set forth in Section 12-3-4(E) of the Zoning Ordinance. Rationale for how the proposed amendments would satisfy the standards is provided below and in the attached petitioner responses to standards. The Board may use the provided responses as written as its rationale, modify, or adopt its own.

1. **The proposed Conditional Use is in fact a Conditional Use established within the specific Zoning district involved:**

   Comment: The proposed services at the BOGO shop are classified under the auto service repair use, which is a Conditional Use as specified in Section 12-7-3.K of the Zoning Ordinance for properties in the C-3 General Commercial District.

   PZB Additions or Modifications (if necessary): _____

2. **The proposed Conditional Use is in accordance with the objectives of the City's Comprehensive Plan:**

   Comment: The Comprehensive Plan designates this property as Commercial and strives to foster growth and redevelopment of existing commercial corridors to attract new businesses to Des Plaines. This property is positioned on the Oakton Street corridor and is surrounded by a mixture of commercial, residential, and industrial development. The addition of the auto service repair use at the subject property falls within the Commercial use category.

PZB Additions or Modifications (if necessary): _____

3. **The proposed Conditional Use is designed, constructed, operated and maintained to be harmonious and appropriate in appearance with the existing or intended character of the general vicinity:**

   Comment: The property and existing building has been designed for an automotive repair use and was previously occupied by an automotive service repair shop. However, the subject property has been vacant since 2014 and has fallen into disrepair. The proposed auto repair facility will repurpose and improve this property so it is consistent with surrounding commercial development. The petitioner proposes to revitalize the vacant building for an auto service repair use so that it blends well with the surrounding commercial uses and structures. The petitioner proposes to repaint the exterior of the building and slightly alter the floor plan, but does not propose to change the size, location, or height of the structure at this time.

PZB Additions or Modifications (if necessary): _____

4. **The proposed Conditional Use is not hazardous or disturbing to existing neighboring uses:**
   Comment: The previous automotive repair use located within this building was not hazardous or disturbing to existing neighboring uses. The footprint and height of the existing building will remain the same. However, the exterior of the building will be repainted to improve its appearance and the installation of landscaping on the site is proposed to improve the overall appearance of the property to neighboring uses. The auto service repair use is consistent with and complementary to other commercial uses in the area.

PZB Additions or Modifications (if necessary): _____

5. **The proposed Conditional Use is to be served adequately by essential public facilities and services, such as highways, streets, police and fire protection, drainage structures, refuse disposal, water and sewer, and schools; or, agencies responsible for establishing the Conditional Use shall provide adequately any such services:**
   Comment: The previous auto service repair use on this site was adequately served by essential public facilities and services. The proposal does include closing off the two curb cuts closest to the Oakton/Wolf intersection to address concerns related to vehicular/pedestrian interactions and cut-throughs. However, the two remaining curb cuts are sufficient to provide access to the site. Staff does not have concerns that the proposed auto service repair use will be adequately served by essential public facilities and services.

PZB Additions or Modifications (if necessary): _____

6. **The proposed Conditional Use does not create excessive additional requirements at public expense for public facilities and services and will not be detrimental to the economic well-being of the entire community:**
   Comment: The previous auto service repair use did not create a burden on public facilities and was not detrimental to the economic well-being of the community. Thus, there are no anticipated concerns for the community as a result of the Conditional Use Permit for a new auto service repair use at this location.

PZB Additions or Modifications (if necessary): _____

7. **The proposed Conditional Use does not involve uses, activities, processes, materials, equipment and conditions of operation that will be detrimental to any persons, property, or the general welfare by reason of excessive production of traffic, noise, smoke fumes, glare or odors:**
   Comment: The proposed auto service repair use is not anticipated to create additional traffic compared to the previous auto service repair use. In addition, all activities will take place inside the building to reduce any noise, smoke fumes, glare, or odors. An eight foot tall, solid fence is required by Section 12-10-9.C for C-3 properties abutting residential districts; a proposed condition of approval requires this fence to be installed. This fence will limit any headlights from spilling onto the adjacent property and provide additional screening.

PZB Additions or Modifications (if necessary): _____

8. **The proposed Conditional Use provides vehicular access to the property designed so that it does not create an interference with traffic on surrounding public thoroughfares:**
   Comment: The proposed auto service repair use will not create an interference with traffic on surrounding public thoroughfares. The proposal will close off two of the existing four access points onto the property—one from Oakton Street and one from Wolf Road—and add landscaping to minimize vehicular interaction points utilized by the previous auto service repair business.

PZB Additions or Modifications (if necessary): _____

9. The proposed Conditional Use does not result in the destruction, loss, or damage of natural, scenic, or historic features of major importance:
Comment: The proposed auto service repair use would not cause the destruction, loss, or damage of any natural, scenic or historic features of major importance. The building and site were already developed for this use. The petitioner plans to add landscaping and screening to improve the aesthetics of the property.

PZB Additions or Modifications (if necessary): _____

10. The proposed Conditional Use complies with all additional regulations in the Zoning Ordinance specific to the Conditional Use requested:
Comment: The proposed auto service repair use meets all other requirements of the Zoning Ordinance for the C-3 General Commercial District.

PZB Additions or Modifications (if necessary): _____

PZB Procedure and Recommended Conditions: Under Section 12-3-4.D (Procedure for Review and Decision for Conditional Uses) of the Zoning Ordinance, the PZB has the authority to *recommend* that the City Council approve, approve subject to conditions, or deny the above-mentioned conditional use permit for a new auto service repair use at 607 E. Oakton Street. City Council has final authority on the proposal.

Consideration of the request should be based on a review of the information presented by the applicant and the findings made above, as specified in Section 12-3-4.E (Standards for Conditional Uses) of the Zoning Ordinance. If the PZB recommends approval of the request, staff recommends the following conditions.

Conditions of Approval:

1. The parking area shall be repaved with a dust-free hard surface and the parking spaces shall be painted on the property to match the approved Site Plan A revised parking striping plan may be approved by the Community and Economic Development Department if the plans meet requirements of Section 12-9-6 and Site Plan Review standards pursuant to Section 12-3-2.B.
2. Minimum five-foot wide perimeter landscape areas shall be installed along the perimeter of the north parking area and the west property line in compliance with Section 12-10-8.B.
3. All planter boxes shall be at least 12-inches high and 12-inches wide and shall be filled and maintained with live plantings. Planter boxes and any other landscaping improvements must be located within the property line.
4. The dumpster shall be screened on all sides by solid wood or masonry fence with a height of not less than six feet but not more than eight feet in compliance with Section 12-10-11.
5. Damaged or inoperable vehicles shall not be parked or stored outside the Subject Property for more than fourteen consecutive days.

6. No vehicles shall be stored within the required parking spaces or drive aisles at any time.
7. Only three service bays shall be allowed for the life of this conditional use.
8. No auto body related activities are permitted unless this conditional use is amended. Sale and display of motor vehicles is not permitted at any time.
9. That the Site/Landscaping Plan drawing shall be updated so as to remove the two curb cuts closest to the East Oakton Street/South Wolf Road intersection, provide the dumpster enclosure location and details, and show the addition of the perimeter landscape areas between the parking area and the public sidewalk. The revised Site/Landscape Plan drawings shall be resubmitted to staff within 60 days of City Council approval.
10. An eight-foot tall solid wood, vinyl, or masonry fence must be installed along the south boundary in compliance with Section 12-10-9.C.
11. Used tires may only be stored inside the building, dumpster enclosure, or permitted accessory structure. A contract with a tire disposal company must be provided to Community and Economic Development staff prior to issuance of a business registration, or an affidavit signed attesting that no used tires will be stored on site.
12. The existing waste oil tank on site shall not be used until it receives proper local, state, or federal approvals.

Attachments:

Attachment 1: Location Map
Attachment 2: Site and Context Photos
Attachment 3: Photos of Existing Conditions
Attachment 4: ALTA/NSPS Land Title Survey
Attachment 5: Petitioner's Reponses to Standards for Conditional Uses
Attachment 6: Project Narrative
Attachment 7: Site Plan
Attachment 8: Floor Plan
Attachment 9: Elevations
Attachment 10: Renderings
Attachment 11: Landscape Plan
Attachment 12: Photometric Plan

Chair Szabo swore in Mykola Tsakhniv (Petitioner), Louis Capozzoli (Attorney), Kevin Kazimer (Architect), and Nick Ivaniv and Roman Tsakhniv (interpreters). Mr. Capozzoli stated that here to discuss 607 East Oakton to open an Auto Repair Service. He stated that the building is staying the same and will be making improvements. He stated that Main West is located behind the property. He stated that the property has been vacant since 2014. They plan to do auto repair and no body work. They plan to make improvements inside the building including office, storage, restrooms and cosmetic repairs. He stated that they meet the parking requirements. Mr. Capozzoli stated that the city wants curb cuts for two driveways into the property. He stated that the back fence is not on their property.

Mr. Kazimer gave a Power Point presentation. He went over the Plat of Survey from 6/27/2023. He showed enlargements form the NW Corner view with the recent IDOT improvements. He displayed pictures of the IDOT improvements from September 2021 and October 2023. He gave examples of Des Plaines Mechanic Shops and their curb cuts. He explained the proposed site plan. He displayed photos of the existing fence. He showed the Des Plaines Zoning Ordinance for Fencing 12-8-2. He explained the proposed Landscape Plan. He displayed the Proposed Aerial Rendering of the site. He displayed a photo of the Horse Trough Planters. He went over the Proposed Photometrics Plan.

Member Fowler stated that lots of people cut through that area. She stated we need to look at the safety of the kids. She also asked if the petitioner contacted Maine West regarding the fence.

Mr. Kazimer stated that they have an alternative to the fence which would have canvas.

Mr. Capozzoli stated that they have not contacted Maine West. But they could put Maine Wests name on the fence and clean it up.

Jonathan Stytz, Senior Planner, explained the fence requirements. He stated that the fence is located on Maine Wests property. He stated that the section of the code they are discussing regarding fencing abutting and that is only when both fences are on the same property. He stated that the fence would be on the petitioner's property. He stated privacy slats are not permitted.

Chair Szabo stated that he does not suggest back to back fences since it could cause litter build-up.

Jonathan Stytz went over the staff report. He explained the petition for a Conditional Use for an Auto Service Repair Use at 607 E. Oakton Street. Mr. Stytz explained the Location Map and Background for 607 E. Oakton Street: This location was a former auto repair use (Elmer's Service) and building has been vacant since 2014. He noted the property consists of one lot of record with total property area of 15,499 SF (0.36 acres) and is in the C-3 General Commercial zoning district.

Mr. Stytz displayed and explained Site Photos. He explained the Site Plan which includes parking spaces, drive isles, landscape areas, etc. He explained the Floor Plan, North (Front) Elevation, West (Side) Elevation, East (Side) Elevation and South (Rear) Elevation. He displayed the Renderings from three angles. He explained the Landscape Plan. He stated staff is concerned about safety because of the cut throughs. He stated that the city has concerns with the two curb cuts.

The PZB Staff has 11 Recommended Conditions which are as follows:

1. The parking area shall be repaved with a dust-free hard surface and the parking spaces shall be painted on the property to match the approved Site Plan. A revised parking striping plan may be approved by the Community and Economic Development Department if the plans meet the requirements of Section 12-9-6 and Site Plan Review standards pursuant to Section 12-3-2.B.
2. Minimum five-foot wide perimeter landscape areas shall be installed along the perimeter of the north parking area and the west property line in compliance with Section 12-10-8.B.
3. All planter boxes shall be at least 12-inches high and 12-inches wide and shall be filled and maintained with live plantings. Planter boxes and any other landscaping improvements must be located within the property line.
4. The dumpster shall be screened on all sides by a solid wood or masonry fence with a height of not less than six feet but not more than eight feet in compliance with Section 12-10-11.
5. Damaged or inoperable vehicles shall not be parked or stored outside the Subject Property for more than fourteen consecutive days. No vehicles shall be stored within the drive aisles at any time.
6. Only three service bays shall be allowed for the life of this conditional use. No auto body related activities are permitted unless this conditional use is amended. Sale and display of motor vehicles is not permitted at any time.
7. No auto body related activities are permitted unless this conditional use is amended. Sale and display of motor vehicles is not permitted at any time.
8. That the Site/Landscaping Plan drawing shall be updated so as to remove the two curb cuts closest to the East Oakton Street/South Wolf Road intersection, provide the dumpster enclosure location and details, and show the addition of the perimeter landscape areas between the parking area and the public sidewalk. The revised Site/Landscape Plan drawings shall be resubmitted to staff within 60 days of City Council approval.
9. An eight-foot tall solid wood, vinyl, or masonry fence must be installed along the south boundary in compliance with Section 12-10-9.C.
10. Used tires may only be stored inside the building, a dumpster, a fully enclosed fence enclosure, or a permitted accessory structure. A contract with a tire disposal company must be provided to Community and Economic Development staff prior to issuance of a business registration, or an affidavit must be signed attesting that no used tires will be stored on site.
11. The existing waste oil tank on site shall not be used until it receives proper local, state, or federal approvals.

He stated that the Planning and Zoning Board is the Recommending Body and has the authority to recommend approval, approval with conditions, or denial for the Conditional Use for Auto Service Repair Use.

Member Weaver stated that the area where they are not sure if it will be gravel or grass is not in the condition.

Mr. Stytz stated that it is not in the conditions of approval. The area is noted because staff need to the area to be identified on what it will be used for since the Site Plan will be part of an ordinance. He also stated that the area cannot be gravel. He stated they can seed the area.

Mr. Saletnik stated that before this goes to council and it should be included in the conditions, the disposition of the unknown area needs to be known. The property owner needs to decide what they will be doing with that area and plan accordingly. And this is since this is next to Maine West- why wouldn't you contact them to find out who owns the fence. He stated that should have been a part of the petitioner's due diligence. He stated that they should be required to contact Maine West to see if they will remove the fence. Then the City should require you to put up the normal 8-foot barrier fence. He also states that the galvanized horse troughs are not right for such a highly visible area. He also asked staff if engineering suggested those curb cuts to be closed. And if they did then another condition would be that the petitioner contacts IDOT and get a decision regarding the curb cuts.

Ryan Johnson, Assistant Community and Economic Development Director, stated that some of the changes shown by the petitioner tonight have not been given to staff. He stated staff would need time to review the changes.

Member Weaver stated that if looks like there are three conditions that need to be resolved for the board's recommendation. Those conditions are the planters, the curb cuts, and the fence.

Mr. Stytz stated that the curb cuts are IDOT property, and the city does not have a decision on what IDOT does. The curb cuts were there and IDOT came and made improvements and did not make a change. He doesn't think we should jump to the conclusion that IDOT left the curb cuts because they didn't have a problem with it. He believes the City should get something from IDOT to give a decision on what they think of the curb cuts. He believes if the condition for the two curb cuts it taken away that they should have something from IDOT showing approval.

Ryan Johnson stated that if IDOT was making improvements to a site, it is hard for the City Engineering department to decide what a future use for a private property would be. And for some of the examples from the petitioner, there are legal non-conforming curb cuts that were done many years ago that were allowed.

Member Saletnik stated that he believes there should be two conditions before it goes to City Council. He states that we need to get a disposition from Public Works and Engineering of what the status of the curb cuts would be and get disposition from Maine West on the fence.

Member Weaver stated that if they wait to have the issues addressed, then the petitioner would lose a construction season. He suggested a motion with changes to Conditions 3,8 and 11.

A motion was made by Board Member Weaver, seconded by Board Member Hofherr to recommend approval to the City Council of the C-3 Commercial District Conditional Use with the staffs 11 condition of approval subject to changes to in Numbers 3, 8 and 11. The Planning and Zoning Board suggested changes are as follows.

1. The parking area shall be repaved with a dust-free hard surface and the parking spaces shall be painted on the property to match the approved Site Plan. A revised parking striping

plan may be approved by the Community and Economic Development Department if the plans meet requirements of Section 12-9-6 and Site Plan Review standards pursuant to Section 12-3-2.B.

2. Minimum five-foot wide perimeter landscape areas shall be installed along the perimeter of the north parking area and the west property line in compliance with Section 12-10-8.B.
3. All planter boxes shall be at least 12 inches high and 12 inches wide and shall be filled and maintained with live plantings. Planter boxes and any other landscaping improvements must be located within the property line, unless IDOT allows placement on the aprons. The planters shall be of precast concrete or of masonry construction.
4. The dumpster shall be screened on all sides by a solid wood or masonry fence with a height of not less than six feet but not more than eight feet in compliance with Section 12-10-11.
5. Damaged or inoperable vehicles shall not be parked or stored outside the Subject Property for more than fourteen consecutive days. No vehicles shall be stored within the drive aisles at any time.
6. Only three service bays shall be allowed for the life of this conditional use. No auto body related activities are permitted unless this conditional use is amended. Sale and display of motor vehicles is not permitted at any time.
7. No auto body related activities are permitted unless this conditional use is amended. Sale and display of motor vehicles is not permitted at any time.
8. ~~That~~ The Site/Landscaping Plan drawing shall be updated so as to ~~remove the two curb cuts closest to the East Oakton Street/South Wolf Road intersection,~~ provide the dumpster enclosure location and details and show the addition of the perimeter landscape areas between the parking area and the public sidewalk, unless and until IDOT allows placement of the planters on the aprons. The revised Site/Landscape Plan drawings shall be resubmitted to staff within 60 days of City Council approval.
9. An eight-foot tall solid wood, vinyl, or masonry fence must be installed along the south boundary in compliance with Section 12-10-9.C.
10. Used tires may only be stored inside the building, a dumpster, a fully enclosed fence enclosure, or a permitted accessory structure. A contract with a tire disposal company must be provided to Community and Economic Development staff prior to issuance of a business registration, or an affidavit must be signed attesting that no used tires will be stored on site.
11. The existing waste oil tank on site shall not be used until it receives ~~proper~~ applicable local, state, or federal approvals.

AYES: **Weaver, Hofherr, Fowler, Saletnik, Szabo**

NAYES: **None**

ABSTAIN: **None**

*****MOTION CARRIES UNANIMOUSLY *****

ADJOURNMENT

The next scheduled Planning & Zoning Board meeting is Tuesday October 24, 2022.

Chairman Szabo adjourned the meeting by voice vote at 8:22 p.m.

Sincerely,
Margie Mosele, Executive Assistant/Recording Secretary

cc: City Officials, Aldermen, Planning & Zoning Board, Petitioners

COMMUNITY AND ECONOMIC
DEVELOPMENT DEPARTMENT
1420 Miner Street
Des Plaines, IL 60016
P: 847.391.5380
desplaines.org

MEMORANDUM

Date: October 20, 2023

To: Planning and Zoning Board (PZB)

From: Samantha Redman, Senior Planner SCR

Cc: Ryan Johnson, Assistant Director of Community and Economic Development RJ

Subject: Consideration of Map Amendment, Preliminary Planned Unit Development (PUD), and Tentative Plat of Subdivision at 900 Graceland Avenue and 1217 Thacker Street

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Issue: The petitioner is requesting the following under the Zoning Ordinance for the properties at 900 Graceland Avenue and 1217 Thacker Street: (i) a Map Amendment to rezone from M-2 General Manufacturing to R-3 Townhouse Residential District; (ii) a Preliminary PUD, with exceptions for minimum front yard and minimum lot area, to allow a 50-unit townhouse development; and (iii) a Tentative Plat of Subdivision to consolidate eight lots into two lots.

Petitioner:	Luz and Associates #1, LLC, 2030 West Wabansia Ave., Chicago, IL 60611
Owner:	Contour Saws, Inc., 100 Lakeview Parkway, Ste. 100, Vernon Hills, IL 60061
Case Number:	23-039-MAP-PUD-TSUB
PINs:	09-20-105-016-0000, 09-20-105-017-0000, 09-20-105-020-0000, 09-20-105-021-0000, 09-20-105-022-0000, 09-20-105-023-0000, 09-20-105-024-0000, 09-20-105-045-0000
Ward:	#3, Alderman Sean Oskerka
Existing Zoning:	M-2, General Manufacturing
Existing Land Use:	Unoccupied manufacturing building
Surrounding Zoning:	North: M-1, Light Manufacturing and R-1, Single Family Residential South: R-4, Central Core Residential and C-3, General Commercial East: R-1, Single Family Residential and R-4, Central Core Residential West: Railroad and M-1, Light Manufacturing

Surrounding Land Use:
North: Manufacturing building and single-family detached residences
South: Multi-family residential buildings and vacant parking lot (proposed multi-family residential on this property)
East: Railroad and manufacturing buildings
West: Single-family detached and multi-family residential buildings

Street Classification: Graceland Avenue is classified as a major road and under the ownership of the Illinois Department of Transportation (IDOT); Thacker Street is classified as a secondary road and is under the ownership of the City of Des Plaines.

Comprehensive Plan: Industrial is the recommended use for this property.

Property/Zoning History: The subject property was previously the site of Contour Saws, a manufacturing facility operating from the 1960s to 2020. The property is currently improved with an approximately 105,000 square foot manufacturing facility, consisting of several joined buildings to create one large two-story building. The remainder of the property consists of surface parking.

Sanborn maps from the 1920s indicate this site was previously a subdivision with half acre tracts of land with single-family detached residences.[1] In the early 1960s the Contour Saws facility began operating at this site, using existing buildings and constructing additional buildings. Functionally, the facility is one joined building, including an original residence from the 1920s subdivision previously used for the office of Contour Saws. Zoning between the late 1920s and present day has shifted from residential to commercial to manufacturing on this property. The property is currently owned by Contour Saws and is unoccupied.

On September 20, 2022, a No Further Remediation (NFR) letter was issued for the property from the Illinois Environmental Protection Agency (IEPA). An NFR letter signifies that, while the site may have previously contained contaminants that exceeded state or federal limits, the IEPA does not deem this site to constitute a significant risk of harm. The NFR letter was pursued in response to a Phase II environmental review completed in 2016 indicating presence of contaminants in soil and groundwater, associated with the previous use at this property.

After review of a Remedial Action Plan prepared in 2022, an NFR Letter was issued by IEPA stating the property is approved for residential, commercial, or industrial land use. However, any NFR letter typically specifies actions necessary for safe use of the property. For this property, the controls include the development of a safety plan for construction of the building to limit worker exposure, and the necessary asphalt/concrete barriers and types of foundation necessary for buildings. All of the controls must be maintained to maintain the certification of the NFR; if any violation of the controls are observed, the letter will be voided and enforcement actions would be implemented by the IEPA. The petitioner is aware of the NFR Letter and designed the project to be compliant with all the controls required to be in place.

[1] 1924 Sanborn Map of Des Plaines

Project Description:

Overview

The petitioner is Luz and Associates, which is the contract purchaser of the subject property, along with the Contour Saws parking lot on the other side of Graceland. They are proposing to build a 50-unit townhouse development and a private, publicly accessible park on the property.

Proposal

The proposal includes the removal of all existing buildings and structures to redevelop the subject property into a 50-unit townhouse Planned Unit Development (PUD). The proposed development consists of eight separate three story townhouse buildings with various numbers of units depending on the building. A publicly accessible, privately owned park is proposed at the north corner of the development with landscaped areas throughout the development. Refer to Architectural Plan attachment. The anticipated unit mix will be 33 three-bedrooms and 17 two-bedrooms, with a unit size ranging from approximately 2,200 to 2,500 square feet each. Refer to Floor Plan attachment. Each unit will have a two-car, attached garage and thirteen surface parking spaces are provided for guests on the site.

MAP AMENDMENT

Request Description:

Zoning Map Amendment Overview

The purpose of a zoning map amendment is to determine whether an existing zoning district is suitable for a location and, if not, which zoning district would be more suitable, given the context of the neighborhood, city goals, and local, state, and national development trends. Although a specific project can be considered alongside any zoning application, zoning change deliberation often looks at a property at a larger scale within the neighborhood and city.

A Site Plan Review, as required by Section 12-3-2, was performed for the conceptual project at this site. The Site Plan Review contributes to the overall assessment of a zoning map amendment, demonstrating the feasibility of a specific project with this zoning. Refer to the Site Plan Review section of this report and associated attachments.

M-2 Zoning and Suitability of the Site for Proposed R-3 Zoning

The M-2, General Manufacturing zoning district is intended to accommodate a diversity of industrial uses. Out of all of the industrial districts, M-2 permits the largest number of different uses, allowing for 23 uses permitted by right (meaning no zoning entitlement process) and 24 conditional uses. A broad variety of uses are allowed by right, including light and heavy manufacturing, warehouses or distribution facilities, or food processing establishments.

Few available properties exist in Des Plaines with the range of transit, recreational, and commercial opportunities available within walking distance, making this site an ideal location for additional residential versus commercial or manufacturing development. Within a half-mile of the property (an approximate 8-15 minute walk for the average person[2]), the following services

[2] Bohannon, R. W. (1997). Comfortable and maximum walking speeds of adults aged 20-79 years: reference values and determinants. *Age and Ageing*, page 17.

are available. Refer to Amenities and Services Map attachment for further details.

Service	
Transit	Des Plaines Metra Station platform; Pace Bus Stops for Lines 226, 230, and 250, and the PULSE Dempster Line
Downtown Commercial Area	Restaurants, grocery store, retail/personal services including dentist, optometrist, urgent care, physical therapist, private gym, and salons
Schools (private and public)	Central Elementary School, Willows Academy, Little Bulgarian School, Islamic City Center of Des Plaines Academy
Parks	Centennial Park, Central Park, Paroubeck Park, Potowatomie Park
Public Buildings	Library, City Hall

A change to the zoning would be necessary to allow residential uses on this property. No residential uses are permitted within the M-2 zoning district. An analysis of the various options for residential zoning districts is necessary to determine what is best suited for this site. Below is a table of residential zoning districts and the residential uses permitted within them.

Residential Districts Use Matrix				
Use	***R-1***	***R-2***	***R-3***	***R-4***
Single Family Detached	P	C*	C*	C*
Townhouse	Not permitted	Not permitted	P	P
Two-family (duplex)	Not permitted	P	Not permitted	Not permitted
Multi-Family	Not permitted	Not permitted	P	P

*Note: Only applies to single-family detached dwellings that were lawfully constructed prior to August 17, 2020 and are located in a zoning district other than R-1.

The R-1 and R-2 zoning districts would restrict the density of residential units at the property, limiting the development potential. As the name suggests, the R-1, Single Family Residential district limits the number of dwelling units to one dwelling unit per parcel. The R-2, Two-Family Residential district similarly limits the number of dwellings to two units per parcel. To allow for more than one or two residences on this 3.13-acre property, the property would need to be subdivided. If the property were subdivided to meet the R-1 or R-2 bulk standards, it is unlikely the property could produce 50 units, even with a planned unit development. Comparatively, a townhouse or multi-family development would supply a greater number of units in the same amount of space, creating a more efficient and economical option for this location. For the contemplated project, the R-3 zoning district was selected by the petitioner because this zoning best fit the intended scale and purpose of the development.

Demographic Trends and Accommodating an Aging Population

The existing housing stock throughout the city is predominantly single-family residential and the Comprehensive Plan states it is a goal to maintain this stock of high-quality single family residential property within the city. However, the detached single family housing type is an increasingly unaffordable product for many existing and future residents. In comparison, townhouses provide additional housing stock at a more financially attainable scale due to the smaller size and reduced maintenance cost.

An important goal of 2019 Comprehensive Plan is providing avenues to allow residents to age-in-place and improve accessibility. As of 2015, the percentage of Des Plaines residents 50 or older was 40.2%, compared to the regional average of 31.4%.[3] According to the U.S. Census Bureau, this percentage is likely to grow, with one in five Americans at retirement age by 2030.[4] Households approaching retirement are frequently interested in downsizing to limit maintenance costs and reduce monthly housing costs to meet limitations of fixed incomes. Supplying a diverse housing stock in this area provides the option for seniors to continue living within the city. A residential development in this location would be close enough to facilities and services for an aging population to independently complete activities of daily living, with many amenities available within walking or transit distance.

With these considerations regarding the location of the property near multi-family properties and zoning, the proximity to numerous private and public services, and the goals of the Comprehensive Plan focused on providing diversity of housing stock and providing accessible and attainable options for residents, senior or otherwise, the R-3 zoning district is a suitable fit for this property.

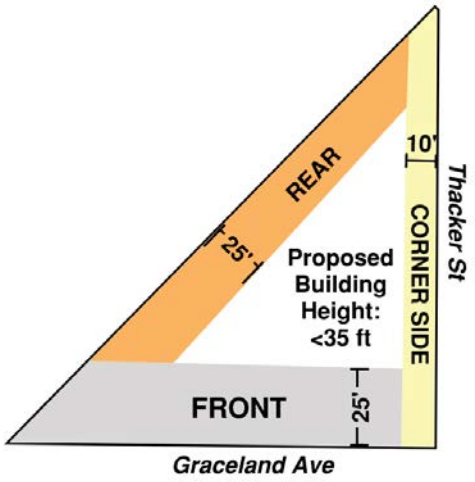
[3] Des Plaines 2019 Comprehensive Plan, Page 32
https://www.desplaines.org/home/showpublisheddocument/162/637612522934400000

[4] U.S. Census Bureau (2018) *Older People Projected to Outnumber Children for First Time in U.S. History,*
https://www.census.gov/newsroom/press-releases/2018/cb18-41-population-projections.html

Site Plan Review

Proposed Project Overview
The petitioner proposes 50 townhouse units, including 33 three-bedroom units and 17 two-bedroom units and a publicly accessible, private park space. The proposed development is one of two for the former Contour Saws properties. The parking lot of the former Contour Saws facility is proposed to be a 56-unit multifamily development; a petition to change the zoning from C-3 to R-4 was recommended for approval by the Planning and Zoning Board (PZB) on July 25, 2023.

This type of development is a permitted use in the proposed R-3 Townhouse, with a PUD. The below diagram illustrates staff's interpretation of where the required yards are located for this property, as noted in Section 12-7-2 and defined in Section 12-13-3.



R-3 -Central Core Residential District Bulk Standards		
Bulk Controls	***Required***	***Proposed***
Maximum height	45 ft.	34 ft.
Minimum front yard	25 ft.	12 ft.[1]
Minimum corner side	10 ft.	10 ft.
Minimum rear yard	25 ft.	25 ft.
Minimum lot width	55 ft.	516.72 ft
Minimum lot area	2800 sq. ft. per dwelling unit * 50 units = 140,000 sq. ft.	130,406 sq. ft.[2]

[1] Exception request with PUD to reduce required front yard.
[2] Exception request with PUD to reduce minimum lot area. Publicly accessible private park lot excluded from total lot area.

Site Plan Review Standards

Pursuant to Section 12-3-7.D.2 of the Zoning Ordinance, a Site Plan Review is required for all map amendment requests to assess how the request meets the characteristics identified in Section 12-3-2, which are listed below along with staff's assessment of each in relation to the current Site Plan provided by the petitioner, located in the Site Plan attachment.

Site Plan Review	
Item	***Analysis (based on Proposal)***
The arrangement of structures on the site	• Places buildings along the street frontage, rather than garages or surface parking. The design presents better cohesion with the buildings surrounding it by placing the building at approximately the same distance from the property line as the existing building and the adjacent existing and proposed multi-family buildings. The proximity of the building to the street also provides better surveillance within the neighborhood, with windows facing the residential neighborhood and providing additional "eyes on the street." • The design of each townhouse includes a two car, attached garage, providing covered parking in a more compact manner than surface parking. Guest spaces are located in the center of the property. The site layout minimizes view of the parking area and interior roadway, with the buildings as the primary focus along the street. • A subdivision is requested as part of this request. Improvements deemed necessary in the area adjacent to a subdivision can be required pursuant to Section 13-3-2.L. The improvements required to serve this development are discussed in the Public Works and Engineering (PWE) Department Memo attachment. Improvements are required prior to completion of the development or within 2 years of the recorded subdivision. A summary of the improvements includes replacement of a water main in a portion of Graceland Avenue, construction of pedestrian bump out and flashing pedestrian signage at the intersection of Thacker and Laurel, replacement of a streetlight on Graceland Avenue, and grinding and resurfacing Thacker Street as well as replacement of any damaged public sidewalk.

The arrangement of open space and landscape improvements	• Landscaping is provided around and within the development, meeting zoning requirements. In addition, a park space is proposed, as noted on the plans and the Park Concept Plan attachment. Refer to Landscape Plan attachment for details on landscaping. • Parkway trees and landscaping proposed along Graceland Avenue, where none currently exist. • A solid wood fence is proposed along the railroad track to screen the railroad from the development. A condition of approval requires an open fence at the northwest corner of the park to alleviate any sight obstruction between the railroad and Thacker Street.
The adequacy of the proposed circulation system on the site	• Several driveways will be closed along Graceland Avenue, with one driveway entrance/exit proposed on Graceland Avenue and one along Thacker Street. The existing driveway along Thacker is not aligned with Laurel Avenue. The proposed plan aligns the driveway to this street. The closure of these extra driveways and replacement with a parkway and walkway improves safety and comfort of pedestrians along Graceland and Thacker. • Pedestrian circulation is provided by numerous walkways from Graceland and Thacker from each unit to the existing public sidewalk or to sidewalks withing the development. The proposed plan includes bump outs at the intersection of Thacker and Laurel to improve pedestrian safety to and from the publicly accessible park and the adjacent neighborhood. • Vehicular circulation is provided by interior, private roads accessed from two driveways, one along Graceland Avenue and one along Thacker Street. The roads are 26 feet in width, exceeding the maximum required width (22 ft) for a two-way drive aisle per Section 12-9-6. • Parking meets the off-street parking requirements of Section 12-9-7, providing two spaces per residential unit (50 garage spaces) and one space per four unit (13 guest spaces, in surface parking area) which is the minimum required amount.

	• It is anticipated, as discussed in the petitioner's response to standards and the provided traffic study, that the proximity of the site to numerous transit options and a bike route along Thacker St, will reduce dependence on automobiles for this project.
The location, design, and screening of proposed off-street parking areas	• Attached garages are proposed with each unit, facing interior, private roads within the development rather than connecting to the street. The proposed site is situated in such a way that guest parking is located in the middle and has minimal visibility from Graceland Avenue and Thacker Street. Landscaping is provided along driveways.
The adequacy of the proposed landscaping design on the site	• All required landscaping in terms of foundation landscaping, parkway landscaping, and overall site landscaping are provided (pursuant to Sections 12-10-6, 12-10-7 and 12-10-10). Landscaping, either turf, bushes or trees are provided throughout the development. Refer to Landscape Plan. • The park along Thacker Street is proposed to be a publicly accessible park space, providing additional landscaping and recreational opportunities.
The design, location, and installation of proposed site illumination	• Photometric plan demonstrates conformance with Section 12-12-10, with no more than 0.2 foot candles spilling over the property line in any location, well within the limits of the zoning ordinance. • The parking lot is properly illuminated, with at least 0.1 footcandles in any parking area, meeting requirements of Section 12-9-6.G. A condition of approval is to provide additional illumination at the driveways entering the development on Graceland Avenue and Thacker Street.
The correlation of the proposed site plan with adopted land use policies, goals, and objectives of the comp. plan	• Does not fit the manufacturing use illustrated by the Comprehensive Plan; however, the 2019 plan was written under the assumption that the Contour Saw facility would continue operating. • The proposed plan supports the following goals (refer to M-2 Zoning and Suitability of the Site for Proposed R-3 Zoning section of this report for further details):

	○ Goal 4.1. Ensure the City has several housing options to fit diverse needs. ○ Goal 4.3 Provide new housing at different price points • In addition to housing goals, the proposed development meets economic goals of the city by providing additional property tax revenue compared to the existing use of the site. Refer to the Tax Projections attachment. • The creation of a separate parcel for a privately owned, publicly accessible park provides additional recreational opportunities, which is supported by the Comprehensive Plan.

Summary of Public Outreach
In an effort to improve community engagement and transparency surrounding new, large developments within Des Plaines, the City provided numerous opportunities for residents to review the proposal and provide input. To provide regular project updates, a webpage on the city website was created: desplaines.org/contourplace. On June 6, 2023, the Planning and Zoning Board hosted a public workshop to provide the developer, board, and the public an opportunity to review plans and provide input into the proposed development at this location and the former Contour Saws facility to the north of this property. During the July 25, 2023 PZB meeting, the petitioner provided an updated site plan depicting townhouses instead of multi-family residential buildings. The project webpage was launched prior to the PZB workshop to share details about the proposed projects and includes a public input form to continuously gather community comments. Refer to Public Comment attachment for all public comments.

PLANNED UNIT DEVELOPMENT (PUD)

Request Description:

Overview
The proposed development includes eight separate "principal buildings." Section 12-13-3 of the Zoning Ordinance defines a "principal building" as "a nonaccessory building in which a principal use of the lot, on which it is located, is conducted." Pursuant to Section 12-7-1.A, not more than one principal building or structure can be located on a zoning lot, except in certain cases. In this circumstance, a planned development, as defined below, is the only case suitable for the proposal.

> "A development occurring on a parcel under single ownership or unified control which is developed as a unit and includes two (2) or more principal buildings or uses and is processed under the planned development procedure of this title" (Section 12-13-3).

The purpose of a PUD is to promote a unified development by providing flexibility in development standards to accommodate site conditions and encourage innovative use of land. Certain characteristics are required by Section 12-3-5.A of the Zoning Ordinance, which are listed below along with staff's assessment of each in relation to the attached Preliminary PUD Plat provided by the petitioner.

Preliminary PUD Plat Review	
Item	***Analysis (based on Proposal)***
A maximum choice in the types of environment available to the public by allowing a development that would not be possible under the strict application of the other sections of this title	Allows for construction of a development on an irregularly shaped parcel and provides an additional housing option with increased density and multiple principal buildings that is not permitted without a PUD in the Zoning Ordinance.
Permanent preservation of common open space and recreation areas and facilities	Creates a publicly accessible, private park where none exist currently. Landscaping and open space is provided around and between residential units and the private road as well as along Graceland Avenue, where landscaping was limited or non-existent before.
A pattern of development to preserve natural vegetation, topographic and geologic features	No significant natural vegetation, topographic or geologic features exist on site that would be beneficial to maintain. However, allowing for additional buildings breaks up the site so landscaping can be provided between buildings and sufficient area is available for a park and open space.
A creative approach to the use of land and related physical facilities that results in better development and design and the construction of aesthetic amenities	Building design/layout provides a defined separation between paved areas and common space; provides adequate screening between these areas and neighboring lots.
An efficient use of the land resulting in more economic networks of utilities, streets and other facilities	Reduces curb cuts onto both streets and ties into existing utilities and facilities. The traffic study provided by the petitioner (refer to attachments) did not indicate any substantial impact to traffic in the area compared to the manufacturing use previously operating in this location for decades.
A land use which promotes the public health, safety, and	Transforms a presently vacant site with dilapidating manufacturing structures to

general welfare	create a use that includes more visual appeal, additional landscaping and recreational opportunities, and adds additional residential housing stock in a suitable area.

Prerequisites: Location, Ownership, and Size
PUDs are authorized in all zoning districts in the City subject to the regulations in Section 12-3-5 of the Zoning Ordinance and are required to be under single ownership and/or unified control. While the subject property is currently not owned by the petitioner, the petitioner does intend to take ownership of the property upon approval of the requests in this application. Because the development will involve rental units with one property management and maintenance entity, a Homeowner's Association (HOA) is not required at this time; however, a condition of approval states if the development is subdivided into separate, fee-simple townhouse units, an HOA must be established to manage and maintain the proposed PUD.

PUD Bulk Exceptions
As identified in the R-3 Bulk Regulations table, the proposal does not meet the minimum front yard size and does not meet the minimum lot area, requiring a PUD exception from Section 12-3-5.C.2 (Perimeter Yards) and Section 12-3-5.C. The exceptions allow for a development that efficiently uses the irregularly shaped parcel in a way that would not be possible under the strict application of the code.

Parking Requirement
Pursuant to Section 12-9-7, a townhouse (single-family attached) residential use requires a minimum of two off-street parking spaces per dwelling unit plus one common guest space for every four dwelling units. The proposed 50-unit PUD requires a minimum of 100 off-street parking spaces and 13 common guest spaces. The attached PUD Site Plan indicates two covered off-street garage spaces for each unit and guest parking provided by thirteen standard spaces, including one accessible space in an interior parking area of the development.

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TENTATIVE PLAT OF SUBDIVISION

Request Description:

Overview
The proposal includes a consolidation of the property from eight lots to two lots One lot will be 130,406 square feet, proposed to be developed with the townhouses and associated structures. A second lot, 6,182 square feet, is proposed to be a publicly accessible, private park space. The attached Tentative Plat of Subdivision, titled 1217 Thacker Street Consolidation, shows the location and boundaries of each lot.

Easements
The Tentative Plat shows both existing and proposed easements. Proposed easements include storm sewer, watermain, sanitary sewer, and a general public utility and drainage easement, depicting both drainage on the site and the

proposed unground vault to accommodate stormwater.

Subdivision Improvements
The Department of Public Works and Engineering (PWE) has provided comments (attached) based on the submittal. The memo states the following is required with this subdivision, to be finalized at the final plat of subdivision stage:

1. Grind and re-surface eastbound lane on Thacker Street.

2. Add 8" water main to replace 4" water main along a portion of Graceland Avenue.

3. Add pedestrian crosswalk crossing on Thacker Street including a bump-out, striping, and Rectangular Rapid Flashing Beacons (RRFB).

4. The sole streetlight along Graceland Avenue must be replaced and electrical conduit undergrounded. Petitioner will work with staff and ComEd to coordinate this replacement.

Section 13-3-2 of the Subdivision Ordinance discusses required improvements for subdivided properties and timelines for the improvements. Improvements are approved by the City Council during the final plat of subdivision process and financial guarantees for improvements are included within the resolution.

In addition, Section 13-4-2 of the Subdivision Ordinance discusses dedication of park lands and/or fees in lieu for subdivisions. The publicly accessible, private park will count for a portion of the required park land dedication and any remainder will require a fee in lieu, to be calculated at the time of final plat of subdivision, approved by the Park District, and included with the final approved City Council resolution to subdivide the property.

Note the petitioner's request is for a Tentative Plat only at this time. The steps for Final Plat are articulated in Sections 13-2-4 through 13-2-8 of the Subdivision Regulations. The Final Plat of Subdivision will occur at a later date and will be a concurrent process with the Final PUD plat. All necessary dedications, fees, and necessary improvements will be outlined in the final subdivision resolution.

Standards for Zoning Map Amendment:

The following is a discussion of standards for zoning map amendments from Section 12-3-7.E of the Zoning Ordinance. Rationale for how well the proposal addresses the standards is provided below and in the attached petitioner responses to standards. The Board may use the provided responses as written as its rationale, modify, or adopt its own.

1. **Whether the proposed amendment is consistent with the goals, objectives, and policies of the comprehensive plan, as adopted and amended from time to time by the City Council;**

   The Comprehensive Plan was written in 2019 when the Contour Saws facility was still operating. Due to the manufacturing facility's longstanding operations in Des Plaines, the Comprehensive Plan did not envision this area to be used for anything else. However, the proposed amendment and development would meet several goals from the Housing chapter of the Comprehensive Plan, including Goal 4.1. Ensure the City has several housing options to fit diverse needs and Goal 4.3 Provide new housing at different price points. to "Demographic Trends and Accommodating an Aging Population" and "M-2 Zoning and Suitability of the Site for Proposed R-3 Zoning" sections of this report for further details. In addition to housing goals, the proposed development meets economic goals of the city by providing additional property tax revenue compared to the existing use of the site. Refer to the Tax Projections attachment.

PZB Modifications (if any): _____

_____.

2. **Whether the proposed amendment is compatible with current conditions and the overall character of existing development;**

   The subject property is adjacent to R-4 zoning to the northeast and south and is close to several multifamily developments. The area is in close proximity to numerous services within walking, biking or transit distance. Refer to Amenities and Services Map attachment. Any proposed development would need to meet all building material and design requirements outlined in Section 12-3-11 – Building Design Review, including requirements for face brick, which will be similar in material to the many adjacent single family and multi-family residential buildings in this neighborhood.

PZB Modifications (if any): _____

_____.

3. **Whether the proposed amendment is appropriate considering the adequacy of public facilities and services available to this subject property;**

   An engineering and utility plan was prepared with this application. Based on the provided site plan, City engineering staff did not indicate any concerns with the adequacy of public facilities or services being available to meet the needs of this proposed development.

   A traffic impact study was provided with this application to assess impacts of the proposed development (Refer to Traffic Study attachment). The study indicated the traffic generated by this use would not create a significant impact on the surrounding street network.

   It is important to note the previous use of this property was a manufacturing use, including a parking lot on site with a large loading/unloading dock into the facility, approximately 25 parking spaces on site, and over one hundred spaces in a surface parking lot across the street (Site B of this development), while the proposed residential development provides 90 spaces within attached garages on the townhouses and 16

guest spaces. At minimum, this development brings less potential for vehicles to be travelling in and out of the site at peak hours versus large trucks delivering or picking up in the loading dock and over one hundred employees of a manufacturing facility. Parking meets the off-street parking requirements of Section 12-9-7, providing 106 spaces which is in excess of the minimum required amount.

PZB Modifications (if any): _____

_____.

4. **Whether the proposed amendment will have an adverse effect on the value of properties throughout the jurisdiction; and**

   The proposed map amendment would allow for residential uses on a property that has been zoned manufacturing within a residential area for decades and operated as a more intensive use in the past. A building that provides additional residential options for the area and follows the Building Design Standards outlined in the Zoning Ordinance creates a more appealing urban design for the neighborhood versus a large manufacturing facility.

   PZB Modifications (if any): _____

   _____.

5. **Whether the proposed amendment reflects responsible standards for development and growth.**

   The current use of this property is a vacant manufacturing facility that is unlikely to be filled with another similar manufacturing business. Providing a residential use for the property, particularly a use that capitalizes on the close proximity to downtown Des Plaines and the various amenities associated with the area, would present a more efficient and effective way to use this property. As discussed in the Demographic Trends and Accommodating an Aging Population section, the City needs to promote opportunities that increase housing stock for a diversity of populations in the area, both in the short term and long term. Amending the zoning district for this property, regardless of the proposed project, provides an additional opportunity to construct a townhouse development, a transitional density development between single family residential and multi-family residential buildings and with the necessary services to support this type of use.

PZB Modifications (if any): _____

_____.

PUD Findings of Fact:

The following is a discussion of standards for PUDs from Section 12-3-5 of the Zoning Ordinance. Rationale for how well the proposal addresses the standards is provided below and in the attached petitioner responses to standards. The Board may use the provided responses as written as its rationale, modify, or adopt its own.

1. **The extent to which the Proposed Plan is or is not consistent with the stated purpose of the PUD regulations in Section 12-3-5.A of this title:**

   The proposed townhouse PUD generally aligns with the stated purposes of PUDs as analyzed in the Preliminary PUD Plat Review table above with a proposed multiple principal building development, designated open spaces and landscaping and separate vehicular and pedestrian areas, all of which foster public health, safety, and general welfare for residents. Refer to Petitioner's Response to Standards for a full analysis of how the development meets each standard.

PZB Additions or Modifications (if necessary): _____

_____.

2. **The extent to which the proposed plan meets the prerequisites and standards of the planned unit development regulations:**

The proposal meets the ownership/unified control and size requirements in the Zoning Ordinance.

PZB Additions or Modifications (if necessary): _____

_____.

3. **The extent to which the proposed plan departs from the applicable zoning and subdivision regulations otherwise applicable to the subject property, including, but not limited to the density, dimension, area, bulk, and use and the reasons why such departures are or are not deemed to be in the public interest:**

The proposal meets the majority of the bulk regulations in Section 12-7-2.J of the Zoning Ordinance (See Site Plan Review section above), but requires exceptions from the required front yard and the 2,800-square-foot minimum lot area requirement. The proposed density is a moderate density compared to the surrounding single-family and multi-family developments in the area, providing additional housing stock in the City. The front yard building setback deficiency is located on the south side of the lot, which faces existing and proposed multi-family residential developments with an R-4 zoning and has a smaller required front yard than the R-3 zoning district of this proposed project. Proposed landscaping along the parkway and around the perimeter of the proposed townhouse PUD provides a buffer between this property and any adjacent uses. In addition, the proposed development improves the current conditions of the subject property.

PZB Additions or Modifications (if necessary): _____

_____.

4. **The extent to which the physical design of the proposed development does or does not make adequate provision for public services, provide adequate control of vehicular traffic, provide for, protect open space, and further the amenities of light and air, recreation and visual enjoyment:**

The proposed design of the townhouse PUD and layout of residential buildings allows for recreational space on property, reduces the number of curb cuts, concentrates vehicular traffic in the center of the development, and encourages pedestrian activity on Graceland Avenue and Thacker Street by extending walkways from each townhouse to the public sidewalk.

Refer to the Traffic Study for details on anticipated traffic impact. The development is not anticipated to generate traffic that exceeds the amount of traffic previously generated for the industrial development at this property. In addition, no changes are proposed to the adjacent railway and at grade crossings. Questions were raised from members of the community about the proximity of the development to the rail line. The development is not proposed to be any closer than the existing development to the railroad track, and much of the area adjacent to the track is proposed to be open space. There are two at grade crossings adjacent to the property. Per documents from the Federal Railroad Administration crossing inventory, 22 trains a day (on average) pass along the rail line adjacent to the property. Accident history at these crossing indicates a total of five accidents associated with the crossing have occurred since 1975, and no accident

reports have been filed within the last decade[5].

PZB Additions or Modifications (if necessary): _____

_____.

5. **The extent to which the relationship and compatibility of the proposed development is beneficial or adverse to adjacent properties and neighborhood:**

The proposal creates a moderate density residential development compared to the surrounding single-family and multi-family developments in the area, creating a transitional density on this property and providing additional housing stock in the City. The proposed development redevelops an industrial property--that no longer fits within this residential neighborhood and is near the commercial areas in downtown Des Plaines--and provides transit options to support the economic vitality of the area.

PZB Additions or Modifications (if necessary): _____

_____.

6. **The extent to which the proposed plan is not desirable to physical development, tax base, and economic well-being of the entire community:**

The proposal would provide additional housing stock that helps to increase the tax base for the City and improve the economic well-being of Des Plaines. It would also provide extra economic benefit through utility and public service fees that are currently not eligible for the subject property at this time. Refer to the Real Property Tax Base Impact attachment provided by the petitioner.

PZB Additions or Modifications (if necessary): _____

_____.

7. **The extent to which the proposed plan is in conformity with the recommendations of the 2019 Comprehensive Plan:**

The proposal increases housing stock and creates additional housing options for residents, which aligns with the housing goals and objectives of the Comprehensive Plan. It also redevelops an unoccupied industrial property in an area close to commercial and transit opportunities, which is promoted by the Comprehensive Plan.

PZB Additions or Modifications (if necessary): _____

_____.

[5] Federal Railroad Administration Office of Safety Analysis – Crossing Inventory and Accident Reports for Crossings 689657J and 689658R - Revision Date 07/05/2023; accessed from https://safetydata.fra.dot.gov/OfficeofSafety/PublicSite/Crossing/Crossing.aspx

PZB Procedure and Recommended Conditions:
Under Section 13-2-3 (Planning and Zoning Board's Procedure) of the Subdivision Regulations, the PZB has the final authority to approve, approve with conditions, or deny the Tentative Plat of Subdivision request at 900 Graceland Avenue and 1217 Thacker Street.

Under Section 12-3-5.D.2.c (Procedure for Review and Decision for PUDs) and Section 12-3-7.D (Procedure for Review and Decision for Amendments) of the Zoning Ordinance, the PZB has the authority to *recommend* that the City Council approve, approve with modifications, or deny the Map Amendment and Tentative Planned Unit Development (PUD) at 900 Graceland Avenue and 1217 Thacker Street. The City Council has final authority on these requests.

The PZB should take the following motions. The zoning motions can be combined or taken individually:

Zoning Recommendations to City Council

- A motion pursuant to Section 12-3-7.E of the Zoning Ordinance to *recommend* to City Council to approve, approve with modifications, or deny the proposed Map Amendment;
- A motion pursuant to Section 12-3-5.E of the Zoning Ordinance to *recommend* to City Council to approve, approve with modifications, or deny the request for a Conditional Use for a Preliminary PUD, with exceptions for minimum required front yard and minimum lot area; and

Subdivision Approval (Tentative Plat)

- A motion pursuant to Section 13-2-2 of the Subdivision Regulations to approve, approve with conditions, or deny the Tentative Plat of Subdivision.

If the PZB recommends approval, staff recommends the following conditions for the Tentative PUD.

Conditions of Approval:

1. In the event the property is sold, and a property owner desires to sell separate, fee-simple townhouse units, a Plat of Subdivision will be necessary to create separate lots and a Homeowner's Association or similar unified control entity must be established along with any covenants, conditions, and restrictions governing maintenance of common areas.

2. At time of submission for final subdivision and PUD plat, all public improvements must be noted on plans and all engineering comments addressed to the satisfaction of the Director of Public Works and Engineering.

3. At time of submission for final subdivision and PUD Plat, the landscape plan must be revised in the park area closest to Thacker Street between Laurel Avenue and the railroad track. Bushes and a semi-open fence (wrought iron or chain link) should be placed around the north corner of the proposed park to allow visibility for traffic from Thacker Street.

4. At time of final subdivision and PUD Plat, the photometric plan must be revised to include lighting at the entrances of both driveways. Any new lighting must be in conformance with Section 12-12-10 of the Zoning Ordinance.

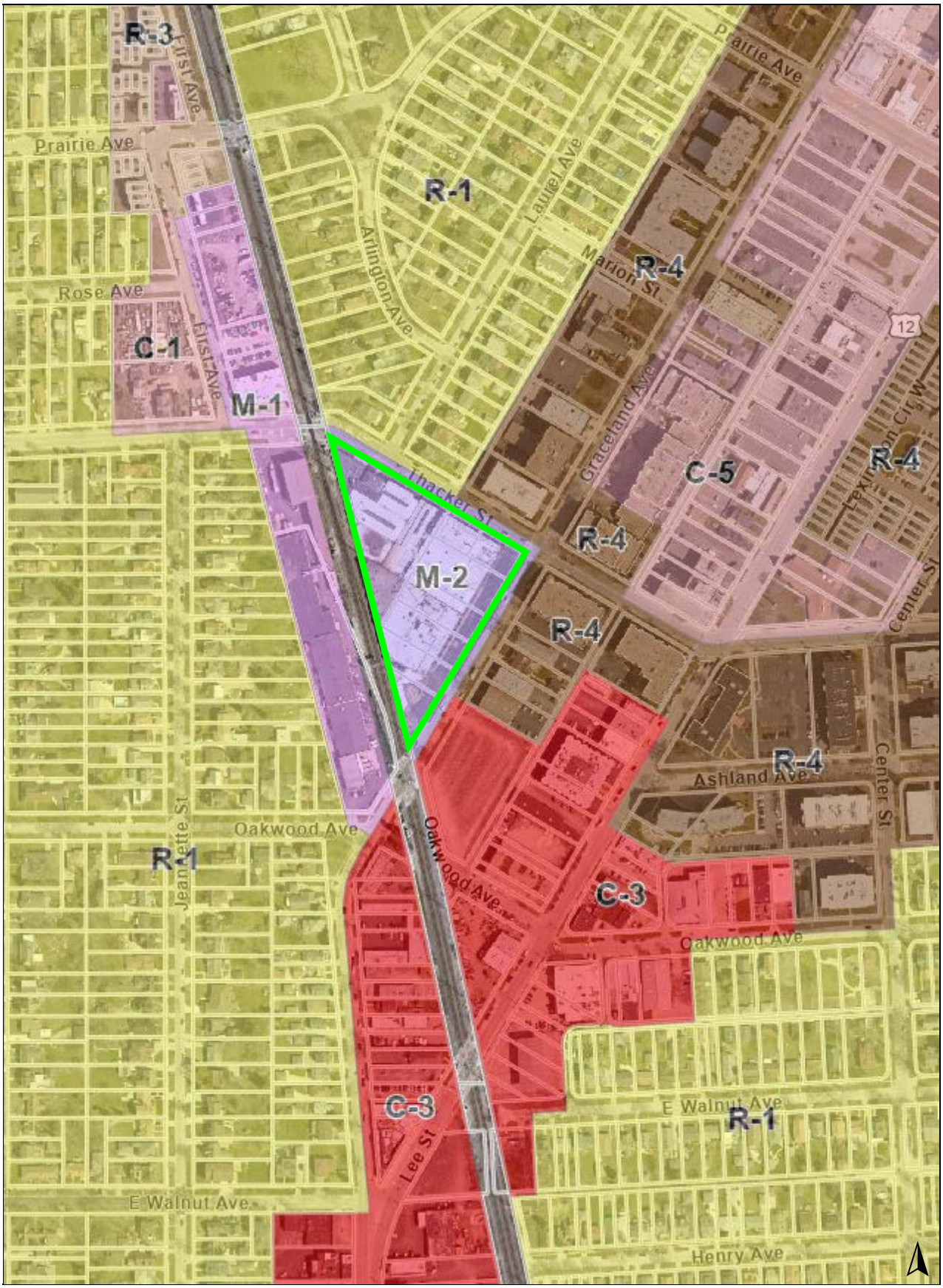
5. Each townhouse unit shall have separate water and sanitary sewer services.

6. All electrical lines on the property must be installed underground.

Attachments:

Attachment 1: Location Map
Attachment 2: Site and Context Photos
Attachment 3: Amenities and Services Map
Attachment 4: Petitioner's Narrative and Responses to Standards
Attachment 5: Plat of Survey
Attachment 6: Tentative Plat of Subdivision
Attachment 7: Preliminary PUD Plat
Attachment 8: Architectural Plans (includes Site Plan)
Attachment 9: Landscape Plan (includes Park Concept Exhibit)
Attachment 10: Preliminary Engineering Plans
Attachment 11: Public Works and Engineering (PWE) Department Memo
Attachment 12: Traffic Impact Study
Attachment 13: Photometric Plan
Attachment 14: Petitioner's Property Tax Projections
Attachment 15: Public Comment

GISConsortium



Legend

Subject Site

Zoning

- C-1: Neighborhood Shopping
- C-3: General Commu
- C-5: Central Busines
- M-1: Limited Manufacturing
- M-2: General Manufacturing
- R-1: Single Family Residential
- R-3: Townhouse Residential
- R-4: Central Core Residential

0 450 900 ft

Print Date: 10/18/2023

Notes

Disclaimer: The GIS Consortium and MGP Inc. are not liable for any use, misuse, modification or disclosure of any map provided under applicable law. This map is for general information purposes only. Although the information is believed to be generally accurate, errors may exist and the user should independently confirm for accuracy. The map does not constitute a regulatory determination and is not a base for engineering design. A Registered Land Surveyor should be consulted to determine precise location boundaries on the ground.

Public Notice Sign 1, facing property southwest

Public Notice Sign 2, facing property north

Front of building, facing parking lot towards Graceland Avenue

Location of Laurel Avenue and proposed driveway and pedestrian crosswalk

Area of existing building adjacent to railroad track

Former office of Contour Saws, facing south towards the property

Multifamily residential buildings across from property along Graceland Avenue, facing south

Multifamily residential buildings across from property along Graceland Avenue, facing southwest

ACOSTA EZGUR, LLC
1030 West Chicago Avenue, Third Floor ■ Chicago, Illinois 60642 ■ 312-327-3350 o ■ 312-327-3315 f

Graceland and Thacker Development
1201 E. Thacker, 1217 E. Thacker and 900 Graceland (Site A)

NARRATIVE

The subject property contains approximately 136,588 sq. ft. of land and is improved with a one and two-story industrial building and twenty-six surface parking spaces. The exiting building was used by Contours Saw, Inc.'s for its industrial operations. The property is currently zoned M-2. The Applicant proposes to rezone the site to an R-3 classification with a PUD.

The Applicant for the rezoning proposes to redevelop the property with 50 three-story townhomes distributed in eight separate buildings. The townhomes will consist of thirty-three, three-bedroom units and seventeen, two-bedroom units. Two parking spaces are provided for each townhome and 13 guest parking spaces are included in the plan. The proposed buildings' height will be 34 feet. Vehicular access to the site will be from two driveways, one from Thacker Street that is aligned with Laurel Avenue and one from Graceland Avenue that is approximately 228 feet north of the southern terminus of the site. These two driveways replace five driveways that are currently on site. The façade materials will be primarily face brick, with fiber cement panels used on some sections to visually divide the individual units. Also, the plan includes one privately owned but publicly accessible parks, a 6,170 sq. ft. park on Thacker Street at the western terminus of the site. It also includes approximately 27,376 sq. ft. of common open space for use by the townhome occupants.

ACOSTA EZGUR, LLC
1030 West Chicago Avenue, Third Floor ■ Chicago, Illinois 60642 ■ 312-327-3350 o ■ 312-327-3315 f

STANDARDS FOR MAP AMENDMENTS

1. The proposed amendment is consistent with the goals, objectives, and policies of the comprehensive plan, as adopted February 2019.

   The proposed rezoning will allow for the construction of multi-family housing near multi-modal facilities and Downtown, as the subject site is approximately five blocks from the Miner St. Metra Station and Downtown. It also will promote the development of multi-family units that would increase the housing diversity and provide housing for individuals and couples, and also aging residents that seek to continue an independent lifestyle while minimizing maintenance and ownership obligations. In addition, the supply of additional housing will assist in decreasing affordability concerns due to increased supply. The proposed townhomes also diversify the City's housing stock by providing a residential type different than the single family homes that are more common and the multi-family buildings that have frequently been developed in more recent times.

2. The proposed amendment is compatible with current conditions and the overall character of existing development in the immediate vicinity of the subject property.

   The subject property is across Graceland and Thacker from R-4 districts that extends north along Graceland and east along Thacker and are generally developed with three, four and five-story multi-family buildings. The western portion of the site's Thacker Street frontage is across from an R-1 district generally developed with single family homes. The proposed R-3 designation represents a middle ground between this R-1 area and the R-4 area in the eastern portion of the Thacker frontage and across and along Graceland.

3. The proposed amendment is appropriate considering the adequacy of public facilities and services available to this subject property.

   There are sufficient public facilities in terms of utilities to accommodate R-3 development, with required stormwater detention to be provided as part of the development per the Des Plaines Municipal Code. The existing streets can accommodate the anticipated traffic, which traffic may also be reduced due to the proximity of public transportation via Metra, the existing bike corridor along Thacker and the proposed bike corridor along Graceland. In terms of public open space, Central Park is located approximately three blocks east, a publicly accessible open space is included in the plan, and approximately 27,376 sq. ft. of private common open space is provided for townhome occupants.

4. The proposed amendment will not have an adverse effect on the value of properties throughout the jurisdiction.

   Because the proposed amendment will allow for development of multi-family residential of a scale compatible with adjacent properties and in a location where sufficient public facilities exist and resulting traffic can be accommodated, it will not have an adverse impact on property values within the City. In addition, the increase in tax base will help alleviate future tax increases on other properties and the increased resident population will support existing area businesses, both of which will positively impact the property value of other properties.

5. The proposed amendment reflects responsible standards for development and growth.

   The proposed amendment is consistent with responsible standard for development and growth by promoting increase density at a location where it can be accommodated that is proximate to public transit and non-vehicular travel paths, such as bike corridors. It increases the utilization of existing municipal infrastructure without taxing such infrastructure and does so while enhancing the municipal tax base.

ACOSTA EZGUR, LLC
1030 West Chicago Avenue, Third Floor ■ Chicago, Illinois 60642 ■ 312-327-3350 o ■ 312-327-3315 f

STANDARDS FOR PLANNED UNIT DEVELOPMENTS

1. The extent to which the proposed plan is or is not consistent with the state purpose of the planned unit development regulation set forth in subsection A of this section;

    a. A maximum choice in the type of environment available to the public by allowing a development that would not be possible under the strict application of the other sections of this title;

    The proposed PUD allows for the construction of a townhome development on an irregularly shaped parcel. The townhomes are to be in eight separate buildings. As the property is a single zoning lot, Section 12-7-1.A would prohibit the construction of separate buildings on that single zoning lot and effectively would prohibit a cohesive townhome development layout that provides an attractive street frontage, consolidates open space and limits driveways from the public streets.

    b. Permanent preservation of common open space and recreation areas and facilities;

    Private open space is proposed along the southwestern portion of the property totaling approximately 27,376 sq. ft. This open space will be preserved via the restrictions of the PUD. In addition, privately owned but publicly accessible open space is proposed at the western terminus of the site. This open space will be preserved by the restrictions of the PUD and also through easements provided in connection with a companion subdivision.

    c. A pattern of development to preserve natural vegetation, topographic and geologic features;

    The property is wholly improved and contains no natural vegetation, topographic or geologic features.

d. A creative approach to the use of land and related physical facilities that results in a better development and design and the construction of aesthetic amenities;

The proposed plan provides an esthetically pleasing street frontage lined with residential units, that as divided into separate buildings breaks-up the massing and shields vehicular circulation areas from the public realm. It also allows for open space to be consolidated in a more private area along the southwestern portion of the property. In addition, the proposed plan by being a unified whole as allowed only under the PUD provisions, limits the number of curb cuts onto the public streets minimizing pedestrian – vehicular conflict points along the public sidewalks.

e. An efficient use of the land resulting in more economic networks of utilities, streets and other facilities; and

By allowing for one cohesive development, the PUD as proposed limits the number of connection points to existing public water and sewer infrastructure and also limits the number of curb cuts onto the bordering public streets. This is more efficient than having to have separate connection points and separate curb cuts to serve multiple individual zoning lots.

f. A land use which promotes the public health, safety, and general welfare.

By allowing for a cohesive plan that limits pedestrian vehicular conflicts in the public realm, provides an attractive street frontage lined with residential buildings that are separated to divide their massing and consolidating private and publicly accessible open space all in general conformance with the R-3 regulations, the proposed land use and plan promotes the public health, safety and general welfare.

2. The extent to which the proposed plan meets the requirements and standards of the planned unit development regulations;

The property is under single ownership by Contour Saws and is intended to remain in single ownership by the Applicant for the PUD. It contains 3.14 acres, exceeding the 2 acre minimum for PUDs in the R-3.

3. The extent to which the proposed plan departs from the zoning and subdivision regulations otherwise applicable to the subject property, including, but not limited to the density, dimension, area, bulk and use and the reasons why such departures are or are not deemed to be in the public interest;

   As a townhouse development, the proposed development is consistent with the R-3 Townhouse Residential District's purpose and regulations. Townhomes are a permitted use. At a 34 foot height the proposed townhomes are well below the 45 ft. height limit. On the 136,588 sq. ft. site, reduced to 130,418 due to the inclusion in the plan of a 6,170 sq. ft. publicly accessible open space, the R-3 minimum lot area of 2,800 sq. ft. would permit 47 townhomes. Fifty townhomes are proposed. The increase in density is minor, representing a mere 6.38 % increase in density. Given the nature of the property's location, including the availability of nearby transit and proximity to downtown, this minor increase in density is consistent with the public interest. The required 10 foot corner side yard along Thacker and the required 25 foot rear yard are provided. As required, two parking spaces per unit and 13 guest parking spaces are provided. The only requirement that is not met is the required 25 foot front yard along Graceland, where the plan indicates a 16 foot setback near the Thacker corner and 13 foot setback for the balance of that frontage. This setback reduction is required to efficiently accommodate the structures and features of the proposed development on what is an irregularly shaped triangular parcel. Given the overall developments compliance with the R-3 regulations, its design that is compatible with the other residential improvements in the area, the broader setback near the corner with Thacker and the irregular shape of the property, it is in the public interest to allow such a departure from this standard.

4. The extent to which the physical design of the proposed plan does or does not make adequate provision for public services, provide adequate control over vehicular traffic, provide for and protect designated common open space, and further the amenities of light and air, recreation and visual enjoyment;

   The proposed physical design makes adequate provisions for public services including adequate space for the location of utilities and provides a configuration of driveways that allows for access by emergency vehicles. Vehicular traffic is controlled by providing only two access points from the public streets with the one on Thacker aligned with Laurel Avenue and the one on Graceland being sufficiently separated from the railroad right-of-way. Common open space, both private and publicly accessible is provide for, is protected by its location and preserved through the PUD and subdivision process. Light and air is protected by the separation of buildings and their height, which is lesser than otherwise

allowed. The alignment of attractively designed townhomes along the public street enhances visual enjoyment from the public realm.

5. The extent to which the relationship and compatibility of the proposed plan is beneficial or adverse to adjacent properties and neighborhood;

   The site is effectively an island bordered by public streets and a railroad right-of-way. The neighborhood to the north and east of the site is generally residential with a mix of multi-family along Graceland and single-family along the western portion of Thacker across from the site. A moderate density townhome development as proposed is beneficial to this neighborhood. It replaces an industrial use that can be considered discordant with the immediate neighborhood. The development provides additional residential development near downtown and transit and that can support area retail and commercial establishments while further diversifying the City's housing stock.

6. The extent to which the proposed plan is not desirable to the proposed plan to physical development, tax base and economic well being of the entire community; and

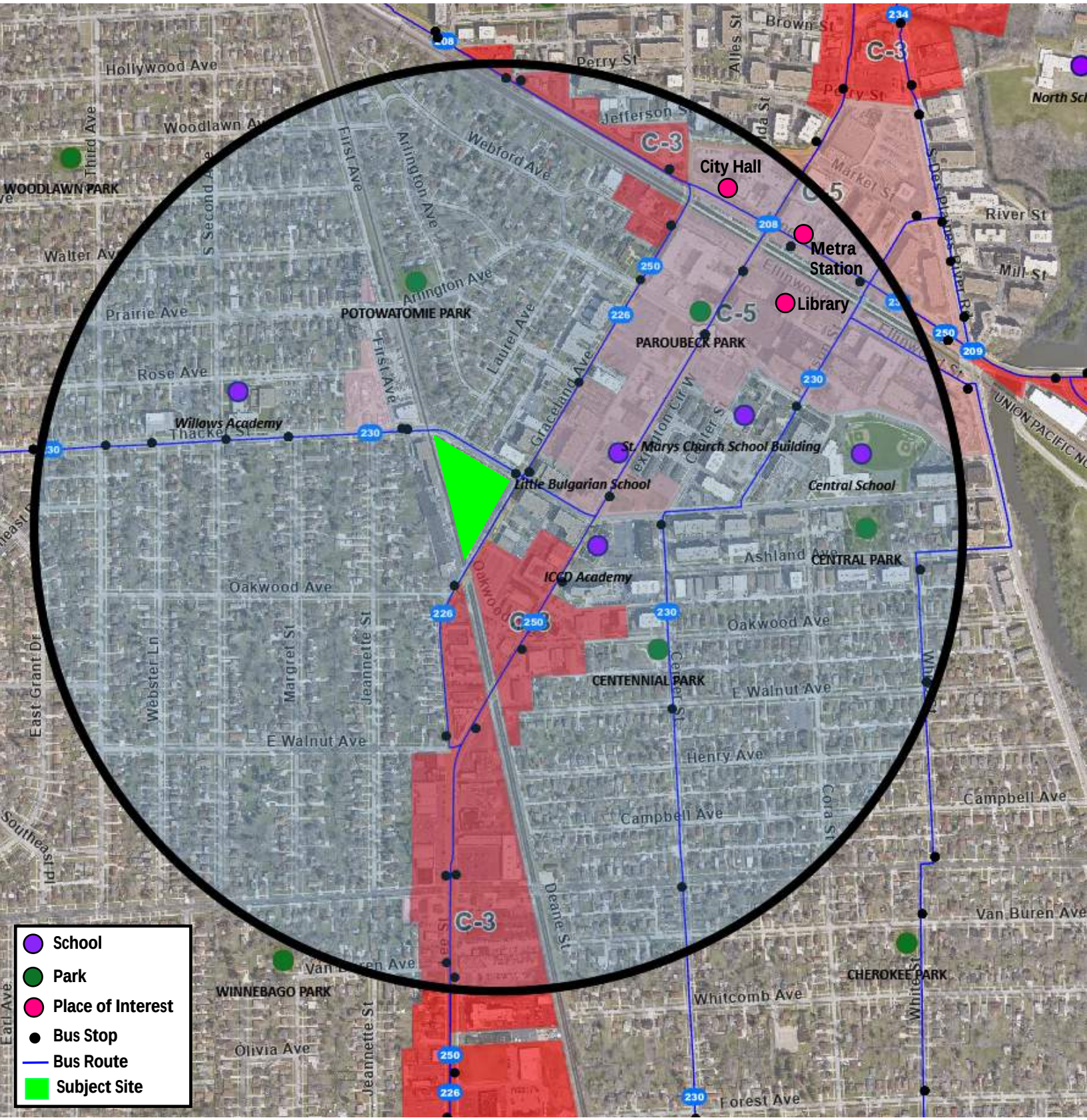
   The proposed plan reflects a cohesive and attractive development that is consistent with its environment and replaces a vacant industrial facility that is less so. It reduces the number of curb cuts from five to two, thereby reducing the points of potential vehicular pedestrian conflict along the public sidewalk. It provides both private and publicly accessible open space. It will increase the tax base generating more tax revenue that is currently attributed to the site. By resulting in a compatible residential development that diversifies the City's housing stock and provides additional residents located on a parcel that is near downtown and transit thereby supporting the downtown commercial and retail uses without unduly increasing traffic, the proposed PUD furthers the well- being of the entire community.

7. The extent to which the proposed plan is not in conformity with the recommendations of the comprehensive plan.

   Important goals of the Comprehensive Plan are to diversify the City's housing stock and allow residents to age-in-place and improve housing affordability compared to detached single family homes. It also seeks to strengthen downtown and the commercial uses therein and provide greater density near transit and recreational amenities. The proposed development supports these

goals by providing a moderate density development that represents a middle ground between the nearby multi-family and single-family areas. The site is within walking distance to downtown and the METRA station. It is near four schools and four parks. It also is near the City library and City Hall. While the Comprehensive Plan denotes the site for Industrial use, the site has remained vacant for a number of years notwithstanding its industrial classification. In addition, such industrial designation appears to be the result of the site's use at the time of the Comprehensive Plan's adoption as opposed to being reflective of the surrounding residential uses. The proposed townhome development is more consistent with such surrounding residential uses than a possible new industrial use.

Amenities and Services Map
within 0.5 Mile of Subject Site



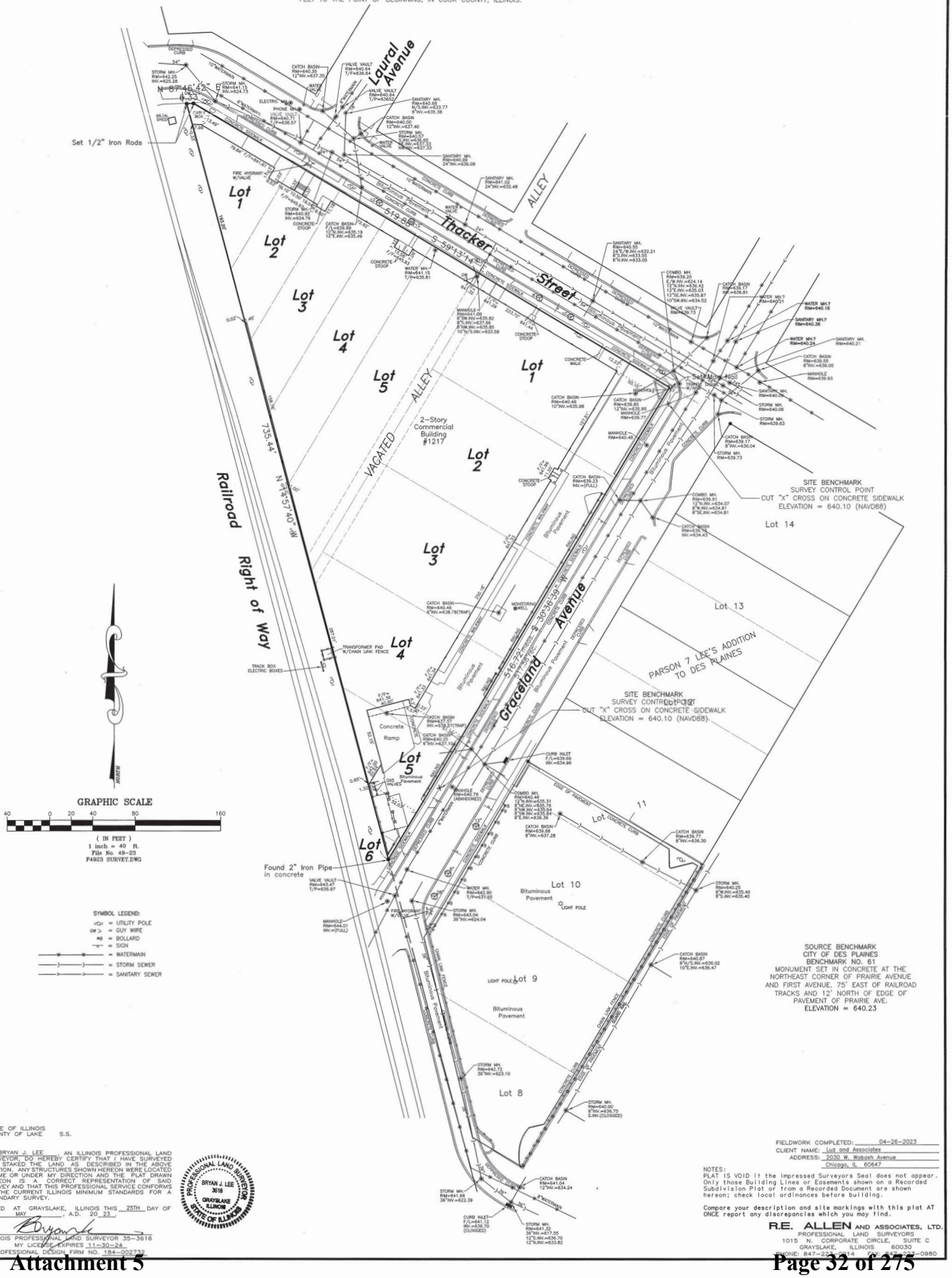
PLAT OF SURVEY

OF

THAT PART OF LOTS 1 THROUGH 5 (ALL INCLUSIVE) IN BLOCK 9 IN DES PLAINES MANOR TRACT 1, BEING A SUBDIVISION IN SECTIONS 17 AND 20 IN TOWNSHIP 41 NORTH, RANGE 12 EAST OF THE THIRD PRINCIPAL MERIDIAN, ACCORDING TO THE PLAT THEREOF RECORDED JULY 14, 1911, TOGETHER WITH THAT PART OF LOTS 1 THROUGH 6 IN BLOCK 6 IN PARSON AND LEE'S ADDITION TO THE TOWN OF DES PLAINES, BEING A SUBDIVISION OF LOTS 72 TO 74, (BOTH INCLUSIVE) AND 174 TO 177, (BOTH INCLUSIVE), IN THE TOWN OF DES PLAINES AND PART OF SECTIONS 17 AND 20, TOWNSHIP 41 NORTH, RANGE 12 EAST OF THE THIRD PRINCIPAL MERIDIAN, IN COOK COUNTY, ILLINOIS DESCRIBED AT THE NORTHEASTERLY MOST CORNER OF SAID LOT 1 IN BLOCK 6 IN PARSON AND LEE'S ADDITION TO THE TOWN OF DES PLAINES; SAID POINT ALSO KNOWN AS THE INTERSECTION OF THE WESTERLY LINE OF GRACELAND AVENUE AND THE SOUTHERLY LINE OF THACKER STREET (ALSO KNOWN AS DEMPSTER AVENUE); THENCE SOUTH 30 DEGREES 38 MINUTES 48 SECONDS WEST ALONG THE WESTERLY LINE OF AFORESAID GRACELAND AVENUE (ALSO KNOWN AS THE EASTERLY LINE OF BLOCK 6 AFORESAID, A DISTANCE OF 517.56 FEET TO A POINT; SAID BEING ON THE NORTHERLY LINE OF THE MINNEAPOLIS, ST. PAUL AND SAUTÉ STE. MARIE RAILROAD (FORMERLY THE WISCONSIN CENTRAL RAILROAD); THENCE NORTH 14 DEGREES 53 MINUTES 22 SECONDS WEST ALONG SAID NORTHERLY LINE, A DISTANCE OF 735.44 FEET TO A POINT ON THE SOUTHERLY RIGHT-OF-WAY LINE OF AFORESAID THACKER STREET; THENCE NORTH 87 DEGREES 36 MINUTES 07 SECONDS EAST ALONG THE SOUTHERLY LINE OF AFORESAID THACKER STREET, A DISTANCE OF 6.96 FEET TO A POINT; THENCE SOUTH 59 DEGREES 15 MINUTES 41 SECONDS EAST, ALONG THE AFORESAID SOUTHEASTERLY LINE OF THACKER STREET (ALSO KNOWN AS THE EASTERLY LINE OF SAID BLOCK 9), A DISTANCE OF 519.88 FEET TO THE POINT OF BEGINNING, IN COOK COUNTY, ILLINOIS.

THE PREMISES COMMONLY KNOWN AS:
1217 THACKER STREET, DES PLAINES, IL
PARCEL AREA = 136,588 S.F.
(3.13 ACRES)

PINS: 09-20-105-016
09-20-105-017
09-20-105-020
09-20-105-021
09-20-105-022
09-20-105-023
09-20-105-024
09-20-105-045
09-20-203-006



GRAPHIC SCALE

40 0 20 40 80 160

(IN FEET)
1 inch = 40 ft.
File No. 49-23
F4923 SURVEY.DWG

SYMBOL LEGEND:

- = UTILITY POLE
- = GUY WIRE
- = BOLLARD
- = SIGN
- = WATERMAIN
- = STORM SEWER
- = SANITARY SEWER

SOURCE BENCHMARK
CITY OF DES PLAINES
BENCHMARK NO. 61
MONUMENT SET IN CONCRETE AT THE NORTHEAST CORNER OF PRAIRIE AVENUE AND FIRST AVENUE, 75' EAST OF RAILROAD TRACKS AND 12' NORTH OF EDGE OF PAVEMENT OF PRAIRIE AVE.
ELEVATION = 640.23

STATE OF ILLINOIS
COUNTY OF LAKE S.S.

I, BRYAN J. LEE, AN ILLINOIS PROFESSIONAL LAND SURVEYOR, DO HEREBY CERTIFY THAT I HAVE SURVEYED AND STAKED THE LAND AS DESCRIBED IN THE ABOVE CAPTION. ANY STRUCTURES SHOWN HEREON WERE LOCATED BY ME OR UNDER MY DIRECTION AND THE PLAT DRAWN HEREON IS A CORRECT REPRESENTATION OF SAID SURVEY AND THAT THIS PROFESSIONAL SERVICE CONFORMS TO THE CURRENT ILLINOIS MINIMUM STANDARDS FOR A BOUNDARY SURVEY.

DATED AT GRAYSLAKE, ILLINOIS THIS 25TH DAY OF MAY, A.D. 20 23

BRYAN J. LEE
3616
GRAYSLAKE
ILLINOIS
PROFESSIONAL LAND SURVEYOR

ILLINOIS PROFESSIONAL LAND SURVEYOR 35-3616
MY LICENSE EXPIRES 11-30-24
PROFESSIONAL DESIGN FIRM NO. 184-002732

FIELDWORK COMPLETED: 04-26-2023
CLIENT NAME: Luz and Associates
ADDRESS: 2030 W. Wabash Avenue
Chicago, IL 60647

NOTES:
PLAT IS VOID if the Impressed Surveyors Seal does not appear. Only those Building Lines or Easements shown on a Recorded Subdivision Plat or from a Recorded Document are shown hereon; check local ordinances before building.

Compare your description and site markings with this plat AT ONCE report any discrepancies which you may find.

R.E. ALLEN AND ASSOCIATES, LTD.
PROFESSIONAL LAND SURVEYORS
1015 N. CORPORATE CIRCLE, SUITE C
GRAYSLAKE, ILLINOIS 60030
PHONE: 847-223-4804 FAX: 847-223-0980

1217 THACKER STREET CONSOLIDATION

OF

THAT PART OF LOTS 1 THROUGH 5 (ALL INCLUSIVE) IN BLOCK 9 IN DES PLAINES MANOR TRACT 1, BEING A SUBDIVISION IN SECTIONS 17 AND 20 IN TOWNSHIP 41 NORTH, RANGE 12 EAST OF THE THIRD PRINCIPAL MERIDIAN, ACCORDING TO THE PLAT THEREOF RECORDED JULY 14, 1911, TOGETHER WITH THAT PART OF LOTS 1 THROUGH 6 IN BLOCK 6 IN PARSON AND LEE'S ADDITION TO THE TOWN OF DES PLAINES, BEING A SUBDIVISION OF LOTS 72 TO 74, (BOTH INCLUSIVE) AND 174 TO 177, (BOTH INCLUSIVE), IN THE TOWN OF DES PLAINES AND PART OF SECTIONS 17 AND 20, TOWNSHIP 41 NORTH, RANGE 12 EAST OF THE THIRD PRINCIPAL MERIDIAN, IN COOK COUNTY, ILLINOIS DESCRIBED AT THE NORTHEASTERLY MOST CORNER OF SAID LOT 1 IN BLOCK 6 IN PARSON AND LEE'S ADDITION TO THE TOWN OF DES PLAINES; SAID POINT ALSO KNOWN AS THE INTERSECTION OF THE WESTERLY LINE OF GRACELAND AVENUE AND THE SOUTHERLY LINE OF THACKER STREET (ALSO KNOWN AS DEMPSTER AVENUE); THENCE SOUTH 30 DEGREES 38 MINUTES 48 SECONDS WEST ALONG THE WESTERLY LINE OF AFORESAID GRACELAND AVENUE (ALSO KNOWN AS THE EASTERLY LINE OF BLOCK 6 AFORESAID, A DISTANCE OF 517.56 FEET TO A POINT; SAID BEING ON THE NORTHERLY LINE OF THE MINNEAPOLIS, ST. PAUL AND SAUTE STE. MARIE RAILROAD (FORMERLY THE WISCONSIN CENTRAL RAILROAD); THENCE NORTH 14 DEGREES 53 MINUTES 22 SECONDS WEST ALONG SAID NORTHERLY LINE, A DISTANCE OF 735.44 FEET TO A POINT ON THE SOUTHERLY RIGHT-OF-WAY LINE OF AFORESAID THACKER STREET; THENCE NORTH 87 DEGREES 36 MINUTES 07 SECONDS EAST ALONG THE SOUTHERLY LINE OF AFORESAID THACKER STREET, A DISTANCE OF 6.96 FEET TO A POINT; THENCE SOUTH 59 DEGREES 15 MINUTES 41 SECONDS EAST, ALONG THE AFORESAID SOUTHEASTERLY LINE OF THACKER STREET (ALSO KNOWN AS THE EASTERLY LINE OF SAID BLOCK 9), A DISTANCE OF 519.88 FEET TO THE POINT OF BEGINNING, IN COOK COUNTY, ILLINOIS.

THE PREMISES COMMONLY KNOWN AS:
1217 THACKER STREET, DES PLAINES, IL
PARCEL AREA = 136,588 S.F.
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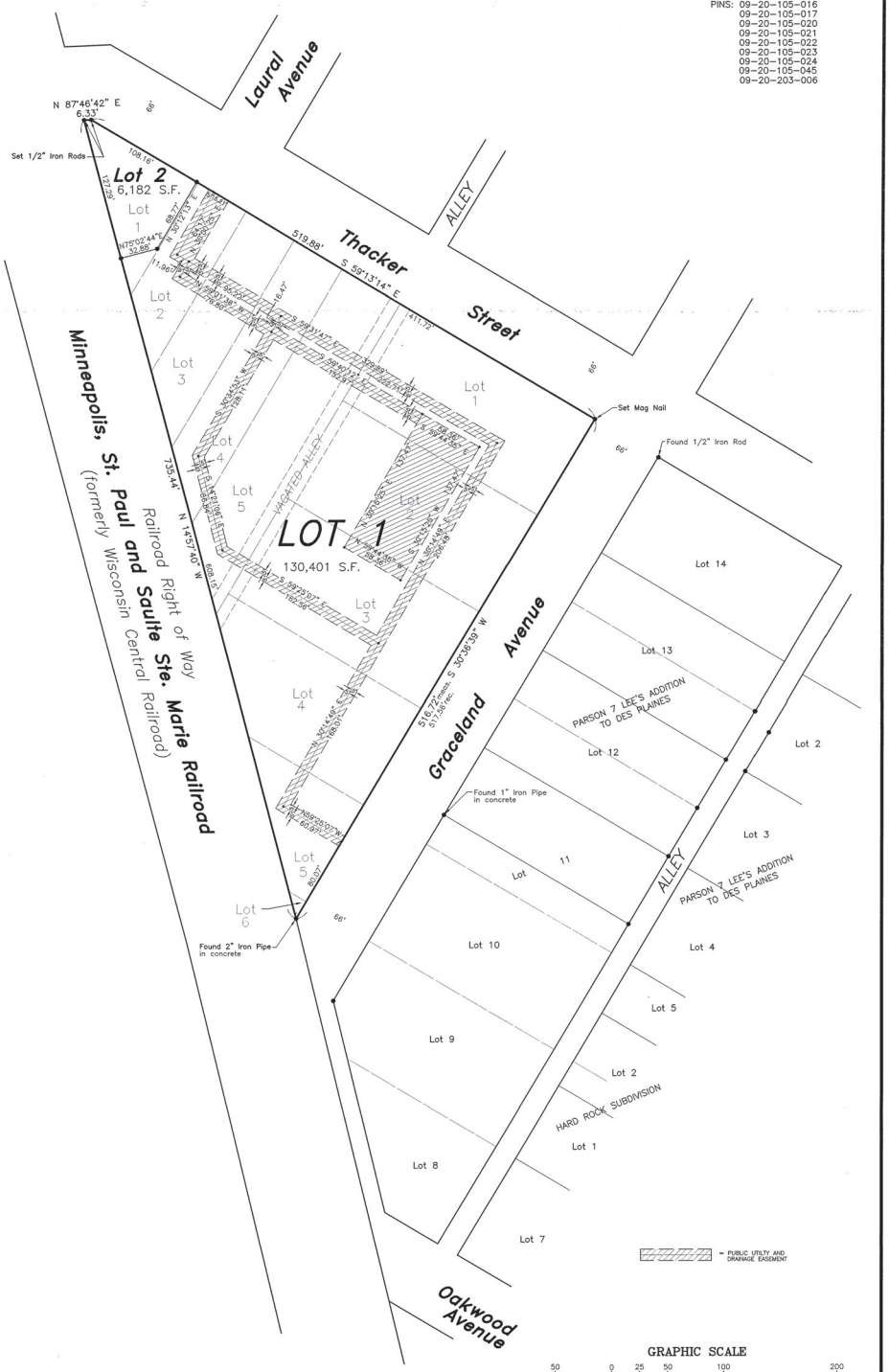
09-20-105-024
09-20-105-045
09-20-203-006



OWNER'S CERTIFICATE
STATE OF ILLINOIS)
COUNTY OF COOK) S.S.

THIS IS TO CERTIFY THAT THE UNDERSIGNED ARE THE AUTHORIZED REPRESENTATIVES OF_____, WHICH IS THE OWNER OF THE LAND DESCRIBED IN THE ATTACHED PLAT AND HAVE CAUSED THE SAME TO BE SURVEYED AND PLATTED AS SHOWN THEREON FOR THE USES AND PURPOSES THEREIN INDICATED, AND DO HEREBY ADOPT THIS PLAT OF SUBDIVISION; ESTABLISHED THE MINIMUM BUILDING RESTRICTION LINES, DEDICATE THE ROADS, STREETS, ALLEYS, WALKS, AND OTHER AREAS INDICATED THEREON TO THE PUBLIC USE; AND ESTABLISH ANY OTHER EASEMENTS SHOWN THEREON.

DATED AT_____, ILLINOIS, THIS_____DAY OF _____A.D. 20_____.

BY:_____ ATTEST: _____

_____ _____
TITLE TITLE

NOTARY'S CERTIFICATE
STATE OF ILLINOIS)
COUNTY OF COOK) S.S.

I,_____, A NOTARY PUBLIC IN AND FOR SAID COUNTY DO HEREBY CERTIFY THAT_____ AS AND_____ AS _____ OF_____ WHO ARE PERSONALLY KNOWN TO ME TO BE THE SAME PERSON(S) WHOSE NAME(S) IS/ARE SUBSCRIBED TO THE FOREGOING CERTIFICATE AS SUCH OWNER(S), APPEARED BEFORE ME THIS DAY IN PERSON AND ACKNOWLEDGED THAT HE/SHE/THEY SIGNED AND DELIVERED THE SAID INSTRUMENT AS HIS/HER/THEIR OWN FREE AND VOLUNTARY ACT FOR THE USES AND PURPOSES THEREIN SET FORTH.

GIVEN UNDER MY HAND AND SEAL THIS_____ DAY OF _____ A.D. 20_____.

NOTARY PUBLIC_____

COMMISSION EXPIRES_____

MAYOR'S CERTIFICATE
STATE OF ILLINOIS)
COUNTY OF COOK) S.S.

APPROVED BY THE MAYOR AND THE CITY COUNCIL OF THE CITY OF DES PLAINES, ILLINOIS ON THIS_____ DAY OF _____ A.D. 20_____.

_____ ATTEST:_____
MAYOR CITY CLERK

PLANNING AND ZONING BOARD CERTIFICATE
STATE OF ILLINOIS)
COUNTY OF COOK) S.S.

APPROVED BY THE PLANNING AND ZONING BOARD OF THE CITY OF DES PLAINES, ILLINOIS ON THIS_____ DAY OF_____ A.D. 20_____.

CHAIRMAN_____

DIRECTOR OF FINANCE CERTIFICATE
STATE OF ILLINOIS)
COUNTY OF COOK) S.S.

I CERTIFY THAT THERE ARE NO DELINQUENT OR CURRENT UNPAID SPECIAL ASSESSMENTS ON THE PROPERTY SHOWN ON THE PLAT.

DATE:_____

_____
DIRECTOR OF FINANCE

DIRECTOR OF PUBLIC WORKS AND ENGINEERING CERTIFICATE
STATE OF ILLINOIS)
COUNTY OF COOK) S.S.

APPROVED BY THE DIRECTOR OF PUBLIC WORKS & ENGINEERING OF THE CITY OF DES PLAINES, ILLINOIS ON THIS_____ DAY OF _____ A.D. 20_____.

_____
DIRECTOR OF PUBLIC WORKS AND ENGINEERING

SURVEYORS CERTIFICATE
STATE OF ILLINOIS)
COUNTY OF LAKE) S.S.

I, BRYAN J. LEE , DO HEREBY CERTIFY THAT I HAVE SURVEYED THE PROPERTY DESCRIBED IN THE ABOVE CAPTION AND THAT I HAVE CONSOLIDATED THE SAME INTO 1 LOT AS SHOWN ON THE HEREON DRAWN PLAT. THIS PLAT CORRECTLY REPRESENTS SAID SURVEYS AND SUBDIVISION IN EVERY DETAIL. MONUMENTS SHOWN ARE IN PLACE AS LOCATED. ALL SET LOT CORNERS ARE MARKED WITH A 1/2" IRON ROD. DIMENSIONS ARE IN FEET AND DECIMAL PARTS THEREOF.

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

_____
ILLINOIS PROFESSIONAL LAND SURVEYOR
MY LICENSE EXPIRES 11-30-24
PROFESSIONAL DESIGN FIRM NO. 184-002732

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

TO THE BEST OF OUR KNOWLEDGE AND BELIEF, THE DRAINAGE OF SURFACE WATERS WILL NOT BE CHANGED BY THE CONSTRUCTION OF THIS SUBDIVISION OR ANY PART THEREOF, OR, IF SUCH SURFACE WATER DRAINAGE WILL BE CHANGED, REASONABLE PROVISION HAS BEEN MADE FOR COLLECTION AND DIVERSION OF SUCH SURFACE WATERS INTO PUBLIC AREAS, OR DRAINS WHICH THE OWNER HAS A RIGHT TO USE, AND THAT SUCH SURFACE WATERS WILL BE PLANNED FOR IN ACCORDANCE WITH GENERALLY ACCEPTED ENGINEERING PRACTICES SO AS TO REDUCE THE LIKELIHOOD OF DAMAGE TO THE ADJOINING PROPERTY BECAUSE OF THE CONSTRUCTION OF THIS SUBDIVISION.

_____
OWNER

_____
REGISTERED PROFESSIONAL ENGINNER

SURVEYOR'S AUTHORIZATION TO RECORD
STATE OF ILLINOIS)
COUNTY OF LAKE) S.S.

I, BRYAN J. LEE , A ILLINOIS PROFESSIONAL LAND SURVEYOR NO. 3616, DO HEREBY GRANT DO HEREBY GRANT PERMISSION TO_____ TO RECORD THIS PLAT AND PROVIDE THIS SURVEYOR A RECORDED COPY OF THE SAME.

DATED AT GRAYSLAKE, ILLINOIS, THIS_____ DAY OF_____ A.D. 20____.

_____
ILLINOIS PROFESSIONAL LAND SURVEYOR NO. 3616

IN ACCORDANCE WITH PUBLIC ACT 86-1238, THIS PLAT HAS BEEN SUBMITTED FOR RECORDING BY:

NAME: _____

ADDRESS: _____

CITY, STATE: _____

GRAPHIC SCALE

50 0 25 50 100 200

(IN FEET)
1 inch = 50 ft.
File No. 49-23
F4923 CONSOLIDATION.DWG

EASEMENT FOR PUBLIC UTILITIES

A PERMANENT AND PERPETUAL EASEMENT IS HEREBY GRANTED TO THE CITY OF DES PLAINES, COOK COUNTY, ILLINOIS ("CITY"), ITS SUCCESSORS AND ASSIGNS, TO SURVEY, CONSTRUCT, RECONSTRUCT, USE, OPERATE, MAINTAIN, TEST, INSPECT, REPAIR, REPLACE, ALTER, REMOVE OR ABANDON IN PLACE WATER, SANITARY SEWER AND STORM SEWER MAINS TOGETHER WITH RELATED ATTACHMENTS, EQUIPMENT AND APPURTENANCES THERETO, IN, UPON, UNDER, ALONG AND ACROSS THE AREAS DESIGNATED "EASEMENT FOR PUBLIC UTILITIES" ON THIS SUBDIVISION PLAT. THE OWNERS OF THE PROPERTY SUBDIVIDED ON THIS PLAT OR ANY PART THEREOF HEREBY RESERVE THE RIGHT TO USE THE AREAS DESIGNATED "EASEMENT FOR PUBLIC UTILITIES" AND THE ADJACENT PROPERTY IN ANY MANNER THAT WILL NOT PREVENT OR INTERFERE WITH THE EXERCISE BY THE CITY OF THE RIGHTS HEREBY GRANTED; PROVIDED, HOWEVER, THAT THE OWNERS SHALL NOT IN ANY MANNER DISTURB, DAMAGE, DESTROY, INJURE, OBSTRUCT OR PERMIT TO BE OBSTRUCTED THE "EASEMENT FOR PUBLIC UTILITIES" AT ANY TIME WHATSOEVER WITHOUT THE EXPRESS PRIOR WRITTEN CONSENT OF THE CITY. AFTER INSTALLATION OF ANY SUCH FACILITIES, THE GRADE OF THE SUBDIVIDED PROPERTY SHALL NOT BE ALTERED IN A MANNER SO AS TO INTERFERE WITH THE PROPER OPERATION AND MAINTENANCE THEREOF.

NO.	DATE	DESCRIPTION	BY
2	09-15-23	REVIEW COMMENTS	B.J.L.
1	08-31-23	ORIGINAL ISSUE	B.J.L.

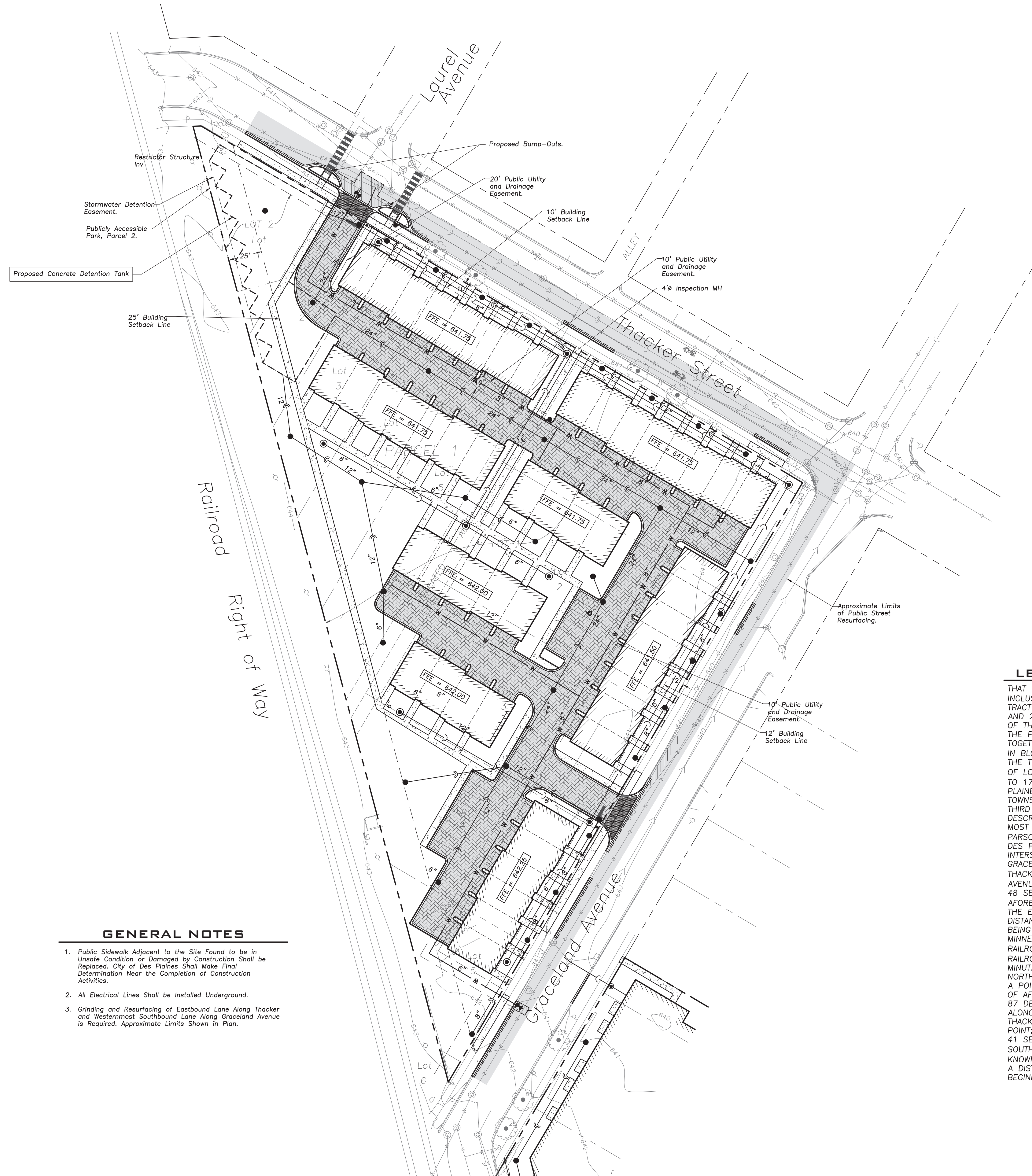
FIELDWORK COMPLETED: 04-26-2023
CLIENT NAME: Luz and Associates
ADDRESS: 2030 W. Wabash Avenue
Chicago, IL 60647

NOTES:
PLAT IS VOID if the Impressed Surveyors Seal does not appear. Only those Building Lines or Easements shown on a Recorded Subdivision Plat or from a Recorded Document are shown hereon; check local ordinances before building.

Compare your description and site markings with this plat AT ONCE report any discrepancies which you may find.

R.E. ALLEN AND ASSOCIATES, LTD.
PROFESSIONAL LAND SURVEYORS
1015 N. CORPORATE CIRCLE, SUITE C
GRAYSLAKE, ILLINOIS 60030
PHONE: 847-223-4804 FAX: 847-223-0980

PRELIMINARY PLANNED UNIT DEVELOPMENT PLAT



LEGEND

EXISTING / PROPOSED
Manhole
Catch Basin
Inlet
Area Drain
Clean Out
Flared End Section
Storm Sewer
Sanitary Sewer
Combined Sewer
Water Main
Gas Line
Overhead Wires
Electrical Cable (Buried)
Telephone Line
Fire Hydrant
Valve Vault
Buffalo Box
Downspout
Bollard
Gas Valve
Gas Meter
Electric Meter
ComEd Manhole
Hand Hole
Light Pole
Light Pole w/ Mast Arm
Utility Pole
Telephone Pedestal
Telephone Manhole
Sign
Fence
Accessible Parking Stall
Curb & Gutter
Depressed Curb
Curb Elevation (C 782.50)
Gutter Elevation (G 782.00)
Pavement Elevation (P 783.25)
Sidewalk Elevation (W 782.10)
Ground Elevation (784.0)
Top of Retaining Wall Elevation (T/W 785.20)
Swale
Contour Line (781)
Deciduous Tree
Coniferous Tree
Brushline
Tree Protection Fencing at Drip Line

GENERAL NOTES

1. Public Sidewalk Adjacent to the Site Found to be in Unsafe Condition or Damaged by Construction Shall be Replaced. City of Des Plaines Shall Make Final Determination Near the Completion of Construction Activities.
2. All Electrical Lines Shall be Installed Underground.
3. Grinding and Resurfacing of Eastbound Lane Along Thacker and Westernmost Southbound Lane Along Graceland Avenue is Required. Approximate Limits Shown in Plan.

LEGAL DESCRIPTION

THAT PART OF LOTS 1 THROUGH 5 (ALL INCLUSIVE) IN BLOCK 9 IN DES PLAINES MANOR TRACT 1, BEING A SUBDIVISION IN SECTIONS 17 AND 20 IN TOWNSHIP 41 NORTH, RANGE 12 EAST OF THE THIRD PRINCIPAL MERIDIAN, ACCORDING TO THE PLAT THEREOF RECORDED JULY 14, 1911, TOGETHER WITH THAT PART OF LOTS 1 THROUGH 6 IN BLOCK 6 IN PARSON AND LEE'S ADDITION TO THE TOWN OF DES PLAINES, BEING A SUBDIVISION OF LOTS 72 TO 74, (BOTH INCLUSIVE) AND 174 TO 177, (BOTH INCLUSIVE), IN THE TOWN OF DES PLAINES AND PART OF SECTIONS 17 AND 20, TOWNSHIP 41 NORTH, RANGE 12 EAST OF THE THIRD PRINCIPAL MERIDIAN, COOK COUNTY, ILLINOIS DESCRIBED BY BEGINNING AT THE NORTHEASTERLY MOST CORNER OF SAID LOT 1 IN BLOCK 6 IN PARSON AND LEE'S ADDITION TO THE TOWN OF DES PLAINES; SAID POINT ALSO KNOWN AS THE INTERSECTION OF THE WESTERLY LINE OF GRACELAND AVENUE AND THE SOUTHERLY LINE OF THACKER STREET (ALSO KNOWN AS DEMPSTER AVENUE); THENCE SOUTH 30 DEGREES 38 MINUTES 48 SECONDS WEST ALONG THE WESTERLY LINE OF AFORESAID GRACELAND AVENUE (ALSO KNOWN AS THE EASTERLY LINE OF BLOCK 6 AFORESAID, A DISTANCE OF 517.56 FEET TO A POINT; SAID BEING ON THE NORTHERLY LINE OF THE MINNEAPOLIS, ST. PAUL AND SAULTE STE. MARIE RAILROAD (FORMERLY THE WISCONSIN CENTRAL RAILROAD); THENCE NORTH 14 DEGREES 53 MINUTES 22 SECONDS WEST ALONG SAID NORTHERLY LINE, A DISTANCE OF 735.44 FEET TO A POINT ON THE SOUTHERLY RIGHT-OF-WAY LINE OF AFORESAID THACKER STREET; THENCE NORTH 87 DEGREES 36 MINUTES 07 SECONDS EAST ALONG THE SOUTHERLY LINE OF AFORESAID THACKER STREET, A DISTANCE OF 5.96 FEET TO A POINT; THENCE SOUTH 59 DEGREES 15 MINUTES 41 SECONDS EAST, ALONG THE AFORESAID SOUTHEASTERLY LINE OF THACKER STREET (ALSO KNOWN AS THE EASTERLY LINE OF SAID BLOCK 9), A DISTANCE OF 519.88 FEET TO A POINT OF BEGINNING, IN COOK COUNTY, ILLINOIS.

SITE DETAILS

Total of Forty-five (45) 3-story THs with 2-car garage:
- Type I: Twenty-nine (29) at 22' x 38'
- Type II: Sixteen (16) at 20' x 38'

- 16 guest outdoor parking stalls
  (1 guest parking required per 4 townhomes, i.e. 11 guest parking required)

LOT AREA SUMMARY

TOTAL SITE AREA	136,588 SF	(3.13 Ac)
LOT 1	130,418 SF	(2.99 Ac)
LOT 2 (Park)	6,170 SF	(0.14 Ac)

N

40 0 40 80 120

Scale: 1"=40'

ERIKSSON ENGINEERING ASSOCIATES, LTD.
145 COMMERCE DRIVE, SUITE A
GRAYSLAKE, ILLINOIS 60030
PHONE (847) 223-4804
FAX (847) 223-4864
EMAIL INFO@EEA-LTD.COM
Professional Design Firm
License No. 184-003220
Expires: 04/30/2025

GRACELAND & THACKER RESIDENTIAL COMMUNITY

GRACELAND & THACKER
DES PLAINES, ILLINOIS

Reserved for Seal:

No.	Date	Description
	05/22/23	ISSUE FOR VILLAGE SUBMITTAL
	06/30/23	ISSUED FOR PZB
	07/18/23	ISSUED FOR PZB
	08/22/23	ISSUED FOR PZB
	08/31/23	ISSUED FOR PZB
	09/15/23	ISSUED FOR PZB
	10/02/23	ISSUED FOR PZB

Design By:	Approved By:	Date:
CS	CMF	05/30/23

Sheet Title:

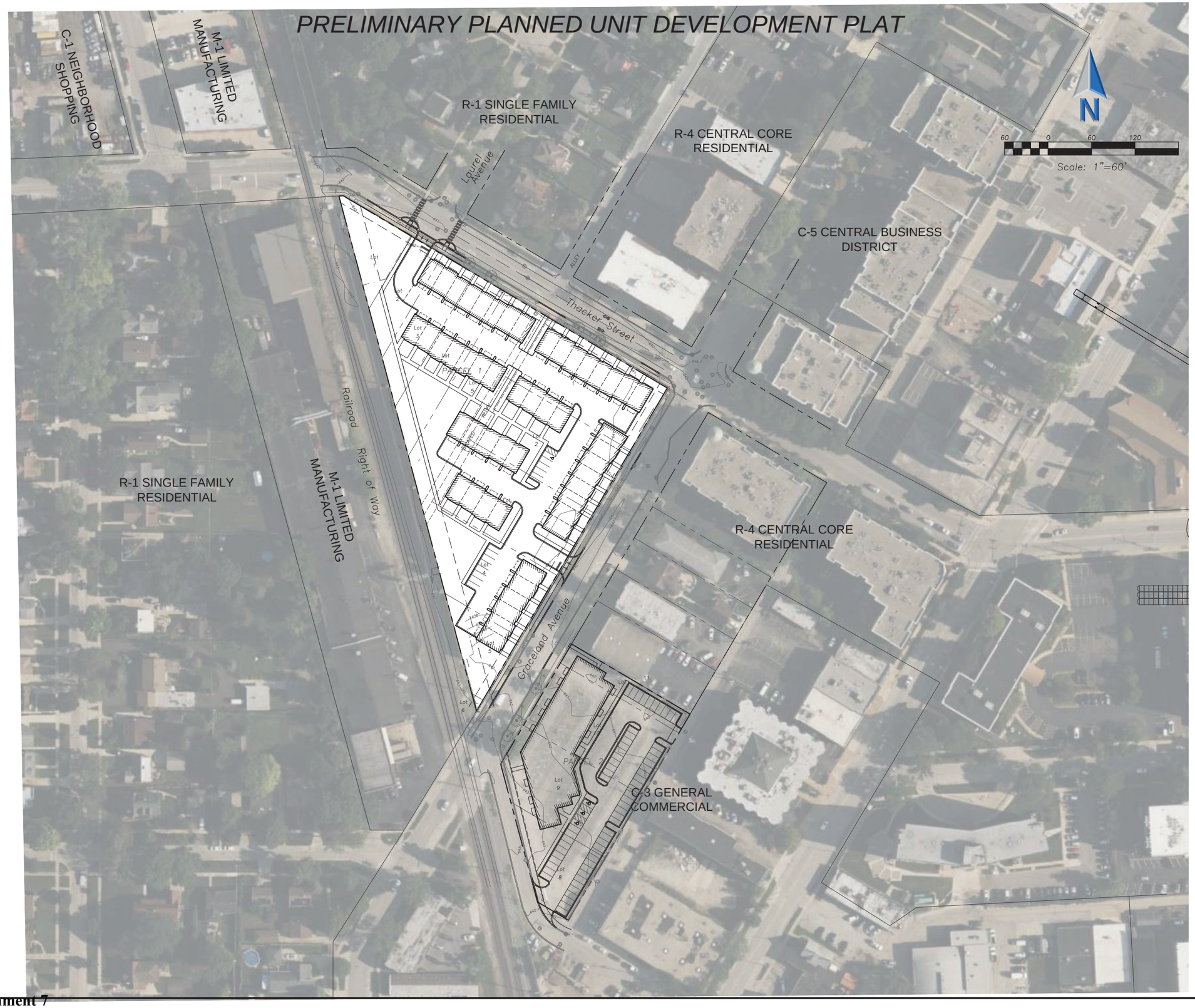
PRELIMINARY PUD PLAT

Sheet No:

1 of 2

EEA – P:\23116 – Luz Associates – Graceland & Thacker\Drawings\Graceland Thacker – Plat of Consolidation Linework.dwg
Plotted: 10/02/23 @ 8:41pm By: cfish

PRELIMINARY PLANNED UNIT DEVELOPMENT PLAT



ERIKSSON ENGINEERING ASSOCIATES, LTD.
145 COMMERCE DRIVE, SUITE A
GRAYSLAKE, ILLINOIS 60030
PHONE (847) 223-4804
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EMAIL INFO@EAILTD.COM
PROFESSIONAL DESIGN FIRM
LICENSE NO. 184-003220
EXPIRES: 04/30/2025

GRACELAND & THACKER
RESIDENTIAL COMMUNITY
GRACELAND & THACKER
DES PLAINES, ILLINOIS

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Design By:	Approved By:	Date:
CS	CMF	05/30/23

Sheet Title:

PRELIMINARY PUD PLAT

Sheet No:

2 of 2

EEA – P:\23116 – Luz Associates – Graceland & Thacker\Drawings\Graceland Thacker – Plat of Consolidation Linework.dwg
Plotted: 10/02/23 @ 8:41pm By: cfish

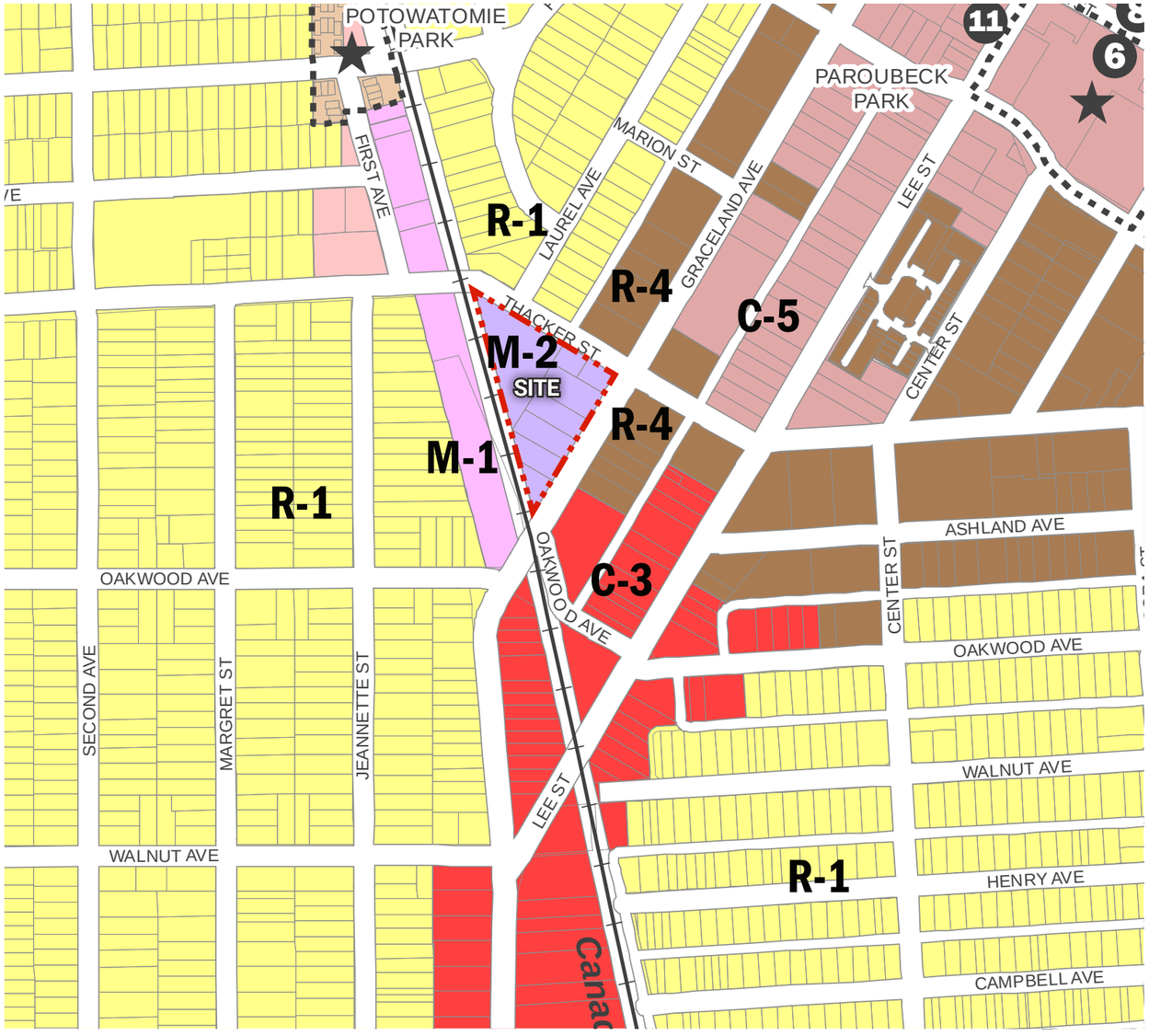
Owner/Developer:
Luz and Associates #1 LLC

Architect:
FitzGerald

Graceland and Thacker

Des Plaines, Illinois

Issued for PZB Hearing Application | October 02, 2023



ZONING MAP

Single Family Residential

- R-1 Single Family Residential

Multi Family Residential

- R-2 Two Family Residential
- R-3 Townhouse Residential
- R-4 Central Core Residential
- M-H Mobile Home

Commercial

- C-1 Neighborhood Shopping
- C-2 Limited Office Commercial
- C-3 General Commercial
- C-4 Regional Shopping
- C-5 Central Business
- C-6 Casino District
- C-7 High Density Campus Commercial

Manufacturing

- M-1 Limited Manufacturing
- M-2 General Manufacturing
- M-3 Special Manufacturing

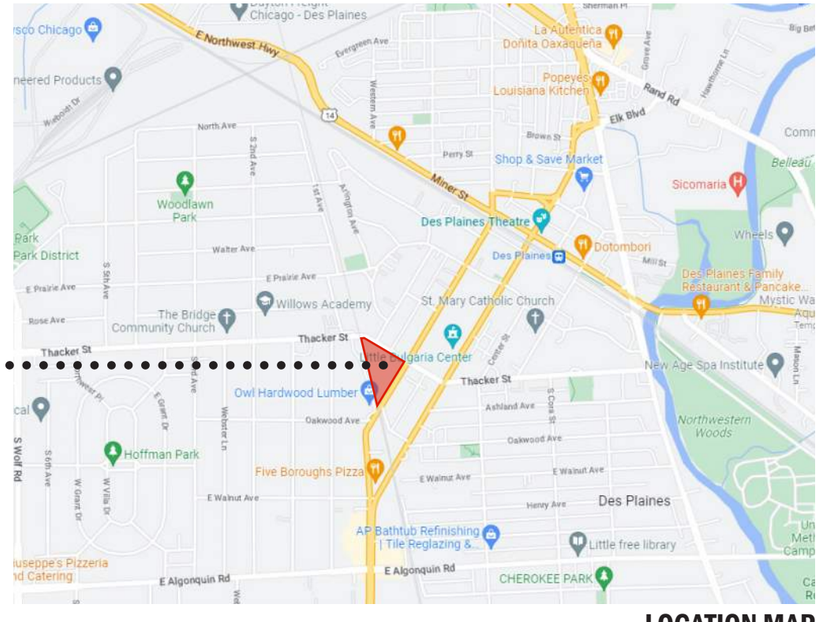
Other

- ★ Planned Unit Development

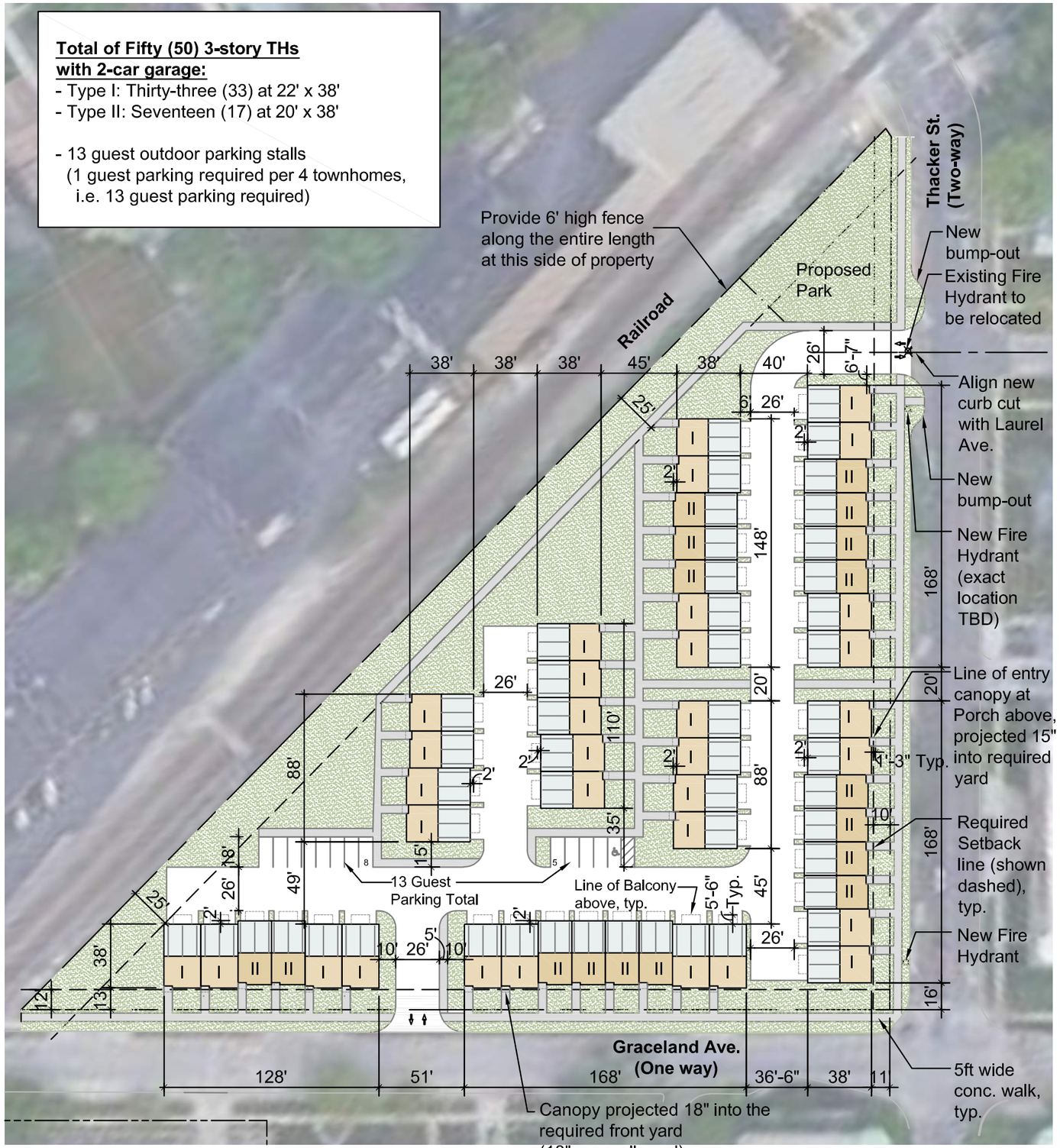
Institutional

- I-1 Institutional

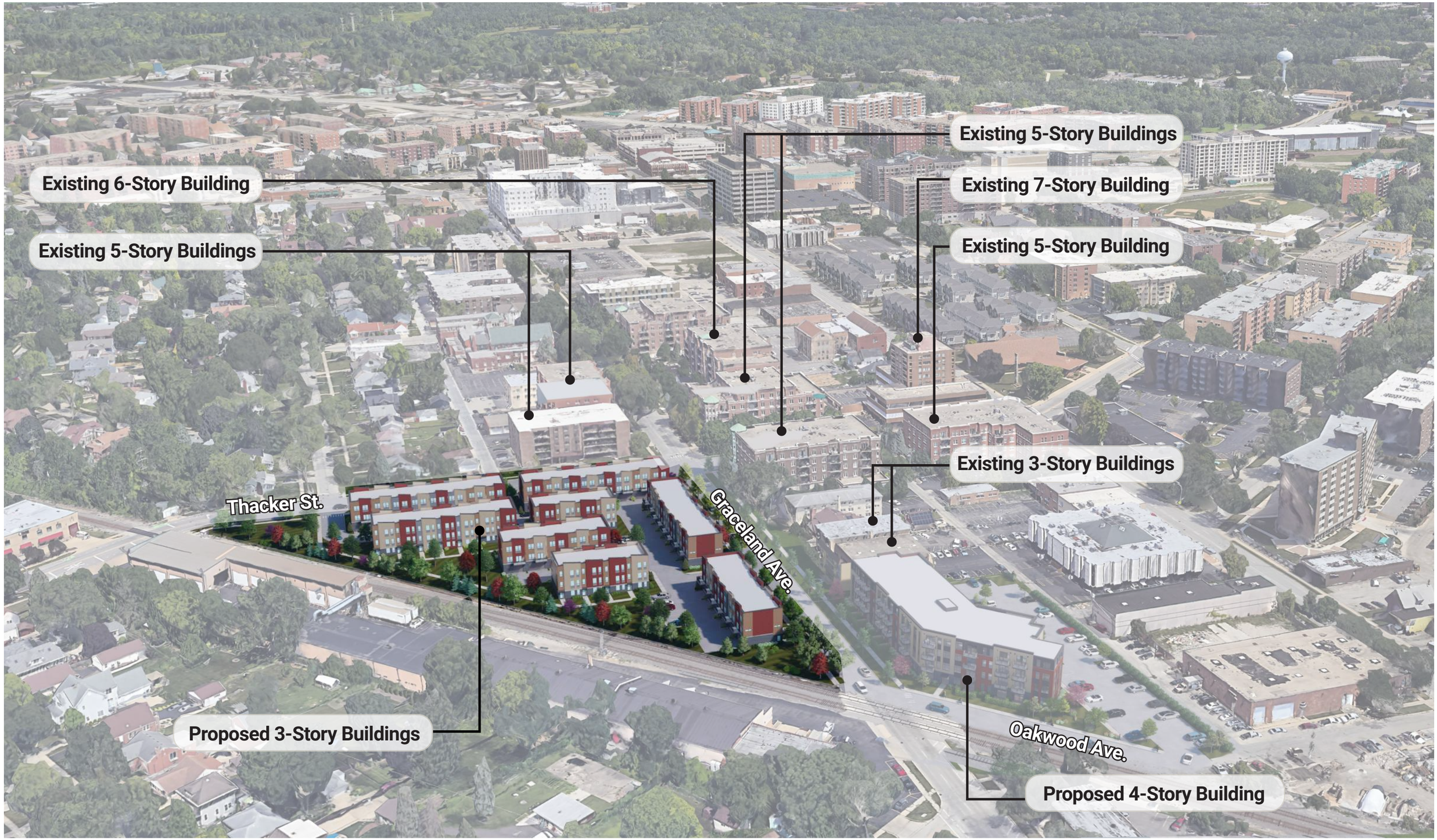
PROJECT SITE



LOCATION MAP

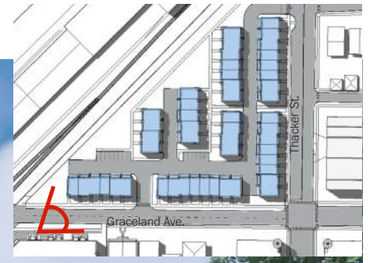

Total of Fifty (50) 3-story THs with 2-car garage:
- Type I: Thirty-three (33) at 22' x 38'
- Type II: Seventeen (17) at 20' x 38'
- 13 guest outdoor parking stalls (1 guest parking required per 4 townhomes, i.e. 13 guest parking required)
Provide 6' high fence along the entire length at this side of property
Railroad
Proposed Park
Thacker St. (Two-way)
New bump-out
Existing Fire Hydrant to be relocated
Align new curb cut with Laurel Ave.
New bump-out
New Fire Hydrant (exact location TBD)
Line of entry canopy at Porch above, projected 15" into required yard
1'-3" Typ.
Required Setback line (shown dashed), typ.
New Fire Hydrant
5ft wide conc. walk, typ.
13 Guest Parking Total
Line of Balcony above, typ.
5'-6" Typ.
Graceland Ave. (One way)
Canopy projected 18" into the required front yard (18" max. allowed)
38'
45'
40'
26'
6'-7"
25'
148'
168'
110'
88'
49'
35'
20'
10'
15'
18'
12'
13'
128'
51'
36'-6"
11'
0'
80'

Site Plan



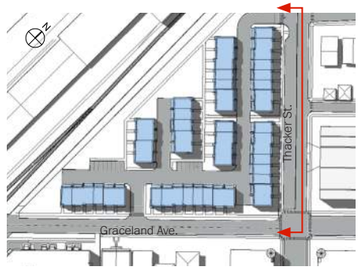
Luz and Associates #1 LLC

Aerial View

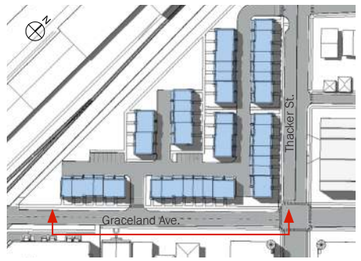


Luz and Associates #1 LLC

Eye Level View along Graceland



THACKER ST. STREET ELEVATION



GRACELAND AVE. STREET ELEVATION

① Face Brick

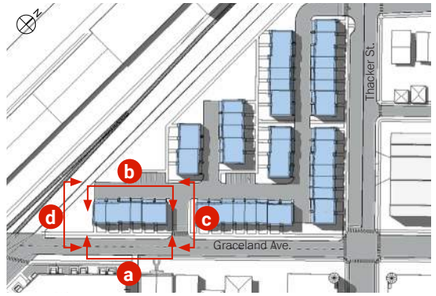
② Face Brick

③ Face Brick

④ Cast Stone

⑤ Fiber Cement Panel

⑥ Fiber Cement Panel

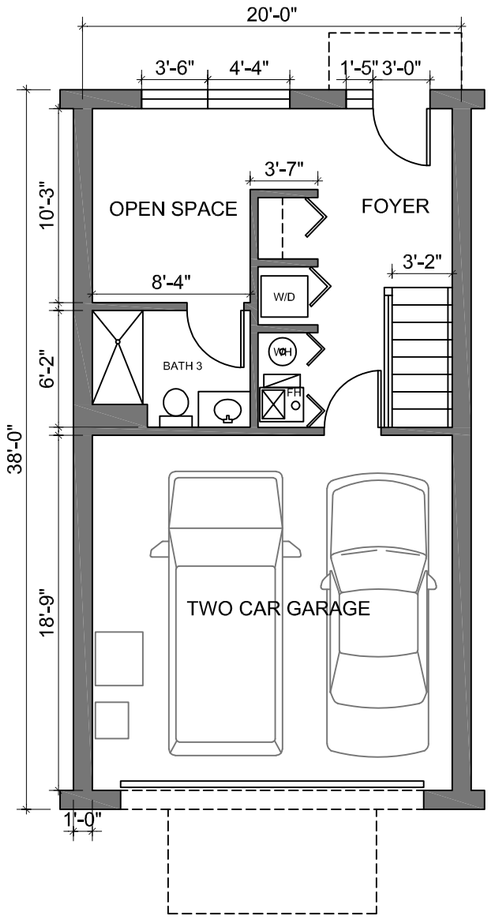


b BACK ELEVATION

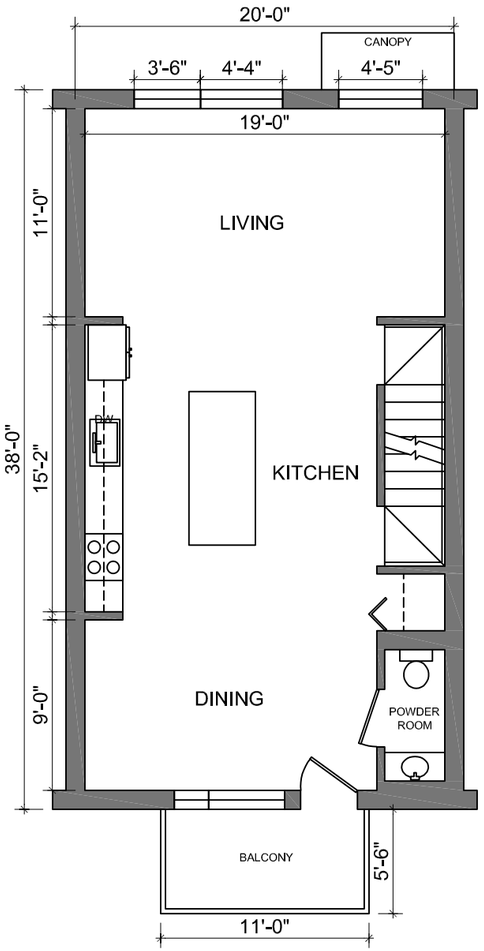
d SIDE ELEVATION

a FRONT ELEVATION

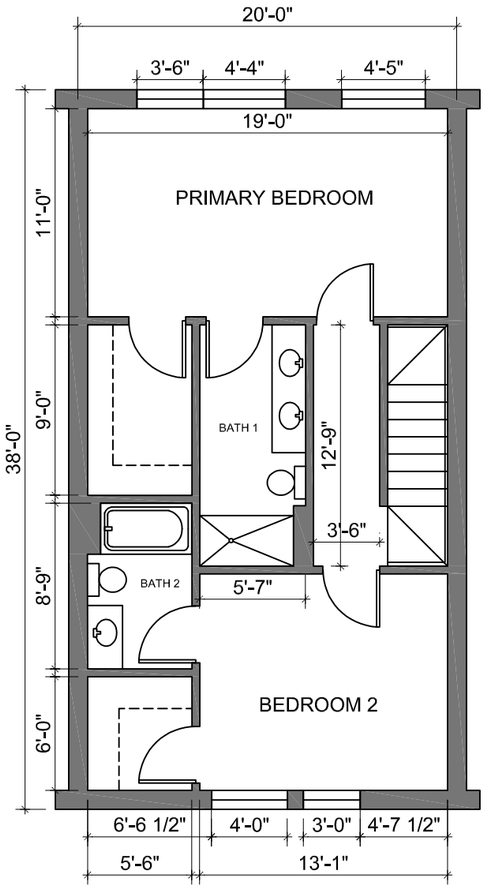
c SIDE ELEVATION



FIRST FLOOR PLAN

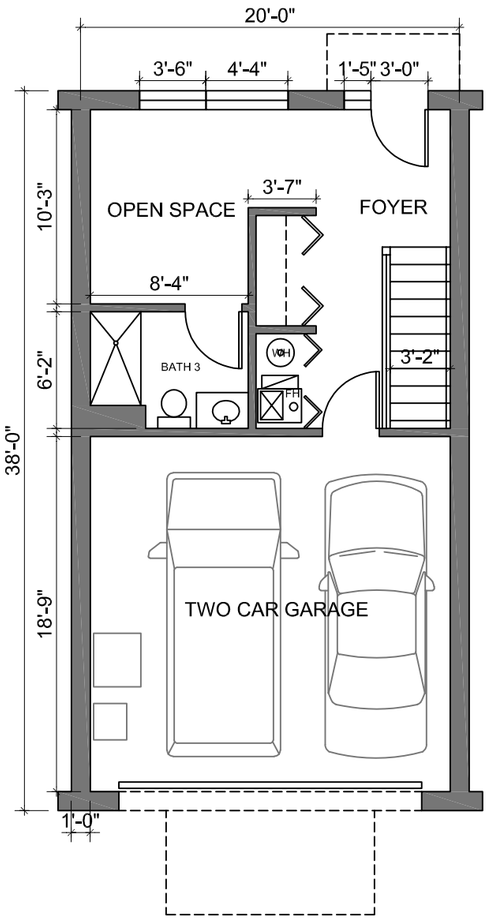


SECOND FLOOR PLAN



THIRD FLOOR PLAN

Townhome Floor Plans - 2 Bedroom Option 1



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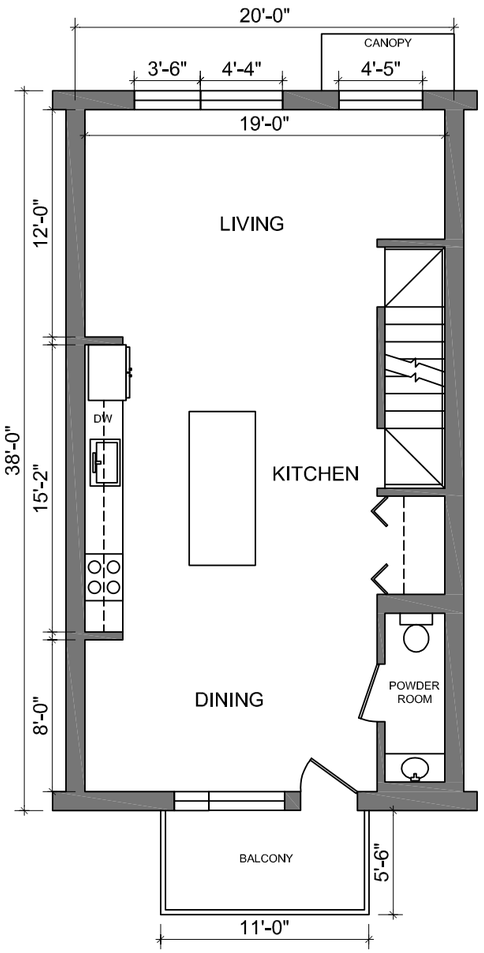
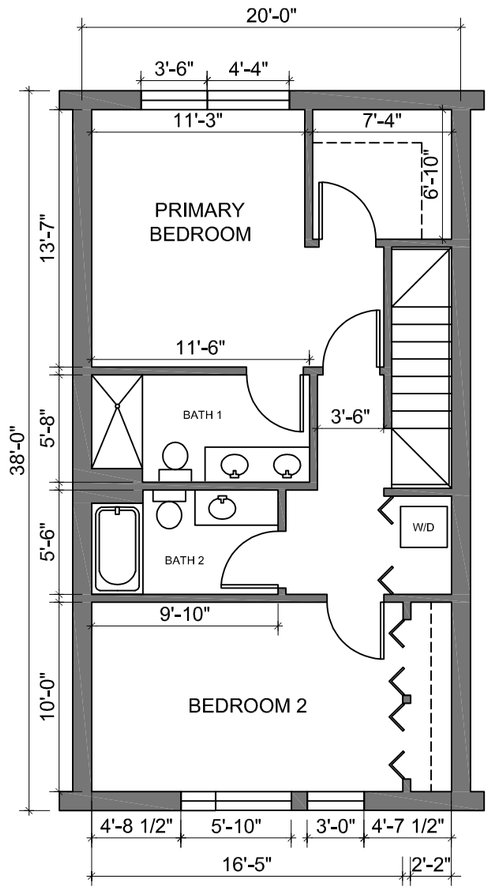
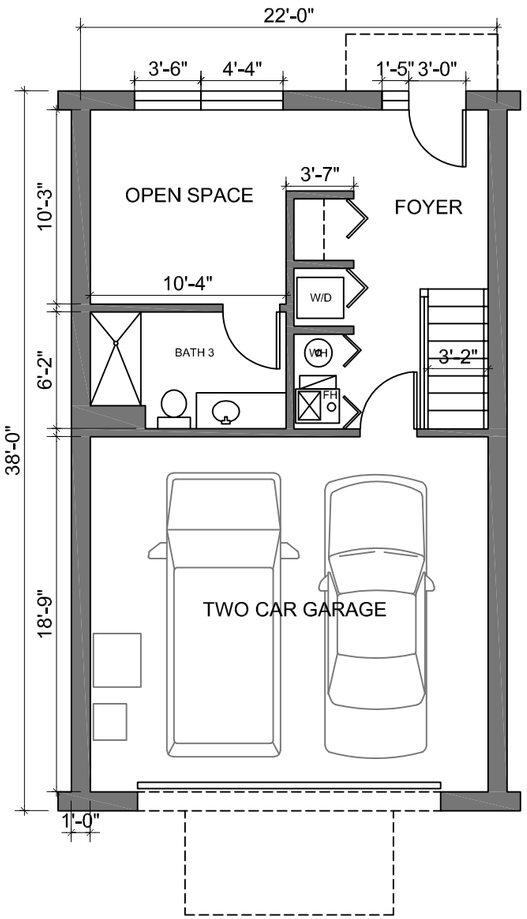


SECOND FLOOR PLAN



THIRD FLOOR PLAN

Townhome Floor Plans - 2 Bedroom Option 2



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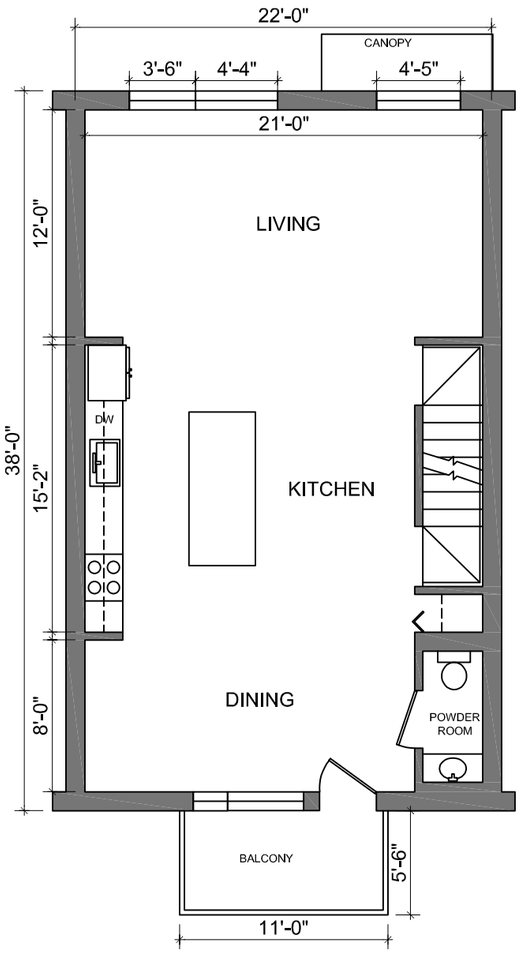
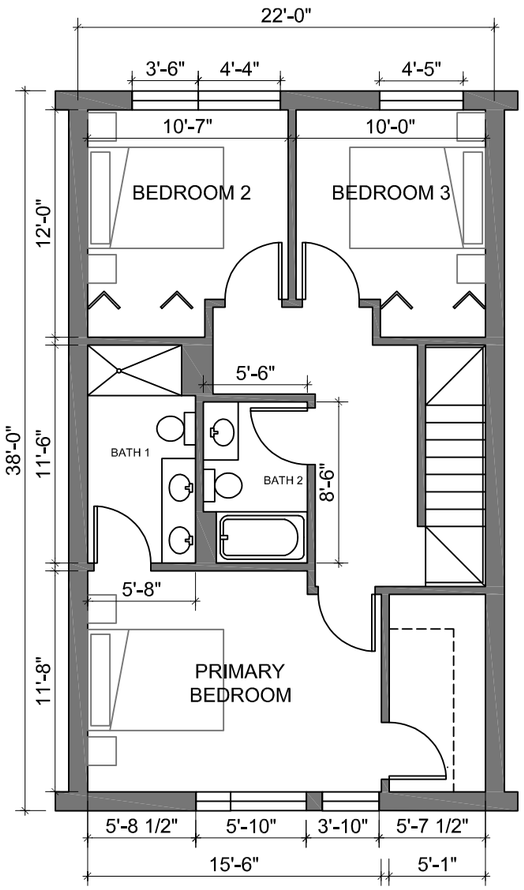
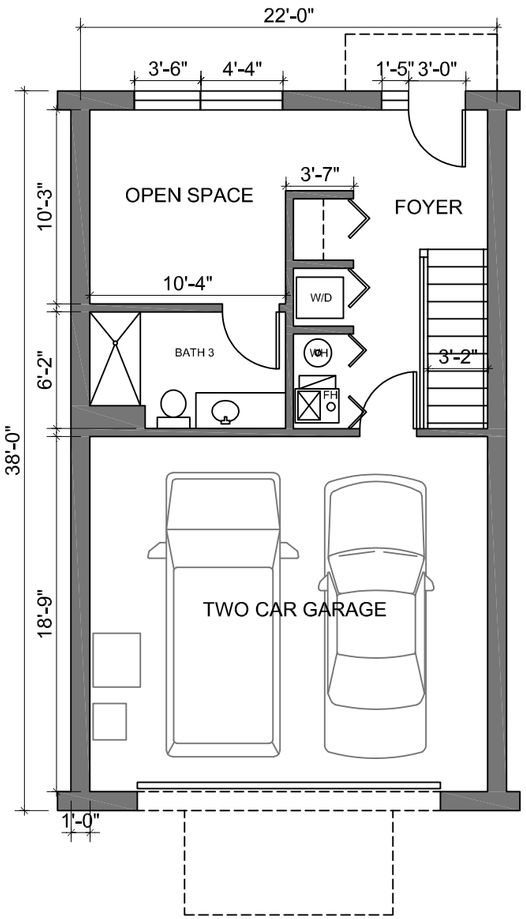


SECOND FLOOR PLAN

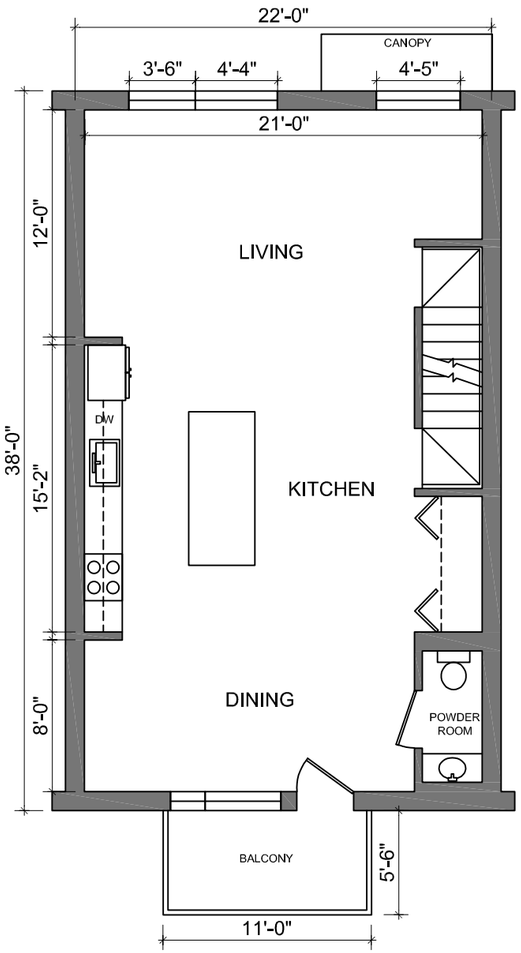


THIRD FLOOR PLAN

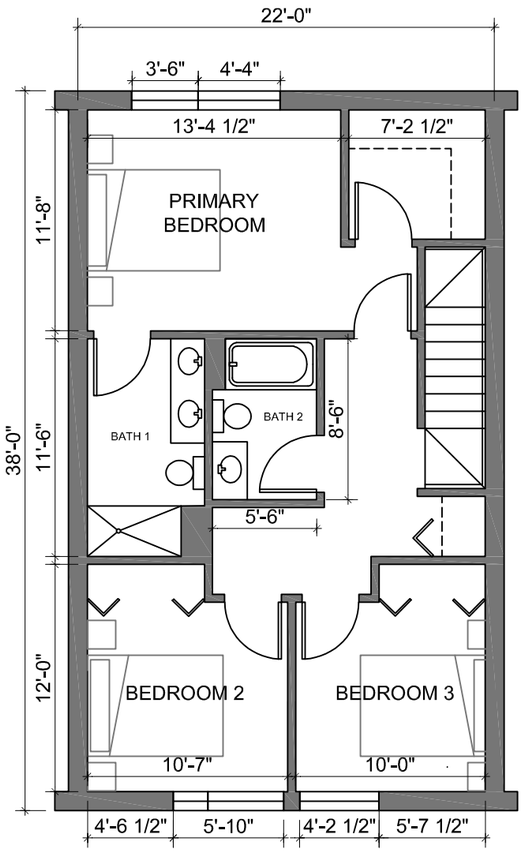
Townhome Floor Plans - 3 Bedroom Option 1



FIRST FLOOR PLAN

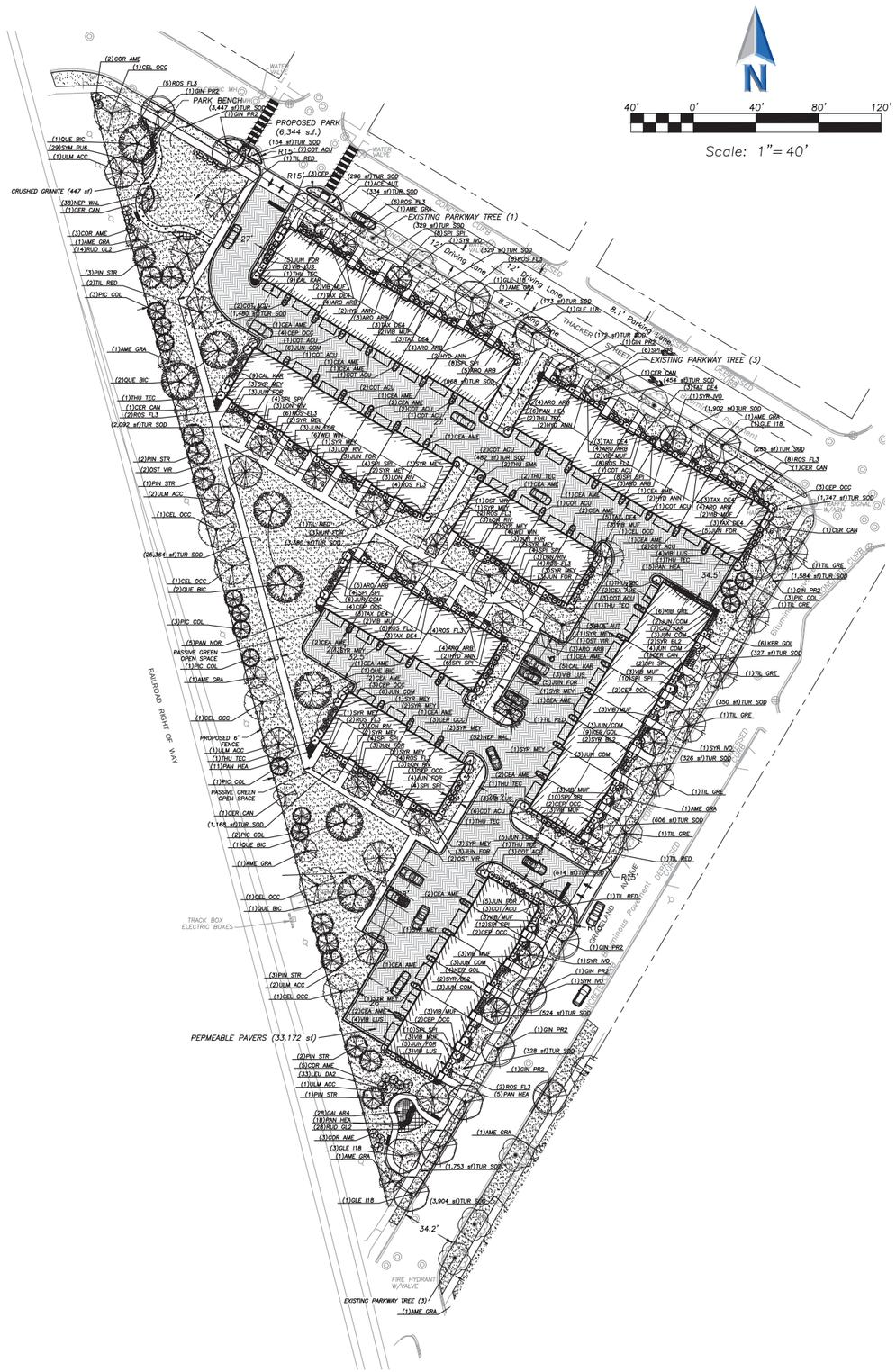


SECOND FLOOR PLAN



THIRD FLOOR PLAN

Townhome Floor Plans - 3 Bedroom Option 2



PLANT SCHEDULE SITE A

CANOPY TREES	BOTANICAL / COMMON NAME	COND	SIZE	QTY
ACE AUT	ACER RUBRUM 'AUTUMN FLAME' / AUTUMN FLAME MAPLE	B & B	2.5" CAL.	4
CEL OCC	CELTIS OCCIDENTALIS / COMMON HACKBERRY	B & B	2.5" CAL.	7
GIN PR2	GINKGO BILOBA 'PRINCETON SENTRY' / PRINCETON SENTRY GINKGO	B & B	2.5" CAL.	7
GLE I18	GLEDITSIA TRIACANTHOS INERMIS 'SKYLINE' / THORNLESS SKYLINE HONEYLOCUST	B & B	2.5" CAL.	7
OST VIR	OSTRYA VIRGINIANA / AMERICAN HOPHORNBEAM	B & B	2.5" CAL.	6
QUE BIC	QUERCUS BICOLOR / SWAMP WHITE OAK	B & B	2.5" CAL.	8
TIL RED	TILIA AMERICANA 'REDMOND' / REDMOND AMERICAN LINDEN	B & B	2.5" CAL.	7
TIL GRE	TILIA CORDATA 'GREENSPIRE' / GREENSPIRE LITTLELEAF LINDEN	B & B	2.5" CAL.	6
ULM ACC	ULMUS X 'ACCOLADE' / ACCOLADE ELM	B & B	2.5" CAL.	7

EVERGREEN TREES	BOTANICAL / COMMON NAME	COND	SIZE	QTY
PIC COL	PICEA PUNGENS 'COLORADO GREEN' / BLUE SPRUCE	B & B	6' – 8' HT.	13
PIN STR	PINUS STROBUS / WHITE PINE	B & B	6' – 8' HT.	12

UNDERSTORY TREES	BOTANICAL / COMMON NAME	COND	SIZE	QTY
AME GRA	AMELANCHIER X GRANDIFLORA 'AUTUMN BRILLIANCE' / AUTUMN BRILLIANCE APPLE SERVICEBERRY	B & B	8' CLUMP	9
CER CAN	CERCIS CANADENSIS / EASTERN REDBUD	B & B	2.5" CAL.	7
SYR IVO	SYRINGA RETICULATA 'IVORY SILK' / IVORY SILK JAPANESE TREE LILAC	B & B	2.5" CAL.	5

DECIDUOUS SHRUBS	BOTANICAL / COMMON NAME	COND.	SIZE	QTY
ARO ARB	ARONIA ARBUTIFOLIA / RED CHOKEBERRY	B & B	30" HT.	43
CEA AME	CEANOTHUS AMERICANUS / NEW JERSEY TEA	B & B	30" HT.	30
CEP OCC	CEPHALANTHUS OCCIDENTALIS / BUTTONBUSH	B & B	36" HT.	31
COR AME	CORYLUS AMERICANA / AMERICAN HAZELNUT	CONT.	36" HT.	13
COT ACU	COTONEASTER ACUTIFOLIUS / PEKING COTONEASTER	B & B	36" HT.	39
LON RIV	DIERVILLA 'G2XBB544' / KODIAK® ORANGE DIERVILLA	CONT.	30" HT.	21
HYD ANN	HYDRANGEA ARBORESCENS 'ANNABELLE' / ANNABELLE SMOOTH HYDRANGEA	B & B	36" HT.	10
KER GOL	KERRIA JAPONICA 'GOLDEN GUINEA' / GOLDEN JAPANESE KERRIA	B & B	24" HT.	19
RIB GRE	RIBES ALPINUM 'GREEN MOUND' / GREEN MOUND ALPINE CURRANT	CONT.	24" HT.	6
ROS FL3	ROSA X 'FLOWER CARPET CORAL' / ROSE	CONT.	24" SPREAD	73
SPI SPI	SPIRAEA JAPONICA 'LITTLE PRINCESS' / LITTLE PRINCESS JAPANESE SPIREA	CONT.	24" HT.	104
SYR MEY	SYRINGA MEYERI 'PALIBIN' / DWARF KOREAN LILAC	B & B	30" HT.	38
SYR BL2	SYRINGA X 'BLOOMERANG' / BLOOMERANG LILAC	B & B	30" HT.	6
VIB MUF	VIBURNUM DENTATUM 'BLUE MUFFIN' / SOUTHERN ARROWWOOD	B & B	30" HT.	37
VIB LUS	VIBURNUM DENTATUM 'CHICAGO LUSTER' / CHICAGO LUSTER ARROWWOOD	B & B	36" HT.	19
WEI WIN	WEIGELA FLORIDA 'WINE TM' / WEIGELA	B & B	30" HT.	10

EVERGREEN SHRUBS	BOTANICAL / COMMON NAME	COND.	SIZE	QTY
JUN COM	JUNIPERUS CHINENSIS 'PFITZERIANA COMPACTA' / COMPACTA PFITZER	B & B	24" HT.	39
JUN FOR	JUNIPERUS CHINENSIS 'SEA GREEN' / SEA GREEN JUNIPER	B & B	24" SPREAD	58
TAX DE4	TAXUS X MEDIA / DENSE YEW	B & B	30" HT.	36
THU SMA	THUJA OCCIDENTALIS 'SMARAGD' / EMERALD GREEN ARBORVITAE	B & B	48" HT.	2
THU TEC	THUJA OCCIDENTALIS 'TECHNY' / TECHNY ARBORVITAE	B & B	5' HT.	13

GRASSES	BOTANICAL / COMMON NAME	COND.	SIZE	QTY
CAL KAR	CALAMAGROSTIS X ACUTIFLORA 'KARL FOERSTER' / FEATHER REED GRASS	CONT.	#1	30
PAN HEA	PANICUM VIRGATUM 'HEAVY METAL' / HEAVY METAL SWITCH GRASS	CONT.	#1	55
PAN NOR	PANICUM VIRGATUM 'NORTH WIND' / NORTHWIND SWITCH GRASS	CONT.	#1	5

PERENNIALS	BOTANICAL / COMMON NAME	COND	SIZE	QTY
GAI ARA	GAILLARDIA X GRANDIFLORA 'ARIZONA RED SHADES' / ARIZONA RED BLANKETFLOWER	CONT.	#1	28
LEU DA2	LEUCANTHEMUM X SUPERBUM 'DAISY MAY' / SHASTA DAISY	CONT.	#1	33
NEP WAL	NEPETA X FAASSENII 'WALKERS LOW' / WALKERS LOW CATMINT	CONT.	#1	90
RUD GL2	RUDBECKIA FULGIDA 'GLODSTRUM' / BLACK-EYED SUSAN	CONT.	#1	42
SYM PU6	SYMPHYOTRICHUM NOVAE-ANGLIAE 'PURPLE DOME' / NEW ENGLAND ASTER	CONT.	#1	29

TURF GRASS	BOTANICAL / COMMON NAME	COND	SIZE	QTY
TUR SOD	TURF SOD / DROUGHT TOLERANT FESCUE BLEND	SOD	S.F.	50,968 SF

SITE MATERIALS SCHEDULE (SITE A)

	EXISTING PARKWAY TREE	4
	CRUSHED GRANITE	447 SF
	PERMEABLE PAVERS	33,172 SF

LANDSCAPE NOTES:

1. PLANT QUANTITIES SHOWN IN THE PLANT SCHEDULE ARE FOR CONVENIENCE ONLY. THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING AND INSTALLING ALL MATERIALS SHOWN ON THE PLAN AND SHOULD NOT RELY ON THE PLANT SCHEDULE FOR DETERMINING QUANTITIES.
2. ALL PLANT MATERIALS SHALL BE NURSERY GROWN STOCK AND SHALL BE FREE FROM ANY DEFORMITIES, DISEASES OR INSECT DAMAGE. ANY MATERIALS WITH DAMAGED OR CROOKED/DISFIGURED LEADERS, BARK ABRASION, SUNSCALD, INSECT DAMAGE, ETC. ARE NOT ACCEPTABLE AND WILL BE REJECTED. TREES WITH MULTIPLE LEADERS WILL BE REJECTED UNLESS CALLED OUT IN THE PLANT SCHEDULE AS MULTI-STEM. NO PRUNING TO BE DONE AT THE TIME OF INSTALLATION EXCEPT FOR DEAD OR BROKEN LIMBS.
3. ALL LANDSCAPE IMPROVEMENTS SHALL MEET MUNICIPALITY REQUIREMENTS AND GUIDELINES, WHICH SHALL BE VERIFIED BY MUNICIPAL AUTHORITIES.
4. ALL PLANTING OPERATIONS SHALL BE COMPLETED IN ACCORDANCE WITH STANDARD HORTICULTURAL PRACTICES. THIS MAY INCLUDE, BUT NOT BE LIMITED TO, PROPER PLANTING BED AND TREE PIT PREPARATION, PLANTING MIX, PRUNING, STAKING AND GUYING, WRAPPING, SPRAYING, FERTILIZATION, PLANTING AND ADEQUATE MAINTENANCE OF MATERIALS DURING CONSTRUCTION ACTIVITIES.
5. ALL PLANT MATERIALS SHALL BE INSPECTED AND APPROVED BY THE LANDSCAPE ARCHITECT PRIOR TO INSTALLATION. ANY MATERIALS INSTALLED WITHOUT APPROVAL MAY BE REJECTED.
6. THE CONTRACTOR SHALL GUARANTEE PLANT MATERIALS FOR A PERIOD OF ONE YEAR FROM DATE OF ACCEPTANCE BY OWNER. THE CONTRACTOR SHALL OUTLINE PROPER MAINTENANCE PROCEDURES TO THE OWNER AT THE TIME OF ACCEPTANCE. DURING THE GUARANTEE PERIOD, DEAD OR DISEASED MATERIALS SHALL BE REPLACED AT NO COST TO THE OWNER. AT THE END OF THE GUARANTEE PERIOD THE CONTRACTOR SHALL OBTAIN FINAL ACCEPTANCE FROM THE OWNER.
7. ANY EXISTING TREES TO BE RETAINED SHALL BE PROTECTED FROM SOIL COMPACTION AND OTHER DAMAGES THAT MAY OCCUR DURING CONSTRUCTION ACTIVITIES BY ERECTING FENCING AROUND SUCH MATERIALS AT A DISTANCE OF 8.5' FROM THE TRUNK.
8. ALL GRASS, CLUMPS, OTHER VEGETATION, DEBRIS, STONES, ETC.. SHALL BE RAKED OR OTHERWISE REMOVED FROM PLANTING AND LAWN AREAS PRIOR TO INITIATION OF INSTALLATION PROCEDURES.
9. THE CONTRACTOR SHALL VERIFY THE LOCATIONS OF ALL UNDERGROUND UTILITIES PRIOR TO INITIATING PLANTING OPERATIONS. THE CONTRACTOR SHALL REPAIR/ REPLACE AND UTILITY, PAVING, CURBING, ETC.. WHICH IS DAMAGED DURING PLANTING OPERATIONS.
10. SIZE AND GRADING STANDARDS OF PLANT MATERIALS SHALL CONFORM TO THE LATEST EDITION OF ANSI Z60.1, AMERICAN STANDARDS FOR NURSERY STOCK, BY THE AMERICAN NURSERY & LANDSCAPE ASSOCIATION.
11. REFER TO PLAT OF SURVEY FOR LEGAL DESCRIPTION, BOUNDARY DIMENSIONS AND EXISTING CONDITIONS.
12. ALL PLANT MATERIAL ON THIS PLANTING PLAN REPRESENTS THE INTENTION AND INTENSITY OF THE PROPOSED LANDSCAPE MATERIAL. THE EXACT SPECIES AND LOCATIONS MAY VARY IN THE FIELD DO TO MODIFICATIONS IN THE SITE IMPROVEMENTS AND THE AVAILABILITY OF PLANT MATERIAL AT THE TIME OF INSTALLATION. ANY SUCH CHANGES MUST FIRST BE APPROVED BY THE CITY IN WRITING
13. ALL PLANT MATERIAL SHALL BE PLANTED WITH A MINIMUM OF SIX INCHES OF ORGANIC SOIL AND MULCHED WITH A SHREDDED BARK MATERIAL TO A MINIMUM 3" DEPTH.
14. ALL BEDS SHALL BE EDGED, HAVE WEED PREEMERGENTS APPLIED AT THE RECOMMENDED RATE.
15. ALL PARKWAYS SHALL HAVE LAWN ESTABLISHED WITH SEED A GROUNDCOVER, UNLESS OTHERWISE NOTED.
16. ALL LAWN AREAS ON THIS PLAN SHALL BE GRADED SMOOTH AND TOPPED WITH AT LEAST 6" OF TOPSOIL. ALL LAWN AREAS TO BE ESTABLISHED USING SEED BLANKET UNLESS OTHERWISE NOTED. BLANKET TO BE S75 OR APPROVED EQUAL.
17. THIS LANDSCAPE PLAN ASSUMES THE SITE WILL BE PREPARED WITH TOP SOIL SUITABLE FOR THE ESTABLISHMENT OF THE LANDSCAPE MATERIAL PRESENTED ON THIS PLAN. IF ADDITIONAL TOP SOIL IS REQUIRED IT IS UP TO THE LANDSCAPE CONTRACTOR ON THE PROJECT TO PROVIDE, SPREAD AND PREPARE THE SITE AS NEEDED FOR THE IMPLEMENTATION OF THIS LANDSCAPE PLAN.
18. CONTRACTORS MUST VERIFY ALL QUANTITIES AND OBTAIN ALL PROPER PERMITS AND LICENSES FROM THE PROPER AUTHORITIES.
19. ALL MATERIAL MUST MEET INDUSTRY STANDARDS AND THE LANDSCAPE ARCHITECT HAS THE RIGHT TO REFUSE ANY POOR MATERIAL OR WORKMANSHIP.
20. LANDSCAPE ARCHITECT IS NOT RESPONSIBLE FOR UNSEEN SITE CONDITIONS.
21. ALL PLANTINGS SHALL BE SPACED EQUAL DISTANT, BACK FILLED WITH AMENDED SOIL IN A HOLE TWICE THE ROOTBALL DIAMETER, WATERED, FERTILIZED, PRUNED, AND HAVE ALL TAGS AND ROPES REMOVED.
22. LAWN AND BED AREAS SHALL BE ROTOTILLED, RAKED OF CLUMPS AND DEBRIS.
23. REMOVE ALL DEAD AND DISEASED PLANT MATERIAL FROM SITE AND DISPOSE OF PROPERLY.
24. PLANTS TO BE PLANTED SO THAT ROOT FLARE IS AT THE GRADE OF THE AREA WHERE PLANTED. NO PRUNING TO BE DONE AT THE TIME OF INSTALLATION EXCEPT TO REMOVE DEAD OR BROKEN LIMBS.

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Sheet Title:
LANDSCAPE PLAN SITE A

Sheet No:
L100

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PLANT SCHEDULE SITE A

CANOPY TREES	BOTANICAL / COMMON NAME	COND	SIZE	QTY
	ACER RUBRUM 'AUTUMN FLAME' / AUTUMN FLAME MAPLE	B & B	2.5" CAL.	4
	CELTIS OCCIDENTALIS / COMMON HACKBERRY	B & B	2.5" CAL.	7
	GINKGO BILOBA 'PRINCETON SENTRY' / PRINCETON SENTRY GINKGO	B & B	2.5" CAL.	7
	GLEDITSIA TRIACANTHOS INERMIS 'SKYLINE' / THORNLESS SKYLINE HONEYLOCUST	B & B	2.5" CAL.	7
	OSTRYA VIRGINIANA / AMERICAN HOPHORNBEAM	B & B	2.5" CAL.	6
	QUERCUS BICOLOR / SWAMP WHITE OAK	B & B	2.5" CAL.	8
	TILIA AMERICANA 'REDMOND' / REDMOND AMERICAN LINDEN	B & B	2.5" CAL.	7
	TILIA CORDATA 'GREENSPIRE' / GREENSPIRE LITTLELEAF LINDEN	B & B	2.5" CAL.	6
	ULMUS X 'ACCOLADE' / ACCOLADE ELM	B & B	2.5" CAL.	7
EVERGREEN TREES	BOTANICAL / COMMON NAME	COND	SIZE	QTY
	PICEA PUNGENS 'COLORADO GREEN' / BLUE SPRUCE	B & B	6' – 8' HT.	13
	PINUS STROBUS / WHITE PINE	B & B	6' – 8' HT.	12
UNDERSTORY TREES	BOTANICAL / COMMON NAME	COND	SIZE	QTY
	AMELANCHIER X GRANDIFLORA 'AUTUMN BRILLIANCE' / AUTUMN BRILLIANCE APPLE SERVICEBERRY	B & B	8' CLUMP	9
	CERCIS CANADENSIS / EASTERN REDBUD	B & B	2.5" CAL.	7
	SYRINGA RETICULATA 'IVORY SILK' / IVORY SILK JAPANESE TREE LILAC	B & B	2.5" CAL.	5
DECIDUOUS SHRUBS	BOTANICAL / COMMON NAME	COND.	SIZE	QTY
	ARONIA ARBUTIFOLIA / RED CHOKEBERRY	B & B	30" HT.	43
	CEANOTHUS AMERICANUS / NEW JERSEY TEA	B & B	30" HT.	30
	CEPHALANTHUS OCCIDENTALIS / BUTTONBUSH	B & B	36" HT.	31
	CORYLUS AMERICANA / AMERICAN HAZELNUT	CONT.	36" HT.	13
	COTONEASTER ACUTIFOLIUS / PEKING COTONEASTER	B & B	36" HT.	39
	DIERVILLA X 'G2X88544' / KODIAK® ORANGE DIERVILLA	CONT.	30" HT.	21
	HYDRANGEA ARBORESCENS 'ANNABELLE' / ANNABELLE SMOOTH HYDRANGEA	B & B	36" HT.	10
	KERRIA JAPONICA 'GOLDEN GUINEA' / GOLDEN JAPANESE KERRIA	B & B	24" HT.	19
	RIBES ALPINUM 'GREEN MOUND' / GREEN MOUND ALPINE CURRANT	CONT.	24" HT.	6
	ROSA X 'FLOWER CARPET CORAL' / ROSE	CONT.	24" SPREAD	73
	SPIRAEA JAPONICA 'LITTLE PRINCESS' / LITTLE PRINCESS JAPANESE SPIREA	CONT.	24" HT.	104
	SYRINGA MEYERI 'PALIBIN' / DWARF KOREAN LILAC	B & B	30" HT.	38
	SYRINGA X 'BLOOMERANG' / BLOOMERANG LILAC	B & B	30" HT.	6
	VIBURNUM DENTATUM 'BLUE MUFFIN' / SOUTHERN ARROWWOOD	B & B	30" HT.	37
	VIBURNUM DENTATUM 'CHICAGO LUSTER' / CHICAGO LUSTER ARROWWOOD	B & B	36" HT.	19
	WEIGELA FLORIDA 'WINE TM / WEIGELA	B & B	30" HT.	10
EVERGREEN SHRUBS	BOTANICAL / COMMON NAME	COND.	SIZE	QTY
	JUNIPERUS CHINENSIS 'PFITZERIANA COMPACTA' / COMPACTA PFITZER	B & B	24" HT.	39
	JUNIPERUS CHINENSIS 'SEA GREEN' / SEA GREEN JUNIPER	B & B	24" SPREAD	58
	TAXUS X MEDIA / DENSE YEW	B & B	30" HT.	36
	THUJA OCCIDENTALIS 'SMARAGD' / EMERALD GREEN ARBORVITAE	B & B	48" HT.	2
	THUJA OCCIDENTALIS 'TECHNY' / TECHNY ARBORVITAE	B & B	5' HT.	13
GRASSES	BOTANICAL / COMMON NAME	COND.	SIZE	QTY
	CALAMAGROSTIS X ACUTIFLORA 'KARL FOERSTER' / FEATHER REED GRASS	CONT.	#1	30
	PANICUM VIRGATUM 'HEAVY METAL' / HEAVY METAL SWITCH GRASS	CONT.	#1	55
	PANICUM VIRGATUM 'NORTH WIND' / NORTHWIND SWITCH GRASS	CONT.	#1	5
PERENNIALS	BOTANICAL / COMMON NAME	COND	SIZE	QTY
	GAILLARDIA X GRANDIFLORA 'ARIZONA RED SHADES' / ARIZONA RED BLANKETFLOWER	CONT.	#1	28
	LEUCANTHEMUM X SUPERBUM 'DAISY MAY' / SHASTA DAISY	CONT.	#1	33
	NEPETA X FAASSENII 'WALKERS LOW' / WALKERS LOW CATMINT	CONT.	#1	90
	RUDBECKIA FULGIDA 'GLODSTRUM' / BLACK-EYED SUSAN	CONT.	#1	42
	SYMPHYOTRICHUM NOVAE-ANGLIAE 'PURPLE DOME' / NEW ENGLAND ASTER	CONT.	#1	29
TURF GRASS	BOTANICAL / COMMON NAME	COND	SIZE	QTY
	TURF SOD / DROUGHT TOLERANT FESCUE BLEND	SOD	S.F.	50,968 SF

SITE MATERIALS SCHEDULE (SITE A)

	EXISTING PARKWAY TREE	4
	CRUSHED GRANITE	447 SF
	PERMEABLE PAVERS	33,172 SF

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Sheet Title:
LANDSCAPE PLAN SITE A

Sheet No:
L100r

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Attachment 9


Corylus americana


Celtis occidentalis


BENCH


Cotoneaster acutifolius


Quercus bicolor


Symphyotrichum novae-angliae 'Purple Dome'


Nepeta x faassenii 'Walkers Low'

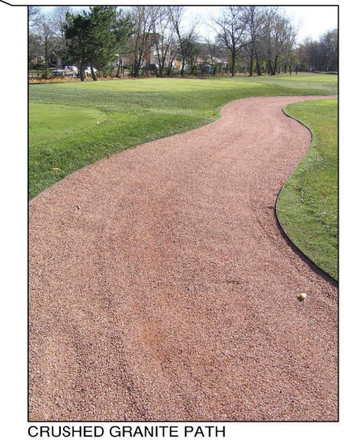

Amelanchier x grandiflora 'Autumn Brilliance'


Pinus strobus


Ginkgo biloba 'Princeton Sentry'


Rudbeckia fulgida 'Goldstrum'


Redmond American Linden


CRUSHED GRANITE PATH

N

10' 0' 10' 20' 30'

Scale: 1"= 10'

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	10/02/2023	ISSUED FOR PZB

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Sheet Title:
CONCEPTUAL PARK PLAN

Sheet No:
L101

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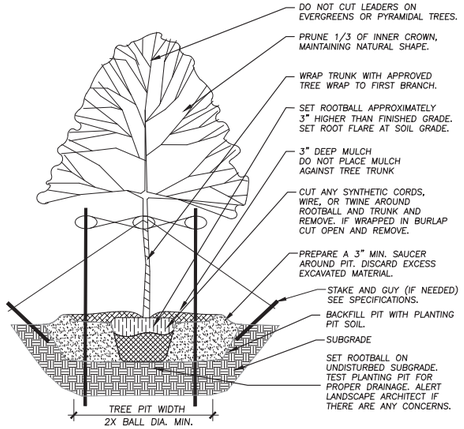

1 TREE PLANTING DETAIL

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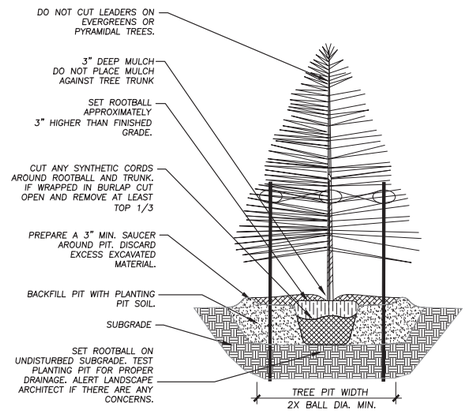
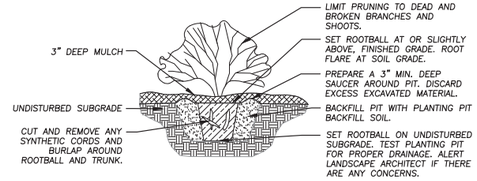


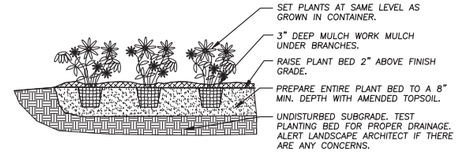
2 EVERGREEN TREE PLANTING DETAIL

NOT TO SCALE 329343-02



3 SHRUB PLANTING DETAIL

Not To Scale 329333-01



4 ANNUAL, PERENNIAL, & GROUNDCOVER DETAIL

Not To Scale 329301-03

DuMor, inc.

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15 INDUSTRIAL CIRCLE, P.O. BOX 142
MIFFLINTOWN, PA 17059-0142
1-800-598-4018
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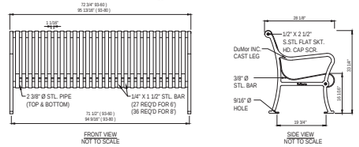
FAX:(717) 436-9839
www.dumor.com

ISOMETRIC VIEW
NOT TO SCALE



FRONT VIEW
NOT TO SCALE

SIDE VIEW
NOT TO SCALE

NOTES:
1. INSTALLATION TO BE COMPLETED IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS.
2. DO NOT SCALE DRAWINGS.
3. ALL STL. MEMBERS COATED W/ ZINC RICH EPOXY THEN FINISHED W/ POLYESTER POWDER COATING.
4. 1/2" X 3 3/4" EXPANSION ANCHOR BOLTS PROVIDED.
5. BENCH IS SHIPPED UNASSEMBLED.
6. CONTRACTOR'S NOTE: FOR PRODUCT AND PURCHASING INFORMATION VISIT www.CADdetails.com/info REFERENCE NUMBER IS7-300.
7. 6' BENCH WITH ARMS AND NO CENTER ARMREST.
8. OR APPROVED EQUAL. APPROVED EQUAL MUST BE APPROVED BY THE OWNER IN WRITING PRIOR TO SUBSTITUTION.

5 6' STEEL BENCH

Not To Scale 129343.13-30

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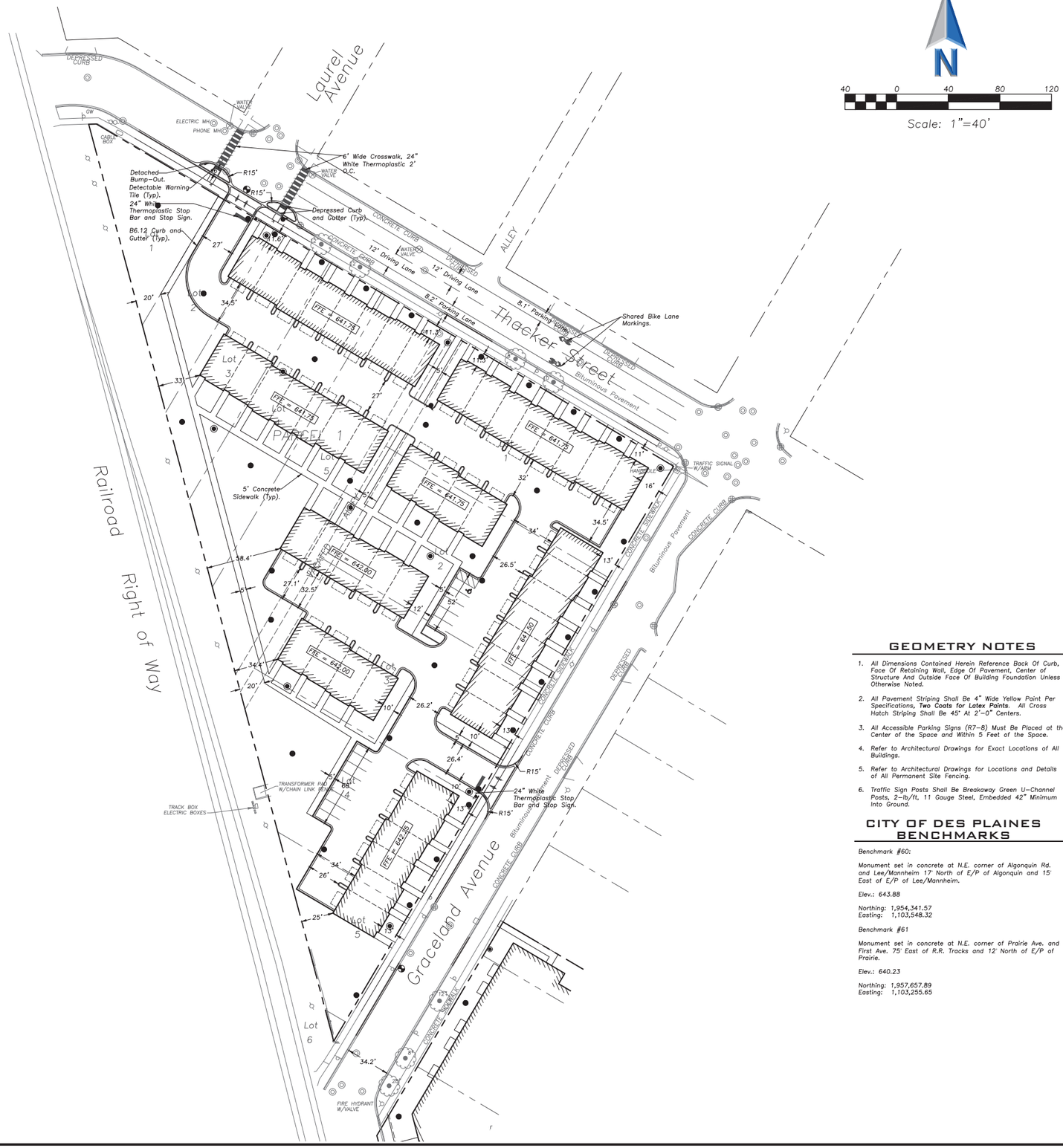
Sheet Title:
LANDSCAPE DETAILS

Sheet No:
L200



N

40 0 40 80 120

Scale: 1"=40'

LEGEND

EXISTING		PROPOSED
	Manhole	
	Catch Basin	
	Inlet	
	Area Drain	
	Clean Out	
	Flared End Section	
	Storm Sewer	
	Sanitary Sewer	
	Combined Sewer	
W	Water Main	W
G	Gas Line	G
OH	Overhead Wires	OH
E	Electrical Cable (Buried)	E
T	Telephone Line	T
	Fire Hydrant	
	Valve Vault	
	Buffalo Box	
	Downspout	
	Bollard	
	Gas Valve	
	Gas Meter	
	Electric Meter	
	ComEd Manhole	
	Hand Hole	
	Light Pole	
	Light Pole w/ Mast Arm	
	Utility Pole	
	Telephone Pedestal	
	Telephone Manhole	
	Sign	
	Fence	
	Accessible Parking Stall	
	Curb & Gutter	
	Depressed Curb	
x C 782.50	Curb Elevation	C 782.50
x G 782.00	Gutter Elevation	G 782.00
x P 783.25	Pavement Elevation	P 783.25
x W 782.10	Sidewalk Elevation	W 782.10
x 784.0	Ground Elevation	x 784.0
x T/W 785.20	Top of Retaining Wall Elevation	T/W 785.20
	Swale	
781	Contour Line	781
	Deciduous Tree	
	Coniferous Tree	
	Brushline	
	Tree Protection Fencing at Drip Line	

GEOMETRY NOTES

1. All Dimensions Contained Herein Reference Back Of Curb, Face Of Retaining Wall, Edge Of Pavement, Center of Structure And Outside Face Of Building Foundation Unless Otherwise Noted.
2. All Pavement Striping Shall Be 4" Wide Yellow Paint Per Specifications, **Two Coats for Latex Paints**. All Cross Hatch Striping Shall Be 45° At 2'-0" Centers.
3. All Accessible Parking Signs (R7-8) Must Be Placed at the Center of the Space and Within 5 Feet of the Space.
4. Refer to Architectural Drawings for Exact Locations of All Buildings.
5. Refer to Architectural Drawings for Locations and Details of All Permanent Site Fencing.
6. Traffic Sign Posts Shall Be Breakaway Green U-Channel Posts, 2-lb/ft, 11 Gauge Steel, Embedded 42" Minimum Into Ground.

CITY OF DES PLAINES BENCHMARKS

Benchmark #60:

Monument set in concrete at N.E. corner of Algonquin Rd. and Lee/Mannheim 17' North of E/P of Algonquin and 15' East of E/P of Lee/Mannheim.

Elev.: 643.88

Northing: 1,954,341.57
Easting: 1,103,548.32

Benchmark #61

Monument set in concrete at N.E. corner of Prairie Ave. and First Ave. 75' East of R.R. Tracks and 12' North of E/P of Prairie.

Elev.: 640.23

Northing: 1,957,657.89
Easting: 1,103,255.65

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9. Provide An As-built Survey Prepared By A Licensed Professional Land Surveyor In Accordance With The Authorities Having Jurisdiction Which Shall Include As a Minimum All Detention Basins and Best Management Practices, Include All Storm and Sanitary Sewers, Structure Locations, Sizes, Rim and Invert Elevations, Final Detention Volume Calculations For The Basin(s), Watermain and Valve and Appurtenance Locations.
10. The Illinois Department Of Transportation Standard Specifications For Road And Bridge Construction Latest Edition, And All Addenda Thereto, Shall Govern The Earthwork And Paving Work Under This Contract Unless Noted Otherwise.

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	10/02/23	ISSUED FOR PZB

Design By:	Approved By:	Date:
CS	CMF	05/30/23

Sheet Title:

SITE GEOMETRY PLAN - SITE A

Sheet No:

C200

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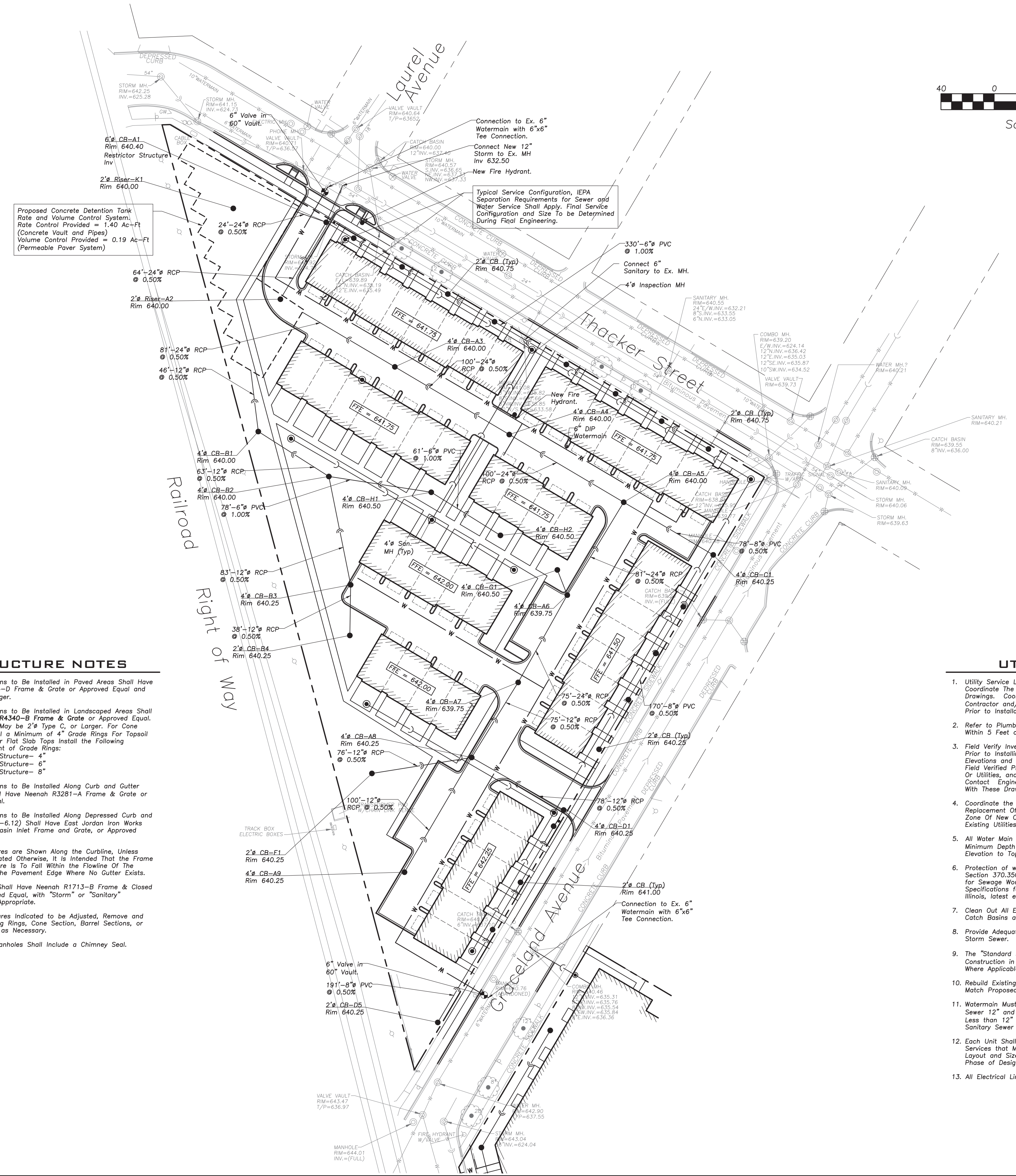

Scale: 1"=40'

LEGEND

EXISTING		PROPOSED
	Manhole	
	Catch Basin	
	Inlet	
	Area Drain	
C.O.	Clean Out	C.O.
	Flared End Section	
	Storm Sewer	
	Sanitary Sewer	
	Combined Sewer	
W	Water Main	W
G	Gas Line	G
OH	Overhead Wires	OH
E	Electrical Cable (Buried)	E
T	Telephone Line	T
	Fire Hydrant	
	Valve Vault	
B	Buffalo Box	B
DS	Downspout	DS
BOL	Bollard	BOL
G	Gas Valve	
G	Gas Meter	
E	Electric Meter	
E	ComEd Manhole	
H	Hand Hole	
	Light Pole	
	Light Pole w/ Mast Arm	
	Utility Pole	
T	Telephone Pedestal	
T	Telephone Manhole	
	Sign	
	Fence	
	Accessible Parking Stall	
	Curb & Gutter	
	Depressed Curb	
x C 782.50	Curb Elevation	C 782.50
x G 782.00	Gutter Elevation	G 782.00
x P 783.25	Pavement Elevation	P 783.25
x W 782.10	Sidewalk Elevation	W 782.10
x 784.0	Ground Elevation	x 784.0
x T/W 785.20	Top of Retaining Wall Elevation	T/W 785.20
	Swale	
781	Contour Line	781
	Deciduous Tree	
	Coniferous Tree	
	Brushline	
	Tree Protection Fencing at Drip Line	

STRUCTURE NOTES

1. All Catch Basins to Be Installed in Paved Areas Shall Have Neenah R2504–D Frame & Grate or Approved Equal and be 4'ø or Larger.
2. All Catch Basins to Be Installed in Landscaped Areas Shall Have **Neenah R4340–B Frame & Grate** or Approved Equal. Catch Basins May be 2'ø Type C, or Larger. For Cone Sections Install a Minimum of 4" Grade Rings For Topsoil Respread. For Flat Slab Tops Install the Following Minimum Height of Grade Rings:
   - 4' Diameter Structure– 4"
   - 5' Diameter Structure– 6"
   - 6' Diameter Structure– 8"
3. All Catch Basins to Be Installed Along Curb and Gutter (B–6.12) Shall Have Neenah R3281–A Frame & Grate or Approved Equal.
4. All Catch Basins to Be Installed Along Depressed Curb and Gutter (Dep B–6.12) Shall Have East Jordan Iron Works 5120 Catch Basin Inlet Frame and Grate, or Approved Equal.
5. Where Structures are Shown Along the Curbline, Unless Specifically Stated Otherwise, It Is Intended That the Frame of the Structure Is To Fall Within the Flowline Of The Gutter or at the Pavement Edge Where No Gutter Exists.
6. All Manholes Shall Have Neenah R1713–B Frame & Closed Lid or Approved Equal, with "Storm" or "Sanitary" Imprinted as Appropriate.
7. For All Structures Indicated to be Adjusted, Remove and Install Adjusting Rings, Cone Section, Barrel Sections, or Flat Slab Top as Necessary.
8. All Sanitary Manholes Shall Include a Chimney Seal.

UTILITY NOTES

1. Utility Service Lines as Shown Hereon are Approximate. Coordinate The Exact Locations With The Plumbing Drawings. Coordinate The Locations With The Plumbing Contractor and/or the Owner's Construction Representative Prior to Installation of Any New Utilities.
2. Refer to Plumbing Drawings for Continuation of All Utilities Within 5 Feet of Building Face.
3. Field Verify Invert & Locations of Existing Utility Mains Prior to Installing Any On–Site Utilities or Structures. All Elevations and Inverts Referencing Said Utility Shall Be Field Verified Prior To Installation Of Any New Structures Or Utilities, and Adjustments Shall Be Made as Necessary. Contact Engineer Prior to Installation if Discrepancy Exists With These Drawings.
4. Coordinate the Relocation Of Any Utilities Encountered And Replacement Of Any Utilities Damaged Within Influence Zone Of New Construction. Contact Engineer If The Existing Utilities Vary Appreciably From The Plans.
5. All Water Main and Services Shall Be Installed at a Minimum Depth of 5.5' From Top of Finished Ground Elevation to Top of Main.
6. Protection of water supplies shall be as described in Section 370.350 of the Illinois Recommended Standards for Sewage Works or Section 41–2.01 of the Standard Specifications for Water and Sewer Main Construction in Illinois, latest edition.
7. Clean Out All Existing and Proposed Storm Inlets and Catch Basins at the Completion of Construction.
8. Provide Adequate Coupling Device to Accommodate HDPE Storm Sewer.
9. The "Standard Specifications for Water and Sewer Main Construction in Illinois", Current Edition Shall Govern Work Where Applicable.
10. Rebuild Existing Structures and Adjust Rim Elevations to Match Proposed Ground Elevations.
11. Watermain Must be Class 52 DIP, Polywrapped. Storm Sewer 12" and Greater Shall be Diameter Shall be RCP, Less than 12" Shall be SDR 26 PVC or C900 PVC. Sanitary Sewer Shall be SDR 26 PVC or C900 PVC.
12. Each Unit Shall have Individual Water and Sanitary Sewer Services that Meet IEPA Separation Requirements. Exact Layout and Size to be Determined in Final Engineering Phase of Design.
13. All Electrical Lines Shall be Installed Underground.

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GRACELAND & THACKER
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Design By:	Approved By:	Date:
CS	CMF	05/30/23

Sheet Title:

SITE UTILITY PLAN - SITE A

Sheet No:

C300

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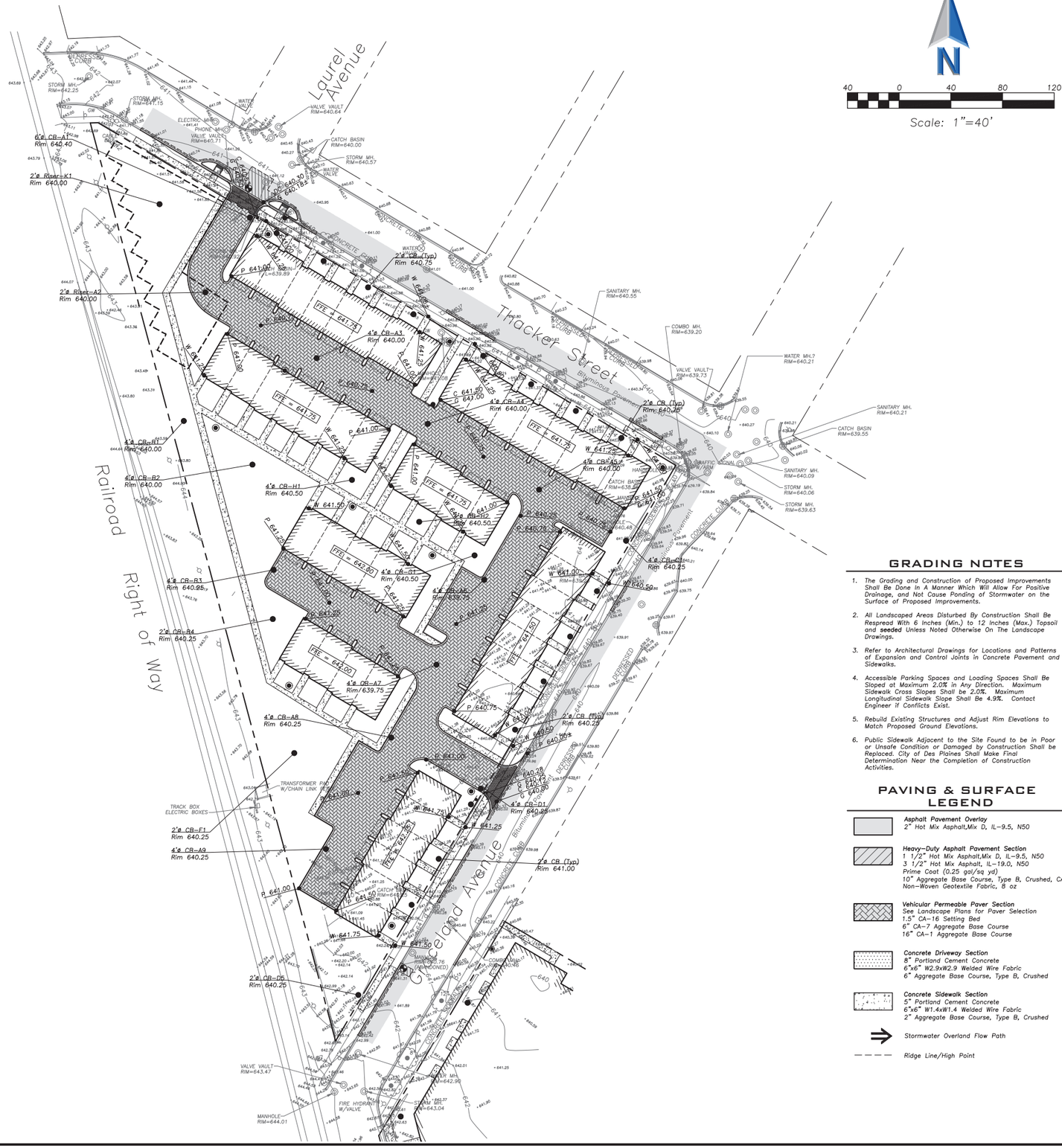

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Scale: 1"=40'

LEGEND

EXISTING		PROPOSED
	Manhole	
	Catch Basin	
	Inlet	
	Area Drain	
CO	Clean Out	CO
	Flared End Section	
ST	Storm Sewer	ST
SS	Sanitary Sewer	SS
CS	Combined Sewer	CS
W	Water Main	W
G	Gas Line	G
OH	Overhead Wires	OH
E	Electrical Cable (Buried)	E
T	Telephone Line	T
	Fire Hydrant	
	Valve Vault	
B	Buffalo Box	B
DS	Downspout	DS
BOL	Bollard	BOL
	Gas Valve	
	Gas Meter	
	Electric Meter	
	ComEd Manhole	
H	Hand Hole	
	Light Pole	
	Light Pole w/ Mast Arm	
	Utility Pole	
	Telephone Pedestal	
	Telephone Manhole	
	Sign	
	Fence	
	Accessible Parking Stall	
	Curb & Gutter	
	Depressed Curb	
x C 782.50	Curb Elevation	C 782.50
x G 782.00	Gutter Elevation	G 782.00
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x W 782.10	Sidewalk Elevation	W 782.10
x 784.0	Ground Elevation	x 784.0
x T/W 785.20	Top of Retaining Wall Elevation	T/W 785.20
	Swale	
781	Contour Line	781
	Deciduous Tree	
	Coniferous Tree	
	Brushline	
	Tree Protection Fencing at Drip Line	

GRADING NOTES

1. The Grading and Construction of Proposed Improvements Shall Be Done In A Manner Which Will Allow For Positive Drainage, and Not Cause Ponding of Stormwater on the Surface of Proposed Improvements.
2. All Landscaped Areas Disturbed By Construction Shall Be Respread With 6 Inches (Min.) to 12 Inches (Max.) Topsoil and seeded Unless Noted Otherwise On The Landscape Drawings.
3. Refer to Architectural Drawings for Locations and Patterns of Expansion and Control Joints in Concrete Pavement and Sidewalks.
4. Accessible Parking Spaces and Loading Spaces Shall Be Sloped at Maximum 2.0% In Any Direction. Maximum Sidewalk Cross Slopes Shall be 2.0%. Maximum Longitudinal Sidewalk Slope Shall Be 4.9%. Contact Engineer If Conflicts Exist.
5. Rebuild Existing Structures and Adjust Rim Elevations to Match Proposed Ground Elevations.
6. Public Sidewalk Adjacent to the Site Found to be in Poor or Unsafe Condition or Damaged by Construction Shall be Replaced. City of Des Plaines Shall Make Final Determination Near the Completion of Construction Activities.

PAVING & SURFACE LEGEND

Asphalt Pavement Overlay
2" Hot Mix Asphalt,Mix D, IL-9.5, N50

Heavy-Duty Asphalt Pavement Section
1 1/2" Hot Mix Asphalt,Mix D, IL-9.5, N50
3 1/2" Hot Mix Asphalt, IL-19.0, N50
Prime Coat (0.25 gal/sq yd)
10" Aggregate Base Course, Type B, Crushed, CA-6
Non-Woven Geotextile Fabric, 8 oz

Vehicular Permeable Paver Section
See Landscape Plans for Paver Selection
1.5" CA-16 Setting Bed
6" CA-7 Aggregate Base Course
16" CA-1 Aggregate Base Course

Concrete Driveway Section
8" Portland Cement Concrete
6"x6" W2.9xW2.9 Welded Wire Fabric
6" Aggregate Base Course, Type B, Crushed

Concrete Sidewalk Section
5" Portland Cement Concrete
6"x6" W1.4xW1.4 Welded Wire Fabric
2" Aggregate Base Course, Type B, Crushed

Stormwater Overland Flow Path

Ridge Line/High Point

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	10/02/23	ISSUED FOR PZB

Design By:	Approved By:	Date:
CS	CMF	05/30/23

Sheet Title:

GRADING AND PAVING PLAN - SITE A

Sheet No:

C400

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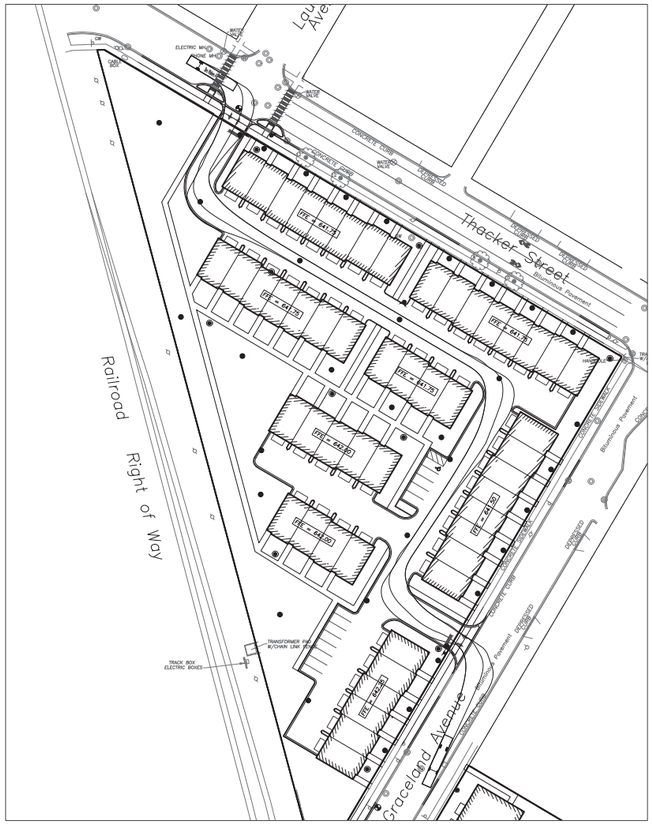
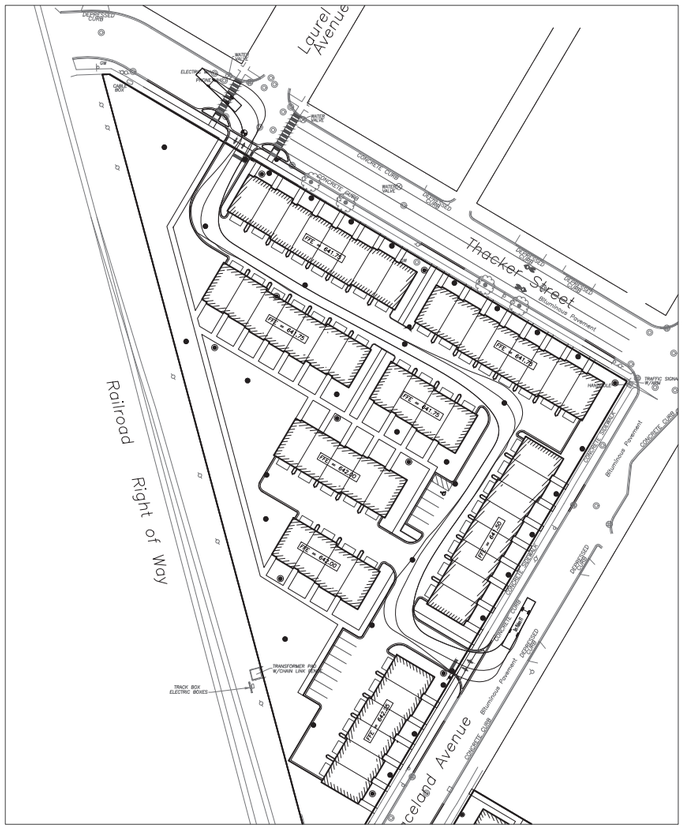
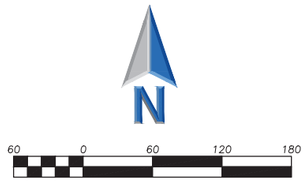


FIRE TRUCK
INGRESS FROM THACKER - EGRESS TO GRACELAND



FIRE TRUCK
INGRESS FROM GRACELAND - EGRESS TO THACKER



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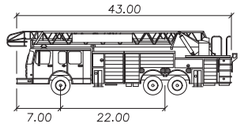

Aerial Fire Truck

	feet
Width	: 8.50
Track	: 8.50
Lock to Lock Time	: 6.0
Steering Angle	: 33.3

ERIKSSON ENGINEERING ASSOCIATES, LTD.
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Design By:	Approved By:	Date:
CS	CMF	05/30/23

Sheet Title:
TURNING EXHIBIT - SITE A

Sheet No:
TEX-1

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Plotted: 10/02/23 @ 7:39pm By: clsh

PUBLIC WORKS AND
ENGINEERING DEPARTMENT
1420 Miner Street
Des Plaines, IL 60016
P: 847.391.5390
desplaines.org

MEMORANDUM

Date: October 19, 2023

To: Samantha Redman, Senior Planner

From: Timothy P. Oakley, P.E., CFM, Director of Public Works, and Engineering

Cc: John La Berg, P.E., CFM, Civil Engineer

Subject: 900 Graceland Ave and 1217 Thacker St Subdivision and Associated Townhouse Development

---

Public Works and Engineering has reviewed the subject final engineering plans and is satisfied with them for zoning approval subject to the conditions below:

Required Conditions

- IEPA, MWRD, and IDOT permits are required prior to issuance of permits for construction and may be necessary for other stages of the project.
- Each townhome unit shall have separate water and sanitary sewer services.
- Hydrants and valves are to be added to the water main loop through the property.
- All electrical lines on the property must be installed underground.

Required Public Improvements

Below are required public improvements for this project. Section 13-3-2.L of the Des Plaines Subdivision Ordinance describes ROW improvements adjacent to a property that the City is able to require with the subdivision process.

- Eastbound lane of Thacker Street must be grinded and resurfaced.
- Graceland is an IDOT route, and IDOT will determine the pavement replacement.
- Public sidewalk adjacent to the site found to be in unsafe condition or damaged by construction shall be replaced. City of Des Plaines shall make final determination near the completion of construction activities.
- Add pedestrian crosswalk crossing Thacker Street to Laurel Avenue., including a bump-out, crosswalk striping, signage including Rectangular Rapid Flashing Beacons (RRFB).
- Add 8" ductile iron water main to replace 4" water main in Graceland only from the railroad tracks to your proposed connection (approximately 100 feet). This improvement will not require crossing Graceland Ave. with the water main.
- Lone streetlight on Graceland Ave. must be replaced and service undergrounded. Staff suggests moving it south to light up the driveway entrance onto Graceland Ave. Petitioner may work with staff and ComEd to coordinate this replacement.

TPO/jl

Traffic Impact Study
Proposed Residential Development

Des Plaines, Illinois

Prepared For:

Luz and Associates #1 LLC

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

September 28, 2023

1. Introduction

This report summarizes the methodologies, results, and findings of a traffic impact study conducted by Kenig, Lindgren, O'Hara, Aboona, Inc. (KLOA, Inc.) for a proposed residential development to be located at 900 Graceland Avenue in Des Plaines, Illinois. The site, which is currently occupied by Contour Saws Inc., will be redeveloped to provide approximately 50 townhomes. Each townhome will have two garage parking spaces and 13 guest parking spaces will be provided on site. The access will be provided off Graceland Avenue and Thacker Street.

The purpose of this study was to examine background traffic conditions, assess the impact that the proposed development will have on traffic conditions in the area, and determine if any roadway or access improvements are necessary to accommodate traffic generated by the proposed development. **Figure 1** shows the location of the site in relation to the area roadway system. **Figure 2** shows an aerial view of the site.

The sections of this report present the following:

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

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

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

2. Projected Conditions – Analyzes the capacity of the future roadway system using the traffic volumes that include the existing traffic volumes increased by an ambient growth factor and the traffic estimated to be generated by the proposed development.

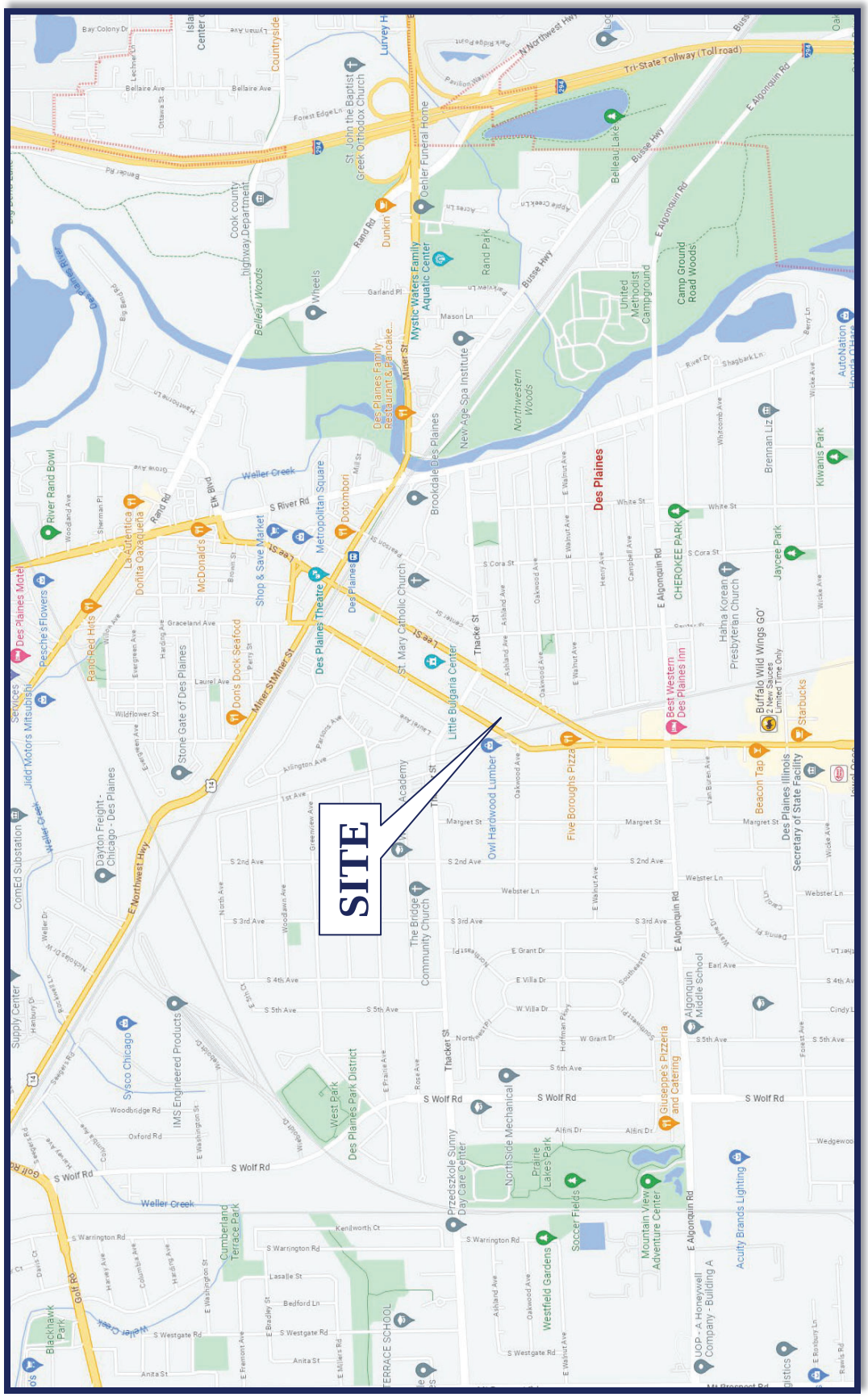


Figure 1

Site Location

Aerial View of Site **Figure 2**

2. Existing Conditions

The following provides a description of the geographical location of the site, physical characteristics of the area roadway system including lane usage and traffic control devices, and existing peak hour traffic volumes.

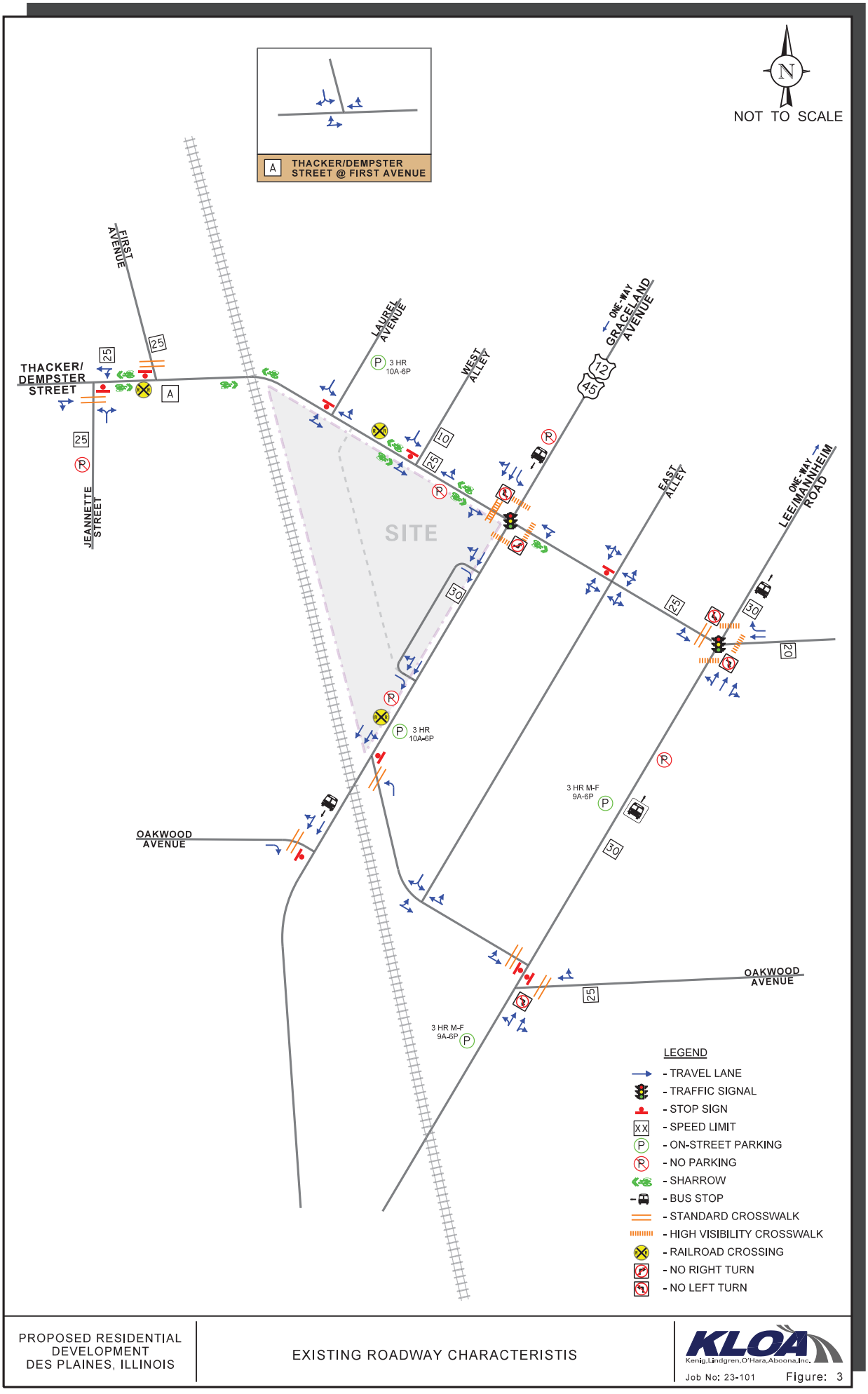
Site Location

The site, which is currently occupied by Contour Saws Inc., is bounded by Thacker Street to the north, Union Pacific Metra Railroad to the west, and Graceland Avenue to the east. Land uses in the vicinity of the site are primarily residential with commercial land uses along Lee Road.

Existing Roadway System Characteristics

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

Thacker Street is generally an east-west major collector roadway that provides one travel lane in each direction in the vicinity of the site. At its signalized intersection with Lee Road, Thacker Street provides a shared left-turn/through lane on the eastbound approach and a through lane and an exclusive right-turn lane on the westbound approach. High visibility crosswalks are provided on the east, north, and south legs of this intersection and a standard style crosswalk is provided on the west leg. Pedestrian signals are provided on all four legs of this intersection. At its signalized intersection with Graceland Avenue, Thacker Road provides a shared through/right-turn lane on the eastbound approach and a shared left-turn/through lane on the westbound approach. High visibility crosswalks and pedestrian signals are provided on all four legs of this intersection. At its unsignalized intersections with Jeannette Street, First Avenue, Laurel Avenue, and the two alleys, Thacker Street does not provide any exclusive turn lanes. Thacker Street is under the jurisdiction of the City of Des Plaines, carries an Annual Average Daily Traffic (AADT) volume of approximately 8,900 vehicles (IDOT 2022), and has a posted speed limit of 25 miles per hour.



PROPOSED RESIDENTIAL DEVELOPMENT
DES PLAINES, ILLINOIS

EXISTING ROADWAY CHARACTERISTIS

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Job No: 23-101 Figure: 3

Graceland Avenue (U.S. 45) is a northeast-southwest, other principal arterial roadway that is one way in the southbound direction in the vicinity of the site providing two travel lanes. At its signalized intersection with Thacker Street, Graceland Avenue provides an exclusive left-turn lane, a through lane, and a shared through/right-turn lane on the southbound approach. At its unsignalized north intersection with Oakwood Avenue, Graceland Avenue provides a through lane and a shared left-turn/through lane on the southbound approach. At its unsignalized south intersection with Oakwood Avenue, Graceland Avenue provides a through lane and a shared through/right turn lane on the southbound approach. Graceland Avenue is under the jurisdiction of the Illinois Department of Transportation (IDOT), carries an AADT volume of approximately 17,000 vehicles (IDOT 2021), is not classified as a Strategic Regional Arterial (SRA), and has a posted speed limit of 30 miles per hour.

Lee Road is a northeast-southwest, other principal arterial roadway that is one way in the northbound direction in the vicinity of the site providing two travel lanes. At its signalized intersection with Thacker Street, Lee Road provides a shared left-turn/through lane, a through lane, and a shared through/right-turn lane on the northbound approach. At its unsignalized intersection with Oakwood Avenue, Lee Road provides a shared left-turn/through lane and a shared through/right-turn lane on the northbound approach. Lee Road is under the jurisdiction of IDOT, carries an AADT volume of 5,600 vehicles (IDOT 2021), is not classified as an SRA, and has a posted speed limit of 30 miles per hour.

Oakwood Avenue is an east-west, local roadway that extends from 3rd Avenue to its terminus at River Road providing one travel lane in each direction. At its unsignalized north "T" intersection with Graceland Avenue, Oakwood Avenue provides a left-turn lane on the westbound approach. A standard style crosswalk is provided on the east leg of this intersection. At its unsignalized south "T" intersection with Graceland Avenue, Oakwood Avenue provides a right-turn lane on the eastbound approach. A standard style crosswalk is provided on the west leg of this intersection. At its unsignalized intersections with the alley and Lee Street, Oakwood Avenue provides a shared left-turn/through lane on the eastbound approach and a shared through/right-turn lane on the westbound approach. Standard style crosswalks are provided on the east and west legs of the intersection of Oakwood Avenue with Lee Road. Oakwood Avenue is under the jurisdiction of the city of Des Plaines and has a posted speed limit of 25 miles per hour.

Jeannette Street is a north-south local roadway that serves residential houses in the vicinity of the site. Jeannette Street extends south from Thacker Street to its terminus at Algonquin Road providing one travel lane in each direction. At its unsignalized "T" intersection with Thacker Street, Jeannette Street provides a shared left-turn/right-turn lane on the northbound approach. A standard style crosswalk is provided on the south leg of this intersection. Jeannette Street is under the jurisdiction of the City of Des Plaines and has a posted speed limit of 25 miles per hour.

First Avenue is a north-south local roadway that provides one travel lane in each direction. At its unsignalized "T" intersection with Thacker Street, First Avenue provides a shared left-turn/right-turn lane on the southbound approach. A standard style crosswalk is provided on the north leg of this intersection. First Avenue is under the jurisdiction of the City of Des Plaines and has a posted speed limit of 25 miles per hour.

Laurel Avenue is a north-south local roadway that provides one lane in each direction. At its unsignalized "T" intersection with Thacker Street, Laurel Avenue provides a shared left-turn/right-turn lane on the southbound approach. Laurel Avenue is under the jurisdiction of the City of Des Plaines.

The east alley is a north-south local roadway that provides one lane in each direction. At its unsignalized intersection with Thacker Street, the alley provides a shared left-turn/through/right-turn lane on both approaches. At its unsignalized "T" intersection with Oakwood Avenue, the alley provides a shared left-turn/right-turn lane on the southbound approach.

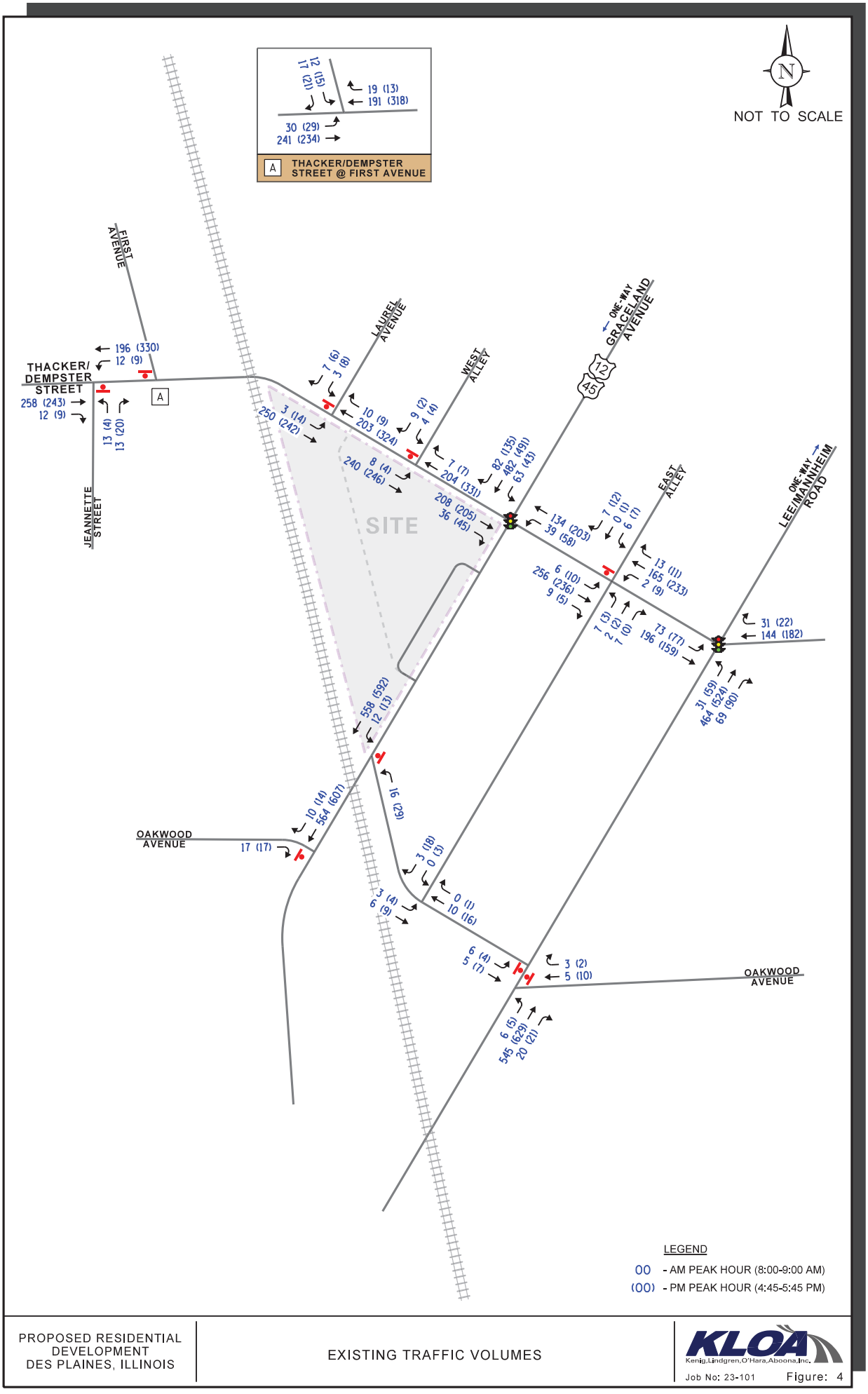
Existing Traffic Volumes

In order to determine current traffic conditions within the study area, KLOA. Inc conducted traffic counts using Miovision Video Scout Collection Units on Tuesday, April 11, 2023 and on Thursday, April 27, 2023 during the weekday morning (7:00 to 9:00 A.M.) and weekday evening (4:00 to 6:00 P.M.) peak periods at the following intersections:

- Thacker Street with Lee Road
- Thacker Street with Graceland Avenue
- Thacker Street with Laurel Avenue
- Thacker Street with First Avenue
- Thacker Street with Jeannette Street
- Thacker Street with the east alley
- Thacker Steet with the west alley
- Oakwood Avenue with Lee Road
- Oakwood Avenue with the east alley
- Oakwood Avenue with Graceland Avenue

Based on the turning movement count data, it was determined that the weekday morning peak hour of traffic generally occurs between 8:00 A.M. and 9:00 A.M. and the weekday evening peak hour of traffic generally occurs between 4:45 P.M. and 5:45 P.M.

Figure 4 illustrates the Year 2023 existing traffic volumes.



PROPOSED RESIDENTIAL DEVELOPMENT
DES PLAINES, ILLINOIS

EXISTING TRAFFIC VOLUMES

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Job No: 23-101 Figure: 4

Train Observations

The Union Pacific Metra North-West crosses Graceland Avenue and Thacker Street in the vicinity of the site. Based on the Illinois Commerce Commission (ICC) data, the tracks carry an average of 22 daily passenger trains only. Furthermore and based on the Metra schedule, the Des Plaines Metra station is served by 69 trains (34 inbound, 35 outbound) on weekdays, 31 trains on Saturdays, and 19 trains on Sundays operating between 5:00 A.M. and 1:00 A.M. Monday through Friday. Field observations conducted during the peak hours for the crossings of Graceland Avenue and Thacker Street indicated the following:

Graceland Avenue Crossing

- During the weekday morning peak hour, three Metra train events were observed. The gates were down for approximately 35 seconds on average. The southbound approach queue at the railroad crossing did not extend back to Thacker Street with a maximum queue of approximately 12 vehicles.

- During the weekday evening peak hour, four Metra train events were observed. The gates were down for approximately 51 seconds on average. The southbound approach queue at the railroad crossing did not extend to Thacker Street with a maximum queue of approximately 12 vehicles.

Thacker Street Crossing

- During the weekday morning peak hour, the queues did not extend past Laurel Avenue.

- During the weekday evening peak hour, the queues extended past Laurel Avenue for approximately 45 seconds and cleared within 30 seconds after the gate was opened.

Crash Data Summary

KLOA, Inc. obtained crash data[1] for the past five years (2018 to 2022) for the intersections of Thacker Street with Lee Road, Thacker Street with Graceland Avenue, Graceland Avenue with Oakwood Avenue, Lee Road with Oakwood Avenue, Thacker Street with Jeannette Street, and Thacker Street with Laurel Avenue. A review of the crash data indicated that no crashes were reported at the intersection of Thacker Street with Laurel Avenue. It should be noted that no fatalities were reported at any studied intersection between 2018 and 2022. **Tables 1** through **5** summarize the crash data for these intersections.

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

Table 1
THACKER STREET WITH GRACELAND AVENUE - CRASH SUMMARY

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

Table 2
THACKER STREET WITH LEE ROAD - CRASH SUMMARY

Year	Type of Crash Frequency						
	Angle	Object	Rear End	Sideswipe	Turning	Other	Total
2018	1	0	1	0	5	0	7
2019	1	0	1	0	5	0	7
2020	0	0	0	0	6	0	6
2021	0	0	0	0	2	0	2
2022	0	0	0	1	3	0	4
Total	**2**	**0**	**2**	**1**	**21**	**0**	**26**
Average/Year	**<1.0**	**--**	**<1.0**	**<1.0**	**4.2**	**--**	**5.2**

Table 3
GRACELAND AVENUE WITH OAKWOOD AVENUE - CRASH SUMMARY

Year	Type of Crash Frequency						
	Angle	Object	Rear End	Sideswipe	Turning	Other	Total
2018	0	0	0	0	1	0	1
2019	0	0	1	0	0	0	1
2020	0	0	0	0	0	0	0
2021	0	0	0	0	0	0	0
2022	0	0	0	0	0	0	0
Total	**0**	**0**	**1**	**0**	**1**	**0**	**2**
Average/Year	**--**	**--**	**<1.0**	**--**	**<1.0**	**--**	**<1.0**

Table 4
LEE ROAD WITH OAKWOOD AVENUE – CRASH SUMMARY

Year	Type of Crash Frequency						
	Angle	Object	Rear End	Sideswipe	Turning	Other	Total
2018	1	0	0	0	0	0	1
2019	0	0	0	0	2	0	2
2020	2	0	0	0	1	0	3
2021	0	0	0	0	0	0	0
2022	0	0	0	0	1	0	1
Total	**3**	**0**	**0**	**0**	**4**	**0**	**7**
Average/Year	**<1.0**	**--**	**--**	**--**	**<1.0**	**--**	**1.4**

Table 5
THACKER STREET WITH JEANNETTE STREET – CRASH SUMMARY

Year	Type of Crash Frequency						
	Angle	Object	Rear End	Sideswipe	Turning	Other	Total
2018	0	0	0	0	0	0	0
2019	0	0	0	0	0	0	0
2020	0	0	0	0	0	0	0
2021	0	0	0	0	0	0	0
2022	1	1	0	0	0	0	2
Total	**1**	**1**	**0**	**0**	**0**	**0**	**2**
Average/Year	**<1.0**	**<1.0**	**--**	**--**	**--**	**--**	**<1.0**

3. Traffic Characteristics of the Proposed Development

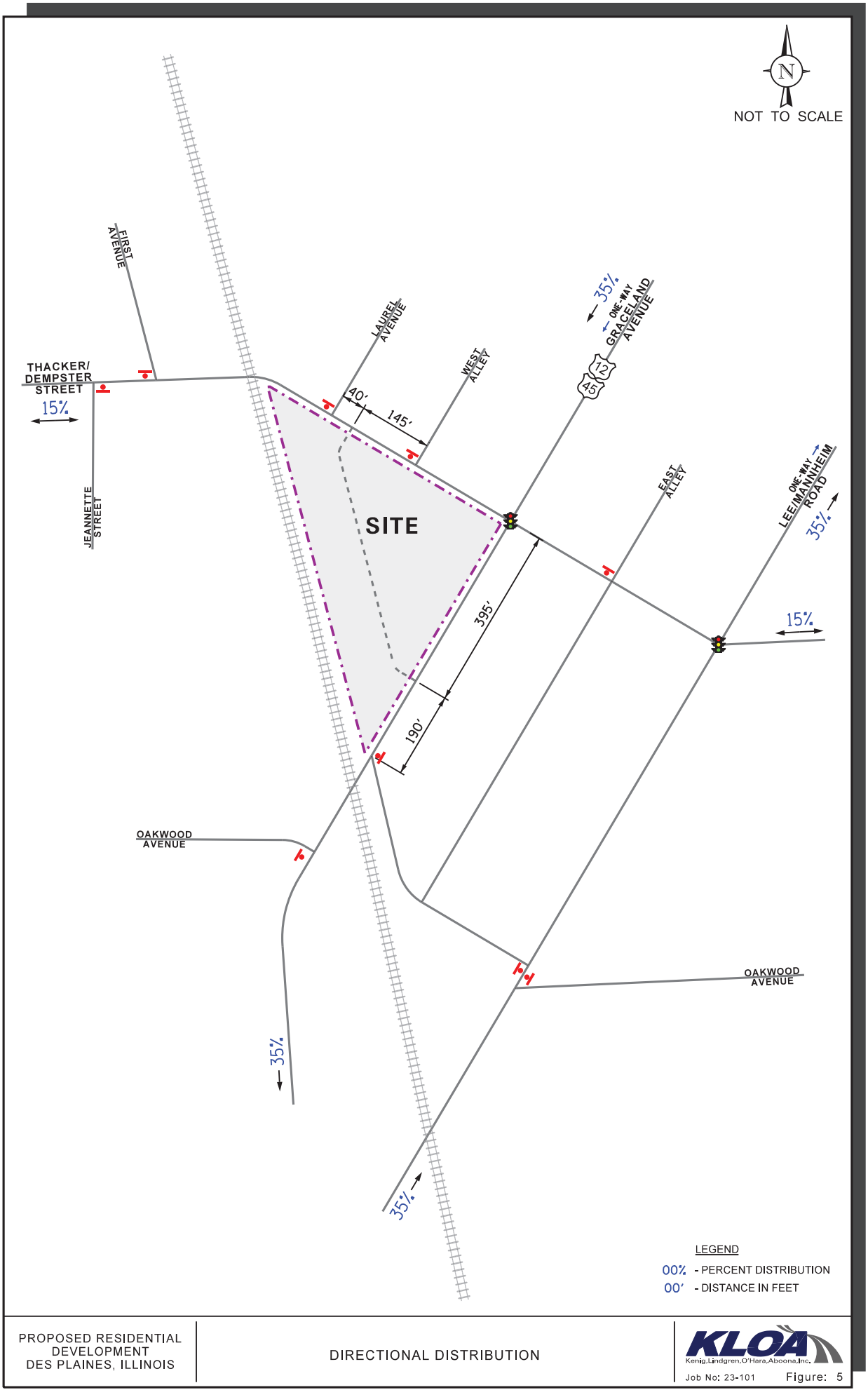
In order to properly evaluate future traffic conditions in the surrounding area, it was necessary to determine the traffic characteristics of the proposed development, including the directional distribution and volumes of traffic that it will generate.

Proposed Site and Development Plan

The site, which is currently occupied by Contour Saws Inc., will be redeveloped to provide 50 townhomes. Each townhome will provide two garages and 13 guest parking will be provided on site. Access to the development will be provided via a full-movement access drive off Thacker Street located approximately 40 feet east of Laurel Avenue and a right-in/right-out access drive off Graceland Avenue located approximately 395 feet south of Thacker Street. Both access drives provide one inbound lane and one outbound lane with outbound movements under stop sign control. A copy of the preliminary site plan depicting the proposed development is included in the Appendix.

Directional Distribution

The directions from which residents and visitors of the development will approach and depart the site were estimated based on existing travel patterns, as determined from the traffic counts. **Figure 5** illustrates the directional distribution of the traffic to be generated by the proposed development.



PROPOSED RESIDENTIAL DEVELOPMENT
DES PLAINES, ILLINOIS

DIRECTIONAL DISTRIBUTION

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Development Traffic Generation

The vehicle trip generation for the overall development was calculated using data published in the Institute of Transportation Engineers (ITE) *Trip Generation Manual*, 11th Edition. The "Multifamily Housing" (ITE Land-Use Code 220) rate was used for the proposed residential units.

It should be noted that due to the location of the site within close proximity of the Des Plaines Metra Station, census data for the area indicates that five percent of the estimated trips to be generated by the proposed development will be via the public transportation, two percent will walk, and one percent will bike. However, in order to provide a conservative analysis, no reductions were applied.

Table 6 shows the estimated vehicle trip generation for the weekday morning and weekday evening peak hours as well as daily traffic. Copies of the ITE trip generation worksheets are included in the Appendix.

Table 6
SITE GENERATED TRIP ESTIMATES

ITE Land-Use Code	Type/Size	Weekday Morning Peak Hour			Weekday Evening Peak Hour			Weekday Daily Trips		
		In	Out	Total	In	Out	Total	In	Out	Total
220	Multifamily Housing (Low-Rise) 50 units	9	28	37	25	15	40	198	198	396

Trip Generation Comparison

It should be noted that the site is currently occupied by an approximately 107,000 square-foot manufacturing building and parking lot. **Table 7** indicates the trips estimated to be generated by the existing manufacturing site and the trips estimated to be generated by the proposed residential development and the future development of the supplemental parking serving the manufacturing building which is located on the northwest corner of the intersection of Oakwood Avenue with Graceland Avenue (as discussed later in the report). A comparison between the future development`s generated trips and the manufacturing site shows that the trips estimated to be generated by the existing manufacturing site are approximately 50 percent higher during the weekday morning peak hour and 45 percent higher during the weekday evening peak hour.

Table 7
TRIP COMPARISION

ITE Land-Use Code	Type/Size	Weekday Morning Peak Hour			Weekday Evening Peak Hour			Weekday Daily Trips		
		In	Out	Total	In	Out	Total	In	Out	Total
220	Multifamily Housing (Low-Rise)[1] 50 units	9	28	37	25	15	40	198	198	396
140	Manufacturing (~107,000 s.f.)	57	18	75	23	53	76	303	303	606
	Difference	-48	+10	-38	+2	-38	-36	-105	-105	-210

1 – Sum of both sites

4. Projected Traffic Conditions

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

Development Traffic Assignment

The estimated peak hour traffic volumes that will be generated by the proposed development were assigned to the roadway system in accordance with the previously described directional distribution. **Figure 6** illustrates the assignment of the vehicle traffic volumes to be generated by the proposed development.

Background (No-Build) Traffic Conditions

The existing traffic volumes (Figure 4) were increased by a regional growth factor to account for the increase in existing traffic related to regional growth in the area (i.e., not attributable to any particular planned development). Based on 2050 Average Daily Traffic (ADT) projections provided by the Chicago Metropolitan Agency for Planning (CMAP), the existing traffic volumes were increased by an annually compounded growth rate for six years (one-year buildout plus five years) totaling three percent to represent Year 2029 total projected conditions. Additionally, the Year 2029 no-build traffic volumes include the traffic estimated to be generated by the following other area developments:

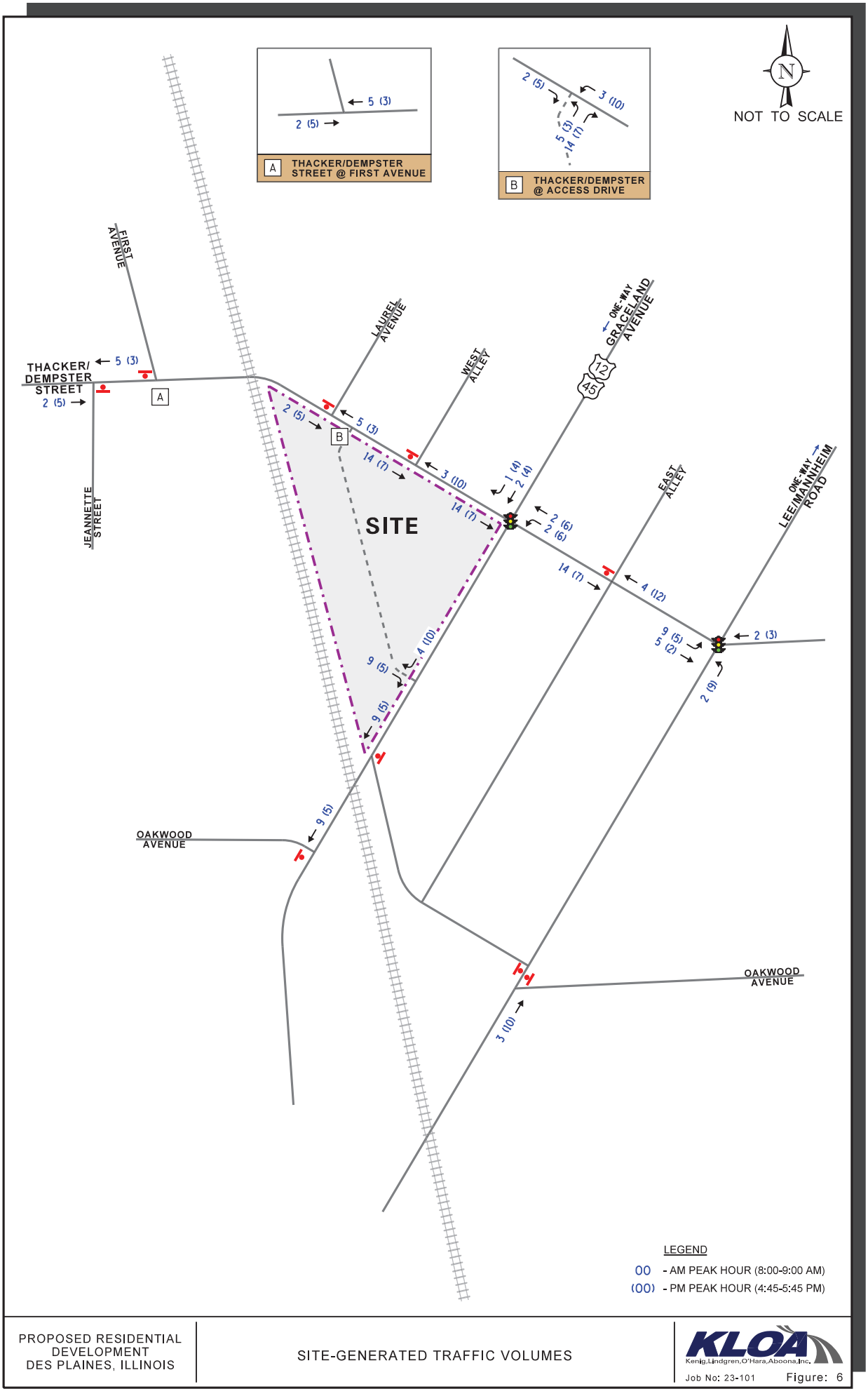
- The trips generated by the Little Bulgaria Center located at 832 Lee Street were estimated and assigned to the roadway system. It should be noted that the pick-up and drop-off activities will take place off the east alley.

- It is our understanding that 96 units of the Welkin Apartments located at 1425 Ellinwood Street are unoccupied. The estimated trip to the vacant units were estimated and assigned to the roadway system.

- Trips estimated to be generated by a proposed residential development with 56 apartment units to be located at the northeast corner of the intersection of Oakwood Avenue with Graceland Avenue which is currently utilized as a parking lot for Contour Saws Inc.

Total Projected Traffic Volumes

The total projected traffic volumes include the Year 2029 no-build traffic volumes and the traffic estimated to be generated by the proposed development (Figure 6). **Figure 7** shows the Year 2029 total projected traffic volumes.



PROPOSED RESIDENTIAL DEVELOPMENT
DES PLAINES, ILLINOIS

SITE-GENERATED TRAFFIC VOLUMES

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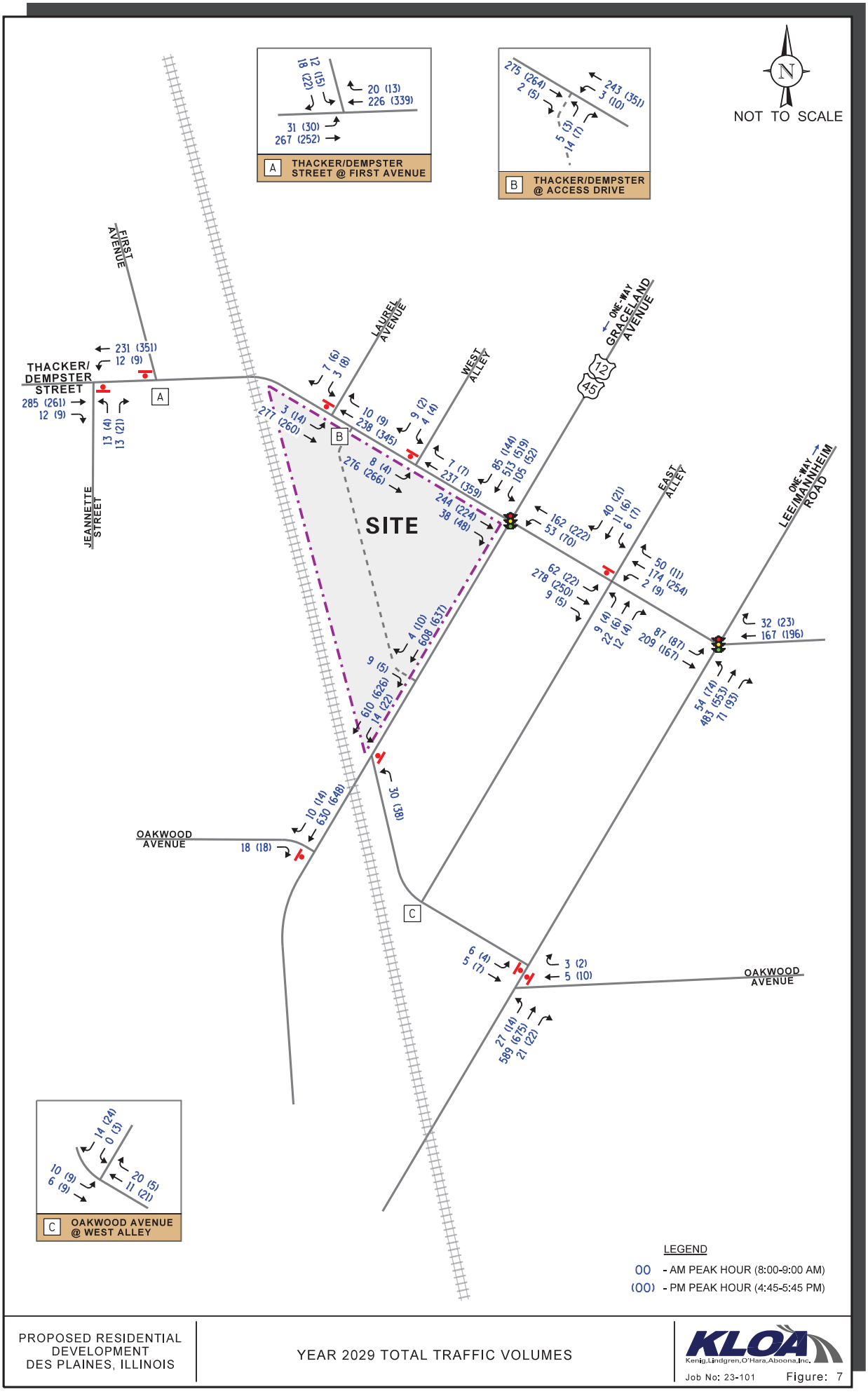
A THACKER/DEMPSTER STREET @ FIRST AVENUE
B THACKER/DEMPSTER @ ACCESS DRIVE
C OAKWOOD AVENUE @ WEST ALLEY
NOT TO SCALE
SITE
THACKER/ DEMPSTER STREET
FIRST AVENUE
JEANNETTE STREET
LAUREL AVENUE
WEST ALLEY
ONE-WAY GRACELAND AVENUE
EAST ALLEY
ONE-WAY LEE/MANNHEIM ROAD
OAKWOOD AVENUE
OAKWOOD AVENUE
LEGEND
00 - AM PEAK HOUR (8:00-9:00 AM)
(00) - PM PEAK HOUR (4:45-5:45 PM)
PROPOSED RESIDENTIAL DEVELOPMENT DES PLAINES, ILLINOIS
YEAR 2029 TOTAL TRAFFIC VOLUMES
KLOA Kenig,Lindgren,O'Hara,Aboona,Inc.
Job No: 23-101
Figure: 7

5. Traffic Analysis and Recommendations

The following provides an evaluation conducted for the weekday morning and evening peak hours. The analysis includes conducting capacity analyses to determine how well the roadway system and access drives are projected to operate and whether any roadway improvements or modifications are required.

Traffic Analyses

Roadway and adjacent or nearby intersection analyses were performed for the weekday morning and evening peak hours for the existing and future projected (Year 2029) traffic volumes.

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

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

The ability of an intersection to accommodate traffic flow is expressed in terms of level of service, which is assigned a letter from A to F based on the average control delay experienced by vehicles passing through the intersection. The *Highway Capacity Manual* definitions for levels of service and the corresponding control delay for signalized intersections and unsignalized intersections are included in the Appendix of this report.

Summaries of the traffic analysis results showing the level of service and overall intersection delay (measured in seconds) for the existing and Year 2029 total projected conditions are presented in **Tables 8** through **11**. A discussion of the intersections follows. Summary sheets for the capacity analyses are included in the Appendix.

Table 8
CAPACITY ANALYSIS RESULTS – THACKER STREET WITH GRACELAND AVENUE – SIGNALIZED

	Peak Hour	Eastbound	Westbound	Southbound		Overall
		T/R	L/T	L	T/R	
Existing Conditions	Weekday Morning	E – 59.1	D – 47.8	A 6.3	A 6.5	C 25.7
				A – 6.4		
	Weekday Evening	E – 59.0	E – 55.4	A 6.6	A 6.7	C 28.5
				A – 6.7		
Projected Conditions	Weekday Morning	E – 58.4	D – 46.8	A 7.3	A 7.6	C 26.5
				A – 7.6		
	Weekday Evening	E – 58.6	E – 56.7	A 7.1	A 7.4	C 29.5
				A – 7.4		

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

Table 9
CAPACITY ANALYSIS RESULTS – THACKER STREET WITH LEE ROAD – SIGNALIZED

	Peak Hour	Eastbound	Westbound		Northbound	Overall
		L/T	T	R	L/T/R	
Existing Conditions	Weekday Morning	C – 34.9	E 57.5	A 4.9	A – 9.6	C 22.9
			D – 48.2			
	Weekday Evening	C – 34.9	E 56.7	A 0.7	A – 9.5	C 22.5
			D – 50.7			
Projected Conditions	Weekday Morning	C – 34.0	E 57.8	A 4.9	B – 11.4	C 24.3
			D – 49.3			
	Weekday Evening	C – 34.9	E 56.6	A 0.9	B – 10.9	C 23.4
			D – 50.8			

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

Table 10
CAPACITY ANALYSIS RESULTS – EXISTING CONDITIONS - UNSIGNALIZED

Intersection	Weekday Morning Peak Hour		Weekday Evening Peak Hour	
	LOS	Delay	LOS	Delay
Graceland Avenue with Oakwood Avenue (North Intersection)[1]				
• Westbound Approach	B	11.0	B	11.0
Graceland Avenue with Oakwood Avenue (South Intersection)[1]				
• Eastbound Approach	B	10.4	B	11.0
Lee Street with Oakwood Avenue[1]				
• Eastbound Approach	B	12.8	B	14.2
• Westbound Approach	B	12.2	B	14.7
Thacker Street with Laurel Avenue[1]				
• Southbound Approach	B	10.2	B	12.3
• Eastbound Left Turn	A	7.7	A	8.1
Thacker Street with First Avenue[1]				
• Southbound Approach	B	11.2	B	12.3
• Eastbound Left Turn	A	7.8	A	8.2
Jeannette Street with Thacker Street[1]				
• Northbound Approach	B	11.3	B	10.5
• Westbound Left Turn	A	8.0	A	7.8
Thacker Street with Alley (West Alley)[1]				
• Southbound Approach	B	10.3	B	12.6
• Eastbound Left Turn	A	7.7	A	8.1
Thacker Street with Alley (East Alley)[1]				
• Northbound Approach	B	11.5	B	14.0
• Southbound Approach	B	10.9	B	11.6
• Eastbound Left Turn	A	7.6	A	7.8
• Westbound Left Turn	A	7.8	A	7.8
Oakwood Avenue with Alley[1]				
• Southbound Approach	A	8.4	A	8.5
• Eastbound Left Turn	A	7.2	A	7.2

LOS = Level of Service
Delay is measured in seconds.

1- Two-Way Stop Control.

Table 11
CAPACITY ANALYSIS RESULTS –PROJECTED CONDITIONS – UNSIGNALIZED

Intersection	Weekday Morning Peak Hour		Weekday Evening Peak Hour	
	LOS	Delay	LOS	Delay
Graceland Avenue with Oakwood Avenue (North Intersection)[1]				
• Westbound Approach	B	11.5	B	11.4
Graceland Avenue with Oakwood Avenue (South Intersection)[1]				
• Eastbound Approach	B	10.7	B	11.2
Lee Street with Oakwood Avenue[1]				
• Eastbound Approach	B	13.8	C	15.1
• Westbound Approach	B	13.0	C	15.7
Thacker Street with Laurel Avenue[1]				
• Southbound Approach	B	10.5	B	12.7
• Eastbound Left Turn	A	7.8	A	8.2
Thacker Street with First Avenue[1]				
• Southbound Approach	B	11.6	B	12.7
• Eastbound Left Turn	A	7.8	A	8.2
Jeannette Street with Thacker Street[1]				
• Northbound Approach	B	11.8	B	10.7
• Westbound Left Turn	A	8.0	A	7.8
Thacker Street with Alley (West Alley)[1]				
• Southbound Approach	B	10.7	B	13.2
• Eastbound Left-Turn	A	7.8	A	8.1
Thacker Street with Alley (East Alley)[1]				
• Northbound Approach	C	15.3	B	13.8
• Southbound Approach	B	11.9	B	12.3
• Eastbound Left Turn	A	7.8	A	7.9
• Westbound Left Turn	A	7.9	A	7.8
Oakwood Avenue with Alley[1]				
• Southbound Approach	A	8.5	A	8.6
• Eastbound Left Turn	A	7.3	A	7.3
Graceland Avenue with Proposed Access Drive[1]				
• Eastbound Approach	B	10.4	B	10.5
Thacker Street with Proposed Access Drive[1]				
• Northbound Approach	B	10.6	B	11.0
• Westbound Left Turn	A	7.8	A	7.8

LOS = Level of Service
Delay is measured in seconds.

1- Two-Way Stop Control.

Discussion and Recommendations

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

Thacker Street with Graceland Avenue

The results of the capacity analysis indicate that overall this intersection currently operates at Level of Service (LOS) C during the weekday morning and weekday evening peak hours. The eastbound approach currently operates at LOS E during both peak hours and the westbound approach operates at LOS D during the weekday morning peak hour and LOS E during the weekday evening peak hour. Additionally, the southbound approach operates at LOS A during both peak hours.

Under Year 2029 total projected conditions, overall this intersection is projected to continue operating at LOS C during the weekday morning and weekday evening peak hours with increases in delay of approximately one second or less. All the approaches are projected to continue operating at the same existing levels of service during the peak hours with increases in delay of less than three seconds. The maximum 95th percentile queue for the eastbound through movement is projected to be approximately 295 feet during the weekday evening peak hour and will extend to the west alley but based on the field observations and the traffic simulation, the queue will clear the intersection during each green phase. The maximum 95th percentile queue for the westbound through movement is projected to be approximately 280 feet during the weekday evening peak hour and will extend to the east alley but based on the field observations and the traffic simulation, the queue will clear the intersection during each green phase. As such, this intersection has adequate reserve capacity to accommodate the traffic estimated to be generated by the proposed development and no roadway improvements and/or traffic control modifications are required.

Thacker Street with Lee Road

The results of the capacity analysis indicate that overall this intersection currently operates at LOS C during the weekday morning and weekday evening peak hours. The eastbound approach operates at LOS C during both peak hours and the westbound approach operates at LOS D during both peak hours. Additionally, the northbound approach operates at LOS A during both peak hours.

Under Year 2029 total projected conditions, overall this intersection is projected to continue operating at LOS C during the weekday morning and weekday evening peak hours with increases in delay of less than one second. The eastbound and westbound approaches are projected to operate at the same existing levels of service during both peak hours with increases in delay of less than two seconds. The northbound approach is projected to operate at LOS B during both peak hours with increases in delay of less than two seconds. The maximum 95th percentile queue for the eastbound through movement is projected to be approximately 245 feet during the weekday morning peak hour and will extend to the east alley but based on the field observations and the traffic simulation, the queue will clear the intersection during each green phase. As such, this intersection has adequate reserve capacity to accommodate the traffic estimated to be generated by the proposed development and no roadway improvements and/or traffic control modifications are required.

Graceland Avenue with Oakwood Avenue (North Intersection)

The results of the capacity analysis indicate that the westbound approach currently operates at LOS B during the weekday morning and weekday evening peak hours.

Under Year 2029 total projected conditions, the westbound approach is projected to continue operating at LOS B during both peak hours with increases in delay of less than one second. As such, the traffic that will be generated by the proposed development will have a limited impact on the operation of this intersection and no roadway improvements and/or traffic control modifications are required.

Graceland Avenue with Oakwood Avenue (South Intersection)

The results of the capacity analysis indicate that the eastbound approach currently operates at LOS B during the weekday morning and weekday evening peak hours.

Under Year 2029 total projected conditions, the eastbound approach is projected to continue operating at LOS B during both peak hours with increases in delay of less than one second. As such, the traffic that will be generated by the proposed development will have a limited impact on the operation of this intersection and no roadway improvements and/or traffic control modifications are required.

Lee Street with Oakwood Avenue

The results of the capacity analysis indicate that the eastbound and westbound approaches currently operate at LOS B during the weekday morning and weekday evening peak hours.

Under Year 2029 total projected conditions, the eastbound and westbound approaches are projected to operate at LOS B during the weekday morning peak hour and LOS C during the weekday evening peak hour with increases in delay of approximately one second or less. As such, this intersection has adequate reserve capacity to accommodate the traffic estimated to be generated by the proposed development and no roadway improvements and/or traffic control modifications are required.

Thacker Street with Laurel Avenue

The results of the capacity analysis indicate that the southbound approach currently operates at LOS B during the weekday morning and weekday evening peak hours while the eastbound left-turn movement operates at LOS A during both peak hours.

Under Year 2029 total projected conditions, the southbound approach and the eastbound left-turn movement are projected to continue operating at the same existing levels of service during both peak hours with increases in delay of less than one second. As such, the traffic estimated to be generated by the proposed development will have a limited impact on the operation of this intersection and no roadway improvements and/or traffic control modifications are required.

Thacker Street with First Avenue

The results of the capacity analysis indicate that the southbound approach currently operates at LOS B during the weekday morning and weekday evening peak hours while the eastbound left-turn movement operates at LOS A during both peak hours.

Under Year 2029 total projected conditions, the southbound approach and the eastbound left-turn movement are projected to continue operating at the same existing levels of service during both peak hours with increases in delay of less than one second. As such, the traffic estimated to be generated by the proposed development will have a limited impact on the operation of this intersection and no roadway improvements and/or traffic control modifications are required.

Thacker Street with Jeannette Street

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

Under Year 2029 total projected conditions, the northbound approach and the westbound left-turn movement are projected to continue operating at the same existing levels of service during both peak hours with increases in delay of less than one second. As such, the traffic estimated to be generated by the proposed development will have a limited impact on the operation of this intersection and no roadway improvements and/or traffic control modifications are required.

Thacker Street with West Alley

The results of the capacity analysis indicate that the southbound approach currently operates at LOS B during the weekday morning and weekday evening peak hours and the eastbound left-turn movement operates at LOS A during both peak hours.

Under Year 2029 total projected conditions, the southbound approach and the eastbound left-turn are projected to continue operating at the existing levels of service during both peak hours with increases in delay of less than one second. As such, the traffic estimated to be generated by the proposed development will have a limited impact on the operation of this intersection and no roadway improvements and/or traffic control modifications are required

Thacker Street with East Alley

The results of the capacity analysis indicate that the northbound and southbound approaches currently operate at LOS B during the weekday morning and weekday evening peak hours. The eastbound and westbound left-turn movements currently operates at LOS A during both peak hours.

Under Year 2029 total projected conditions, the northbound approach is projected to operate at LOS C during the weekday morning peak hour and LOS B during the weekday evening peak hour with increases in delay of less than four seconds. The southbound approach is projected to continue operating at LOS B during both peak hours with increases in delay of less than two seconds. The eastbound and westbound left-turn movements are projected to continue operating at LOS A during both peak hours with increases in delay of less than one second. As such, this intersection has adequate reserve capacity to accommodate the traffic estimated to be generated by the proposed development and no roadway improvements and/or traffic control modifications are required.

Oakwood Avenue with East Alley

The results of the capacity analysis indicate that the southbound approach and the eastbound left-turn movement currently operate at LOS A during the weekday morning and weekday evening peak hour.

Under Year 2029 total projected conditions, the southbound approach and the eastbound left-turn movement are projected to continue operating at LOS A during both peak hours with increases in delay of less than one second. As such, the trips estimated to be generated by the proposed development will have a limited impact on the operation of this intersection and no roadway improvements and/or traffic control modifications are required.

Graceland Avenue with Proposed Access Drive

The proposed right-in/right-out access drive off Graceland Avenue will provide one inbound lane and one outbound lane with the outbound movements under stop sign control.

Under Year 2029 total projected conditions, the eastbound approach is projected to operate at LOS B during both peak hours. As such, this intersection will be adequate to accommodate the traffic estimated to be generated by the proposed development and will ensure efficient access to the site.

Thacker Street with Proposed Access Drive

The proposed full movement access drive off Thacker Street provides one inbound lane and one outbound lane with the outbound movements under stop sign control.

Under Year 2029 total projected conditions, the northbound approach is projected to operate at LOS B during the weekday morning and weekday evening peak hours while the westbound left-turn movement is projected to operate at LOS A during both peak hours. As such, this intersection will be adequate to accommodate the traffic estimated to be generated by the proposed development and will ensure efficient access to the site.

Parking Evaluation

As previously indicated, the proposed development will have approximately 50 townhomes including 33 three-bedroom units and 17 two-bedroom units. Each townhome will provide two garages and 13 guest parking spaces will be provided within the site. In order to determine the projected parking demand of the proposed development, the parking demand was estimated based on the City of Des Plaines Code of Ordinances and parking rates published in the Institute of Transportation Engineers' (ITE) *Parking Generation Manual*, 5th Edition. Based on the two methodologies, the parking demand for the proposed development is as follows:

Parking Requirements of Proposed Development per City Code

- Multifamily Housing (133 bedrooms)
    - 1.5 parking spaces per two-bedroom unit
    - 2.25 parking spaces per three-bedroom unit
    - One guest parking space is required per 4 townhomes

Based on the above and the requirements of the City of Des Plaines, this translates into 113 parking spaces. It is also important to note that this ratio does not take into account the proximity of the site to the Metra train station.

ITE Parking Generation Manual

- Residential Use (Multifamily Housing Low-Rise – Land Use Code 221)
    - 1.21 parking spaces per unit
    - 0.75 parking space per bedroom

Based on the above and the rates published in the ITE *Parking Generation Manual*, that translates into approximately 100 parking spaces which results in a surplus of 13 parking spaces. Therefore, the proposed parking supply meets ITE's requirements of 100 parking spaces.

6. Conclusion

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

- The volume of traffic projected to be generated by the proposed development will be reduced due to the proximity of the development to the Des Plaines Metra train station.

- The results of the capacity analysis indicate that the proposed development traffic will not have a significant impact on the area roadways.

- Access to the development will be provided via a full-movement access drive off Thacker Street Located approximately 40 feet east of Laurel Avenue and a right-in/right-out access drive off Graceland Avenue located approximately 395 feet south of Thacker Street. Both access drives will provide one inbound lane and one outbound lane with outbound movements under stop sign control.

- The proposed access drives will be adequate in accommodating the traffic projected to be generated by the proposed development and will ensure that a flexible access system is provided.

- The proposed parking supply of 113 spaces will meet the City of Des Plaines and ITE requirements.

Appendix

Traffic Count Summary Sheets
Site Plan
ITE Trip Generation Summary Sheets
Level of Service Criteria
Capacity Analysis Summary Sheets

Traffic Count Summary Sheets

Kenig Lindgren O'Hara Aboona, Inc.
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Rosemont, Illinois, United States 60018
(847)518-9990 sainkeshavarzi@kloainc.com

Count Name: Graceland Avenue with North Access Drives TMC
Site Code:
Start Date: 04/26/2023
Page No: 1

Turning Movement Data

Start Time	West Access Drive Eastbound					Graceland Avenue Northbound					Graceland Avenue Southbound					
	U-Turn	Left	Right	Peds	App. Total	U-Turn	Left	Thru	Peds	App. Total	U-Turn	Thru	Right	Peds	App. Total	Int. Total
4:00 PM	0	0	0	1	0	0	0	0	0	0	0	160	0	0	160	160
4:15 PM	0	0	1	1	1	0	0	0	0	0	0	187	1	0	188	189
4:30 PM	0	0	0	2	0	0	0	0	0	0	0	135	0	0	135	135
4:45 PM	0	0	0	1	0	0	0	0	0	0	0	167	0	0	167	167
Hourly Total	0	0	1	5	1	0	0	0	0	0	0	649	1	0	650	651
5:00 PM	0	0	0	3	0	0	0	1	0	1	0	119	0	0	119	120
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	169	0	0	169	169
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	159	0	0	159	159
5:45 PM	0	0	0	2	0	0	0	1	0	1	0	131	0	0	131	132
Hourly Total	0	0	0	5	0	0	0	2	0	2	0	578	0	0	578	580
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
7:00 AM	0	0	0	1	0	0	0	0	0	0	0	87	1	0	88	88
7:15 AM	0	0	0	3	0	0	0	0	0	0	0	100	0	1	100	100
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	120	0	0	120	120
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	153	0	0	153	153
Hourly Total	0	0	0	4	0	0	0	0	0	0	0	460	1	1	461	461
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	152	0	0	152	152
8:15 AM	0	0	0	1	0	0	0	0	0	0	0	135	0	0	135	135
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	117	0	0	117	117
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	138	0	0	138	138
Hourly Total	0	0	0	1	0	0	0	0	0	0	0	542	0	0	542	542
Grand Total	0	0	1	15	1	0	0	2	0	2	0	2229	2	1	2231	2234
Approach %	0.0	0.0	100.0	-	-	0.0	0.0	100.0	-	-	0.0	99.9	0.1	-	-	-
Total %	0.0	0.0	0.0	-	0.0	0.0	0.0	0.1	-	0.1	0.0	99.8	0.1	-	99.9	-
Lights	0	0	1	-	1	0	0	0	-	0	0	2153	2	-	2155	2156
% Lights	-	-	100.0	-	100.0	-	-	0.0	-	0.0	-	96.6	100.0	-	96.6	96.5
Buses	0	0	0	-	0	0	0	0	-	0	0	28	0	-	28	28
% Buses	-	-	0.0	-	0.0	-	-	0.0	-	0.0	-	1.3	0.0	-	1.3	1.3
Single-Unit Trucks	0	0	0	-	0	0	0	0	-	0	0	28	0	-	28	28
% Single-Unit Trucks	-	-	0.0	-	0.0	-	-	0.0	-	0.0	-	1.3	0.0	-	1.3	1.3
Articulated Trucks	0	0	0	-	0	0	0	0	-	0	0	16	0	-	16	16
% Articulated Trucks	-	-	0.0	-	0.0	-	-	0.0	-	0.0	-	0.7	0.0	-	0.7	0.7
Bicycles on Road	0	0	0	-	0	0	0	2	-	2	0	4	0	-	4	6
% Bicycles on Road	-	-	0.0	-	0.0	-	-	100.0	-	100.0	-	0.2	0.0	-	0.2	0.3
Pedestrians	-	-	-	15	-	-	-	-	0	-	-	-	-	1	-	-
% Pedestrians	-	-	-	100.0	-	-	-	-	-	-	-	-	-	100.0	-	-

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Count Name: Graceland Avenue with North Access Drives TMC
Site Code:
Start Date: 04/26/2023

Turning Movement Peak Hour Data (4:45 PM)

Start Time	West Access Drive Eastbound					Graceland Avenue Northbound					Graceland Avenue Southbound					
	U-Turn	Left	Right	Peds	App. Total	U-Turn	Left	Thru	Peds	App. Total	U-Turn	Thru	Right	Peds	App. Total	Int. Total
4:45 PM	0	0	0	1	0	0	0	0	0	0	0	167	0	0	167	167
5:00 PM	0	0	0	3	0	0	0	1	0	1	0	119	0	0	119	120
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	169	0	0	169	169
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	159	0	0	159	159
Total	0	0	0	4	0	0	0	1	0	1	0	614	0	0	614	615
Approach %	0.0	0.0	0.0	-	-	0.0	0.0	100.0	-	-	0.0	100.0	0.0	-	-	-
Total %	0.0	0.0	0.0	-	0.0	0.0	0.0	0.2	-	0.2	0.0	99.8	0.0	-	99.8	-
PHF	0.000	0.000	0.000	-	0.000	0.000	0.000	0.250	-	0.250	0.000	0.908	0.000	-	0.908	0.910
Lights	0	0	0	-	0	0	0	0	-	0	0	604	0	-	604	604
% Lights	-	-	-	-	-	-	-	0.0	-	0.0	-	98.4	-	-	98.4	98.2
Buses	0	0	0	-	0	0	0	0	-	0	0	3	0	-	3	3
% Buses	-	-	-	-	-	-	-	0.0	-	0.0	-	0.5	-	-	0.5	0.5
Single-Unit Trucks	0	0	0	-	0	0	0	0	-	0	0	7	0	-	7	7
% Single-Unit Trucks	-	-	-	-	-	-	-	0.0	-	0.0	-	1.1	-	-	1.1	1.1
Articulated Trucks	0	0	0	-	0	0	0	0	-	0	0	0	0	-	0	0
% Articulated Trucks	-	-	-	-	-	-	-	0.0	-	0.0	-	0.0	-	-	0.0	0.0
Bicycles on Road	0	0	0	-	0	0	0	1	-	1	0	0	0	-	0	1
% Bicycles on Road	-	-	-	-	-	-	-	100.0	-	100.0	-	0.0	-	-	0.0	0.2
Pedestrians	-	-	-	4	-	-	-	-	0	-	-	-	-	0	-	-
% Pedestrians	-	-	-	100.0	-	-	-	-	-	-	-	-	-	-	-	-

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Count Name: Graceland Avenue with North Access Drives TMC
Site Code:
Start Date: 04/26/2023

Turning Movement Peak Hour Data (8:00 AM)

Start Time	West Access Drive Eastbound					Graceland Avenue Northbound					Graceland Avenue Southbound					
	U-Turn	Left	Right	Peds	App. Total	U-Turn	Left	Thru	Peds	App. Total	U-Turn	Thru	Right	Peds	App. Total	Int. Total
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	152	0	0	152	152
8:15 AM	0	0	0	1	0	0	0	0	0	0	0	135	0	0	135	135
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	117	0	0	117	117
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	138	0	0	138	138
Total	0	0	0	1	0	0	0	0	0	0	0	542	0	0	542	542
Approach %	0.0	0.0	0.0	-	-	0.0	0.0	0.0	-	-	0.0	100.0	0.0	-	-	-
Total %	0.0	0.0	0.0	-	0.0	0.0	0.0	0.0	-	0.0	0.0	100.0	0.0	-	100.0	-
PHF	0.000	0.000	0.000	-	0.000	0.000	0.000	0.000	-	0.000	0.000	0.891	0.000	-	0.891	0.891
Lights	0	0	0	-	0	0	0	0	-	0	0	522	0	-	522	522
% Lights	-	-	-	-	-	-	-	-	-	-	-	96.3	-	-	96.3	96.3
Buses	0	0	0	-	0	0	0	0	-	0	0	12	0	-	12	12
% Buses	-	-	-	-	-	-	-	-	-	-	-	2.2	-	-	2.2	2.2
Single-Unit Trucks	0	0	0	-	0	0	0	0	-	0	0	4	0	-	4	4
% Single-Unit Trucks	-	-	-	-	-	-	-	-	-	-	-	0.7	-	-	0.7	0.7
Articulated Trucks	0	0	0	-	0	0	0	0	-	0	0	4	0	-	4	4
% Articulated Trucks	-	-	-	-	-	-	-	-	-	-	-	0.7	-	-	0.7	0.7
Bicycles on Road	0	0	0	-	0	0	0	0	-	0	0	0	0	-	0	0
% Bicycles on Road	-	-	-	-	-	-	-	-	-	-	-	0.0	-	-	0.0	0.0
Pedestrians	-	-	-	1	-	-	-	-	0	-	-	-	-	0	-	-
% Pedestrians	-	-	-	100.0	-	-	-	-	-	-	-	-	-	-	-	-

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Count Name: Graceland Avenue with Oakwood Avenue - East TMC
Site Code:
Start Date: 04/27/2023

Turning Movement Data

Start Time	Oakwood Avenue Westbound					Graceland Avenue Northbound					Graceland Avenue Southbound					
	U-Turn	Left	Right	Peds	App. Total	U-Turn	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Peds	App. Total	Int. Total
4:00 PM	0	15	0	2	15	0	0	0	0	0	0	1	127	0	128	143
4:15 PM	0	7	0	2	7	0	0	0	0	0	0	10	177	0	187	194
4:30 PM	0	5	0	0	5	0	1	0	0	1	0	3	128	0	131	137
4:45 PM	0	8	0	1	8	0	0	0	0	0	0	8	143	0	151	159
Hourly Total	0	35	0	5	35	0	1	0	0	1	0	22	575	0	597	633
5:00 PM	0	6	0	1	6	0	0	0	0	0	0	2	142	0	144	150
5:15 PM	0	10	0	1	10	0	0	0	0	0	0	1	162	0	163	173
5:30 PM	0	5	0	1	5	0	1	0	0	1	0	2	116	0	118	124
5:45 PM	0	8	0	0	8	0	0	0	0	0	0	3	155	0	158	166
Hourly Total	0	29	0	3	29	0	1	0	0	1	0	8	575	0	583	613
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
7:00 AM	0	1	0	0	1	0	0	0	0	0	0	5	94	0	99	100
7:15 AM	0	5	0	1	5	0	0	0	0	0	0	2	68	0	70	75
7:30 AM	0	3	0	0	3	0	0	0	0	0	0	4	108	0	112	115
7:45 AM	0	4	0	2	4	0	0	0	0	0	0	4	151	0	155	159
Hourly Total	0	13	0	3	13	0	0	0	0	0	0	15	421	0	436	449
8:00 AM	0	3	0	0	3	0	0	0	0	0	0	4	143	0	147	150
8:15 AM	0	3	0	1	3	0	0	0	0	0	0	2	131	0	133	136
8:30 AM	0	7	0	0	7	0	0	0	0	0	0	4	139	0	143	150
8:45 AM	0	3	0	0	3	0	0	0	0	0	0	2	125	0	127	130
Hourly Total	0	16	0	1	16	0	0	0	0	0	0	12	538	0	550	566
Grand Total	0	93	0	12	93	0	2	0	0	2	0	57	2109	0	2166	2261
Approach %	0.0	100.0	0.0	-	-	0.0	100.0	0.0	-	-	0.0	2.6	97.4	-	-	-
Total %	0.0	4.1	0.0	-	4.1	0.0	0.1	0.0	-	0.1	0.0	2.5	93.3	-	95.8	-
Lights	0	88	0	-	88	0	1	0	-	1	0	41	2043	-	2084	2173
% Lights	-	94.6	-	-	94.6	-	50.0	-	-	50.0	-	71.9	96.9	-	96.2	96.1
Buses	0	0	0	-	0	0	0	0	-	0	0	1	25	-	26	26
% Buses	-	0.0	-	-	0.0	-	0.0	-	-	0.0	-	1.8	1.2	-	1.2	1.1
Single-Unit Trucks	0	5	0	-	5	0	0	0	-	0	0	14	17	-	31	36
% Single-Unit Trucks	-	5.4	-	-	5.4	-	0.0	-	-	0.0	-	24.6	0.8	-	1.4	1.6
Articulated Trucks	0	0	0	-	0	0	0	0	-	0	0	1	19	-	20	20
% Articulated Trucks	-	0.0	-	-	0.0	-	0.0	-	-	0.0	-	1.8	0.9	-	0.9	0.9
Bicycles on Road	0	0	0	-	0	0	1	0	-	1	0	0	5	-	5	6
% Bicycles on Road	-	0.0	-	-	0.0	-	50.0	-	-	50.0	-	0.0	0.2	-	0.2	0.3
Pedestrians	-	-	-	12	-	-	-	-	0	-	-	-	-	0	-	-
% Pedestrians	-	-	-	100.0	-	-	-	-	-	-	-	-	-	-	-	-

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

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

Count Name: Graceland Avenue with Oakwood Avenue - East TMC
Site Code:
Start Date: 04/27/2023
Page No: 2

Turning Movement Peak Hour Data (4:45 PM)

Start Time	Oakwood Avenue Westbound					Graceland Avenue Northbound					Graceland Avenue Southbound					
	U-Turn	Left	Right	Peds	App. Total	U-Turn	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Peds	App. Total	Int. Total
4:45 PM	0	8	0	1	8	0	0	0	0	0	0	8	143	0	151	159
5:00 PM	0	6	0	1	6	0	0	0	0	0	0	2	142	0	144	150
5:15 PM	0	10	0	1	10	0	0	0	0	0	0	1	162	0	163	173
5:30 PM	0	5	0	1	5	0	1	0	0	1	0	2	116	0	118	124
Total	0	29	0	4	29	0	1	0	0	1	0	13	563	0	576	606
Approach %	0.0	100.0	0.0	-	-	0.0	100.0	0.0	-	-	0.0	2.3	97.7	-	-	-
Total %	0.0	4.8	0.0	-	4.8	0.0	0.2	0.0	-	0.2	0.0	2.1	92.9	-	95.0	-
PHF	0.000	0.725	0.000	-	0.725	0.000	0.250	0.000	-	0.250	0.000	0.406	0.869	-	0.883	0.876
Lights	0	29	0	-	29	0	0	0	-	0	0	11	556	-	567	596
% Lights	-	100.0	-	-	100.0	-	0.0	-	-	0.0	-	84.6	98.8	-	98.4	98.3
Buses	0	0	0	-	0	0	0	0	-	0	0	0	3	-	3	3
% Buses	-	0.0	-	-	0.0	-	0.0	-	-	0.0	-	0.0	0.5	-	0.5	0.5
Single-Unit Trucks	0	0	0	-	0	0	0	0	-	0	0	2	1	-	3	3
% Single-Unit Trucks	-	0.0	-	-	0.0	-	0.0	-	-	0.0	-	15.4	0.2	-	0.5	0.5
Articulated Trucks	0	0	0	-	0	0	0	0	-	0	0	0	3	-	3	3
% Articulated Trucks	-	0.0	-	-	0.0	-	0.0	-	-	0.0	-	0.0	0.5	-	0.5	0.5
Bicycles on Road	0	0	0	-	0	0	1	0	-	1	0	0	0	-	0	1
% Bicycles on Road	-	0.0	-	-	0.0	-	100.0	-	-	100.0	-	0.0	0.0	-	0.0	0.2
Pedestrians	-	-	-	4	-	-	-	-	0	-	-	-	-	0	-	-
% Pedestrians	-	-	-	100.0	-	-	-	-	-	-	-	-	-	-	-	-

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Count Name: Graceland Avenue with Oakwood Avenue - East TMC
Site Code:
Start Date: 04/27/2023
Page No: 3

Turning Movement Peak Hour Data (8:00 AM)

Start Time	Oakwood Avenue Westbound					Graceland Avenue Northbound					Graceland Avenue Southbound					
	U-Turn	Left	Right	Peds	App. Total	U-Turn	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Peds	App. Total	Int. Total
8:00 AM	0	3	0	0	3	0	0	0	0	0	0	4	143	0	147	150
8:15 AM	0	3	0	1	3	0	0	0	0	0	0	2	131	0	133	136
8:30 AM	0	7	0	0	7	0	0	0	0	0	0	4	139	0	143	150
8:45 AM	0	3	0	0	3	0	0	0	0	0	0	2	125	0	127	130
Total	0	16	0	1	16	0	0	0	0	0	0	12	538	0	550	566
Approach %	0.0	100.0	0.0	-	-	0.0	0.0	0.0	-	-	0.0	2.2	97.8	-	-	-
Total %	0.0	2.8	0.0	-	2.8	0.0	0.0	0.0	-	0.0	0.0	2.1	95.1	-	97.2	-
PHF	0.000	0.571	0.000	-	0.571	0.000	0.000	0.000	-	0.000	0.000	0.750	0.941	-	0.935	0.943
Lights	0	14	0	-	14	0	0	0	-	0	0	8	519	-	527	541
% Lights	-	87.5	-	-	87.5	-	-	-	-	-	-	66.7	96.5	-	95.8	95.6
Buses	0	0	0	-	0	0	0	0	-	0	0	0	10	-	10	10
% Buses	-	0.0	-	-	0.0	-	-	-	-	-	-	0.0	1.9	-	1.8	1.8
Single-Unit Trucks	0	2	0	-	2	0	0	0	-	0	0	4	5	-	9	11
% Single-Unit Trucks	-	12.5	-	-	12.5	-	-	-	-	-	-	33.3	0.9	-	1.6	1.9
Articulated Trucks	0	0	0	-	0	0	0	0	-	0	0	0	4	-	4	4
% Articulated Trucks	-	0.0	-	-	0.0	-	-	-	-	-	-	0.0	0.7	-	0.7	0.7
Bicycles on Road	0	0	0	-	0	0	0	0	-	0	0	0	0	-	0	0
% Bicycles on Road	-	0.0	-	-	0.0	-	-	-	-	-	-	0.0	0.0	-	0.0	0.0
Pedestrians	-	-	-	1	-	-	-	-	0	-	-	-	-	0	-	-
% Pedestrians	-	-	-	100.0	-	-	-	-	-	-	-	-	-	-	-	-

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Count Name: Jeanette Street with Thacker Street TMC
Site Code:
Start Date: 04/11/2023

Turning Movement Data

Start Time	Thacker Street Eastbound						Thacker Street Westbound						Jeanette Street Northbound						Schmika Auto Access Drive Southbound						Int. Total
	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	
7:00 AM	0	0	30	2	0	32	0	2	31	0	0	33	0	1	0	5	0	6	0	0	0	0	1	0	71
7:15 AM	0	0	47	3	0	50	0	1	38	0	0	39	0	4	0	2	0	6	0	0	0	0	0	0	95
7:30 AM	0	0	51	1	0	52	0	2	46	0	0	48	0	0	0	7	0	7	0	0	0	0	0	0	107
7:45 AM	0	0	82	1	0	83	0	0	44	0	0	44	0	7	0	9	0	16	0	0	0	0	0	0	143
Hourly Total	0	0	210	7	0	217	0	5	159	0	0	164	0	12	0	23	0	35	0	0	0	0	1	0	416
8:00 AM	0	0	65	2	0	67	0	5	45	0	0	50	0	2	0	4	0	6	0	0	0	0	1	0	123
8:15 AM	0	0	65	5	0	70	0	6	54	0	0	60	0	7	0	3	0	10	0	0	0	0	4	0	140
8:30 AM	0	0	55	4	0	59	0	0	46	0	1	46	0	2	0	4	0	6	0	0	0	0	2	0	111
8:45 AM	0	0	73	1	0	74	0	1	51	0	0	52	0	2	0	2	0	4	0	0	0	0	0	0	130
Hourly Total	0	0	258	12	0	270	0	12	196	0	1	208	0	13	0	13	0	26	0	0	0	0	7	0	504
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4:00 PM	0	0	60	2	0	62	0	3	69	0	1	72	0	1	0	5	0	6	0	0	0	0	2	0	140
4:15 PM	0	0	53	3	0	56	0	5	71	0	0	76	0	3	0	13	0	16	0	0	0	0	3	0	148
4:30 PM	0	0	69	1	0	70	0	4	57	0	0	61	0	8	0	6	0	14	0	0	0	0	0	0	145
4:45 PM	0	0	52	1	0	53	0	2	74	0	3	76	0	0	0	4	0	4	0	0	0	0	3	0	133
Hourly Total	0	0	234	7	0	241	0	14	271	0	4	285	0	12	0	28	0	40	0	0	0	0	8	0	566
5:00 PM	0	0	62	2	1	64	0	3	94	0	1	97	0	1	0	4	0	5	0	0	0	0	1	0	166
5:15 PM	0	0	71	4	1	75	0	3	83	0	0	86	0	2	0	6	0	8	0	0	0	0	4	0	169
5:30 PM	0	0	57	2	0	59	0	1	79	0	1	80	0	1	0	6	0	7	0	0	0	0	2	0	146
5:45 PM	0	0	47	1	0	48	0	0	74	0	2	74	0	3	0	6	0	9	0	0	0	0	6	0	131
Hourly Total	0	0	237	9	2	246	0	7	330	0	4	337	0	7	0	22	0	29	0	0	0	0	13	0	612
Grand Total	0	0	939	35	2	974	0	38	956	0	9	994	0	44	0	86	0	130	0	0	0	0	29	0	2098
Approach %	0.0	0.0	96.4	3.6	-	-	0.0	3.8	96.2	0.0	-	-	0.0	33.8	0.0	66.2	-	-	0.0	0.0	0.0	0.0	-	-	-
Total %	0.0	0.0	44.8	1.7	-	46.4	0.0	1.8	45.6	0.0	-	47.4	0.0	2.1	0.0	4.1	-	6.2	0.0	0.0	0.0	0.0	-	0.0	-
Lights	0	0	910	34	-	944	0	37	911	0	-	948	0	42	0	85	-	127	0	0	0	0	-	0	2019
% Lights	-	-	96.9	97.1	-	96.9	-	97.4	95.3	-	-	95.4	-	95.5	-	98.8	-	97.7	-	-	-	-	-	-	96.2
Buses	0	0	12	0	-	12	0	0	21	0	-	21	0	0	0	0	-	0	0	0	0	0	-	0	33
% Buses	-	-	1.3	0.0	-	1.2	-	0.0	2.2	-	-	2.1	-	0.0	-	0.0	-	0.0	-	-	-	-	-	-	1.6
Single-Unit Trucks	0	0	11	0	-	11	0	1	13	0	-	14	0	1	0	1	-	2	0	0	0	0	-	0	27
% Single-Unit Trucks	-	-	1.2	0.0	-	1.1	-	2.6	1.4	-	-	1.4	-	2.3	-	1.2	-	1.5	-	-	-	-	-	-	1.3
Articulated Trucks	0	0	2	0	-	2	0	0	5	0	-	5	0	0	0	0	-	0	0	0	0	0	-	0	7
% Articulated Trucks	-	-	0.2	0.0	-	0.2	-	0.0	0.5	-	-	0.5	-	0.0	-	0.0	-	0.0	-	-	-	-	-	-	0.3
Bicycles on Road	0	0	4	1	-	5	0	0	6	0	-	6	0	1	0	0	-	1	0	0	0	0	-	0	12

% Bicycles on Road	-	-	0.4	2.9	-	0.5	-	0.0	0.6	-	-	0.6	-	2.3	-	0.0	-	0.8	-	-	-	-	-	-	0.6
Pedestrians	-	-	-	-	2	-	-	-	-	-	9	-	-	-	-	-	0	-	-	-	-	-	29	-	-
% Pedestrians	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	-	-	-	-	-	-	100.0	-	-

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Count Name: Jeanette Street with Thacker Street TMC
Site Code:
Start Date: 04/11/2023

Turning Movement Peak Hour Data (8:00 AM)

Start Time	Thacker Street Eastbound						Thacker Street Westbound						Jeanette Street Northbound						Schmika Auto Access Drive Southbound						
	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	Int. Total
8:00 AM	0	0	65	2	0	67	0	5	45	0	0	50	0	2	0	4	0	6	0	0	0	0	1	0	123
8:15 AM	0	0	65	5	0	70	0	6	54	0	0	60	0	7	0	3	0	10	0	0	0	0	4	0	140
8:30 AM	0	0	55	4	0	59	0	0	46	0	1	46	0	2	0	4	0	6	0	0	0	0	2	0	111
8:45 AM	0	0	73	1	0	74	0	1	51	0	0	52	0	2	0	2	0	4	0	0	0	0	0	0	130
Total	0	0	258	12	0	270	0	12	196	0	1	208	0	13	0	13	0	26	0	0	0	0	7	0	504
Approach %	0.0	0.0	95.6	4.4	-	-	0.0	5.8	94.2	0.0	-	-	0.0	50.0	0.0	50.0	-	-	0.0	0.0	0.0	0.0	-	-	-
Total %	0.0	0.0	51.2	2.4	-	53.6	0.0	2.4	38.9	0.0	-	41.3	0.0	2.6	0.0	2.6	-	5.2	0.0	0.0	0.0	0.0	-	0.0	-
PHF	0.000	0.000	0.884	0.600	-	0.912	0.000	0.500	0.907	0.000	-	0.867	0.000	0.464	0.000	0.813	-	0.650	0.000	0.000	0.000	0.000	-	0.000	0.900
Lights	0	0	247	12	-	259	0	11	185	0	-	196	0	13	0	13	-	26	0	0	0	0	-	0	481
% Lights	-	-	95.7	100.0	-	95.9	-	91.7	94.4	-	-	94.2	-	100.0	-	100.0	-	100.0	-	-	-	-	-	-	95.4
Buses	0	0	4	0	-	4	0	0	6	0	-	6	0	0	0	0	-	0	0	0	0	0	-	0	10
% Buses	-	-	1.6	0.0	-	1.5	-	0.0	3.1	-	-	2.9	-	0.0	-	0.0	-	0.0	-	-	-	-	-	-	2.0
Single-Unit Trucks	0	0	5	0	-	5	0	1	4	0	-	5	0	0	0	0	-	0	0	0	0	0	-	0	10
% Single-Unit Trucks	-	-	1.9	0.0	-	1.9	-	8.3	2.0	-	-	2.4	-	0.0	-	0.0	-	0.0	-	-	-	-	-	-	2.0
Articulated Trucks	0	0	1	0	-	1	0	0	1	0	-	1	0	0	0	0	-	0	0	0	0	0	-	0	2
% Articulated Trucks	-	-	0.4	0.0	-	0.4	-	0.0	0.5	-	-	0.5	-	0.0	-	0.0	-	0.0	-	-	-	-	-	-	0.4
Bicycles on Road	0	0	1	0	-	1	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	1
% Bicycles on Road	-	-	0.4	0.0	-	0.4	-	0.0	0.0	-	-	0.0	-	0.0	-	0.0	-	0.0	-	-	-	-	-	-	0.2
Pedestrians	-	-	-	-	0	-	-	-	-	-	1	-	-	-	-	-	0	-	-	-	-	-	7	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	100.0	-	-	-	-	-	-	-	-	-	-	-	100.0	-	-

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Count Name: Jeanette Street with Thacker Street TMC
Site Code:
Start Date: 04/11/2023

Turning Movement Peak Hour Data (4:45 PM)

Start Time	Thacker Street Eastbound						Thacker Street Westbound						Jeanette Street Northbound						Schmika Auto Access Drive Southbound						
	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	Int. Total
4:45 PM	0	0	52	1	0	53	0	2	74	0	3	76	0	0	0	4	0	4	0	0	0	0	3	0	133
5:00 PM	0	0	62	2	1	64	0	3	94	0	1	97	0	1	0	4	0	5	0	0	0	0	1	0	166
5:15 PM	0	0	71	4	1	75	0	3	83	0	0	86	0	2	0	6	0	8	0	0	0	0	4	0	169
5:30 PM	0	0	57	2	0	59	0	1	79	0	1	80	0	1	0	6	0	7	0	0	0	0	2	0	146
Total	0	0	242	9	2	251	0	9	330	0	5	339	0	4	0	20	0	24	0	0	0	0	10	0	614
Approach %	0.0	0.0	96.4	3.6	-	-	0.0	2.7	97.3	0.0	-	-	0.0	16.7	0.0	83.3	-	-	0.0	0.0	0.0	0.0	-	-	-
Total %	0.0	0.0	39.4	1.5	-	40.9	0.0	1.5	53.7	0.0	-	55.2	0.0	0.7	0.0	3.3	-	3.9	0.0	0.0	0.0	0.0	-	0.0	-
PHF	0.000	0.000	0.852	0.563	-	0.837	0.000	0.750	0.878	0.000	-	0.874	0.000	0.500	0.000	0.833	-	0.750	0.000	0.000	0.000	0.000	-	0.000	0.908
Lights	0	0	236	9	-	245	0	9	320	0	-	329	0	4	0	20	-	24	0	0	0	0	-	0	598
% Lights	-	-	97.5	100.0	-	97.6	-	100.0	97.0	-	-	97.1	-	100.0	-	100.0	-	100.0	-	-	-	-	-	-	97.4
Buses	0	0	1	0	-	1	0	0	3	0	-	3	0	0	0	0	-	0	0	0	0	0	-	0	4
% Buses	-	-	0.4	0.0	-	0.4	-	0.0	0.9	-	-	0.9	-	0.0	-	0.0	-	0.0	-	-	-	-	-	-	0.7
Single-Unit Trucks	0	0	2	0	-	2	0	0	5	0	-	5	0	0	0	0	-	0	0	0	0	0	-	0	7
% Single-Unit Trucks	-	-	0.8	0.0	-	0.8	-	0.0	1.5	-	-	1.5	-	0.0	-	0.0	-	0.0	-	-	-	-	-	-	1.1
Articulated Trucks	0	0	1	0	-	1	0	0	1	0	-	1	0	0	0	0	-	0	0	0	0	0	-	0	2
% Articulated Trucks	-	-	0.4	0.0	-	0.4	-	0.0	0.3	-	-	0.3	-	0.0	-	0.0	-	0.0	-	-	-	-	-	-	0.3
Bicycles on Road	0	0	2	0	-	2	0	0	1	0	-	1	0	0	0	0	-	0	0	0	0	0	-	0	3
% Bicycles on Road	-	-	0.8	0.0	-	0.8	-	0.0	0.3	-	-	0.3	-	0.0	-	0.0	-	0.0	-	-	-	-	-	-	0.5
Pedestrians	-	-	-	-	2	-	-	-	-	-	5	-	-	-	-	-	0	-	-	-	-	-	10	-	-
% Pedestrians	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	-	-	-	-	-	-	100.0	-	-

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

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Count Name: Laurel Avenue with Thacker Street
TMC
Site Code:
Start Date: 04/11/2023
Page No: 1

Turning Movement Data

Start Time	Thacker Street Eastbound					Thacker Street Westbound					Laurel Avenue Southbound					
	U-Turn	Left	Thru	Peds	App. Total	U-Turn	Thru	Right	Peds	App. Total	U-Turn	Left	Right	Peds	App. Total	Int. Total
7:00 AM	0	5	52	0	57	0	48	1	0	49	0	1	2	4	3	109
7:15 AM	0	4	57	0	61	0	52	1	0	53	0	2	1	2	3	117
7:30 AM	0	1	62	0	63	0	46	5	0	51	0	3	2	2	5	119
7:45 AM	0	2	65	0	67	0	49	3	0	52	0	0	1	1	1	120
Hourly Total	0	12	236	0	248	0	195	10	0	205	0	6	6	9	12	465
8:00 AM	0	2	44	1	46	0	39	1	0	40	0	1	3	1	4	90
8:15 AM	0	0	49	0	49	0	39	3	0	42	0	0	1	1	1	92
8:30 AM	0	0	47	0	47	0	38	2	0	40	0	2	2	0	4	91
8:45 AM	0	1	34	0	35	0	30	4	0	34	0	0	1	5	1	70
Hourly Total	0	3	174	1	177	0	146	10	0	156	0	3	7	7	10	343
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4:00 PM	0	1	65	0	66	0	104	4	0	108	0	1	0	2	1	175
4:15 PM	0	2	65	0	67	0	69	4	1	73	0	2	1	4	3	143
4:30 PM	0	2	53	0	55	0	59	7	0	66	0	2	2	2	4	125
4:45 PM	0	4	55	0	59	0	75	1	1	76	0	4	0	4	4	139
Hourly Total	0	9	238	0	247	0	307	16	2	323	0	9	3	12	12	582
5:00 PM	0	3	47	0	50	0	55	4	0	59	0	0	2	4	2	111
5:15 PM	0	3	51	0	54	0	67	1	0	68	0	2	1	4	3	125
5:30 PM	0	4	49	0	53	0	62	3	2	65	0	2	3	1	5	123
5:45 PM	0	2	53	2	55	0	43	3	0	46	0	2	1	1	3	104
Hourly Total	0	12	200	2	212	0	227	11	2	238	0	6	7	10	13	463
Grand Total	0	36	848	3	884	0	875	47	4	922	0	24	23	38	47	1853
Approach %	0.0	4.1	95.9	-	-	0.0	94.9	5.1	-	-	0.0	51.1	48.9	-	-	-
Total %	0.0	1.9	45.8	-	47.7	0.0	47.2	2.5	-	49.8	0.0	1.3	1.2	-	2.5	-
Lights	0	34	816	-	850	0	837	46	-	883	0	24	22	-	46	1779
% Lights	-	94.4	96.2	-	96.2	-	95.7	97.9	-	95.8	-	100.0	95.7	-	97.9	96.0
Buses	0	0	9	-	9	0	11	0	-	11	0	0	0	-	0	20
% Buses	-	0.0	1.1	-	1.0	-	1.3	0.0	-	1.2	-	0.0	0.0	-	0.0	1.1
Single-Unit Trucks	0	2	17	-	19	0	16	0	-	16	0	0	1	-	1	36
% Single-Unit Trucks	-	5.6	2.0	-	2.1	-	1.8	0.0	-	1.7	-	0.0	4.3	-	2.1	1.9
Articulated Trucks	0	0	1	-	1	0	5	0	-	5	0	0	0	-	0	6
% Articulated Trucks	-	0.0	0.1	-	0.1	-	0.6	0.0	-	0.5	-	0.0	0.0	-	0.0	0.3
Bicycles on Road	0	0	5	-	5	0	6	1	-	7	0	0	0	-	0	12
% Bicycles on Road	-	0.0	0.6	-	0.6	-	0.7	2.1	-	0.8	-	0.0	0.0	-	0.0	0.6
Pedestrians	-	-	-	3	-	-	-	-	4	-	-	-	-	38	-	-
% Pedestrians	-	-	-	100.0	-	-	-	-	100.0	-	-	-	-	100.0	-	-

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

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

Count Name: Laurel Avenue with Thacker Street
TMC
Site Code:
Start Date: 04/11/2023

Turning Movement Peak Hour Data (8:00 AM)

Start Time	Thacker Street Eastbound					Thacker Street Westbound					Laurel Avenue Southbound					
	U-Turn	Left	Thru	Peds	App. Total	U-Turn	Thru	Right	Peds	App. Total	U-Turn	Left	Right	Peds	App. Total	Int. Total
8:00 AM	0	2	44	1	46	0	39	1	0	40	0	1	3	1	4	90
8:15 AM	0	0	49	0	49	0	39	3	0	42	0	0	1	1	1	92
8:30 AM	0	0	47	0	47	0	38	2	0	40	0	2	2	0	4	91
8:45 AM	0	1	34	0	35	0	30	4	0	34	0	0	1	5	1	70
Total	0	3	174	1	177	0	146	10	0	156	0	3	7	7	10	343
Approach %	0.0	1.7	98.3	-	-	0.0	93.6	6.4	-	-	0.0	30.0	70.0	-	-	-
Total %	0.0	0.9	50.7	-	51.6	0.0	42.6	2.9	-	45.5	0.0	0.9	2.0	-	2.9	-
PHF	0.000	0.375	0.888	-	0.903	0.000	0.936	0.625	-	0.929	0.000	0.375	0.583	-	0.625	0.932
Lights	0	3	169	-	172	0	134	10	-	144	0	3	7	-	10	326
% Lights	-	100.0	97.1	-	97.2	-	91.8	100.0	-	92.3	-	100.0	100.0	-	100.0	95.0
Buses	0	0	1	-	1	0	1	0	-	1	0	0	0	-	0	2
% Buses	-	0.0	0.6	-	0.6	-	0.7	0.0	-	0.6	-	0.0	0.0	-	0.0	0.6
Single-Unit Trucks	0	0	4	-	4	0	7	0	-	7	0	0	0	-	0	11
% Single-Unit Trucks	-	0.0	2.3	-	2.3	-	4.8	0.0	-	4.5	-	0.0	0.0	-	0.0	3.2
Articulated Trucks	0	0	0	-	0	0	3	0	-	3	0	0	0	-	0	3
% Articulated Trucks	-	0.0	0.0	-	0.0	-	2.1	0.0	-	1.9	-	0.0	0.0	-	0.0	0.9
Bicycles on Road	0	0	0	-	0	0	1	0	-	1	0	0	0	-	0	1
% Bicycles on Road	-	0.0	0.0	-	0.0	-	0.7	0.0	-	0.6	-	0.0	0.0	-	0.0	0.3
Pedestrians	-	-	-	1	-	-	-	-	0	-	-	-	-	7	-	-
% Pedestrians	-	-	-	100.0	-	-	-	-	-	-	-	-	-	100.0	-	-

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Count Name: Laurel Avenue with Thacker Street
TMC
Site Code:
Start Date: 04/11/2023

Turning Movement Peak Hour Data (4:45 PM)

Start Time	Thacker Street Eastbound					Thacker Street Westbound					Laurel Avenue Southbound					
	U-Turn	Left	Thru	Peds	App. Total	U-Turn	Thru	Right	Peds	App. Total	U-Turn	Left	Right	Peds	App. Total	Int. Total
4:45 PM	0	4	55	0	59	0	75	1	1	76	0	4	0	4	4	139
5:00 PM	0	3	47	0	50	0	55	4	0	59	0	0	2	4	2	111
5:15 PM	0	3	51	0	54	0	67	1	0	68	0	2	1	4	3	125
5:30 PM	0	4	49	0	53	0	62	3	2	65	0	2	3	1	5	123
Total	0	14	202	0	216	0	259	9	3	268	0	8	6	13	14	498
Approach %	0.0	6.5	93.5	-	-	0.0	96.6	3.4	-	-	0.0	57.1	42.9	-	-	-
Total %	0.0	2.8	40.6	-	43.4	0.0	52.0	1.8	-	53.8	0.0	1.6	1.2	-	2.8	-
PHF	0.000	0.875	0.918	-	0.915	0.000	0.863	0.563	-	0.882	0.000	0.500	0.500	-	0.700	0.896
Lights	0	13	198	-	211	0	252	9	-	261	0	8	5	-	13	485
% Lights	-	92.9	98.0	-	97.7	-	97.3	100.0	-	97.4	-	100.0	83.3	-	92.9	97.4
Buses	0	0	2	-	2	0	2	0	-	2	0	0	0	-	0	4
% Buses	-	0.0	1.0	-	0.9	-	0.8	0.0	-	0.7	-	0.0	0.0	-	0.0	0.8
Single-Unit Trucks	0	1	0	-	1	0	2	0	-	2	0	0	1	-	1	4
% Single-Unit Trucks	-	7.1	0.0	-	0.5	-	0.8	0.0	-	0.7	-	0.0	16.7	-	7.1	0.8
Articulated Trucks	0	0	0	-	0	0	0	0	-	0	0	0	0	-	0	0
% Articulated Trucks	-	0.0	0.0	-	0.0	-	0.0	0.0	-	0.0	-	0.0	0.0	-	0.0	0.0
Bicycles on Road	0	0	2	-	2	0	3	0	-	3	0	0	0	-	0	5
% Bicycles on Road	-	0.0	1.0	-	0.9	-	1.2	0.0	-	1.1	-	0.0	0.0	-	0.0	1.0
Pedestrians	-	-	-	0	-	-	-	-	3	-	-	-	-	13	-	-
% Pedestrians	-	-	-	-	-	-	-	-	100.0	-	-	-	-	100.0	-	-

Kenig Lindgren O'Hara Aboona, Inc.
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Count Name: Lee Street with Oakwood Avenue
TMC
Site Code:
Start Date: 04/26/2023
Page No: 1

Turning Movement Data

Start Time	Oakwood Avenue Eastbound						Oakwood Avenue Westbound						Lee Street Northbound						Lee Street Southbound						Int. Total
	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	
4:00 PM	0	2	1	0	2	3	0	1	2	2	1	5	0	7	145	7	0	159	0	1	0	0	0	1	168
4:15 PM	0	7	2	1	0	10	0	0	4	2	1	6	0	2	152	5	1	159	0	0	0	0	0	0	175
4:30 PM	1	3	1	0	1	5	0	0	2	3	4	5	0	0	151	1	2	152	0	0	0	0	0	0	162
4:45 PM	0	3	2	0	1	5	0	0	1	1	3	2	0	3	143	4	1	150	0	0	0	0	0	0	157
Hourly Total	1	15	6	1	4	23	0	1	9	8	9	18	0	12	591	17	4	620	0	1	0	0	0	1	662
5:00 PM	0	0	3	0	4	3	0	0	6	0	2	6	0	1	147	4	0	152	0	0	0	0	0	0	161
5:15 PM	0	0	2	0	1	2	0	1	0	0	0	1	0	1	163	7	0	171	0	0	0	0	0	0	174
5:30 PM	0	1	0	0	0	1	0	0	3	1	3	4	0	0	176	6	0	182	0	0	0	1	1	1	188
5:45 PM	0	0	1	0	1	1	0	0	6	2	1	8	0	3	141	13	0	157	0	0	0	0	0	0	166
Hourly Total	0	1	6	0	6	7	0	1	15	3	6	19	0	5	627	30	0	662	0	0	0	1	1	1	689
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
7:00 AM	0	3	0	2	6	5	0	0	2	2	1	4	0	6	80	5	1	91	0	0	0	0	2	0	100
7:15 AM	0	7	0	0	1	7	0	0	0	1	1	1	0	6	87	3	0	96	0	0	0	0	2	0	104
7:30 AM	0	5	1	0	0	6	0	0	2	1	0	3	0	4	111	5	0	120	0	0	0	0	0	0	129
7:45 AM	0	3	2	0	2	5	0	0	1	0	2	1	0	3	77	3	0	83	0	0	0	0	0	0	89
Hourly Total	0	18	3	2	9	23	0	0	5	4	4	9	0	19	355	16	1	390	0	0	0	0	4	0	422
8:00 AM	0	0	2	0	0	2	0	0	2	0	1	2	0	1	140	6	0	147	0	0	0	0	0	0	151
8:15 AM	0	4	2	0	1	6	0	0	2	2	1	4	0	0	136	4	1	140	0	0	0	0	0	0	150
8:30 AM	0	2	1	0	0	3	0	0	1	0	1	1	0	2	135	5	0	142	0	0	0	0	0	0	146
8:45 AM	0	0	0	0	2	0	0	0	0	1	0	1	0	3	134	5	0	142	0	0	0	0	2	0	143
Hourly Total	0	6	5	0	3	11	0	0	5	3	3	8	0	6	545	20	1	571	0	0	0	0	2	0	590
Grand Total	1	40	20	3	22	64	0	2	34	18	22	54	0	42	2118	83	6	2243	0	1	0	1	7	2	2363
Approach %	1.6	62.5	31.3	4.7	-	-	0.0	3.7	63.0	33.3	-	-	0.0	1.9	94.4	3.7	-	-	0.0	50.0	0.0	50.0	-	-	-
Total %	0.0	1.7	0.8	0.1	-	2.7	0.0	0.1	1.4	0.8	-	2.3	0.0	1.8	89.6	3.5	-	94.9	0.0	0.0	0.0	0.0	-	0.1	-
Lights	0	30	19	0	-	49	0	2	34	16	-	52	0	34	2058	82	-	2174	0	0	0	0	-	0	2275
% Lights	0.0	75.0	95.0	0.0	-	76.6	-	100.0	100.0	88.9	-	96.3	-	81.0	97.2	98.8	-	96.9	-	0.0	-	0.0	-	0.0	96.3
Buses	0	0	1	0	-	1	0	0	0	1	-	1	0	0	23	1	-	24	0	0	0	0	-	0	26
% Buses	0.0	0.0	5.0	0.0	-	1.6	-	0.0	0.0	5.6	-	1.9	-	0.0	1.1	1.2	-	1.1	-	0.0	-	0.0	-	0.0	1.1
Single-Unit Trucks	0	8	0	1	-	9	0	0	0	1	-	1	0	4	20	0	-	24	0	0	0	0	-	0	34
% Single-Unit Trucks	0.0	20.0	0.0	33.3	-	14.1	-	0.0	0.0	5.6	-	1.9	-	9.5	0.9	0.0	-	1.1	-	0.0	-	0.0	-	0.0	1.4
Articulated Trucks	1	2	0	1	-	4	0	0	0	0	-	0	0	4	16	0	-	20	0	0	0	0	-	0	24
% Articulated Trucks	100.0	5.0	0.0	33.3	-	6.3	-	0.0	0.0	0.0	-	0.0	-	9.5	0.8	0.0	-	0.9	-	0.0	-	0.0	-	0.0	1.0
Bicycles on Road	0	0	0	1	-	1	0	0	0	0	-	0	0	0	1	0	-	1	0	1	0	1	-	2	4

% Bicycles on Road	0.0	0.0	0.0	33.3	-	1.6	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	-	100.0	-	100.0	-	100.0	0.2
Pedestrians	-	-	-	-	22	-	-	-	-	-	22	-	-	-	-	-	6	-	-	-	-	-	7	-	-
% Pedestrians	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-

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Count Name: Lee Street with Oakwood Avenue
TMC
Site Code:
Start Date: 04/26/2023
Page No: 3

Turning Movement Peak Hour Data (4:45 PM)

Start Time	Oakwood Avenue Eastbound						Oakwood Avenue Westbound						Lee Street Northbound						Lee Street Southbound						Int. Total
	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	
4:45 PM	0	3	2	0	1	5	0	0	1	1	3	2	0	3	143	4	1	150	0	0	0	0	0	0	157
5:00 PM	0	0	3	0	4	3	0	0	6	0	2	6	0	1	147	4	0	152	0	0	0	0	0	0	161
5:15 PM	0	0	2	0	1	2	0	1	0	0	0	1	0	1	163	7	0	171	0	0	0	0	0	0	174
5:30 PM	0	1	0	0	0	1	0	0	3	1	3	4	0	0	176	6	0	182	0	0	0	1	1	1	188
Total	0	4	7	0	6	11	0	1	10	2	8	13	0	5	629	21	1	655	0	0	0	1	1	1	680
Approach %	0.0	36.4	63.6	0.0	-	-	0.0	7.7	76.9	15.4	-	-	0.0	0.8	96.0	3.2	-	-	0.0	0.0	0.0	100.0	-	-	-
Total %	0.0	0.6	1.0	0.0	-	1.6	0.0	0.1	1.5	0.3	-	1.9	0.0	0.7	92.5	3.1	-	96.3	0.0	0.0	0.0	0.1	-	0.1	-
PHF	0.000	0.333	0.583	0.000	-	0.550	0.000	0.250	0.417	0.500	-	0.542	0.000	0.417	0.893	0.750	-	0.900	0.000	0.000	0.000	0.250	-	0.250	0.904
Lights	0	4	7	0	-	11	0	1	10	2	-	13	0	5	614	21	-	640	0	0	0	0	-	0	664
% Lights	-	100.0	100.0	-	-	100.0	-	100.0	100.0	100.0	-	100.0	-	100.0	97.6	100.0	-	97.7	-	-	-	0.0	-	0.0	97.6
Buses	0	0	0	0	-	0	0	0	0	0	-	0	0	0	6	0	-	6	0	0	0	0	-	0	6
% Buses	-	0.0	0.0	-	-	0.0	-	0.0	0.0	0.0	-	0.0	-	0.0	1.0	0.0	-	0.9	-	-	-	0.0	-	0.0	0.9
Single-Unit Trucks	0	0	0	0	-	0	0	0	0	0	-	0	0	0	5	0	-	5	0	0	0	0	-	0	5
% Single-Unit Trucks	-	0.0	0.0	-	-	0.0	-	0.0	0.0	0.0	-	0.0	-	0.0	0.8	0.0	-	0.8	-	-	-	0.0	-	0.0	0.7
Articulated Trucks	0	0	0	0	-	0	0	0	0	0	-	0	0	0	4	0	-	4	0	0	0	0	-	0	4
% Articulated Trucks	-	0.0	0.0	-	-	0.0	-	0.0	0.0	0.0	-	0.0	-	0.0	0.6	0.0	-	0.6	-	-	-	0.0	-	0.0	0.6
Bicycles on Road	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	1	-	1	1
% Bicycles on Road	-	0.0	0.0	-	-	0.0	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	-	-	-	100.0	-	100.0	0.1
Pedestrians	-	-	-	-	6	-	-	-	-	-	8	-	-	-	-	-	1	-	-	-	-	-	1	-	-
% Pedestrians	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-

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Rosemont, Illinois, United States 60018
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Count Name: Lee Street with Oakwood Avenue
TMC
Site Code:
Start Date: 04/26/2023

Turning Movement Peak Hour Data (8:00 AM)

Start Time	Oakwood Avenue Eastbound						Oakwood Avenue Westbound						Lee Street Northbound						Lee Street Southbound						Int. Total
	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	
8:00 AM	0	0	2	0	0	2	0	0	2	0	1	2	0	1	140	6	0	147	0	0	0	0	0	0	151
8:15 AM	0	4	2	0	1	6	0	0	2	2	1	4	0	0	136	4	1	140	0	0	0	0	0	0	150
8:30 AM	0	2	1	0	0	3	0	0	1	0	1	1	0	2	135	5	0	142	0	0	0	0	0	0	146
8:45 AM	0	0	0	0	2	0	0	0	0	1	0	1	0	3	134	5	0	142	0	0	0	0	2	0	143
Total	0	6	5	0	3	11	0	0	5	3	3	8	0	6	545	20	1	571	0	0	0	0	2	0	590
Approach %	0.0	54.5	45.5	0.0	-	-	0.0	0.0	62.5	37.5	-	-	0.0	1.1	95.4	3.5	-	-	0.0	0.0	0.0	0.0	-	-	-
Total %	0.0	1.0	0.8	0.0	-	1.9	0.0	0.0	0.8	0.5	-	1.4	0.0	1.0	92.4	3.4	-	96.8	0.0	0.0	0.0	0.0	-	0.0	-
PHF	0.000	0.375	0.625	0.000	-	0.458	0.000	0.000	0.625	0.375	-	0.500	0.000	0.500	0.973	0.833	-	0.971	0.000	0.000	0.000	0.000	-	0.000	0.977
Lights	0	3	5	0	-	8	0	0	5	3	-	8	0	6	528	20	-	554	0	0	0	0	-	0	570
% Lights	-	50.0	100.0	-	-	72.7	-	-	100.0	100.0	-	100.0	-	100.0	96.9	100.0	-	97.0	-	-	-	-	-	-	96.6
Buses	0	0	0	0	-	0	0	0	0	0	-	0	0	0	8	0	-	8	0	0	0	0	-	0	8
% Buses	-	0.0	0.0	-	-	0.0	-	-	0.0	0.0	-	0.0	-	0.0	1.5	0.0	-	1.4	-	-	-	-	-	-	1.4
Single-Unit Trucks	0	2	0	0	-	2	0	0	0	0	-	0	0	0	5	0	-	5	0	0	0	0	-	0	7
% Single-Unit Trucks	-	33.3	0.0	-	-	18.2	-	-	0.0	0.0	-	0.0	-	0.0	0.9	0.0	-	0.9	-	-	-	-	-	-	1.2
Articulated Trucks	0	1	0	0	-	1	0	0	0	0	-	0	0	0	4	0	-	4	0	0	0	0	-	0	5
% Articulated Trucks	-	16.7	0.0	-	-	9.1	-	-	0.0	0.0	-	0.0	-	0.0	0.7	0.0	-	0.7	-	-	-	-	-	-	0.8
Bicycles on Road	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0
% Bicycles on Road	-	0.0	0.0	-	-	0.0	-	-	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	-	-	-	-	-	-	0.0
Pedestrians	-	-	-	-	3	-	-	-	-	-	3	-	-	-	-	-	1	-	-	-	-	-	2	-	-
% Pedestrians	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-

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

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

Count Name: Lee Street with Thacker Street
TMC
Site Code:
Start Date: 04/25/2023

Turning Movement Data

Start Time	Thacker Street Eastbound						Thacker Street Westbound						Lee Street Northbound						Lee Street Southbound						Int. Total
	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	
7:00 AM	0	12	21	0	1	33	0	0	21	3	0	24	0	5	65	9	0	79	0	0	0	0	1	0	136
7:15 AM	0	9	34	0	0	43	0	0	22	3	1	25	0	3	79	11	1	93	0	0	0	0	0	0	161
7:30 AM	0	15	39	0	0	54	0	0	36	6	2	42	0	8	77	11	0	96	0	0	0	0	0	0	192
7:45 AM	0	14	39	1	1	54	0	0	51	4	0	55	0	5	60	10	0	75	0	0	0	0	4	0	184
Hourly Total	0	50	133	1	2	184	0	0	130	16	3	146	0	21	281	41	1	343	0	0	0	0	5	0	673
8:00 AM	0	10	50	0	2	60	0	0	33	4	0	37	0	7	122	19	0	148	0	0	0	0	0	0	245
8:15 AM	0	23	50	0	0	73	0	0	47	7	1	54	0	9	105	12	0	126	0	0	0	0	0	0	253
8:30 AM	0	15	30	0	2	45	0	0	20	9	0	29	0	5	124	15	0	144	0	0	0	0	0	0	218
8:45 AM	0	25	66	0	0	91	0	0	44	11	2	55	0	10	113	23	0	146	0	0	0	0	2	0	292
Hourly Total	0	73	196	0	4	269	0	0	144	31	3	175	0	31	464	69	0	564	0	0	0	0	2	0	1008
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4:00 PM	0	19	43	0	0	62	0	0	29	5	1	34	0	10	115	18	0	143	0	0	0	0	3	0	239
4:15 PM	0	30	39	0	0	69	0	1	49	6	2	56	0	9	104	10	0	123	0	0	0	0	1	0	248
4:30 PM	0	15	43	0	1	58	0	0	34	3	0	37	0	9	122	13	0	144	0	0	0	0	1	0	239
4:45 PM	0	16	41	0	0	57	0	0	62	6	1	68	0	15	134	22	0	171	0	0	0	0	1	0	296
Hourly Total	0	80	166	0	1	246	0	1	174	20	4	195	0	43	475	63	0	581	0	0	0	0	6	0	1022
5:00 PM	0	20	33	0	0	53	0	0	42	7	0	49	0	14	138	22	0	174	0	0	0	0	0	0	276
5:15 PM	0	15	30	0	1	45	0	0	44	2	2	46	0	18	122	23	0	163	0	0	0	0	1	0	254
5:30 PM	0	26	35	0	0	61	0	0	34	7	2	41	0	12	130	23	0	165	0	0	0	0	0	0	267
5:45 PM	0	18	30	0	1	48	0	0	52	4	1	56	0	7	102	29	0	138	0	0	0	0	5	0	242
Hourly Total	0	79	128	0	2	207	0	0	172	20	5	192	0	51	492	97	0	640	0	0	0	0	6	0	1039
Grand Total	0	282	623	1	9	906	0	1	620	87	15	708	0	146	1712	270	1	2128	0	0	0	0	19	0	3742
Approach %	0.0	31.1	68.8	0.1	-	-	0.0	0.1	87.6	12.3	-	-	0.0	6.9	80.5	12.7	-	-	0.0	0.0	0.0	0.0	-	-	-
Total %	0.0	7.5	16.6	0.0	-	24.2	0.0	0.0	16.6	2.3	-	18.9	0.0	3.9	45.8	7.2	-	56.9	0.0	0.0	0.0	0.0	-	0.0	-
Lights	0	270	609	1	-	880	0	1	607	81	-	689	0	140	1638	262	-	2040	0	0	0	0	-	0	3609
% Lights	-	95.7	97.8	100.0	-	97.1	-	100.0	97.9	93.1	-	97.3	-	95.9	95.7	97.0	-	95.9	-	-	-	-	-	-	96.4
Buses	0	8	6	0	-	14	0	0	8	6	-	14	0	2	25	0	-	27	0	0	0	0	-	0	55
% Buses	-	2.8	1.0	0.0	-	1.5	-	0.0	1.3	6.9	-	2.0	-	1.4	1.5	0.0	-	1.3	-	-	-	-	-	-	1.5
Single-Unit Trucks	0	3	7	0	-	10	0	0	4	0	-	4	0	4	24	5	-	33	0	0	0	0	-	0	47
% Single-Unit Trucks	-	1.1	1.1	0.0	-	1.1	-	0.0	0.6	0.0	-	0.6	-	2.7	1.4	1.9	-	1.6	-	-	-	-	-	-	1.3
Articulated Trucks	0	1	1	0	-	2	0	0	0	0	-	0	0	0	25	3	-	28	0	0	0	0	-	0	30
% Articulated Trucks	-	0.4	0.2	0.0	-	0.2	-	0.0	0.0	0.0	-	0.0	-	0.0	1.5	1.1	-	1.3	-	-	-	-	-	-	0.8
Bicycles on Road	0	0	0	0	-	0	0	0	1	0	-	1	0	0	0	0	-	0	0	0	0	0	-	0	1

% Bicycles on Road	-	0.0	0.0	0.0	-	0.0	-	0.0	0.2	0.0	-	0.1	-	0.0	0.0	0.0	-	0.0	-	-	-	-	-	-	0.0
Pedestrians	-	-	-	-	9	-	-	-	-	-	15	-	-	-	-	-	1	-	-	-	-	-	19	-	-
% Pedestrians	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-

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Count Name: Lee Street with Thacker Street
TMC
Site Code:
Start Date: 04/25/2023

Turning Movement Peak Hour Data (8:00 AM)

Start Time	Thacker Street Eastbound						Thacker Street Westbound						Lee Street Northbound						Lee Street Southbound						Int. Total
	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	
8:00 AM	0	10	50	0	2	60	0	0	33	4	0	37	0	7	122	19	0	148	0	0	0	0	0	0	245
8:15 AM	0	23	50	0	0	73	0	0	47	7	1	54	0	9	105	12	0	126	0	0	0	0	0	0	253
8:30 AM	0	15	30	0	2	45	0	0	20	9	0	29	0	5	124	15	0	144	0	0	0	0	0	0	218
8:45 AM	0	25	66	0	0	91	0	0	44	11	2	55	0	10	113	23	0	146	0	0	0	0	2	0	292
Total	0	73	196	0	4	269	0	0	144	31	3	175	0	31	464	69	0	564	0	0	0	0	2	0	1008
Approach %	0.0	27.1	72.9	0.0	-	-	0.0	0.0	82.3	17.7	-	-	0.0	5.5	82.3	12.2	-	-	0.0	0.0	0.0	0.0	-	-	-
Total %	0.0	7.2	19.4	0.0	-	26.7	0.0	0.0	14.3	3.1	-	17.4	0.0	3.1	46.0	6.8	-	56.0	0.0	0.0	0.0	0.0	-	0.0	-
PHF	0.000	0.730	0.742	0.000	-	0.739	0.000	0.000	0.766	0.705	-	0.795	0.000	0.775	0.935	0.750	-	0.953	0.000	0.000	0.000	0.000	-	0.000	0.863
Lights	0	68	194	0	-	262	0	0	138	30	-	168	0	30	433	69	-	532	0	0	0	0	-	0	962
% Lights	-	93.2	99.0	-	-	97.4	-	-	95.8	96.8	-	96.0	-	96.8	93.3	100.0	-	94.3	-	-	-	-	-	-	95.4
Buses	0	3	1	0	-	4	0	0	3	1	-	4	0	0	8	0	-	8	0	0	0	0	-	0	16
% Buses	-	4.1	0.5	-	-	1.5	-	-	2.1	3.2	-	2.3	-	0.0	1.7	0.0	-	1.4	-	-	-	-	-	-	1.6
Single-Unit Trucks	0	1	1	0	-	2	0	0	3	0	-	3	0	1	11	0	-	12	0	0	0	0	-	0	17
% Single-Unit Trucks	-	1.4	0.5	-	-	0.7	-	-	2.1	0.0	-	1.7	-	3.2	2.4	0.0	-	2.1	-	-	-	-	-	-	1.7
Articulated Trucks	0	1	0	0	-	1	0	0	0	0	-	0	0	0	12	0	-	12	0	0	0	0	-	0	13
% Articulated Trucks	-	1.4	0.0	-	-	0.4	-	-	0.0	0.0	-	0.0	-	0.0	2.6	0.0	-	2.1	-	-	-	-	-	-	1.3
Bicycles on Road	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0
% Bicycles on Road	-	0.0	0.0	-	-	0.0	-	-	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	-	-	-	-	-	-	0.0
Pedestrians	-	-	-	-	4	-	-	-	-	-	3	-	-	-	-	-	0	-	-	-	-	-	2	-	-
% Pedestrians	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	-	-	-	-	-	-	100.0	-	-

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

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Count Name: Lee Street with Thacker Street
TMC
Site Code:
Start Date: 04/25/2023

Turning Movement Peak Hour Data (4:45 PM)

Start Time	Thacker Street Eastbound						Thacker Street Westbound						Lee Street Northbound						Lee Street Southbound						Int. Total
	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	
4:45 PM	0	16	41	0	0	57	0	0	62	6	1	68	0	15	134	22	0	171	0	0	0	0	1	0	296
5:00 PM	0	20	33	0	0	53	0	0	42	7	0	49	0	14	138	22	0	174	0	0	0	0	0	0	276
5:15 PM	0	15	30	0	1	45	0	0	44	2	2	46	0	18	122	23	0	163	0	0	0	0	1	0	254
5:30 PM	0	26	35	0	0	61	0	0	34	7	2	41	0	12	130	23	0	165	0	0	0	0	0	0	267
Total	0	77	139	0	1	216	0	0	182	22	5	204	0	59	524	90	0	673	0	0	0	0	2	0	1093
Approach %	0.0	35.6	64.4	0.0	-	-	0.0	0.0	89.2	10.8	-	-	0.0	8.8	77.9	13.4	-	-	0.0	0.0	0.0	0.0	-	-	-
Total %	0.0	7.0	12.7	0.0	-	19.8	0.0	0.0	16.7	2.0	-	18.7	0.0	5.4	47.9	8.2	-	61.6	0.0	0.0	0.0	0.0	-	0.0	-
PHF	0.000	0.740	0.848	0.000	-	0.885	0.000	0.000	0.734	0.786	-	0.750	0.000	0.819	0.949	0.978	-	0.967	0.000	0.000	0.000	0.000	-	0.000	0.923
Lights	0	75	137	0	-	212	0	0	182	18	-	200	0	58	514	88	-	660	0	0	0	0	-	0	1072
% Lights	-	97.4	98.6	-	-	98.1	-	-	100.0	81.8	-	98.0	-	98.3	98.1	97.8	-	98.1	-	-	-	-	-	-	98.1
Buses	0	1	0	0	-	1	0	0	0	4	-	4	0	0	5	0	-	5	0	0	0	0	-	0	10
% Buses	-	1.3	0.0	-	-	0.5	-	-	0.0	18.2	-	2.0	-	0.0	1.0	0.0	-	0.7	-	-	-	-	-	-	0.9
Single-Unit Trucks	0	1	1	0	-	2	0	0	0	0	-	0	0	1	1	2	-	4	0	0	0	0	-	0	6
% Single-Unit Trucks	-	1.3	0.7	-	-	0.9	-	-	0.0	0.0	-	0.0	-	1.7	0.2	2.2	-	0.6	-	-	-	-	-	-	0.5
Articulated Trucks	0	0	1	0	-	1	0	0	0	0	-	0	0	0	4	0	-	4	0	0	0	0	-	0	5
% Articulated Trucks	-	0.0	0.7	-	-	0.5	-	-	0.0	0.0	-	0.0	-	0.0	0.8	0.0	-	0.6	-	-	-	-	-	-	0.5
Bicycles on Road	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0
% Bicycles on Road	-	0.0	0.0	-	-	0.0	-	-	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	-	-	-	-	-	-	0.0
Pedestrians	-	-	-	-	1	-	-	-	-	-	5	-	-	-	-	-	0	-	-	-	-	-	2	-	-
% Pedestrians	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	-	-	-	-	-	-	100.0	-	-

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Count Name: Oakland Avenue with Graceland Avenue TMC
Site Code:
Start Date: 04/11/2023

Turning Movement Data

Start Time	Oakwood Avenue Eastbound						East Access Drive Westbound						Graceland Avenue Northbound						Graceland Avenue Southbound					
	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	App. Total	Int. Total
7:00 AM	0	0	0	3	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	66	1	67	70
7:15 AM	0	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	94	1	95	96
7:30 AM	0	0	0	5	0	5	0	0	0	0	0	0	0	0	0	0	1	0	0	0	125	1	126	131
7:45 AM	0	0	0	4	1	4	0	0	0	0	2	0	0	0	0	0	0	0	0	1	131	5	137	141
Hourly Total	0	0	0	13	2	13	0	0	0	0	2	0	0	0	0	0	1	0	0	1	416	8	425	438
8:00 AM	0	0	0	2	2	2	0	3	0	0	1	3	0	0	0	0	0	0	0	0	137	2	139	144
8:15 AM	0	0	0	6	0	6	0	3	1	0	0	4	0	0	0	0	0	0	0	0	140	3	143	153
8:30 AM	0	0	0	4	0	4	0	1	0	0	0	1	0	0	0	0	0	0	0	0	138	2	140	145
8:45 AM	0	1	0	5	0	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	149	3	152	158
Hourly Total	0	1	0	17	2	18	0	7	1	0	1	8	0	0	0	0	0	0	0	0	564	10	574	600
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4:00 PM	0	0	0	8	2	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	128	4	132	140
4:15 PM	0	0	1	4	0	5	0	0	0	0	1	0	0	0	0	0	0	0	0	0	156	9	165	170
4:30 PM	0	0	1	6	0	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	136	7	143	150
4:45 PM	0	0	0	1	0	1	0	0	0	0	2	0	0	0	0	0	0	0	0	0	114	4	118	119
Hourly Total	0	0	2	19	2	21	0	0	0	0	3	0	0	0	0	0	0	0	0	0	534	24	558	579
5:00 PM	0	0	0	5	1	5	0	0	0	0	2	0	0	0	0	0	0	0	0	0	155	3	158	163
5:15 PM	0	0	0	5	2	5	0	0	0	0	3	0	0	0	0	0	1	0	0	0	178	5	183	188
5:30 PM	0	0	0	6	0	6	0	2	0	0	0	2	0	0	0	0	0	0	0	0	160	2	162	170
5:45 PM	0	0	1	7	0	8	0	0	0	0	4	0	0	0	0	0	0	0	0	0	123	2	125	133
Hourly Total	0	0	1	23	3	24	0	2	0	0	9	2	0	0	0	0	1	0	0	0	616	12	628	654
Grand Total	0	1	3	72	9	76	0	9	1	0	15	10	0	0	0	0	2	0	0	1	2130	54	2185	2271
Approach %	0.0	1.3	3.9	94.7	-	-	0.0	90.0	10.0	0.0	-	-	0.0	0.0	0.0	0.0	-	-	0.0	0.0	97.5	2.5	-	-
Total %	0.0	0.0	0.1	3.2	-	3.3	0.0	0.4	0.0	0.0	-	0.4	0.0	0.0	0.0	0.0	-	0.0	0.0	0.0	93.8	2.4	96.2	-
Lights	0	0	3	67	-	70	0	9	1	0	-	10	0	0	0	0	-	0	0	0	2059	52	2111	2191
% Lights	-	0.0	100.0	93.1	-	92.1	-	100.0	100.0	-	-	100.0	-	-	-	-	-	-	-	0.0	96.7	96.3	96.6	96.5
Buses	0	0	0	1	-	1	0	0	0	0	-	0	0	0	0	0	-	0	0	0	26	0	26	27
% Buses	-	0.0	0.0	1.4	-	1.3	-	0.0	0.0	-	-	0.0	-	-	-	-	-	-	-	0.0	1.2	0.0	1.2	1.2
Single-Unit Trucks	0	0	0	3	-	3	0	0	0	0	-	0	0	0	0	0	-	0	0	1	31	2	34	37
% Single-Unit Trucks	-	0.0	0.0	4.2	-	3.9	-	0.0	0.0	-	-	0.0	-	-	-	-	-	-	-	100.0	1.5	3.7	1.6	1.6
Articulated Trucks	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	11	0	11	11
% Articulated Trucks	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	-	-	0.0	-	-	-	-	-	-	-	0.0	0.5	0.0	0.5	0.5
Bicycles on Road	0	1	0	1	-	2	0	0	0	0	-	0	0	0	0	0	-	0	0	0	3	0	3	5
% Bicycles on Road	-	100.0	0.0	1.4	-	2.6	-	0.0	0.0	-	-	0.0	-	-	-	-	-	-	-	0.0	0.1	0.0	0.1	0.2
Pedestrians	-	-	-	-	9	-	-	-	-	-	15	-	-	-	-	-	2	-	-	-	-	-	-	-

% Pedestrians	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	-

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

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

Count Name: Oakland Avenue with Graceland Avenue TMC
Site Code:
Start Date: 04/11/2023

Turning Movement Peak Hour Data (8:00 AM)

Start Time	Oakwood Avenue Eastbound						East Access Drive Westbound						Graceland Avenue Northbound						Graceland Avenue Southbound					
	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	App. Total	Int. Total
8:00 AM	0	0	0	2	2	2	0	3	0	0	1	3	0	0	0	0	0	0	0	0	137	2	139	144
8:15 AM	0	0	0	6	0	6	0	3	1	0	0	4	0	0	0	0	0	0	0	0	140	3	143	153
8:30 AM	0	0	0	4	0	4	0	1	0	0	0	1	0	0	0	0	0	0	0	0	138	2	140	145
8:45 AM	0	1	0	5	0	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	149	3	152	158
Total	0	1	0	17	2	18	0	7	1	0	1	8	0	0	0	0	0	0	0	0	564	10	574	600
Approach %	0.0	5.6	0.0	94.4	-	-	0.0	87.5	12.5	0.0	-	-	0.0	0.0	0.0	0.0	-	-	0.0	0.0	98.3	1.7	-	-
Total %	0.0	0.2	0.0	2.8	-	3.0	0.0	1.2	0.2	0.0	-	1.3	0.0	0.0	0.0	0.0	-	0.0	0.0	0.0	94.0	1.7	95.7	-
PHF	0.000	0.250	0.000	0.708	-	0.750	0.000	0.583	0.250	0.000	-	0.500	0.000	0.000	0.000	0.000	-	0.000	0.000	0.000	0.946	0.833	0.944	0.949
Lights	0	0	0	16	-	16	0	7	1	0	-	8	0	0	0	0	-	0	0	0	543	8	551	575
% Lights	-	0.0	-	94.1	-	88.9	-	100.0	100.0	-	-	100.0	-	-	-	-	-	-	-	-	96.3	80.0	96.0	95.8
Buses	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	11	0	11	11
% Buses	-	0.0	-	0.0	-	0.0	-	0.0	0.0	-	-	0.0	-	-	-	-	-	-	-	-	2.0	0.0	1.9	1.8
Single-Unit Trucks	0	0	0	1	-	1	0	0	0	0	-	0	0	0	0	0	-	0	0	0	5	2	7	8
% Single-Unit Trucks	-	0.0	-	5.9	-	5.6	-	0.0	0.0	-	-	0.0	-	-	-	-	-	-	-	-	0.9	20.0	1.2	1.3
Articulated Trucks	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	4	0	4	4
% Articulated Trucks	-	0.0	-	0.0	-	0.0	-	0.0	0.0	-	-	0.0	-	-	-	-	-	-	-	-	0.7	0.0	0.7	0.7
Bicycles on Road	0	1	0	0	-	1	0	0	0	0	-	0	0	0	0	0	-	0	0	0	1	0	1	2
% Bicycles on Road	-	100.0	-	0.0	-	5.6	-	0.0	0.0	-	-	0.0	-	-	-	-	-	-	-	-	0.2	0.0	0.2	0.3
Pedestrians	-	-	-	-	2	-	-	-	-	-	1	-	-	-	-	-	0	-	-	-	-	-	-	-
% Pedestrians	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	-	-	-	-	-	-	-	-

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

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

Count Name: Oakland Avenue with Graceland Avenue TMC
Site Code:
Start Date: 04/11/2023

Turning Movement Peak Hour Data (4:45 PM)

Start Time	Oakwood Avenue Eastbound						East Access Drive Westbound						Graceland Avenue Northbound						Graceland Avenue Southbound					
	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	App. Total	Int. Total
4:45 PM	0	0	0	1	0	1	0	0	0	0	2	0	0	0	0	0	0	0	0	0	114	4	118	119
5:00 PM	0	0	0	5	1	5	0	0	0	0	2	0	0	0	0	0	0	0	0	0	155	3	158	163
5:15 PM	0	0	0	5	2	5	0	0	0	0	3	0	0	0	0	0	1	0	0	0	178	5	183	188
5:30 PM	0	0	0	6	0	6	0	2	0	0	0	2	0	0	0	0	0	0	0	0	160	2	162	170
Total	0	0	0	17	3	17	0	2	0	0	7	2	0	0	0	0	1	0	0	0	607	14	621	640
Approach %	0.0	0.0	0.0	100.0	-	-	0.0	100.0	0.0	0.0	-	-	0.0	0.0	0.0	0.0	-	-	0.0	0.0	97.7	2.3	-	-
Total %	0.0	0.0	0.0	2.7	-	2.7	0.0	0.3	0.0	0.0	-	0.3	0.0	0.0	0.0	0.0	-	0.0	0.0	0.0	94.8	2.2	97.0	-
PHF	0.000	0.000	0.000	0.708	-	0.708	0.000	0.250	0.000	0.000	-	0.250	0.000	0.000	0.000	0.000	-	0.000	0.000	0.000	0.853	0.700	0.848	0.851
Lights	0	0	0	16	-	16	0	2	0	0	-	2	0	0	0	0	-	0	0	0	595	14	609	627
% Lights	-	-	-	94.1	-	94.1	-	100.0	-	-	-	100.0	-	-	-	-	-	-	-	-	98.0	100.0	98.1	98.0
Buses	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	6	0	6	6
% Buses	-	-	-	0.0	-	0.0	-	0.0	-	-	-	0.0	-	-	-	-	-	-	-	-	1.0	0.0	1.0	0.9
Single-Unit Trucks	0	0	0	1	-	1	0	0	0	0	-	0	0	0	0	0	-	0	0	0	4	0	4	5
% Single-Unit Trucks	-	-	-	5.9	-	5.9	-	0.0	-	-	-	0.0	-	-	-	-	-	-	-	-	0.7	0.0	0.6	0.8
Articulated Trucks	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	1	0	1	1
% Articulated Trucks	-	-	-	0.0	-	0.0	-	0.0	-	-	-	0.0	-	-	-	-	-	-	-	-	0.2	0.0	0.2	0.2
Bicycles on Road	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	1	0	1	1
% Bicycles on Road	-	-	-	0.0	-	0.0	-	0.0	-	-	-	0.0	-	-	-	-	-	-	-	-	0.2	0.0	0.2	0.2
Pedestrians	-	-	-	-	3	-	-	-	-	-	7	-	-	-	-	-	1	-	-	-	-	-	-	-
% Pedestrians	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	-	-

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

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

Count Name: Thacker Street with 1st Avenue
TMC
Site Code:
Start Date: 04/11/2023
Page No: 1

Turning Movement Data

Start Time	Thacker Street Eastbound					Thacker Street Westbound					1st Avenue Southbound					
	U-Turn	Left	Thru	Peds	App. Total	U-Turn	Thru	Right	Peds	App. Total	U-Turn	Left	Right	Peds	App. Total	Int. Total
7:00 AM	0	5	30	0	35	0	30	5	0	35	0	1	3	1	4	74
7:15 AM	0	5	44	0	49	0	34	5	0	39	0	3	5	0	8	96
7:30 AM	0	8	49	0	57	0	46	12	0	58	0	3	3	0	6	121
7:45 AM	0	23	68	0	91	0	42	21	0	63	0	2	1	0	3	157
Hourly Total	0	41	191	0	232	0	152	43	0	195	0	9	12	1	21	448
8:00 AM	0	9	61	0	70	0	44	11	0	55	0	3	6	0	9	134
8:15 AM	0	9	59	0	68	0	52	4	0	56	0	4	7	4	11	135
8:30 AM	0	6	52	1	58	0	44	2	0	46	0	1	2	2	3	107
8:45 AM	0	6	69	0	75	0	50	2	0	52	0	4	2	1	6	133
Hourly Total	0	30	241	1	271	0	190	19	0	209	0	12	17	7	29	509
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4:00 PM	0	8	57	3	65	0	64	1	1	65	0	2	7	1	9	139
4:15 PM	0	14	51	0	65	0	71	5	0	76	0	2	5	0	7	148
4:30 PM	0	6	70	0	76	0	59	5	0	64	0	6	1	0	7	147
4:45 PM	0	5	51	3	56	0	73	5	0	78	0	3	3	3	6	140
Hourly Total	0	33	229	6	262	0	267	16	1	283	0	13	16	4	29	574
5:00 PM	0	9	59	0	68	0	90	1	0	91	0	4	8	0	12	171
5:15 PM	0	5	72	0	77	0	77	6	0	83	0	4	7	3	11	171
5:30 PM	0	10	52	1	62	0	73	1	0	74	0	4	3	3	7	143
5:45 PM	0	7	47	2	54	0	71	1	0	72	0	3	4	5	7	133
Hourly Total	0	31	230	3	261	0	311	9	0	320	0	15	22	11	37	618
Grand Total	0	135	891	10	1026	0	920	87	1	1007	0	49	67	23	116	2149
Approach %	0.0	13.2	86.8	-	-	0.0	91.4	8.6	-	-	0.0	42.2	57.8	-	-	-
Total %	0.0	6.3	41.5	-	47.7	0.0	42.8	4.0	-	46.9	0.0	2.3	3.1	-	5.4	-
Lights	0	129	865	-	994	0	881	85	-	966	0	45	61	-	106	2066
% Lights	-	95.6	97.1	-	96.9	-	95.8	97.7	-	95.9	-	91.8	91.0	-	91.4	96.1
Buses	0	2	10	-	12	0	19	2	-	21	0	0	1	-	1	34
% Buses	-	1.5	1.1	-	1.2	-	2.1	2.3	-	2.1	-	0.0	1.5	-	0.9	1.6
Single-Unit Trucks	0	2	12	-	14	0	12	0	-	12	0	3	5	-	8	34
% Single-Unit Trucks	-	1.5	1.3	-	1.4	-	1.3	0.0	-	1.2	-	6.1	7.5	-	6.9	1.6
Articulated Trucks	0	1	2	-	3	0	3	0	-	3	0	1	0	-	1	7
% Articulated Trucks	-	0.7	0.2	-	0.3	-	0.3	0.0	-	0.3	-	2.0	0.0	-	0.9	0.3
Bicycles on Road	0	1	2	-	3	0	5	0	-	5	0	0	0	-	0	8
% Bicycles on Road	-	0.7	0.2	-	0.3	-	0.5	0.0	-	0.5	-	0.0	0.0	-	0.0	0.4
Pedestrians	-	-	-	10	-	-	-	-	1	-	-	-	-	23	-	-
% Pedestrians	-	-	-	100.0	-	-	-	-	100.0	-	-	-	-	100.0	-	-

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9575 W. Higgins Rd., Suite 400

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

Count Name: Thacker Street with 1st Avenue
TMC
Site Code:
Start Date: 04/11/2023

Turning Movement Peak Hour Data (8:00 AM)

Start Time	Thacker Street Eastbound					Thacker Street Westbound					1st Avenue Southbound					
	U-Turn	Left	Thru	Peds	App. Total	U-Turn	Thru	Right	Peds	App. Total	U-Turn	Left	Right	Peds	App. Total	Int. Total
8:00 AM	0	9	61	0	70	0	44	11	0	55	0	3	6	0	9	134
8:15 AM	0	9	59	0	68	0	52	4	0	56	0	4	7	4	11	135
8:30 AM	0	6	52	1	58	0	44	2	0	46	0	1	2	2	3	107
8:45 AM	0	6	69	0	75	0	50	2	0	52	0	4	2	1	6	133
Total	0	30	241	1	271	0	190	19	0	209	0	12	17	7	29	509
Approach %	0.0	11.1	88.9	-	-	0.0	90.9	9.1	-	-	0.0	41.4	58.6	-	-	-
Total %	0.0	5.9	47.3	-	53.2	0.0	37.3	3.7	-	41.1	0.0	2.4	3.3	-	5.7	-
PHF	0.000	0.833	0.873	-	0.903	0.000	0.913	0.432	-	0.933	0.000	0.750	0.607	-	0.659	0.943
Lights	0	29	230	-	259	0	181	17	-	198	0	10	14	-	24	481
% Lights	-	96.7	95.4	-	95.6	-	95.3	89.5	-	94.7	-	83.3	82.4	-	82.8	94.5
Buses	0	0	4	-	4	0	5	2	-	7	0	0	1	-	1	12
% Buses	-	0.0	1.7	-	1.5	-	2.6	10.5	-	3.3	-	0.0	5.9	-	3.4	2.4
Single-Unit Trucks	0	1	5	-	6	0	3	0	-	3	0	2	2	-	4	13
% Single-Unit Trucks	-	3.3	2.1	-	2.2	-	1.6	0.0	-	1.4	-	16.7	11.8	-	13.8	2.6
Articulated Trucks	0	0	2	-	2	0	1	0	-	1	0	0	0	-	0	3
% Articulated Trucks	-	0.0	0.8	-	0.7	-	0.5	0.0	-	0.5	-	0.0	0.0	-	0.0	0.6
Bicycles on Road	0	0	0	-	0	0	0	0	-	0	0	0	0	-	0	0
% Bicycles on Road	-	0.0	0.0	-	0.0	-	0.0	0.0	-	0.0	-	0.0	0.0	-	0.0	0.0
Pedestrians	-	-	-	1	-	-	-	-	0	-	-	-	-	7	-	-
% Pedestrians	-	-	-	100.0	-	-	-	-	-	-	-	-	-	100.0	-	-

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(847)518-9990

Count Name: Thacker Street with 1st Avenue
TMC
Site Code:
Start Date: 04/11/2023

Turning Movement Peak Hour Data (4:45 PM)

Start Time	Thacker Street Eastbound					Thacker Street Westbound					1st Avenue Southbound					
	U-Turn	Left	Thru	Peds	App. Total	U-Turn	Thru	Right	Peds	App. Total	U-Turn	Left	Right	Peds	App. Total	Int. Total
4:45 PM	0	5	51	3	56	0	73	5	0	78	0	3	3	3	6	140
5:00 PM	0	9	59	0	68	0	90	1	0	91	0	4	8	0	12	171
5:15 PM	0	5	72	0	77	0	77	6	0	83	0	4	7	3	11	171
5:30 PM	0	10	52	1	62	0	73	1	0	74	0	4	3	3	7	143
Total	0	29	234	4	263	0	313	13	0	326	0	15	21	9	36	625
Approach %	0.0	11.0	89.0	-	-	0.0	96.0	4.0	-	-	0.0	41.7	58.3	-	-	-
Total %	0.0	4.6	37.4	-	42.1	0.0	50.1	2.1	-	52.2	0.0	2.4	3.4	-	5.8	-
PHF	0.000	0.725	0.813	-	0.854	0.000	0.869	0.542	-	0.896	0.000	0.938	0.656	-	0.750	0.914
Lights	0	26	231	-	257	0	303	13	-	316	0	15	20	-	35	608
% Lights	-	89.7	98.7	-	97.7	-	96.8	100.0	-	96.9	-	100.0	95.2	-	97.2	97.3
Buses	0	0	1	-	1	0	2	0	-	2	0	0	0	-	0	3
% Buses	-	0.0	0.4	-	0.4	-	0.6	0.0	-	0.6	-	0.0	0.0	-	0.0	0.5
Single-Unit Trucks	0	1	1	-	2	0	6	0	-	6	0	0	1	-	1	9
% Single-Unit Trucks	-	3.4	0.4	-	0.8	-	1.9	0.0	-	1.8	-	0.0	4.8	-	2.8	1.4
Articulated Trucks	0	1	0	-	1	0	1	0	-	1	0	0	0	-	0	2
% Articulated Trucks	-	3.4	0.0	-	0.4	-	0.3	0.0	-	0.3	-	0.0	0.0	-	0.0	0.3
Bicycles on Road	0	1	1	-	2	0	1	0	-	1	0	0	0	-	0	3
% Bicycles on Road	-	3.4	0.4	-	0.8	-	0.3	0.0	-	0.3	-	0.0	0.0	-	0.0	0.5
Pedestrians	-	-	-	4	-	-	-	-	0	-	-	-	-	9	-	-
% Pedestrians	-	-	-	100.0	-	-	-	-	-	-	-	-	-	100.0	-	-

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Count Name: Thacker Street with Graceland Avenue TMC
Site Code:
Start Date: 04/11/2023

Turning Movement Data

Start Time	Thacker Street Eastbound						Thacker Street Westbound						Gracelend Avenue Northbound						Graceland Avenue Southbound						Int. Total
	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	
7:00 AM	0	0	27	9	0	36	0	5	20	0	1	25	0	0	0	0	0	0	0	4	62	18	0	84	145
7:15 AM	0	0	32	11	1	43	0	10	21	0	2	31	0	0	0	0	0	0	0	4	73	18	1	95	169
7:30 AM	0	0	51	6	1	57	0	6	38	0	1	44	0	0	0	1	0	1	0	9	105	16	5	130	232
7:45 AM	0	0	53	9	1	62	0	7	44	0	3	51	0	0	0	0	1	0	0	8	124	20	2	152	265
Hourly Total	0	0	163	35	3	198	0	28	123	0	7	151	0	0	0	1	1	1	0	25	364	72	8	461	811
8:00 AM	0	0	56	9	2	65	0	12	40	0	1	52	0	0	0	0	2	0	0	13	102	17	2	132	249
8:15 AM	0	0	45	6	3	51	0	4	28	0	0	32	0	0	0	0	0	0	0	17	138	25	2	180	263
8:30 AM	0	0	54	9	0	63	0	9	30	0	0	39	0	0	0	0	0	0	0	16	119	19	0	154	256
8:45 AM	0	0	53	12	0	65	0	14	31	0	1	45	0	0	0	0	0	0	0	17	123	21	8	161	271
Hourly Total	0	0	208	36	5	244	0	39	129	0	2	168	0	0	0	0	2	0	0	63	482	82	12	627	1039
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4:00 PM	0	0	57	5	2	62	0	13	52	0	0	65	0	0	0	0	2	0	0	8	94	21	0	123	250
4:15 PM	0	0	36	7	0	43	0	14	38	0	1	52	0	0	0	0	1	0	0	10	150	39	0	199	294
4:30 PM	0	0	61	11	0	72	0	13	43	0	2	56	0	0	0	0	1	0	0	4	117	28	1	149	277
4:45 PM	0	0	51	7	0	58	0	10	43	0	2	53	0	0	0	0	1	0	0	10	99	31	1	140	251
Hourly Total	0	0	205	30	2	235	0	50	176	0	5	226	0	0	0	0	5	0	0	32	460	119	2	611	1072
5:00 PM	0	0	52	15	3	67	0	17	49	0	3	66	0	0	0	0	2	0	0	8	125	40	3	173	306
5:15 PM	0	0	51	15	1	66	0	13	58	0	4	71	0	0	0	0	2	0	0	12	146	33	3	191	328
5:30 PM	0	0	51	8	3	59	0	18	48	0	3	66	0	0	0	0	0	0	0	13	121	31	2	165	290
5:45 PM	0	0	37	14	4	51	0	14	48	1	3	63	0	0	0	0	5	0	0	11	98	27	2	136	250
Hourly Total	0	0	191	52	11	243	0	62	203	1	13	266	0	0	0	0	9	0	0	44	490	131	10	665	1174
Grand Total	0	0	767	153	21	920	0	179	631	1	27	811	0	0	0	1	17	1	0	164	1796	404	32	2364	4096
Approach %	0.0	0.0	83.4	16.6	-	-	0.0	22.1	77.8	0.1	-	-	0.0	0.0	0.0	100.0	-	-	0.0	6.9	76.0	17.1	-	-	-
Total %	0.0	0.0	18.7	3.7	-	22.5	0.0	4.4	15.4	0.0	-	19.8	0.0	0.0	0.0	0.0	-	0.0	0.0	4.0	43.8	9.9	-	57.7	-
Lights	0	0	741	150	-	891	0	174	603	0	-	777	0	0	0	0	-	0	0	160	1736	387	-	2283	3951
% Lights	-	-	96.6	98.0	-	96.8	-	97.2	95.6	0.0	-	95.8	-	-	-	0.0	-	0.0	-	97.6	96.7	95.8	-	96.6	96.5
Buses	0	0	9	1	-	10	0	4	12	0	-	16	0	0	0	0	-	0	0	4	25	10	-	39	65
% Buses	-	-	1.2	0.7	-	1.1	-	2.2	1.9	0.0	-	2.0	-	-	-	0.0	-	0.0	-	2.4	1.4	2.5	-	1.6	1.6
Single-Unit Trucks	0	0	12	2	-	14	0	1	8	0	-	9	0	0	0	0	-	0	0	0	21	5	-	26	49
% Single-Unit Trucks	-	-	1.6	1.3	-	1.5	-	0.6	1.3	0.0	-	1.1	-	-	-	0.0	-	0.0	-	0.0	1.2	1.2	-	1.1	1.2
Articulated Trucks	0	0	1	0	-	1	0	0	3	0	-	3	0	0	0	0	-	0	0	0	11	1	-	12	16
% Articulated Trucks	-	-	0.1	0.0	-	0.1	-	0.0	0.5	0.0	-	0.4	-	-	-	0.0	-	0.0	-	0.0	0.6	0.2	-	0.5	0.4
Bicycles on Road	0	0	4	0	-	4	0	0	5	1	-	6	0	0	0	1	-	1	0	0	3	1	-	4	15

% Bicycles on Road	-	-	0.5	0.0	-	0.4	-	0.0	0.8	100.0	-	0.7	-	-	-	100.0	-	100.0	-	0.0	0.2	0.2	-	0.2	0.4
Pedestrians	-	-	-	-	21	-	-	-	-	-	27	-	-	-	-	-	17	-	-	-	-	-	32	-	-
% Pedestrians	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-

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Count Name: Thacker Street with Graceland Avenue TMC
Site Code:
Start Date: 04/11/2023

Turning Movement Peak Hour Data (8:00 AM)

Start Time	Thacker Street Eastbound						Thacker Street Westbound						Gracelend Avenue Northbound						Graceland Avenue Southbound						Int. Total
	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	
8:00 AM	0	0	56	9	2	65	0	12	40	0	1	52	0	0	0	0	2	0	0	13	102	17	2	132	249
8:15 AM	0	0	45	6	3	51	0	4	28	0	0	32	0	0	0	0	0	0	0	17	138	25	2	180	263
8:30 AM	0	0	54	9	0	63	0	9	30	0	0	39	0	0	0	0	0	0	0	16	119	19	0	154	256
8:45 AM	0	0	53	12	0	65	0	14	31	0	1	45	0	0	0	0	0	0	0	17	123	21	8	161	271
Total	0	0	208	36	5	244	0	39	129	0	2	168	0	0	0	0	2	0	0	63	482	82	12	627	1039
Approach %	0.0	0.0	85.2	14.8	-	-	0.0	23.2	76.8	0.0	-	-	0.0	0.0	0.0	0.0	-	-	0.0	10.0	76.9	13.1	-	-	-
Total %	0.0	0.0	20.0	3.5	-	23.5	0.0	3.8	12.4	0.0	-	16.2	0.0	0.0	0.0	0.0	-	0.0	0.0	6.1	46.4	7.9	-	60.3	-
PHF	0.000	0.000	0.929	0.750	-	0.938	0.000	0.696	0.806	0.000	-	0.808	0.000	0.000	0.000	0.000	-	0.000	0.000	0.926	0.873	0.820	-	0.871	0.958
Lights	0	0	195	36	-	231	0	37	123	0	-	160	0	0	0	0	-	0	0	61	463	76	-	600	991
% Lights	-	-	93.8	100.0	-	94.7	-	94.9	95.3	-	-	95.2	-	-	-	-	-	-	-	96.8	96.1	92.7	-	95.7	95.4
Buses	0	0	4	0	-	4	0	2	3	0	-	5	0	0	0	0	-	0	0	2	9	4	-	15	24
% Buses	-	-	1.9	0.0	-	1.6	-	5.1	2.3	-	-	3.0	-	-	-	-	-	-	-	3.2	1.9	4.9	-	2.4	2.3
Single-Unit Trucks	0	0	7	0	-	7	0	0	2	0	-	2	0	0	0	0	-	0	0	0	4	2	-	6	15
% Single-Unit Trucks	-	-	3.4	0.0	-	2.9	-	0.0	1.6	-	-	1.2	-	-	-	-	-	-	-	0.0	0.8	2.4	-	1.0	1.4
Articulated Trucks	0	0	1	0	-	1	0	0	1	0	-	1	0	0	0	0	-	0	0	0	5	0	-	5	7
% Articulated Trucks	-	-	0.5	0.0	-	0.4	-	0.0	0.8	-	-	0.6	-	-	-	-	-	-	-	0.0	1.0	0.0	-	0.8	0.7
Bicycles on Road	0	0	1	0	-	1	0	0	0	0	-	0	0	0	0	0	-	0	0	0	1	0	-	1	2
% Bicycles on Road	-	-	0.5	0.0	-	0.4	-	0.0	0.0	-	-	0.0	-	-	-	-	-	-	-	0.0	0.2	0.0	-	0.2	0.2
Pedestrians	-	-	-	-	5	-	-	-	-	-	2	-	-	-	-	-	2	-	-	-	-	-	12	-	-
% Pedestrians	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-

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Count Name: Thacker Street with Graceland Avenue TMC
Site Code:
Start Date: 04/11/2023

Turning Movement Peak Hour Data (4:45 PM)

Start Time	Thacker Street Eastbound						Thacker Street Westbound						Gracelend Avenue Northbound						Graceland Avenue Southbound						Int. Total
	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	
4:45 PM	0	0	51	7	0	58	0	10	43	0	2	53	0	0	0	0	1	0	0	10	99	31	1	140	251
5:00 PM	0	0	52	15	3	67	0	17	49	0	3	66	0	0	0	0	2	0	0	8	125	40	3	173	306
5:15 PM	0	0	51	15	1	66	0	13	58	0	4	71	0	0	0	0	2	0	0	12	146	33	3	191	328
5:30 PM	0	0	51	8	3	59	0	18	48	0	3	66	0	0	0	0	0	0	0	13	121	31	2	165	290
Total	0	0	205	45	7	250	0	58	198	0	12	256	0	0	0	0	5	0	0	43	491	135	9	669	1175
Approach %	0.0	0.0	82.0	18.0	-	-	0.0	22.7	77.3	0.0	-	-	0.0	0.0	0.0	0.0	-	-	0.0	6.4	73.4	20.2	-	-	-
Total %	0.0	0.0	17.4	3.8	-	21.3	0.0	4.9	16.9	0.0	-	21.8	0.0	0.0	0.0	0.0	-	0.0	0.0	3.7	41.8	11.5	-	56.9	-
PHF	0.000	0.000	0.986	0.750	-	0.933	0.000	0.806	0.853	0.000	-	0.901	0.000	0.000	0.000	0.000	-	0.000	0.000	0.827	0.841	0.844	-	0.876	0.896
Lights	0	0	201	44	-	245	0	57	190	0	-	247	0	0	0	0	-	0	0	43	481	131	-	655	1147
% Lights	-	-	98.0	97.8	-	98.0	-	98.3	96.0	-	-	96.5	-	-	-	-	-	-	-	100.0	98.0	97.0	-	97.9	97.6
Buses	0	0	1	0	-	1	0	1	0	0	-	1	0	0	0	0	-	0	0	0	5	2	-	7	9
% Buses	-	-	0.5	0.0	-	0.4	-	1.7	0.0	-	-	0.4	-	-	-	-	-	-	-	0.0	1.0	1.5	-	1.0	0.8
Single-Unit Trucks	0	0	2	1	-	3	0	0	4	0	-	4	0	0	0	0	-	0	0	0	4	1	-	5	12
% Single-Unit Trucks	-	-	1.0	2.2	-	1.2	-	0.0	2.0	-	-	1.6	-	-	-	-	-	-	-	0.0	0.8	0.7	-	0.7	1.0
Articulated Trucks	0	0	0	0	-	0	0	0	1	0	-	1	0	0	0	0	-	0	0	0	1	0	-	1	2
% Articulated Trucks	-	-	0.0	0.0	-	0.0	-	0.0	0.5	-	-	0.4	-	-	-	-	-	-	-	0.0	0.2	0.0	-	0.1	0.2
Bicycles on Road	0	0	1	0	-	1	0	0	3	0	-	3	0	0	0	0	-	0	0	0	0	1	-	1	5
% Bicycles on Road	-	-	0.5	0.0	-	0.4	-	0.0	1.5	-	-	1.2	-	-	-	-	-	-	-	0.0	0.0	0.7	-	0.1	0.4
Pedestrians	-	-	-	-	7	-	-	-	-	-	12	-	-	-	-	-	5	-	-	-	-	-	9	-	-
% Pedestrians	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-

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Count Name: Thacker Street with Graceland Court Access Drive TMC
Site Code:
Start Date: 04/11/2023
Page No: 1

Turning Movement Data

Start Time	Thacker Street Eastbound					Thacker Street Westbound					Graceland Court Access Drive Southbound					
	U-Turn	Left	Thru	Peds	App. Total	U-Turn	Thru	Right	Peds	App. Total	U-Turn	Left	Right	Peds	App. Total	Int. Total
7:00 AM	0	1	34	0	35	0	37	1	0	38	0	3	4	0	7	80
7:15 AM	0	0	41	0	41	0	39	0	0	39	0	2	0	1	2	82
7:30 AM	0	0	50	0	50	0	55	2	0	57	0	3	2	3	5	112
7:45 AM	0	1	64	1	65	0	64	3	1	67	0	3	2	3	5	137
Hourly Total	0	2	189	1	191	0	195	6	1	201	0	11	8	7	19	411
8:00 AM	0	2	59	0	61	0	51	3	0	54	0	1	2	2	3	118
8:15 AM	0	3	56	0	59	0	53	0	0	53	0	1	2	5	3	115
8:30 AM	0	1	53	0	54	0	48	1	0	49	0	1	3	4	4	107
8:45 AM	0	2	70	0	72	0	51	3	0	54	0	1	2	3	3	129
Hourly Total	0	8	238	0	246	0	203	7	0	210	0	4	9	14	13	469
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4:00 PM	0	1	58	0	59	0	72	2	0	74	0	3	0	1	3	136
4:15 PM	0	1	49	0	50	0	79	2	0	81	0	0	2	0	2	133
4:30 PM	0	1	67	0	68	1	59	4	0	64	0	2	0	2	2	134
4:45 PM	0	0	57	0	57	0	80	0	0	80	0	3	0	2	3	140
Hourly Total	0	3	231	0	234	1	290	8	0	299	0	8	2	5	10	543
5:00 PM	0	1	59	0	60	0	87	2	0	89	0	1	0	1	1	150
5:15 PM	0	3	71	0	74	0	93	2	0	95	0	0	1	6	1	170
5:30 PM	0	0	54	0	54	0	71	3	0	74	0	0	1	3	1	129
5:45 PM	0	0	50	0	50	0	77	2	0	79	0	2	0	3	2	131
Hourly Total	0	4	234	0	238	0	328	9	0	337	0	3	2	13	5	580
Grand Total	0	17	892	1	909	1	1016	30	1	1047	0	26	21	39	47	2003
Approach %	0.0	1.9	98.1	-	-	0.1	97.0	2.9	-	-	0.0	55.3	44.7	-	-	-
Total %	0.0	0.8	44.5	-	45.4	0.0	50.7	1.5	-	52.3	0.0	1.3	1.0	-	2.3	-
Lights	0	17	867	-	884	1	971	29	-	1001	0	26	21	-	47	1932
% Lights	-	100.0	97.2	-	97.2	100.0	95.6	96.7	-	95.6	-	100.0	100.0	-	100.0	96.5
Buses	0	0	9	-	9	0	22	0	-	22	0	0	0	-	0	31
% Buses	-	0.0	1.0	-	1.0	0.0	2.2	0.0	-	2.1	-	0.0	0.0	-	0.0	1.5
Single-Unit Trucks	0	0	14	-	14	0	12	1	-	13	0	0	0	-	0	27
% Single-Unit Trucks	-	0.0	1.6	-	1.5	0.0	1.2	3.3	-	1.2	-	0.0	0.0	-	0.0	1.3
Articulated Trucks	0	0	1	-	1	0	4	0	-	4	0	0	0	-	0	5
% Articulated Trucks	-	0.0	0.1	-	0.1	0.0	0.4	0.0	-	0.4	-	0.0	0.0	-	0.0	0.2
Bicycles on Road	0	0	1	-	1	0	7	0	-	7	0	0	0	-	0	8
% Bicycles on Road	-	0.0	0.1	-	0.1	0.0	0.7	0.0	-	0.7	-	0.0	0.0	-	0.0	0.4
Pedestrians	-	-	-	1	-	-	-	-	1	-	-	-	-	39	-	-
% Pedestrians	-	-	-	100.0	-	-	-	-	100.0	-	-	-	-	100.0	-	-

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Count Name: Thacker Street with Graceland Court Access Drive TMC
Site Code:
Start Date: 04/11/2023

Turning Movement Peak Hour Data (8:00 AM)

Start Time	Thacker Street Eastbound					Thacker Street Westbound					Graceland Court Access Drive Southbound					
	U-Turn	Left	Thru	Peds	App. Total	U-Turn	Thru	Right	Peds	App. Total	U-Turn	Left	Right	Peds	App. Total	Int. Total
8:00 AM	0	2	59	0	61	0	51	3	0	54	0	1	2	2	3	118
8:15 AM	0	3	56	0	59	0	53	0	0	53	0	1	2	5	3	115
8:30 AM	0	1	53	0	54	0	48	1	0	49	0	1	3	4	4	107
8:45 AM	0	2	70	0	72	0	51	3	0	54	0	1	2	3	3	129
Total	0	8	238	0	246	0	203	7	0	210	0	4	9	14	13	469
Approach %	0.0	3.3	96.7	-	-	0.0	96.7	3.3	-	-	0.0	30.8	69.2	-	-	-
Total %	0.0	1.7	50.7	-	52.5	0.0	43.3	1.5	-	44.8	0.0	0.9	1.9	-	2.8	-
PHF	0.000	0.667	0.850	-	0.854	0.000	0.958	0.583	-	0.972	0.000	1.000	0.750	-	0.813	0.909
Lights	0	8	226	-	234	0	192	7	-	199	0	4	9	-	13	446
% Lights	-	100.0	95.0	-	95.1	-	94.6	100.0	-	94.8	-	100.0	100.0	-	100.0	95.1
Buses	0	0	4	-	4	0	7	0	-	7	0	0	0	-	0	11
% Buses	-	0.0	1.7	-	1.6	-	3.4	0.0	-	3.3	-	0.0	0.0	-	0.0	2.3
Single-Unit Trucks	0	0	7	-	7	0	3	0	-	3	0	0	0	-	0	10
% Single-Unit Trucks	-	0.0	2.9	-	2.8	-	1.5	0.0	-	1.4	-	0.0	0.0	-	0.0	2.1
Articulated Trucks	0	0	1	-	1	0	1	0	-	1	0	0	0	-	0	2
% Articulated Trucks	-	0.0	0.4	-	0.4	-	0.5	0.0	-	0.5	-	0.0	0.0	-	0.0	0.4
Bicycles on Road	0	0	0	-	0	0	0	0	-	0	0	0	0	-	0	0
% Bicycles on Road	-	0.0	0.0	-	0.0	-	0.0	0.0	-	0.0	-	0.0	0.0	-	0.0	0.0
Pedestrians	-	-	-	0	-	-	-	-	0	-	-	-	-	14	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	100.0	-	-

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

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

Count Name: Thacker Street with Graceland Court Access Drive TMC
Site Code:
Start Date: 04/11/2023

Turning Movement Peak Hour Data (4:45 PM)

Start Time	Thacker Street Eastbound					Thacker Street Westbound					Graceland Court Access Drive Southbound					
	U-Turn	Left	Thru	Peds	App. Total	U-Turn	Thru	Right	Peds	App. Total	U-Turn	Left	Right	Peds	App. Total	Int. Total
4:45 PM	0	0	57	0	57	0	80	0	0	80	0	3	0	2	3	140
5:00 PM	0	1	59	0	60	0	87	2	0	89	0	1	0	1	1	150
5:15 PM	0	3	71	0	74	0	93	2	0	95	0	0	1	6	1	170
5:30 PM	0	0	54	0	54	0	71	3	0	74	0	0	1	3	1	129
Total	0	4	241	0	245	0	331	7	0	338	0	4	2	12	6	589
Approach %	0.0	1.6	98.4	-	-	0.0	97.9	2.1	-	-	0.0	66.7	33.3	-	-	-
Total %	0.0	0.7	40.9	-	41.6	0.0	56.2	1.2	-	57.4	0.0	0.7	0.3	-	1.0	-
PHF	0.000	0.333	0.849	-	0.828	0.000	0.890	0.583	-	0.889	0.000	0.333	0.500	-	0.500	0.866
Lights	0	4	239	-	243	0	321	7	-	328	0	4	2	-	6	577
% Lights	-	100.0	99.2	-	99.2	-	97.0	100.0	-	97.0	-	100.0	100.0	-	100.0	98.0
Buses	0	0	1	-	1	0	2	0	-	2	0	0	0	-	0	3
% Buses	-	0.0	0.4	-	0.4	-	0.6	0.0	-	0.6	-	0.0	0.0	-	0.0	0.5
Single-Unit Trucks	0	0	1	-	1	0	5	0	-	5	0	0	0	-	0	6
% Single-Unit Trucks	-	0.0	0.4	-	0.4	-	1.5	0.0	-	1.5	-	0.0	0.0	-	0.0	1.0
Articulated Trucks	0	0	0	-	0	0	1	0	-	1	0	0	0	-	0	1
% Articulated Trucks	-	0.0	0.0	-	0.0	-	0.3	0.0	-	0.3	-	0.0	0.0	-	0.0	0.2
Bicycles on Road	0	0	0	-	0	0	2	0	-	2	0	0	0	-	0	2
% Bicycles on Road	-	0.0	0.0	-	0.0	-	0.6	0.0	-	0.6	-	0.0	0.0	-	0.0	0.3
Pedestrians	-	-	-	0	-	-	-	-	0	-	-	-	-	12	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	100.0	-	-

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Count Name: Thacker+with+Alley TMC
Site Code:
Start Date: 04/26/2023
Page No: 1

Turning Movement Data

Start Time	Thacker Street Eastbound						Thacker Street Westbound						Public Alley Northbound						Public Alley Southbound						Int. Total
	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	
4:00 PM	0	3	60	3	0	66	0	0	45	1	0	46	0	1	0	1	0	2	0	0	0	0	0	0	114
4:15 PM	0	2	47	1	0	50	0	2	59	2	0	63	0	2	0	1	0	3	0	1	0	2	1	3	119
4:30 PM	0	0	48	3	0	51	0	1	54	3	0	58	0	2	0	0	1	2	0	1	0	4	0	5	116
4:45 PM	0	3	43	2	1	48	0	4	48	3	0	55	0	2	0	0	0	2	0	1	0	3	3	4	109
Hourly Total	0	8	198	9	1	215	0	7	206	9	0	222	0	7	0	2	1	9	0	3	0	9	4	12	458
5:00 PM	0	2	70	1	1	73	0	0	60	3	0	63	0	1	1	0	0	2	0	5	0	3	1	8	146
5:15 PM	0	4	63	0	0	67	0	3	45	2	0	50	0	0	0	0	0	0	0	1	1	2	3	4	121
5:30 PM	0	1	60	2	0	63	0	2	56	3	0	61	0	0	1	0	0	1	0	0	0	4	1	4	129
5:45 PM	0	0	45	3	1	48	0	1	51	7	0	59	0	2	0	1	0	3	0	4	0	4	1	8	118
Hourly Total	0	7	238	6	2	251	0	6	212	15	0	233	0	3	2	1	0	6	0	10	1	13	6	24	514
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
7:00 AM	0	1	31	0	0	32	0	0	16	0	0	16	0	2	1	2	0	5	0	0	0	2	2	2	55
7:15 AM	0	4	39	0	1	43	0	0	22	1	0	23	0	0	0	5	0	5	0	1	0	1	2	2	73
7:30 AM	0	3	55	0	0	58	0	0	40	0	0	40	0	2	0	4	0	6	0	1	0	2	2	3	107
7:45 AM	0	2	56	0	0	58	0	0	56	1	0	57	0	1	0	2	0	3	0	1	0	3	2	4	122
Hourly Total	0	10	181	0	1	191	0	0	134	2	0	136	0	5	1	13	0	19	0	3	0	8	8	11	357
8:00 AM	1	3	71	2	0	77	0	1	43	5	0	49	0	1	0	1	0	2	0	2	0	0	1	2	130
8:15 AM	0	0	56	0	0	56	0	0	44	4	0	48	0	3	1	3	0	7	0	2	0	4	1	6	117
8:30 AM	0	1	59	4	0	64	0	0	28	1	0	29	0	3	1	3	0	7	0	1	0	2	0	3	103
8:45 AM	0	1	61	3	0	65	0	1	50	3	0	54	0	0	0	0	2	0	0	1	0	1	1	2	121
Hourly Total	1	5	247	9	0	262	0	2	165	13	0	180	0	7	2	7	2	16	0	6	0	7	3	13	471
Grand Total	1	30	864	24	4	919	0	15	717	39	0	771	0	22	5	23	3	50	0	22	1	37	21	60	1800
Approach %	0.1	3.3	94.0	2.6	-	-	0.0	1.9	93.0	5.1	-	-	0.0	44.0	10.0	46.0	-	-	0.0	36.7	1.7	61.7	-	-	-
Total %	0.1	1.7	48.0	1.3	-	51.1	0.0	0.8	39.8	2.2	-	42.8	0.0	1.2	0.3	1.3	-	2.8	0.0	1.2	0.1	2.1	-	3.3	-
Lights	1	29	837	23	-	890	0	15	692	38	-	745	0	22	4	23	-	49	0	21	1	36	-	58	1742
% Lights	100.0	96.7	96.9	95.8	-	96.8	-	100.0	96.5	97.4	-	96.6	-	100.0	80.0	100.0	-	98.0	-	95.5	100.0	97.3	-	96.7	96.8
Buses	0	0	15	0	-	15	0	0	11	1	-	12	0	0	0	0	-	0	0	0	0	1	-	1	28
% Buses	0.0	0.0	1.7	0.0	-	1.6	-	0.0	1.5	2.6	-	1.6	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	2.7	-	1.7	1.6
Single-Unit Trucks	0	1	6	0	-	7	0	0	10	0	-	10	0	0	1	0	-	1	0	1	0	0	-	1	19
% Single-Unit Trucks	0.0	3.3	0.7	0.0	-	0.8	-	0.0	1.4	0.0	-	1.3	-	0.0	20.0	0.0	-	2.0	-	4.5	0.0	0.0	-	1.7	1.1
Articulated Trucks	0	0	3	0	-	3	0	0	4	0	-	4	0	0	0	0	-	0	0	0	0	0	-	0	7
% Articulated Trucks	0.0	0.0	0.3	0.0	-	0.3	-	0.0	0.6	0.0	-	0.5	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	0.4
Bicycles on Road	0	0	3	1	-	4	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	4

% Bicycles on Road	0.0	0.0	0.3	4.2	-	0.4	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	0.2
Pedestrians	-	-	-	-	4	-	-	-	-	-	0	-	-	-	-	-	3	-	-	-	-	-	21	-	-
% Pedestrians	-	-	-	-	100.0	-	-	-	-	-	-	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-

Kenig Lindgren O'Hara Aboona, Inc.
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Count Name: Thacker+with+Alley TMC
Site Code:
Start Date: 04/26/2023

Turning Movement Peak Hour Data (4:45 PM)

Start Time	Thacker Street Eastbound						Thacker Street Westbound						Public Alley Northbound						Public Alley Southbound						Int. Total
	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	
4:45 PM	0	3	43	2	1	48	0	4	48	3	0	55	0	2	0	0	0	2	0	1	0	3	3	4	109
5:00 PM	0	2	70	1	1	73	0	0	60	3	0	63	0	1	1	0	0	2	0	5	0	3	1	8	146
5:15 PM	0	4	63	0	0	67	0	3	45	2	0	50	0	0	0	0	0	0	0	1	1	2	3	4	121
5:30 PM	0	1	60	2	0	63	0	2	56	3	0	61	0	0	1	0	0	1	0	0	0	4	1	4	129
Total	0	10	236	5	2	251	0	9	209	11	0	229	0	3	2	0	0	5	0	7	1	12	8	20	505
Approach %	0.0	4.0	94.0	2.0	-	-	0.0	3.9	91.3	4.8	-	-	0.0	60.0	40.0	0.0	-	-	0.0	35.0	5.0	60.0	-	-	-
Total %	0.0	2.0	46.7	1.0	-	49.7	0.0	1.8	41.4	2.2	-	45.3	0.0	0.6	0.4	0.0	-	1.0	0.0	1.4	0.2	2.4	-	4.0	-
PHF	0.000	0.625	0.843	0.625	-	0.860	0.000	0.563	0.871	0.917	-	0.909	0.000	0.375	0.500	0.000	-	0.625	0.000	0.350	0.250	0.750	-	0.625	0.865
Lights	0	10	232	5	-	247	0	9	204	11	-	224	0	3	2	0	-	5	0	7	1	12	-	20	496
% Lights	-	100.0	98.3	100.0	-	98.4	-	100.0	97.6	100.0	-	97.8	-	100.0	100.0	-	-	100.0	-	100.0	100.0	100.0	-	100.0	98.2
Buses	0	0	2	0	-	2	0	0	1	0	-	1	0	0	0	0	-	0	0	0	0	0	-	0	3
% Buses	-	0.0	0.8	0.0	-	0.8	-	0.0	0.5	0.0	-	0.4	-	0.0	0.0	-	-	0.0	-	0.0	0.0	0.0	-	0.0	0.6
Single-Unit Trucks	0	0	0	0	-	0	0	0	2	0	-	2	0	0	0	0	-	0	0	0	0	0	-	0	2
% Single-Unit Trucks	-	0.0	0.0	0.0	-	0.0	-	0.0	1.0	0.0	-	0.9	-	0.0	0.0	-	-	0.0	-	0.0	0.0	0.0	-	0.0	0.4
Articulated Trucks	0	0	0	0	-	0	0	0	2	0	-	2	0	0	0	0	-	0	0	0	0	0	-	0	2
% Articulated Trucks	-	0.0	0.0	0.0	-	0.0	-	0.0	1.0	0.0	-	0.9	-	0.0	0.0	-	-	0.0	-	0.0	0.0	0.0	-	0.0	0.4
Bicycles on Road	0	0	2	0	-	2	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	2
% Bicycles on Road	-	0.0	0.8	0.0	-	0.8	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	-	-	0.0	-	0.0	0.0	0.0	-	0.0	0.4
Pedestrians	-	-	-	-	2	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	8	-	-
% Pedestrians	-	-	-	-	100.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	100.0	-	-

Kenig Lindgren O'Hara Aboona, Inc.
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Count Name: Thacker+with+Alley TMC
Site Code:
Start Date: 04/26/2023

Turning Movement Peak Hour Data (8:00 AM)

Start Time	Thacker Street Eastbound						Thacker Street Westbound						Public Alley Northbound						Public Alley Southbound						Int. Total
	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	
8:00 AM	1	3	71	2	0	77	0	1	43	5	0	49	0	1	0	1	0	2	0	2	0	0	1	2	130
8:15 AM	0	0	56	0	0	56	0	0	44	4	0	48	0	3	1	3	0	7	0	2	0	4	1	6	117
8:30 AM	0	1	59	4	0	64	0	0	28	1	0	29	0	3	1	3	0	7	0	1	0	2	0	3	103
8:45 AM	0	1	61	3	0	65	0	1	50	3	0	54	0	0	0	0	2	0	0	1	0	1	1	2	121
Total	1	5	247	9	0	262	0	2	165	13	0	180	0	7	2	7	2	16	0	6	0	7	3	13	471
Approach %	0.4	1.9	94.3	3.4	-	-	0.0	1.1	91.7	7.2	-	-	0.0	43.8	12.5	43.8	-	-	0.0	46.2	0.0	53.8	-	-	-
Total %	0.2	1.1	52.4	1.9	-	55.6	0.0	0.4	35.0	2.8	-	38.2	0.0	1.5	0.4	1.5	-	3.4	0.0	1.3	0.0	1.5	-	2.8	-
PHF	0.250	0.417	0.870	0.563	-	0.851	0.000	0.500	0.825	0.650	-	0.833	0.000	0.583	0.500	0.583	-	0.571	0.000	0.750	0.000	0.438	-	0.542	0.906
Lights	1	5	238	9	-	253	0	2	159	13	-	174	0	7	2	7	-	16	0	6	0	7	-	13	456
% Lights	100.0	100.0	96.4	100.0	-	96.6	-	100.0	96.4	100.0	-	96.7	-	100.0	100.0	100.0	-	100.0	-	100.0	-	100.0	-	100.0	96.8
Buses	0	0	6	0	-	6	0	0	4	0	-	4	0	0	0	0	-	0	0	0	0	0	-	0	10
% Buses	0.0	0.0	2.4	0.0	-	2.3	-	0.0	2.4	0.0	-	2.2	-	0.0	0.0	0.0	-	0.0	-	0.0	-	0.0	-	0.0	2.1
Single-Unit Trucks	0	0	2	0	-	2	0	0	2	0	-	2	0	0	0	0	-	0	0	0	0	0	-	0	4
% Single-Unit Trucks	0.0	0.0	0.8	0.0	-	0.8	-	0.0	1.2	0.0	-	1.1	-	0.0	0.0	0.0	-	0.0	-	0.0	-	0.0	-	0.0	0.8
Articulated Trucks	0	0	1	0	-	1	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	1
% Articulated Trucks	0.0	0.0	0.4	0.0	-	0.4	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	-	0.0	-	0.0	-	0.0	0.2
Bicycles on Road	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0
% Bicycles on Road	0.0	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	-	0.0	-	0.0	-	0.0	0.0
Pedestrians	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	2	-	-	-	-	-	3	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-

Study Name	1st Avenue with Public Alley TMC
Start Date	Wednesday, April 26, 2023 4:00 PM
End Date	Thursday, April 27, 2023 8:45 AM
Site Code	

Report Summary

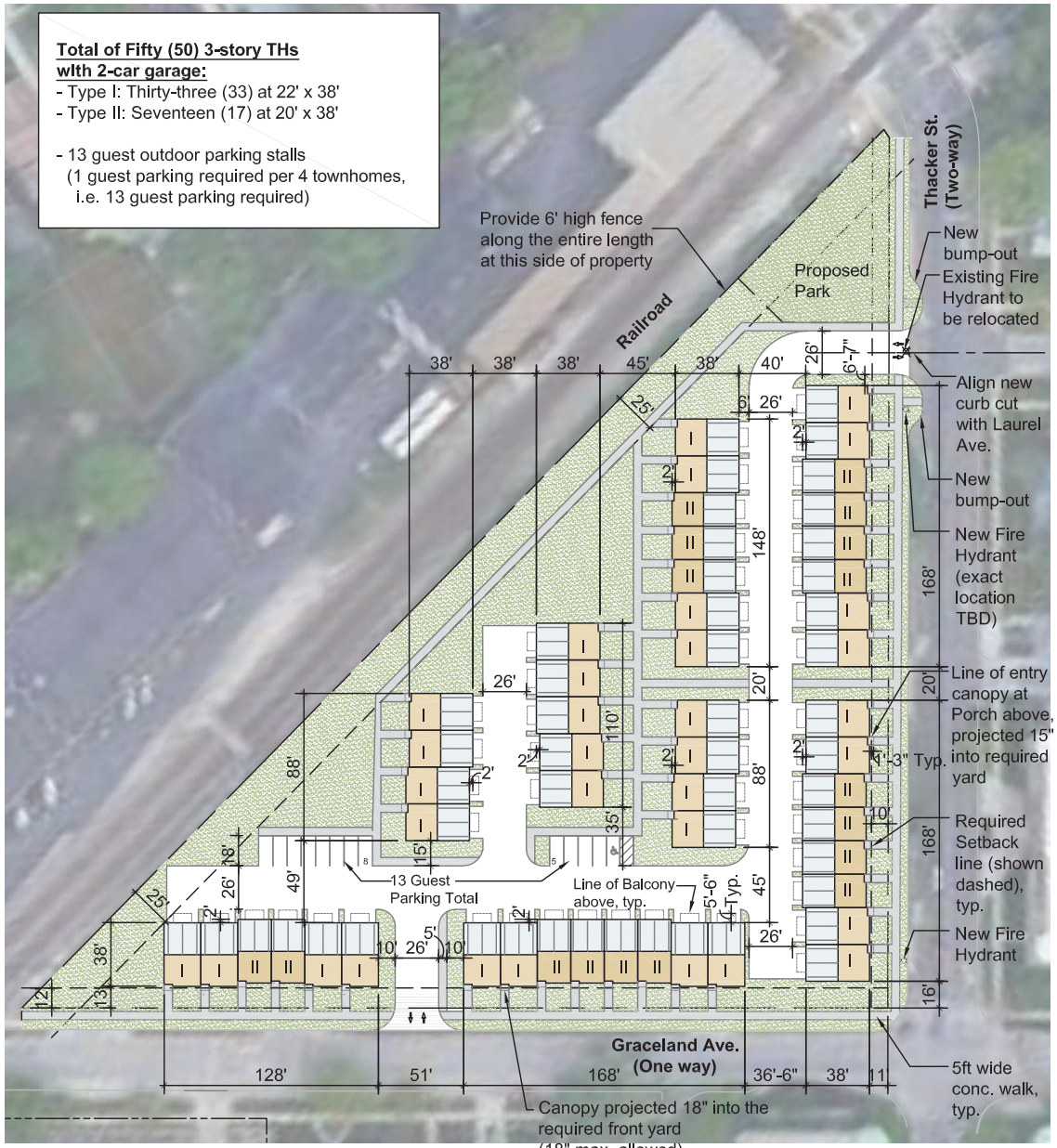
		Eastbound						Westbound						Southbound						Southeastbound							Crosswalk	
Time Period	**Class.**	**U**	**HL**	**L**	**T**	**I**	**O**	**U**	**T**	**BR**	**R**	**I**	**O**	**U**	**L**	**R**	**HR**	**I**	**O**	**U**	**HL**	**BL**	**HR**	**I**	**O**	**Total**		**ıdestria**	**Total**
Peak 1	Lights	0	0	2	6	8	12	0	9	0	0	9	6	0	0	3	0	3	2	0	0	0	0	0	0	20	EB	0	0
Specified Period	%	0%	0%	67%	100%	89%	92%	0%	90%	0%	0%	90%	100%	0%	0%	100%	0%	100%	67%	0%	0%	0%	0%	0%	0%	91%		0%	
7:30 AM - 8:30 AM	Buses	0	0	0	0	0	1	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	WB	0	0
One Hour Peak	%	0%	0%	0%	0%	0%	8%	0%	10%	0%	0%	10%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	5%		0%	
7:30 AM - 8:30 AM	ngle-Unit Truc	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	SB	0	0
	%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%		0%	
	ticulated Truc	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	SEB	0	0
	%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%		0%	
	icycles on Roa	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1		**0**	**0**
	%	0%	0%	33%	0%	11%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	33%	0%	0%	0%	0%	0%	0%	5%			
	Total	**0**	**0**	**3**	**6**	**9**	**13**	**0**	**10**	**0**	**0**	**10**	**6**	**0**	**0**	**3**	**0**	**3**	**3**	**0**	**0**	**0**	**0**	**0**	**0**	**22**			
	PHF	0	0	0.38	0.75	0.75	0.46	0	0.62	0	0	0.62	0.75	0	0	0.25	0	0.25	0.38	0	0	0	0	0	0	0.61			
	Approach %					41%	59%					45%	27%					14%	14%					0%	0%				

Study Name	1st Avenue with Public Alley TMC
Start Date	Wednesday, April 26, 2023 4:00 PM
End Date	Thursday, April 27, 2023 8:45 AM
Site Code	

Report Summary

		Eastbound						Westbound						Southbound						Southeastbound							Crosswalk	
Time Period	**Class.**	**U**	**HL**	**L**	**T**	**I**	**O**	**U**	**T**	**BR**	**R**	**I**	**O**	**U**	**L**	**R**	**HR**	**I**	**O**	**U**	**HL**	**BL**	**HR**	**I**	**O**	**Total**		**ıdestria**	**Total**
Peak 1	Lights	0	0	2	6	8	12	0	9	0	0	9	6	0	0	3	0	3	2	0	0	0	0	0	0	20	EB	0	0
Specified Period	%	0%	0%	67%	100%	89%	92%	0%	90%	0%	0%	90%	100%	0%	0%	100%	0%	100%	67%	0%	0%	0%	0%	0%	0%	91%		0%	
7:30 AM - 8:30 AM	Buses	0	0	0	0	0	1	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	WB	0	0
One Hour Peak	%	0%	0%	0%	0%	0%	8%	0%	10%	0%	0%	10%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	5%		0%	
7:30 AM - 8:30 AM	ngle-Unit Truc	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	SB	0	0
	%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%		0%	
	ticulated Truc	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	SEB	0	0
	%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%		0%	
	icycles on Roa	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1		**0**	**0**
	%	0%	0%	33%	0%	11%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	33%	0%	0%	0%	0%	0%	0%	5%			
	Total	**0**	**0**	**3**	**6**	**9**	**13**	**0**	**10**	**0**	**0**	**10**	**6**	**0**	**0**	**3**	**0**	**3**	**3**	**0**	**0**	**0**	**0**	**0**	**0**	**22**			
	PHF	0	0	0.38	0.75	0.75	0.46	0	0.62	0	0	0.62	0.75	0	0	0.25	0	0.25	0.38	0	0	0	0	0	0	0.61			
	Approach %					41%	59%					45%	27%					14%	14%					0%	0%				

Site Plan


Total of Fifty (50) 3-story THs
with 2-car garage:
- Type I: Thirty-three (33) at 22' x 38'
- Type II: Seventeen (17) at 20' x 38'
- 13 guest outdoor parking stalls
(1 guest parking required per 4 townhomes,
i.e. 13 guest parking required)
Provide 6' high fence along the entire length at this side of property
Railroad
Proposed Park
Thacker St. (Two-way)
New bump-out
Existing Fire Hydrant to be relocated
Align new curb cut with Laurel Ave.
New bump-out
New Fire Hydrant (exact location TBD)
Line of entry canopy at Porch above, projected 15" into required yard
Required Setback line (shown dashed), typ.
New Fire Hydrant
13 Guest Parking Total
Line of Balcony above, typ.
Graceland Ave. (One way)
5ft wide conc. walk, typ.
Canopy projected 18" into the required front yard (18" max. allowed)

Site Plan

ITE Trip Generation Summary Sheets

Land Use: 220
Multifamily Housing (Low-Rise)

Description

Low-rise multifamily housing includes apartments, townhouses, and condominiums located within the same building with at least three other dwelling units and that have two or three floors (levels). Various configurations fit this description, including walkup apartment, mansion apartment, and stacked townhouse.

- A walkup apartment typically is two or three floors in height with dwelling units that are accessed by a single or multiple entrances with stairways and hallways.
- A mansion apartment is a single structure that contains several apartments within what appears to be a single-family dwelling unit.
- A fourplex is a single two-story structure with two matching dwelling units on the ground and second floors. Access to the individual units is typically internal to the structure and provided through a central entry and stairway.
- A stacked townhouse is designed to match the external appearance of a townhouse. But, unlike a townhouse dwelling unit that only shares walls with an adjoining unit, the stacked townhouse units share both floors and walls. Access to the individual units is typically internal to the structure and provided through a central entry and stairway.

Multifamily housing (mid-rise) (Land Use 221), multifamily housing (high-rise) (Land Use 222), affordable housing (Land Use 223), and off-campus student apartment (low-rise) (Land Use 225) are related land uses.

Land Use Subcategory

Data are presented for two subcategories for this land use: (1) not close to rail transit and (2) close to rail transit. A site is considered close to rail transit if the walking distance between the residential site entrance and the closest rail transit station entrance is ½ mile or less.

Additional Data

For the three sites for which both the number of residents and the number of occupied dwelling units were available, there were an average of 2.72 residents per occupied dwelling unit.

For the two sites for which the numbers of both total dwelling units and occupied dwelling units were available, an average of 96.2 percent of the total dwelling units were occupied.

The technical appendices provide supporting information on time-of-day distributions for this land use. The appendices can be accessed through either the ITETripGen web app or the trip

generation resource page on the ITE website (https://www.ite.org/technical-resources/topics/trip-and-parking-generation/).

For the three sites for which data were provided for both occupied dwelling units and residents, there was an average of 2.72 residents per occupied dwelling unit.

It is expected that the number of bedrooms and number of residents are likely correlated to the trips generated by a residential site. To assist in future analysis, trip generation studies of all multifamily housing should attempt to obtain information on occupancy rate and on the mix of residential unit sizes (i.e., number of units by number of bedrooms at the site complex).

The sites were surveyed in the 1980s, the 1990s, the 2000s, the 2010s, and the 2020s in British Columbia (CAN), California, Delaware, Florida, Georgia, Illinois, Indiana, Maine, Maryland, Massachusetts, Minnesota, New Jersey, Ontario (CAN), Oregon, Pennsylvania, South Carolina, South Dakota, Tennessee, Texas, Utah, and Washington.

Source Numbers

188, 204, 237, 300, 305, 306, 320, 321, 357, 390, 412, 525, 530, 579, 583, 638, 864, 866, 896, 901, 903, 904, 936, 939, 944, 946, 947, 948, 963, 964, 966, 967, 1012, 1013, 1014, 1036, 1047, 1056, 1071, 1076

Multifamily Housing (Low-Rise)
Not Close to Rail Transit (220)

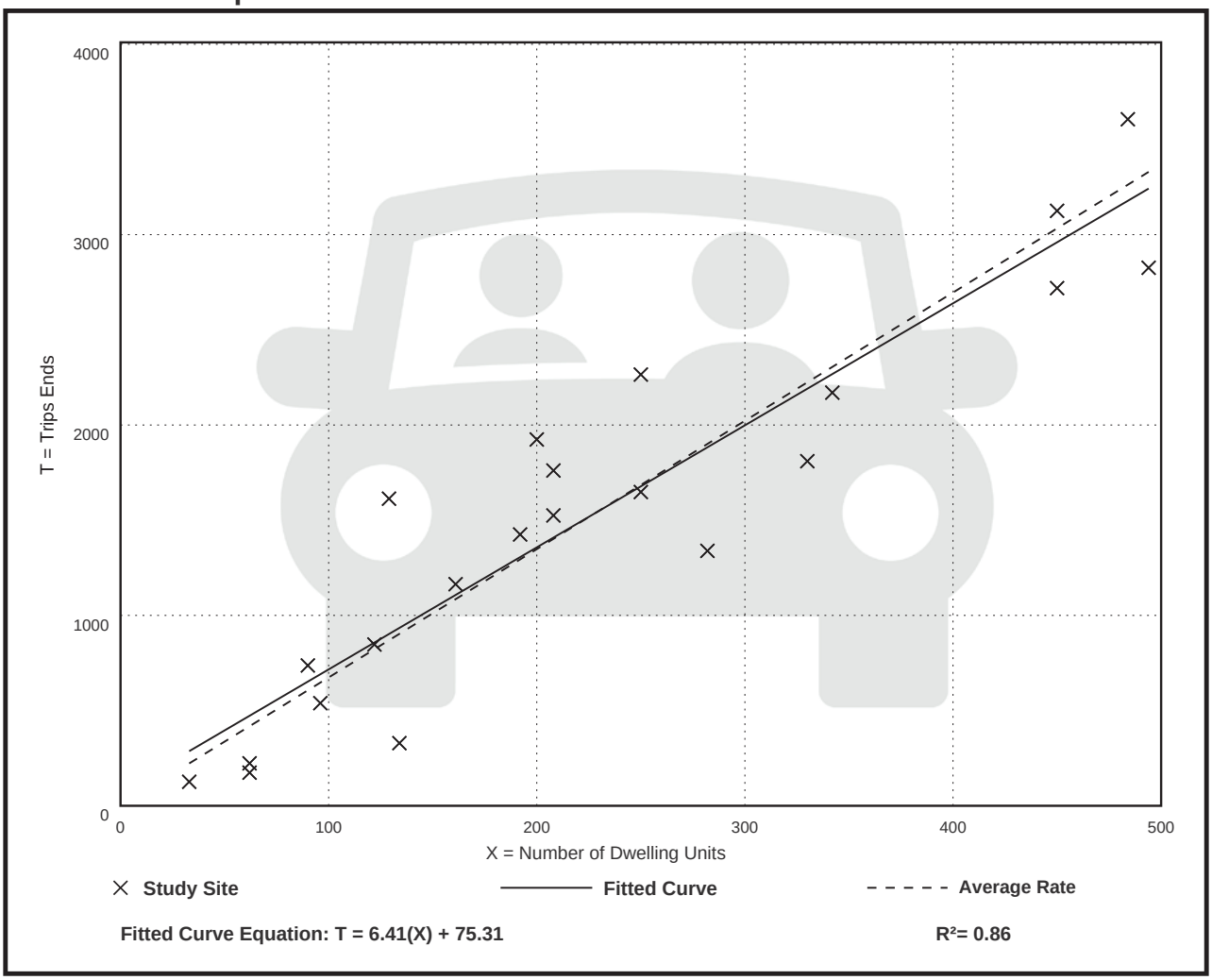
Vehicle Trip Ends vs: Dwelling Units
On a: Weekday

Setting/Location: General Urban/Suburban
Number of Studies: 22
Avg. Num. of Dwelling Units: 229
Directional Distribution: 50% entering, 50% exiting

Vehicle Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
6.74	2.46 - 12.50	1.79

Data Plot and Equation



Fitted Curve Equation: T = 6.41(X) + 75.31

R^2= 0.86

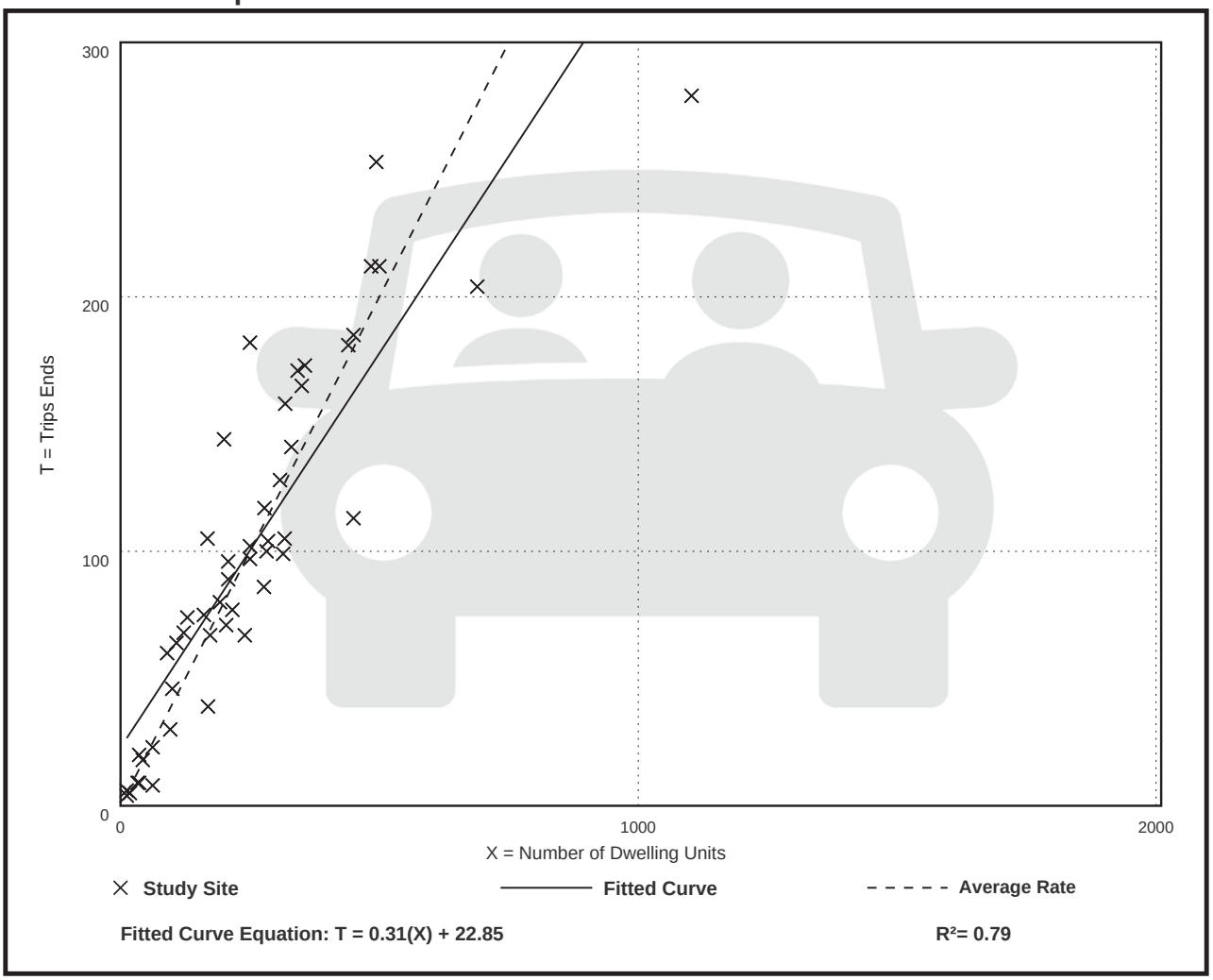
Multifamily Housing (Low-Rise)
Not Close to Rail Transit (220)

Vehicle Trip Ends vs: Dwelling Units
On a: Weekday,
Peak Hour of Adjacent Street Traffic,
One Hour Between 7 and 9 a.m.
Setting/Location: General Urban/Suburban
Number of Studies: 49
Avg. Num. of Dwelling Units: 249
Directional Distribution: 24% entering, 76% exiting

Vehicle Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
0.40	0.13 - 0.73	0.12

Data Plot and Equation



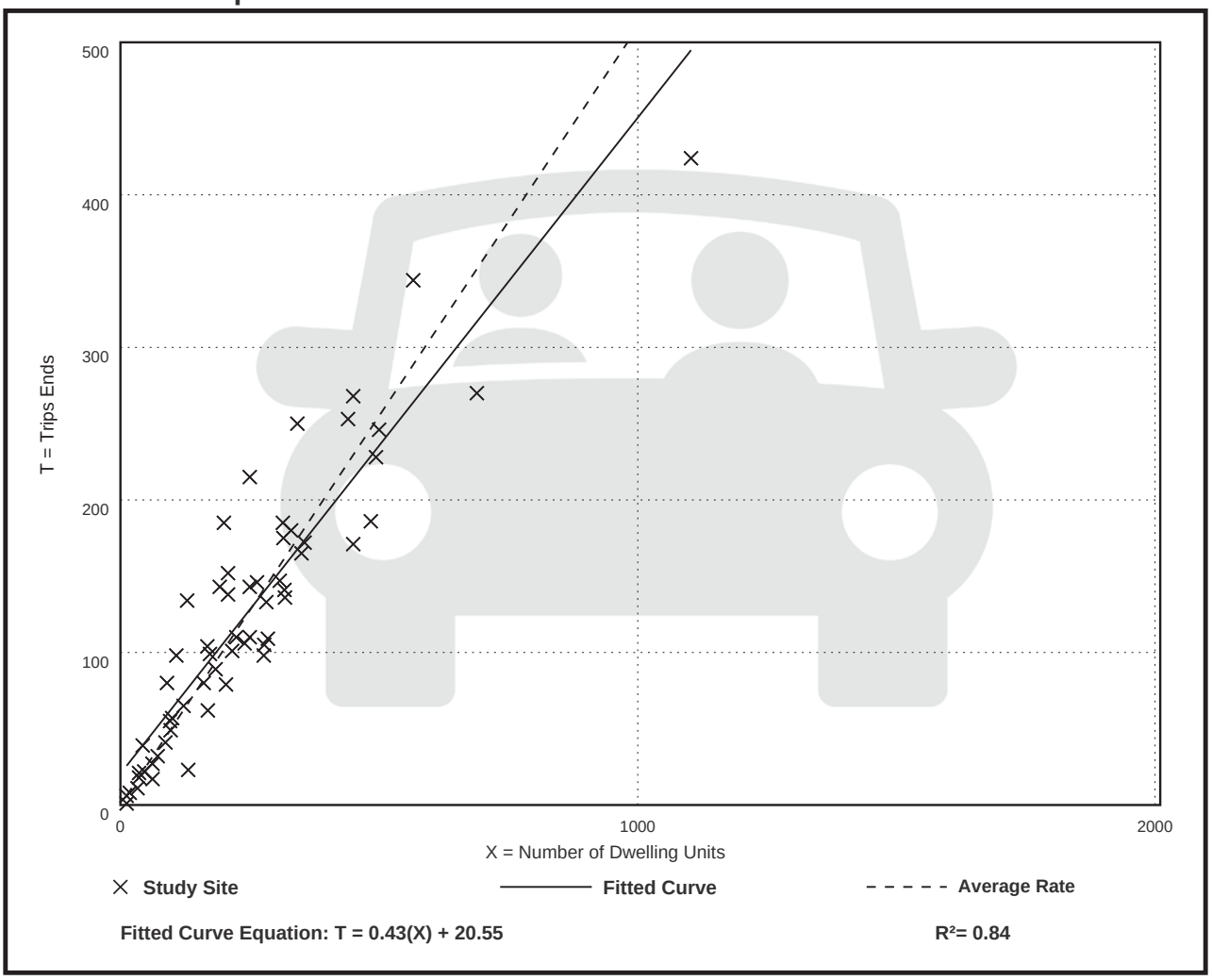
Multifamily Housing (Low-Rise)
Not Close to Rail Transit (220)

Vehicle Trip Ends vs: Dwelling Units
On a: Weekday,
Peak Hour of Adjacent Street Traffic,
One Hour Between 4 and 6 p.m.
Setting/Location: General Urban/Suburban
Number of Studies: 59
Avg. Num. of Dwelling Units: 241
Directional Distribution: 63% entering, 37% exiting

Vehicle Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
0.51	0.08 - 1.04	0.15

Data Plot and Equation



Fitted Curve Equation: T = 0.43(X) + 20.55

R^2= 0.84

Level of Service Criteria

LEVEL OF SERVICE CRITERIA

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

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

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

Capacity Analysis Summary Sheets

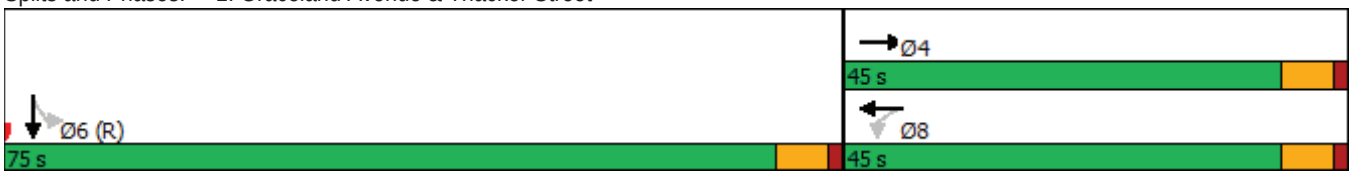
Existing Weekday Morning Peak Hour

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	208	36	39	134	0	0	0	0	63	482	82
Future Volume (vph)	0	208	36	39	134	0	0	0	0	63	482	82
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	25		0	0		0	0		0
Storage Lanes	0		0	1		0	0		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95
Frt		0.980									0.978	
Flt Protected				0.950						0.950		
Satd. Flow (prot)	0	1772	0	1719	1810	0	0	0	0	1752	3381	0
Flt Permitted				0.328						0.950		
Satd. Flow (perm)	0	1772	0	594	1810	0	0	0	0	1752	3381	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		8									27	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		192			276			397			453	
Travel Time (s)		4.4			6.3			9.0			10.3	
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles (%)	0%	6%	0%	5%	5%	0%	0%	0%	0%	3%	4%	7%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	255	0	41	140	0	0	0	0	66	587	0
Turn Type		NA		Perm	NA					Perm	NA	
Protected Phases		4			8						6	
Permitted Phases				8						6		
Detector Phase		4		8	8					6	6	
Switch Phase												
Minimum Initial (s)		1.0		10.0	10.0					10.0	10.0	
Minimum Split (s)		22.5		22.5	22.5					22.5	22.5	
Total Split (s)		45.0		45.0	45.0					75.0	75.0	
Total Split (%)		37.5%		37.5%	37.5%					62.5%	62.5%	
Yellow Time (s)		4.5		4.5	4.5					4.5	4.5	
All-Red Time (s)		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					C-Min	C-Min	
Act Effct Green (s)		22.3		22.3	22.3					85.7	85.7	
Actuated g/C Ratio		0.19		0.19	0.19					0.71	0.71	
v/c Ratio		0.76		0.37	0.42					0.05	0.24	
Control Delay		59.1		51.0	46.9					6.3	6.5	
Queue Delay		0.0		0.0	0.0					0.0	0.0	
Total Delay		59.1		51.0	46.9					6.3	6.5	
LOS		E		D	D					A	A	
Approach Delay		59.1			47.8						6.4	
Approach LOS		E			D						A	
Queue Length 50th (ft)		183		33	112					14	69	
Queue Length 95th (ft)		257		70	177					34	115	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (ft)		112			196			317			373	
Turn Bay Length (ft)				25								
Base Capacity (vph)		581		193	588					1251	2423	
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		0.44		0.21	0.24					0.05	0.24	

Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 81.6 (68%), Referenced to phase 2: and 6:SBTL, Start of Green			
Natural Cycle: 45			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.76			
Intersection Signal Delay: 25.7		Intersection LOS: C	
Intersection Capacity Utilization 52.4%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 1: Graceland Avenue & Thacker Street

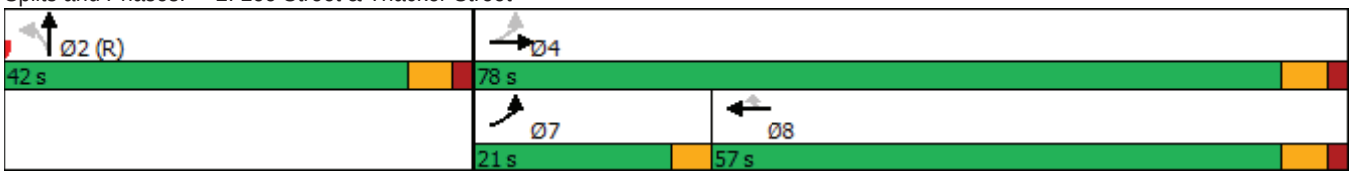


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	73	196	0	0	144	31	31	464	69	0	0	0
Future Volume (vph)	73	196	0	0	144	31	31	464	69	0	0	0
Ideal Flow (vphpl)	1900	2000	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	25		0	0		0	0		0	0		0
Storage Lanes	1		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	0.91	0.91	0.91	1.00	1.00	1.00
Frt						0.850		0.982				
Flt Protected	0.950							0.997				
Satd. Flow (prot)	1687	1980	0	0	1827	1568	0	4794	0	0	0	0
Flt Permitted	0.408							0.997				
Satd. Flow (perm)	724	1980	0	0	1827	1568	0	4794	0	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)						59		21				
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		219			1072			519			495	
Travel Time (s)		5.0			24.4			11.8			11.3	
Peak Hour Factor	0.86	0.93	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Heavy Vehicles (%)	7%	1%	0%	0%	4%	3%	3%	7%	0%	0%	2%	2%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	85	211	0	0	167	36	0	656	0	0	0	0
Turn Type	pm+pt	NA			NA	Perm	Perm	NA				
Protected Phases	7	4			8			2				
Permitted Phases	4					8	2					
Detector Phase	7	4			8	8	2	2				
Switch Phase												
Minimum Initial (s)	3.0	8.0			8.0	8.0	15.0	15.0				
Minimum Split (s)	9.5	24.0			24.0	24.0	24.0	24.0				
Total Split (s)	21.0	78.0			57.0	57.0	42.0	42.0				
Total Split (%)	17.5%	65.0%			47.5%	47.5%	35.0%	35.0%				
Yellow Time (s)	3.5	4.0			4.0	4.0	4.0	4.0				
All-Red Time (s)	0.0	2.0			2.0	2.0	2.0	2.0				
Lost Time Adjust (s)	0.0	0.0			0.0	0.0		0.0				
Total Lost Time (s)	3.5	6.0			6.0	6.0		6.0				
Lead/Lag	Lead				Lag	Lag						
Lead-Lag Optimize?	Yes				Yes	Yes						
Recall Mode	None	None			None	None	C-Min	C-Min				
Act Effct Green (s)	32.4	29.9			17.8	17.8		78.1				
Actuated g/C Ratio	0.27	0.25			0.15	0.15		0.65				
v/c Ratio	0.30	0.43			0.62	0.13		0.21				
Control Delay	32.1	36.1			57.5	4.9		9.6				
Queue Delay	0.0	0.0			0.0	0.0		0.0				
Total Delay	32.1	36.1			57.5	4.9		9.6				
LOS	C	D			E	A		A				
Approach Delay		34.9			48.2			9.6				
Approach LOS		C			D			A				
Queue Length 50th (ft)	64	164			123	0		69				
Queue Length 95th (ft)	107	236			176	11		106				

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (ft)		139			992			439			415	
Turn Bay Length (ft)	25											
Base Capacity (vph)	338	1188			776	700		3126				
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	0.25	0.18			0.22	0.05		0.21				

Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:, Start of Green			
Natural Cycle: 60			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.62			
Intersection Signal Delay: 22.9		Intersection LOS: C	
Intersection Capacity Utilization 37.5%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 2: Lee Street & Thacker Street



Intersection	
Int Delay, s/veh	0.3

Movement	NBT	NBR	SBL	SBT	NWL	NWR
Lane Configurations				↑↑	↰	
Traffic Vol, veh/h	0	0	12	558	16	0
Future Vol, veh/h	0	0	12	558	16	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	2	2	2	2	13	0
Mvmt Flow	0	0	13	594	17	0

Major/Minor	Major2		Minor1	
Conflicting Flow All	0	0	323	-
Stage 1	-	-	0	-
Stage 2	-	-	323	-
Critical Hdwy	4.14	-	7.06	-
Critical Hdwy Stg 1	-	-	-	-
Critical Hdwy Stg 2	-	-	6.06	-
Follow-up Hdwy	2.22	-	3.63	-
Pot Cap-1 Maneuver	-	-	617	0
Stage 1	-	-	-	0
Stage 2	-	-	675	0
Platoon blocked, %		-		
Mov Cap-1 Maneuver	-	-	617	-
Mov Cap-2 Maneuver	-	-	617	-
Stage 1	-	-	-	-
Stage 2	-	-	675	-

Approach	SB	NW
HCM Control Delay, s		11
HCM LOS		B

Minor Lane/Major Mvmt	NWLn1	SBL	SBT
Capacity (veh/h)	617	-	-
HCM Lane V/C Ratio	0.028	-	-
HCM Control Delay (s)	11	-	-
HCM Lane LOS	B	-	-
HCM 95th %tile Q(veh)	0.1	-	-

Intersection	
Int Delay, s/veh	0.3

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	1	17	0	0	564	10
Future Vol, veh/h	1	17	0	0	564	10
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	0	6	0	0	4	20
Mvmt Flow	1	18	0	0	594	11

Major/Minor	Minor2			Major2	
Conflicting Flow All	600	303		-	0
Stage 1	600	-		-	-
Stage 2	0	-		-	-
Critical Hdwy	6.8	7.02		-	-
Critical Hdwy Stg 1	5.8	-		-	-
Critical Hdwy Stg 2	-	-		-	-
Follow-up Hdwy	3.5	3.36		-	-
Pot Cap-1 Maneuver	437	681		-	-
Stage 1	516	-		-	-
Stage 2	-	-		-	-
Platoon blocked, %				-	-
Mov Cap-1 Maneuver	437	681		-	-
Mov Cap-2 Maneuver	437	-		-	-
Stage 1	516	-		-	-
Stage 2	-	-		-	-

Approach	EB	SB
HCM Control Delay, s	10.4	0
HCM LOS	B	

Minor Lane/Major Mvmt	EBLn1	SBT	SBR
Capacity (veh/h)	681	-	-
HCM Lane V/C Ratio	0.026	-	-
HCM Control Delay (s)	10.4	-	-
HCM Lane LOS	B	-	-
HCM 95th %tile Q(veh)	0.1	-	-

Intersection	
Int Delay, s/veh	0.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↰			↱			↰↑↱				
Traffic Vol, veh/h	6	5	0	0	5	3	6	545	20	0	0	0
Future Vol, veh/h	6	5	0	0	5	3	6	545	20	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	98	98	98	98	98	98	98	98	98	98	98	98
Heavy Vehicles, %	50	0	0	0	0	0	0	3	0	0	0	0
Mvmt Flow	6	5	0	0	5	3	6	556	20	0	0	0

Major/Minor	Minor2			Minor1			Major1		
Conflicting Flow All	293	588	-	-	578	288	0	0	0
Stage 1	0	0	-	-	578	-	-	-	-
Stage 2	293	588	-	-	0	-	-	-	-
Critical Hdwy	8.5	6.5	-	-	6.5	6.9	4.1	-	-
Critical Hdwy Stg 1	-	-	-	-	5.5	-	-	-	-
Critical Hdwy Stg 2	7.5	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	4	4	-	-	4	3.3	2.2	-	-
Pot Cap-1 Maneuver	528	424	0	0	430	715	-	-	-
Stage 1	-	-	0	0	504	-	-	-	-
Stage 2	573	499	0	0	-	-	-	-	-
Platoon blocked, %								-	-
Mov Cap-1 Maneuver	521	424	-	-	430	715	-	-	-
Mov Cap-2 Maneuver	521	424	-	-	430	-	-	-	-
Stage 1	-	-	-	-	504	-	-	-	-
Stage 2	565	499	-	-	-	-	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	12.8	12.2	
HCM LOS	B	B	

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1
Capacity (veh/h)	-	-	-	472	506
HCM Lane V/C Ratio	-	-	-	0.024	0.016
HCM Control Delay (s)	-	-	-	12.8	12.2
HCM Lane LOS	-	-	-	B	B
HCM 95th %tile Q(veh)	-	-	-	0.1	0

Intersection	
Int Delay, s/veh	0.3

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	3	250	203	10	3	7
Future Vol, veh/h	3	250	203	10	3	7
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	93	93	93	93	93	93
Heavy Vehicles, %	0	3	8	0	0	0
Mvmt Flow	3	269	218	11	3	8

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	229	0	-	0	499	224
Stage 1	-	-	-	-	224	-
Stage 2	-	-	-	-	275	-
Critical Hdwy	4.1	-	-	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	2.2	-	-	-	3.5	3.3
Pot Cap-1 Maneuver	1351	-	-	-	535	820
Stage 1	-	-	-	-	818	-
Stage 2	-	-	-	-	776	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1351	-	-	-	533	820
Mov Cap-2 Maneuver	-	-	-	-	533	-
Stage 1	-	-	-	-	816	-
Stage 2	-	-	-	-	776	-

Approach	EB	WB	SB
HCM Control Delay, s	0.1	0	10.2
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1351	-	-	-	706
HCM Lane V/C Ratio	0.002	-	-	-	0.015
HCM Control Delay (s)	7.7	0	-	-	10.2
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0

Intersection	
Int Delay, s/veh	1.1

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	30	241	191	19	12	17
Future Vol, veh/h	30	241	191	19	12	17
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	3	5	5	11	17	18
Mvmt Flow	32	256	203	20	13	18

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	223	0	-	0	533	213
Stage 1	-	-	-	-	213	-
Stage 2	-	-	-	-	320	-
Critical Hdwy	4.13	-	-	-	6.57	6.38
Critical Hdwy Stg 1	-	-	-	-	5.57	-
Critical Hdwy Stg 2	-	-	-	-	5.57	-
Follow-up Hdwy	2.227	-	-	-	3.653	3.462
Pot Cap-1 Maneuver	1340	-	-	-	482	788
Stage 1	-	-	-	-	788	-
Stage 2	-	-	-	-	703	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1340	-	-	-	469	788
Mov Cap-2 Maneuver	-	-	-	-	469	-
Stage 1	-	-	-	-	766	-
Stage 2	-	-	-	-	703	-

Approach	EB	WB	SB
HCM Control Delay, s	0.9	0	11.2
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1340	-	-	-	615
HCM Lane V/C Ratio	0.024	-	-	-	0.05
HCM Control Delay (s)	7.8	0	-	-	11.2
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0.1	-	-	-	0.2

Intersection	
Int Delay, s/veh	0.8

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	258	12	12	196	13	13
Future Vol, veh/h	258	12	12	196	13	13
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	4	0	8	6	0	0
Mvmt Flow	287	13	13	218	14	14

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	300	0	538	294
Stage 1	-	-	-	-	294	-
Stage 2	-	-	-	-	244	-
Critical Hdwy	-	-	4.18	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.272	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	1228	-	508	750
Stage 1	-	-	-	-	761	-
Stage 2	-	-	-	-	801	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1228	-	502	750
Mov Cap-2 Maneuver	-	-	-	-	502	-
Stage 1	-	-	-	-	761	-
Stage 2	-	-	-	-	791	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.5	11.3
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	601	-	-	1228	-
HCM Lane V/C Ratio	0.048	-	-	0.011	-
HCM Control Delay (s)	11.3	-	-	8	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	0.2	-	-	0	-

Intersection	
Int Delay, s/veh	0.4

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	8	240	204	7	4	9
Future Vol, veh/h	8	240	204	7	4	9
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	91	91	91	91	91	91
Heavy Vehicles, %	0	5	5	0	0	0
Mvmt Flow	9	264	224	8	4	10

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	232	0	-	0	510	228
Stage 1	-	-	-	-	228	-
Stage 2	-	-	-	-	282	-
Critical Hdwy	4.1	-	-	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	2.2	-	-	-	3.5	3.3
Pot Cap-1 Maneuver	1348	-	-	-	527	816
Stage 1	-	-	-	-	815	-
Stage 2	-	-	-	-	770	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1348	-	-	-	523	816
Mov Cap-2 Maneuver	-	-	-	-	523	-
Stage 1	-	-	-	-	808	-
Stage 2	-	-	-	-	770	-

Approach	EB	WB	SB
HCM Control Delay, s	0.2	0	10.3
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1348	-	-	-	696
HCM Lane V/C Ratio	0.007	-	-	-	0.021
HCM Control Delay (s)	7.7	0	-	-	10.3
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0.1

Intersection	
Int Delay, s/veh	0.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	6	256	9	2	165	13	7	2	7	6	0	7
Future Vol, veh/h	6	256	9	2	165	13	7	2	7	6	0	7
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	91	91	91	91	91	91	91	91	91	91	91	91
Heavy Vehicles, %	0	4	0	0	4	0	0	0	0	0	0	0
Mvmt Flow	7	281	10	2	181	14	8	2	8	7	0	8

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	195	0	0	291	0	0	496	499	286	497	497	188
Stage 1	-	-	-	-	-	-	300	300	-	192	192	-
Stage 2	-	-	-	-	-	-	196	199	-	305	305	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1390	-	-	1282	-	-	487	476	758	487	477	859
Stage 1	-	-	-	-	-	-	713	669	-	814	745	-
Stage 2	-	-	-	-	-	-	810	740	-	709	666	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1390	-	-	1282	-	-	480	472	758	477	473	859
Mov Cap-2 Maneuver	-	-	-	-	-	-	480	472	-	477	473	-
Stage 1	-	-	-	-	-	-	709	665	-	809	744	-
Stage 2	-	-	-	-	-	-	801	739	-	695	662	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.2	0.1	11.5	10.9
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	570	1390	-	-	1282	-	-	627
HCM Lane V/C Ratio	0.031	0.005	-	-	0.002	-	-	0.023
HCM Control Delay (s)	11.5	7.6	0	-	7.8	0	-	10.9
HCM Lane LOS	B	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0.1	0	-	-	0	-	-	0.1

Intersection	
Int Delay, s/veh	2.1

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	3	6	10	0	0	3
Future Vol, veh/h	3	6	10	0	0	3
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	61	61	61	61	61	61
Heavy Vehicles, %	0	0	10	0	2	0
Mvmt Flow	5	10	16	0	0	5

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	16	0	-	0	36	16
Stage 1	-	-	-	-	16	-
Stage 2	-	-	-	-	20	-
Critical Hdwy	4.1	-	-	-	6.42	6.2
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.2	-	-	-	3.518	3.3
Pot Cap-1 Maneuver	1615	-	-	-	977	1069
Stage 1	-	-	-	-	1007	-
Stage 2	-	-	-	-	1003	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1615	-	-	-	974	1069
Mov Cap-2 Maneuver	-	-	-	-	974	-
Stage 1	-	-	-	-	1004	-
Stage 2	-	-	-	-	1003	-

Approach	EB	WB	SB
HCM Control Delay, s	2.4	0	8.4
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1615	-	-	-	1069
HCM Lane V/C Ratio	0.003	-	-	-	0.005
HCM Control Delay (s)	7.2	0	-	-	8.4
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	0

Capacity Analysis Summary Sheets

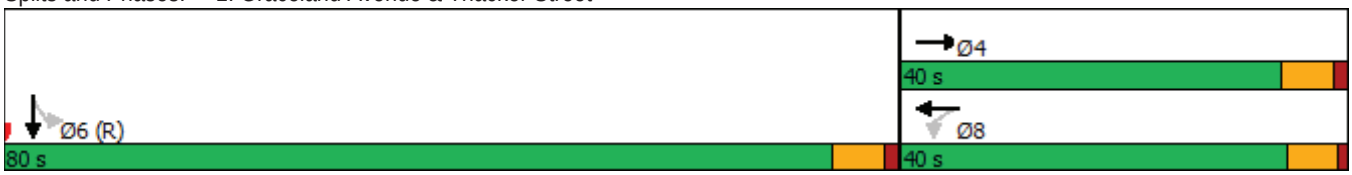
Existing Weekday Evening Peak Hour

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	205	45	58	203	0	0	0	0	43	491	135
Future Volume (vph)	0	205	45	58	203	0	0	0	0	43	491	135
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	25		0	0		0	0		0
Storage Lanes	0		0	1		0	0		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95
Frt		0.976									0.968	
Flt Protected				0.950						0.950		
Satd. Flow (prot)	0	1833	0	1770	1845	0	0	0	0	1805	3426	0
Flt Permitted				0.295						0.950		
Satd. Flow (perm)	0	1833	0	550	1845	0	0	0	0	1805	3426	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		9									54	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		192			276			397			453	
Travel Time (s)		4.4			6.3			9.0			10.3	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	0%	1%	2%	2%	3%	0%	0%	0%	0%	0%	2%	2%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	278	0	64	226	0	0	0	0	48	696	0
Turn Type		NA		Perm	NA					Perm	NA	
Protected Phases		4			8						6	
Permitted Phases				8						6		
Detector Phase		4		8	8					6	6	
Switch Phase												
Minimum Initial (s)		10.0		5.0	5.0					10.0	10.0	
Minimum Split (s)		22.5		22.5	22.5					22.5	22.5	
Total Split (s)		40.0		40.0	40.0					80.0	80.0	
Total Split (%)		33.3%		33.3%	33.3%					66.7%	66.7%	
Yellow Time (s)		4.5		4.5	4.5					4.5	4.5	
All-Red Time (s)		1.5		1.0	1.0					1.5	1.5	
Lost Time Adjust (s)		0.0		0.0	0.0					0.0	0.0	
Total Lost Time (s)		6.0		5.5	5.5					6.0	6.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode		None		None	None					C-Min	C-Min	
Act Effct Green (s)		23.0		23.5	23.5					85.0	85.0	
Actuated g/C Ratio		0.19		0.20	0.20					0.71	0.71	
v/c Ratio		0.78		0.60	0.63					0.04	0.28	
Control Delay		59.0		65.9	52.4					6.6	6.7	
Queue Delay		0.0		0.0	0.0					0.0	0.0	
Total Delay		59.0		65.9	52.4					6.6	6.7	
LOS		E		E	D					A	A	
Approach Delay		59.0			55.4						6.7	
Approach LOS		E			E						A	
Queue Length 50th (ft)		200		50	180					10	84	
Queue Length 95th (ft)		276		99	258					27	137	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (ft)		112			196			317			373	
Turn Bay Length (ft)				25								
Base Capacity (vph)		525		158	530					1278	2443	
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		0.53		0.41	0.43					0.04	0.28	

Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 11.6 (10%), Referenced to phase 2: and 6:SBTL, Start of Green			
Natural Cycle: 45			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.78			
Intersection Signal Delay: 28.5		Intersection LOS: C	
Intersection Capacity Utilization 50.2%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 1: Graceland Avenue & Thacker Street

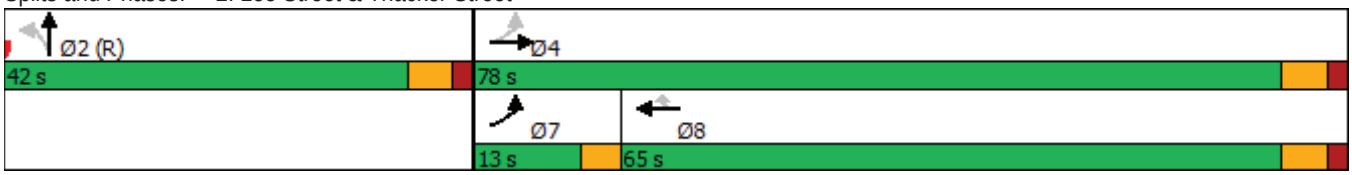


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	77	159	0	0	182	22	59	524	90	0	0	0
Future Volume (vph)	77	159	0	0	182	22	59	524	90	0	0	0
Ideal Flow (vphpl)	1900	2000	1900	1900	2000	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	25		0	0		0	0		0	0		0
Storage Lanes	1		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	0.91	0.91	0.91	1.00	1.00	1.00
Frt						0.850		0.980				
Flt Protected	0.950							0.996				
Satd. Flow (prot)	1752	1980	0	0	2000	1369	0	4964	0	0	0	0
Flt Permitted	0.341							0.996				
Satd. Flow (perm)	629	1980	0	0	2000	1369	0	4964	0	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)						59		25				
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		219			1072			519			495	
Travel Time (s)		5.0			24.4			11.8			11.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.91	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	3%	1%	0%	0%	0%	18%	2%	2%	2%	0%	0%	0%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	84	173	0	0	200	24	0	732	0	0	0	0
Turn Type	pm+pt	NA			NA	Perm	Perm	NA				
Protected Phases	7	4			8			2				
Permitted Phases	4					8	2					
Detector Phase	7	4			8	8	2	2				
Switch Phase												
Minimum Initial (s)	3.0	8.0			8.0	8.0	15.0	15.0				
Minimum Split (s)	9.5	22.5			22.5	22.5	22.5	22.5				
Total Split (s)	13.0	78.0			65.0	65.0	42.0	42.0				
Total Split (%)	10.8%	65.0%			54.2%	54.2%	35.0%	35.0%				
Yellow Time (s)	3.5	4.0			4.0	4.0	4.0	4.0				
All-Red Time (s)	0.0	2.0			2.0	2.0	2.0	2.0				
Lost Time Adjust (s)	0.0	0.0			0.0	0.0		0.0				
Total Lost Time (s)	3.5	6.0			6.0	6.0		6.0				
Lead/Lag	Lead				Lag	Lag						
Lead-Lag Optimize?	Yes				Yes	Yes						
Recall Mode	None	None			None	None	C-Min	C-Min				
Act Effct Green (s)	32.3	29.8			18.6	18.6		78.2				
Actuated g/C Ratio	0.27	0.25			0.16	0.16		0.65				
v/c Ratio	0.32	0.35			0.65	0.09		0.23				
Control Delay	33.8	35.5			56.7	0.7		9.5				
Queue Delay	0.0	0.0			0.0	0.0		0.0				
Total Delay	33.8	35.5			56.7	0.7		9.5				
LOS	C	D			E	A		A				
Approach Delay		34.9			50.7			9.5				
Approach LOS		C			D			A				
Queue Length 50th (ft)	65	136			147	0		81				
Queue Length 95th (ft)	115	206			213	1		116				

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (ft)		139			992			439			415	
Turn Bay Length (ft)	25											
Base Capacity (vph)	265	1188			983	703		3245				
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	0.32	0.15			0.20	0.03		0.23				

Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 51.6 (43%), Referenced to phase 2:NBTL and 6:, Start of Green			
Natural Cycle: 55			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.65			
Intersection Signal Delay: 22.5		Intersection LOS: C	
Intersection Capacity Utilization 40.0%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 2: Lee Street & Thacker Street



Intersection	
Int Delay, s/veh	0.5

Movement	NBT	NBR	SBL	SBT	NWL	NWR
Lane Configurations				↑↑	↰	
Traffic Vol, veh/h	0	0	13	592	29	0
Future Vol, veh/h	0	0	13	592	29	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	0	0	15	1	0	0
Mvmt Flow	0	0	14	630	31	0

Major/Minor	Major2		Minor1	
Conflicting Flow All	0	0	343	-
Stage 1	-	-	0	-
Stage 2	-	-	343	-
Critical Hdwy	4.4	-	6.8	-
Critical Hdwy Stg 1	-	-	-	-
Critical Hdwy Stg 2	-	-	5.8	-
Follow-up Hdwy	2.35	-	3.5	-
Pot Cap-1 Maneuver	-	-	633	0
Stage 1	-	-	-	0
Stage 2	-	-	696	0
Platoon blocked, %		-		
Mov Cap-1 Maneuver	-	-	633	-
Mov Cap-2 Maneuver	-	-	633	-
Stage 1	-	-	-	-
Stage 2	-	-	696	-

Approach	SB	NW
HCM Control Delay, s		11
HCM LOS		B

Minor Lane/Major Mvmt	NWLn1	SBL	SBT
Capacity (veh/h)	633	-	-
HCM Lane V/C Ratio	0.049	-	-
HCM Control Delay (s)	11	-	-
HCM Lane LOS	B	-	-
HCM 95th %tile Q(veh)	0.2	-	-

Intersection	
Int Delay, s/veh	0.3

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	17	0	0	607	14
Future Vol, veh/h	0	17	0	0	607	14
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	85	85	85	85	85	85
Heavy Vehicles, %	0	6	0	0	2	0
Mvmt Flow	0	20	0	0	714	16

Major/Minor	Minor2			Major2	
Conflicting Flow All	-	365		-	0
Stage 1	-	-		-	-
Stage 2	-	-		-	-
Critical Hdwy	-	7.02		-	-
Critical Hdwy Stg 1	-	-		-	-
Critical Hdwy Stg 2	-	-		-	-
Follow-up Hdwy	-	3.36		-	-
Pot Cap-1 Maneuver	0	620		-	-
Stage 1	0	-		-	-
Stage 2	0	-		-	-
Platoon blocked, %				-	-
Mov Cap-1 Maneuver	-	620		-	-
Mov Cap-2 Maneuver	-	-		-	-
Stage 1	-	-		-	-
Stage 2	-	-		-	-

Approach	EB	SB
HCM Control Delay, s	11	0
HCM LOS	B	

Minor Lane/Major Mvmt	EBLn1	SBT	SBR
Capacity (veh/h)	620	-	-
HCM Lane V/C Ratio	0.032	-	-
HCM Control Delay (s)	11	-	-
HCM Lane LOS	B	-	-
HCM 95th %tile Q(veh)	0.1	-	-

Intersection	
Int Delay, s/veh	0.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↰			↱			↰↑↱				
Traffic Vol, veh/h	4	7	0	0	10	2	5	629	21	0	0	0
Future Vol, veh/h	4	7	0	0	10	2	5	629	21	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	0	0	0	0	0	0	0	2	0	0	0	0
Mvmt Flow	4	8	0	0	11	2	6	699	23	0	0	0

Major/Minor	Minor2			Minor1			Major1		
Conflicting Flow All	367	734	-	-	723	361	0	0	0
Stage 1	0	0	-	-	723	-	-	-	-
Stage 2	367	734	-	-	0	-	-	-	-
Critical Hdwy	7.5	6.5	-	-	6.5	6.9	4.1	-	-
Critical Hdwy Stg 1	-	-	-	-	5.5	-	-	-	-
Critical Hdwy Stg 2	6.5	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	-	-	4	3.3	2.2	-	-
Pot Cap-1 Maneuver	569	350	0	0	355	641	-	-	-
Stage 1	-	-	0	0	434	-	-	-	-
Stage 2	630	429	0	0	-	-	-	-	-
Platoon blocked, %								-	-
Mov Cap-1 Maneuver	554	350	-	-	355	641	-	-	-
Mov Cap-2 Maneuver	554	350	-	-	355	-	-	-	-
Stage 1	-	-	-	-	434	-	-	-	-
Stage 2	612	429	-	-	-	-	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	14.2	14.7	
HCM LOS	B	B	

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1
Capacity (veh/h)	-	-	-	404	384
HCM Lane V/C Ratio	-	-	-	0.03	0.035
HCM Control Delay (s)	-	-	-	14.2	14.7
HCM Lane LOS	-	-	-	B	B
HCM 95th %tile Q(veh)	-	-	-	0.1	0.1

Intersection	
Int Delay, s/veh	0.5

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	14	242	324	9	8	6
Future Vol, veh/h	14	242	324	9	8	6
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	93	93	93	93	93	93
Heavy Vehicles, %	7	1	2	0	0	17
Mvmt Flow	15	260	348	10	9	6

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	358	0	-	0	643	353
Stage 1	-	-	-	-	353	-
Stage 2	-	-	-	-	290	-
Critical Hdwy	4.17	-	-	-	6.4	6.37
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	2.263	-	-	-	3.5	3.453
Pot Cap-1 Maneuver	1173	-	-	-	441	658
Stage 1	-	-	-	-	716	-
Stage 2	-	-	-	-	764	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1173	-	-	-	434	658
Mov Cap-2 Maneuver	-	-	-	-	434	-
Stage 1	-	-	-	-	705	-
Stage 2	-	-	-	-	764	-

Approach	EB	WB	SB
HCM Control Delay, s	0.4	0	12.3
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1173	-	-	-	508
HCM Lane V/C Ratio	0.013	-	-	-	0.03
HCM Control Delay (s)	8.1	0	-	-	12.3
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0.1

Intersection	
Int Delay, s/veh	1.1

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	29	234	318	13	15	21
Future Vol, veh/h	29	234	318	13	15	21
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	91	91	91	91	91	91
Heavy Vehicles, %	7	1	3	0	0	5
Mvmt Flow	32	257	349	14	16	23

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	363	0	-	0	677	356
Stage 1	-	-	-	-	356	-
Stage 2	-	-	-	-	321	-
Critical Hdwy	4.17	-	-	-	6.4	6.25
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	2.263	-	-	-	3.5	3.345
Pot Cap-1 Maneuver	1168	-	-	-	421	681
Stage 1	-	-	-	-	713	-
Stage 2	-	-	-	-	740	-
Platoon blocked, %			-	-	-	
Mov Cap-1 Maneuver	1168	-	-	-	408	681
Mov Cap-2 Maneuver	-	-	-	-	408	-
Stage 1	-	-	-	-	690	-
Stage 2	-	-	-	-	740	-

Approach	EB	WB	SB
HCM Control Delay, s	0.9	0	12.3
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1168	-	-	-	533
HCM Lane V/C Ratio	0.027	-	-	-	0.074
HCM Control Delay (s)	8.2	0	-	-	12.3
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0.1	-	-	-	0.2

Intersection	
Int Delay, s/veh	0.5

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	243	9	9	330	4	20
Future Vol, veh/h	243	9	9	330	4	20
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	0	0	3	0	0
Mvmt Flow	270	10	10	367	4	22

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	280	0	662	275
Stage 1	-	-	-	-	275	-
Stage 2	-	-	-	-	387	-
Critical Hdwy	-	-	4.1	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	1294	-	430	769
Stage 1	-	-	-	-	776	-
Stage 2	-	-	-	-	691	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1294	-	426	769
Mov Cap-2 Maneuver	-	-	-	-	426	-
Stage 1	-	-	-	-	776	-
Stage 2	-	-	-	-	684	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.2	10.5
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	678	-	-	1294	-
HCM Lane V/C Ratio	0.039	-	-	0.008	-
HCM Control Delay (s)	10.5	-	-	7.8	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	0.1	-	-	0	-

Intersection	
Int Delay, s/veh	0.2

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	4	246	331	7	4	2
Future Vol, veh/h	4	246	331	7	4	2
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	87	87	87	87	87	87
Heavy Vehicles, %	0	1	2	0	0	0
Mvmt Flow	5	283	380	8	5	2

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	388	0	-	0	677	384
Stage 1	-	-	-	-	384	-
Stage 2	-	-	-	-	293	-
Critical Hdwy	4.1	-	-	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	2.2	-	-	-	3.5	3.3
Pot Cap-1 Maneuver	1182	-	-	-	421	668
Stage 1	-	-	-	-	693	-
Stage 2	-	-	-	-	762	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1182	-	-	-	419	668
Mov Cap-2 Maneuver	-	-	-	-	419	-
Stage 1	-	-	-	-	690	-
Stage 2	-	-	-	-	762	-

Approach	EB	WB	SB
HCM Control Delay, s	0.1	0	12.6
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1182	-	-	-	478
HCM Lane V/C Ratio	0.004	-	-	-	0.014
HCM Control Delay (s)	8.1	0	-	-	12.6
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0

Intersection	
Int Delay, s/veh	0.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	10	236	5	9	233	11	3	2	0	7	1	12
Future Vol, veh/h	10	236	5	9	233	11	3	2	0	7	1	12
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	87	87	87	87	87	87	87	87	87	87	87	87
Heavy Vehicles, %	0	1	0	0	2	0	0	0	0	0	0	0
Mvmt Flow	11	271	6	10	268	13	3	2	0	8	1	14

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	281	0	0	277	0	0	598	597	274	592	594	275
Stage 1	-	-	-	-	-	-	296	296	-	295	295	-
Stage 2	-	-	-	-	-	-	302	301	-	297	299	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1293	-	-	1298	-	-	417	419	770	421	421	769
Stage 1	-	-	-	-	-	-	717	672	-	718	673	-
Stage 2	-	-	-	-	-	-	712	669	-	716	670	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1293	-	-	1298	-	-	403	411	770	413	413	769
Mov Cap-2 Maneuver	-	-	-	-	-	-	403	411	-	413	413	-
Stage 1	-	-	-	-	-	-	710	665	-	711	667	-
Stage 2	-	-	-	-	-	-	692	663	-	706	663	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.3	0.3	14	11.6
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	406	1293	-	-	1298	-	-	572
HCM Lane V/C Ratio	0.014	0.009	-	-	0.008	-	-	0.04
HCM Control Delay (s)	14	7.8	0	-	7.8	0	-	11.6
HCM Lane LOS	B	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0	0	-	-	0	-	-	0.1

Intersection	
Int Delay, s/veh	4.1

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	4	9	16	1	3	18
Future Vol, veh/h	4	9	16	1	3	18
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	80	80	80	80	80	80
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	5	11	20	1	4	23

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	21	0	-	0	42	21
Stage 1	-	-	-	-	21	-
Stage 2	-	-	-	-	21	-
Critical Hdwy	4.1	-	-	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	2.2	-	-	-	3.5	3.3
Pot Cap-1 Maneuver	1608	-	-	-	974	1062
Stage 1	-	-	-	-	1007	-
Stage 2	-	-	-	-	1007	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1608	-	-	-	971	1062
Mov Cap-2 Maneuver	-	-	-	-	971	-
Stage 1	-	-	-	-	1004	-
Stage 2	-	-	-	-	1007	-

Approach	EB	WB	SB
HCM Control Delay, s	2.2	0	8.5
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1608	-	-	-	1048
HCM Lane V/C Ratio	0.003	-	-	-	0.025
HCM Control Delay (s)	7.2	0	-	-	8.5
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	0.1

Capacity Analysis Summary Sheets

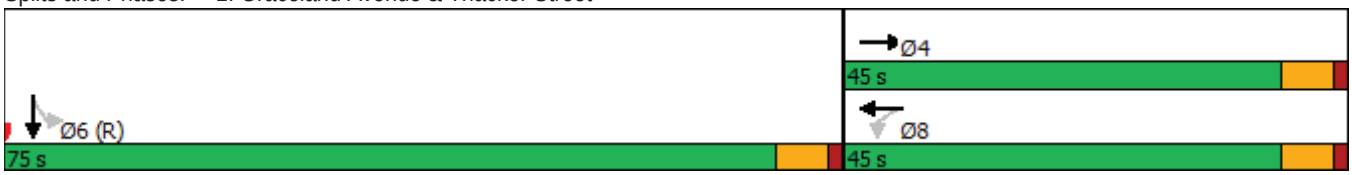
Year 2029 Total Projected Weekday Morning Peak Hour

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	244	38	53	162	0	0	0	0	105	513	85
Future Volume (vph)	0	244	38	53	162	0	0	0	0	105	513	85
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	25		0	0		0	0		0
Storage Lanes	0		0	1		0	0		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95
Frt		0.982									0.979	
Flt Protected				0.950						0.950		
Satd. Flow (prot)	0	1774	0	1719	1810	0	0	0	0	1752	3384	0
Flt Permitted				0.289						0.950		
Satd. Flow (perm)	0	1774	0	523	1810	0	0	0	0	1752	3384	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		7									26	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		192			276			397			453	
Travel Time (s)		4.4			6.3			9.0			10.3	
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles (%)	0%	6%	0%	5%	5%	0%	0%	0%	0%	3%	4%	7%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	294	0	55	169	0	0	0	0	109	623	0
Turn Type		NA		Perm	NA					Perm	NA	
Protected Phases		4			8						6	
Permitted Phases				8						6		
Detector Phase		4		8	8					6	6	
Switch Phase												
Minimum Initial (s)		1.0		10.0	10.0					10.0	10.0	
Minimum Split (s)		22.5		22.5	22.5					22.5	22.5	
Total Split (s)		45.0		45.0	45.0					75.0	75.0	
Total Split (%)		37.5%		37.5%	37.5%					62.5%	62.5%	
Yellow Time (s)		4.5		4.5	4.5					4.5	4.5	
All-Red Time (s)		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					C-Min	C-Min	
Act Effct Green (s)		25.0		25.0	25.0					83.0	83.0	
Actuated g/C Ratio		0.21		0.21	0.21					0.69	0.69	
v/c Ratio		0.79		0.51	0.45					0.09	0.27	
Control Delay		58.4		56.5	43.6					7.3	7.6	
Queue Delay		0.0		0.0	0.0					0.0	0.0	
Total Delay		58.4		56.5	43.6					7.3	7.6	
LOS		E		E	D					A	A	
Approach Delay		58.4			46.8						7.6	
Approach LOS		E			D						A	
Queue Length 50th (ft)		212		43	131					25	82	
Queue Length 95th (ft)		288		87	198					55	135	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (ft)		112			196			317			373	
Turn Bay Length (ft)				25								
Base Capacity (vph)		581		169	588					1212	2349	
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		0.51		0.33	0.29					0.09	0.27	

Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 81.6 (68%), Referenced to phase 2: and 6:SBTL, Start of Green			
Natural Cycle: 45			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.79			
Intersection Signal Delay: 26.5		Intersection LOS: C	
Intersection Capacity Utilization 55.4%		ICU Level of Service B	
Analysis Period (min) 15			

Splits and Phases: 1: Graceland Avenue & Thacker Street

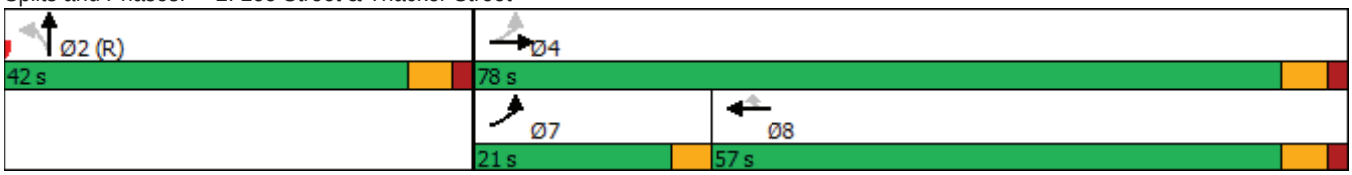


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	87	209	0	0	167	32	54	483	71	0	0	0
Future Volume (vph)	87	209	0	0	167	32	54	483	71	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	25		0	0		0	0		0	0		0
Storage Lanes	1		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	0.91	0.91	0.91	1.00	1.00	1.00
Frt						0.850		0.982				
Flt Protected	0.950							0.996				
Satd. Flow (prot)	1687	1881	0	0	1827	1568	0	4794	0	0	0	0
Flt Permitted	0.365							0.996				
Satd. Flow (perm)	648	1881	0	0	1827	1568	0	4794	0	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)						59		20				
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		219			1072			519			495	
Travel Time (s)		5.0			24.4			11.8			11.3	
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Heavy Vehicles (%)	7%	1%	0%	0%	4%	3%	3%	7%	0%	0%	2%	2%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	101	243	0	0	194	37	0	708	0	0	0	0
Turn Type	pm+pt	NA			NA	Perm	Perm	NA				
Protected Phases	7	4			8			2				
Permitted Phases	4					8	2					
Detector Phase	7	4			8	8	2	2				
Switch Phase												
Minimum Initial (s)	3.0	8.0			8.0	8.0	15.0	15.0				
Minimum Split (s)	9.5	24.0			24.0	24.0	24.0	24.0				
Total Split (s)	21.0	78.0			57.0	57.0	42.0	42.0				
Total Split (%)	17.5%	65.0%			47.5%	47.5%	35.0%	35.0%				
Yellow Time (s)	3.5	4.0			4.0	4.0	4.0	4.0				
All-Red Time (s)	0.0	2.0			2.0	2.0	2.0	2.0				
Lost Time Adjust (s)	0.0	0.0			0.0	0.0		0.0				
Total Lost Time (s)	3.5	6.0			6.0	6.0		6.0				
Lead/Lag	Lead				Lag	Lag						
Lead-Lag Optimize?	Yes				Yes	Yes						
Recall Mode	None	None			None	None	C-Min	C-Min				
Act Effct Green (s)	36.8	34.3			19.2	19.2		73.7				
Actuated g/C Ratio	0.31	0.29			0.16	0.16		0.61				
v/c Ratio	0.34	0.45			0.66	0.12		0.24				
Control Delay	30.9	35.3			57.8	4.9		11.4				
Queue Delay	0.0	0.0			0.0	0.0		0.0				
Total Delay	30.9	35.3			57.8	4.9		11.4				
LOS	C	D			E	A		B				
Approach Delay		34.0			49.3			11.4				
Approach LOS		C			D			B				
Queue Length 50th (ft)	73	184			143	0		82				
Queue Length 95th (ft)	115	243			197	12		124				

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (ft)		139			992			439			415	
Turn Bay Length (ft)	25											
Base Capacity (vph)	350	1128			776	700		2952				
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	0.22			0.25	0.05		0.24				

Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 0 (0%), Referenced to phase 2:NBTL, Start of Green			
Natural Cycle: 60			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.66			
Intersection Signal Delay: 24.3		Intersection LOS: C	
Intersection Capacity Utilization 39.4%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 2: Lee Street & Thacker Street



Intersection	
Int Delay, s/veh	0.5

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	30	0	0	0	14	610
Future Vol, veh/h	30	0	0	0	14	610
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	13	0	2	2	2	2
Mvmt Flow	32	0	0	0	15	649

Major/Minor	Minor1		Major2	
Conflicting Flow All	355	-	0	0
Stage 1	0	-	-	-
Stage 2	355	-	-	-
Critical Hdwy	7.06	-	4.14	-
Critical Hdwy Stg 1	-	-	-	-
Critical Hdwy Stg 2	6.06	-	-	-
Follow-up Hdwy	3.63	-	2.22	-
Pot Cap-1 Maneuver	588	0	-	-
Stage 1	-	0	-	-
Stage 2	649	0	-	-
Platoon blocked, %				-
Mov Cap-1 Maneuver	588	-	-	-
Mov Cap-2 Maneuver	588	-	-	-
Stage 1	-	-	-	-
Stage 2	649	-	-	-

Approach	WB	SB
HCM Control Delay, s	11.5	
HCM LOS	B	

Minor Lane/Major Mvmt	WBLn1	SBL	SBT
Capacity (veh/h)	588	-	-
HCM Lane V/C Ratio	0.054	-	-
HCM Control Delay (s)	11.5	-	-
HCM Lane LOS	B	-	-
HCM 95th %tile Q(veh)	0.2	-	-

Intersection	
Int Delay, s/veh	0.3

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	18	0	0	630	10
Future Vol, veh/h	0	18	0	0	630	10
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	0	6	0	0	4	20
Mvmt Flow	0	19	0	0	663	11

Major/Minor	Minor2			Major2	
Conflicting Flow All	-	337		-	0
Stage 1	-	-		-	-
Stage 2	-	-		-	-
Critical Hdwy	-	7.02		-	-
Critical Hdwy Stg 1	-	-		-	-
Critical Hdwy Stg 2	-	-		-	-
Follow-up Hdwy	-	3.36		-	-
Pot Cap-1 Maneuver	0	647		-	-
Stage 1	0	-		-	-
Stage 2	0	-		-	-
Platoon blocked, %				-	-
Mov Cap-1 Maneuver	-	647		-	-
Mov Cap-2 Maneuver	-	-		-	-
Stage 1	-	-		-	-
Stage 2	-	-		-	-

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

Minor Lane/Major Mvmt	EBLn1	SBT	SBR
Capacity (veh/h)	647	-	-
HCM Lane V/C Ratio	0.029	-	-
HCM Control Delay (s)	10.7	-	-
HCM Lane LOS	B	-	-
HCM 95th %tile Q(veh)	0.1	-	-

Intersection	
Int Delay, s/veh	0.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	6	5	0	0	5	3	27	589	21	0	0	0
Future Vol, veh/h	6	5	0	0	5	3	27	589	21	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	98	98	98	98	98	98	98	98	98	98	98	98
Heavy Vehicles, %	50	0	0	0	0	0	0	3	0	0	0	0
Mvmt Flow	6	5	0	0	5	3	28	601	21	0	0	0

Major/Minor	Minor2			Minor1			Major1		
Conflicting Flow All	359	678	-	-	668	311	0	0	0
Stage 1	0	0	-	-	668	-	-	-	-
Stage 2	359	678	-	-	0	-	-	-	-
Critical Hdwy	8.5	6.5	-	-	6.5	6.9	4.1	-	-
Critical Hdwy Stg 1	-	-	-	-	5.5	-	-	-	-
Critical Hdwy Stg 2	7.5	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	4	4	-	-	4	3.3	2.2	-	-
Pot Cap-1 Maneuver	468	377	0	0	382	691	-	-	-
Stage 1	-	-	0	0	459	-	-	-	-
Stage 2	517	455	0	0	-	-	-	-	-
Platoon blocked, %								-	-
Mov Cap-1 Maneuver	461	377	-	-	382	691	-	-	-
Mov Cap-2 Maneuver	461	377	-	-	382	-	-	-	-
Stage 1	-	-	-	-	459	-	-	-	-
Stage 2	509	455	-	-	-	-	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	13.8	13	
HCM LOS	B	B	

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1
Capacity (veh/h)	-	-	-	419	459
HCM Lane V/C Ratio	-	-	-	0.027	0.018
HCM Control Delay (s)	-	-	-	13.8	13
HCM Lane LOS	-	-	-	B	B
HCM 95th %tile Q(veh)	-	-	-	0.1	0.1

Intersection	
Int Delay, s/veh	0.2

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	3	277	238	10	3	7
Future Vol, veh/h	3	277	238	10	3	7
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	93	93	93	93	93	93
Heavy Vehicles, %	0	3	8	0	0	0
Mvmt Flow	3	298	256	11	3	8

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	267	0	-	0	566	262
Stage 1	-	-	-	-	262	-
Stage 2	-	-	-	-	304	-
Critical Hdwy	4.1	-	-	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	2.2	-	-	-	3.5	3.3
Pot Cap-1 Maneuver	1308	-	-	-	489	782
Stage 1	-	-	-	-	786	-
Stage 2	-	-	-	-	753	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1308	-	-	-	488	782
Mov Cap-2 Maneuver	-	-	-	-	488	-
Stage 1	-	-	-	-	784	-
Stage 2	-	-	-	-	753	-

Approach	EB	WB	SB
HCM Control Delay, s	0.1	0	10.5
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1308	-	-	-	662
HCM Lane V/C Ratio	0.002	-	-	-	0.016
HCM Control Delay (s)	7.8	0	-	-	10.5
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0.1

Intersection	
Int Delay, s/veh	1

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	31	267	226	20	12	18
Future Vol, veh/h	31	267	226	20	12	18
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	3	5	5	11	17	18
Mvmt Flow	33	284	240	21	13	19

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	261	0	-	0	601	251
Stage 1	-	-	-	-	251	-
Stage 2	-	-	-	-	350	-
Critical Hdwy	4.13	-	-	-	6.57	6.38
Critical Hdwy Stg 1	-	-	-	-	5.57	-
Critical Hdwy Stg 2	-	-	-	-	5.57	-
Follow-up Hdwy	2.227	-	-	-	3.653	3.462
Pot Cap-1 Maneuver	1298	-	-	-	440	750
Stage 1	-	-	-	-	757	-
Stage 2	-	-	-	-	681	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1298	-	-	-	427	750
Mov Cap-2 Maneuver	-	-	-	-	427	-
Stage 1	-	-	-	-	734	-
Stage 2	-	-	-	-	681	-

Approach	EB	WB	SB
HCM Control Delay, s	0.8	0	11.6
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1298	-	-	-	576
HCM Lane V/C Ratio	0.025	-	-	-	0.055
HCM Control Delay (s)	7.8	0	-	-	11.6
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0.1	-	-	-	0.2

Intersection	
Int Delay, s/veh	0.7

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	285	12	12	231	13	13
Future Vol, veh/h	285	12	12	231	13	13
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	4	0	8	6	0	0
Mvmt Flow	317	13	13	257	14	14

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	330	0	607	324
Stage 1	-	-	-	-	324	-
Stage 2	-	-	-	-	283	-
Critical Hdwy	-	-	4.18	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.272	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	1197	-	463	722
Stage 1	-	-	-	-	738	-
Stage 2	-	-	-	-	770	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1197	-	457	722
Mov Cap-2 Maneuver	-	-	-	-	457	-
Stage 1	-	-	-	-	738	-
Stage 2	-	-	-	-	760	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.4	11.8
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	560	-	-	1197	-
HCM Lane V/C Ratio	0.052	-	-	0.011	-
HCM Control Delay (s)	11.8	-	-	8	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	0.2	-	-	0	-

Intersection	
Int Delay, s/veh	0.4

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	8	276	237	7	4	9
Future Vol, veh/h	8	276	237	7	4	9
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	91	91	91	91	91	91
Heavy Vehicles, %	0	5	5	0	0	0
Mvmt Flow	9	303	260	8	4	10

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	268	0	-	0	585	264
Stage 1	-	-	-	-	264	-
Stage 2	-	-	-	-	321	-
Critical Hdwy	4.1	-	-	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	2.2	-	-	-	3.5	3.3
Pot Cap-1 Maneuver	1307	-	-	-	477	780
Stage 1	-	-	-	-	785	-
Stage 2	-	-	-	-	740	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1307	-	-	-	473	780
Mov Cap-2 Maneuver	-	-	-	-	473	-
Stage 1	-	-	-	-	779	-
Stage 2	-	-	-	-	740	-

Approach	EB	WB	SB
HCM Control Delay, s	0.2	0	10.7
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1307	-	-	-	650
HCM Lane V/C Ratio	0.007	-	-	-	0.022
HCM Control Delay (s)	7.8	0	-	-	10.7
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0.1

Intersection	
Int Delay, s/veh	2.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		⇕			⇕			⇕			⇕	
Traffic Vol, veh/h	62	278	9	2	174	50	9	22	12	6	11	40
Future Vol, veh/h	62	278	9	2	174	50	9	22	12	6	11	40
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	91	91	91	91	91	91	91	91	91	91	91	91
Heavy Vehicles, %	0	4	0	0	4	0	0	0	0	0	0	0
Mvmt Flow	68	305	10	2	191	55	10	24	13	7	12	44

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	246	0	0	315	0	0	697	696	310	688	674	219
Stage 1	-	-	-	-	-	-	446	446	-	223	223	-
Stage 2	-	-	-	-	-	-	251	250	-	465	451	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1332	-	-	1257	-	-	358	368	735	363	379	826
Stage 1	-	-	-	-	-	-	595	577	-	784	723	-
Stage 2	-	-	-	-	-	-	758	704	-	581	574	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1332	-	-	1257	-	-	314	344	735	321	355	826
Mov Cap-2 Maneuver	-	-	-	-	-	-	314	344	-	321	355	-
Stage 1	-	-	-	-	-	-	558	541	-	735	722	-
Stage 2	-	-	-	-	-	-	704	703	-	511	538	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	1.4	0.1	15.3	11.9
HCM LOS			C	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	395	1332	-	-	1257	-	-	581
HCM Lane V/C Ratio	0.12	0.051	-	-	0.002	-	-	0.108
HCM Control Delay (s)	15.3	7.8	0	-	7.9	0	-	11.9
HCM Lane LOS	C	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0.4	0.2	-	-	0	-	-	0.4

Intersection	
Int Delay, s/veh	3.2

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	10	6	11	20	0	14
Future Vol, veh/h	10	6	11	20	0	14
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	61	61	61	61	61	61
Heavy Vehicles, %	0	0	10	0	2	0
Mvmt Flow	16	10	18	33	0	23

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	51	0	-	0	77	35
Stage 1	-	-	-	-	35	-
Stage 2	-	-	-	-	42	-
Critical Hdwy	4.1	-	-	-	6.42	6.2
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.2	-	-	-	3.518	3.3
Pot Cap-1 Maneuver	1568	-	-	-	926	1044
Stage 1	-	-	-	-	987	-
Stage 2	-	-	-	-	980	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1568	-	-	-	917	1044
Mov Cap-2 Maneuver	-	-	-	-	917	-
Stage 1	-	-	-	-	977	-
Stage 2	-	-	-	-	980	-

Approach	EB	WB	SB
HCM Control Delay, s	4.6	0	8.5
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1568	-	-	-	1044
HCM Lane V/C Ratio	0.01	-	-	-	0.022
HCM Control Delay (s)	7.3	0	-	-	8.5
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	0.1

Intersection	
Int Delay, s/veh	0.2

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	9	0	0	607	4
Future Vol, veh/h	0	9	0	0	607	4
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	0	0	0	0	4	0
Mvmt Flow	0	9	0	0	639	4

Major/Minor	Minor2			Major2	
Conflicting Flow All	-	322		-	0
Stage 1	-	-		-	-
Stage 2	-	-		-	-
Critical Hdwy	-	6.9		-	-
Critical Hdwy Stg 1	-	-		-	-
Critical Hdwy Stg 2	-	-		-	-
Follow-up Hdwy	-	3.3		-	-
Pot Cap-1 Maneuver	0	680		-	-
Stage 1	0	-		-	-
Stage 2	0	-		-	-
Platoon blocked, %				-	-
Mov Cap-1 Maneuver	-	680		-	-
Mov Cap-2 Maneuver	-	-		-	-
Stage 1	-	-		-	-
Stage 2	-	-		-	-

Approach	EB	SB
HCM Control Delay, s	10.4	0
HCM LOS	B	

Minor Lane/Major Mvmt	EBLn1	SBT	SBR
Capacity (veh/h)	680	-	-
HCM Lane V/C Ratio	0.014	-	-
HCM Control Delay (s)	10.4	-	-
HCM Lane LOS	B	-	-
HCM 95th %tile Q(veh)	0	-	-

Intersection	
Int Delay, s/veh	0.4

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	275	2	3	243	5	14
Future Vol, veh/h	275	2	3	243	5	14
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	5	0	0	5	0	0
Mvmt Flow	289	2	3	256	5	15

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	291	0	552	290
Stage 1	-	-	-	-	290	-
Stage 2	-	-	-	-	262	-
Critical Hdwy	-	-	4.1	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	1282	-	498	754
Stage 1	-	-	-	-	764	-
Stage 2	-	-	-	-	786	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1282	-	497	754
Mov Cap-2 Maneuver	-	-	-	-	497	-
Stage 1	-	-	-	-	764	-
Stage 2	-	-	-	-	784	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.1	10.6
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	664	-	-	1282	-
HCM Lane V/C Ratio	0.03	-	-	0.002	-
HCM Control Delay (s)	10.6	-	-	7.8	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	0.1	-	-	0	-

Capacity Analysis Summary Sheets

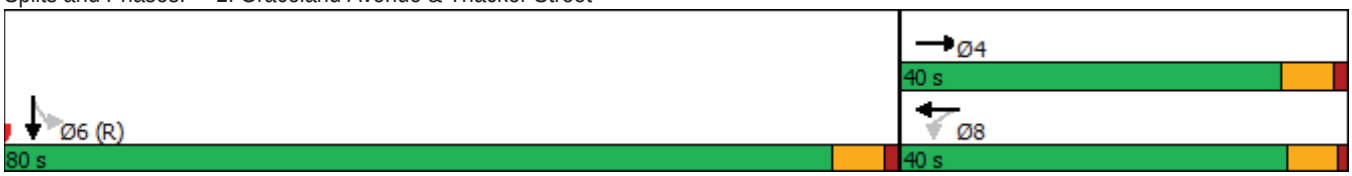
Year 2029 Total Projected Weekday Evening Peak Hour

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	224	48	68	223	0	0	0	0	52	519	144
Future Volume (vph)	0	224	48	68	223	0	0	0	0	52	519	144
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	25		0	0		0	0		0
Storage Lanes	0		0	1		0	0		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95
Frt		0.976									0.967	
Flt Protected				0.950						0.950		
Satd. Flow (prot)	0	1833	0	1770	1845	0	0	0	0	1805	3422	0
Flt Permitted				0.271						0.950		
Satd. Flow (perm)	0	1833	0	505	1845	0	0	0	0	1805	3422	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		9									55	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		192			276			397			453	
Travel Time (s)		4.4			6.3			9.0			10.3	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	0%	1%	2%	2%	3%	0%	0%	0%	0%	0%	2%	2%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	302	0	76	248	0	0	0	0	58	737	0
Turn Type		NA		Perm	NA					Perm	NA	
Protected Phases		4			8						6	
Permitted Phases				8						6		
Detector Phase		4		8	8					6	6	
Switch Phase												
Minimum Initial (s)		10.0		5.0	5.0					10.0	10.0	
Minimum Split (s)		22.5		22.5	22.5					22.5	22.5	
Total Split (s)		40.0		40.0	40.0					80.0	80.0	
Total Split (%)		33.3%		33.3%	33.3%					66.7%	66.7%	
Yellow Time (s)		4.5		4.5	4.5					4.5	4.5	
All-Red Time (s)		1.5		1.0	1.0					1.5	1.5	
Lost Time Adjust (s)		0.0		0.0	0.0					0.0	0.0	
Total Lost Time (s)		6.0		5.5	5.5					6.0	6.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode		None		None	None					C-Min	C-Min	
Act Effct Green (s)		24.5		25.0	25.0					83.5	83.5	
Actuated g/C Ratio		0.20		0.21	0.21					0.70	0.70	
v/c Ratio		0.79		0.72	0.65					0.05	0.31	
Control Delay		58.6		78.8	49.9					7.1	7.4	
Queue Delay		0.0		0.0	0.0					0.0	0.0	
Total Delay		58.6		78.8	49.9					7.1	7.4	
LOS		E		E	D					A	A	
Approach Delay		58.6			56.7						7.4	
Approach LOS		E			E						A	
Queue Length 50th (ft)		217		60	197					13	95	
Queue Length 95th (ft)		296		#118	277					32	154	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (ft)		112			196			317			373	
Turn Bay Length (ft)				25								
Base Capacity (vph)		525		145	530					1255	2397	
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		0.58		0.52	0.47					0.05	0.31	

Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 11.6 (10%), Referenced to phase 2: and 6:SBTL, Start of Green			
Natural Cycle: 45			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.79			
Intersection Signal Delay: 29.5		Intersection LOS: C	
Intersection Capacity Utilization 52.4%		ICU Level of Service A	
Analysis Period (min) 15			
# 95th percentile volume exceeds capacity, queue may be longer.			
Queue shown is maximum after two cycles.			

Splits and Phases: 1: Graceland Avenue & Thacker Street

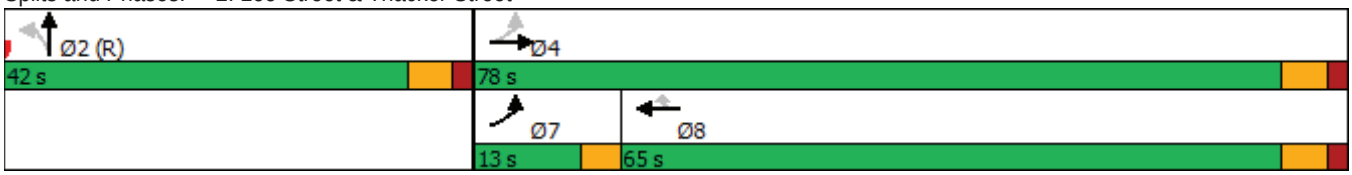


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	87	167	0	0	196	23	74	553	93	0	0	0
Future Volume (vph)	87	167	0	0	196	23	74	553	93	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	25		0	0		0	0		0	0		0
Storage Lanes	1		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	0.91	0.91	0.91	1.00	1.00	1.00
Frt						0.850		0.981				
Flt Protected	0.950							0.995				
Satd. Flow (prot)	1752	1845	0	0	1900	1369	0	4964	0	0	0	0
Flt Permitted	0.338							0.995				
Satd. Flow (perm)	623	1845	0	0	1900	1369	0	4964	0	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)						59		23				
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		219			1072			519			495	
Travel Time (s)		5.0			24.4			11.8			11.3	
Peak Hour Factor	0.92	0.90	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	3%	3%	0%	0%	0%	18%	2%	2%	2%	0%	0%	0%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	95	186	0	0	213	25	0	782	0	0	0	0
Turn Type	pm+pt	NA			NA	Perm	Perm	NA				
Protected Phases	7	4			8			2				
Permitted Phases	4					8	2					
Detector Phase	7	4			8	8	2	2				
Switch Phase												
Minimum Initial (s)	3.0	8.0			8.0	8.0	15.0	15.0				
Minimum Split (s)	9.5	22.5			22.5	22.5	22.5	22.5				
Total Split (s)	13.0	78.0			65.0	65.0	42.0	42.0				
Total Split (%)	10.8%	65.0%			54.2%	54.2%	35.0%	35.0%				
Yellow Time (s)	3.5	4.0			4.0	4.0	4.0	4.0				
All-Red Time (s)	0.0	2.0			2.0	2.0	2.0	2.0				
Lost Time Adjust (s)	0.0	0.0			0.0	0.0		0.0				
Total Lost Time (s)	3.5	6.0			6.0	6.0		6.0				
Lead/Lag	Lead				Lag	Lag						
Lead-Lag Optimize?	Yes				Yes	Yes						
Recall Mode	None	None			None	None	C-Min	C-Min				
Act Effct Green (s)	36.2	33.7			20.1	20.1		74.3				
Actuated g/C Ratio	0.30	0.28			0.17	0.17		0.62				
v/c Ratio	0.34	0.36			0.67	0.09		0.25				
Control Delay	33.5	35.6			56.6	0.9		10.9				
Queue Delay	0.0	0.0			0.0	0.0		0.0				
Total Delay	33.5	35.6			56.6	0.9		10.9				
LOS	C	D			E	A		B				
Approach Delay		34.9			50.8			10.9				
Approach LOS		C			D			B				
Queue Length 50th (ft)	72	145			157	0		93				
Queue Length 95th (ft)	127	217			224	2		130				

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (ft)		139			992			439			415	
Turn Bay Length (ft)	25											
Base Capacity (vph)	286	1107			934	703		3083				
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	0.33	0.17			0.23	0.04		0.25				

Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 53 (44%), Referenced to phase 2:NBTL, Start of Green			
Natural Cycle: 55			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.67			
Intersection Signal Delay: 23.4		Intersection LOS: C	
Intersection Capacity Utilization 42.7%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 2: Lee Street & Thacker Street



Intersection	
Int Delay, s/veh	0.6

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	38	0	0	0	22	626
Future Vol, veh/h	38	0	0	0	22	626
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	0	0	0	0	15	1
Mvmt Flow	40	0	0	0	23	666

Major/Minor	Minor1		Major2	
Conflicting Flow All	379	-	0	0
Stage 1	0	-	-	-
Stage 2	379	-	-	-
Critical Hdwy	6.8	-	4.4	-
Critical Hdwy Stg 1	-	-	-	-
Critical Hdwy Stg 2	5.8	-	-	-
Follow-up Hdwy	3.5	-	2.35	-
Pot Cap-1 Maneuver	601	0	-	-
Stage 1	-	0	-	-
Stage 2	668	0	-	-
Platoon blocked, %				-
Mov Cap-1 Maneuver	601	-	-	-
Mov Cap-2 Maneuver	601	-	-	-
Stage 1	-	-	-	-
Stage 2	668	-	-	-

Approach	WB	SB
HCM Control Delay, s	11.4	
HCM LOS	B	

Minor Lane/Major Mvmt	WBLn1	SBL	SBT
Capacity (veh/h)	601	-	-
HCM Lane V/C Ratio	0.067	-	-
HCM Control Delay (s)	11.4	-	-
HCM Lane LOS	B	-	-
HCM 95th %tile Q(veh)	0.2	-	-

Intersection	
Int Delay, s/veh	0.3

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	18	0	0	648	14
Future Vol, veh/h	0	18	0	0	648	14
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	85	85	85	85	85	85
Heavy Vehicles, %	0	6	0	0	2	0
Mvmt Flow	0	21	0	0	762	16

Major/Minor	Minor2			Major2	
Conflicting Flow All	-	389		-	0
Stage 1	-	-		-	-
Stage 2	-	-		-	-
Critical Hdwy	-	7.02		-	-
Critical Hdwy Stg 1	-	-		-	-
Critical Hdwy Stg 2	-	-		-	-
Follow-up Hdwy	-	3.36		-	-
Pot Cap-1 Maneuver	0	598		-	-
Stage 1	0	-		-	-
Stage 2	0	-		-	-
Platoon blocked, %				-	-
Mov Cap-1 Maneuver	-	598		-	-
Mov Cap-2 Maneuver	-	-		-	-
Stage 1	-	-		-	-
Stage 2	-	-		-	-

Approach	EB	SB
HCM Control Delay, s	11.2	0
HCM LOS	B	

Minor Lane/Major Mvmt	EBLn1	SBT	SBR
Capacity (veh/h)	598	-	-
HCM Lane V/C Ratio	0.035	-	-
HCM Control Delay (s)	11.2	-	-
HCM Lane LOS	B	-	-
HCM 95th %tile Q(veh)	0.1	-	-

Intersection	
Int Delay, s/veh	0.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	4	7	0	0	10	2	14	675	22	0	0	0
Future Vol, veh/h	4	7	0	0	10	2	14	675	22	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	0	0	0	0	0	0	0	2	0	0	0	0
Mvmt Flow	4	8	0	0	11	2	16	750	24	0	0	0

Major/Minor	Minor2			Minor1			Major1		
Conflicting Flow All	413	806	-	-	794	387	0	0	0
Stage 1	0	0	-	-	794	-	-	-	-
Stage 2	413	806	-	-	0	-	-	-	-
Critical Hdwy	7.5	6.5	-	-	6.5	6.9	4.1	-	-
Critical Hdwy Stg 1	-	-	-	-	5.5	-	-	-	-
Critical Hdwy Stg 2	6.5	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	-	-	4	3.3	2.2	-	-
Pot Cap-1 Maneuver	528	318	0	0	323	617	-	-	-
Stage 1	-	-	0	0	403	-	-	-	-
Stage 2	592	398	0	0	-	-	-	-	-
Platoon blocked, %								-	-
Mov Cap-1 Maneuver	512	318	-	-	323	617	-	-	-
Mov Cap-2 Maneuver	512	318	-	-	323	-	-	-	-
Stage 1	-	-	-	-	403	-	-	-	-
Stage 2	574	398	-	-	-	-	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	15.1	15.7	
HCM LOS	C	C	

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1
Capacity (veh/h)	-	-	-	369	351
HCM Lane V/C Ratio	-	-	-	0.033	0.038
HCM Control Delay (s)	-	-	-	15.1	15.7
HCM Lane LOS	-	-	-	C	C
HCM 95th %tile Q(veh)	-	-	-	0.1	0.1

Intersection	
Int Delay, s/veh	0.4

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	14	260	345	9	8	6
Future Vol, veh/h	14	260	345	9	8	6
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	93	93	93	93	93	93
Heavy Vehicles, %	7	1	2	0	0	17
Mvmt Flow	15	280	371	10	9	6

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	381	0	-	0	686	376
Stage 1	-	-	-	-	376	-
Stage 2	-	-	-	-	310	-
Critical Hdwy	4.17	-	-	-	6.4	6.37
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	2.263	-	-	-	3.5	3.453
Pot Cap-1 Maneuver	1151	-	-	-	416	638
Stage 1	-	-	-	-	699	-
Stage 2	-	-	-	-	748	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1151	-	-	-	410	638
Mov Cap-2 Maneuver	-	-	-	-	410	-
Stage 1	-	-	-	-	689	-
Stage 2	-	-	-	-	748	-

Approach	EB	WB	SB
HCM Control Delay, s	0.4	0	12.7
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1151	-	-	-	484
HCM Lane V/C Ratio	0.013	-	-	-	0.031
HCM Control Delay (s)	8.2	0	-	-	12.7
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0.1

Intersection	
Int Delay, s/veh	1.1

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	30	252	339	13	15	22
Future Vol, veh/h	30	252	339	13	15	22
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	91	91	91	91	91	91
Heavy Vehicles, %	7	1	3	0	0	5
Mvmt Flow	33	277	373	14	16	24

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	387	0	-	0	723	380
Stage 1	-	-	-	-	380	-
Stage 2	-	-	-	-	343	-
Critical Hdwy	4.17	-	-	-	6.4	6.25
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	2.263	-	-	-	3.5	3.345
Pot Cap-1 Maneuver	1145	-	-	-	396	660
Stage 1	-	-	-	-	696	-
Stage 2	-	-	-	-	723	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1145	-	-	-	383	660
Mov Cap-2 Maneuver	-	-	-	-	383	-
Stage 1	-	-	-	-	672	-
Stage 2	-	-	-	-	723	-

Approach	EB	WB	SB
HCM Control Delay, s	0.9	0	12.7
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1145	-	-	-	510
HCM Lane V/C Ratio	0.029	-	-	-	0.08
HCM Control Delay (s)	8.2	0	-	-	12.7
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0.1	-	-	-	0.3

Intersection	
Int Delay, s/veh	0.5

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	261	9	9	351	4	21
Future Vol, veh/h	261	9	9	351	4	21
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	0	0	3	0	0
Mvmt Flow	290	10	10	390	4	23

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	300	0	705	295
Stage 1	-	-	-	-	295	-
Stage 2	-	-	-	-	410	-
Critical Hdwy	-	-	4.1	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	1273	-	406	749
Stage 1	-	-	-	-	760	-
Stage 2	-	-	-	-	674	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1273	-	402	749
Mov Cap-2 Maneuver	-	-	-	-	402	-
Stage 1	-	-	-	-	760	-
Stage 2	-	-	-	-	667	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.2	10.7
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	658	-	-	1273	-
HCM Lane V/C Ratio	0.042	-	-	0.008	-
HCM Control Delay (s)	10.7	-	-	7.8	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	0.1	-	-	0	-

Intersection	
Int Delay, s/veh	0.2

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	4	266	359	7	4	2
Future Vol, veh/h	4	266	359	7	4	2
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	87	87	87	87	87	87
Heavy Vehicles, %	0	1	2	0	0	0
Mvmt Flow	5	306	413	8	5	2

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	421	0	-	0	733	417
Stage 1	-	-	-	-	417	-
Stage 2	-	-	-	-	316	-
Critical Hdwy	4.1	-	-	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	2.2	-	-	-	3.5	3.3
Pot Cap-1 Maneuver	1149	-	-	-	391	640
Stage 1	-	-	-	-	669	-
Stage 2	-	-	-	-	744	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1149	-	-	-	389	640
Mov Cap-2 Maneuver	-	-	-	-	389	-
Stage 1	-	-	-	-	666	-
Stage 2	-	-	-	-	744	-

Approach	EB	WB	SB
HCM Control Delay, s	0.1	0	13.2
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1149	-	-	-	448
HCM Lane V/C Ratio	0.004	-	-	-	0.015
HCM Control Delay (s)	8.1	0	-	-	13.2
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0

Intersection	
Int Delay, s/veh	1.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		⇕			⇕			⇕			⇕	
Traffic Vol, veh/h	22	250	5	9	254	11	4	6	4	7	6	21
Future Vol, veh/h	22	250	5	9	254	11	4	6	4	7	6	21
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	87	87	87	87	87	87	87	87	87	87	87	87
Heavy Vehicles, %	0	1	0	0	2	0	0	0	0	0	0	0
Mvmt Flow	25	287	6	10	292	13	5	7	5	8	7	24

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	305	0	0	293	0	0	674	665	290	665	662	299
Stage 1	-	-	-	-	-	-	340	340	-	319	319	-
Stage 2	-	-	-	-	-	-	334	325	-	346	343	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1267	-	-	1280	-	-	371	383	754	376	385	745
Stage 1	-	-	-	-	-	-	679	643	-	697	657	-
Stage 2	-	-	-	-	-	-	684	653	-	674	641	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1267	-	-	1280	-	-	345	370	754	359	372	745
Mov Cap-2 Maneuver	-	-	-	-	-	-	345	370	-	359	372	-
Stage 1	-	-	-	-	-	-	663	628	-	680	651	-
Stage 2	-	-	-	-	-	-	649	647	-	647	626	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.6	0.3	13.8	12.3
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	423	1267	-	-	1280	-	-	533
HCM Lane V/C Ratio	0.038	0.02	-	-	0.008	-	-	0.073
HCM Control Delay (s)	13.8	7.9	0	-	7.8	0	-	12.3
HCM Lane LOS	B	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0.1	0.1	-	-	0	-	-	0.2

Intersection	
Int Delay, s/veh	4.2

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	9	9	21	5	3	24
Future Vol, veh/h	9	9	21	5	3	24
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	80	80	80	80	80	80
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	11	11	26	6	4	30

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	32	0	-	0	62	29
Stage 1	-	-	-	-	29	-
Stage 2	-	-	-	-	33	-
Critical Hdwy	4.1	-	-	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	2.2	-	-	-	3.5	3.3
Pot Cap-1 Maneuver	1593	-	-	-	949	1052
Stage 1	-	-	-	-	999	-
Stage 2	-	-	-	-	995	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1593	-	-	-	942	1052
Mov Cap-2 Maneuver	-	-	-	-	942	-
Stage 1	-	-	-	-	992	-
Stage 2	-	-	-	-	995	-

Approach	EB	WB	SB
HCM Control Delay, s	3.6	0	8.6
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1593	-	-	-	1039
HCM Lane V/C Ratio	0.007	-	-	-	0.032
HCM Control Delay (s)	7.3	0	-	-	8.6
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	0.1

Intersection	
Int Delay, s/veh	0.1

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	5	0	0	637	10
Future Vol, veh/h	0	5	0	0	637	10
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	0	5	0	0	671	11

Major/Minor	Minor2		Major2	
Conflicting Flow All	-	341	-	0
Stage 1	-	-	-	-
Stage 2	-	-	-	-
Critical Hdwy	-	6.9	-	-
Critical Hdwy Stg 1	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-
Follow-up Hdwy	-	3.3	-	-
Pot Cap-1 Maneuver	0	661	-	-
Stage 1	0	-	-	-
Stage 2	0	-	-	-
Platoon blocked, %			-	-
Mov Cap-1 Maneuver	-	661	-	-
Mov Cap-2 Maneuver	-	-	-	-
Stage 1	-	-	-	-
Stage 2	-	-	-	-

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

Minor Lane/Major Mvmt	EBLn1	SBT	SBR
Capacity (veh/h)	661	-	-
HCM Lane V/C Ratio	0.008	-	-
HCM Control Delay (s)	10.5	-	-
HCM Lane LOS	B	-	-
HCM 95th %tile Q(veh)	0	-	-

Intersection	
Int Delay, s/veh	0.3

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	264	5	10	351	3	7
Future Vol, veh/h	264	5	10	351	3	7
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	1	0	0	2	0	0
Mvmt Flow	278	5	11	369	3	7

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	283	0	672	281
Stage 1	-	-	-	-	281	-
Stage 2	-	-	-	-	391	-
Critical Hdwy	-	-	4.1	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	1291	-	424	763
Stage 1	-	-	-	-	771	-
Stage 2	-	-	-	-	688	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1291	-	419	763
Mov Cap-2 Maneuver	-	-	-	-	419	-
Stage 1	-	-	-	-	771	-
Stage 2	-	-	-	-	680	-

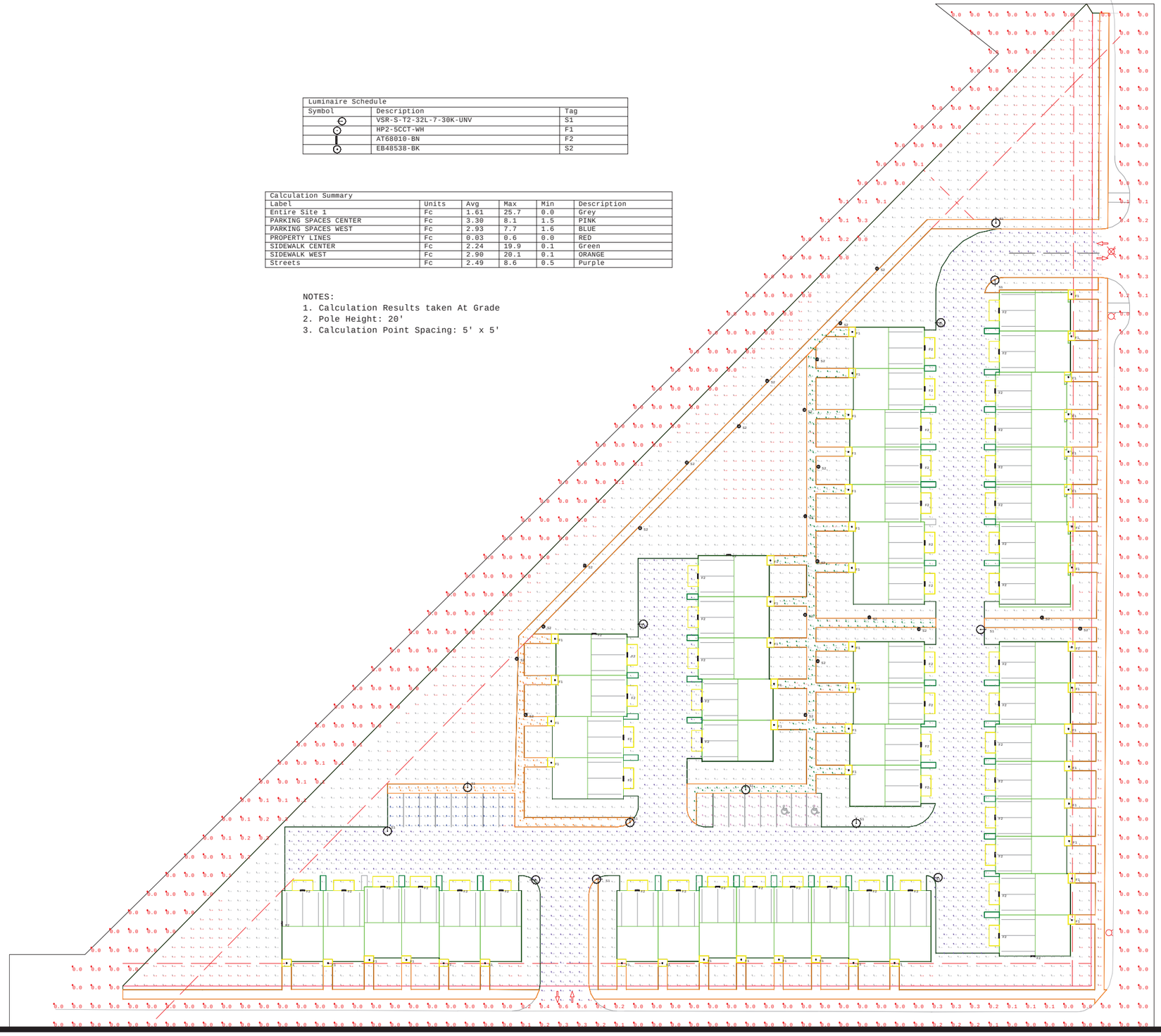
Approach	EB	WB	NB
HCM Control Delay, s	0	0.2	11
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	612	-	-	1291	-
HCM Lane V/C Ratio	0.017	-	-	0.008	-
HCM Control Delay (s)	11	-	-	7.8	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	0.1	-	-	0	-

Luminaire Schedule		
Symbol	Description	Tag
	VSR-S-T2-32L-7-30K-UNV	S1
	HP2-5CCT-WH	F1
	AT68010-BN	F2
	EB48538-BK	S2

Calculation Summary					
Label	Units	Avg	Max	Min	Description
Entire Site 1	Fc	1.61	25.7	0.0	Grey
PARKING SPACES CENTER	Fc	3.30	8.1	1.5	PINK
PARKING SPACES WEST	Fc	2.93	7.7	1.6	BLUE
PROPERTY LINES	Fc	0.03	0.6	0.0	RED
SIDEWALK CENTER	Fc	2.24	19.9	0.1	Green
SIDEWALK WEST	Fc	2.90	20.1	0.1	ORANGE
Streets	Fc	2.49	8.6	0.5	Purple

NOTES:
1. Calculation Results taken At Grade
2. Pole Height: 20'
3. Calculation Point Spacing: 5' x 5'



ParamontEO
ELECTRICAL SUPPLIES AND SERVICES

#	Date	Comments

Revisions

Drawn By:
Checked By:
Date:10/2/2023
Scale:

SITE A R3

Page 1 of 2

ParamountEO
Electrical Supplies & Services

For Approval: ☒ For Record: ☐

Submittal

To:

'DESPLAINES IL

Project: Graceland and Thacker,
Job #: 68208
Quoter: LUKE HANSEN
Project Mgr:
Printed By: LUKE HANSEN

Type	Quantity	Description	Manufacturer
S1		VSR-S-T2-32L-8-30K-UNV	NLS LIGH
S2		EB48538-BK	KUZCO LI
S3		VSR-S-T3-32L-8-30K-UNV	NLS LIGH
S4		DSX0 LED P5 30K 80CRI T3M	LITHONIA
F1		HP2-5CCT-WH	AMERICAN
F2		AT68010-BN	KUZCO LI

From:
PARAMONT EO - WOODRIDGE
OFFICE
708-345-0000
1000 DAVEY RD, SUITE 100
WOODRIDGE, IL 60517

HP DOWNLIGHT

120V AC 2” Performance Downlights

The HP series features quality, convenience, and performance for easy installation in new construction or remodel applications. Available in two lumen performance options with five selectable color temperature settings and 90+ CRI. For finishes, the HP series includes both a white and alzak quick change multiplier for easy customization on the go. Optional pinhole and shower trim lenses available for even greater design options.

- Excellent color rendering (90+ CRI)
- Five Selectable color temperatures: 2700K / 3000K / 3500K / 4000K / 5000K
- Lumen output up to 850 Lumens
- Dimmable with most TRIAC or ELV dimmers
- Includes easy to change White and Alzak multiplier finishes for quick customization
- Remote driver with hardwire junction box
- Type IC and cETLus Listed for wet locations
- ENERGY STAR certified, JA8 Compliant
- 50,000 hours rated life

Intertek · ENERGY STAR · JA8 · WET LOCATION · TYPE IC · DIMMABLE

PROJECT:
TYPE:
LOCATION:
CATALOG NUMBER:

HP 2

HPX 2

HP SERIES QUICK SPECS

VOLTAGE	120V AC, 60Hz
WATTAGE	8W / 12W
LUMENS	550Lm / 850Lm
CCT OPTIONS	5CCT 2700K / 3000K / 3500K / 4000K / 5000K
CRI	90+
DIMMING	TRIAC / ELV (10 - 100%)
MOUNTING	Recessed Mount
BEAM ANGLE	38°
OPERATING TEMP	-25°C (-13°F) to 40°C (104°F)
CERTIFICATIONS	cETLus Listed; Type IC; Suitable for wet locations
RATED LIFE	50,000 Hours

HP SERIES ORDERING INFORMATION

ITEM NUMBER	DESCRIPTION	FINISH	VOLTAGE	CCT	CRI	LUMENS	WATTAGE	DIMMING
HP2-5CCT-WH	HP 2	White	120V	5-CCT	90+	550Lm	8W	TRIAC / ELV
HPX2H-5CCT-WH	HPX 2	White	120V	5-CCT	90+	850Lm	12W	TRIAC / ELV

HP ACCESSORIES

ITEM NUMBER	DESCRIPTION
HP2-TRIM-PIN	HP Series Pin Hole Trim - 29.5° beam angle
HP2-TRIM-SHWR	HP Series Shower Trim Lens - 42.7° beam angle
RP-2/4/6	2” New Construction Rough-in Plate with Hanger Bars

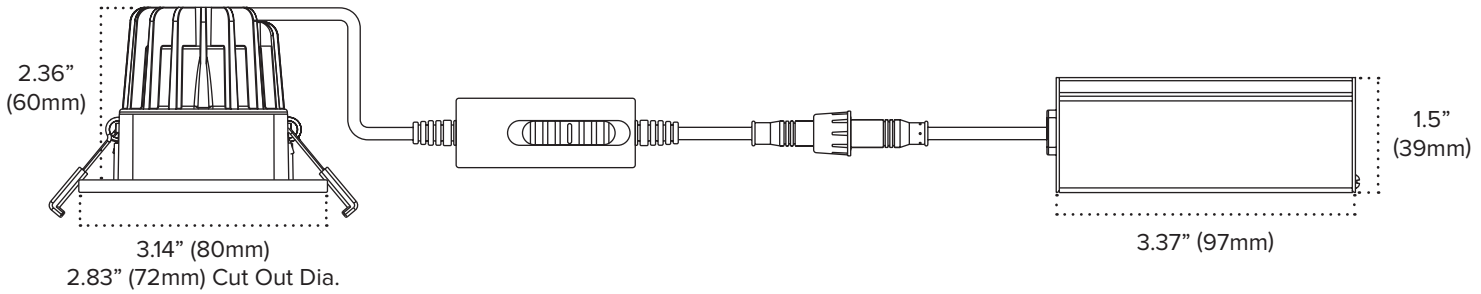
Pin Hole Trim

Shower Trim

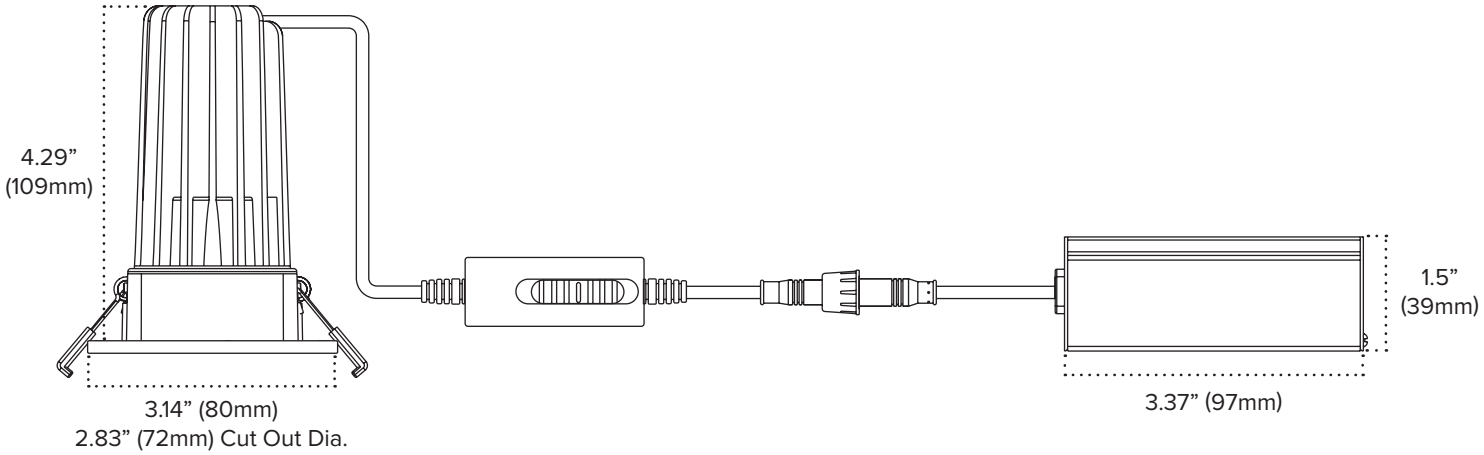
RP-2/4/6

HP SERIES QUICK DIMENSIONS

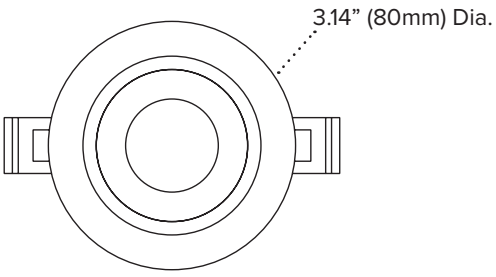
HP2-5CCT



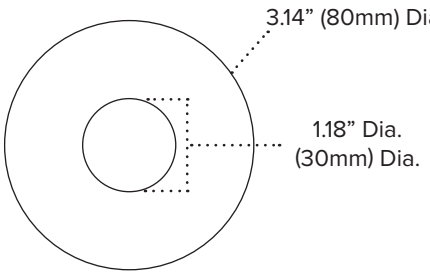
HPX2-5CCT



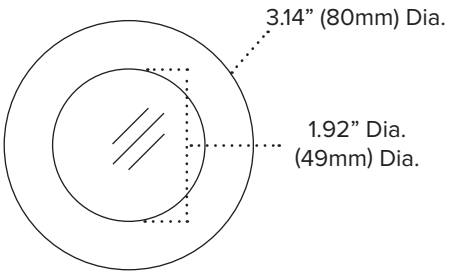
HP SERIES ACCESSORIES



STANDARD TRIM
(INCLUDED)



PIN HOLE TRIM

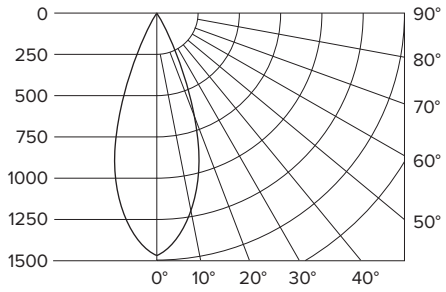


SHOWER TRIM

HP SERIES PHOTOMETRICS

HP2

PART NUMBER	**HP2-5CCT-WH**
BEAM SPREAD	37.8°
LUMENS	626.47 Lm
WATTAGE	8W
EFFICACY	78.31 Lm/W
CCT	2700K/3000K/3500K/4000K/5000K
CRI	93.5

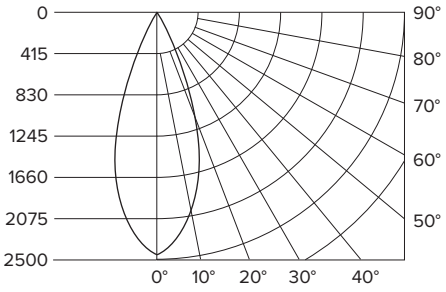


Avg. Foot Candles		Beam Dia.
62.5	4’	2.5’
27.8	6’	3.8’
15.6	8’	5.0’
10.0	10’	6.3’
6.9	12’	7.5’
5.1	14’	8.8’

Distance From Light

HPX2

PART NUMBER	**HPX2H-5CCT-WH**
BEAM SPREAD	35.6°
LUMENS	1024.4 Lm
WATTAGE	14.3W
EFFICACY	71.6 Lm/W
CCT	2700K/3000K/3500K/4000K/5000K
CRI	92.6



Avg. Foot Candles		Beam Dia.
106.1	4’	2.6’
47.2	6’	3.8’
26.5	8’	5.1’
17.0	10’	6.4’
11.8	12’	7.7’
8.7	14’	9.0’

Distance From Light

HP SERIES RECOMMENDED DIMMERS

BRAND	MODEL #	TYPE	DIMMING RANGE
COOPER	S106P	MLV	0% - 97%
LUTRON	CTCL-153P	TRIAC	0% - 93%
LUTRON	DV-600P	TRIAC	0% - 94%
LEVITON	DSL06-1LZ	MLV	2% - 94%
LEVITON	6672	ELV	2% - 98%
LEVITON	IPL06-10Z	MLV	3% - 94%
LUTRON	DVCL-153P	TRIAC	3% - 93%
LUTRON	PD-6WCL	ELV	3% - 92%

Dimmer performance may vary in field application due to unknown external factors. Dimmers not included on the chart above are not necessarily incompatible; they have yet to be fully evaluated. Please reference dimmer manufacturer's instructions for more detailed information regarding performance and compatibility. Test data listed above is based on single lamp data.

AMERICAN LIGHTING WARRANTY

LIMITED WARRANTY FOR LED PRODUCTS: 5 YEARS

LIMITED PRODUCT WARRANTY

Our products are warranted to be free from defects in material and workmanship for the warranty period listed. Warranty periods begin from the date of shipment from American Lighting Inc's warehouse to the original purchaser. Products that prove to be defective during their specific warranty period will be either repaired or replaced, at the sole discretion of American Lighting Inc. Claims for defective products must be submitted in writing to American Lighting Inc's RGA Department within the warranty period. Upon approval of such return, American Lighting Inc reserves the right to inspect the product for misuse or abuse. Claims for indirect or consequential damages or for product that, in American Lighting Inc's opinion, has been misused will be denied. This is a warranty of product reliability only and not a warranty of merchantability or fitness for a particular purpose. American Lighting Inc shall have no liability whatsoever in any event for payment of incidental or consequential damages, including, without limitations, installation costs and/or damages for personal injury and/or property. These products may represent a possible shock or fire hazard if improperly installed or altered in any way. This warranty does not apply to any product that has not been properly installed in accordance with current local codes and/or the National Electrical Code. Products that require a transformer, driver, or power supply must be used in conjunction with American Lighting Inc's recommended power supply to ensure safety and retain product warranty.

PRODUCT SPECIFICATIONS

For the latest product information, updates, instructions and details concerning specifications, colors, finishes, performance, installation and design, visit www.americanlighting.com. Color may vary from the color printed herein due to limitations in photographic and printing processes. American Lighting Inc. reserves the right to change product specifications without notice. Other product specifications such as color temperature, wavelength characteristics and lumen output are subject to production limitations and may vary.
LED technology is changing rapidly, and not all color temperatures and performance levels can be duplicated at a later time. Best practices include purchasing 10-15% more for a particular project on the same initial order where white LED color temperatures must be maintained over project and product life. Eventual product replacement should be considered at layout and design stages. Best practices also include testing connections and product performance prior to mounting and/or installing.

AVERAGE LIFE

Average incandescent lamp life, rated life and average life are terms used to describe the number of hours at which half of the lamps have failed. For LEDs, the hours of rated life specify the point where 70% of original lumen output is reached. Below this point, the effective life is over, however, the LED may still emit light. Individual results may vary with actual environmental conditions including, but not limited to, proper installation, ambient temperature and/or input voltage fluctuations.

F2

SLATE
AT68010

WALL

PROJECT

AT68010-BN
Brushed Nickel

AT68010-WH
White

AT68010-BK
Black

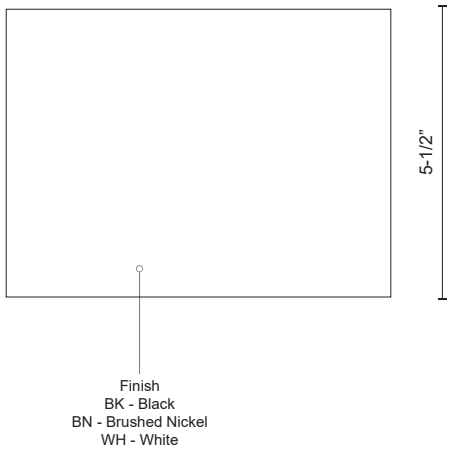
DESCRIPTION

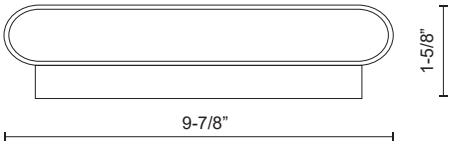
This minimalist sleek cast-aluminum wall sconce is a beautiful addition to any indoor or outdoor application. Finished with a high-end brushed nickel, powder-coated white or black cast-aluminum, rectangular in size with smooth, sleek, rounded corners. Premium frosted optical lenses, which emits the light from the fixture evenly against the wall.

SPECIFICATION DETAILS

Fixture Dimensions	W9-7/8" x H5-1/2" x E1-5/8"
Light Source	LED with DC Driver
Wattage	13W
Total Lumens	1190lm
Delivered Lumens	BK-608lm; BN-927lm; WH-744lm;
Voltage	120V
Color Temperature	3000K
CRI (Ra)	90CRI
Optional Color Temps	2700K - 5000K Available, Minimum Order Quantities Apply
LED Rated Life	50,000 hours
Dimming	100% - 10%, TRIAC or ELV Dimmer (Not Included)
Glass Details	Frosted Glass
ADA Compliant	Yes
Location	Wet
Illumination Direction	Downlight
Mounting Style	All Orientation; Wall;
CEC Title 24 JA8	Yes, JA8-2022

* For custom options, consult factory for details.
* For warranty information, please visit www.kuzcolighting.com/warranty





KUZCO

CANADA: 19054 28TH AVENUE - SURREY, BC V3Z 6M3
USA: 3035 E. LONE MOUNTAIN ROAD - LAS VEGAS, NV 89081

WWW.KUZCOLIGHTING.COM

COMMENT

Intertek

S1

NLS LIGHTING

VSR-S

SITE LIGHTING

FORM AND FUNCTION
- Sleek, low profile housing
- Engineered for optimum thermal management
- Low depreciation rate
- Optical system designed for:
  - Parking Lots
  - Commercial Applications

CONSTRUCTION
- Spun Aluminum
- Corrosion resistant external hardware
- One-piece silicone gasket ensures IP-65 seal for electronics compartment
- Two-piece silicone Micro Optic system ensures IP-67 level seal around each PCB

FINISH
- 5 mils electrostatic powder coat.
- NLS' standard high-quality finishes prevent corrosion protects against extreme environmental conditions

WARRANTY
Five-year limited warranty for drivers and LEDs.

LISTINGS
- Certified to UL 1598
- CSA C22.2 No. 250.0
- IP65/ IP67 Rated
- Dark Sky Approved
- IK10 Rated

LED WATTAGE CHART

	16L	32L
350 milliamps	18w	-
530 milliamps	28w	56w
700 milliamps	36w	71w
1050 milliamps	56w	106w

Project Name:

Type:

Cat#	Light Dist.	# of LEDs	Milliamps	Kelvin	Volts	Mounting	Color	Options
Value Series Round Small **(VSR-S)**	Type 2 **(T2)** Type 3 **(T3)** Type 4 **(T4)** Type 5 **(T5)**	16 **(16L)** 32 **(32L)**	350 **(35)** ❶ 530 **(53)** 700 **(7)** 1050 **(1)**	2700K, 70 CRI **(27K7)** ❻ 2700K, 80 CRI **(27K8)** ❷❻ 3000K, 70 CRI **(30K7)** ❻ 3000K, 80 CRI **(30K8)** ❷ 3500K, 80 CRI **(35K8)** 4000K, 70 CRI **(40K7)** 4000K, 80 CRI **(40K8)** ❷ 5000K, 70 CRI **(50K7)** 5000K, 80 CRI **(50K8)** ❷	120-277 **(UNV)** 347-480 **(HV)**	Direct Pole 6" Arm Single, D180 **(DPS6)** ❸ Direct Pole 10" Arm D90, T90, T120, Quad **(DPS10)** ❸ Wall Mount **(WM)** ❹	Bronze Textured **(BRZ)** White Textured **(WHT)** Smooth White Gloss **(SWT)** Silver **(SVR)** Black Textured **(BLK)** Smooth Black Gloss **(SBK)** Graphite Textured **(GPH)** Grey Textured **(GRY)** Custom **(CS)**	Bird Spikes **(BS)** Marine Grade Finish **(MGF)** Photocell **(PC)** ❺ Nema 7-Pin Receptacle **(PE7)** Photocell + Receptacle **(PCR)** Receptacle + Shorting Cap **(PER)** FSP-211 with Motion Sensor **(FSP-8)** ❺ *8'+ Below* **(FSP-20)** ❺ *9'-20'Heights* **(FSP-40)** ❺ *21'-40' Heights* Quick Mount Bracket **(QMB)** Retrofit Mount Bracket **(RQMB)** Round Pole Adaptor 3"- 4" Pole **(RPA4)** Round Pole Adaptor 5"- 6" Pole **(RPA5)** Rotated Optic Left **(ROL)** Rotated Optic Right **(ROR)** Automotive House Side Shield **(AHS)** House Side Shield **(HSS)**

Notes:
❶ 16L Only
❷ Consult Factory for Lead Time. Consult Factory for 90 CRI Requests.
❸ For Round Pole Specify RPA4 or RPA5
❹ Includes 6" Bolt on Arm
❺ Universal Voltage 120-27
❻ 3000K or lower must be selected to meet International Dark Sky Association certification

ELECTRICAL

- 120-277 Volts (UNV) or 347-480 Volts (HV)
- 0-10V dimming driver
- Driver power factor at maximum load is ≥ .95, THD maximum load is 15%
- LED Drivers Ambient Temp. Min is -40°C and Ambient Temp. Max ranges from 50°C to 55°C and, in some cases, even higher. Consult the factory for revalidation by providing the fixture catalog string before quoting and specifying it.
- All internal wiring UL certified for 600 VAC and 105°C
- All drivers, controls, and sensors housed in enclosed IP-65 compartment
- CRI 70, 80 or 90
- Color temperatures: 2700K, 3000K, 3500K, 4000K, 5000K
- Surge Protection: 20KA supplies as standard.

OPTIONS

- **BIRD SPIKES (BS)**—Offers effective and humane deterrent for larger bird species and provides cost-effective long-term solution to nuisance bird infestations and protect your property.
- **MARINE GRADE FINISH (MGF)**—A multi-step process creating protective finishing coat against harsh environments.
  - Chemically washed in a 5 stage cleaning system.
  - Pre-baked
  - Powder coated 3-5 mils of Zinc Rich Super Durable Polyester Primer.
  - 1-2 feet inside pole coverage top and bottom.
  - Oven Baked.
  - Finished Powder Coating of Super Durable Polyester Powder Coat 3-5 mil thickness.
- **SHIELDS (HSS, AHS)**—House Side Shield (HSS) is designed for full property line cut-off. Automotive House Side Shield (AHS) is a single-sided shield allowing partial cut-off on either side or front of luminaire.
- **ROUND POLE ADAPTER (RPA)–** When using round poles, specify Round Pole Adapter (RPA). Specify RPA4 when installing on 3"-4" round poles, and RPA5 when installing on 5"-6" round poles.

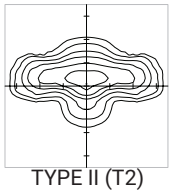
CONTROLS

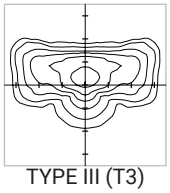
- **FSP-211 (FSP-X)**—Passive infrared (PIR) sensor providing multi-level control based on motion/daylight contribution.
  - All control parameters adjustable via wireless configuration remote storing and transmitting sensor profiles.
  - FSP-20 mounting heights 9-20 feet
  - FSP-40 mounting heights 21-40 feet.
  - Includes 5 dimming event cycles, 0-10V dimming with motion sensing, reprogrammable in the field.
- **NEMA 7-PIN RECEPTACLE (PE7)**—An ANSI C136.41-2013 receptacle provides electrical and mechanical interconnection between photo control cell and luminaire. Dimming receptacle available two or four dimming contacts supports 0-10 VDC dimming methods or Digital Addressable Lighting Interface (DALI), providing reliable power interconnect.

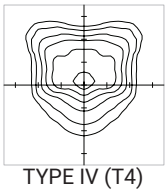
OPTICS

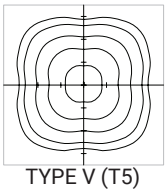
Silicone optics high photothermal stability and light output provides higher powered LEDs with minimized lumen depreciation LED life. UV and thermal stability with scratch resistance increases exterior application durability.

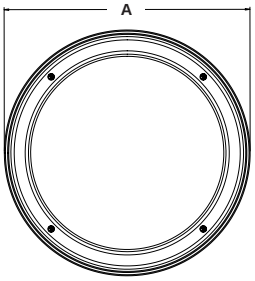
- IES Types


TYPE II (T2)


TYPE III (T3)

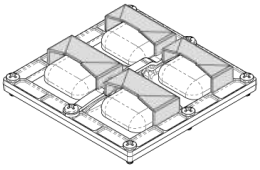

TYPE IV (T4)


TYPE V (T5)

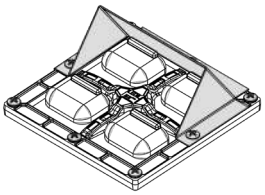


DIMENSION	VSR-S
A	14 in.
B	4 in.
Weight	9lbs

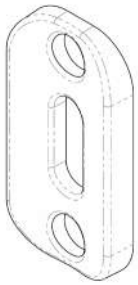
HOUSE SIDE SHIELD

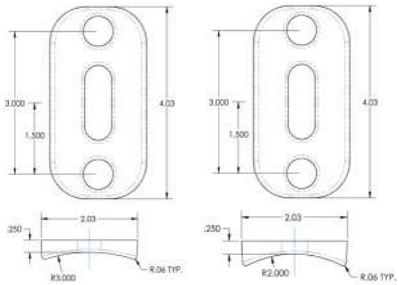


AUTOMOTIVE HOUSE SIDE SHIELD

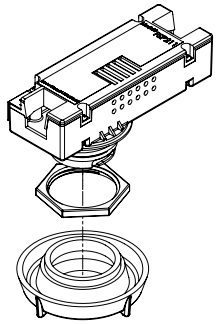


RPA4 / RPA5



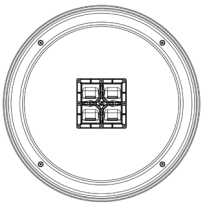


FSP-211

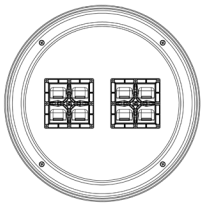


The information and specifications on this document are subject to change without any notification. All values are design, nominal, typical or prorated values when measured under internal and external laboratory conditions.

OPTICAL CONFIGURATIONS



VSR-S / 16L



VSR-S / 32L

LUMENS

PART NUMBER	T2	LM/W	BUG	T3 HSS	LM/W	BUG	T3	LM/W	BUG	T4 AHS	LM/W	T4 HSS	LM/W	BUG	T4	LM/W	BUG	T5	LM/W	BUG	W
VSR-S-16L-35-30K7	2142	119	B1-U0-G1	1044	58	B1-U0-G0	2088	116	B1-U0-G1	1296	72	1026	57	B0-U0-G0	2070	115	B1-U0-G1	2160	120	B2-U0-G1	18
VSR-S-16L-35-40K7	2305	128	B1-U0-G1	1116	62	B1-U0-G0	2247	125	B1-U0-G1	1368	76	1098	61	B0-U0-G0	2227	124	B1-U0-G1	2322	129	B2-U0-G1	18
VSR-S-16L-35-50K7	2356	131	B1-U0-G1	1188	66	B1-U0-G0	2297	128	B1-U0-G1	1440	80	1170	65	B0-U0-G0	2277	127	B1-U0-G1	2376	132	B2-U0-G1	18
VSR-S-16L-53-30K7	3275	117	B1-U0-G1	1624	58	B0-U0-G0	3192	114	B1-U0-G1	2016	72	1596	57	B0-U0-G1	3165	113	B1-U0-G1	3304	118	B2-U0-G1	28
VSR-S-16L-53-40K7	3524	126	B1-U0-G1	1736	62	B0-U0-G0	3435	123	B1-U0-G1	2128	76	1708	61	B0-U0-G1	3406	122	B1-U0-G1	3556	127	B2-U0-G1	28
VSR-S-16L-53-50K7	3603	129	B1-U0-G1	1848	66	B0-U0-G1	3511	125	B1-U0-G1	2240	80	1820	65	B0-U0-G1	3482	124	B1-U0-G1	3640	130	B2-U0-G1	28
VSR-S-16L-7-30K7	4100	114	B1-U0-G1	2088	58	B0-U0-G1	3996	111	B1-U0-G1	2592	72	2052	57	B0-U0-G1	4003	111	B1-U0-G1	4176	116	B3-U0-G1	36
VSR-S-16L-7-40K7	4411	123	B1-U0-G1	2232	62	B0-U0-G1	4300	119	B1-U0-G1	2736	76	2196	61	B0-U0-G1	4308	120	B1-U0-G1	4500	125	B3-U0-G1	36
VSR-S-16L-7-50K7	4510	125	B1-U0-G1	2376	66	B0-U0-G1	4396	122	B1-U0-G1	2880	80	2340	65	B0-U0-G1	4404	122	B1-U0-G1	4608	128	B3-U0-G1	36
VSR-S-16L-1-30K7	5858	105	B1-U0-G1	3248	58	B0-U0-G1	5712	102	B1-U0-G1	4032	72	3192	57	B0-U0-G1	5661	101	B1-U0-G2	5880	105	B3-U0-G1	56
VSR-S-16L-1-40K7	6303	113	B1-U0-G1	3472	62	B0-U0-G1	6146	110	B1-U0-G1	4256	76	3416	61	B0-U0-G1	6091	109	B1-U0-G2	6328	113	B3-U0-G1	56
VSR-S-16L-1-50K7	6443	115	B1-U0-G1	3696	66	B0-U0-G1	6283	112	B1-U0-G2	4480	80	3640	65	B0-U0-G1	6227	111	B1-U0-G2	6496	116	B3-U0-G1	56
VSR-S-32L-53-30K7	5858	105	B1-U0-G1	3248	58	B0-U0-G1	5712	102	B1-U0-G1	4032	72	3192	57	B0-U0-G1	5661	101	B1-U0-G2	5880	105	B3-U0-G1	56
VSR-S-32L-53-40K7	6303	113	B1-U0-G1	3472	62	B0-U0-G1	6146	110	B1-U0-G1	4256	76	3416	61	B0-U0-G1	6091	109	B1-U0-G2	6328	113	B3-U0-G1	56
VSR-S-32L-53-50K7	6443	115	B1-U0-G1	3696	66	B0-U0-G1	6283	112	B1-U0-G2	4480	80	3640	65	B0-U0-G1	6227	111	B1-U0-G2	6496	116	B3-U0-G1	56
VSR-S-32L-7-30K7	8086	114	B2-U0-G2	4118	58	B0-U0-G1	7881	111	B2-U0-G2	5112	72	4047	57	B0-U0-G1	7896	111	B2-U0-G2	8236	116	B3-U0-G2	71
VSR-S-32L-7-40K7	8700	123	B2-U0-G2	4402	62	B0-U0-G1	8480	119	B2-U0-G2	5396	76	4331	61	B0-U0-G1	8496	120	B2-U0-G2	8875	125	B3-U0-G2	71
VSR-S-32L-7-50K7	8894	125	B2-U0-G2	4686	66	B0-U0-G1	8669	122	B2-U0-G2	5680	80	4615	65	B0-U0-G2	8685	122	B2-U0-G2	9088	128	B3-U0-G2	71
VSR-S-32L-1-30K7	11088	105	B2-U0-G2	6148	58	B0-U0-G2	10812	102	B2-U0-G2	7632	72	6042	57	B0-U0-G2	10715	101	B2-U0-G2	11130	105	B3-U0-G2	106
VSR-S-32L-1-40K7	11930	113	B2-U0-G2	6572	62	B0-U0-G2	11634	110	B2-U0-G2	8056	76	6466	61	B0-U0-G2	11529	109	B2-U0-G2	11978	113	B3-U0-G2	106
VSR-S-32L-1-50K7	12196	115	B2-U0-G2	6996	66	B0-U0-G2	11893	112	B2-U0-G2	8480	80	6890	65	B0-U0-G2	11787	111	B2-U0-G2	12296	116	B3-U0-G2	106

Lumen Maintenance Data

Ambient Temperature	Drive Current	L90 Hours*	L70 Hours**	30,000 Hours*	50,000 Hours*	60,00 Hours*	100,000 Hours**
25°C	Up to 700mA	58,000	173,000	95.7%	91.6%	89.6%	82.1%
	1050mA	48,000	143,000	94.3%	89.5%	87.2%	78.5%

*Reported extrapolations per IESNA TM-21 **Projected extrapolations per IESNA TM-21

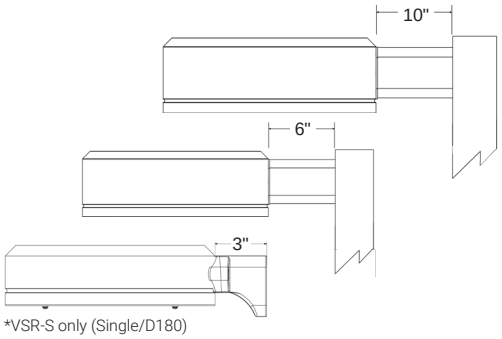
DPX ARM LENGTH

DPX ARM LENGTH	SGL	D90	D180	T90	T120	QD
VSR-S	3"	6"	3"	6"	6"	6"

EPA

EPA	SGL	D90	D180	T90	T120	QD
VSR-S	0.65	0.99	1.3	1.5	1.39	1.5

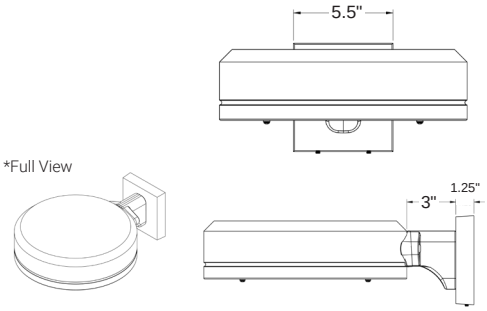
MOUNTING OPTIONS



*VSR-S only (Single/D180)

DIRECT POLE MOUNT(DPX)

Standard mounting arm is extruded aluminum in lengths of 3", 6", And 10"
*Arm lengths may vary depending on configuration

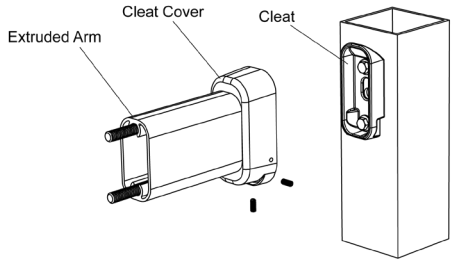


WALL MOUNT (WM)

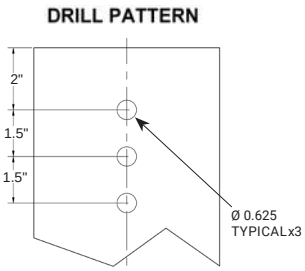
Cast Aluminum Plate for direct wall mount.
3" extruded aluminum arm mounts directly to a cast wall mount box.

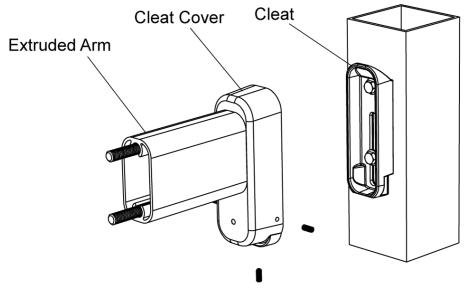
OPTIONAL

Optional Cast Aluminum Bracket designed for quick mounting on Direct Square or Round Poles. Cleat mounts directly to pole for easily hung fixtures.

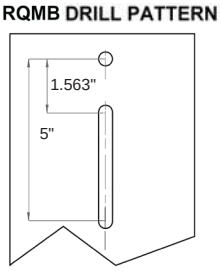


QUICK MOUNT BRACKET (QMB)
DIRECT POLE (DP6/DP10)





RETROFIT QUICK MOUNT BRACKET (RQMB)



S2

WINDERMERE
EB48538

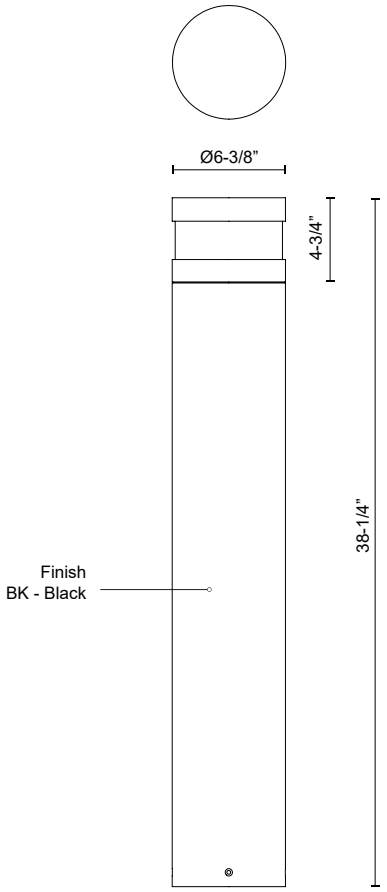
BOLLARDS

PROJECT

EB48538-BK
Black

DESCRIPTION

Architecturally designed high-power LED exterior bollard fixture. This die-cast aluminum cylinder with a frosted polycarbonate diffuser delivers diffused omni directional light with a sleek powder-coated finish



SPECIFICATION DETAILS

Fixture Dimensions	D6-3/8" x H38-1/4"
Light Source	LED with DC Driver
Wattage	24W
Total Lumens	2500lm
Delivered Lumens	1342lm
Voltage	120-277V
Color Temperature	3000K
CRI (Ra)	80CRI
Optional Color Temps	2700K □ 5000K Available, Minimum Order Quantities Apply
LED Rated Life	50,000 hours
Dimming	100% - 10%, TRIAC or ELV Dimmer (Not Included)
Diffuser Details	Clear PC
Location	Wet
Illumination Direction	Down

* For custom options, consult factory for details.
* For warranty information, please visit www.kuzcolighting.com/warranty

KUZCO

CANADA: 19054 28TH AVENUE - SURREY, BC V3Z 6M3
USA: 3035 E. LONE MOUNTAIN ROAD - LAS VEGAS, NV 89081

WWW.KUZCOLIGHTING.COM

COMMENT

Intertek

S3

NLS LIGHTING

VSR-S

SITE LIGHTING

FORM AND FUNCTION
- Sleek, low profile housing
- Engineered for optimum thermal management
- Low depreciation rate
- Optical system designed for:
  - Parking Lots
  - Commercial Applications

CONSTRUCTION
- Spun Aluminum
- Corrosion resistant external hardware
- One-piece silicone gasket ensures IP-65 seal for electronics compartment
- Two-piece silicone Micro Optic system ensures IP-67 level seal around each PCB

FINISH
- 5 mils electrostatic powder coat.
- NLS' standard high-quality finishes prevent corrosion protects against extreme environmental conditions

WARRANTY
Five-year limited warranty for drivers and LEDs.

LISTINGS
- Certified to UL 1598
- CSA C22.2 No. 250.0
- IP65/ IP67 Rated
- Dark Sky Approved
- IK10 Rated

LED WATTAGE CHART

	16L	32L
350 milliamps	18w	-
530 milliamps	28w	56w
700 milliamps	36w	71w
1050 milliamps	56w	106w

Project Name:

Type:

Cat#	Light Dist.	# of LEDs	Milliamps	Kelvin	Volts	Mounting	Color	Options
Value Series Round Small **(VSR-S)**	Type 2 **(T2)** Type 3 **(T3)** Type 4 **(T4)** Type 5 **(T5)**	16 **(16L)** 32 **(32L)**	350 **(35)** ❶ 530 **(53)** 700 **(7)** 1050 **(1)**	2700K, 70 CRI **(27K7)** ❻ 2700K, 80 CRI **(27K8)** ❷❻ 3000K, 70 CRI **(30K7)** ❻ 3000K, 80 CRI **(30K8)** ❷ 3500K, 80 CRI **(35K8)** 4000K, 70 CRI **(40K7)** 4000K, 80 CRI **(40K8)** ❷ 5000K, 70 CRI **(50K7)** 5000K, 80 CRI **(50K8)** ❷	120-277 **(UNV)** 347-480 **(HV)**	Direct Pole 6" Arm Single, D180 **(DPS6)** ❸ Direct Pole 10" Arm D90, T90, T120, Quad **(DPS10)** ❸ Wall Mount **(WM)** ❹	Bronze Textured **(BRZ)** White Textured **(WHT)** Smooth White Gloss **(SWT)** Silver **(SVR)** Black Textured **(BLK)** Smooth Black Gloss **(SBK)** Graphite Textured **(GPH)** Grey Textured **(GRY)** Custom **(CS)**	Bird Spikes **(BS)** Marine Grade Finish **(MGF)** Photocell **(PC)** ❺ Nema 7-Pin Receptacle **(PE7)** Photocell + Receptacle **(PCR)** Receptacle + Shorting Cap **(PER)** FSP-211 with Motion Sensor **(FSP-8)** ❺ *8'+ Below* **(FSP-20)** ❺ *9'-20'Heights* **(FSP-40)** ❺ *21'-40' Heights* Quick Mount Bracket **(QMB)** Retrofit Mount Bracket **(RQMB)** Round Pole Adaptor 3"- 4" Pole **(RPA4)** Round Pole Adaptor 5"- 6" Pole **(RPA5)** Rotated Optic Left **(ROL)** Rotated Optic Right **(ROR)** Automotive House Side Shield **(AHS)** House Side Shield **(HSS)**

Notes:
❶ 16L Only
❷ Consult Factory for Lead Time. Consult Factory for 90 CRI Requests.
❸ For Round Pole Specify RPA4 or RPA5
❹ Includes 6" Bolt on Arm
❺ Universal Voltage 120-27
❻ 3000K or lower must be selected to meet International Dark Sky Association certification

ELECTRICAL

- 120-277 Volts (UNV) or 347-480 Volts (HV)
- 0-10V dimming driver
- Driver power factor at maximum load is ≥ .95, THD maximum load is 15%
- LED Drivers Ambient Temp. Min is -40°C and Ambient Temp. Max ranges from 50°C to 55°C and, in some cases, even higher. Consult the factory for revalidation by providing the fixture catalog string before quoting and specifying it.
- All internal wiring UL certified for 600 VAC and 105°C
- All drivers, controls, and sensors housed in enclosed IP-65 compartment
- CRI 70, 80 or 90
- Color temperatures: 2700K, 3000K, 3500K, 4000K, 5000K
- Surge Protection: 20KA supplies as standard.

OPTIONS

- **BIRD SPIKES (BS)**—Offers effective and humane deterrent for larger bird species and provides cost-effective long-term solution to nuisance bird infestations and protect your property.
- **MARINE GRADE FINISH (MGF)**—A multi-step process creating protective finishing coat against harsh environments.
  - Chemically washed in a 5 stage cleaning system.
  - Pre-baked
  - Powder coated 3-5 mils of Zinc Rich Super Durable Polyester Primer.
  - 1-2 feet inside pole coverage top and bottom.
  - Oven Baked.
  - Finished Powder Coating of Super Durable Polyester Powder Coat 3-5 mil thickness.
- **SHIELDS (HSS, AHS)**—House Side Shield (HSS) is designed for full property line cut-off. Automotive House Side Shield (AHS) is a single-sided shield allowing partial cut-off on either side or front of luminaire.
- **ROUND POLE ADAPTER (RPA)–** When using round poles, specify Round Pole Adapter (RPA). Specify RPA4 when installing on 3"-4" round poles, and RPA5 when installing on 5"-6" round poles.

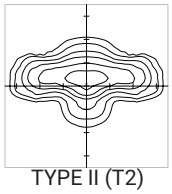
CONTROLS

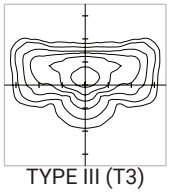
- **FSP-211 (FSP-X)**—Passive infrared (PIR) sensor providing multi-level control based on motion/daylight contribution.
  - All control parameters adjustable via wireless configuration remote storing and transmitting sensor profiles.
  - FSP-20 mounting heights 9-20 feet
  - FSP-40 mounting heights 21-40 feet.
  - Includes 5 dimming event cycles, 0-10V dimming with motion sensing, reprogrammable in the field.
- **NEMA 7-PIN RECEPTACLE (PE7)**—An ANSI C136.41-2013 receptacle provides electrical and mechanical interconnection between photo control cell and luminaire. Dimming receptacle available two or four dimming contacts supports 0-10 VDC dimming methods or Digital Addressable Lighting Interface (DALI), providing reliable power interconnect.

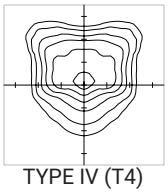
OPTICS

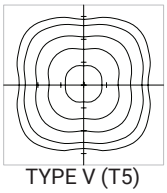
Silicone optics high photothermal stability and light output provides higher powered LEDs with minimized lumen depreciation LED life. UV and thermal stability with scratch resistance increases exterior application durability.

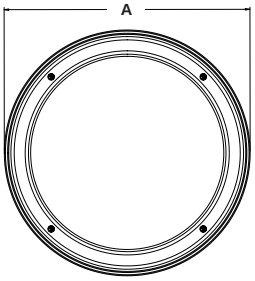
- IES Types


TYPE II (T2)


TYPE III (T3)

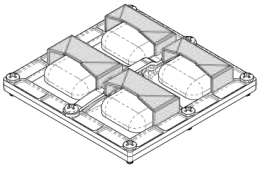

TYPE IV (T4)


TYPE V (T5)

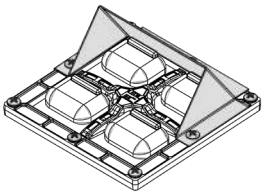


DIMENSION	VSR-S
A	14 in.
B	4 in.
Weight	9lbs

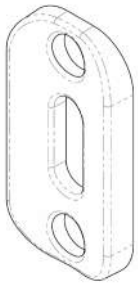
HOUSE SIDE SHIELD

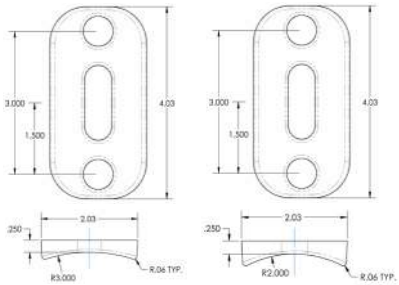


AUTOMOTIVE HOUSE SIDE SHIELD

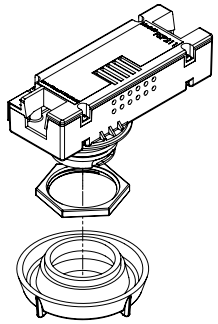


RPA4 / RPA5





FSP-211



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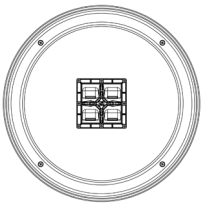
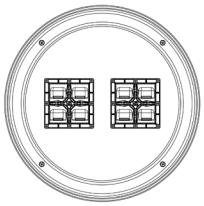
OPTICAL CONFIGURATIONS



VSR-S / 16L



VSR-S / 32L

LUMENS

PART NUMBER	T2	LM/W	BUG	T3 HSS	LM/W	BUG	T3	LM/W	BUG	T4 AHS	LM/W	T4 HSS	LM/W	BUG	T4	LM/W	BUG	T5	LM/W	BUG	W
VSR-S-16L-35-30K7	2142	119	B1-U0-G1	1044	58	B1-U0-G0	2088	116	B1-U0-G1	1296	72	1026	57	B0-U0-G0	2070	115	B1-U0-G1	2160	120	B2-U0-G1	18
VSR-S-16L-35-40K7	2305	128	B1-U0-G1	1116	62	B1-U0-G0	2247	125	B1-U0-G1	1368	76	1098	61	B0-U0-G0	2227	124	B1-U0-G1	2322	129	B2-U0-G1	18
VSR-S-16L-35-50K7	2356	131	B1-U0-G1	1188	66	B1-U0-G0	2297	128	B1-U0-G1	1440	80	1170	65	B0-U0-G0	2277	127	B1-U0-G1	2376	132	B2-U0-G1	18
VSR-S-16L-53-30K7	3275	117	B1-U0-G1	1624	58	B0-U0-G0	3192	114	B1-U0-G1	2016	72	1596	57	B0-U0-G1	3165	113	B1-U0-G1	3304	118	B2-U0-G1	28
VSR-S-16L-53-40K7	3524	126	B1-U0-G1	1736	62	B0-U0-G0	3435	123	B1-U0-G1	2128	76	1708	61	B0-U0-G1	3406	122	B1-U0-G1	3556	127	B2-U0-G1	28
VSR-S-16L-53-50K7	3603	129	B1-U0-G1	1848	66	B0-U0-G1	3511	125	B1-U0-G1	2240	80	1820	65	B0-U0-G1	3482	124	B1-U0-G1	3640	130	B2-U0-G1	28
VSR-S-16L-7-30K7	4100	114	B1-U0-G1	2088	58	B0-U0-G1	3996	111	B1-U0-G1	2592	72	2052	57	B0-U0-G1	4003	111	B1-U0-G1	4176	116	B3-U0-G1	36
VSR-S-16L-7-40K7	4411	123	B1-U0-G1	2232	62	B0-U0-G1	4300	119	B1-U0-G1	2736	76	2196	61	B0-U0-G1	4308	120	B1-U0-G1	4500	125	B3-U0-G1	36
VSR-S-16L-7-50K7	4510	125	B1-U0-G1	2376	66	B0-U0-G1	4396	122	B1-U0-G1	2880	80	2340	65	B0-U0-G1	4404	122	B1-U0-G1	4608	128	B3-U0-G1	36
VSR-S-16L-1-30K7	5858	105	B1-U0-G1	3248	58	B0-U0-G1	5712	102	B1-U0-G1	4032	72	3192	57	B0-U0-G1	5661	101	B1-U0-G2	5880	105	B3-U0-G1	56
VSR-S-16L-1-40K7	6303	113	B1-U0-G1	3472	62	B0-U0-G1	6146	110	B1-U0-G1	4256	76	3416	61	B0-U0-G1	6091	109	B1-U0-G2	6328	113	B3-U0-G1	56
VSR-S-16L-1-50K7	6443	115	B1-U0-G1	3696	66	B0-U0-G1	6283	112	B1-U0-G2	4480	80	3640	65	B0-U0-G1	6227	111	B1-U0-G2	6496	116	B3-U0-G1	56
VSR-S-32L-53-30K7	5858	105	B1-U0-G1	3248	58	B0-U0-G1	5712	102	B1-U0-G1	4032	72	3192	57	B0-U0-G1	5661	101	B1-U0-G2	5880	105	B3-U0-G1	56
VSR-S-32L-53-40K7	6303	113	B1-U0-G1	3472	62	B0-U0-G1	6146	110	B1-U0-G1	4256	76	3416	61	B0-U0-G1	6091	109	B1-U0-G2	6328	113	B3-U0-G1	56
VSR-S-32L-53-50K7	6443	115	B1-U0-G1	3696	66	B0-U0-G1	6283	112	B1-U0-G2	4480	80	3640	65	B0-U0-G1	6227	111	B1-U0-G2	6496	116	B3-U0-G1	56
VSR-S-32L-7-30K7	8086	114	B2-U0-G2	4118	58	B0-U0-G1	7881	111	B2-U0-G2	5112	72	4047	57	B0-U0-G1	7896	111	B2-U0-G2	8236	116	B3-U0-G2	71
VSR-S-32L-7-40K7	8700	123	B2-U0-G2	4402	62	B0-U0-G1	8480	119	B2-U0-G2	5396	76	4331	61	B0-U0-G1	8496	120	B2-U0-G2	8875	125	B3-U0-G2	71
VSR-S-32L-7-50K7	8894	125	B2-U0-G2	4686	66	B0-U0-G1	8669	122	B2-U0-G2	5680	80	4615	65	B0-U0-G2	8685	122	B2-U0-G2	9088	128	B3-U0-G2	71
VSR-S-32L-1-30K7	11088	105	B2-U0-G2	6148	58	B0-U0-G2	10812	102	B2-U0-G2	7632	72	6042	57	B0-U0-G2	10715	101	B2-U0-G2	11130	105	B3-U0-G2	106
VSR-S-32L-1-40K7	11930	113	B2-U0-G2	6572	62	B0-U0-G2	11634	110	B2-U0-G2	8056	76	6466	61	B0-U0-G2	11529	109	B2-U0-G2	11978	113	B3-U0-G2	106
VSR-S-32L-1-50K7	12196	115	B2-U0-G2	6996	66	B0-U0-G2	11893	112	B2-U0-G2	8480	80	6890	65	B0-U0-G2	11787	111	B2-U0-G2	12296	116	B3-U0-G2	106

Lumen Maintenance Data

Ambient Temperature	Drive Current	L90 Hours*	L70 Hours**	30,000 Hours*	50,000 Hours*	60,00 Hours*	100,000 Hours**
25°C	Up to 700mA	58,000	173,000	95.7%	91.6%	89.6%	82.1%
	1050mA	48,000	143,000	94.3%	89.5%	87.2%	78.5%

*Reported extrapolations per IESNA TM-21 **Projected extrapolations per IESNA TM-21

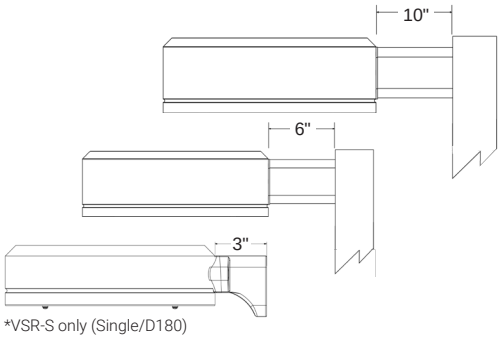
DPX ARM LENGTH

DPX ARM LENGTH	SGL	D90	D180	T90	T120	QD
VSR-S	3"	6"	3"	6"	6"	6"

EPA

EPA	SGL	D90	D180	T90	T120	QD
VSR-S	0.65	0.99	1.3	1.5	1.39	1.5

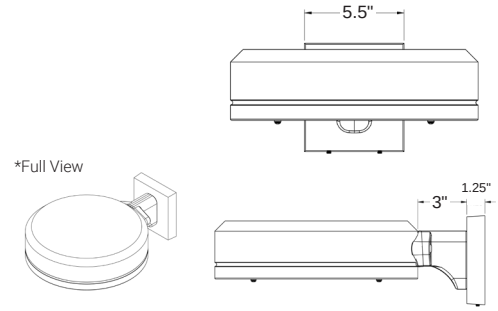
MOUNTING OPTIONS



*VSR-S only (Single/D180)

DIRECT POLE MOUNT(DPX)

Standard mounting arm is extruded aluminum in lengths of 3", 6", And 10"
*Arm lengths may vary depending on configuration

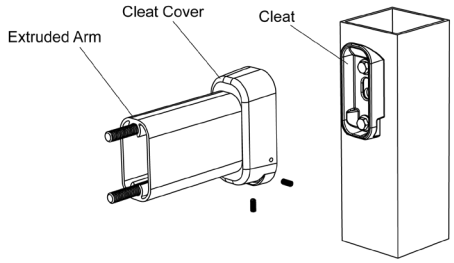


WALL MOUNT (WM)

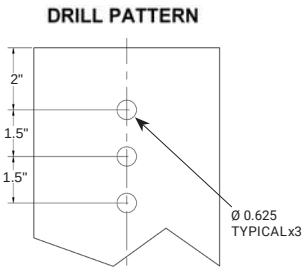
Cast Aluminum Plate for direct wall mount.
3" extruded aluminum arm mounts directly to a cast wall mount box.

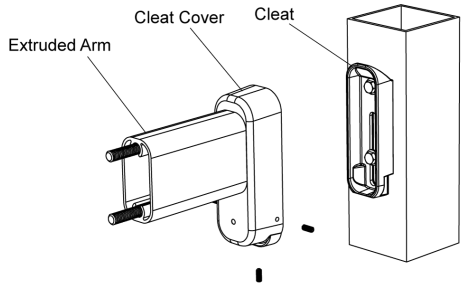
OPTIONAL

Optional Cast Aluminum Bracket designed for quick mounting on Direct Square or Round Poles. Cleat mounts directly to pole for easily hung fixtures.

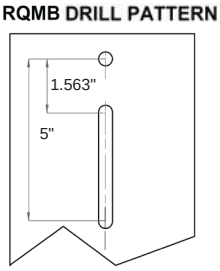


QUICK MOUNT BRACKET (QMB)
DIRECT POLE (DP6/DP10)





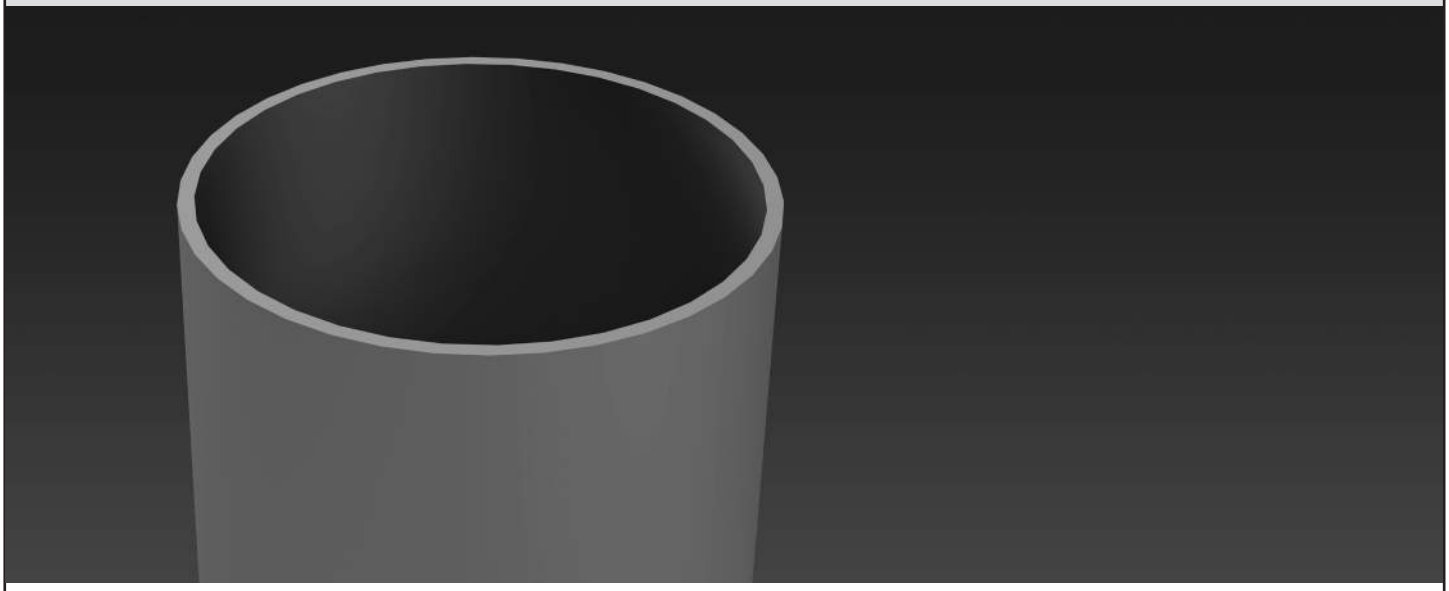
RETROFIT QUICK MOUNT BRACKET (RQMB)



NLS LIGHTING

RSSP

Round Straight Steel Pole



Height
10' - 30'

Pole Shaft
The pole shaft material is a weldable grade hot rolled commercial quality steel tubing with a minimum yield of 46,000 psi. Conforms to ASTM A500 Grade B Standards. Poles have ground lug welded inside hand-hole opposite side of the hand-hole. Pole shaft is welded to base plate on top and bottom of base plate.

Base Plate
The Base Plate is manufactured from structural hot rolled steel that meets or exceeds a minimum yield strength of 36,000 psi, conforms the ASTM–A36 standards. Base Plate vary in size from 1" thick for poles 21 feet and over, 3/4" thick for poles 10 to 20 feet.

Anchor Bolts
All anchor bolts are hot dipped galvanized steel and come with two galvanized nuts and washers per bolt. Minimum yield strength 50,000 psi. Anchor bolts are not included for Custom Bolt Circle.

Base Cover
All base covers are fabricated two-piece 6063 aluminum and powder coated to match the pole. Square base cover comes standard, Round base cover optional.

Hand-Hole
A reinforced hand-hole is 12" on center from the base plate and is constructed of 3"x 5" rectangular steel tubing which is welded to pole shaft for added strength. The hand-hole covers are provided with internal bridge support and powder coated to match pole finish.

Pole Cap
All poles come with a removable polymer pole cap installed. All pole caps are black finish.

Finish
All poles are treated with shot blast media for a near white finish, power blasted with 100 psi prior to powder coat application. Electrostatically applied polyester powder coat with a 3 to 5 mil thickness for maximum adherence.

Marine Grade Finish
All poles are washed through a 5-stage cleaning system with a deionized rinse, a 3 to 5 mils zinc rich durable polyester primer powder coat, followed by a 3 to 5 mils super durable polyester powder coat finish.

Galvanized Finish
All poles are Hot Dipped Galvanized in a multi stage process. Galvanizing Specification, Zinc (Hot Dipped Galvanized) per ASTM A 123/A 123M – 02

Zinc coatings on threaded materials shall conform to specification A 153 /A 153M. The coating shall be continuous and reasonably smooth and uniform in thickness and in weight.

Galvanizing Adherence - The Zinc coating shall withstand handling consistent with the nature and thickness of the coating and normal use of the article without peeling or flaking.

Galvanized Under Powder
Galvanized Under Powder (GUP) adheres to above galvanized specification, and the second stage is a light sand blast on the outside of the pole, third stage is a 3-5 mils polyester powder coat finish for maximum adherence.

Vibration Dampener
The Vibration Dampener is factory installed. The Vibration Dampener consists of a rugged galvanized chain coated with heavy duty polyester tubing that is factory secured at the bottom 2-3rds of the pole and field secured by contractor at the base during installation.

Project Name:	Type:

RSSP ORDERING GUIDE

Cat#

Round
Straight
Steel Pole
(RSSP)

Height

10′ **(10)**
12′ **(12)**
14′ **(14)**
16′ **(16)**
18′ **(18)**
20′ **(20)**
22′ **(22)**
24′ **(24)**
25′ **(25)**
26′ **(26)**
28′ **(28)**
30′ **(30)**

Pole Dimension

4″ Round
(4R)

5″ Round
(5R)

6″ Round
(6R)

Gauge

.120
Wall Thickness
(11G)

.180
Wall Thickness
(7G)

Base Pattern

(10′-20′)
9″- 10 3/8″
Bolt Circle
(9BC)

(22′-30′)
11 1/2″- 14″
Bolt Circle
(12BC)

Custom
Bolt Circle
(CBC)
** Consult Factory*

Mounting

Single
(SGL)

Double
(D-90)
(D-180)

Triple
(T-90)
(T-120)

Quad
(QD)

No Drill
(ND)
**Tenon Option*

Tenon

2 3/8″ Round **(T2R)**

3″ Round **(T3R)**

3 1/2″ Round **(T312R)**

4″ Round **(T4R)**

4 1/2″ Round **(T412R)**

Color

Bronze Textured
(BRZ)

White Textured
(WHT)

Smooth White
Gloss
(SWT)

Silver
(SVR)

Green Textured
(GRN)

Hunter Green Textured
(HGN)

Black Textured
(BLK)

Smooth Black
Gloss
(SBK)

Graphite Textured
(GPH)

Grey Textured
(GRY)

Custom
(CS)

Bolts

3/4″ x 30″
(3430)

1″ x 36″
(136)

Less Anchor
Bolts
(LAB)

Options

GFI Kit
(GFI20A)
20 Amp
Weather Proof Receptacle

GFI
Provision Only
(PROV)

Galvanized
(GLV)

Round Base Cover
(RBC)
**Consult Factory for Pricing*

Galvanized
Under Powder
(GUP)

1/2″ Coupling
(COUP)
**Specify Location*

Vibration Dampener
(VD)

Extra Hand Hole
(XHH)
** Specify Location*

Marine Grade
Finish
(MGF)

NLS LIGHTING
701 Kingshill Place, Carson, CA 90746
Call Us Today (310) 341-2037
nlslighting.com

Max. allowable EPA - RSSP poles (per AASHTO LRFDLTS-1)																																	
Catalog Number	Shaft Length, ft	Wall thick-ness, in.	Shaft dia., in.	Base Plate, in.	Bolt Circle, in.	Bolts	80 mph	Max. wt. (lb)	90 mph	Max. wt. (lb)	100 mph	Max. wt. (l b)	110 mph	Max. wt. (lb)	115 mph	Max. wt., lb	120 mph	Max. wt., lb	130 mph	Max. wt., lb	140 mph	Max. wt., lb	150 mph	Max. wt., lb	160 mph	Max. wt., lb	170 mph	Max. wt., lb	180 mph	Max. wt., lb
RSSP-10-4R-11G-9BC-3430	10	0.120	4	9" sq.	9	3/4"x30"	20.0	500	20.0	500	20.0	500	20.0	500	18.3	458	16.6	416	13.9	347	11.7	292	10.0	250	8.7	217	7.6	190	6.8	169
RSSP-12-4R-11G-9BC-3430	12	0.120	4	9" sq.	9	3/4"x30"	20.0	500	20.0	500	20.0	500	16.1	402	14.5	363	13.1	329	10.8	270	9.0	225	7.6	190	6.6	165	5.7	143	5.0	126
RSSP-14-4R-11G-9BC-3430	14	0.120	4	9" sq.	9	3/4"x30"	20.0	500	20.0	500	16.4	409	13.0	326	11.7	292	10.5	262	8.5	213	7.0	174	5.8	145	4.9	124	4.3	108	3.7	93
RSSP-16-4R-11G-9BC-3430	16	0.120	4	9" sq.	9	3/4"x30"	20.0	500	16.3	408	12.6	316	9.9	247	8.8	220	7.8	196	6.2	156	4.9	124	4.0	100	3.4	85	2.9	73	2.5	63
RSSP-18-4R-11G-9BC-3430	18	0.120	4	9" sq.	9	3/4"x30"	18.3	458	13.7	344	10.4	261	8.0	201	7.1	177	6.2	154	4.8	119	3.6	91	2.8	70	2.3	60	2.0	60	1.6	60
RSSP-20-4R-11G-9BC-3430	20	0.120	4	9" sq.	9	3/4"x30"	15.7	393	11.6	289	8.6	216	6.5	162	5.5	139	4.8	120	3.5	88	2.5	62	1.8	60	1.4	60	1.1	60	0.9	60
RSSP-20-4R-7G-9BC-3430	20	0.188	4	9" sq.	9	3/4"x30"	20.0	500	19.6	489	15.1	378	11.8	294	10.5	262	9.3	232	7.3	183	5.7	144	4.6	116	3.9	98	3.3	84	2.9	72
RSSP-20-5R-11G-9BC-3430	20	0.120	5	9" sq.	9	3/4"x30"	20.0	500	19.7	491	14.9	374	11.5	288	10.1	253	9.0	226	7.4	186	6.2	156	5.2	131	4.5	112	3.8	96	3.3	83
RSSP-20-5R-7G-9BC-3430	20	0.188	5	9" sq.	9	3/4"x30"	20.0	500	20.0	500	20.0	500	16.2	406	14.4	361	13.0	325	10.8	271	9.1	228	7.8	195	6.7	167	5.8	146	5.1	127
RSSP-22-4R-11G-12BC-136	22	0.120	4	12" sq.	12	1"x36"	12.3	308	8.9	222	6.4	161	4.6	115	3.9	97	3.2	80	2.1	60	1.3	60	0.7	60	0.5	60	0.3	60	0.1	60
RSSP-22-4R-7G-12BC-136	22	0.188	4	12" sq.	12	1"x36"	20.0	500	15.6	389	11.8	295	9.0	226	8.0	199	7.0	174	5.3	133	4.0	100	3.1	77	2.6	64	2.2	60	1.8	60
RSSP-22-5R-11G-12BC-136	22	0.120	5	12" sq.	12	1"x36"	20.0	500	15.4	385	11.5	287	8.6	215	7.5	187	6.6	164	5.4	134	4.4	110	3.7	92	3.1	77	2.6	65	2.2	60
RSSP-22-5R-7G-12BC-136	22	0.188	5	12" sq.	12	1"x36"	20.0	500	20.0	500	20.0	500	15.8	396	14.1	351	12.7	316	10.5	263	8.9	221	7.5	188	6.5	162	5.6	140	4.9	122
RSSP-25-4R-11G-12BC-136	25	0.120	4	12" sq.	12	1"x36"	9.7	242	6.7	167	4.5	112	2.9	72	2.3	60	1.7	60	0.7	60	0.0	-	0.0	-	0.0	-	0.0	-	0.0	-
RSSP-25-4R-7G-12BC-136	25	0.188	4	12" sq.	12	1"x36"	17.1	428	12.5	313	9.3	231	6.8	170	5.8	145	5.0	124	3.5	88	2.4	60	1.6	60	1.2	60	0.9	60	0.7	60
RSSP-25-5R-11G-12BC-136	25	0.120	5	12" sq.	12	1"x36"	16.9	423	12.1	302	8.7	217	6.2	154	5.1	128	4.4	110	3.5	87	2.7	68	2.2	60	1.7	60	1.4	60	1.1	60
RSSP-25-5R-7G-12BC-136	25	0.188	5	12" sq.	12	1"x36"	20.0	500	20.0	500	16.4	409	12.5	312	10.9	272	9.7	243	8.0	200	6.7	167	5.6	140	4.8	119	4.0	101	3.5	87
RSSP-26-4R-11G-12BC-136	26	0.120	4	12" sq.	12	1"x36"	8.9	222	6.0	150	3.9	98	2.4	60	1.7	60	1.2	60	0.3	60	0.0	-	0.0	-	0.0	-	0.0	-	0.0	-
RSSP-26-4R-7G-12BC-136	26	0.188	4	12" sq.	12	1"x36"	16.1	401	11.6	290	8.5	212	6.2	154	5.2	130	4.4	109	3.0	74	1.9	60	1.2	60	0.8	60	0.6	60	0.3	60
RSSP-26-5R-11G-12BC-136	26	0.120	5	12" sq.	12	1"x36"	13.3	333	11.1	278	7.9	196	5.4	135	4.4	111	3.7	93	2.9	72	2.3	60	1.8	60	1.4	60	1.1	60	0.8	60
RSSP-26-5R-7G-12BC-136	26	0.188	5	12" sq.	12	1"x36"	12.1	302	16.1	403	13.9	347	11.5	287	10.0	249	8.9	222	7.3	182	6.0	150	5.0	125	4.2	106	3.6	89	3.1	77
RSSP-28-4R-7G-12BC-136	28	0.188	4	12" sq.	12	1"x36"	14.1	353	10.0	250	7.1	177	4.9	122	4.0	100	3.3	82	2.0	60	1.0	60	0.3	60	0.1	60	0.0	-	0.0	-
RSSP-28-5R-11G-12BC-136	28	0.120	5	12" sq.	12	1"x36"	13.6	341	9.4	234	6.3	158	4.0	101	3.1	78	2.5	63	1.8	60	1.3	60	0.9	60	0.6	60	0.4	60	0.2	60
RSSP-28-5R-7G-12BC-136	28	0.188	5	12" sq.	12	1"x36"	20.0	500	17.8	445	13.1	329	9.7	242	8.3	207	7.2	181	5.9	147	4.8	120	3.9	98	3.2	81	2.7	68	2.3	60
RSSP-28-6R-7G-12BC-136	28	0.188	6	12" sq.	12	1"x36"	20.0	500	20.0	500	20.0	500	17.0	425	15.4	385	14.0	349	11.6	290	9.7	243	8.2	206	7.1	177	6.1	152	5.3	132
RSSP-30-5R-11G-12BC-136	30	0.120	5	12" sq.	12	1"x36"	11.7	293	7.8	194	4.9	122	2.8	69	1.9	60	1.4	60	0.8	60	0.4	60	0.1	60	0.0	-	0.0	-	0.0	-
RSSP-30-6R-11G-12BC-136	30	0.120	6	12" sq.	12	1"x36"	18.6	466	12.9	321	9.0	225	7.0	175	6.2	154	5.5	136	4.3	108	3.5	87	2.8	69	2.2	60	1.8	60	1.4	60
RSSP-30-5R-7G-12BC-136	30	0.188	5	12" sq.	12	1"x36"	20.0	500	15.6	391	11.3	282	8.1	201	6.8	169	5.8	146	4.6	115	3.7	92	3.0	74	2.4	60	1.9	60	1.5	60
RSSP-30-6R-7G-12BC-136	30	0.188	6	12" sq.	12	1"x36"	20.0	500	20.0	500	18.6	465	14.9	371	13.4	334	12.1	303	10.0	250	8.3	208	7.0	176	6.0	149	5.1	127	4.4	110
*Pole Assemblies With EPA>9.0 Require Specific Review																														

CAUTION: Installation of poles without luminaire(s) will compromise pole strength. Any accessories attached to the pole, or other modifications done in the field, will compromise the pole strength and may result in pole failure. Wind load evaluations and provisions for appendages such as banner arms, signage, cameras, etc., must be evaluated and approved by the factory prior to placing an order. Additional evaluation and approval should be performed by the customer's local structural engineer on the project.

****Anchor Bolts are NOT included with Custom Bolt Circle.***
****Do NOT pour concrete referencing this drawing. Consult Factory.***

****All wind loading calculations are based on sustained wind force plus an additional 1.3 gust.***

MOUNTING CONFIGURATION

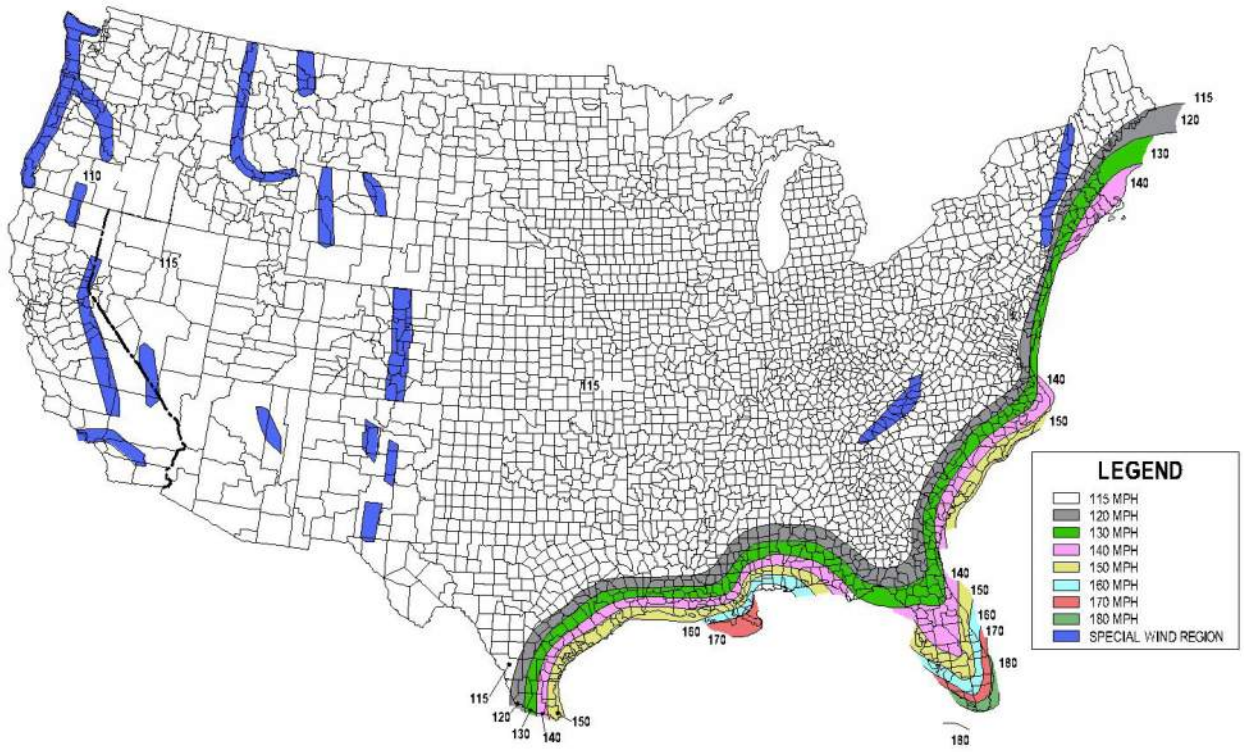
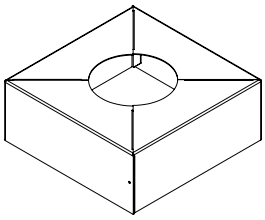
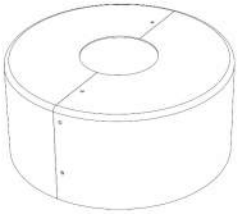


FIG. 3.8-1b - 700-Year MRI Basic Wind Speed, mph (AASHTO LRFDLTS-1)

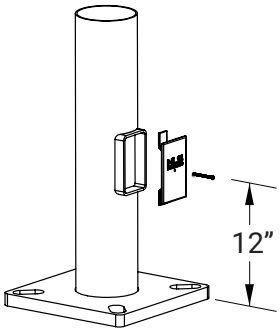
1) All wind load calculations are based on sustained wind force plus and additional 1.3 gust
2) Wind Map is to be used as a reference only. Please coordinate with local agencies for further review.
3) Wind Map values are based on a 50 year mean recurrence. These values do not account for severe conditions, such as hurricanes, tornadoes, etc…
4) For review of poles with additional configurations (arms, banners, shorter/longer pole lengths, etc…), please contact factory.



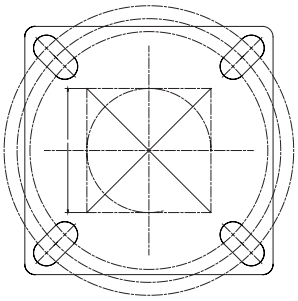
Base Cover



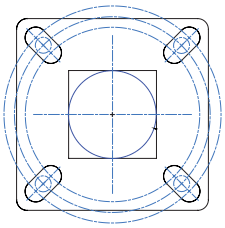
Optional Round Base Cover



Base Detail



12” Base Detail



9” Base Detail

S4

D-Series Size 0
Legacy LED Area Luminaire

Catalog Number

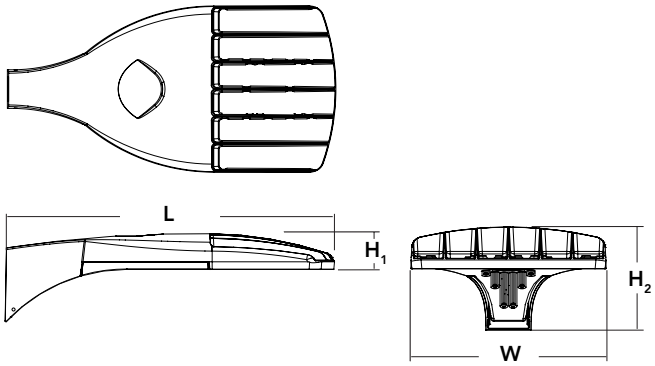
Notes

Type

Hit the Tab key or mouse over the page to see all interactive elements.

Specifications

EPA:	0.95 ft² (.09 m²)
Length:	26" (66.0 cm)
Width:	13" (33.0 cm)
Height$_1$:	3" (7.62 cm)
Height$_2$:	7" (17.8 cm)
Weight (max):	16 lbs (7.25 kg)



Introduction

The modern styling of the D-Series is striking yet unobtrusive - making a bold, progressive statement even as it blends seamlessly with its environment. The D-Series distills the benefits of the latest in LED technology into a high performance, high efficacy, long-life luminaire.

The outstanding photometric performance results in sites with excellent uniformity, greater pole spacing and lower power density. It is ideal for replacing up to 400W metal halide with typical energy savings of 70% and expected service life of over 100,000 hours.

Ordering Information

EXAMPLE: DSX0 LED P6 40K T3M MVOLT SPA NLTAIR2 PIRHN DDBXD G1

DSX0 LED

Series
DSX0 LED

LEDs
Forward optics
P1 P5
P2 P6
P3 P7 [1]
P4 [1]
Rotated optics
P10 [2] P12 [2]
P11 [2] P13 [1,2]

Color temperature
30K 3000 K
40K 4000 K
50K 5000 K

Distribution
T1S Type I short (Automotive)
T2S Type II short
T2M Type II medium
T3S Type III short
T3M Type III medium
T4M Type IV medium
TFTM Forward throw medium
T5VS Type V very short [3]
T5S Type V short [3]
T5M Type V medium [3]
T5W Type V wide [3]
BLC Backlight control [4]
LCCO Left corner cutoff [4]
RCCO Right corner cutoff [4]

Voltage
MVOLT (120V-277V) [5,6]
XVOLT (277V-480V) [7,8,9]
120 [6]
208 [6]
240 [6]
277 [6]
347 [6]
480 [6]

Mounting
Shipped included
SPA Square pole mounting
RPA Round pole mounting [10]
WBA Wall bracket [3]
SPUMBA Square pole universal mounting adaptor [11]
RPUMBA Round pole universal mounting adaptor [11]
Shipped separately
KMA8 DDBXD U Mast arm mounting bracket adaptor (specify finish) [12]

Control options
Shipped installed
NLTAIR2 nLight AIR generation 2 enabled [13,14]
PIRHN Network, high/low motion/ambient sensor [15]
PER NEMA twist-lock receptacle only (control ordered separate) [16]
PER5 Five-pin receptacle only (control ordered separate) [16,17]
PER7 Seven-pin receptacle only (leads exit fixture) (control ordered separate) [16,17]
DMG 0-10V dimming extend out back of housing for external control (control ordered separate) [18]
PIR High/low, motion/ambient sensor, 8-15' mounting height, ambient sensor enabled at 5fc [19,20]
PIRH High/low, motion/ambient sensor, 15-30' mounting height, ambient sensor enabled at 5fc [19,20]
PIR1FC3V High/low, motion/ambient sensor, 8-15' mounting height, ambient sensor enabled at 1fc [19,20]
PIRH1FC3V High/low, motion/ambient sensor, 15-30' mounting height, ambient sensor enabled at 1fc [19,20]
FAO Field adjustable output [19,21]

Other options
Shipped installed
HS House-side shield [22]
SF Single fuse (120, 277, 347V) [6]
DF Double fuse (208, 240, 480V) [6]
L90 Left rotated optics [2]
R90 Right rotated optics [2]
DDL Diffused drop lens [22]
HA 50°C ambient operations [1]
BAA Buy America(n) Act Compliant
Shipped separately
BS Bird spikes [23]
EGS External glare shield

Finish *(required)*
DDBXD Dark bronze
DBLXD Black
DNAXD Natural aluminum
DWHXD White
DDBTXD Textured dark bronze
DBLBXD Textured black
DNATXD Textured natural aluminum
DWHGXD Textured white

Generation *(required)*
G1 Generation 1

Ordering Information

Accessories

Ordered and shipped separately.

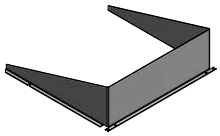
DLL127F 1.5 JU	Photocell - SSL twist-lock (120-277V) [24]
DLL347F 1.5 CUL JU	Photocell - SSL twist-lock (347V) [24]
DLL480F 1.5 CUL JU	Photocell - SSL twist-lock (480V) [24]
DSHORT SBK U	Shorting cap [24]
DSX0HS 20C G1 U	House-side shield for P1,P2,P3 and P4 [22]
DSX0HS 30C G1 U	House-side shield for P10,P11,P12 and P13 [22]
DSX0HS 40C G1 U	House-side shield for P5,P6 and P7 [22]
DSX0DDL G1 U	Diffused drop lens (polycarbonate) [22]
PUMBA DDBXD G1 U*	Square and round pole universal mounting bracket adaptor (specify finish) [25]
KMA8 DDBXD U	Mast arm mounting bracket adaptor (specify finish) [12]
DSX0EGS (FINISH) G1 U	External glare shield

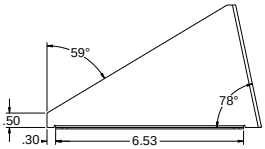
For more control options, visit DTL and ROAM online. Link to nLight Air 2

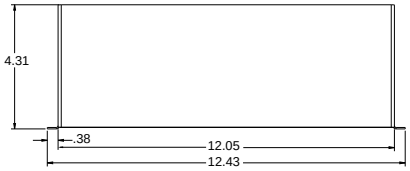
NOTES

1 HA not available with P4, P7, and P13.
2 P10, P11, P12 and P13 and rotated options (L90 or R90) only available together.
3 Any Type 5 distribution with photocell, is not available with WBA.
4 Not available with HS or DDL.
5 MVOLT driver operates on any line voltage from 120-277V (50/60 Hz).
6 Single fuse (SF) requires 120V, 277V or 347V. Double fuse (DF) requires 208V, 240V or 480V. XVOLT not available with fusing (SF or DF).
7 XVOLT only suitable for use with P4, P7 and P13.
8 XVOLT operates with any voltage between 277V and 480V.
9 XVOLT not available with fusing (SF or DF) and not available with PIR, PIRH, PIR1FC3V, PIRH1FC3V.
10 Suitable for mounting to round poles between 3.5" and 12" diameter.
11 Universal mounting brackets intended for retrofit on existing pre-drilled poles only. 1.5 G vibration load rating per ANCI C136.31. Only usable when pole's drill pattern is NOT Lithonia template #8.
12 Must order fixture with SPA mounting. KMA8 must be ordered as a separate accessory; see Accessories information. For use with 2-3/8" diameter mast arm (not included).
13 Must be ordered with PIRHN.
14 Sensor cover available only in dark bronze, black, white and natural aluminum colors.
15 Must be ordered with NLTAIR2. For more information on nLight Air 2 visit this link
16 Photocell ordered and shipped as a separate line item from Acuity Brands Controls. See accessories. Shorting Cap included.
17 If ROAM® node required, it must be ordered and shipped as a separate line item from Acuity Brands Controls. Shorting Cap included.
18 DMG not available with PIRHN, PER5, PER7, PIR, PIRH, PIR1FC3V or PIRH1FC3V, FAO.
19 Reference Controls Options table on page 4.
20 Reference Motion Sensor Default Table on page 4 to see functionality.
21 Not available with other dimming controls options.
22 Not available with BLC, LCCO and RCCO distribution.
23 Must be ordered with fixture for factory pre-drilling.
24 Requires luminaire to be specified with PER, PER5 or PER7 option. See Controls Table on page 4.
25 For retrofit use only. Only usable when pole's drill pattern is NOT Lithonia template #8.

EGS – External Glare Shield

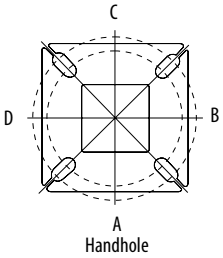


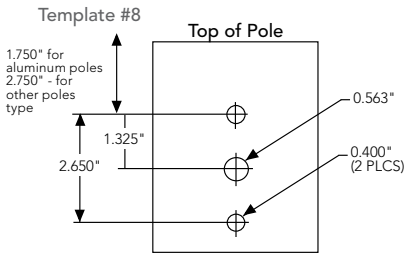




Drilling

HANDHOLE ORIENTATION
(from top of pole)





Tenon Mounting Slipfitter

Tenon O.D.	Mounting	Single Unit	2 @ 180	2 @ 90	3 @ 90	3 @120	4 @ 90
2-3/8"	RPA	AS3-5 190	AS3-5 280	AS3-5 290	AS3-5 390	AS3-5 320	AS3-5 490
2-7/8"	RPA	AST25-190	AST25-280	AST25-290	AST25-390	AST25-320	AST25-490
4"	RPA	AST35-190	AST35-280	AST35-290	AST35-390	AST35-320	AST35-490

Mounting Option	Drilling Template	Single	2 @ 180	2 @ 90	3 @ 90	3 @ 120	4 @ 90
Head Location		Side B	Side B & D	Side B & C	Side B, C & D	Round Pole Only	Side A, B, C & D
Drill Nomenclature	#8	DM19AS	DM28AS	DM29AS	DM39AS	DM32AS	DM49AS
		Minimum Acceptable Outside Pole Dimension					
SPA	#8	2-7/8"	2-7/8"	3.5"	3.5"		3.5"
RPA	#8	2-7/8"	2-7/8"	3.5"	3.5"	3"	3.5"
SPUMBA	#5	2-7/8"	3"	4"	4"		4"
RPUMBA	#5	2-7/8"	3.5"	5"	5"	3.5"	5"

DSX0 Area Luminaire - EPA

*Includes luminaire and integral mounting arm. Other tenons, arms, brackets or other accessories are not included in this EPA data.

Fixture Quantity & Mounting Configuration	Single DM19	2 @ 180 DM28	2 @ 90 DM29	3 @ 90 DM39	3 @ 120 DM32	4 @ 90 DM49
Mounting Type						
DSX0 LED	0.950	1.900	1.830	2.850	2.850	3.544

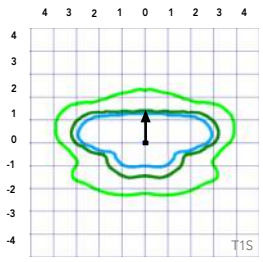
Photometric Diagrams

To see complete photometric reports or download .ies files for this product, visit Lithonia Lighting's D-Series Area Size 0 homepage.

Isofootcandle plots for the DSX0 LED P6 40K G1. Distances are in units of mounting height (20').

LEGEND

0.1 fc
0.5 fc
1.0 fc



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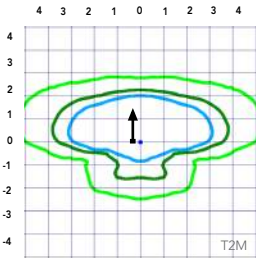

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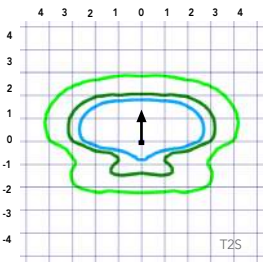
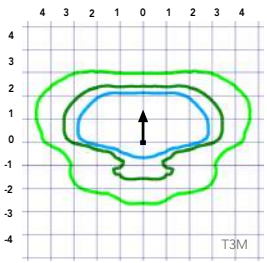


Test No. LTL23457P25 tested in accordance with IESNA LM-79-08.



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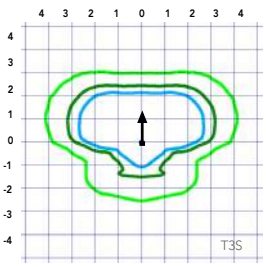

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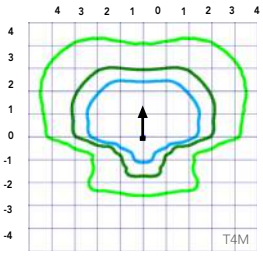

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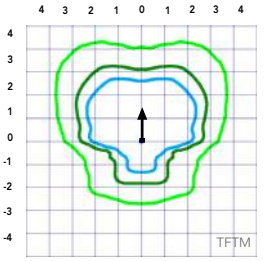

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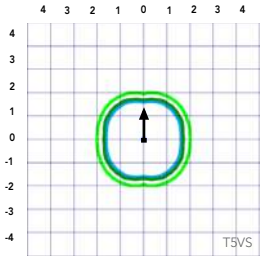

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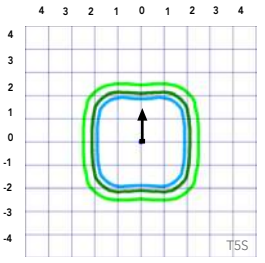

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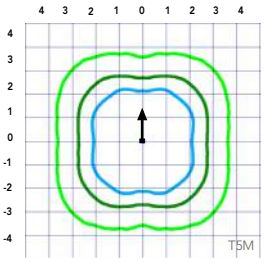

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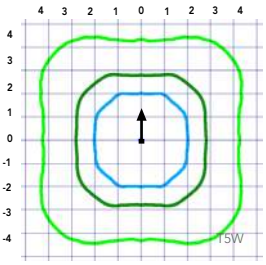

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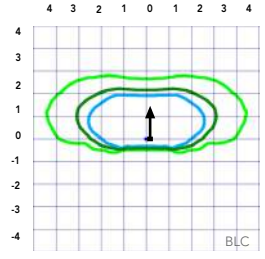

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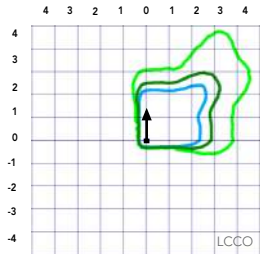

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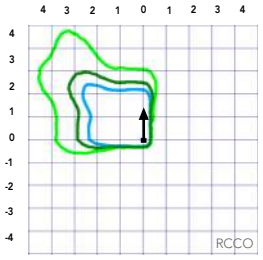


Test No.

Lumen Ambient Temperature (LAT) Multipliers

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

Ambient		Lumen Multiplier
0°C	32°F	1.04
5°C	41°F	1.04
10°C	50°F	1.03
15°C	50°F	1.02
20°C	68°F	1.01
25°C	**77°C**	**1.00**
30°C	86°F	0.99
35°C	95°F	0.98
40°C	104°F	0.97

Projected LED Lumen Maintenance

Data references the extrapolated performance projections for the platforms noted in a **25°C ambient**, based on 10,000 hours of LED testing (tested per IESNA LM-80-08 and projected per IESNA TM-21-11).

To calculate LLF, use the lumen maintenance factor that corresponds to the desired number of operating hours below. For other lumen maintenance values, contact factory.

Operating Hours	Lumen Maintenance Factor
25,000	0.96
50,000	0.92
100,000	0.85

Motion Sensor Default Settings						
Option	Dimmed State	High Level (when triggered)	Photocell Operation	Dwell Time	Ramp-up Time	Ramp-down Time
PIR or PIRH	3V (37%) Output	10V (100%) Output	Enabled @ 5FC	5 min	3 sec	5 min
*PIR1FC3V or PIRH1FC3V	3V (37%) Output	10V (100%) Output	Enabled @ 1FC	5 min	3 sec	5 min
*for use when motion sensor is used as dusk to dawn control.						

Electrical Load

					Current (A)					
	Performance Package	LED Count	Drive Current	Wattage	120	208	240	277	347	480
Forward Optics (Non-Rotated)	P1	20	530	38	0.32	0.18	0.15	0.15	0.10	0.08
	P2	20	700	49	0.41	0.23	0.20	0.19	0.14	0.11
	P3	20	1050	71	0.60	0.37	0.32	0.27	0.21	0.15
	P4	20	1400	92	0.77	0.45	0.39	0.35	0.28	0.20
	P5	40	700	89	0.74	0.43	0.38	0.34	0.26	0.20
	P6	40	1050	134	1.13	0.65	0.55	0.48	0.39	0.29
	P7	40	1300	166	1.38	0.80	0.69	0.60	0.50	0.37
Rotated Optics (Requires L90 or R90)	P10	30	530	53	0.45	0.26	0.23	0.21	0.16	0.12
	P11	30	700	72	0.60	0.35	0.30	0.27	0.20	0.16
	P12	30	1050	104	0.88	0.50	0.44	0.39	0.31	0.23
	P13	30	1300	128	1.08	0.62	0.54	0.48	0.37	0.27

Controls Options

Nomenclature	Description	Functionality	Primary control device	Notes
FAO	Field adjustable output device installed inside the luminaire; wired to the driver dimming leads.	Allows the luminaire to be manually dimmed, effectively trimming the light output.	FAO device	Cannot be used with other controls options that need the 0-10V leads
DS	Drivers wired independently for 50/50 luminaire operation	The luminaire is wired to two separate circuits, allowing for 50/50 operation.	Independently wired drivers	Requires two separately switched circuits. Consider nLight AIR as a more cost effective alternative.
PER5 or PER7	Twist-lock photocell receptacle	Compatible with standard twist-lock photocells for dusk to dawn operation, or advanced control nodes that provide 0-10V dimming signals.	Twist-lock photocells such as DLL Elite or advanced control nodes such as ROAM.	Pins 4 & 5 to dimming leads on driver, Pins 6 & 7 are capped inside luminaire
PIR or PIRH	Motion sensors with integral photocell. PIR for 8-15' mounting; PIRH for 15-30' mounting	Luminaires dim when no occupancy is detected.	Acuity Controls SBGR	Also available with PIRH1FC3V when the sensor photocell is used for dusk-to-dawn operation.
NLTAIR2 PIRHN	nLight AIR enabled luminaire for motion sensing, photocell and wireless communication.	Motion and ambient light sensing with group response. Scheduled dimming with motion sensor over-ride when wirelessly connected to the nLight Eclypse.	nLight Air rSDGR	nLight AIR sensors can be programmed and commissioned from the ground using the CIAIRity Pro app.

Performance Data

Lumen Output

Lumen values are from photometric tests performed in accordance with IESNA LM-79-08. Data is considered to be representative of the configurations shown, within the tolerances allowed by Lighting Facts. Contact factory for performance data on any configurations not shown here.

Forward Optics

Power Package	LED Count	Drive Current	System Watts	Dist. Type	30K (3000 K, 70 CRI)					40K (4000 K, 70 CRI)					50K (5000 K, 70 CRI)				
					Lumens	B	U	G	LPW	Lumens	B	U	G	LPW	Lumens	B	U	G	LPW
P1	20	530	38W	T1S	4,369	1	0	1	115	4,706	1	0	1	124	4,766	1	0	1	125
				T2S	4,387	1	0	1	115	4,726	1	0	1	124	4,785	1	0	1	126
				T2M	4,364	1	0	1	115	4,701	1	0	1	124	4,761	1	0	1	125
				T3S	4,376	1	0	1	115	4,714	1	0	1	124	4,774	1	0	1	126
				T3M	4,248	1	0	1	112	4,577	1	0	1	120	4,634	1	0	1	122
				T4M	4,281	1	0	1	113	4,612	1	0	2	121	4,670	1	0	2	123
				TFTM	4,373	1	0	1	115	4,711	1	0	2	124	4,771	1	0	2	126
				T5VS	4,548	2	0	0	120	4,900	2	0	0	129	4,962	2	0	0	131
				T5S	4,552	2	0	0	120	4,904	2	0	0	129	4,966	2	0	0	131
				T5M	4,541	3	0	1	120	4,891	3	0	1	129	4,953	3	0	1	130
				T5W	4,576	3	0	2	120	4,929	3	0	2	130	4,992	3	0	2	131
				BLC	3,586	1	0	1	94	3,863	1	0	1	102	3,912	1	0	1	103
				LCCO	2,668	1	0	1	70	2,874	1	0	2	76	2,911	1	0	2	77
				RCCO	2,668	1	0	1	70	2,874	1	0	2	76	2,911	1	0	2	77
P2	20	700	49W	T1S	5,570	1	0	1	114	6,001	1	0	1	122	6,077	2	0	2	124
				T2S	5,593	1	0	1	114	6,025	1	0	1	123	6,102	1	0	1	124
				T2M	5,564	1	0	2	114	5,994	1	0	2	122	6,070	2	0	2	125
				T3S	5,580	1	0	2	114	6,011	1	0	2	123	6,087	1	0	2	124
				T3M	5,417	1	0	2	111	5,835	1	0	2	119	5,909	2	0	2	121
				T4M	5,458	1	0	2	111	5,880	1	0	2	120	5,955	1	0	2	122
				TFTM	5,576	1	0	2	114	6,007	1	0	2	123	6,083	1	0	2	124
				T5VS	5,799	2	0	0	118	6,247	2	0	0	127	6,327	2	0	0	129
				T5S	5,804	2	0	0	118	6,252	2	0	0	128	6,332	2	0	1	129
				T5M	5,789	3	0	1	118	6,237	3	0	1	127	6,316	3	0	1	129
				T5W	5,834	3	0	2	119	6,285	3	0	2	128	6,364	3	0	2	130
				BLC	4,572	1	0	1	93	4,925	1	0	1	101	4,987	1	0	1	102
				LCCO	3,402	1	0	2	69	3,665	1	0	2	75	3,711	1	0	2	76
				RCCO	3,402	1	0	2	69	3,665	1	0	2	75	3,711	1	0	2	76
P3	20	1050	71W	T1S	7,833	2	0	2	110	8,438	2	0	2	119	8,545	2	0	2	120
				T2S	7,865	2	0	2	111	8,473	2	0	2	119	8,580	2	0	2	121
				T2M	7,825	2	0	2	110	8,429	2	0	2	119	8,536	2	0	2	120
				T3S	7,846	2	0	2	111	8,452	2	0	2	119	8,559	2	0	2	121
				T3M	7,617	2	0	2	107	8,205	2	0	2	116	8,309	2	0	2	117
				T4M	7,675	2	0	2	108	8,269	2	0	2	116	8,373	2	0	2	118
				TFTM	7,841	2	0	2	110	8,447	2	0	2	119	8,554	2	0	2	120
				T5VS	8,155	3	0	0	115	8,785	3	0	0	124	8,896	3	0	0	125
				T5S	8,162	3	0	1	115	8,792	3	0	1	124	8,904	3	0	1	125
				T5M	8,141	3	0	2	115	8,770	3	0	2	124	8,881	3	0	2	125
				T5W	8,204	3	0	2	116	8,838	4	0	2	124	8,950	4	0	2	126
				BLC	6,429	1	0	2	91	6,926	1	0	2	98	7,013	1	0	2	99
				LCCO	4,784	1	0	2	67	5,153	1	0	2	73	5,218	1	0	2	73
				RCCO	4,784	1	0	2	67	5,153	1	0	2	73	5,218	1	0	2	73
P4	20	1400	92W	T1S	9,791	2	0	2	106	10,547	2	0	2	115	10,681	2	0	2	116
				T2S	9,831	2	0	2	107	10,590	2	0	2	115	10,724	2	0	2	117
				T2M	9,780	2	0	2	106	10,536	2	0	2	115	10,669	2	0	2	116
				T3S	9,807	2	0	2	107	10,565	2	0	2	115	10,698	2	0	2	116
				T3M	9,521	2	0	2	103	10,256	2	0	2	111	10,386	2	0	2	113
				T4M	9,594	2	0	2	104	10,335	2	0	3	112	10,466	2	0	3	114
				TFTM	9,801	2	0	2	107	10,558	2	0	2	115	10,692	2	0	2	116
				T5VS	10,193	3	0	1	111	10,981	3	0	1	119	11,120	3	0	1	121
				T5S	10,201	3	0	1	111	10,990	3	0	1	119	11,129	3	0	1	121
				T5M	10,176	4	0	2	111	10,962	4	0	2	119	11,101	4	0	2	121
				T5W	10,254	4	0	3	111	11,047	4	0	3	120	11,186	4	0	3	122
				BLC	8,036	1	0	2	87	8,656	1	0	2	94	8,766	1	0	2	95
				LCCO	5,979	1	0	2	65	6,441	1	0	2	70	6,523	1	0	3	71
				RCCO	5,979	1	0	2	65	6,441	1	0	2	70	6,523	1	0	3	71

Performance Data

Lumen Output

Lumen values are from photometric tests performed in accordance with IESNA LM-79-08. Data is considered to be representative of the configurations shown, within the tolerances allowed by Lighting Facts. Contact factory for performance data on any configurations not shown here.

Forward Optics

Power Package	LED Count	Drive Current	System Watts	Dist. Type	30K (3000 K, 70 CRI)					40K (4000 K, 70 CRI)					50K (5000 K, 70 CRI)				
					Lumens	B	U	G	LPW	Lumens	B	U	G	LPW	Lumens	B	U	G	LPW
P5	40	700	89W	T1S	10,831	2	0	2	122	11,668	2	0	2	131	11,816	2	0	2	133
				T2S	10,876	2	0	2	122	11,716	2	0	2	132	11,864	2	0	2	133
				T2M	10,820	2	0	2	122	11,656	2	0	2	131	11,803	2	0	2	133
				T3S	10,849	2	0	2	122	11,687	2	0	2	131	11,835	2	0	2	133
				T3M	10,532	2	0	2	118	11,346	2	0	2	127	11,490	2	0	2	129
				T4M	10,613	2	0	3	119	11,434	2	0	3	128	11,578	2	0	3	130
				TFTM	10,842	2	0	2	122	11,680	2	0	2	131	11,828	2	0	2	133
				T5VS	11,276	3	0	1	127	12,148	3	0	1	136	12,302	3	0	1	138
				T5S	11,286	3	0	1	127	12,158	3	0	1	137	12,312	3	0	1	138
				T5M	11,257	4	0	2	126	12,127	4	0	2	136	12,280	4	0	2	138
				T5W	11,344	4	0	3	127	12,221	4	0	3	137	12,375	4	0	3	139
				BLC	8,890	1	0	2	100	9,576	1	0	2	108	9,698	1	0	2	109
				LCCO	6,615	1	0	3	74	7,126	1	0	3	80	7,216	1	0	3	81
				RCCO	6,615	1	0	3	74	7,126	1	0	3	80	7,216	1	0	3	81
P6	40	1050	134W	T1S	14,805	3	0	3	110	15,949	3	0	3	119	16,151	3	0	3	121
				T2S	14,865	3	0	3	111	16,014	3	0	3	120	16,217	3	0	3	121
				T2M	14,789	3	0	3	110	15,932	3	0	3	119	16,134	3	0	3	120
				T3S	14,829	2	0	3	111	15,975	3	0	3	119	16,177	3	0	3	121
				T3M	14,396	3	0	3	107	15,509	3	0	3	116	15,705	3	0	3	117
				T4M	14,507	2	0	3	108	15,628	3	0	3	117	15,826	3	0	3	118
				TFTM	14,820	2	0	3	111	15,965	3	0	3	119	16,167	3	0	3	121
				T5VS	15,413	4	0	1	115	16,604	4	0	1	124	16,815	4	0	1	125
				T5S	15,426	3	0	1	115	16,618	4	0	1	124	16,828	4	0	1	126
				T5M	15,387	4	0	2	115	16,576	4	0	2	124	16,786	4	0	2	125
				T5W	15,506	4	0	3	116	16,704	4	0	3	125	16,915	4	0	3	126
				BLC	12,151	1	0	2	91	13,090	1	0	2	98	13,255	1	0	2	99
				LCCO	9,041	1	0	3	67	9,740	1	0	3	73	9,863	1	0	3	74
				RCCO	9,041	1	0	3	67	9,740	1	0	3	73	9,863	1	0	3	74
P7	40	1300	166W	T1S	17,023	3	0	3	103	18,338	3	0	3	110	18,570	3	0	3	112
				T2S	17,092	3	0	3	103	18,413	3	0	3	111	18,646	3	0	3	112
				T2M	17,005	3	0	3	102	18,319	3	0	3	110	18,551	3	0	3	112
				T3S	17,051	3	0	3	103	18,369	3	0	3	111	18,601	3	0	3	112
				T3M	16,553	3	0	3	100	17,832	3	0	3	107	18,058	3	0	3	109
				T4M	16,681	3	0	3	100	17,969	3	0	3	108	18,197	3	0	3	110
				TFTM	17,040	3	0	3	103	18,357	3	0	4	111	18,590	3	0	4	112
				T5VS	17,723	4	0	1	107	19,092	4	0	1	115	19,334	4	0	1	116
				T5S	17,737	4	0	2	107	19,108	4	0	2	115	19,349	4	0	2	117
				T5M	17,692	4	0	2	107	19,059	4	0	2	115	19,301	4	0	2	116
				T5W	17,829	5	0	3	107	19,207	5	0	3	116	19,450	5	0	3	117
				BLC	13,971	2	0	2	84	15,051	2	0	2	91	15,241	2	0	2	92
				LCCO	10,396	1	0	3	63	11,199	1	0	3	67	11,341	1	0	3	68
				RCCO	10,396	1	0	3	63	11,199	1	0	3	67	11,341	1	0	3	68

Performance Data

Lumen Output

Lumen values are from photometric tests performed in accordance with IESNA LM-79-08. Data is considered to be representative of the configurations shown, within the tolerances allowed by Lighting Facts. Contact factory for performance data on any configurations not shown here.

Rotated Optics

Power Package	LED Count	Drive Current	System Watts	Dist. Type	30K (3000 K, 70 CRI)					40K (4000 K, 70 CRI)					50K (5000 K, 70 CRI)				
					Lumens	B	U	G	LPW	Lumens	B	U	G	LPW	Lumens	B	U	G	LPW
P10	30	530	53W	T1S	6,727	2	0	2	127	7,247	3	0	3	137	7,339	3	0	3	138
				T2S	6,809	3	0	3	128	7,336	3	0	3	138	7,428	3	0	3	140
				T2M	6,689	3	0	3	126	7,205	3	0	3	136	7,297	3	0	3	138
				T3S	6,805	3	0	3	128	7,331	3	0	3	138	7,424	3	0	3	140
				T3M	6,585	3	0	3	124	7,094	3	0	3	134	7,183	3	0	3	136
				T4M	6,677	3	0	3	126	7,193	3	0	3	136	7,284	3	0	3	137
				TFTM	6,850	3	0	3	129	7,379	3	0	3	139	7,472	3	0	3	141
				T5VS	6,898	3	0	0	130	7,431	3	0	0	140	7,525	3	0	0	142
				T5S	6,840	2	0	1	129	7,368	2	0	1	139	7,461	2	0	1	141
				T5M	6,838	3	0	1	129	7,366	3	0	2	139	7,460	3	0	2	141
				T5W	6,777	3	0	2	128	7,300	3	0	2	138	7,393	3	0	2	139
				BLC	5,626	2	0	2	106	6,060	2	0	2	114	6,137	2	0	2	116
				LCCO	4,018	1	0	2	76	4,328	1	0	2	82	4,383	1	0	2	83
				RCCO	4,013	3	0	3	76	4,323	3	0	3	82	4,377	3	0	3	83
P11	30	700	72W	T1S	8,594	3	0	3	119	9,258	3	0	3	129	9,376	3	0	3	130
				T2S	8,699	3	0	3	121	9,371	3	0	3	130	9,490	3	0	3	132
				T2M	8,545	3	0	3	119	9,205	3	0	3	128	9,322	3	0	3	129
				T3S	8,694	3	0	3	121	9,366	3	0	3	130	9,484	3	0	3	132
				T3M	8,412	3	0	3	117	9,062	3	0	3	126	9,177	3	0	3	127
				T4M	8,530	3	0	3	118	9,189	3	0	3	128	9,305	3	0	3	129
				TFTM	8,750	3	0	3	122	9,427	3	0	3	131	9,546	3	0	3	133
				T5VS	8,812	3	0	0	122	9,493	3	0	0	132	9,613	3	0	0	134
				T5S	8,738	3	0	1	121	9,413	3	0	1	131	9,532	3	0	1	132
				T5M	8,736	3	0	2	121	9,411	3	0	2	131	9,530	3	0	2	132
				T5W	8,657	4	0	2	120	9,326	4	0	2	130	9,444	4	0	2	131
				BLC	7,187	3	0	3	100	7,742	3	0	3	108	7,840	3	0	3	109
				LCCO	5,133	1	0	2	71	5,529	1	0	2	77	5,599	1	0	2	78
				RCCO	5,126	3	0	3	71	5,522	3	0	3	77	5,592	3	0	3	78
P12	30	1050	104W	T1S	12,149	3	0	3	117	13,088	3	0	3	126	13,253	3	0	3	127
				T2S	12,297	3	0	3	118	13,247	3	0	3	127	13,415	3	0	3	129
				T2M	12,079	4	0	4	116	13,012	4	0	4	125	13,177	4	0	4	127
				T3S	12,290	3	0	3	118	13,239	4	0	4	127	13,407	4	0	4	129
				T3M	11,891	4	0	4	114	12,810	4	0	4	123	12,972	4	0	4	125
				T4M	12,058	4	0	4	116	12,990	4	0	4	125	13,154	4	0	4	126
				TFTM	12,369	4	0	4	119	13,325	4	0	4	128	13,494	4	0	4	130
				T5VS	12,456	3	0	1	120	13,419	3	0	1	129	13,589	4	0	1	131
				T5S	12,351	3	0	1	119	13,306	3	0	1	128	13,474	3	0	1	130
				T5M	12,349	4	0	2	119	13,303	4	0	2	128	13,471	4	0	2	130
				T5W	12,238	4	0	3	118	13,183	4	0	3	127	13,350	4	0	3	128
				BLC	10,159	3	0	3	98	10,944	3	0	3	105	11,083	3	0	3	107
				LCCO	7,256	1	0	3	70	7,816	1	0	3	75	7,915	1	0	3	76
				RCCO	7,246	3	0	3	70	7,806	4	0	4	75	7,905	4	0	4	76
P13	30	1300	128W	T1S	14,438	3	0	3	113	15,554	3	0	3	122	15,751	3	0	3	123
				T2S	14,614	3	0	3	114	15,744	4	0	4	123	15,943	4	0	4	125
				T2M	14,355	4	0	4	112	15,465	4	0	4	121	15,660	4	0	4	122
				T3S	14,606	4	0	4	114	15,735	4	0	4	123	15,934	4	0	4	124
				T3M	14,132	4	0	4	110	15,224	4	0	4	119	15,417	4	0	4	120
				T4M	14,330	4	0	4	112	15,438	4	0	4	121	15,633	4	0	4	122
				TFTM	14,701	4	0	4	115	15,836	4	0	4	124	16,037	4	0	4	125
				T5VS	14,804	4	0	1	116	15,948	4	0	1	125	16,150	4	0	1	126
				T5S	14,679	3	0	1	115	15,814	3	0	1	124	16,014	3	0	1	125
				T5M	14,676	4	0	2	115	15,810	4	0	2	124	16,010	4	0	2	125
				T5W	14,544	4	0	3	114	15,668	4	0	3	122	15,866	4	0	3	124
				BLC	7919	3	0	3	62	8531	3	0	3	67	8639	3	0	3	67
				LCCO	5145	1	0	2	40	5543	1	0	2	43	5613	1	0	2	44
				RCCO	5139	3	0	3	40	5536	3	0	3	43	5606	3	0	3	44

FEATURES & SPECIFICATIONS

INTENDED USE
The sleek design of the D-Series Size 0 reflects the embedded high performance LED technology. It is ideal for many commercial and municipal applications, such as parking lots, plazas, campuses, and pedestrian areas.

CONSTRUCTION
Single-piece die-cast aluminum housing has integral heat sink fins to optimize thermal management through conductive and convective cooling. Modular design allows for ease of maintenance and future light engine upgrades. The LED driver is mounted in direct contact with the casting to promote low operating temperature and long life. Housing is completely sealed against moisture and environmental contaminants (IP65). Low EPA (0.95 ft^2) for optimized pole wind loading.

FINISH
Exterior parts are protected by a zinc-infused Super Durable TGIC thermoset powder coat finish that provides superior resistance to corrosion and weathering. A tightly controlled multi-stage process ensures a minimum 3 mils thickness for a finish that can withstand extreme climate changes without cracking or peeling. Available in both textured and non-textured finishes.

OPTICS
Precision-molded proprietary acrylic lenses are engineered for superior area lighting distribution, uniformity, and pole spacing. Light engines are available in 3000 K, 4000 K or 5000 K (70 CRI) configurations. The D-Series Size 0 has zero uplight and qualifies as a Nighttime Friendly™ product, meaning it is consistent with the LEED® and Green Globes™ criteria for eliminating wasteful uplight.

ELECTRICAL
Light engine(s) configurations consist of high-efficacy LEDs mounted to metal-core circuit boards to maximize heat dissipation and promote long life (up to L85/100,000 hours at 25°C). Class 1 electronic drivers are designed to have a power factor >90%, THD <20%, and an expected life of 100,000 hours with <1% failure rate. Easily serviceable 10kV surge protection device meets a minimum Category C Low operation (per ANSI/IEEE C62.41.2).

STANDARD CONTROLS
The DSX0 LED area luminaire has a number of control options. DSX Size 0, comes standard with 0-10V dimming driver. Dusk to dawn controls can be utilized via optional NEMA twist-lock photocell receptacles. Integrated motion sensors with on-board photocells feature field-adjustable programing and are suitable for mounting heights up to 30 feet.

nLIGHT AIR CONTROLS
The DSX0 LED area luminaire is also available with nLight® AIR for the ultimate in wireless control. This powerful controls platform provides out-of-the-box basic motion sensing and photocontrol functionality and is suitable for mounting heights up to 40 feet. Once commissioned using a smartphone and the easy-to-use CLAIRITY app, nLight AIR equipped luminaries can be grouped, resulting in motion sensor and photocell group response without the need for additional equipment. Scheduled dimming with motion sensor over-ride can be achieved when used with the nLight Eclypse. Additional information about nLight Air can be found here.

INSTALLATION
Included mounting block and integral arm facilitate quick and easy installation. Stainless steel bolts fasten the mounting block securely to poles and walls, enabling the D-Series Size 0 to withstand up to a 3.0 G vibration load rating per ANSI C136.31. The D-Series Size 0 utilizes the AERIS™ series pole drilling pattern (template #8). Optional terminal block and NEMA photocontrol receptacle are also available.

LISTINGS
UL listed to meet U.S. and Canadian standards. UL Listed for wet locations. Light engines are IP66 rated; luminaire is IP65 rated. Rated for -40°C to 50°C ambient with HA option. U.S. Patent No. D672,492 S. International patent pending.

DesignLights Consortium® (DLC) Premium qualified product and DLC qualified product. Not all versions of this product may be DLC Premium qualified or DLC qualified. Please check the DLC Qualified Products List at www.designlights.org/QPL to confirm which versions are qualified.

International Dark-Sky Association (IDA) Fixture Seal of Approval (FSA) is available for all products on this page utilizing 3000K color temperature only.

BUY AMERICAN ACT
Product with the BAA option is assembled in the USA and meets the Buy America(n) government procurement requirements under FAR, DFARS and DOT regulations. Please refer to www.acuitybrands.com/buy-american for additional information.

WARRANTY
5-year limited warranty. This is the only warranty provided and no other statements in this specification sheet create any warranty of any kind. All other express and implied warranties are disclaimed. Complete warranty terms located at: www.acuitybrands.com/support/warranty/terms-and-conditions

Note: Actual performance may differ as a result of end-user environment and application.
All values are design or typical values, measured under laboratory conditions at 25 °C.
Specifications subject to change without notice.

S4

LITHONIA LIGHTING®

Catalog Number
Notes
Type

FEATURES & SPECIFICATIONS

INTENDED USE — **These specifications are for USA standards only.** Round Straight Steel is a general purpose light pole for up to 30-foot mounting heights. This pole provides a robust yet cost effective option for mounting area lights and floodlights.

CONSTRUCTION —

Pole Shaft: The pole shaft is of 0.120" uniform wall thickness and is made of a weldable-grade, hot-rolled, commercial-quality steel tubing with a minimum yield of 42,000 psi. Shaft is one-piece with a full-length longitudinal high-frequency electric resistance weld. Uniformly round in cross-section down length of shaft with no taper. Standard shaft diameters are 3", 4", 4.5" and 5". 6" diameter shaft available by quote. Shaft wall thickness of .180" is available with certain tube diameters.

Pole Top: Options include tenon top, drilled for side mount fixture, 4" tenon with drilling (includes extra handhole) and open top. Side drilled and open top poles include a removable press-fit, black, low density polyethylene top cap.

Handhole: A reinforced handhole with grounding provision is provided at 12" or 18" from the base end of the pole assembly on side A. Every handhole includes a cover and cover attachment hardware. 2.5" x 5" rectangular handhole is provided on pole.

Base Cover: A two-piece ABS round plastic full base cover is provided with each pole assembly. Additional base cover options are available upon factory request. Options include fabricated two-piece sheet steel. All base covers are finished to match pole.

Anchor Base/Bolts: Anchor base is fabricated from hot-rolled carbon steel plate that conforms with ASTM A36. Anchor bolts conform to ASTM F1554 Grade 55 and are provided with two hex nuts and two flat washers. Bolts have an "L" blend on one end. All anchor bolts are hot-dipped galvanized a minimum of 12" nominal on the threaded end. Anchor bolts are made of steel rod having a minimum yield strength of 55,000 psi and a yield strength of 75,000 psi to 95,000 psi.

HARDWARE – All structural fasteners are high-strength galvanized carbon steel. All non-structural fasteners are galvanized or zinc-plated carbon steel or stainless steel.

FINISH – Extra durable standard powder-coat finishes include Dark Bronze, White, Black, Medium Bronze and Natural Aluminum colors. Classic finishes include Sandstone, Charcoal Gray, Tennis Green, Bright Red and Steel Blue colors. Architectural Colors and Special Finishes are available by quote and include, but are not limited to Hot-dipped Galvanized, Paint over Hot-dipped Galvanized, RAL Colors, Custom Colors and Extended Warranty Finishes. Factory-applied primer paint finish is available for customer field-paint applications.

BUY AMERICAN ACT – Product with the BAA option is assembled in the USA and meets the Buy America(n) government procurement requirements under FAR, DFARS and DOT regulations.
Please refer to www.acuitybrands.com/buy-american for additional information.

WARRANTY — 1-year limited warranty. This is the only warranty provided and no other statements in this specification sheet create any warranty of any kind. All other express and implied warranties are disclaimed. Complete warranty terms located at: www.acuitybrands.com/support/warranty/terms-and-conditions

NOTE: Actual performance may differ as a result of end-user environment and application.
Specifications subject to change without notice.

Anchor Base Poles

RSS

ROUND STRAIGHT STEEL

BAA

RSS Round Straight Steel Pole

ORDERING INFORMATION Lead times will vary depending on options selected. Consult with your sales representative.

Example: RSS 20 4-5B DM19 DDBXD

RSS					
Series	**Nominal fixture mounting height**	**Nominal shaft base size/wall thickness** [1]	**Mounting** [2]		
RSS	8'-30' (for 1/2 ft increments, add -6 to the pole height. Ex: 20-6 equals 20ft 6in.) (See technical information table for complete ordering information.) 18'	3B 3" (.120") 4B 4" (.120") 4-5B 4 1/2" (.120") 5B 5" (.120") (See technical information table for complete ordering information.)	Tenon mounting PT Open top T20 2-3/8" O.D. (2" NPS) T25 2-7/8" O.D. (2-1/2" NPS) T30 3-1/2" O.D. (3" NPS) [2] T35 4" O.D. (3-1/2" NPS) [2] KAC/KAD/KSE/KSF/KVR/KVF Drill mounting [3] DM19 1 at 90° DM28 2 at 180° DM28PL 2 at 180° with one side plugged DM29 2 at 90° DM32 3 at 120° DM49 4 at 90° CSX/DSX/RSX/AERIS™/OMERO™/HLA/KAX Drill mounting [2] DM19AS 1 at 90° DM28AS 2 at 180° DM29AS 2 at 90° DM32AS 3 at 120° DM39AS 3 at 90° DM49AS 4 at 90°	RAD drill mounting [3,4] DM19RAD 1 at 90° DM28RAD 2 at 180° DM29RAD 2 at 90° DM32RAD 3 at 120° DM39RAD 3 at 90° DM49RAD 4 at 90° ESX Drill mounting [3] DM19ESX 1 at 90° DM28ESX 2 at 180° DM29ESX 2 at 90° DM39ESX 3 at 90° DM49ESX 4 at 90°	AERIS™ Suspend drill mounting [3,5] DM19AST_ 1 at 90° DM28AST_ 2 at 180° DM29AST_ 2 at 90° DM39AST_ 3 at 90° DM49AST_ 4 at 90° OMERO™ Suspend drill mounting [3,5] DM19AST_ 1 at 90° DM28AST_ 2 at 180° DM29AST_ 2 at 90° DM39AST_ 3 at 90° DM49AST_ 4 at 90°

Options

Shipped installed

VD	Vibration damper[6]
HAxy	Horizontal arm bracket (1 fixture)[7,8]
FDLxy	Festoon outlet less electrical[7,9]
CPL12/xy	1/2" coupling[7]
CPL34/xy	3/4" coupling[7]
CPL1/xy	1" coupling[7]
NPL12/xy	1/2" threaded nipple[7]
NPL34/xy	3/4" threaded nipple[7]
NPL1/xy	1" threaded nipple[7]
EHHxy	Extra handhole[7,10]
STLHHC	Steel handhole cover (standard is plastic, finish is smooth)
FBCSTL2PC	2 Piece steel base cover (standard is plastic)
IC	Interior coating[11]
L/AB	Less anchor bolts (Include when anchor bolts are not needed)
TP	Tamper resistant handhole cover fasteners
NEC	NEC 410.30 compliant gasketed handhole (Not UL Labeled)
UL	UL listed with label (Includes NEC compliant cover)
BAA	Buy America(n) Act Compliant[12]

Finish [13]

Super durable paint colors

DDBXD	Dark bronze
DBLXD	Black
DNAXD	Natural aluminum
DWHXD	White
DSSXD	Sandstone
DGCXD	Charcoal gray
DTGXD	Tennis green
DBRXD	Bright red
DSBXD	Steel blue
DDBTXD	Textured dark bronze
DBLBXD	Textured black
DNATXD	Textured natural aluminum
DWHGXD	Textured white

Other finishes

GALV	Galvanized finish

Architectural colors and special finishes

Paint over Galvanized, RAL Colors, Custom Colors and Extended Warranty Finishes available via RFA.

NOTES:

1. Wall thickness will be signified with a "B" (11 Gauge) or a "F" (7-Gauge) in nomenclature. "B" - .120" | "F" - .180"
2. PT open top poles include top cap. When ordering tenon mounting and drill mounting for the same pole, follow this example: DM28/ T20. The combination includes a required extra handhole.
3. Refer to the fixture spec sheet for the correct drilling template pattern and orientation compatibility.
4. DM19RAD, DM28RAD and DM32RAD require a minimum top O.D. of 4". DM29RAD, DM39RAD and DM49RAD require a minimum top O.D of 4.25".
5. Insert "1" or "2" to designate fixture size; e.g. DM19AST2.
6. VD not available with 3" pole. On 4" and 5" poles, VD cannot be installed if provisions (EHH, FDL, NPL, CPL) are located higher than 2/3 of the pole's total height. *Example: Pole height is 25ft, A provision cannot be placed above 16ft.*
7. Specify location and orientation when ordering option.
   For "x": Specify the height above the base of pole in feet or feet and inches; separate feet and inches with a "-".
   Example: 5ft = 5 and 20ft 3in = 20-3
   For "y": Specify orientation from handhole (A,B,C,D) Refer to the Handhole Orientation diagram below.
   Example: 1/2" coupling at 5' 8 ", orientation C = CPL12/5-8C
8. Horizontal arm is 18" x 2-3/8" O.D. tenon standard with radius curve providing 12' rise. If ordering two horizontal arm at the same height, specify with HAxyy. *Example: HA20BD.*
9. FDL does not come with GFCI outlet or handhole cover. These must be supplied by contractor or electrician.
10. Combination of tenon-top and drill mount includes extra handhole.
11. Provides enhanced corrosion resistance. Not available with GALV.
12. Use when mill certifications are required.
13. Finish must be specified. Additional colors available; see Architectural Colors brochure linked here (Form No. 794.3).

Accessories: *Order as separate catalog number.*

PL DT20	Plugs for ESX drillings
PL DT8	Plugs for DMxxAS drillings

TECHNICAL INFORMATION — EPA (ft^2) with 1.3 gust											
Catalog number	**Nominal shaft length (ft)***	**Pole shaft size (in x ft)**	**Wall thickness (in)**	**80 mph**	**Max weight**	**90 mph**	**Max weight**	**100 mph**	**Max weight**	**Bolt size (in. x in. x in.)**	**Approximate ship weight (lbs.)**
RSS 8 4-5B	8	4.5 x 8.0	0.120	24.7	630	19.7	495	16.0	430	3/4 x 18 x 3	55
RSS 10 3B	10	3.0 x 10.0	0.120	10.0	250	7.7	190	6.0	175	3/4 x 18 x 3	55
RSS 10 4B	10	4.0 x 10.0	0.120	19.1	480	15	375	12.2	305	3/4 x 18 x 3	70
RSS 10 4-5B	10	4.5 x 10.0	0.120	24.5	615	19.5	490	15.8	395	3/4 x 18 x 3	75
RSS 12 3B	12	3.0 x 12.0	0.120	7.7	195	5.8	145	4.4	130	3/4 x 18 x 3	60
RSS 12 4B	12	4.0 x 12.0	0.120	15.0	390	11.8	300	9.5	240	3/4 x 18 x 3	80
RSS 12 4-5B	12	4.5 x 12.0	0.120	19.8	495	15.7	395	12.7	320	3/4 x 18 x 3	85
RSS 14 3B	14	3.0 x 14.0	0.120	6.0	175	4.4	130	3.3	90	3/4 x 18 x 3	70
RSS 14 4B	14	4.0 x 14.0	0.120	12.2	305	9.4	250	7.6	195	3/4 x 18 x 3	90
RSS 14 4-5B	14	4.5 x 14.0	0.120	16.2	405	12.8	320	10.3	260	3/4 x 18 x 3	95
RSS 15 4-5B	15	4.5 x 15.0	0.120	12.0	300	9.5	250	7.5	200	3/4 x 18 x 3	96
RSS 16 3B	16	3.0 x 16.0	0.120	4.6	125	3.2	100	2.3	60	3/4 x 18 x 3	80
RSS 16 4B	16	4.0 x 16.0	0.120	9.6	250	7.4	185	5.9	150	3/4 x 18 x 3	100
RSS 16 4-5B	16	4.5 x 16.0	0.120	13.1	330	10.2	265	8.2	205	3/4 x 18 x 3	105
RSS 18 3B	18	3.0 x 18.0	0.120	3.4	90	2.3	60	1.4	70	3/4 x 18 x 3	90
RSS 18 4B	18	4.0 x 18.0	0.120	7.6	190	5.7	180	4.5	130	3/4 x 18 x 3	110
RSS 18 4-5B	18	4.5 x 18.0	0.120	10.5	265	8.2	210	6.5	165	3/4 x 18 x 3	115
RSS 20 3B	20	3.0 x 20.0	0.120	2.4	100	1.4	75	--	--	3/4 x 18 x 3	100
RSS 20 4B	20	4.0 x 20.0	0.120	6.0	150	4.45	150	3.45	125	3/4 x 18 x 3	120
RSS 20 4-5B	20	4.5 x 20.0	0.120	8.5	215	6.6	165	5.2	130	3/4 x 18 x 3	130
RSS 20 5B	20	5.0 x 20.0	0.120	11.75	300	9.1	230	7.25	180	3/4 x 18 x 3	145
RSS 22 4-5B	22	4.5 x 22.0	0.120	6.0	150	4.5	125	3.75	100	3/4 x 18 x 3	134
RSS 25 4B	25	4.0 x 25.0	0.120	2.85	100	1.95	75	1.35	75	3/4 x 18 x 3	145
RSS 25 4-5B	25	4.5 x 25.0	0.120	4.8	130	3.6	90	2.7	90	3/4 x 18 x 3	145
RSS 25 5B	25	5.0 x 25.0	0.120	7.25	180	5.5	150	4.25	150	3/4 x 18 x 3	180
RSS 30 4-5B	30	4.5 x 30.0	0.120	2.3	80	1.5	75	1.0	60	3/4 x 18 x 3	185
RSS 30 5B	30	5.0 x 30.0	0.120	4.2	150	3	125	2.25	100	3/4 x 18 x 3	210

NOTE: EPA values are based ASCE 7-93 wind map.

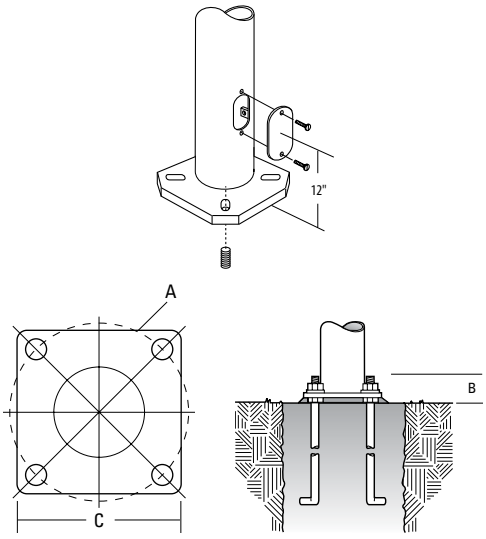
*For 1/2 ft increments, add -6 to the pole height. Ex: 20-6 equals 20ft 6in.

TECHNICAL INFORMATION — EPA (ft^2) WITH 3-SECOND GUST PER AASHTO 2013																	
Series	Mounting Height (ft)*	Shaft Base Size	90 MPH	Max. weight	100 MPH	Max. weight	110 MPH	Max. weight	120 MPH	Max. weight	130 MPH	Max. weight	140 MPH	Max. weight	150 MPH	Max. weight	Approximate ship weight (lbs.)
RSS	8	4-5B	18.5	463	15	375	13	325	11	275	9.5	238	8	200	7	175	55
RSS	10	3B	6	150	5	125	4	100	3.5	88	2.5	63	2	50	2	50	55
RSS	10	4B	12	300	9.5	238	8	200	6.5	163	5.5	138	5	125	4.5	113	70
RSS	10	4-5B	15.5	388	12.5	313	10.5	263	9	225	7.5	188	6.5	163	6	150	75
RSS	12	3B	5	125	4	100	3	75	2.5	63	2	50	1.5	38	1	25	60
RSS	12	4B	10	250	8	200	6.5	163	5.5	138	4.5	113	4	100	3.5	88	80
RSS	12	4-5B	13	325	10.5	263	9	225	7.5	188	6.5	163	5.5	138	4.5	113	85
RSS	14	3B	4	100	3	75	2.5	63	2	50	1.5	38	1	25	0.5	13	70
RSS	14	4B	8.5	213	6.5	163	5.5	138	4	100	3.5	88	3	75	2.5	63	90
RSS	14	4-5B	11	275	9	225	7	175	6	150	5	125	4.5	113	4	100	95
RSS	15	4-5B	10	250	8	200	6.5	163	5.5	138	4.5	113	4	100	3.5	88	96
RSS	16	3B	3	75	2.5	63	1.5	38	1	25	0.5	13	0.5	13	-	-	80
RSS	16	4B	7	175	5.5	138	4	100	3	75	2.5	63	2	50	2	50	100
RSS	16	4-5B	9	225	7	175	6	150	5	125	4	100	3.5	88	3	75	105
RSS	18	3B	2.5	63	1.5	38	1	25	0.5	13	-	-	-	-	-	-	90
RSS	18	4B	5.5	138	4	100	3	75	2.5	63	2	50	1.5	38	1	25	110
RSS	18	4-5B	7.5	188	6	150	4.5	113	4	100	3	75	2.5	63	2	50	115
RSS	20	3B	2	50	1	25	0.5	13	-	-	-	-	-	-	-	-	100
RSS	20	4B	4.5	113	3	75	2	50	1.5	38	1	25	1	25	0.5	13	120
RSS	20	4-5B	6	150	4.5	113	3.5	88	3	75	2.5	63	2	50	1.5	38	130
RSS	20	5B	8	200	6.5	163	5.5	138	4.5	113	3.5	88	3	75	2.5	63	145
RSS	22	4-5B	5	125	3.5	88	2.5	63	2	50	1.5	38	1	25	1	25	134
RSS	25	4B	2.5	63	1	25	0.5	13	-	-	-	-	-	-	-	-	145
RSS	25	4-5B	3.5	88	2	50	1.5	38	1	25	0.5	13	-	-	-	-	145
RSS	25	5B	5	125	3.5	88	3	75	2	50	1.5	38	1.5	38	1	25	180
RSS	30	4-5B	1.5	38	-	-	-	-	-	-	-	-	-	-	-	-	185
RSS	30	5B	2.5	63	1.5	38	1	25	0.5	13	-	-	-	-	-	-	210

NOTE: AASHTO 2013 criteria is the most conservative existing EPA calculation. For poles not showing EPA values under AASHTO 2013, EPA values may exist under commercial criteria (see table above).

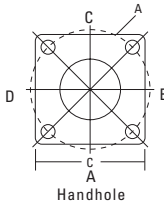
*For 1/2 ft increments, add -6 to the pole height. Ex: 20-6 equals 20ft 6in.

BASE DETAIL



POLE DATA					
Shaft base size	Bolt circle A	Bolt projection B	Base square C	Template description	Anchor bolt description
3"	7.5" - 8.5"	3.50"-3.75"	10.50"	ABTEMPLATE PJ50041	AB18-0
4"	7.5" - 8.5"	3.50"-3.75"	10.50"	ABTEMPLATE PJ50041	AB18-0
4.5"	7.5" - 8.5"	3.50"-3.75"	10.50"	ABTEMPLATE PJ50041	AB18-0
5"	7.5" - 8.5"	3.50"-3.75"	10.50"	ABTEMPLATE PJ50041	AB18-0

HANDHOLE ORIENTATION



Default DM19 is on side B.

IMPORTANT INSTALLATION NOTES:

- **Do not** erect poles without having fixtures installed.
- Factory-supplied templates must be used when setting anchor bolts. Lithonia Lighting will not accept claim for incorrect anchorage placement due to failure to use factory template.
- If poles are stored outside, all protective wrapping must be removed immediately upon delivery to prevent finish damage.
- Lithonia Lighting is not responsible for the foundation design.

CAUTION: These specifications are intended for general purposes only. Lithonia Lighting reserves the right to change material or design, without prior notice, in a continuing effort to upgrade its products.

DES PLAINES ILLINOIS

Public Comment Card
Contour Place Workshop

Which site concept(s) are you commenting on? *Check one*

A ☐ B ☐ Both ☒

What comments or questions do you have on proposed **Site or Building Design**?

THEY LOOK NICE. TRY NOT TO MIX TOO MANY TEXTURES OR COLORS.

What comments or questions do you have on **Neighborhood Impact** from this project?

I FEEL LIKE THERE SHOULD BE NO MAJOR IMPACT. WILL IMPROVE THE OVERALL AESTHETIC.

How often have you been near or by this property (within approx. three blocks) in the past six months?

Daily ☒ Weekly ☐ Monthly ☐ Not Regularly ☐

General Comments/Questions

MAYBE CONDO INSTEAD OF APARTMENTS. PERMANENT RESIDENTS MIGHT TAKE MORE CARE OF THE AREA.

DES PLAINES ILLINOIS

Public Comment Card
Contour Place Workshop

Which site concept(s) are you commenting on? *Check one*

A ☐ B ☐ Both ☒

What comments or questions do you have on proposed **Site** or **Building Design**?

No issues. Glad to see attractive development.

What comments or questions do you have on **Neighborhood Impact** from this project?

Wish there were more options for affordable housing in DP being built but I live nearby and I am supportive

How often have you been near or by this property (within approx. three blocks) in the past six months?

Daily ☒ Weekly ☐ Monthly ☐ Not Regularly ☐

General Comments/Questions

Our family supports this development.

DES PLAINES ILLINOIS

Public Comment Card
Contour Place Workshop

Which site concept(s) are you commenting on? *Check one*

A ☐ B ☐ Both ☒

What comments or questions do you have on proposed **Site or Building Design?**

Looks like just another big box — More Brick, not cementatious siding —

What comments or questions do you have on **Neighborhood Impact** from this project?

Traffic - you cannot just take this bldg as an individual unit. Traffic from Welkin, 6220 Graceland, New Units at Thacker and Lee, Little Bulgarian School (200+ Students) and potential development of Prairie Lee

How often have you been near or by this property (within approx. three blocks) in the past six months?

Daily ☒ Weekly ☐ Monthly ☐ Not Regularly ☐

General Comments/Questions

Cut through traffic on Laurel Ave and Webford, Wood construction Not building long term Community members, Small Apts = transient Too many studio and 1 BDRM not enough 2 BDRM, Exterior looks just like other high rises →

DES PLAINES ILLINOIS

Public Comment Card
Contour Place Workshop

Which site concept(s) are you commenting on? *Check one*

A ☐ B ☐ Both ☒

What comments or questions do you have on proposed **Site or Building Design?**

The latest trend of ugly architecture!

What comments or questions do you have on **Neighborhood Impact** from this project?

Terrible impact!

How often have you been near or by this property (within approx. three blocks) in the past six months?

Daily ☒ Weekly ☐ Monthly ☐ Not Regularly ☐

General Comments/Questions

Des Plaines does not need more rental buildings, cheaply constructed and possibly turned into low-income subsidized properties.

DES PLAINES ILLINOIS

Public Comment Card
Contour Place Workshop

Which site concept(s) are you commenting on? *Check one*

A ☐ B ☐ Both ☐

What comments or questions do you have on proposed **Site or Building Design?**

WHY CANNOT THEY LOOK FOR ANOTHER COMMERICAL BUYER. SUCH AS, RETAIL STORES

What comments or questions do you have on **Neighborhood Impact** from this project?

TOO MANY APPARTMENTS IN A SMALL AREA ALREADY SURROUNDED BY CONDOS

How often have you been near or by this property (within approx. three blocks) in the past six months?

Daily ☑ Weekly ☐ Monthly ☐ Not Regularly ☐

General Comments/Questions

I WOULD NOT WANT TO SEE ~~PHIS~~ THIS PROJECT APPROVED BY THE VILLAGE OF DESPLAINES

DES PLAINES
ILLINOIS

Public Comment Card
Contour Place Workshop

Which site concept(s) are you commenting on? *Check one*

A ☐ B ☐ Both ☒

What comments or questions do you have on proposed **Site** or **Building Design**?

I appreciate the size of this bldg for the site. It fits into the neighborhood & is appropriate. The Bndg design is Nice as well.

What comments or questions do you have on **Neighborhood Impact** from this project?

I'm concerned about traffic impact & parking on near by neighborhood streets.

How often have you been near or by this property (within approx. three blocks) in the past six months?

Daily ☒ Weekly ☐ Monthly ☐ Not Regularly ☐

General Comments/Questions

This meeting was a great idea. I'm glad the City is Finally reaching Out to the community for input before a project is approved. its a start in the right direction

DES PLAINES ILLINOIS

Public Comment Card
Contour Place Workshop

Which site concept(s) are you commenting on? *Check one*

A ☐ B ☐ Both ☐

What comments or questions do you have on proposed **Site or Building Design**?

WHY MORE APARTMENTS? WHY NOT CONDOS OR TOWNHOMES? WE NEED RESIDENTS WHO ARE INVESTED IN OUR CITY, NOT TRANSIENT TENANTS

What comments or questions do you have on **Neighborhood Impact** from this project?

THIS PROJECT BACKS UP TO THE NEW BULGARIAN SCHOOL, WHICH EXPECTS ~200 STUDENTS DAILY. DROP OFFS GO RIGHT THROUGH THE NEIGHBORHOOD. THE TRAFFIC IMPACT OF THE WALKING (622 GRACELAND, THE SCHOOL,

How often have you been near or by this property (within approx. three blocks) in the past six months?

Daily ☐ Weekly ☒ Monthly ☐ Not Regularly ☐

General Comments/Questions

AND NOW THIS WILL BE SIGNIFICANT

THIS WAS A COMPLETELY INEFFECTIVE WAY TO PRESENT THE PROJECT. THE DEVELOPERS SHOULD HAVE MADE PRESENTATIONS AND TAKEN QUESTIONS SO THAT EVERYONE COULD HEAR.

DES PLAINES
ILLINOIS

Public Comment Card
Contour Place Workshop

Which site concept(s) are you commenting on? *Check one*

A [X] B [ ] Both [ ]

What comments or questions do you have on proposed **Site or Building Design?**

PARKING AREA
Move the garages closer to corners instead of having multiple entrances.
Put land parking in the middle

What comments or questions do you have on **Neighborhood Impact** from this project?

Entering & EXISTING
Graceland is one way street
don't need to give an option to turn the wrong way.

How often have you been near or by this property (within approx. three blocks) in the past six months?

Daily [ ] Weekly [X] Monthly [ ] Not Regularly [ ]

General Comments/Questions

Redesign the location of parking garages.
Visitor parking should be in the middle opposite the entrance

DES PLAINES ILLINOIS

Public Comment Card
Contour Place Workshop

Which site concept(s) are you commenting on? *Check one*

A ☐ B ☐ Both ☒

What comments or questions do you have on proposed **Site or Building Design?**

more brick please

What comments or questions do you have on **Neighborhood Impact** from this project?

We have too many apartments currently & coming soon. Please consider condos.

How often have you been near or by this property (within approx. three blocks) in the past six months?

Daily ☐ Weekly ☒ Monthly ☐ Not Regularly ☐

General Comments/Questions

Less apartments, we are saturated.

Trends change

DES PLAINES ILLINOIS

Public Comment Card
Contour Place Workshop

Which site concept(s) are you commenting on? *Check one*

A ☐ B ☐ Both ☒

What comments or questions do you have on proposed **Site or Building Design?**

What comments or questions do you have on **Neighborhood Impact** from this project?

(1) APPEARS TO BE SIMILAR USE TYPE TO OTHER EXISTING PROPERTIES

(2) WHAT IS # OF DWELLINGS UNITS / ACRE FOR THIS SITE AND EXISTING ADJACENT SITE

How often have you been near or by this property (within approx. three blocks) in the past six months?

Daily ☐ Weekly ☐ Monthly ☒ Not Regularly ☐

General Comments/Questions

(1) HOW MANY GUEST PARKING SPACES ARE PROVIDED

(2) PERCENT OF IMPERVIOUS COVERAGE; WHERE WILL STORM WATER DETENTION BE PROVIDED

(3) FOR SALE OR RENTAL

DES PLAINES ILLINOIS

Public Comment Card
Contour Place Workshop

Which site concept(s) are you commenting on? *Check one*

A [X] B [X] Both [ ]

What comments or questions do you have on proposed **Site or Building Design**?

Unable to fill Apts with residents and currently the new residential highrise sits empty and no retailers. WILKINS

What comments or questions do you have on **Neighborhood Impact** from this project?

Shifting building from trucks speeding down Graceland and vibrates our Bldg.... walls are cracked.

How often have you been near or by this property (within approx. three blocks) in the past six months?

Daily [ ] Weekly [ ] Monthly [ ] Not Regularly [ ]

General Comments/Questions

Semi truck traffic should be routed to Route 83 instead of Graceland.

New residential bldg.

Re route Truck traffic

restaurant not coming

Samantha Redman

From: Maureen Stern
Sent: Friday, June 9, 2023 10:28 AM
To: Samantha Redman; John Carlisle
Subject: FW: Feedback for Des Plaines, IL

This came in through the feedback button on the website.
See below.

From: Media Services <media@desplaines.org>
Sent: Friday, June 9, 2023 10:24 AM
To: Maureen Stern <mstern@desplaines.org>
Subject: FW: Feedback for Des Plaines, IL

From: Des Plaines, IL <media@desplaines.org>
Sent: Friday, June 9, 2023 10:23:44 AM (UTC-06:00) Central Time (US & Canada)
To: Media Services <media@desplaines.org>
Subject: Feedback for Des Plaines, IL

You have received this feedback from [redacted] following page:

https://www.desplaines.org/access-your-government/boards-and-commissions/planning-and-zoning-board

My concern is the development of the saw company at Thacker and Graceland. I attended the meeting on June 6. I don't think the city realizes the total picture. I would like to see another meeting set with more notice given to residents in the area. There are more residents who were not advised in writing who do not have the Des Plaines internet access We don't need more apts especially if they accept vouchers. The complex will be mostly vouchers. . parking is not adequate now. The argument that most potential renters will not have cars is unrealistic. There is nothing close by - a car will be necessary for shopping. Argument that it is close to the train is unrealistic. Most young people work from home and the walk to the train is not that convenient especially in bad weather . I did it for 10 years. There is nothing in Des Plaines close by to entice young people to live here. There were board members that get it. The demeanor of one disappointing- like he didn't care I neglected to get names unfortunately. I remember faces Shame Des Plaines headed in wrong direction with apts

Samantha Redman

From: [redacted]
Sent: Tuesday, June 13, 2023 3:48 PM
To: Andrew Goczkowski; Jessica Mastalski; Mark Lysakowski; Colt Moylan; Sean Oskerka
Cc: Samantha Redman; Dick Sayad; Carla Brookman; mwalster@desplaines.org; Patricia Smith; Mike Charewicz; jcatallano@desplaines.org; rfowler@desplaines.org; Rhoferr@desplaines.org; psaletnik@desplaines.org; Jszabo@desplaines.org; Cveremis@desplaines.org; tweaver@desplaines.org; Joanne Mendoza
Subject: Fw: Graceland and Thacker -- Maybe Someone will respond
Attachments: IMG_6425.PNG

Good Afternoon.....I am writing this for myself, and other residents in the area. I have not gotten one response regarding previous emails. Very disappointing.

I can only hope this development is for reconsideration. There is no parking. Not a good location for apartments, especially since the new downtown apartments are not even rented. Knowing how the drill is, this complex will become low income housing which will destroy Des Plaines. Common sense would tell you this. I'd like to see Des Plaines work harder to build up retail, rather than apartments. All of us would. I take advantage of At7 and the Theatre.

There is not enough retail around to even entice people to live here. I have to drive outside of Des Plaines for most shopping.

Developer's arguments:

Young people want to live near the train. Downtown Des Plaines is different and they can't even rent those apartments close by. This is not Downtown Chicago where everything is in walking distance (restaurants, stores, drug stores, etc.) I traveled over 10 years to the train from this location, and during bad weather - not an easy hike. Even as he says young people don't need cars, there is no shopping convenient here. THEY WILL NEED CARS -- and the parking situation. Parking is limited in this location as it is.

He is never going to get the high rents he thinks he is - very delusional thinking.....So lower the rents and accept vouchers. I'm beginning to think that's the plan

DO NOT APPROVE THEIR BUILDING PLANS

Redraw the plans of the building Push back the building so there is a parking lot in front of the proposed building on Graceland.
Make the building residents 50 years and older -- there are more elderly people who would be interested
Do condos/townhouses - people who would have more of a personal stake in Des Plaines.
But, I'm not hopeful as from experience (I worked for attorneys and a lobbyist), and usually by the time residents are notified - too late. Just like the Journal site (more apartments) I hope Des Plaines wakes up.

I would like information to pass on to the residents in the area.

----- Forwarded Message -----
[redacted]
To: "soskerka@desplaines.org" <soskerka@desplaines.org>
Cc: "dsayad@desplaines.og" <dsayad@desplaines.og>
Sent: Friday, June 9, 2023 at 12:49:13 PM CDT
Subject: Graceland and Thacker

Good Afternoon

I sent the following email. FYI

You can see how upset some of us are about this development and the ramifications that are in the future It's not a good location with the arguments the developer had didn't fly

I'm not sure if you were at the meeting. Missed introductions if there were any.

I don't think residents given enough time to understand I had reached out awhile back to someone in Des Plaines. Never got a reply.

I hope you can do something More rentals Not a good thing for Des Plaines. Hoping city wakes up

Condos/townhomes would be

Mr Sayad - I think you were at this meeting ?

Thank you

Sent from my iPhone

Samantha Redman

From: Des Plaines, IL <media@desplaines.org>
Sent: Tuesday, June 20, 2023 9:58 AM
To: Samantha Redman
Subject: *NEW SUBMISSION* Contour Place Public Input

Contour Place Public Input

Submission #:	2513920
IP Address:	149.75.158.58
Submission Date:	06/20/2023 9:57
Survey Time:	3 minutes, 29 seconds

You have a new online form submission.
Note: all answers displaying "*****" are marked as sensitive and must be viewed after your login.

Read-Only Content

Section Break

Which site concept(s) are you commenting on?

Both

What comments or questions do you have on the proposed Site or Building Design

please ignore the NIMBYs and permit this and all other residential housing projects.

What comments or questions do you have on Neighborhood Impact from this project?

Des Plaines is great am I am excited to share it with more people

How often have you been near or by this property (within approx. three blocks) in the past six months?

Daily

General Comments/Questions

I encourage displays to approve this and all residential building projects. there are a couple of NIMBYs running around the neighborhood complaining about this and I think you should ignore them. building more housing will help. Des Plaines and make it a more robust and vibrant community. I live very close to the site, and I look forward to new neighbors. Nick Hantel 719 Laurel Ave

Email (optional)

[redacted]

Read-Only Content

Thank you,
Des Plaines, IL

This is an automated message generated by Granicus. Please do not reply directly to this email.

Samantha Redman

From: [redacted]
Sent: Tuesday, June 20, 2023 10:01 AM
To: Andrew Goczkowski; Jessica Mastalski; Mark Lysakowski; Colt Moylan; Sean Oskerka
Cc: Samantha Redman; Dick Sayad; Carla Brookman; mwalster@desplaines.org; Patricia Smith; Mike Charewicz; jcatallano@desplaines.org; rfowler@desplaines.org; Rhoferr@desplaines.org; psaletnik@desplaines.org; Jszabo@desplaines.org; Cveremis@desplaines.org; tweaver@desplaines.org; Joanne Mendoza
Subject: Re: Graceland and Thacker

I was at the city council meeting last night. I didn't expect to be able to speak. I wasn't prepared and left out my main concern about so many rentals in Des Plaines. This email is repetitive to my original email below.

Also I'm speaking for residents in the area. Not just myself

I dread that Des Plaines is going down this path. I think in the long run federal aid (we are not stupid people who don't realize this is behind all this) given to the city for these so called rentals will not be worth it in the end. Build condos or townhouses where people will have a personal and financial stake in their property

I had asked the developer at the June 6 meeting about what happens when these apts cannot be rented. ……asked about vouchers. He then stated they cannot turn away voucher requests. This development will end up be low income housing.

With the huge rental buildings downtown and the Webford project (more apts) Des Plaines will end up being a disaster down the road

I'd like to see more retail. I have a granddaughter who I would love to take downtown and see shops catered to kids…….not high end stores. There are a lot of kids in Des Plaines Choo Choo is one option but shame it's so small. Sometimes you can't get in.

I think you are making a mistake not agreeing to that gentleman's proposal re snack shop whatever. ….even if not a sit down restaurant. Des Plaines is not a high end city. Seems you lost many opportunities with these restaurants going other places. A good hamburger place would have been great

You made a big mistake about the dispensary. If In the right location downtown you lost a lot of money. There are a lot of people who have medical cards and recreation Now Give their money to Niles and Rosemont

Below is my original email sent to as many people I could find. I hope Mr Mendoza forwarded it to the zoning board. No one could give me any contact information for the Board

Could someone confirm date of the next zoning meeting. We were told June 25…..which is a Sunday

Thank you for your consideration

Sent from Yahoo Mail for iPhone

[redacted]

On Tuesday, June 13, 2023, 3:48 PM, [redacted] wrote:

Good Afternoon.....I am writing this for myself, and other residents in the area. I have not gotten one response regarding previous emails. Very disappointing.

I can only hope this development is for reconsideration. There is no parking. Not a good location for apartments, especially since the new downtown apartments are not even rented. Knowing how the drill is, this complex will become low income housing which will destroy Des Plaines. Common sense would tell you this. I'd like to see Des Plaines work harder to build up retail, rather than apartments. All of us would. I take advantage of At7 and the Theatre.

There is not enough retail around to even entice people to live here. I have to drive outside of Des Plaines for most shopping.

Developer's arguments:

Young people want to live near the train. Downtown Des Plaines is different and they can't even rent those apartments close by. This is not Downtown Chicago where everything is in walking distance (restaurants, stores, drug stores, etc.) I traveled over 10 years to the train from this location, and during bad weather - not an easy hike. Even as he says young people don't need cars, there is no shopping convenient here. THEY WILL NEED CARS -- and the parking situation. Parking is limited in this location as it is.

He is never going to get the high rents he thinks he is - very delusional thinking.....So lower the rents and accept vouchers. I'm beginning to think that's the plan

DO NOT APPROVE THEIR BUILDING PLANS

Redraw the plans of the building Push back the building so there is a parking lot in front of the proposed building on Graceland.
Make the building residents 50 years and older -- there are more elderly people who would be interested
Do condos/townhouses - people who would have more of a personal stake in Des Plaines.
But, I'm not hopeful as from experience (I worked for attorneys and a lobbyist), and usually by the time residents are notified - too late. Just like the Journal site (more apartments) I hope Des Plaines wakes up.

I would like information to pass on to the residents in the area.

---- Forwarded Message ----
[redacted]
Sent: Friday, June 9, 2023 at 12:49:13 PM CDT
Subject: Graceland and Thacker

Good Afternoon

I sent the following email. FYI

You can see how upset some of us are about this development and the ramifications that are in the future It's not a good location with the arguments the developer had didn't fly

I'm not sure if you were at the meeting. Missed introductions if there were any.

I don't think residents given enough time to understand I had reached out awhile back to someone in Des Plaines. Never got a reply.

I hope you can do something More rentals Not a good thing for Des Plaines. Hoping city wakes up

Condos/townhomes would be

Mr Sayad - I think you were at this meeting ?

Thank you

Sent from my iPhone

Samantha Redman

From: Des Plaines, IL <media@desplaines.org>
Sent: Monday, June 26, 2023 4:01 PM
To: Samantha Redman
Subject: *NEW SUBMISSION* Contour Place Public Input

Contour Place Public Input

Submission #:	2528158
IP Address:	99.93.196.68
Submission Date:	06/26/2023 4:01
Survey Time:	55 seconds

You have a new online form submission.
Note: all answers displaying "*****" are marked as sensitive and must be viewed after your login.

Read-Only Content

Section Break

Which site concept(s) are you commenting on?

Both

What comments or questions do you have on the proposed Site or Building Design

not a good option in DP. there are so many vacant rentals already

What comments or questions do you have on Neighborhood Impact from this project?

How often have you been near or by this property (within approx. three blocks) in the past six months?

Weekly

General Comments/Questions

Email (optional)

Read-Only Content

Thank you,
Des Plaines, IL

Samantha Redman

From: Des Plaines, IL <media@desplaines.org>
Sent: Wednesday, July 5, 2023 12:53 PM
To: Samantha Redman
Subject: *NEW SUBMISSION* Contour Place Public Input

Contour Place Public Input

Submission #:	2546548
IP Address:	73.208.12.61
Submission Date:	07/05/2023 12:53
Survey Time:	11 minutes, 5 seconds

You have a new online form submission.
Note: all answers displaying "*****" are marked as sensitive and must be viewed after your login.

Read-Only Content

Section Break

Which site concept(s) are you commenting on?

Both

What comments or questions do you have on the proposed Site or Building Design

Site A - I feel the open land parking lots should be moved to the middle of the area where the garage buildings are. Moving the garage buildings over towards the street is better. We don't need 4 exits from these parking areas with one being so close to the curve in the street on Thacker by the railroad tracks where vision could be blocked. The other exit on Graceland is giving the cars the opportunity to turn left on a one way street.

What comments or questions do you have on Neighborhood Impact from this project?

Parking will become an issue if the residence of the complex have to pay for a parking space. Each unit should already have that built into their rent. Visitor parking should be closer to the main entrance and enough to cover visitors at an equal amount since street parking is very limited.

How often have you been near or by this property (within approx. three blocks) in the past six months?

Weekly

General Comments/Questions

Parking redesign should be investigated as previously noted. For the site A building there are less 2 bedroom units per floor than in the Site B design. Considere making 2 more 2 bedroom units perform at the middle of each floor and eliminate 3 one bedroom units and one studio. Also a more define entrance should be visible at the corner of Graceland and Thacker even though this is not the main entrance. For Site B also a more define entrance should be visible along Graceland. Concerns over at Site B is Oakwood Street capable of handling all this new traffic and parking?

Email (optional)

[redacted]

Read-Only Content

Thank you,
Des Plaines, IL

Samantha Redman

From: Des Plaines, IL <media@desplaines.org>
Sent: Wednesday, July 5, 2023 7:11 PM
To: Samantha Redman
Subject: *NEW SUBMISSION* Contour Place Public Input

Contour Place Public Input

Submission #:	2547791
IP Address:	76.136.228.9
Submission Date:	07/05/2023 7:11
Survey Time:	6 minutes, 59 seconds

You have a new online form submission.
Note: all answers displaying "*****" are marked as sensitive and must be viewed after your login.

Read-Only Content

Section Break

Which site concept(s) are you commenting on?

Site B

What comments or questions do you have on the proposed Site or Building Design

Should redevelop site with Townhome/Condos only with on-site.parking only

What comments or questions do you have on Neighborhood Impact from this project?

Parking is presently severely limited in the neighborhood at the time being! An apartment building would ONLY SERVE TO IMPACT parking and MAKE IT MUCH WORSE!

How often have you been near or by this property (within approx. three blocks) in the past six months?

Daily

General Comments/Questions

Develop Site B with Condo/Townhouse ONLY with on-site parking

Email (optional)

[redacted]

Read-Only Content

Thank you,
Des Plaines, IL

This is an automated message generated by Granicus. Please do not reply directly to this email.

Samantha Redman

From: Des Plaines, IL <media@desplaines.org>
Sent: Monday, July 10, 2023 4:46 PM
To: Samantha Redman
Subject: *NEW SUBMISSION* Contour Place Public Input

Contour Place Public Input

Submission #:	2557607
IP Address:	73.45.169.154
Submission Date:	07/10/2023 4:46
Survey Time:	25 minutes, 22 seconds

You have a new online form submission.
Note: all answers displaying "*****" are marked as sensitive and must be viewed after your login.

Read-Only Content

Section Break

Which site concept(s) are you commenting on?

Both

What comments or questions do you have on the proposed Site or Building Design

i'm a owner of 915 Graceland ave. I don't agree with new zoning: R-4 Central Core Residential Case number:23-040-MAP.

What comments or questions do you have on Neighborhood Impact from this project?

No more rentals in this neigborhood!! We already have 136 rentals right one block douwn!!Maybe more at Ellison Apartaments. This is a quite and peacefull area!!

How often have you been near or by this property (within approx. three blocks) in the past six months?

Daily

General Comments/Questions

Take in consideretion our concern about rentals. I would rather see condos/townhomes where people have a personal and financial stake in their property

Email (optional)

[redacted]

Read-Only Content

Thank you,
Des Plaines, IL

Samantha Redman

From: Des Plaines, IL <media@desplaines.org>
Sent: Thursday, July 13, 2023 9:52 AM
To: Samantha Redman
Subject: *NEW SUBMISSION* Contour Place Public Input

Contour Place Public Input

Submission #:	2564260
IP Address:	75.58.27.199
Submission Date:	07/13/2023 9:52
Survey Time:	4 minutes, 11 seconds

You have a new online form submission.
Note: all answers displaying "*****" are marked as sensitive and must be viewed after your login.

Read-Only Content

Section Break

Which site concept(s) are you commenting on?

Both

What comments or questions do you have on the proposed Site or Building Design

Don't build these, too many buildings to close to each other

What comments or questions do you have on Neighborhood Impact from this project?

Do we need extra rentals in Des Planes?

How often have you been near or by this property (within approx. three blocks) in the past six months?

Daily

General Comments/Questions

Please build your buildings somewhere else

Email (optional)

Read-Only Content

Thank you,
Des Plaines, IL

Samantha Redman

From: Des Plaines, IL <media@desplaines.org>
Sent: Wednesday, July 12, 2023 5:49 PM
To: Samantha Redman
Subject: *NEW SUBMISSION* Contour Place Public Input

Contour Place Public Input

Submission #:	2563308
IP Address:	75.58.27.199
Submission Date:	07/12/2023 5:48
Survey Time:	2 minutes, 11 seconds

You have a new online form submission.
Note: all answers displaying "*****" are marked as sensitive and must be viewed after your login.

Read-Only Content

Section Break

Which site concept(s) are you commenting on?

Both

What comments or questions do you have on the proposed Site or Building Design

We don't need this extra buildings and noises over here. Its nice place to do the park .

What comments or questions do you have on Neighborhood Impact from this project?

will be any voting on this project? Many neighbors don't like this idea.

How often have you been near or by this property (within approx. three blocks) in the past six months?

Daily

General Comments/Questions

Move your project to more open area

Email (optional)

[redacted]

Read-Only Content

Thank you,
Des Plaines, IL

Samantha Redman

From: Des Plaines, IL <media@desplaines.org>
Sent: Tuesday, July 18, 2023 8:11 AM
To: Samantha Redman
Subject: *NEW SUBMISSION* Contour Place Public Input

Contour Place Public Input

Submission #:	2573662
IP Address:	173.15.39.78
Submission Date:	07/18/2023 8:10
Survey Time:	6 minutes, 45 seconds

You have a new online form submission.
Note: all answers displaying "*****" are marked as sensitive and must be viewed after your login.

Read-Only Content

Section Break

Which site concept(s) are you commenting on?

Both

What comments or questions do you have on the proposed Site or Building Design

What comments or questions do you have on Neighborhood Impact from this project?

How will this project affect traffic patterns, parking for all the units and emergency vehicles access.

How often have you been near or by this property (within approx. three blocks) in the past six months?

Daily

General Comments/Questions

How many units are subject to low income tenants

Email (optional)

[redacted]

Read-Only Content

Thank you,
Des Plaines, IL

This is an automated message generated by Granicus. Please do not reply directly to this email.

* Which site concept(s) are you commenting on?

A + B Contour Project (Thacker and Graceland)

What comments or questions do you have on the proposed Site or Building Design

Too Many Rentals in Des Plaines As it is
Potential of being low income housing

What comments or questions do you have on Neighborhood Impact from this project?

PARKING / CRIME

* How often have you been near or by this property (within approx. three blocks) in the past six months?

DAILY

General Comments/Questions

No retail close by for shopping; not close to transportation (a good walk) especially in bad weather
Schools are crowded - build a school

Email (optional) m

Questions about the project should be sent to sredman@desplaines.org.

1. To receive a copy of your submission, please fill out your email address below and submit.
2. Email Address : [redacted]

[redacted]

IF YOU AGREE WITH MY COMMENTS, PLEASE SIGN. I WILL FORWARD TO THE ZONING COMMITTEE. IF YOU HAVE OTHER COMMENTS, PLEASE FEEL FREE TO MAKE YOUR OWN NOTES.

THANK YOU. Please leave the pen!

Mary Davis 203

Teri Pudlo 302

Cheryl Anderson #501

DAVID AND LINDA SCHULTZ - #306

CONSUELO Balaguer aM #305

Marge & Tom [illegible] #506

[illegible] #303

Mary Ann Ales Joe Ales 303

Preethi Thomas 503

Therese A Durante 401

Chuck Durante 401

Karen [illegible] 502

Bijoy Thomas 503

Leon [illegible] 502

Nancy S. Greenfield - 206

Marie A. Olson 202

[illegible] & Michael [illegible] 201

Richard [illegible] 404

Mary Scanlon 403

[illegible] David 405 (over)

* Which site concept(s) are you commenting on?

A + B Contour Project (Thacker and Graceland)

What comments or questions do you have on the proposed Site or Building Design

Too Many Rentals in Des Plaines As it is
Potential of being low income housing

What comments or questions do you have on Neighborhood Impact from this project?

PARKING / CRIME

* How often have you been near or by this property (within approx. three blocks) in the past six months?

DAILY

General Comments/Questions

No retail close by for shopping; not close to transportation (a good walk) especially in bad weather
Schools are crowded - build a school

Email (optional) n/

Questions about the project should be sent to sredman@desplaines.org.

1. To receive a copy of your submission, please fill out your email address below and submit.
2. Email Address : [redacted]

[redacted]

IF YOU AGREE WITH MY COMMENTS, PLEASE SIGN. I WILL FORWARD TO THE ZONING COMMITTEE. IF YOU HAVE OTHER COMMENTS, PLEASE FEEL FREE TO MAKE YOUR OWN NOTES.

THANK YOU. Please leave the pen!

Mary Davis 203
Teri Pudlo 302
Cheryl Anderson #501
DAVID AND LINDA SCHULTZ - #306
CONSUELO Balaguer am #305
Marge & Tom Nimic #506
[illegible] #303
Mary Ann Ales Joe Ales 303
Preethi Thomas 503
Therese A Durante 401
Chuck Durante 401
Karen [illegible] 502
Bijoy Thomas 503
Leon W[illegible] 502
Nancy S. Greenfield - 206
Marie A. Olson 202
Joanna & Mitchell [illegible] 201
Richard P[illegible] 404
Mary Scanlon 403
[illegible] David 405
(over)

Samantha Redman

From: [redacted]
Sent: Monday, August 7, 2023 12:58 PM
To: John Carlisle; Samantha Redman; Joanne Mendoza; Margaret Mosele
Cc: Andrew Goczkowski; Jessica Mastalski; Mark Lysakowski; Mark Walsten; Colt Moylan; Sean Oskerka; Mike Charewicz; Dick Sayad; Carla Brookman; Patricia Smith
Subject: For your consideration: Please pass these comments on to the zoning board re Contour Project

At the meeting on July 25 re rezoning of Contour Saw project. I hope all of you sit back , read the concerns, and consider what will eventually may happen. I'm glad any decision was postponed at this meeting.

Why not just rezone the properties for private homes /townhomes also. Better yet, a school and/or park - I have heard the schools are overcrowded. Also, Give other developers the opportunity for the sites. Maybe this developer would be interested going that route. You would get more interest in the property and hopefully a better plan for the neighborhood if the rezoning included private homes / townhomes.

Eventually the inflation has to improve although it might take a while. So why rush into this.

It was almost a relief about possible townhomes at Site A. After the bombshell that townhomes would be rentals, and reality set in - along with discussions with area residents- this is a worse scenario than the apartments . You would never be able to control the amount of residents living in a townhouse. Property values will go down, not up.

Parking would still be a problem.

If you had to keep apartments at Site B. You would have that money generated - and would be more reasonable for the discussion of future and present housing for seniors which was mentioned. The reality is there is a need for this now. The apartments would work at Site B. I agree.

I'm all for senior housing. There are 3-5 year waiting lists for senior housing. I have friends who are on waiting lists.

They would have additional parking for apartments if they moved the building back further to the west of Graceland. Reconfigure their plans. It would look nicer on Graceland if they did something like the Waterford Condos on Graceland did in front of their condo building.


OWL

And learning the City took the first offer from one developer, this doesn't seem like a good business plan. **Why the rush** when you don't even know what's going to happen at the journal building site, or the rentals from Welkin and Ellison developments. I'm not certain, but aren't there other developments in the works in Des Plaines.

I saw the figures about tax revenue -
Approx. 43,000 taxes received now for properties
Taxes from federal funding. Approx. 490,000

If it was private property- if 40 townhomes. Generate at least 10,000 -12,000 yearly taxes per unit. 480,000 for the property at Site A

If townhomes were privately owned you would generate more taxes in the long run and not compromise the neighborhood. I walked this neighborhood with my granddaughter this past weekend. Such a great safe area with Centennial Park close by. Beautiful.

People who own have a stake in the property take care of it.

Seeing the townhomes around Mannheim and Touhy shows the future of what might eventually happen.

Why not check with surrounding municipals (Schaumburg, Arlington Heights, Rolling Meadows and other neighboring municipalities) if they have problems with this kind of a development in the middle of a quiet residential neighborhood.

Have you looked into this builder's credentials? I see one project pending. Talked to Skokie Rezoning….his development was approved but nothing has been done yet. I

could not find any building developments he has completed. Wouldn't it be a good idea if this was postponed until you see how Skokie makes out with his development. With all the developments planned in Des Plaines, what is the rush.

Right now, You have no idea about the quality and knowledge of the builder's building developments. I do know he was denied building in the City of Chicago at 2835-45 West Belden. The alderman at the time did not want the project. I could not get a reason for the denial.

Hopefully, you have more information on the builder.

There are other ways to get revenue for the city. Focus on downtown retail. Small shops, restaurants , snack shop would be a good thing close to train. Would love to see a dollar store

These are my thoughts along with others. There are so many area residents who have no idea of what is going on, and many who do not have access to internet.

I hope you all read next door. When these conversations come up, people have a lot to say but give up. Talking with residents re Webford project. — seems like they feel the resident's opinions in Des Plaines do not matter. Shame so many residents feel that way.

Saw that with Kimchi project. Pushed it through because of a potential lawsuit……. Is that how Des Plaines works? Telling developers they are good to go before anything approved and finding out how residents feel about it. I was able to talk to the attorney and owners of the Kimchi project when I left the meeting. I wished them good

luck. Very responsible and respectful…….hope it works out for them and Des Plaines residents nearby.

Thank you for your consideration.

And I hope your decisions don't reflect the term limits set - that many of these decisions are made in haste. I am sorry this happened.

Sent from Yahoo Mail for iPhone
Chris at [redacted]

Samantha Redman

From: Caryssa Buchholz [redacted]
Sent: Monday, August 7, 2023 10:47 PM
To: Samantha Redman
Subject: Re: Contour Saws Site A
Attachments: 1924 Graceland-Thacker.jpg

Samantha,

Thank you for forwarding:

I do have a few comments in regards to Site A:

1. With the newly proposed plan as townhomes, I believe this is even more a great opportunity than before to utilize a portion of the existing building on-site through re-use for planned components such as the club house. Despite several additions, there is a portion that appears more of the scale of a single family residence. This building dates back to the 1920s - back when the Contour Saws site was primarily single family residence - see attached Sanborn map. In addition, as you can see from the below newspaper clip and if one were to pull the original plat for the Des Plaines Manor subdivision, the triangle plots at the end of Laurel just above the article title is the site in question, which makes it a part of the original single family Garden City-esque subdivision layout. By preserving this single family structure already on the site, it not only honors the history of the city, it maintains the design or even returns the subdivision closer to its original intent and it creates a unique project that will set it apart from residential developments across our own city and every other neighboring city.
2. As for the new construction component, I would like to see more movement in the facades of the townhome designs. I believe them to be too minimalist per the concept renderings. The condominiums kiddy korner to them have stone lintels and ornamentation and the single family residences in the subdivision are very much craftsman in nature, each bearing their own unique character. While it is often cheaper to design a straight facade, I feel if there is not enough detail added in other manners, they can get stagnant/flat. I'd like to see more than just a slight dip at the roofline between units and a material transition to create that movement. I'd like to see detail added with things such as a cornice or window/door trim or juliet balconies or pilasters - minor things that could break the plane while still structurally maintaining a straight facade at a minimum. I also would like to see material choices become a bit more concise. Right now, the rendering indicates 2 colors of face brick, a veneer stone, and a fiber cement panel. I'd prefer to see this brought down to 2 material choices with a contrasting color palette of 2 colors.


Restricted District
In this portion of the subdivision, lots are improved with sewer, water, gas, electricity, cement sidewalks, thrifty trees, etc. Lots 50x150 in this section as low as $400. Only 3 minutes walk from schools, stores, theater, Northwestern Station, etc.
The Finest Homes in Des Plaines Join Our Subdivision at This Point
HALF ACRE TRACT DISTRICT
Every block square on this plat indicates a house already built & occupied. All the lots which do not bear lot numbers have been already sold.
These Half Acre Tracts Will Pay for Themselves

(Orange outlines buildings originally shown in attached 1924 Sanborn)

Thanks in advance for your time,

Caryssa Buchholz

On Mon, Aug 7, 2023 at 3:22 PM Samantha Redman <sredman@desplaines.org> wrote:

> Hi Caryssa,
>
> Attached are the presentation documents from the discussion on 7/25. There is an issue uploading to the website, I'm investigating right now. Thanks for bringing this to my attention.
>
> Attached is the conceptual plan and rendering. Please note the developer has not submitted an application yet for Site A and they are intending to submit later this month. Once submitted, any person is able to examine the application upon request, per section 12-3-1.D (i.e. we will email all plans to you if you ask). Prior to the Planning and Zoning Board meeting, all materials will be available on the website along with the staff report.

Note: Site B was recommended for approval on 7/25. However, the petitioner has requested to postpone the City Council meeting for Site B until Site A has been through the Planning and Zoning Board so that both applications can be considered by City Council simultaneously.

If you or another community member have comments, please send to me either through email or through the public input form on desplaines.org/contourplace. All comments go directly to our staff so we can incorporate them with our staff review and all public comments are included into the PZB staff report packet.

Let me know if you have any questions, thank you.

How are we doing? Our department wants your feedback. Based on your recent experience with us, please take a few moments to complete this customer satisfaction survey.

SAMANTHA REDMAN

PLANNER

City of Des Plaines

1420 Miner Street, Des Plaines, IL 60016

P: 847.391.5384 W: desplaines.org

From: Caryssa Buchholz [redacted]
Sent: Monday, August 7, 2023 2:21 PM
To: Samantha Redman <sredman@desplaines.org>
Subject: Contour Saws Site A

Good Afternoon Samantha,

I was just catching up on the Contour Saws Development Proposal and based on the audio from the Site B Planning and Zoning meeting held in July 25th, I believe there was mention that Site A was now being looked at for Townhome development and imagery was presented at the meeting. I didn't see any presentation documents online for Site A.

Is that located somewhere where I could see the current proposal for Site A?

Thanks,

Caryssa Buchholz, **AIA, LEED Green Assoc.**

Samantha Redman

From: Des Plaines, IL <media@desplaines.org>
Sent: Wednesday, September 13, 2023 10:05 PM
To: Samantha Redman
Subject: *NEW SUBMISSION* Contour Place Public Input

Contour Place Public Input

Submission #:	2699455
IP Address:	174.192.69.24
Submission Date:	09/13/2023 10:04
Survey Time:	40 minutes, 36 seconds

You have a new online form submission.
Note: all answers displaying "*****" are marked as sensitive and must be viewed after your login.

Read-Only Content

Section Break

Which site concept(s) are you commenting on?

Both

What comments or questions do you have on the proposed Site or Building Design

If Welkin is only 50%/not fully occupied (as well as more units coming on Webford)? Is the market telling you there is already enough units available? If these units are not fully occupied, I fear HUD units coming. Des Plaines needs patrons with HIGHER disposable income, not LOWER! Existing home sales are stagnant while new home construction is doing well. Why aren't we building townhouses? The Lee/Center downtown townhouses appear sold-out while Welkin 1/2 empty! How secure is bank line?

What comments or questions do you have on Neighborhood Impact from this project?

The green argument to charge for parking is just a diguise. It's just another way to upcharge the renter. If you live in the burbs, 95% of people have at least one car. Milenials are an increasing part of the first time home buying market which would support new townhome rationale. In terms of parking enforcement- Forget it. I've called into the DP police to enforce a Stop sign at my intersection. Dozens of cars run through it every day as no one cares. Welkin many cars park on Elin all day.

How often have you been near or by this property (within approx. three blocks) in the past six months?

Daily

General Comments/Questions

DP seems to be hitting the first and only real bid for the development. New home sales are is the only thing moving right now (existing homeowners with low mortgage rates are reluctant to move). Rental units feel saturated and am worried about units going HUD to fill them in the years ahead.

Email (optional)

[redacted]

Read-Only Content

Thank you,
Des Plaines, IL

LONG TRAINS

(MEETING ON JUNE 6. 2023)

AFTER THE MEETING, WHEN WE WERE TOLD, THAT ONLY SHORT TRAINS ARE MOVING ON THE TRACK BEHIND MY HOUSE

JUNE 14 - 2023 VIDEO OF LONG TRAIN, THAT DAY 3 LONG TRAINS PASSED MY HOUSE (128, 145, ? CARS)

JUNE 19 - 23 - AT NIGHT 1 AM (? CARS)
JUNE 20 - 23 1 PM (148 CARS), AND 10 20 PM (142 CARS)
JUNE 21 - 2023 11 20 PM (147 CARS)
JUNE 22 - 2023 5 30 AM (145 CARS) & 11 45 PM (145 CARS)
JUNE 23 - 2023 3 40 PM (145 CARS) & 10 30 PM (147 CARS)
JUNE 24 - 2023 1 08 AM (?) V & 10 05 AM (129) V
S. JUNE 25 — 2 30 AM (LONG ?) & 1 30 PM (?), 8 30 PM (?) V
JUNE 26 — 2 40 PM (?) V, 8 22 PM (?) V, 2 40 AM (?)

JUNE 29 — 1 48 PM (41+?) V,
JUNE 30 — 7 45 PM (140)
SAT. JULY 1 — 7 45 AM (105),
SUN JULY 2 — 11 45 PM (147)
JULY 5 — 7 30 PM (104)
FRI JULY 7 — 4 20 AM (100+?)
THU JULY 20 — 7 50 PM (104) V
FRI JULY 21 — 9 15 AM (104) V
SAT JULY 22 — 9 15 AM (100+)
MON JULY 24 — 12 15 AM (100+), 8 50 PM (100+)
SUN JULY 30 — 11 30 AM (147) V
MON JLY 31 — 5 55 AM (100+), 9 AM, 11 AM
SAT AUG 5 — 7 20 (100+) AM
WED AUG 9 — 8 15 PM (100+) V
SAT AUG 12 — 8 16 AM (120) V
TUE AUG 22 — 10 45 AM (65+)?
THURS. AUG 31 — 12 50 PM (133)
WED SEPT 6 — 9 10 PM (143)
SAT SEPT 9 — 3 50 PM (157)
SAT SEPT 23 — 12 56 PM (120)

SUN SEPT 24 - 4 15 PM (202 LONG & HEAVY
TUE SEPT 26 - 11 15 AM

Samantha Redman

From: Des Plaines, IL <media@desplaines.org>
Sent: Wednesday, September 27, 2023 11:02 PM
To: Samantha Redman
Subject: *NEW SUBMISSION* Contour Place Public Input

Contour Place Public Input

Submission #: 2728994
IP Address: 73.8.105.28
Submission Date: 09/27/2023 11:01
Survey Time: 16 minutes, 22 seconds

You have a new online form submission.
Note: all answers displaying "*****" are marked as sensitive and must be viewed after your login.

Read-Only Content

Section Break

Which site concept(s) are you commenting on?

Both

What comments or questions do you have on the proposed Site or Building Design

While I do think these buildings would look much nicer than the current factory and empty lot, please do not build anymore rentals. We need more home OWNERSHIP in Des Plaines. Condos are better than apartments. Empty rentals brings in low income housing which leads to increased crime and uneasy vibes residents do not want introduced. This will lead to residents choosing to leave Des Plaines, when the goal of the city is to bring people in.

What comments or questions do you have on Neighborhood Impact from this project?

Residents of Des Plaines want more than just housing. We need to keep the suburb vibe and not turn into a “city.” We need eateries, parks, and entertainment options. Des Plaines does not need to put a condo or apartment building in any space we can squeeze. With that said, if you just choose to put housing here, do condos and NOT apartments. Townhomes are too expensive for many homebuyers in this current market.

How often have you been near or by this property (within approx. three blocks) in the past six months?

Monthly

General Comments/Questions

Give the name “Des Plaines” a good name for other neighboring suburbs. We have bigger fish to fry…let’s make Des Plaines’ downtown compete with our neighbors, focus on crime, and work on getting more green space.

Email (optional)

Read-Only Content

Thank you,
Des Plaines, IL

COMMUNITY AND ECONOMIC
DEVELOPMENT DEPARTMENT
1420 Miner Street
Des Plaines, IL 60016
P: 847.391.5380
desplaines.org

MEMORANDUM

Date: October 19, 2023

To: Planning and Zoning Board (PZB)

From: Jonathan Stytz, AICP, Senior Planner JS

Cc: Ryan Johnson, Assistant Director of Community and Economic Development RJ

Subject: Zoning Text Amendments Regarding Landscape Buffer Requirements in C-4 District

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Issue: The petitioner is proposing to modify Section 12-10-9.C to require properties located in the C-4 Regional Shopping district that abut residential properties to comply with landscape buffer requirements in Section 12-10-9 of the Zoning Ordinance.

PIN: Citywide

Petitioner: City of Des Plaines, 1420 Miner Street, Des Plaines, IL 60016

Case Number: #23-061-TA

Request Description: The City of Des Plaines is proposing amending the Zoning Ordinance to clarify regulations for landscape buffers on properties located in the C-4 district that abut residential properties.

Background

Chapter 10 of the Zoning Ordinance, "Landscaping and Screening," was created to:

> "preserve and enhance the appearance, character, health, safety, and general welfare of the community by fostering aesthetically pleasing development…" [and] "…increase the compatibility of adjacent uses, and minimize the adverse impact of noise, dust, motor vehicle headlight glare or other artificial light intrusions, and other objectionable activities or impacts conducted on or created by adjoining or neighboring uses." (Section 12-10-1 of the Zoning Ordinance)

To achieve this purpose, Section 12-10-9 of the Zoning Ordinance was created to specify landscape buffer requirements for properties with more intensive uses such as higher density residential districts and properties in non-residential districts that abut properties in the R-1 Single Family Residential and R-2 Two-Family Residential districts to provide screening in between the two districts. The landscape buffer/screening requirements vary based on the type of zoning district that abuts an R-1 or R-2 district as indicated on the following table. However, the landscape buffer/screening requirements include the installation of a minimum five-foot-wide non-paved landscape buffer and opaque fence for the entire length of the property line of the more intensive district that abuts the R-1 or R-2 district.

Section 12-10-9.C - Landscape Buffer Requirements		
Zoning District Abutting a R-1 or R-2 district	Buffer Width	Buffer Improvements
R-3 Townhouse Residential, R-4 Central Core Residential, or MH-1 Mobile Home Park districts	5 feet	• Solid wood, vinyl, or masonry fence not exceeding six feet in height. • Remaining landscape buffer not covered by the fence must be maintained as turf or other ground cover.
C-1 Neighborhood Shopping and C-2 Limited Office Commercial districts	5 feet	• Shade trees, a minimum of two and one-half inches in caliper, must be planted on an average of one tree for every 30 feet of the yard length. • A solid wood, vinyl, or masonry fence eight feet in height shall be erected along one 100 percent of the yard length. • The remaining landscape buffer area not planted with trees shall be maintained as turf or other ground cover.
C-3 General Commercial, M-1 Limited Manufacturing, M-2 General Manufacturing, or M-3 Special Manufacturing districts	5 feet	• Shade trees, a minimum of two and one-half inches in caliper, shall be planted on an average of one tree for every 30 feet of the yard length. • A solid wood, vinyl, or masonry fence eight feet in height shall be erected along one 100 percent of the yard length. • A solid wood, vinyl, or masonry fence eight feet in height shall be erected along one 100 percent of the yard length.
I-1 Institutional district	5 feet	• The landscape buffer shall contain the following improvements: Shade trees, a minimum of two and one-half inches in caliper, shall be planted on an average of one tree for every 30 feet of the yard length. • A solid wood, vinyl, or masonry fence eight feet in height shall be erected along one 100 percent of the yard length. • The Landscape buffer area not planted with trees shall be maintained as turf or other ground cover.

Currently, properties in the C-4 Regional Shopping district are exempt from the landscape buffer requirements. However, many properties in the C-4 district directly abut or are adjacent to properties in the R-1 or R-2 districts. Staff has also received complaints regarding existing fences on some C-4-zoned properties that are in disrepair and are not providing proper screening between different districts. As such, staff is proposing to adjust the landscape buffer table above to add the C-4 district, requiring properties in this district to comply with the landscape buffer regulations currently in place for properties in the C-3, M-1, M-2, and M-3 districts.

Proposed Amendments

The full proposed amendments are attached and are summarized below:

Section 12-10-9, Landscape Buffers: Adjust subsection C of this section to regulate landscape buffers for properties located in the C-4 Regional Shopping district the same way as currently regulated for properties in the C-3, M-1, M-2, and M-3 districts. The landscape buffer regulations that will apply are as follows:

- Shade trees, a minimum of two and one-half inches in caliper, shall be planted on an average of one tree for every 30 feet of the yard length.
- A solid wood, vinyl, or masonry fence eight feet in height shall be erected along one 100 percent of the yard length.
- The landscape buffer area not planted with trees shall be maintained as turf or other ground cover.

Standards for Zoning Text Amendment:
The following is a discussion of standards for zoning amendments from Section 12-3-7.E of the Zoning Ordinance. The PZB may recommend the City Council approve, approve with modifications, or deny the amendments. The PZB *may* adopt the following rationale for how the proposed amendments would satisfy the standards, or the Board may use its own.

1. **Whether the proposed amendment is consistent with the goals, objectives, and policies of the comprehensive plan, as adopted and amended from time to time by the City Council;**

   These amendments help clarify and expand on the landscape buffer regulations in between different districts to address a current gap in the Zoning Ordinance. As many C-4-zoned properties directly abut or are adjacent to R-1 and R-2 districts, the proposed amendments require appropriate screening mechanisms to strengthen the transition between uses to reduce adverse effects on neighboring properties, which the Comprehensive Plan strives to achieve.

PZB Modifications (if any): _____

_____.

2. **Whether the proposed amendment is compatible with current conditions and the overall character of existing development;**

   The proposed amendments provide further consistency in screening regulations city-wide and align with the existing landscape buffer regulations currently in place for similar zoning districts, such as the C-3 General Commercial district. The amendments focus on furthering screening mechanisms in between large commercial buildings often found in the C-4 district with lower density residential development to soften the transition between these two different uses.

PZB Modifications (if any): _____

_____.

3. **Whether the proposed amendment is appropriate considering the adequacy of public facilities and services available to this subject property;**

   The proposed amendments would not impact the public facilities and services available to properties located within the C-4 district, but rather extend the existing buffer regulations to the C-4 district. The existing regulations also provide accommodations for pedestrian connections between the two uses as necessary.

PZB Modifications (if any): _____

_____.

4. **Whether the proposed amendment will have an adverse effect on the value of properties throughout the jurisdiction; and**

   It is not anticipated that the proposed amendments will have any adverse effect on surrounding properties, but rather an improved and softened transition between differing uses that decreases adverse effects.

PZB Modifications (if any): _____

_____.

5. **Whether the proposed amendment reflects responsible standards for development and growth.**

The proposed text amendments facilitate a path towards responsible standards for development and growth for all properties in the C-4 district that are already in place for other districts in Des Plaines. The amendments purpose is to provide an adequate buffer in between varying uses and foster commercial site design in a way that is consistent with the surrounding neighborhood.

PZB Modifications (if any): _____

_____.

PZB Procedure and Recommendation: Under Section 12-3-7 of the Zoning Ordinance, the PZB has the authority to *recommend* that the City Council approve, approve with modifications, or deny the above-mentioned amendments. The Board should clearly state any modifications so that its recommended language can be incorporated in the approving ordinance passed on to the Council, which has final authority on the proposal.

Attachments:
Attachment 1: Proposed Amendments

Proposed Amendments

"12-10-9: LANDSCAPE BUFFERS:

* * *

C. Size And Improvement Of Landscape Buffers: The size and required improvement of landscape buffers shall be as follows:

R-3 Townhouse Residential, R-4 Central Core Residential, Or MH-1 Mobile Home Park Districts:
Buffer Width: Where a multiple-family or mobile home park development abuts a single- or two-family residential district or use, a landscape buffer a minimum of five feet in width shall be provided.
Buffer Improvements: The landscape buffer shall include a solid wood, vinyl, or masonry fence, not exceeding six feet in height. The remaining landscape buffer area not covered by the fence shall be maintained as turf or other ground cover.
C-1 And C-2 Commercial Districts:
Buffer Width: Where a lot in the C-1 neighborhood shopping district or C-2 limited office commercial district abuts a residential district or use, a landscape buffer a minimum of five feet in width shall be provided.
Buffer Improvements: The landscape buffer shall include the following improvements:
1. Shade trees, a minimum of two and one-half inches in caliper, shall be planted on an average of one tree for every 30 feet of the yard length.
2. A solid wood, vinyl, or masonry fence eight feet in height shall be erected along one 100 percent of the yard length
3. The remaining landscape buffer area not planted with trees shall be maintained as turf or other ground cover.
C-3 **and C-4** Commercial, M-1, M-2 Or M-3 Manufacturing Districts:
Buffer Width: Where a lot in the C-3 general commercial district, **C-4 Regional Shopping district,** M-1 limited manufacturing district, M-2 general manufacturing district, or M-3 special manufacturing district abuts a residential district or use, a landscape buffer a minimum of five feet in width shall be provided.
Buffer Improvements: The landscape buffer shall contain the following improvements:
1. Shade trees, a minimum of two and one-half inches in caliper, shall be planted on an average of one tree for every 30 feet of the yard length.
2. A solid wood, vinyl, or masonry fence eight feet in height shall be erected along one 100 percent of the yard length
3. The landscape buffer area not planted with trees shall be maintained as turf or other ground cover.

* * *"