Village of Downers Grove

# Report for the Village Council Meeting

*Table 1 - Council Agenda item.*

| | |
|---|---|
| **Subject** | 3300 Lacey Road –Planned Unit Development Amendment |
| **Submitted By** | Stan Popovich, AICP<br>Director of Community Development |

## Synopsis.

The petitioner is requesting to amend Planned Unit Development #31 to construct a new hospital and clinic at 3300 Lacey Road.

## Strategic Plan Alignment.

The goals for 2025-2027 Strategic Plan include *Strong and Diverse Local Economy***.**

## Fiscal Impact.

N/A

## Recommendation.

Approval on the September 8, 2026 Active Agenda.

At their August 3, 2026 meeting, the Planning and Zoning Commission unanimously recommended approval (6-0) of the proposed amendment. The Planning and Zoning Commission found that the proposal is compatible with the Comprehensive Plan and meets the standards for a Planned Unit Development Amendment found in Section 28.12.040(c)(5).

## Background.

## Property Information and Zoning Request.

The petitioner is requesting approval of an amendment to the Planned Unit Development for Planned Unit Development #31, Esplanade at Locust Point to construct a new hospital and clinic for Ann & Robert H. Lurie Children's Hospital of Chicago. The 13.2-acre property is located at the northwest intersection of Woodcreek Drive and Lacey Road, directly west of I-355.

PUD #31 was approved in 1990 with a master site development plan that identified a variety of office buildings, open space, transportation and roadway improvements. Earlier this year, the PUD was amended to add hospital as an approved allowed use within PUD #31. At that time, it was determined any applicant proposing the construction of a hospital would be required to go through the entitlement process.

The proposed building will feature two sections: a two-story section for the outpatient clinic and a five-story hospital section. The hospital will feature four stories above grade, including two stories for the emergency and surgery department with two stories above for in-patient beds, all above a walk-out lower level dedicated to core building functions. The two building sections will be connected at the middle of the overall structure with a main entrance that will include a patient and visitor drop-off area. The emergency department also has a dedicated area for patient drop off at the southeast corner of the building, with an ambulance drop-off area located along the southwest façade.

Lastly, a helipad is located just south of this area and is connected via an eight-foot-wide gurney way. The gurney way will extend from the heliport to the emergency department back entrance. The helipad will serve outgoing transfers to Lurie Children's Chicago location for certain patients.

## Compliance with the Comprehensive Plan.

The Guiding DG Comprehensive Plan's Future Land Use Map designates the subject property as Office. Office uses are defined as large-scale office buildings and complexes, office parks, and small individual offices. The subject property is also part of the Butterfield and Finley Road Area, which has a variety of recommendations for continued investment in this corridor. The petitioner is proposing to construct a hospital.

The proposed development meets the recommendations of the Guiding DG Comprehensive Plan as summarized in the PZC staff report.

## Compliance with the Zoning Ordinance.

The property is zoned O-R-M, PUD #31, Office-Research-Manufacturing and Planned Unit Development #31. The zoning bulk requirements of the proposed development in this zoning district and the overall PUD bulk regulations are summarized in Tables 6 and 7 in the PZC staff report. Additionally, a list of requested deviations, all related to signage, can be found in Table 9 in the Staff Report.

## Engineering and Public Improvements.

The overall Esplanade campus drains in a westerly direction and the stormwater detention for the entire development was designed in a series of ponds. The proposed development does require additional stormwater detention. The required detention volume will be provided by modifying three existing ponds to gain additional volume. Based on the existing impervious area on the site and the proposed impervious area, the proposed development requires Post Construction Best Management Practices (PCBMPs). This additional volume will be provided via an underground vault storage along the west side of the building and two volume control basins located along the southern portion of the site. Moreover, permeable

pavers installed on a portion of the parking lot will provide a water quality control measure.

Access will be provided via a single full-movement access drive on Lacey Road, via two full-movement access drives on Woodcreek Drive, and a full-movement access drive on Birchwood Place. A northbound left-turn lane will be provided on Lacey Road serving the proposed access drive. The left turn lane can be provided within the existing median without roadway widening. Eastbound left-turn lanes will be provided on Woodcreek Drive at both proposed access drives.

Internal pedestrian connections are provided between the hospital and clinic. A new sidewalk is proposed on the south side of Birchwood Place. Additionally, pedestrian connections will be provided throughout the development and to the public sidewalks adjacent to the site.  Lastly, along Lacey Road, the petitioner is proposing a 10-foot-wide shared-use path, in accordance with the Guiding DG Active Transportation Plan.

## Traffic and Parking.

A traffic impact study for the proposed development was completed by the petitioner. The study examined the existing and future traffic conditions at the intersections of Butterfield Road with Woodcreek Drive/Lloyd Avenue, Esplanade Road, and the I-355 interchange at the intersection of Lacey Road with Woodcreek Drive (North and South), Esplanade Road, Birchwood Place, and Finley Road based on the proposed hospital campus.

Truck loading and passenger vehicle access will be separated. The internal access road system will efficiently accommodate hospital operations. Parking will be accommodated via 501 surface parking spaces in two parking lots. The traffic study found that the site is well located in regards to the regional and local roadway network which provides flexible connectivity to the Tollway system as well as major arterial roadways. Additionally, the peak hours of trip generation for the proposed hospital campus will correspond to staff shift changes, which will occur outside the

peak hours of the roadway system. The traffic study found no significant impacts to the existing road network.

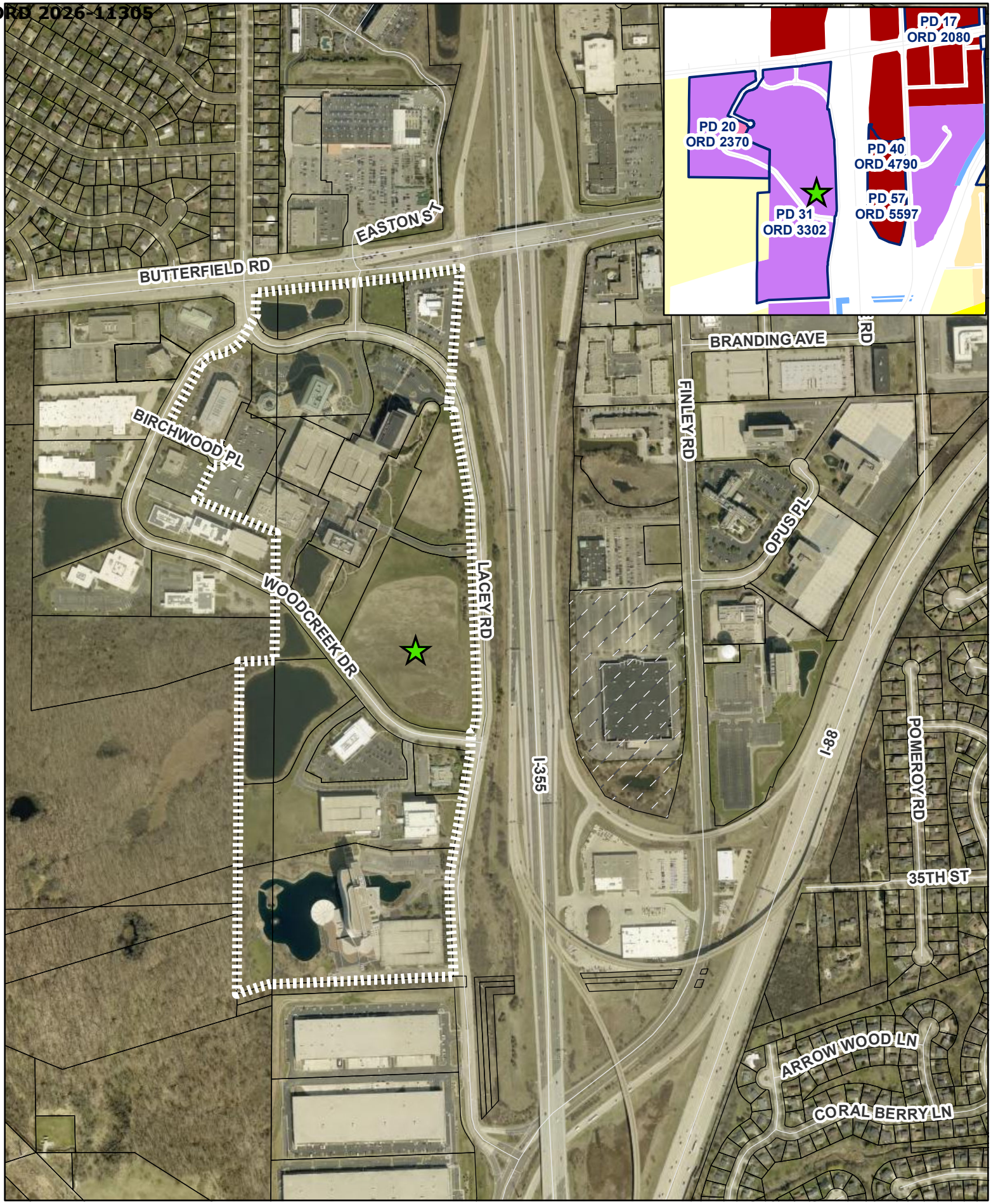
## Public Comment.

Staff did receive one inquiry from the public prior to the Planning and Zoning Commission meeting. The question was general in nature. During the Planning and Zoning Commission meeting, two members of the public spoke in support of the request.

## Attachments.

- Aerial Map
- Ordinance
- Staff Report with attachments dated August 3, 2026
- Planning and Zoning Commission Minutes dated August 3, 2026
- Public Correspondence

ORD 2026-11305




N

0 250 500 1,000 Feet

**Lurie Children's Hospital - Location Map**

Subject Property

Project Location

# Ordinance

**An Ordinance Approving an Amendment to Planned Unit Development #31 to Construct a New Hospital at 3300 Lacey Road**

WHEREAS, the Village Council has previously adopted Ordinance No. 3302 on April 30, 1990, designating the property described therein as Planned Unit Development #31 and subsequent amendments thereto; and,

WHEREAS, the Owners have filed a written petition with the Village conforming to the requirements of the Zoning Ordinance and requesting an amendment to Planned Unit Development #31 to allow construction of a new hospital; and,

WHEREAS, such request was referred to the Planning & Zoning Commission of the Village of Downers Grove, and the Planning & Zoning Commission has given the required public notice, conducted a public hearing for the petition on August 3 2026, and has made its findings and recommendations, all in accordance with the statutes of the State of Illinois and the ordinances of the Village of Downers Grove; and,

WHEREAS, the Planning & Zoning Commission has recommended approval of the requested petition, subject to certain conditions; and,

WHEREAS, the Village Council has considered the record before the Planning & Zoning Commission, as well as the recommendations of Planning & Zoning Commission.

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

SECTION 1. That the provisions of the preamble are incorporated into and made a part of this ordinance as if fully set forth herein.

SECTION 2. That a Planned Unit Development Amendment is hereby adopted authorizing the construction of a new hospital subject to the following conditions:

1. The Planned Unit Development Amendment shall substantially conform to the staff report dated August 3, 2026, civil drawings prepared by RWG Engineering dated June 17, 2026 and last revised June 25, 2026 architectural drawings prepared by Lamar Johnson Collaborative and Zimmer Gunsul Frasca Architects LLP dated June 25th, 2026 and last revised July 22, 2026; landscape drawings prepared by Lamar Johnson Collaborative and Zimmer Gunsul Frasca Architects LLP dated June 17, 2026 and last revised July 22, 2026, and photometric drawings prepared by Affiliated Engineers, Inc. dated June 25, 2026.
2. A recorded plat of abrogation to remove the utility easements will be required prior to permit issuance.
3. A recorded plat of stormwater easements will be required prior to Certificate of Occupancy issuance.
4. Any required night lighting should follow the International Dark-Sky Association's IDA Five Principles for Responsible Outdoor Lighting.
5. During construction an exclusionary silt fence shall be installed by the end of March and maintained through October to prevent the Blanding's Turtle from entering the construction area.
6. All heliport signage will be approved by the Community Development Director.
7. A temporary construction easement or agreement from the DuPage County Forest Preserve will be required for the proposed pond regrading and overflow weir replacement prior to permit issuance.
8. The Village will replant the parkway after construction is complete. A fee in the amount of $31,280 (for the removal of eleven (11) existing

trees and fees associated with planting thirty-five (35) new trees) will be charged for the proposed parkway tree plantings during permit issuance.

SECTION 3. That approval set forth in Section 2 of this ordinance is subject to the findings and recommendations of the Downers Grove Planning & Zoning Commission regarding File 26-PZC-0036 as set forth in the minutes of their August 3, 2026 meeting.

SECTION 4. That the use is consistent with and complementary to the overall planned unit development site plan and with the requirements of the "O-R-M/PUD #31, Office-Research-Development/Planned Unit Development" zoning district.

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

SECTION 6. That this ordinance shall be in full force and effect from and after its passage and publication in pamphlet form as provided by law.

_____

By: Mayor

Passed:

Published:

**Attest**:

_____

By: Village Clerk

Village of Downers Grove

# Planning and Zoning Commission – Minutes

*Table 1 - Detailed information on this Planning and Zoning Commission Meeting*

| | |
|---|---|
| **Meeting Location** | Civic Center – Betty Cheever Council Chambers |
| **Meeting Address** | 850 Curtiss St., Downers Grove, IL 60515 |
| **Meeting Date** | August 3, 2026 at 7:00 PM |

## A. 26-PZC-0036:

The petitioner is seeking approval of an Amendment to Planned Development #31. The property is generally located west of Lacey Road starting approximately 1,100 feet north of the intersection of Lacey Road and Finley Road and extending north to Butterfield Road and West of Woodcreek Drive, commonly known as the Esplanade at Locust Point, Downers Grove, IL (PINs: 05-25-413-009, 05-25-415-010, 05-36-200-009, -011, 05-36-202-008, -015, -016, -017, 05-36-400-017, 06-30-301-007, 06-30-304-002, -003, 06-30-305-003, 06-31-100-019, -020, -021, -022, -023, -025, -027, -028, -029, 06-31-103-001, -002, -005, -006, -007) Petitioner, Hamilton Partners; Owners, Hamilton Partners and Various Owners.

Kate Duncan, Attorney with Quarles & Brady stated that she is the representative for the applicant, Ann and Robert H. Lurie Children's Hospital of Chicago. She explained the applicant is seeking approval of an amendment to Planned Unit Development #31 to allow for the construction of a new pediatric hospital and healthcare facility, which is zoned PUD #31, an underlying zoning classification of ROM District. She noted an amendment to PUD #31 was approved to allow hospitals as a permitted use.

Dr. Tom Shanley, President and CEO of Lurie Children's Hospital, thanked the Village, Planning and Zoning Commission, and community members who engaged with them throughout the process. He stated this hospital would provide access to exceptional pediatric care and is an important step from a single downtown hospital into an integrated pediatric health system. He said nearly 580,000 children live in Chicago's western suburbs, and more

than half of them leave the region to get pediatric care, which is why they are choosing to put this new pediatric hospital in Downers Grove. He noted children who can safely receive care closer to home can receive comprehensive pediatric services, and children with the most complex medical needs will continue benefiting with seamless coordination with the downtown campus and full capabilities of Lurie Children's nationally recognized pediatric specialists. He shared they are excited for the opportunity to become part of the Downers Grove community and a trusted partner.

Dr. Marcelo Malakooti, Chief Medical Officer of Lurie Children's and a pediatric critical care physician, expressed that he sees what timely access to specialist pediatric care means for children and their families every day. He said their goal is to bring trusted pediatric care from Lurie Children's closer to families. He stated the proposed Downers Grove Campus is not intended to replicate their downtown campus, but is a pediatric community hospital that delivers the same high standards of care for children with lower and moderate acuity medical needs. He explained the hospital will be approximately 3,000 square feet and located on a 13-acre campus, and will offer a comprehensive range of pediatric services and include 48 inpatient beds, 35-room pediatric emergency department, 6 operating rooms, and a multispecialty outpatient center with 50 exam rooms and 10 ambulatory infusion rooms. He noted services include oncology, cardiology, gastroenterology, orthopedics, rehabilitation, advanced diagnostic imaging, and laboratory or pharmacy services. He added the hospital will operate a full service pediatric healthcare facility, with the emergency department and inpatient areas are open 24 hours a day, 7 days a week. He stated the helipad is intended to transport children requiring rapid transfer to their Streeterville Campus for highly specialized or intensive care.

David Staczek, campus planner architect and lead designer, stated this will be the first new hospital for Lurie Children's Hospital bringing lower acuity inpatient care closer to home. He said the location has great visibility from the tollway, access from the north and south, and has the Arboretum and Forest Preserve as neighbors. He stated they propose to bring the park like setting into the new campus and create a healing space within a healing garden, and an opportunity for expansive views to the east. He said the hospital is four levels and the new clinic building is two levels, which are connected on the lower two levels, and entry of the facility is at the intersection of the two main building forms. There is side access on three sides of the site, 3.2 acres site area, 698,669 square feet of total floor area of the hospital and clinic., and a 0.52 floor area ratio.

Matt Maranzan, site planner and landscape architect with LJC Design & Engineering, gave a deep dive on the site and walked through more details. He discussed the site plan, proposed

building and parking setbacks, layout, visitor, staff and service circulation, pedestrian pathways, drainage and stormwater management plan, landscape, and tree layers. He noted the team has been collaborating with the arboretum and expects to incorporate several cultivars that have been developed there, and they included a series of public and private gardens for patients, families, visitors and staff.

Mr. Staczek expressed their design goals for the project are to help Lurie Children's Hospital make connections, including a connection back to the world class care that represents the main campus and brand, connection to Downers Grove community using local and familiar materials, and the connection to nature. He went over many of the other design details for the proposed site. He stated the signage proposed will require select deviations from the Master Sign Plan for gateway, monument, wall, window, and directional signs. He added they are requesting permission for temporary banners along the main traffic route through the site 12 weeks out of the year.

David Ketchum, Owner and Principal Planner at AirSafe, a heliport design and consulting firm out of Arizona, said they have worked with over 300 hospitals throughout the U.S. He stated the Lurie Children's Downers Grove heliport will be located 100 feet from the south corner of the hospital, which will include the center of the heliport being 187 feet from and at the same elevation as the ER entrance, 15 foot radius gurney way, access to helicopters in the light turbine category, landing area of 45 x 45 feet, an object free safety area 100 x 100 feet, classification of private, restricted for medical use that requires prior permission from the hospital, 8 flush mounted perimeter light fixtures, as well as path lights along the gurney way, and lighted wind indicators. He expressed current weather information will be provided to helicopter communication centers and a closed circuit TV system will monitor patient transfer operations to be sent to comm centers. He talked about code required items of equipment, signs along Woodcreek Drive advising of the possibility of helicopter operations, and the two government agencies that have jurisdiction over the helicopter. He expressed they expect a letter from the FAA stating the agency has no objection to the use of airspace and an operation license from IDOT. He went over the heliport graphics as well. He voiced Lurie Children's is well prepared for this use.

Luay Aboona, KOLA Principal, the traffic consultant on the project, said the site is well-located given the proximity to the expressway and arterial roadway system, with I-355 to the east of the site and I-88 to the south of the site. He stated the principal arterial roadway system consists of Butterfield Road, Finley Road, and Ogden Avenue, and the site is on Locust Point, with signalized intersections at Butterfield Road, Woodcreek Drive, Esplanade Road, and Finley Road. He noted that IDOT is currently improving Butterfield Road by

implementing the smart corridor at Woodcreek Drive and I-355 ramps. He shared KOLA's traffic study indicated the study area intersection has adequate reserve capacity to accommodate the traffic generated by the hospital campus. He said the main access will be provided on Locust Drive into the hospital campus, with two inbound and two outbounds lands, and a northbound left turn lane on Locust Drive. He noted all outbound movements from the access drive will be under stop sign control and no signalization is needed. He voiced traffic generated by the hospital campus can be accommodated based on the site being well-located within the regional roadway system, the roadway network having sufficient capacity to accommodate the traffic, the location and number of access points ensures adequate and flexible access, and the parking supply will adequately accommodate the parking needs.

Mary Kate Daly, Senior Vice President and Chief of Community Health at Lurie Children's, discussed how they engaged the Downers Grove community in the planning process, public benefits, and their commitment to ongoing community engagement and partnership. She said they met with several local leaders, local elected officials, made two visits to the new Crisis Recovery Center in DuPage County, and met with community partners whose work is aligned with their mission to improve the health children. They hosted a public meeting, which was attended by around 150 people, where they shared their vision, goals, and planning. She added the leading questions asked at the meeting were around specific services and specialties offered, how organizations can partner with the hospital, parking and transportation, and project timing. She said their contractors worked with the Illinois Economic Development Corporation research team to develop an economic impact analysis for this project, and the economic impact of the project creates a low case scenario of 552 total new jobs and $54.1 million in increased earnings and high case scenario of 1,026 total new jobs and $98.9 million in increased earnings. In regard to hiring, they plan to put significant focus into local recruitment. She thanked the nine Downers Grove partners who provided letters of support, and reiterated their commitment to continue engaging the community in the future. Chairman Rickard shared that they received a 10th support letter today.

Ms. Duncan requested the PowerPoint presentation they shared be considered as part of their overall application package and shared how they meet the criteria for approval. She stated Lurie Children's believes the terms, conditions, and details will do more than protect surrounding property owners and the general public by creating a thoughtfully designed community center project to allow Lurie Childrne's to serve as an exceptional resource and long-term partner for the Village.

Chairman Rickard expressed the presentation was very impressive.

Chairman Rickard asked for questions for the petitioner.

Commissioner Frankovic agreed it was a wonderful presentation. She asked if there would be any mental health or behavioral services. Dr. Malakooti answered their emergency department will have the capacity to care for behavioral health conditions, but there were no plans for an inpatient unit at this time. However, they are currently exploring offering outpatient services.

Commissioner Frankovic inquired if they would be transporting any patients via helicopter into Downers Grove or if they just be transporting out to Streeterville. Ms. Duncan confirmed there will be no transports into Downers Grove, only from Downers Grove to the Streeterville campus.

Commission Lincoln asked what the reason for that was. Dr. Shanley explained patients typically requiring heliport transport are of such a nature that they would typically need the specialty care at the Streeterville campus.

Commissioner Lincoln inquired if there have been any thoughts on expanding if they decide the demand is bigger than they originally thought. Dr. Shanley responded they view the project as a phase project, and they purchased the plot on the north side to allow for further expansion. He said that would depend on the growth of the services and demand of the patients.

Commissioner Barry commented all questions he had were adequately answered.

Commissioner Frankovic asked if they would consider taking measures for bird friendly glass since they are close to the forest preserves and arboretum. Ms. Duncan answered yes, that is incorporated into the planning and principles of the design.

Commissioner Lincoln asked what percentage of the planting will be native. Mr. Maranzan answered they do not know the exact percentage, but they will be utilizing native plants that stay the right size.

Chairman Rickard asked for public comment.

Brittany Magnus, resident, shared that in 2021, their 2-year-old son was diagnosed with high risk acute lymphoblastic leukemia, and their 5-year-old son was diagnosed with Crohn's disease just a few months later. They were treated at Lurie Children's, where their then 2-

year-old endured daily treatment for more than 2 ½ years and stayed more than 80 nights inpatient. She said when they were home, if he got a fever, which was an emergency for him, they had one hour to get to Lurie, and depending on traffic, the trip could take up to two hours each way. She was grateful for the care her children received, and her only complaint was the distance. She stated if the hospital was in Downers Grove, their family would not have been split up so often, could easily grab forgotten items, and each emergency drive would have come with less fear. She noted he has finished treatment, but will have to continue annual follow-up at Lurie until he is 39, and still has checkups every few months, so having a hospital in Downers Grove would make it more convenient and give families more time together during some of the hardest days of their lives.

Ken Rathje, resident and former planner, expressed 44 years ago, his wife delivered their son at 7 months, at 3 pounds and 12 ounces, and they had to travel many miles to get the services they needed. He said having something like that in DuPage County is fantastic, and everything about this project makes sense.

Chairman Rickard asked for the staff report.

Flore Leon, Senior Planner, explained the request is for a Planned Unit Development amendment, at 3300 Lacey Road. She stated the underlining zoning district is Office Research and Manufacturing District, with the overlay PUD #31. The PUD was approved in 1990 and came with a Master Site Plan approval, but has been updated several times since then, one of which was to add hospital as an approved allowed use earlier this year. She said a public hearing notice sign was posted on the site, mailers were sent out to all neighbors within 250 feet of the site, a notice as placed in the newspaper, and they did not they receive any additional calls or questions. However, they receive a letter from the Forest Preserve District of DuPage County today. She provided the overall plat of survey, site plan, design features, requested deviations and additional signage, and she highlighted sections from the Comprehensive Plan that align with the request. She stated staff found all the standards of approval were met and recommended approval of the petition.

Chairman Rickard asked for questions for staff.

Commissioner Lincoln asked if there are other examples in the Village where they allowed signage and windows coverings at a higher percentage. Mr. Zawila could not recall any, but said this is a unique use and location.

Chairman Richard invited the petitioner to come back up and address anything or make any closing comments.

Ms. Duncan thanked the Downers Grove staff for being exceptional partners to work with throughout the process. She stated with this project, Lurie Children's has the opportunity to bring world class pediatric care closer to home and become a lasting partner in the future of Downers Grove, and they respectfully submitted that the application satisfies all application standards and requested their recommendation for approval.

Chairman Rickard asked for Commission deliberation.

Commissioner Lincoln commented he originally had some concerns with the signs, but he felt the presentation handled those well and it makes sense to have more signs at a hospital. He noted some of the signs in the window being larger may not be as necessary, but that was a small in light of all the other positives.

Commissioner Wolf stated it is clear this is an asset to Downers Grove and the attention and thoughtfulness that went into the design and plans for this made it even better. She added there is also a lot of support for this from the community.

Commissioner Frankovic agreed and said it fits within the Comprehensive Plan and is a huge benefit to the community. She was excited about the project and happy to see the thoughtfulness that went into the design and planning.

Commissioner Barry was thankful they chose to put the hospital in Downers Grove, as it is a tremendous asset to the community and there was no reason to oppose it.

Commissioner Patel was also in support and saw no issues with the sign deviations. He did not think there was a better place to put a regional hospital, especially with access from I-88 and I-355. He agreed this was very thoughtfully and intentionally put together with a great purpose. Commissioner Lincoln agreed the location is perfect.

Chairman Rickard agreed with his fellow commissioners. He said the biggest deviation was the signage, but it was not a concern to him, as it warrants a lot of signage for people coming in and is fully warranted and justified.

Commissioner Patel added the renderings were also fantastic.

With respect to File 26-PZC-0036, based on the petitioner's submittal, staff report, and the testimony presented, it is found that the petitioner has met the standards of approval for a Planned Unit Development amendment, as required by the Village of Downers Grove Zoning Ordinance, and is in the public interest. Therefore, Commissioner Lincoln made a motion

that the Planning and Zoning Commission recommend the Village Council approve File 26-PZC-0036, subject to the conditions outlined in staff report.

The motion seconded by Commissioner Barry.

Aye: Patel, Barry, Frankovic, Lincoln, Wolf, Chairman Rickard

Nay: None

Motion Passed. Vote 6-0.

**ORD 2026-11305**

**Forest Preserve District of DuPage County**

3S580 Naperville Road
Wheaton, IL 60189

630.933.7200
TTY 800.526.0857
dupageforest.org

Sent via email: fleon@downers.us

August 3, 2026

Michael Rickard, Chairman
Planning and Zoning Commission
Village of Downers Grove
850 Curtiss Street
Downers Grove, IL 60515

Re: PZC File 26-PZC-0036; Lurie Children's Hospital
Property at Northwest Intersection of Lacey Road and Woodcreek Drive, Downers Grove

Dear Chairman Rickard,

The Forest Preserve District of DuPage County recently received a Notice of Public Hearing regarding Lurie Children's Hospital's petition seeking an Amendment to Planned Development #31 to allow for the construction of a hospital at the aforementioned property. We appreciate receiving timely notification of such requests that may have an impact on Forest Preserve District property and thank you for the opportunity to comment.

Forest Preserve District staff have reviewed the information provided in August 3, 2026, Planning and Zoning Commission Agenda packet and do not have any comments. Thank you, and if you have any questions, please call me at (630) 933-7235.

Sincerely,

Kevin Stough
Land Preservation Manager

Cc: Ed Stevenson, Executive Advisor

Village of Downers Grove

# Planning and Zoning Commission - Report

*Table 1 - Detailed information on this Planning and Zoning Commission Report*

| | |
|---|---|
| **Meeting Location** | Civic Center – Betty Cheever Council Chambers |
| **Meeting Address** | 850 Curtiss St., Downers Grove, IL 60515 |
| **Meeting Date** | August 03, 2026 at 7:00 PM |
| **Subject** | 26-PZC-0036, 3300 Lacey Road |
| **Type** | Planned Unit Development Amendment |
| **Submitted by** | Flora León, AICP, Senior Planner |

## Request.

The petitioner is requesting approval of an amendment to the Planned Unit Development for Planned Unit Development #31 to construct a new hospital at 3300 Lacey Road.

## Notice.

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

## General Information.

*Table 2 – Details about the applicant's identity and location.*

| Applicant Name | Applicant Address |
|---|---|
| Ann & Robert H. Lurie Children's Hospital of Chicago c/o Kate Duncan, Quarles & Brady LLP | 155 North Wacker<br>Chicago, IL 60606 |

*Table 3 - Property ownership details for primary and additional owner(s).*

| Owner Name | Owner Address |
|---|---|
| Hamilton Partners<br>(Subject Property Owner) | 300 Park Boulevard, Suite 201<br>Itasca, IL 60143 |
| HP/AG Esplanade at Locust Point Land Limited Partnership | 1901 Butterfield Road<br>Downers Grove, IL 60515 |
| Kircher, Albert | 147 N. Julian Street, 1A<br>Naperville, IL 60540 |
| Coopers Hawk | 3500 Lacey, Suite 1000<br>Downers Grove, IL 60515 |
| Hamilton Partners | 1901 Butterfield Roade, Suite 270<br>Downers Grove, IL 60515 |
| Hamilton Partners | P.O. Box 3664<br>Oak Brook, IL 60522 |
| Hamilton Partners | 300 Park Boulevard, Suite 201<br>Itasca, IL 30143 |
| DG Hotels, LLC | 2111 Butterfield Road<br>Downers Grove, IL 60515 |
| Esplanade I Spe, LLC | 300 Park Boulevard, Suite 201<br>Itasca, IL 60143 |
| AM Society GI Endoscopy | 3300 Woodcreek Drive<br>Downers Grove, IL 60515 |

| Owner Name | Owner Address |
|---|---|
| Green State Credit Union | P.O. Box 800<br>North Liberty, IA 52317-0800 |
| Midwestern University | 555 31st Street<br>Downers Grove, IL 60515 |
| KORE 3500 Lacey Owner, LLC | 6500 Quebec Street, Suite 300<br>Greenwood Village, CO 80111 |

## Property Information.

*Table 4 - Detailed subject property summary (parcel identification, size, and zoning)*

| | |
|---|---|
| **Existing Zoning** | O-R-M/PUD #31, Office-Research-Manufacturing/ Planned Unit Development #31 |
| **Existing Land Use** | Business Park |
| **Property Size** | 102 acres |
| **PINs** | 05-25-413-009; 05-25-415-009, -010; 05-36-200-009, -011; 05-36-202-008, -015, -016, -017; 05-36-400-017; 06-30-301-007; 06-30-304-002, -003; 06-30-305-003; 06-31-100-019, -020, -021, -022, -023, -025, -027, -028, -029; 06-31-103-001, -002, -005, -006, -007 |

*Table 5 - Details regarding the surrounding properties, zoning, and land uses.*

| Direction | Zoning | Future Land Use |
|---|---|---|
| East | Tollway Right-of-Way | N/A |
| West | O-R-M/PD #20, Office-Research-Manufacturing/Planned Development #20<br>R-1Residential Detached House 1 | Office Corporate Campus<br>Park and Open Space |
| North | B-3, General Services and Highway Business<br>B-1, Local Business (DuPage County) | Regional Commercial<br>DuPage County |

| Direction | Zoning | Future Land Use |
|---|---|---|
| South | O-R-M, Office-Research-Manufacturing | Office Corporate Campus |

## Analysis.

## Submittals.

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

1. Project Narrative
2. Letters of Support (provided by the Petitioner)
3. Approval Criteria
4. Plat of Survey
5. Site Plan
6. Engineering Plans
7. Landscape Plans
8. Elevations
9. Sign Package
10. Traffic Impact Study
11. Photometric Plan
12. Heliport Basis-of-Design Report

## Project Description.

The petitioner is requesting approval of an amendment to the Planned Unit Development for Planned Unit Development #31, Esplanade at Locust Point to construct a hospital. The 13.2-acre property is located at the northwest intersection of Woodcreek Drive and Lacey Road, directly west of I-355.

PUD #31 was approved in 1990 with a master site development plan that identified a variety of office buildings, open space, transportation and roadway improvements. The PUD was amended multiple times since 1990 to allow for different building layouts, developments and uses. Through the PUD approval process, the Village Council may approve use types that are not allowed in the underlying zoning district. With the initial approval in 1990, a set of permitted uses were approved that are not allowed in the underlying O-R-M, Office Research-Manufacturing District, which has been amended over time.

Earlier this year, the PUD was amended to add *hospital* as an approved allowed use within PUD #31. At that time, it was determined any applicant proposing the construction of a hospital would be required to go through the entitlement process. The petitioner is requesting an amendment to the planned unit development to construct a hospital with a master signage plan, this is further discussed below under "Signage."

The proposed building will feature two sections: a two-story section for the outpatient clinic and a five-story hospital section. The hospital will feature four stories above grade, including two stories for the emergency and surgery department with two stories above for impatient beds, all above a walk-out lower level dedicated to core building functions. The two building sections will be connected at the middle of the overall structure with a main entrance that will include a patient and visitor drop-off area. The emergency department also has a dedicated area for patient drop off at the southeast corner of the building, with an ambulance drop-off area located along the southwest façade.

Lastly, a helipad is located just south of this area and is connected via an eight-foot-wide gurney way. The gurney way will extend from the heliport to the emergency department back entrance. The helipad will serve outgoing transfers to Lurie Children's Chicago location for certain patients. The petitioner has submitted a heliport basis-of-design report which describes the heliport and provides details on the licensing requirements from the Federal Aviation Administration and the Illinois Department of Transportation Division of Aeronautics.

The hospital will feature 48 pediatric inpatient beds, a pediatric emergency department with 35 treatment stations, a surgery department with six operating rooms, diagnostic imaging (MRI, CT, X-ray, EOS/ortho, fluoroscopy, and Ultrasound). Other services include physical and occupational therapy, laboratory, and a pharmacy. The outpatient clinic includes 50 multi-specialty pediatric outpatient exam and treatment rooms and 10 ambulatory infusion rooms. Key subspecialities include oncology, cardiology, gastroenterology and orthopedics.

According to the petitioner, the design intention for the proposed hospital campus is to connect back to the Lurie Children's Chicago location (via materiality), nature (via building orientation and placement) and to Downers Grove (via a lower building scale). The proposed building will have a strong masonry base, in addition to a lightly colored brick on all four sides of the building, with metal panels used as accent material throughout the building and cornice lines, in addition to screening for the roof top units for the hospital. The lower levels of the building feature extensive use of storefront windows along Lacey Road to create an open and inviting experience. The primary building entry faces directly onto Lacey Road and is accentuated via a continuous metal panel canopy that frames this entire eastern façade on the first and second floors. The recessed entrance allows for an increased depth of the metal panel canopy and this provides visitors, patients, and staff with shelter from the elements.

The main patient and visitor entrance to the site is located on Lacey Road. Two additional patient and visitor access points are on Woodcreek Drive and Birchwood Place, which is a private road. Ambulance access to the site is from the Woodcreek Drive access point. A separate service access point is located further west on Woodcreek Drive.

There are 501 parking spaces provided via surface parking lots along Lacey Road and Woodcreek Drive. The layout of the new hospital campus will maximize opportunities for native landscaping. The landscape design includes several gardens: an infusion garden, a respite garden outside of the Emergency Department, and a dining terrace with play area. Additionally, along the western

interior side yard a 20-foot-wide fire lane of all-weather driving surface will blend into the landscaping and double as a walking path. A loading dock area is located along the south façade with direct access to Woodcreek Drive. This is designed to provide a separate access point to the service area and sufficient loading and maneuvering while being adequately screened from Woodcreek Drive via a series of retaining walls, a twelve (12) foot high metal panel screen wall, and evergreen and deciduous buffers.

A photometric plan has been submitted and identifies that the proposed lighting complies with the Village requirements. Additionally, exterior lighting will follow International Dark-Sky Association's (IDA) Five Principles for Responsible Outdoor Lighting to minimize the effect on light pollution on wildlife, as summarized in the Petitioner's narrative.

## Compliance with the Comprehensive Plan.

The Guiding DG Comprehensive Plan's Future Land Use Map designates the subject property as Office. Office uses are defined as large-scale office buildings and complexes, office parks, and small individual offices. The petitioner is proposing to construct a hospital. The following recommendations are found in the Comprehensive Plan, that support the proposed use:

### Community Facilities and Infrastructure

- Continue partnerships with local healthcare providers to assess the community's healthcare needs and identify gaps in services.

### Land Use and Development - Land Use Plan

- Commercial uses should be located in areas with a regional draw of a corridor where they will benefit from access and visibility without significantly contributing to traffic or impact on nearby residential areas.

### Economic Development – Continue the Business-Friendly Environment

- Foster partnerships between schools, colleges, and universities such as Midwestern University, College of DuPage, and employers to increase access to and awareness of internships, vocational training, and education in skilled trades in alignment with economic opportunities

### Economic Development – Enhance Industrial and Office Uses

- The Village should continue to support office development along the I-88, I-355, and Butterfield Road corridors.
- Maintain existing Class A office buildings to support long-term economic vitality.

### Economic Development – Continue Investment in the Butterfield and Finley Road Area

- Ensure that the Butterfield Road corridor is resilient to changing commercial and office market conditions.
- Maintain quality of life for the corridor's residents and ensure access to businesses and jobs.
- Continue to partner with private developers to promote and reposition existing commercial centers to adapt to evolving retail habits and consumer preferences and enhance economic vitality.
- Leverage the unique location of this corridor adjacent to two highways to attract new retail and office tenants.
- Encourage the completion of Esplanade, which still has vacant lots. With excellent visibility and access, these parcels could accommodate additional office, restaurants, retail and multi-family developments.

The proposed request is consistent with the Guiding DG Comprehensive Plan.

## Compliance with the Zoning Ordinance.

The property is zoned O-R-M, PUD #31, Office-Research-Manufacturing and Planned Unit Development #31. The bulk requirements of the proposed

development in the O-R-M/ PUD #31 zoning district are summarized in the following table:

## Requirements

*Table 6 - Zoning regulations for proposed development.*

| **Zoning Regulation** | **Required** | **Proposed** |
|---|---|---|
| Building Setback - Lacey Road (East) | 60.5 feet | 245 feet |
| Building Setback - Woodcreek Drive (South) | 60.5 feet | 195 feet |
| Building Setback - Side (West) | 10 feet | 49.49 feet |
| Building Setback - Rear (North) | 10 feet | 46.42 feet |
| Parking Setback - Lacey Road (East) | 35 feet | 35 feet |
| Parking Setback - Woodcreek Drive (South) | 35 feet | 35 feet |
| Parking Side Setback (West) | 10 feet | N/A |
| Parking Rear Setback (North) | 10 feet | 11 feet |
| Parking Spaces | 471 spaces | 501 spaces |
| Building Height | 140 feet (max) | 86 feet (hospital portion)<br>50 feet (clinic portion) |

*Table 7 - Zoning requirements for the overall planned unit development (PUD).*

| **PUD Overall Bulk Regulations** | **Required** | **Proposed** |
|---|---|---|
| PUD Land Area | N/A | 5,258,760 square feet |
| PUD Site Area<br>(Excludes Right-of-Way) | N/A | 4,443,691 square feet |
| Floor Area Ratio | 0.89 (max) | 0.89 |

| PUD Overall Bulk Regulations | Required | Proposed |
|---|---|---|
| Open Space | 666,553 square feet (15% of 4,443,691 square feet) | 1,793,621 square feet (40% of 4,443,691 square feet) |
| Parking Spaces | 7,131 | 7,214 |

## Signage.

The petitioner is permitted up to 672 square feet of total signage and is requesting additional sign area for the development. The Village ordinance and existing PUD allow for 600 square feet of wall signage, which includes 300 square feet of total building signage, in addition to bonus wall signage, not to exceed 100 square feet per side, for up to three sides of the building. Additionally, the site is allowed two monument signs with a maximum sign area of 32 square feet each. Signage within the amendment to the Planned Unit Development is proposed to be governed by a master signage plan that, if permitted, will allow a maximum of 865 square feet of signage and a total of six monument signs for Lurie's Hospital.

*Table 8 - A comprehensive signage package, including type, area, height, and location.*

| Location | Sign Type | Area | Height |
|---|---|---|---|
| North Lacey Road - Site Gateway Sign | Monument | 36 square feet | 5 feet |
| South Lacey Road - Site Gateway Sign | Monument | 36 square feet | 5 feet |
| Center Lacey Road - Primary Monument | Monument | 50 square feet | 15 feet |
| Birchwood Place – Secondary Monument | Monument | 30 square feet | 10 feet |
| Woodcreek Drive – Secondary Monument | Monument | 30 square feet | 10 feet |

| Location | Sign Type | Area | Height |
|---|---|---|---|
| Woodcreek Drive – Receiving Entrance ID | Monument | 12 square feet | 8 feet |
| South Elevation – Ambulance Drop-Off Canopy Dimensional Letter | Canopy | 52 square feet | N/A |
| Southeast Elevation – Emergency Department Canopy Dimensional Letter | Canopy | 51 square feet | N/A |
| East Elevation – Emergency Department Canopy Dimensional Letter | Canopy | 51 square feet | N/A |
| East Elevation – Main Entrance Canopy Dimensional Letter | Canopy | 115 square feet | N/A |
| East Elevation – Top of Building Dimensional Icon | Wall | 201 square feet | N/A |
| South Elevation – Top of Building Dimensional Icon | Wall | 201 square feet | N/A |
| North Glass Graphic Hand Icon | Window | 95 square feet | N/A |
| Directional Sign – Quantity 9 | Monument | 6 square feet each | 6 feet |
| Temporary Light Pole Banners – Quantity 12 | Light Pole Banners | 31 square feet each | N/A |

The following signage requires relief from the Zoning Ordinance regulations:

## Deviation Request

*Table 9 - Deviation requests and petitioner's rationale.*

| Improvement | Relief Request | Petitioner's Rationale |
|---|---|---|
| Monument Signs – Street Frontage (per VoDG.28.9.050(b)(1)e) | Requirement: Two (2) monument signs, one (1) per street frontage<br><br>Proposed: Six (6) in total. | Additional monument signage is warranted to support safe, efficient wayfinding for traffic approaching the site from multiple directions, including visitors arriving for routine appointments and emergency related access. |
| Monument Sign – Interior Setback Along Birchwood Place (per VoDG.28.9.050(b)(1)b) | Requirement: Twenty-five (25) from all other lot lines.<br><br>Proposal: Ten (10) feet from North property line (Birchwood Place) | The requested setback reduction is necessary to improve visibility and wayfinding for visitors accessing the site via the Birchwood Place entrance. |
| Height of Primary Monument Sign (per VoDG.28.9.050(b)(1)a) | Requirement: 10 feet<br><br>Proposal: 15 feet | The requested increase in height of the primary monuments sign is necessary to provide for a strong, highly visible sign for the main entrance so that patients, family and visitors can clearly find the hospital, emergency department, ambulance drop-off and clinic locations. |

| Improvement | Relief Request | Petitioner's Rationale |
|---|---|---|
| Window Signs<br>(per VoDG.28.9.050(h)(2)) | Requirement: Can only cover up to twenty-five percent (25%) of one (1) window.<br><br>Proposed: A window sign is proposed on the north elevation of the building, though it utilizes multiple windows. | The proposed frost-look hand logo requires additional window coverage to maintain appropriate scale, visibility, and proportionality with the building façade.<br><br>The proposed window sign covers ten (10) smaller windowpanes that total 350 square feet. The proposed logo graphic is 95 square feet, representing 27% coverage when considering the total area of the ten smaller windowpanes. |
| Directional Signs<br>(per VoDG.28.9.070(c)) | Requirement: Max allowed for directional signage is two (2) square feet.<br><br>Proposed: Six (6) square feet. | The proposed directional signs require additional sign area to provide legible, multi-message wayfinding for the main entrance, emergency entrance, and associated parking areas |

| Improvement | Relief Request | Petitioner's Rationale |
|---|---|---|
| Total Sign Area (per VoDG.28.9.050(a)) | Requirement: 672 square feet max<br><br>Proposed: 865 square feet | The requested increase in total sign area is necessary to accommodate a coordinated sign program that provides clear site identification, building branding, and vehicular wayfinding across multiple frontages and access points. |
| Approval of Temporary Banner Signs (per VoDG.28.9.020(b)) | Requirement: Prohibited<br><br>Proposed: Allow up to 12 weeks per year. | The request would offer the ability to announce awards and celebrate accomplishments. |

## Engineering and Public Improvements.

The overall Esplanade campus drains in a westerly direction and the stormwater detention for the entire development was designed in a series of ponds. The proposed development does require additional stormwater detention. The required detention volume will be provided by modifying three existing ponds to gain additional volume. Modifications will include: removing the embankment that separates two ponds to create a single larger pond, raising the high-water level elevation, minor re-grading in three locations, overflow weir adjustments, and adjustment to the outfall restrictor pipe.

Based on the existing impervious area on the site and the proposed impervious area, the proposed development requires Post Construction Best Management Practices (PCBMPs). This additional volume will be provided via an underground vault storage along the west side of the building and two volume control basins located along the southern portion of the site. Moreover, permeable pavers

installed on a portion of the parking lot will provide a water quality control measure.

Access will be provided via a single full-movement access drive on Lacey Road, via two full-movement access drives on Woodcreek Drive, and a full-movement access drive on Birchwood Place. A northbound left-turn lane will be provided on Lacey Road serving the proposed access drive. The left turn lane can be provided within the existing median without roadway widening. Eastbound left-turn lanes will be provided on Woodcreek Drive at both proposed access drives.

Internal pedestrian connections are provided between the hospital and clinic. A new sidewalk is proposed on the south side of Birchwood Place. Additionally, pedestrian connections lead out toward established sidewalk networks on Woodcreek Drive, Lacey Road, heading north towards the adjacent pond and office park, and heading south across Woodcreek Drive. Along Lacey Road, the petitioner is proposing a 10-foot-wide shared-use path, in accordance with the Guiding DG Active Transportation Plan.

New fire, water service, and sanitary sewer service lines will be provided. The Downers Grove Sanitary District conceptually approved the request for sanitary service to this development. The Village will also require the petitioner to abrogate an existing AT&T easement, that is no longer necessary for the site, prior to the issuance of a building permit.

## Traffic and Parking.

A traffic impact study for the proposed development was completed by the petitioner. The study examined the existing and future traffic conditions at the intersections of Butterfield Road with Woodcreek Drive/Lloyd Avenue, Esplanade Road, and the I-355 interchange at the intersection of Lacey Road with Woodcreek Drive (North and South), Esplanade Road, Birchwood Place, and Finley Road based on the proposed hospital campus.

Truck loading and passenger vehicle access will be separated. The internal access road system will efficiently accommodate hospital operations. Parking will be accommodated via 501 surface parking spaces in two parking lots. As such, the proposed development will provide an excess of 30 parking spaces; where the required parking per the Zoning Ordinance is 471 parking spaces. This parking count recognizes that pediatric patients are often accompanied by multiple family members or caregivers who may travel separately. The total parking supply of 501 spaces is intended to accommodate patients, families, visitors and staff during peak demand periods.

The proposed hospital will have ambulance traffic generated by the emergency room. The width of the Lacey Road and Woodcreek Drive will allow ambulances to easily bypass stopped vehicles. Emergency traffic will have a limited impact on the operations of the intersections within the Esplanade. Area signalized intersections have emergency preemption equipment allowing for faster traversal for emergency vehicles. Additionally, these intersections are coordinated which should be beneficial in restoring typical traffic patterns after an emergency vehicle preemption event.

The traffic study found that the site is well located in regards to the regional and local roadway network which provides flexible connectivity to the Tollway system as well as major arterial roadways. Additionally, the peak hours of trip generation for the proposed hospital campus will correspond to staff shift changes, which will occur outside the peak hours of the roadway system.

Signal timings at the intersection of Butterfield Road with Woodcreek Drive and Lloyd Avenue would benefit from optimization. The segment of Butterfield Road within the site area is part of two IDOT projects which have begun construction and will improve operations along the roadway. The traffic study found no significant impacts to the existing road network.

## Public Safety Requirements.

The Fire Prevention Division of the Fire Department has reviewed the proposed development. Access for the Fire Department will be along Lacey Road, Woodcreek Drive, and Birchwood Place. Additionally, a 20-foot-wide fire lane is proposed along the western side of the proposed site. The fire lane will appear as turf reinforced with StaLok Fiber and a six-foot wide concrete side walk running along the center portion of the fire lane.

An auto-turn exhibit showing vehicle movements for a ladder truck has been provided by the petitioner. Three fire department connections will be installed and interconnected to ensure the fire department has the ability to hook up hoses and pump supplemental water into the hospital's internal fire sprinkler system. A fire hydrant will be provided within 100 feet of all three fire department connections. All floors will be equipped with fire alarms and will be sprinklered, as required by Village regulations.

## Neighborhood Comment.

Notice was provided to all property owners two hundred and fifty (250) feet or less from the subject property in addition to posting public hearing signs and publishing a legal notice in the Daily Herald. The petitioner did submit nine letters of support with their petition. Staff did not receive any additional inquiries.

## Standards of Approval.

The petitioner is requesting approval of a Planned Unit Development Amendment to PUD #31 to construct a hospital. The review and approval criterion for this request is listed below.

The petitioner has submitted a narrative that attempts to address all the standards of approval. The Planning and Zoning Commission should consider the petitioner's documentation, the staff report and the discussion at the Planning and Zoning

Commission meeting in determining whether the standards for approval have been met.

## Planned Unit Developments, Sec 28.12.040(c)(5) Review and Approval Criteria

a. the zoning map amendment review and approval criteria of DGMC Section 28.12.030(i) in the case of new Planned Unit Development proposals;
b. whether the proposed PUD development plan and map amendment would be consistent and in substantial compliance with the comprehensive plan, downtown design guidelines and any other adopted plans for the subject area;
c. whether PUD development plan complies with the PUD overlay district provisions of DGMC Section 28.4.030;
d. whether the proposed development will result in public benefits that are greater than or at least equal to those that would have resulted from development under conventional zoning regulations; and
e. whether appropriate terms and conditions have been imposed on the approval to protect the interests of surrounding property owners and residents, existing and future residents of the PUD and the general public.

## Draft Motion.

Staff will provide a recommendation at the August 3rd, 2026 meeting. Should the Planning and Zoning Commission find that the request meets the standards of approval for a Planned Unit Development Amendment staff has prepared a draft motion that the Planning and Zoning Commission may make for the recommendation of 26-PZC-0036:

> Based on the petitioner's submittal, the staff report, and the testimony presented, I find that the petitioner has met the standards of approval for a Planned Unit Development Amendment as required by the Village of

Downers Grove Zoning Ordinance and is in the public interest and therefore, I move that the Planning and Zoning Commission recommend to the Village Council approval of 26-PZC-0036, subject to the following conditions:

1. The Planned Unit Development Amendment shall substantially conform to the staff report, civil drawings prepared by RWG Engineering dated June 17th, 2026 and last revised June 25, 2026 architectural drawings prepared by Lamar Johnson Collaborative and Zimmer Gunsul Frasca Architects LLP dated June 25th, 2026 and last revised May 19thJuly 22, 2026; landscape drawings prepared by Lamar Johnson Collaborative and Zimmer Gunsul Frasca Architects LLP dated June 17, 2026 and last revised July 22, 2026, and photometric drawings prepared by Affiliated Engineers, Inc. dated June 25, 2026 and last revised on June 25th, 2026.

2. A recorded plat of abrogation to remove the utility easements will be required prior to permit issuance.

3. A recorded plat of stormwater easements will be required prior to Certificate of Occupancy issuance.

4. Any required night lighting should follow the International Dark-Sky Association's IDA Five Principles for Responsible Outdoor Lighting.

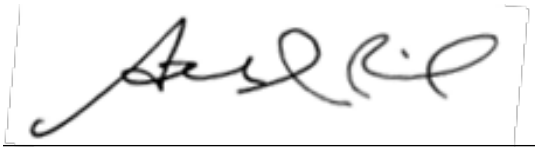
5. During construction an exclusionary silt fence shall be installed by the end of March and maintained through October to prevent the Blanding's Turtle from entering the construction area.

6. All heliport signage will be approved by the Community Development Director.

7. A temporary construction easement or agreement from the DuPage County Forest Preserve will be required for the proposed pond regrading and overflow weir replacement prior to permit issuance.

8. The Village will replant the parkway after construction is complete. A fee in the amount of $31,280 (for the removal of eleven (11) existing trees and fees associated with planting thirty-five (35) new trees) will be charged for the proposed parkway tree plantings during permit issuance.

Staff Report Approved By:



Stanley J. Popovich, AICP
Director of Community Development




N

0 250 500 1,000 Feet

**Lurie Children's Hospital - Location Map**

Subject Property

Project Location

# EDWARD J. MOLLOY & ASSOCIATES

A DIVISION OF THOMAS A. MOLLOY, LTD. – PROFESSIONAL LAND SURVEYING
1236 MARK STREET, BENSENVILLE, ILLINOIS 60106 (630) 595-2600 Fax (630) 595-4700
e-mail: tmolloy@ejmolloy.com


# ALTA/NSPS LAND TITLE SURVEY

OF

PARCEL F1 AND PARCEL F2 IN ESPLANADE ASSESSMENT PLAT NO. 4 OF PART THE SOUTHWEST 1/4 OF SECTION 30 AND THE NORTHWEST 1/4 OF SECTION 31, TOWNSHIP 39 NORTH, RANGE 11, EAST OF THE THIRD PRINCIPAL MERIDIAN, ACCORDING TO THE PLAT THEREOF RECORDED SEPTEMBER 1, 2000 AS DOCUMENT R2000-136926, IN DUPAGE COUNTY, ILLINOIS.

COMMONLY KNOWN AS: VACANT LAND AT NW QUADRANT OF WOODCREEK DRIVE AND LACEY ROAD, DOWNERS GROVE, ILLINOIS

## SURVEYOR'S NOTES

TITLE COMMITMENT: THIS SURVEY REFLECTS CERTAIN MATTERS OF TITLE, AS REFERENCED IN SCHEDULE B OF CHICAGO TITLE INSURANCE COMPANY COMMITMENT FOR TITLE INSURANCE COMMITMENT NUMBER CCH2505786LD WITH A COMMITMENT DATE OF OCTOBER 24, 2025 (PRINTED: 12.23.25 @ 04:35 PM).

15. RIGHTS OF WAY FOR DRAINAGE TILES, DITCHES, FEEDERS, LATERALS AND UNDERGROUND PIPES, IF ANY. [VISIBLE SITE IMPROVEMENTS PLOTTED ON THE DRAWING]

16. COVENANTS AND RESTRICTIONS (BUT OMITTING ANY SUCH COVENANT OR RESTRICTION BASED ON RACE, COLOR, RELIGION, SEX, HANDICAP, FAMILIAL STATUS OR NATIONAL ORIGIN UNLESS AND ONLY TO THE EXTENT THAT SAID COVENANT (A) IS EXEMPT UNDER CHAPTER 42, SECTION 3607 OF THE UNITED STATES CODE OR (B) RELATES TO HANDICAP BUT DOES NOT DISCRIMINATE AGAINST HANDICAPPED PERSONS), RELATING IN PART TO ASSOCIATION, ASSESSMENTS AND LIEN THEREFOR, CONTAINED IN THE DOCUMENT RECORDED DECEMBER 3, 2001 AS DOCUMENT NO. R2001-261930 AS AMENDED BY DOCUMENT NO. R2003-107745, WHICH DOES NOT CONTAIN A REVERSIONARY OR FORFEITURE CLAUSE. (AFFECTS LAND AND OTHER PROPERTY NOT NOW IN QUESTION)
SECOND AMENDMENT RECORDED FEBRUARY 13, 2009 AS DOCUMENT NO. R2009-020218.
THIRD AMENDMENT RECORDED FEBRUARY 26, 2015 AS DOCUMENT NO. R2015-018183. [LAND SUBJECT TO EASEMENTS PLOTTED ON THE DRAWING]

17. EASEMENT DATED JUNE 6, 1983 AND RECORDED JUNE 13, 1983 AS DOCUMENT R83-36097 IN FAVOR OF THE ILLINOIS BELL TELEPHONE COMPANY, ITS SUCCESSORS AND ASSIGNS, THE RIGHT TO CONSTRUCT, RECONSTRUCT, ADD TO, REMOVE, OPERATE AND MAINTAIN COMMUNICATION AND ELECTRIC SYSTEMS CONSISTING OF SUCH POLES, ANCHORS, GUYS, WIRES, CABLES, CONDUITS, TERMINALS, MANHOLES AND OTHER FIXTURES AS THE GRANTEE MAY FROM TIME TO TIME, REQUIRE FOR THE PURPOSE OF TELE-COMMUNICATIONS AND ELECTRIC TRANSMISSION OF HEAT, LIGHT AND POWER BY ELECTRONIC MEANS WITH THE RIGHT OF INGRESS AND EGRESS AND THE RIGHT FROM TIME TO TIME TO KEEP CLEARED SUCH TREES, ROOTS, BUSHES AND OTHER OBSTRUCTIONS FROM THE EASEMENT DESCRIBED HEREIN TO WIT:
A PERMANENT EASEMENT AND A CONSTRUCTION EASEMENT WHICH FOR GREATER CERTAINTY AND CLARITY ARE DESCRIBED AND ILLUSTRATED ON THE ATTACHED GORDON G. FREY, LAND SURVEYOR EXHIBIT "A" LABELLED THE ILLINOIS BELL TELEPHONE COMPANY EASEMENT PLAT, PERMIT NO. 83032 BEING IN THE NORTHWEST 1/4 OF SECTION 31, TOWNSHIP 39 NORTH, RANGE 11, EAST OF THE THIRD PRINCIPAL MERIDIAN, IN DUPAGE COUNTY, ILLINOIS. (AFFECTS A 5-FOOT WIDE STRIP OF LAND RUNNING FROM EAST TO WEST IN THE SOUTH CENTRAL PORTION OF F2.) [PLOTTED ON THE DRAWING]

18. TERMS, CONDITIONS AND PROVISIONS CONTAINED IN A PLAT OF EASEMENT GRANT RECORDED JUNE 19, 1990 AS DOCUMENT NO. R90-76278 IN FAVOR OF THE ILLINOIS BELL TELEPHONE COMPANY OVER A 10-FOOT STRIP OF LAND DEPICTED THEREIN. (AFFECTS PARCEL F2 AND OTHER PROPERTY NOT NOW IN QUESTION) [PLOTTED ON THE DRAWING]

19. TERMS, CONDITIONS AND PROVISIONS CONTAINED IN A PLAT OF EASEMENT FOR SEWER, WATERMAIN AND DRAINAGE CHANNEL RECORDED JUNE 19, 1990 AS DOCUMENT NO. R90-75279 IN FAVOR OF THE DOWNERS GROVE SANITARY DISTRICT OVER A STRIP OF LAND 30.00 FEET WIDE AS DEPICTED THEREIN. (AFFECTS A 30-FOOT STRIP OF LAND IN PARCEL F1) [PLOTTED ON THE DRAWING]

18. MEMORANDUM OF OPTION FOR EASEMENT MADE BY AND BETWEEN HP/AG ESPLANADE AT LOCUST POINT LAND LIMITED PARTNERSHIP AND 3500 LACEY ROAD LLC RECORDED DECEMBER 29, 2003 AS DOCUMENT NO. R2003-483083, PROVIDING FOR THE OPTION FOR AN EASEMENT OVER GRANTOR'S PARCEL AS DESCRIBED THEREIN. (AFFECTS LAND AND OTHER PROPERTY NOT NOW IN QUESTION) [DOES NOT AFFECT THE PROPERTY LEGALLY DESCRIBED HEREON]

19. GRANT DATED OCTOBER 10, 1968 AND RECORDED OCTOBER 15, 1968 AS DOCUMENT NO. R68-47839 IN FAVOR OF THE VILLAGE OF DOWNERS GROVE, AN ILLINOIS MUNICIPAL CORPORATION, ITS SUCCESSORS AND ASSIGNS, HEREBY GRANTING A NON-EXCLUSIVE PERPETUAL RIGHT AND EASEMENT TO CONSTRUCT, OPERATE, REPAIR, MAINTAIN, REMOVE AND RECONSTRUCT AND REMOVE AN UNDERGROUND SEWER AND AN UNDERGROUND WATER MAIN, TOGETHER WITH NECESSARY UNDERGROUND APPURTENANT FACILITIES FOR THE MAINTENANCE AND OPERATION OF THE VILLAGE OF COMBINED WATERWORKS AND SEWERAGE SYSTEM OR ANY PART THEREOF, ALSO A NON-EXCLUSIVE PERPETUAL RIGHT AND EASEMENT TO CONSTRUCT, OPERATE, REPAIR, MAINTAIN, RECONSTRUCT AND REMOVE AN OPEN STORM WATER DRAINAGE CHANNEL FOR THE MAINTENANCE AND OPERATION OF THE VILLAGE STORM WATER DRAINAGE SYSTEM ON, OVER, UNDER AND ACROSS THE FOLLOWING DESCRIBED REAL ESTATE TO WIT:
A STRIP OF LAND, 20.00 FEET WIDE IN SECTIONS 25 AND 36, TOWNSHIP 39 NORTH, RANGE 10, EAST OF THE THIRD PRINCIPAL MERIDIAN, AND SECTION 30, TOWNSHIP 39 NORTH, RANGE 11, EAST OF THE THIRD PRINCIPAL MERIDIAN, IN DUPAGE COUNTY, ILLINOIS, BOUNDED AND DESCRIBED AS FOLLOWS:
BEGINNING AT THE INTERSECTION OF THE EAST LINE OF SECTION 25 AND THE SOUTHERLY RIGHT OF WAY LINE OF BUTTERFIELD ROAD (F.A. ROUTE 131); THENCE SOUTH ALONG SAID EAST LINE OF SECTION 25 A DISTANCE OF 316.434 FEET MORE OR LESS; THENCE WEST ALONG A LINE THAT FORMS AN ANGLE OF 90 DEGREES 00 MINUTES 00 SECONDS TO THE LEFT WITH THE LAST DESCRIBED COURSE EXTENDED A DISTANCE OF 971.505 FEET MORE OR LESS; THENCE ALONG A LINE THAT FORMS AN ANGLE OF 90 DEGREES 36 MINUTES 59 SECONDS TO THE LEFT WITH THE LAST DESCRIBED COURSE EXTENDED A DISTANCE OF 632.624 FEET MORE OR LESS; THENCE ALONG A LINE THAT FORMS AN ANGLE OF 90 DEGREES 23 MINUTES 28 SECONDS TO THE LEFT WITH THE LAST DESCRIBED COURSE EXTENDED A DISTANCE OF 20.216 FEET MORE OR LESS; THENCE ALONG A LINE THAT FORMS AN ANGLE OF 89 DEGREES 36 MINUTES 32 SECONDS TO THE RIGHT WITH THE LAST DESCRIBED COURSE EXTENDED A DISTANCE OF 618.517 FEET MORE OR LESS; THENCE ALONG A LINE THAT FORMS AN ANGLE OF 9 DEGREES 36 MINUTES 05 SECONDS TO THE RIGHT WITH THE LAST DESCRIBED COURSE EXTENDED A DISTANCE OF 1,000.000 FEET MORE OR LESS; THENCE ALONG A LINE THAT FORMS AN ANGLE OF 81 DEGREES 21 MINUTES 44 SECONDS TO THE RIGHT WITH THE LAST DESCRIBED COURSE EXTENDED A DISTANCE OF 392.411 FEET MORE OR LESS; THENCE ALONG A LINE THAT FORMS AN ANGLE OF 90 DEGREES 00 MINUTES 00 SECONDS TO THE LEFT WITH THE LAST DESCRIBED COURSE EXTENDED A DISTANCE OF 338.836 FEET MORE OR LESS TO THE SOUTHERLY RIGHT OF WAY LINE OF BUTTERFIELD ROAD (F. A. ROUTE 131); THENCE WESTERLY ALONG SAID SOUTHERLY RIGHT OF WAY LINE OF BUTTERFIELD ROAD A DISTANCE OF 20.121 FEET MORE OR LESS TO THE POINT OF BEGINNING, IN DUPAGE COUNTY, ILLINOIS. (AFFECTS A 20-FOOT WIDE STRIP OF LAND RUNNING THROUGH A NORTHWESTERLY PORTION OF LAND AND OTHER PROPERTY) [DOES NOT FALL WITHIN OR IMMEDIATELY ADJOIN THE PROPERTY LEGALLY DESCRIBED HEREON]

20. MEMORANDUM OF OPTION FOR EASEMENT MADE BY AND BETWEEN HP/AG ESPLANADE AT LOCUST POINT LAND LIMITED PARTNERSHIP AND 3500 LACEY ROAD LLC RECORDED DECEMBER 29, 2003 AS DOCUMENT NO. R2003-483083, PROVIDING FOR THE OPTION FOR AN EASEMENT OVER GRANTOR'S PARCEL AS DESCRIBED THEREIN. (AFFECTS LAND AND OTHER PROPERTY NOT NOW IN QUESTION) [DOES NOT AFFECT THE PROPERTY LEGALLY DESCRIBED HEREON]

21. GRANT DATED OCTOBER 10, 1968 AND RECORDED OCTOBER 15, 1968 AS DOCUMENT NO. R68-47839 IN FAVOR OF THE VILLAGE OF DOWNERS GROVE, AN ILLINOIS MUNICIPAL CORPORATION, ITS SUCCESSORS AND ASSIGNS, HEREBY GRANTING A NON-EXCLUSIVE PERPETUAL RIGHT AND EASEMENT TO CONSTRUCT, OPERATE, REPAIR, MAINTAIN, RECONSTRUCT AND REMOVE AN UNDERGROUND SEWER AND AN UNDERGROUND WATER MAIN, TOGETHER WITH NECESSARY UNDERGROUND APPURTENANT FACILITIES FOR THE MAINTENANCE AND OPERATION OF THE VILLAGE OF COMBINED WATERWORKS AND SEWERAGE SYSTEM OR ANY PART THEREOF, ALSO A NON-EXCLUSIVE PERPETUAL RIGHT AND EASEMENT TO CONSTRUCT, OPERATE, REPAIR, MAINTAIN, RECONSTRUCT AND REMOVE AN OPEN STORM WATER DRAINAGE CHANNEL FOR THE MAINTENANCE AND OPERATION OF THE VILLAGE STORM WATER DRAINAGE SYSTEM ON, OVER, UNDER AND ACROSS THE FOLLOWING DESCRIBED REAL ESTATE TO WIT:

A STRIP OF LAND, 20.00 FEET WIDE IN SECTIONS 25 AND 36, TOWNSHIP 39 NORTH, RANGE 10, EAST OF THE THIRD PRINCIPAL MERIDIAN, AND SECTION 30, TOWNSHIP 39 NORTH, RANGE 11, EAST OF THE THIRD PRINCIPAL MERIDIAN, IN DUPAGE COUNTY, ILLINOIS, BOUNDED AND DESCRIBED AS FOLLOWS:

BEGINNING AT THE INTERSECTION OF THE EAST LINE OF SECTION 25 AND THE SOUTHERLY RIGHT OF WAY LINE OF BUTTERFIELD ROAD (F.A. ROUTE 131); THENCE SOUTH ALONG SAID EAST LINE OF SECTION 25 A DISTANCE OF 316.434 FEET MORE OR LESS; THENCE WEST ALONG A LINE THAT FORMS AN ANGLE OF 90 DEGREES 00 MINUTES 00 SECONDS TO THE LEFT WITH THE LAST DESCRIBED COURSE EXTENDED A DISTANCE OF 971.505 FEET MORE OR LESS; THENCE ALONG A LINE THAT FORMS AN ANGLE OF 90 DEGREES 36 MINUTES 59 SECONDS TO THE LEFT WITH THE LAST DESCRIBED COURSE EXTENDED A DISTANCE OF 632.624 FEET MORE OR LESS; THENCE ALONG A LINE THAT FORMS AN ANGLE OF 90 DEGREES 23 MINUTES 28 SECONDS TO THE LEFT WITH THE LAST DESCRIBED COURSE EXTENDED A DISTANCE OF 20.216 FEET MORE OR LESS; THENCE ALONG A LINE THAT FORMS AN ANGLE OF 89 DEGREES 36 MINUTES 32 SECONDS TO THE RIGHT WITH THE LAST DESCRIBED COURSE EXTENDED A DISTANCE OF 618.517 FEET MORE OR LESS; THENCE ALONG A LINE THAT FORMS AN ANGLE OF 9 DEGREES 36 MINUTES 05 SECONDS TO THE RIGHT WITH THE LAST DESCRIBED COURSE EXTENDED A DISTANCE OF 458.484 FEET MORE OR LESS; THENCE ALONG A LINE THAT FORMS AN ANGLE OF 81 DEGREES 21 MINUTES 44 SECONDS TO THE RIGHT WITH THE LAST DESCRIBED COURSE EXTENDED A DISTANCE OF 392.411 FEET MORE OR LESS; THENCE ALONG A LINE THAT FORMS AN ANGLE OF 90 DEGREES 00 MINUTES 00 SECONDS TO THE LEFT WITH THE LAST DESCRIBED COURSE EXTENDED A DISTANCE OF 338.836 FEET MORE OR LESS TO THE SOUTHERLY RIGHT OF WAY LINE OF BUTTERFIELD ROAD (F. A. ROUTE 131); THENCE WESTERLY ALONG SAID SOUTHERLY RIGHT OF WAY LINE OF BUTTERFIELD ROAD A DISTANCE OF 20.121 FEET MORE OR LESS TO THE POINT OF BEGINNING, IN DUPAGE COUNTY, ILLINOIS. (AFFECTS A 20-FOOT WIDE STRIP OF LAND RUNNING THROUGH A NORTHWESTERLY PORTION OF LAND AND OTHER PROPERTY) [EASEMENT AREA DOES NOT FALL WITHIN OR IMMEDIATELY ADJOIN THE PROPERTY LEGALLY DESCRIBED HEREON.]

22. RIGHTS OF THE PUBLIC, THE STATE OF ILLINOIS AND THE MUNICIPALITY IN AND TO THAT PART OF THE LAND, IF ANY, TAKEN OR USED FOR ROAD PURPOSES. [LACEY ROAD AND WOOD CREEK DRIVE PLOTTED ON THE DRAWING]

TAX PARCEL: PERMANENT INDEX NUMBER: 06-31-100-021 AND 06-31-100-024

ACCESS STATEMENT: THE PROPERTY HAS NO DIRECT PHYSICAL VEHICULAR ACCESS (DRIVEWAYS, CURB CUTS, ETC.) TO AND FROM THE PROPERTY LEGALLY DESCRIBED HEREON OBSERVED IN THE PROCESS OF CONDUCTING THE FIELD WORK, HOWEVER, THE PROPERTY DOES ABUT WOOD CREEK DRIVE AND LACEY ROAD, BOTH LEGALLY OPENED AND PUBLICLY DEDICATED, USED AND MAINTAINED STREETS OR HIGHWAYS.

BASIS OF BEARINGS: THE BEARINGS SHOWN HEREON ARE BASED ON THE RECORD PLAT OF SUBDIVISION.

TABLE A – ITEM 1 STATEMENT AS TO MONUMENTS PLACED: SEE DRAWING FOR MONUMENTS PLACED AT MAJOR CORNERS OF THE SURVEYED PROPERTY OR FOUND WHILE COMPLETING THE FIELD SURVEY.

TABLE A – ITEM 2 STATEMENT AS TO ADDRESS: THE PROPERTY SURVEYED IS VACANT (NO BUILDINGS) NO POSTED ADDRESS OBSERVED WHILE CONDUCTING THE FIELD WORK.

TABLE A – ITEM 3 STATEMENT AS TO FLOOD ZONE CLASSIFICATION: BASED ON OUR REVIEW OF THE FEDERAL EMERGENCY MANAGEMENT AGENCY (F.E.M.A.) FLOOD INSURANCE RATE MAP COMMUNITY-PANEL NO. 17043C0158J AND 17043C0159J BOTH WITH MAP REVISED DATES OF AUGUST 1, 2019, THE PROPERTY LEGALLY DESCRIBED HEREON FALLS WITHIN ZONE "X" DEFINED AS AREAS DETERMINED TO BE OUTSIDE OF THE 0.2% ANNUAL CHANCE FLOODPLAIN.

TABLE A – ITEM 4 STATEMENT AS TO GROSS LAND AREA:
PARCEL F1 CONTAINS 150,824 SQUARE FEET OR 4.438 ACRES, MORE OR LESS.
PARCEL F2 CONTAINS 574,913 SQUARE FEET OR 13.198 ACRES, MORE OR LESS.

TABLE A – ITEM 6(a) STATEMENT REGARDING ZONING CLASSIFICATION AND RESTRICTIONS: SURVEYOR HAS NOT BEEN PROVIDED WITH ZONING CLASSIFICATION OR RESTRICTIONS BY THE INSURER. BASED ON OUR REVIEW OF THE OFFICIAL VILLAGE OF DOWNERS GROVE ONLINE ZONING MAP, SURVEYOR FINDS THE PROPERTY TO BE ZONED "PD 31".

TABLE A – ITEM 8 STATEMENT AS TO SUBSTANTIAL FEATURES OBSERVED: SURVEYOR HAS SHOWN LOCATION OF SUBSTANTIAL FEATURES OBSERVED ON THE SURVEYED PROPERTY IN THE PROCESS OF CONDUCTING THE FIELDWORK.

TABLE A – ITEM 9 STATEMENT AS TO PAINT STRIPED PARKING SPACES: THE LAND SURVEYED HEREON CONTAINS A TOTAL OF 0 EXISTING IDENTIFIABLE PAINT STRIPED PARKING SPACES INCLUDING 0 REGULAR SPACES AND 0 DESIGNATED HANDICAP SPACES.

TABLE A – ITEM 11(A) STATEMENT REGARDING EXISTING UTILITIES: SURVEYOR HAS NOT BEEN PROVIDED WITH PLANS AND/OR REPORTS FROM THE CLIENT. SURVEYOR HAS SHOWN LOCATION OF UTILITIES EXISTING ON OR SERVING THE SURVEYED PROPERTY AS DETERMINED BY OBSERVED EVIDENCE ON OR ABOVE THE SURFACE ONLY, COLLECTED PURSUANT TO SECTION 5.E.iv.

TABLE A – ITEM 13 STATEMENT REGARDING ADJOINING OWNERS: SEE DRAWING FOR NAMES OF ADJOINING OWNERS AS OBTAINED FROM THE DUPAGE COUNTY TREASURER'S WEBSITE.

TABLE A – ITEM 14 STATEMENT REGARDING DISTANCE TO NEAREST INTERSECTING STREET: SEE DRAWING FOR THE DISTANCE TO THE NEAREST INTERSECTING STREET.

TABLE A – ITEM 16 STATEMENT REGARDING EARTH MOVING AND BUILDING CONSTRUCTION:
SURVEYOR FINDS BRUSH AND TREE REMOVAL IN PROGRESS IN THE PROCESS OF CONDUCTING THE FIELD WORK. SEE DRAWING FOR THE APPROXIMATE LIMITS OF BRUSH AND TREE REMOVAL AREA.

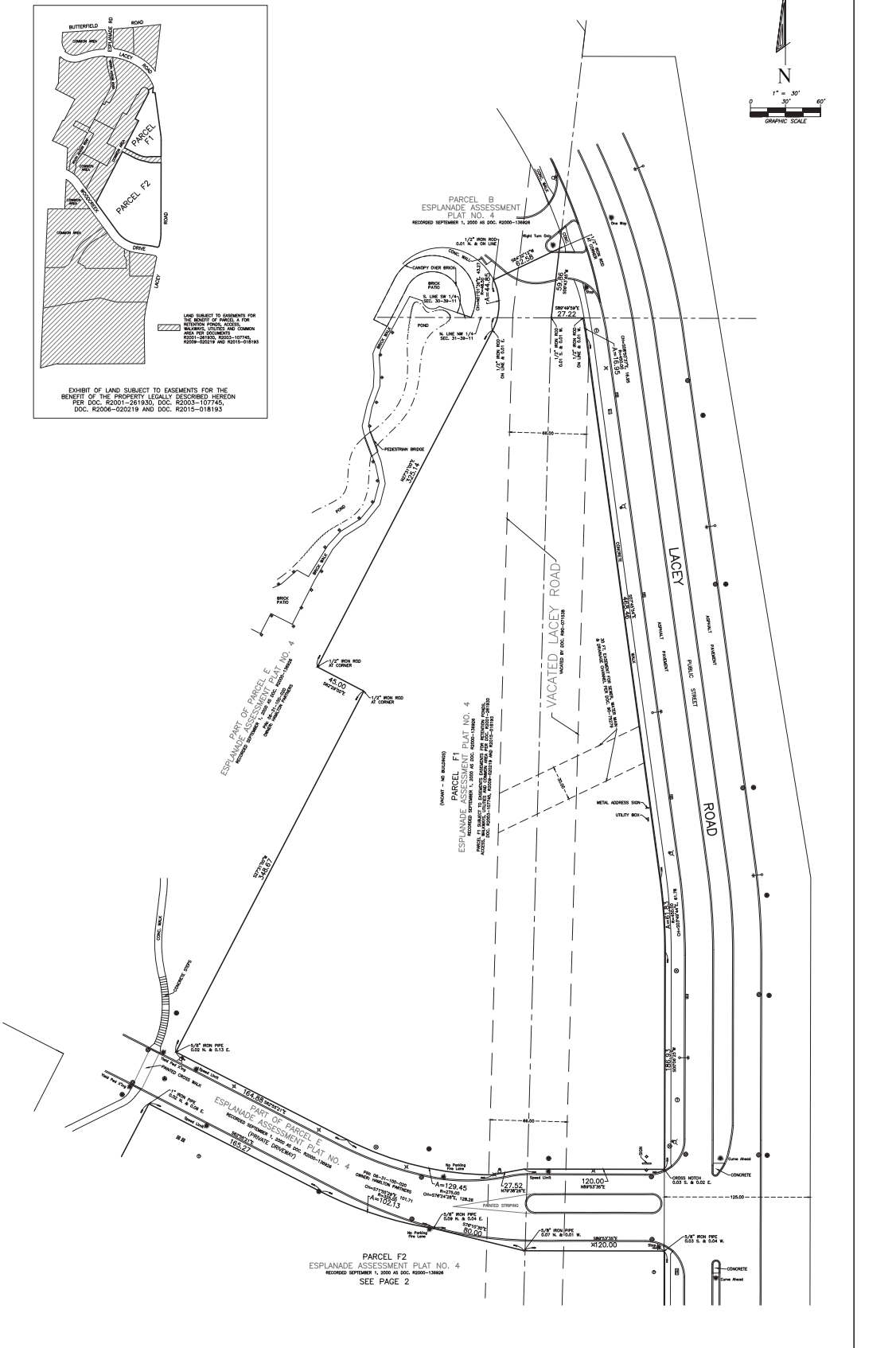
TABLE A – ITEM 17 STATEMENT REGARDING CHANGES IN STREET RIGHT-OF-WAY LINES: SURVEYOR HAS NO KNOWLEDGE OF ANY CHANGES IN STREET RIGHT-OF-WAY LINES CONTEMPLATED OR PROPOSED AND FINDS NO OBSERVED EVIDENCE OF RECENT STREET OR SIDEWALK CONSTRUCTION OR REPAIRS IN THE PROCESS OF CONDUCTING THE FIELD WORK.

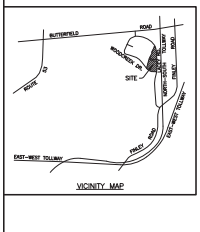
TABLE "A" ITEM 18 STATEMENT OF OFFSITE EASEMENTS: SEE DRAWING FOR OFFSITE EASEMENTS OR SERVITUDES BENEFITING THE SURVEYED PROPERTY THAT ARE DISCLOSED IN THE RECORD DOCUMENTS.

TABLE A – ITEM 19 STATEMENT REGARDING PROFESSIONAL LIABILITY INSURANCE: PROFESSIONAL LIABILITY INSURANCE POLICY OBTAINED BY THE SURVEYOR IN THE MINIMUM AMOUNT OF $1,000,000 TO BE IN EFFECT THROUGHOUT THE CONTRACT TERM. CERTIFICATE OF INSURANCE TO BE FURNISHED UPON REQUEST.




EXHIBIT OF LAND SUBJECT TO EASEMENTS FOR THE BENEFIT OF THE PROPERTY LEGALLY DESCRIBED HEREON PER DOC. R2001-261930, DOC. R2003-107745 DOC. R2006-020219 AND DOC. R2015-018193




VICINITY MAP

## LEGEND:

| | | | |
|---|---|---|---|
| ● | Sanitary Manhole | ⊕ | Traffic Sign |
| ◉ | Storm Manhole | ⊠ | Electric Vault |
| ⊕ | Water Valve Vault | ⓣ | Telephone Manhole |
| ◍ | Storm Catch Basin | △ | Telephone Marker |
| ▥ | Storm Curb Inlet | ⊠ | Utility Hand Hole |
| ▶ | Flared End Section | ═══ | Depressed Curb |
| ⊄ | Fire Hydrant | ADA | ADA Tactile Dome |
| ▫ | B-Box | | |
| ✕ | Light Pole | | |
| ○—● | Light Pole W/Arm | | |
| ✥ | Lamp or Spotlight | | |

STATE OF ILLINOIS } SS
COUNTY OF DUPAGE }

I, THOMAS A. MOLLOY, AN ILLINOIS PROFESSIONAL LAND SURVEYOR HEREBY CERTIFY TO:

ANN & ROBERT H. LURIE CHILDREN'S HOSPITAL OF CHICAGO;
CHICAGO TITLE INSURANCE COMPANY;

THIS IS TO CERTIFY THAT THIS MAP OR PLAT AND THE SURVEY ON WHICH IT IS BASED WERE MADE IN ACCORDANCE WITH THE "MINIMUM STANDARD DETAIL REQUIREMENTS FOR ALTA/NSPS LAND TITLE SURVEYS," JOINTLY ESTABLISHED AND ADOPTED BY ALTA AND NSPS, AND INCLUDES ITEMS 1, 2, 3, 4, 6(a), 8, 9, 10, 11(a), 13, 14, 16, 17, 18 AND 19 OF TABLE "A" THEREOF. DIMENSIONS ARE SHOWN IN FEET AND DECIMAL PARTS THEREOF.

THE FIELD WORK WAS COMPLETED ON DECEMBER 27, 2025.

SIGNED AT BENSENVILLE, ILLINOIS THIS 29TH DAY OF DECEMBER , A.D. 2025

EDWARD J. MOLLOY AND ASSOCIATES, A DIVISION OF THOMAS A. MOLLOY, LTD.
AN ILLINOIS PROFESSIONAL DESIGN FIRM – LICENSE NO. 184-004840

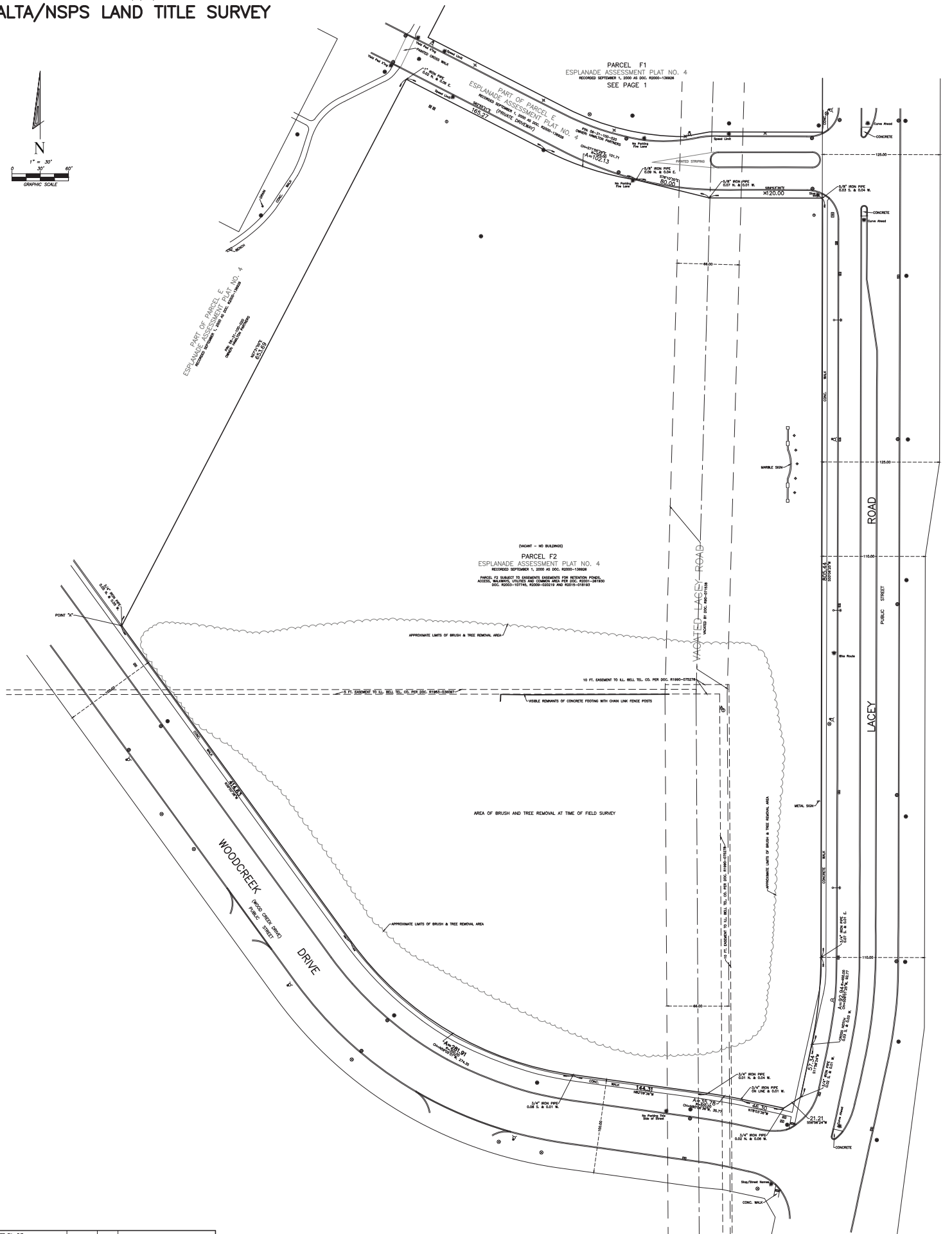
THOMAS A. MOLLOY
ILLINOIS PROFESSIONAL LAND SURVEYOR NO. 35-3409
(EXPIRES NOVEMBER 30, 2026 AND IS RENEWABLE)
THIS PROFESSIONAL SERVICE CONFORMS TO THE CURRENT ILLINOIS MINIMUM STANDARDS FOR A BOUNDARY SURVEY.

VALID ONLY WITH EMBOSSED SEAL

| | | | |
|---|---|---|---|
| DRAFTED BY: BJE | | | |
| PAGE: 1 OF 2 | | | |
| ORDER NO.: 250076 | | | |
| FILE: 30-39-11 | DEC. 29, 2025 | 250106 | ADD PARCEL F1 |
| PROJECT NO.: 111ESP | NOV. 21, 2025 | 250076 | INITIAL ALTA SURVEY |
| CLIENT: HAMILTON PARTNERS, INC. | REVISION DATE | ORDER NO. | REVISION |

EDWARD J. MOLLOY & ASSOCIATES
A DIVISION OF THOMAS A. MOLLOY, LTD. – PROFESSIONAL LAND SURVEYING
1236 MARK STREET, BENSENVILLE, ILLINOIS 60106 (630) 595-2600 Fax (630) 595-4700
e-mail: tmolloy@jmolloy.com

# ALTA/NSPS LAND TITLE SURVEY




| | | | |
|---|---|---|---|
| DRAFTED BY: BJE | | | |
| PAGE: 2 OF 2 | | | |
| ORDER NO.: 250076 | | | |
| FILE: 30-39-11 | DEC. 29, 2025 | 250106 | ADD PARCEL F1 |
| PROJECT NO.: 111ESP | NOV. 21, 2025 | 250076 | INITIAL ALTA SURVEY |
| | REVISION DATE | ORDER NO. | REVISION |
| CLIENT: HAMILTON PARTNERS, INC. | | | |

# Ann & Robert H. Lurie Children's Hospital of Chicago

# The Esplanade at Locust Point – Planned Unit Development #31

# Pediatric Health Care Facility

## Project Narrative

Ann & Robert H. Lurie Children's Hospital of Chicago ("Lurie Children's") submits this Project Narrative in connection with its application for an amendment to Planned Unit Development No. 31 ("PUD #31"). Lurie Children's proposes to construct a new pediatric hospital and health care facility (the "Facility") in the Village of Downers Grove on property bordered by Lacey Road on the east, Woodcreek Road on the south, and Birchwood Place on the north (the "Property") within PUD #31. The 13.2-acre Property is owned by HP/AG Esplanade at Locust Point Land Limited Partnership (the "Owner") and Lurie Children's is the contract purchaser of the Property. The Facility will provide pediatric inpatient beds, a pediatric emergency department, a surgery department with operating rooms and outpatient ambulatory services, and a helipad all as further detailed below.

In late 2024, Lurie Children's began searching for property, identifying locations in the western suburbs for a proposed new pediatric hospital facility in connection with implementing a strategic growth plan to transition from a single hospital to a health system. Lurie Children's existing hospital in the Streeterville neighborhood of Chicago ("Lurie Children's - Streeterville") is already one of the largest providers of inpatient pediatric care to residents of the western suburbs, in spite of the fact that it is located in downtown Chicago. Lurie Children's data shows that in 2024, 17.9% of Lurie Children's - Streeterville total admissions, and the second largest source of inpatient pediatric admissions, were children from the western suburbs who were hospitalized for pediatric care. Accordingly, Lurie Children's knew it wanted and needed a convenient, accessible location for a hospital in the western suburbs.

Lurie Children's identified the Property as one possible location for its first new hospital outside of Lurie Children's - Streeterville. The Property is centrally located in the western suburbs, with good transportation access near the major intersection of Interstate 355 and Butterfield Road. The Property quickly emerged as Lurie Children's clear preferred location. However, upon initial investigation, neither PUD #31 nor the underlying zoning district, the ORM (Office-Research-Manufacturing) District, allowed use of the Property for a hospital.

PUD #31 was originally approved in 1990 with a master site development plan and use list, historically intended to be developed with large office buildings. In recent years various uses

have been contemplated for PUD #31 and for the Property, in order to try to activate the long-vacant Property. Most recently, a residential project was approved for the Property in 2024.

Before making a final site selection for the proposed hospital, Lurie Children's and the Owner consulted with the Village of Downers Grove (the "Village") to determine whether hospital use could be permitted on the Property. Following those initial discussions, the Owner submitted an application to amend PUD #31 to permit hospitals as an allowed use within the PUD, subject to a specific development plan and the final details required for a full PUD amendment for an actual hospital user. In March 2026, the Downers Grove Village Council approved the amendment, thereby adding hospital use as a permitted use within PUD #31. That approval enabled Lurie Children's to proceed with the detailed specific development plan for the proposed Facility on the Property, which is the subject of this application.

As initially described above, and as depicted in the attached drawing package, the Facility will feature 48 pediatric inpatient beds, a pediatric emergency department with 35 treatment stations, and a surgery department with 6 operating rooms, diagnostic imaging including MRI (2), CT (1) X-ray (3), EOS/ortho (1), fluoroscopy (1) and Ultrasound (2). Other clinical services include physical and occupational therapy, laboratory, and pharmacy. The Facility will also include an outpatient clinic with 50 multi-specialty pediatric outpatient exam and treatment rooms and 10 ambulatory infusion rooms. Key subspecialities include oncology, cardiology, gastroenterology and orthopedics.

The building design itself is intended to help Lurie Children's transition from a single hospital to a health system. The design intent for the proposed building and campus is to create connections:

- A connection back to Lurie Children's - Streeterville, visually and with materiality;
- A connection to nature by siting the building to take advantage of the surrounding green spaces; and
- A connection to Downers Grove, with a lower scale, village-like campus.

The proposed building will feature two sections – a two-story section for the outpatient clinic and a two-story section for the emergency and surgery department with two stories above for inpatient beds, all above a walk-out lower level dedicated to core building functions (for a total of five stories). The overall height of the building at its highest point is proposed to be approximately 108 feet to the top of the elevator overrun that is behind the screened and partially set-back mechanical penthouse. The building height, per the zoning code and the established grade is 86'-0". The sections of the building connect at a common area in the middle of the structure at the main entrance, which includes a patient and visitor drop-off area. There is also a patient drop-off area located at the entrance to the emergency department as well as a separate ambulance drop-off area. A proposed helipad will be located adjacent to the emergency department and will serve outgoing transfers to Lurie Children's – Streeterville for certain patients, which will continue to be the primary location for Lurie Children's to serve the most

critically ill children. A detailed memorandum regarding the proposed helipad is separately included herewith.

The total site area for the Property is 574,913 square feet and the proposed square footage for the Facility is approximately 298,669 square feet. Approximately 501 parking spaces will be provided in surface parking lots on the Property, and this parking count has been intentionally designed to accommodate the operational requirements and patient/family needs associated with a pediatric healthcare facility. In addition to providing and exceeding the appropriate number of accessible parking spaces, the parking count also recognizes that pediatric patients are often accompanied by multiple family members or caregivers who may travel separately. A Parking Evaluation and analysis was included in the Traffic Impact Study, separately included herewith, prepared by KLOA traffic engineers. The loading dock area will provide adequate loading and maneuvering space to accommodate deliveries to the Facility and will be screened from Woodcreek Drive to the extent possible.

Lurie Children's engaged KLOA to perform the traffic impact study which conclusively found that, provided certain recommendations for traffic improvements are implemented, the area roadway system generally has sufficient reserve capacity to accommodate the traffic to be generated by the proposed development. The drawing package submitted by Lurie Children's herewith includes implementation of all recommendations regarding traffic improvements contained in the traffic impact study.

Building and parking lot setbacks comply with all Village and PUD #31 requirements. Significant landscaping provides for visual interest and offers a calming vista for patients. The project has an infusion garden accessible from inside the building, a respite garden located outside the Emergency Department, and a Dining Terrace with play area. These specific gardens are in addition to the proposed landscaping throughout the site that incorporates native plantings and will exceed Village requirements. Care has been taken to include safe and clearly delineated pedestrian connections from the building to the parking areas, as well as to Birchwood Place, Lacey Road, and Woodcreek Drive. The Facility has been designed to implement a stormwater management plan in compliance with the Village of Downers Grove and DuPage County Ordinance requirements. Stormwater management will include both volume control and detention. Volume control will be provided on-site through the use of permeable pavers, wet mesic detention basins, and underground infiltration vaults to provide both water quality and volume reduction measures. Additional detention will be provided in the existing ponds with some modifications to increase the holding capacity. In order to assist with stormwater management and in keeping with the overall site landscape aesthetic, the required fire lane will be provided in the form of an all-weather driving surface which blends in with the landscaping. Stormwater management improvements will ensure the site complies with all Village requirements.

Lighting has been designed in a responsible manner to minimize adverse effects on the environment and local ecosystems and will be designed in accordance with the general guidance of DarkSky International's Five Principles for Responsible Outdoor Lighting. Lurie Children's has provided a separate memorandum regarding lighting.

Fire prevention components have also been thoughtfully included in the site design, including a west property boundary fire lane that includes an all-weather driving surface for emergency vehicles which blends in with the landscaping to maintain visual aesthetics and doubles as a connecting walking path around the site to promote the health of staff and visitors.

Lurie Children's obtained an EcoCAT Review from the Illinois Department of Natural Resources which is included herewith. In connection with the EcoCAT review, during the building permit phase of the project, Lurie Children's will install a silt fence around the perimeter of the disturbed area, which is partially buried, to provide a barrier for any turtles that may try to enter the site, as referenced in the EcoCAT. Additionally, any necessary tree removal will be completed during the acceptable timeframe so that nesting birds or bats will not be impacted.

Proposed signage is depicted in the signage package included herewith. Signage within PUD #31 is governed by a master sign plan. Lurie Children's is proposing signage that will require an amendment to the master sign plan and certain deviations from the Zoning Code requirements. Hospitals inherently require clear signage often to multiple entrances. The size and quantity of signage that was in the master plan is in keeping with a traditional office building development but would not allow the appropriate location, size and quantity of signage to the main entrance, emergency department and the ambulance entrance that the proposed Facility will require. Patients, families and visitors often arrive at medical facilities in a state of increased anxiety, and providing clear, readily visible signage is essential to the safe flow of traffic and arrivals. In addition to site gateway signs, signage will be needed at each site entry, larger than what is currently allowable per the master sign plan, in order to clearly and effectively direct traffic to the different hospital, ED and ambulance drop-off locations, as well as to parking lots for staff and visitors. Once on the site, having passed the entry signage, additional signage is needed to continue to safely direct all arrivals to their location. As an example, a family member may be focused on finding the ED drop-off location and then need additional signage to help them find visitor parking. Unlike typical office building developments, which have many of the same visitors arriving each day, visitors to the hospital and clinic will often be arriving on site for the first time and could be in a state of distress. By providing clear, effective and carefully placed signage around the site, traffic flows will be improved and visitor safety will be enhanced.

Lurie Children's anticipates that the Facility will be an economic engine for the Village and the region, bringing a large number of new high-quality jobs to Downers Grove. In a memorandum prepared by the Illinois Economic Development Corporation regarding the estimated economic impact of the proposed Facility in Downers Grove, included herewith, it was

projected that the Facility will create, on the low end, approximately 319 new FTE jobs, and a resulting total of an estimated 552 new jobs - direct, indirect, and induced. This increase in jobs will create approximately $54,137,084 in increased earnings. The Facility is also expected to increase activity at nearby commercial businesses by drawing employees, patients, and visitors to the area.

Lurie Children's has conducted significant community outreach in connection with its proposal. Lurie Children's held a public meeting at the Doubletree Hotel on Butterfield Road on March 12, 2026 during which it presented its proposal to use the Property for the Facility. Notices for this meeting were mailed to property owners within PUD #31, as well as to property owners owning property within 250 feet of the boundaries of PUD #31. Notices were also distributed via informational flyers and meeting invitations to a broad network of community partners and stakeholders, encouraging recipients to share the information throughout their respective organizations, memberships, and professional networks. The public meeting announcement was also shared with numerous community organizations, including the Downers Grove Economic Development Corporation and Choose DuPage, and both organizations included information about the meeting in their newsletters, communications, and outreach channels to help increase public awareness. Approximately 150 people attended the public meeting on March 12, 2026, and many thoughtful questions were raised during the question-and-answer period. One of the primary objectives of the meeting was to engage the community early in the process and better understand any questions, concerns, or considerations that could inform the project as it moves forward. Nearly all public comments received during the question-and-answer period were overwhelmingly supportive of the proposed project. At the conclusion of the meeting, Lurie Children's shared a project website where community members can access information and project updates, Downers Grove | Lurie Children's [luriechildrens.org]. Lurie Children's remains committed to ongoing community engagement and will continue to provide updates and information through the project website as the planning process progresses.

Other community outreach efforts included direct stakeholder outreach through individual meetings and discussions with a variety of local, regional, educational, healthcare, business, and community organizations. These outreach efforts included meetings with the Village of Downers Grove Economic Development Corporation, Midwestern University, Good Samaritan Hospital, Morton Arboretum, Bold Insight, ARCO/Murray, DoubleTree Suites by Hilton Hotel & Conference Center, Choose DuPage, College of DuPage, DuPage County Health Department, District 58 Education Foundation, High School District 99, DuPage Foundation, Bright Horizons and other neighboring community stakeholders. Lurie Children's has received many letters of support for this project, all of which have been included with this application.

Lurie Children's believes that the proposed Facility will enhance pediatric health care in the western suburbs by introducing pediatric health care facilities that will enable pediatric patients who reside in the area to receive care closer to their homes, and specifically, to receive care from Lurie Children's without traveling downtown. Lurie Children's goal is to ensure that

children and families receive the right care, at the right time, in the right setting. The proposed Facility will expand access to high-quality, family-centered pediatric care while enhancing operational efficiency, enabling systematic care coordination, and improving patient outcomes. The new Lurie Children's Facility on the Property will be geographically convenient for families, reducing travel times and barriers to high quality care. The location will also enable the potential for future phases and long-term flexibility as patient care advances and community needs evolve. Adjacent property on the north side of Birchwood Place will also be purchased by Lurie Children's and will be available for potential future expansion, subject to all required Village approvals.

As demonstrated by the above operational details, and as demonstrated in the responses to the Review and Approval Criteria for Planned Unit Developments included herewith, the proposed Facility on the Property will meet all requirements for approval and Lurie Children's respectfully requests approval of its application for amendment to Planned Unit Development No. 31.

JOSHUA C. BAKER, O.D., M.S.
PRESIDENT & CHIEF EXECUTIVE OFFICER

May 27, 2026

Village of Downers Grove
Planning and Zoning Commission

**RE: Zoning Support for Lurie Children's Hospital and Outpatient Center**

Dear Members of the Planning and Zoning Commission and Village Officials:

On behalf of Midwestern University, I am writing to express our strong support for the proposed development by Ann & Robert H. Lurie Children's Hospital of Chicago to construct a new pediatric hospital in Downers Grove. The hospital will be located just across the street from our University's Multispecialty Clinic complex.

As an institution dedicated to training the next generation of skilled, compassionate healthcare professionals, we recognize the importance of expanding access to high-quality, specialized care. Lurie Children's will bring nationally recognized pediatric expertise to the region, benefiting patients, families, and the broader healthcare ecosystem.

Additionally, the presence of Lurie Children's creates opportunities for collaboration in education, clinical training, and community health initiatives. Exposure to leading pediatric specialists and innovative care models can further enrich the learning environment for students and strengthen the local healthcare workforce.

We respectfully urge the Commission to approve the proposed zoning and believe this project will serve as a valuable asset to the community and region.

Sincerely,

Joshua C. Baker, O.D., M.S.
President and Chief Executive Officer
jbaker@midwestern.edu

Bright Horizons.

June 23 2026
Village of Downers Grove
Planning and Zoning Commission

Dear Members of the Planning and Zoning Commission and Village Officials:

My name is Lauren Schoenau, the director of Bright Horizons at the Esplanade in Downers Grove. We would like to offer our support for the proposed development by Ann & Robert H. Lurie Children's Hospital of Chicago, as we are located across the street from the location where their team would construct a new pediatric outpatient hospital and care facility at the Esplanade development in Downers Grove.

As a neighboring organization that also serves children and works closely with families every day, we understand the importance of having trusted pediatric healthcare resources nearby. The opportunity for families to access comprehensive pediatric services within their own community can improve care coordination, reduce stress for caregivers, and help children receive timely medical attention when they need it most. Additionally, it gives our community a great sense of peace knowing that trusted pediatric emergency response is close to our facility and can be a resource for our program. The proposed facility represents a significant investment in the health and well-being of children throughout DuPage County and the surrounding region, while increasing access to specialized pediatric care closer to where families live, work, and attend school.

We also appreciate Lurie Children's longstanding commitment to community engagement, collaboration, and excellence in pediatric care. Their presence in Downers Grove will have a positive impact on local families, and this proposed expansion will allow them to meet growing healthcare needs for years to come.

For these reasons, Bright Horizons supports a swift approval of the requested zoning amendment and fully supports Lurie Children's proposed development at the Esplanade. Thank you for your consideration.

Sincerely,

Lauren E S

Lauren Schoenau, Center Director
Bright Horizons at the Esplanade
3400 Lacey Road, Downers Grove IL
630.852.0250
espl@brighthorizons.com

DOUBLETREE SUITES
by Hilton™
HOTEL & CONFERENCE CENTER
CHICAGO–DOWNERS GROVE

**Village of Downers Grove**
**Planning and Zoning Commission**

**RE: Zoning Support for Lurie Children's Hospital Outpatient Center**

Dear Members of the Planning and Zoning Commission and Village Officials:

On behalf of the DoubleTree Hotel in Downers Grove, I am writing to express our strong support for the proposed zoning approval that would allow Ann & Robert H. Lurie Children's Hospital of Chicago to move forward with its new pediatric healthcare facility at The Esplanade, just blocks from our hotel.

We are extremely supportive of this development and believe it will be of tremendous benefit to our business park, the Village of Downers Grove, and the surrounding communities. The parcel has remained vacant for far too long, and this project represents a meaningful and positive use of the site. Bringing a respected children's healthcare provider to this location will add value, purpose, and vitality to the area.

As a hospitality provider serving business travelers, families, medical visitors, and guests throughout the western and southwest suburbs of Chicago, we understand how important accessible, high-quality healthcare is to a strong community. Lurie Children's will provide children and families with a safe, caring, and trusted facility closer to home for their health needs. This is especially important for families who may otherwise have to travel farther into the city for pediatric specialty care.

This project will also have a positive economic impact. It will bring additional visitors, professionals, patients, and families to Downers Grove, supporting local businesses, restaurants, retail, and hotels. We believe the development will help strengthen The Esplanade and the surrounding business park while further positioning Downers Grove as a welcoming, well-resourced, and family-focused community.

For these reasons, we respectfully encourage approval of the proposed zoning request. We look forward to the positive impact this project will have on our community and are proud to support a development that will benefit both local businesses and the children and families who need compassionate care.

Sincerely,

**Fadi Osmano**
**General Manager & VP of Cicero Hospitality Group**
**DoubleTree Hotel Downers Grove, IL**

DoubleTree Suites by Hilton & Conference Center Chicago - Downers Grove
2111 Butterfield Rd.
Downers Grove, Illinois 60515
**Tel:** +1 (630)-971-2000 **Fax:** +1 (630)-971-1168
**https://www.hilton.com/en/hotels/ordwbdt**

Bold Insight

DOWNERS GROVE
2001 Butterfield Rd
Ste 360
Downers Grove, IL 60561
+1.630.504.7391

CHICAGO
125 S. Wacker Drive
Ste 3020
Chicago, IL 60606
+1.312.376.3029

LONDON
Thanet House
Ste 403
231-232 Strand
London WC2R 1DA

June 4, 2026

Village of Downers Grove
Planning and Zoning Commission

**RE: Zoning Support for Lurie Children's Hospital and Outpatient Center**

Dear Members of the Planning and Zoning Commission and Village Officials:

On behalf of Bold Insight, a user experience research and innovation consultancy headquartered in Downers Grove, I am writing to express our strong support for Ann & Robert H. Lurie Children's Hospital of Chicago's proposed expanded location in Downers Grove.

As a company whose work is focused heavily on healthcare research and innovation, we understand the importance of ensuring that patients and families have access to high-quality care close to home. Much of our work involves conducting research with healthcare professionals, patients, and caregivers to help medical device, pharmaceutical, and healthcare organizations develop safer, more effective, and more user-centered products and services. Through this work, we see firsthand the positive impact that exceptional healthcare institutions have on patient outcomes, family experiences, and community well-being.

The addition of a pediatric hospital in Downers Grove would significantly expand access to world-class pediatric care for residents throughout the western suburbs, reducing travel burdens for families while ensuring that children can receive specialized care closer to home. For many working parents and caregivers, convenient access to pediatric specialty services can make a meaningful difference in both healthcare outcomes and quality of life.

We are particularly enthusiastic about the proximity to our office and the broader business community. The presence of a nationally recognized pediatric healthcare institution would further strengthen Downers Grove's reputation as a destination for exceptional services, innovation, and quality of life. It would provide a meaningful benefit not only to local residents but also to the many employees who work in and around the area and who seek convenient access to healthcare resources for their families.

Ann & Robert H. Lurie Children's Hospital of Chicago is widely recognized for its commitment to clinical excellence, innovation, and compassionate care. As an organization that works closely with healthcare stakeholders across the country, we have deep appreciation for institutions that continually advance the quality, safety, and accessibility of care. We are confident that Lurie Children's presence in Downers Grove would be a tremendous asset to families throughout the region and would further enhance the Village's reputation as a thriving, family-friendly community.

We respectfully encourage the Village to support this project and facilitate its successful development. We believe it will deliver lasting benefits to residents, employees, businesses, and families throughout the region.

Thank you for your consideration.

Sincerely,

Jackie Ulaszek
Managing Partner
Bold Insight

choose dupage
Economic Development Alliance

June 4, 2026

Village of Downers Grove
Planning and Zoning Commission
Village Council Members

**RE: Zoning Support for Lurie Children's**

Dear Members of the Planning and Zoning Commission and Honorable Village Council Members,

On behalf of Choose DuPage, I am writing to express our strong support for the proposed development by Ann & Robert H. Lurie Children's Hospital of Chicago to construct a new pediatric hospital in Downers Grove.

This project aligns with our mission to drive economic growth and enhance quality of life across DuPage County. Expanding access to specialized pediatric care is critical for supporting families, strengthening communities, and attracting a skilled workforce. Lurie Children's investment in Downers Grove represents both a healthcare and economic opportunity—bringing high-quality jobs, supporting local businesses, and reinforcing the region's reputation as a hub for innovation and excellence.

We respectfully urge approval of the proposed zoning and are confident this project will have a lasting positive impact on the region.

Sincerely,

GM Bedalov

Greg Bedalov
President and CEO
Choose DuPage

The Morton Arboretum | THE CHAMPION of TREES

Office of the President and Chief Executive Officer

June 18, 2026

Village of Downers Grove
Planning and Zoning Commission

RE: Zoning Support for Lurie Children's Hospital and Outpatient Center

Dear Members of the Planning and Zoning Commission and Village Officials:

On behalf of The Morton Arboretum, I am pleased to express our strong support for Ann & Robert H. Lurie Children's Hospital of Chicago's zoning amendment to allow for construction of a new pediatric hospital in Downers Grove.

This project represents a meaningful investment in the health of children and families throughout DuPage County and the surrounding region. Expanding access to specialized pediatric care closer to home will help reduce barriers for families, improve health outcomes, and ensure that children receive timely, comprehensive care.

We are encouraged by the opportunity for this development to reflect thoughtful planning and design that complements the surrounding environment and contributes positively to the character of the community. The hospital team has already demonstrated clear interest in meaningful partnership investments in the area.

The Arboretum is especially pleased with the proximity of the project to our grounds. The proposed location will provide children and families ease of access to the many benefits of spending time in nature including improved healing time and the reduction of stress.

In addition to its healthcare impact, this project will support the local economy through job creation and long-term community investment. Lurie Children's has a well-established reputation for excellence, innovation, and community partnership, and we are confident that this expansion will bring lasting benefits to the region.

For these reasons, The Morton Arboretum fully supports the requested zoning approvals for this important project. We believe it will be a valuable asset to Downers Grove and a significant step forward in advancing the health and well-being of our communities.

Thank you for your consideration.

Sincerely,

Jill Koski

Jill Koski
President and CEO

4100 Illinois Route 53 • Lisle, Illinois 60532 • USA
630-719-2401

**Downers Grove Economic Development Corporation**
5159 Mochel Downers Grove, IL 60515
630.729.0380 www.dgedc.com

**To:** Mayor Barnett and Village Council, Village of Downers Grove
Planning and Zoning Commission, Village of Downers Grove
**From:** Bryan Gay, President & CEO, Downers Grove Economic Development Corporation
**Date:** June 18, 2026

**Subject: Zoning Support for Lurie Children's Hospital**

Dear Members of the Planning and Zoning Commission and Village Council:

On behalf of the Downers Grove Economic Development Corporation, I am pleased to express our strong support for the proposed zoning amendment to enable the development by Ann & Robert H. Lurie Children's Hospital of Chicago to construct a new pediatric hospital in The Esplanade in Downers Grove.

This project represents a significant investment in the economic and social vitality of Downers Grove. In addition to expanding access to world-class pediatric specialty care, Lurie Children's will serve as a key driver of economic activity—bringing jobs, attracting visitors, and supporting surrounding businesses.

Healthcare institutions of this caliber also enhance the attractiveness of a community for residents and employers alike. The presence of Lurie Children's reinforces Downers Grove as a destination for high-quality services and long-term growth.

We have been advising Lurie Children's from the beginning of this process, and have introduced them to several neighbors and community partners. We strongly encourage approval of the proposed zoning and look forward to the positive impact this development will have on our community.

Sincerely,

Bryan Gay

Bryan Gay
President and CEO
Downers Grove Economic Development Corporation

HAMILTON
PARTNERS

HAMILTON PARTNERS, INC.
1901 Butterfield Road
Suite 270
Downers Grove, IL 60515

630.963.0700 Fax: 630.719.5570

June 9, 2026

Dear Members of the Planning and Zoning Commission,
Members of the Village Council, and Mayor Bob Barnett:

On behalf of the Esplanade at Locust Point Property Owners' Association, I am pleased to offer our strong support for the proposed development by Ann & Robert H. Lurie Children's Hospital of Chicago to construct a new pediatric hospital on the Esplanade Campus in Downers Grove.

Access to high-quality pediatric healthcare is essential to the well-being of our community. This project represents significant investment in the health of children and families across DuPage County and the surrounding region. Expanding access to specialized pediatric services closer to where families live is a meaningful benefit and will help improve health outcomes by ensuring timely care for children in need.

The planned pediatric hospital, including a dedicated emergency department and outpatient services building, will enhance the local healthcare infrastructure and provide critical resources to the community. Additionally, we believe Lurie Children's will be an excellent addition to the Esplanade Campus and appropriate and impactful use for this longstanding vacant land.

We also recognize the broader benefits this development will bring, including job creation and economic investment. Furthermore, having Lurie Children's as a collaborative partner within our community will provide valuable support to local organizations and initiatives.

For these reasons, the Esplanade at Locust Point Property Owners' Association fully supports the zoning approval for this important project. We believe it will serve as a vital asset to the region and contribute meaningfully to the continued health and vitality of our community.

Thank you for your consideration.

Sincerely,



Gary Mori

Esplanade at Locust Point Property Owners' Association

cc: Michael Becker, Ann & Robert H. Lurie Children's Hospital of Chicago

HAMILTON
PARTNERS

HAMILTON PARTNERS, INC.
1901 Butterfield Road
Suite 270
Downers Grove, IL 60515

630.963.0700 Fax: 630.719.5570

June 24, 2026

Dear Members of the Planning and Zoning Commission,
Members of the Village Council and Bob Barnett, Mayor of Downers Grove,

On behalf of Hamilton Partners, I am pleased to offer our strong support for the proposed development by Ann & Robert H. Lurie Children's Hospital of Chicago to construct a new pediatric hospital in Downers Grove on the Esplanade Campus.

Access to high-quality pediatric healthcare is essential to the well-being of our community. This project represents significant investment in the health of children and families across DuPage County and the surrounding region. Expanding access to specialized pediatric services closer to where families live is a significant benefit to the greater community. A pediatric health campus in Downers Grove will improve health outcomes and ensure timely care for children in need.

The planned pediatric hospital, dedicated emergency department and outpatient services building will enhance the local healthcare infrastructure and provide critical resources. Additionally, we see Lurie Children's as an excellent addition to the Esplanade Campus and a great use for longstanding vacant land.

We also recognize the broader community benefits this development will bring, including job creation and economic investment. Additionally, having Lurie Children's in our community as a collaborative partner will benefit our community-based organizations.

For these reasons, Hamilton Partners fully supports the zoning approval for this important project. We believe it will serve as a vital asset to the region and contribute meaningfully to the health and vitality of our community.

Thank you for your consideration.

Sincerely,



Gary Mori

Hamilton Partners

cc: Michael Becker, Ann & Robert H. Lurie Children's Hospital of Chicago

DUPAGE COUNTY HEALTH DEPARTMENT
*Everyone, Everywhere, Everyday*

111 N. County Farm Rd., Wheaton, IL 60187

June 26, 2026

Village of Downers Grove
Planning and Zoning Commission

**RE: Zoning Support Lurie Children's Hospital and Outpatient Center**

Dear Members of the Planning and Zoning Commission and Village Officials:

On behalf of the DuPage County Health Department, I am pleased to offer our strong support for the proposed development by Ann & Robert H. Lurie Children's Hospital of Chicago to construct a new pediatric hospital in Downers Grove.

Access to high-quality pediatric healthcare is essential to the well-being of our community. This project represents a significant investment in the health of children and families across DuPage County and the surrounding region. Expanding access to specialized pediatric services closer to where families live will help reduce barriers to care, improve health outcomes, and ensure timely treatment for children in need.

The inclusion of a dedicated emergency department and comprehensive outpatient services will enhance the local healthcare infrastructure and provide critical resources for both routine and urgent pediatric care. Additionally, Lurie Children's longstanding commitment to clinical excellence, innovation, and community partnership aligns closely with our mission to promote and protect the health of all residents.

We also recognize the broader community benefits this development will bring, including job creation, economic investment, and strengthened collaboration across healthcare providers and community-based organizations.

For these reasons, the DuPage County Health Department fully supports the zoning approval for this important project. We believe it will serve as a vital asset to the region and contribute meaningfully to the health and vitality of our community.

Thank you for your consideration.

Sincerely,

Adam Forker, MPH
Executive Director
DuPage County Health Department

**Ann & Robert H. Lurie Children's Hospital of Chicago**

**The Esplanade at Locust Point – Planned Unit Development #31**

**Pediatric Health Care Facility**

## Planned Unit Development Review and Approval Criteria

## Response to Section 28.12.040.C.5 – Review and Approval Criteria (Planned Unit Development)

### 1. The zoning map amendment review and approval criteria of Sec. 12.030.I.

Planned Unit Development #31 is an existing PUD and so this approval criteria is not applicable to this particular application. This criteria was met when PUD #31 was originally established.

### 2. Whether the proposed PUD plan and map amendment would be consistent with the Comprehensive Plan and any other adopted plans for the subject area.

The Applicant, Ann & Robert H. Lurie Children's Hospital of Chicago ("Lurie Children's"), has proposed a PUD amendment to allow a pediatric hospital and health care facility including pediatric inpatient beds, a pediatric emergency department, a surgery department with operating rooms, outpatient ambulatory services, and a helipad, all as described in greater detail in the Project Narrative (the "Facility"). The Facility uses do not fall squarely within the Village's Guiding DG Comprehensive Plan recommendations that the subject property be developed with office uses, multi-family residential, hotel, and other small-scale commercial uses to support office uses. However, the proposed PUD amendment to allow the Facility would meet and further many of Comprehensive Plan's Goals and Key Recommendations, including the following:

1. The Facility would achieve the recommendation that mixed-use developments could be appropriate within the Esplanade. The proposed Facility would be compatible with and complementary to the existing pattern of development in the Esplanade, including office uses, hotel uses, and Midwestern University's Multispecialty Clinic complex, which is located directly across the street from the proposed Facility. In that regard, the Facility would reinforce the Esplanade's established character as a mixed-use center and would constitute an appropriate and harmonious addition to the surrounding area.

2. The Facility would facilitate the goal of the creation and enhancement of mixed-use areas that include offices, commercial and retail space and other community amenities. The Facility would further this goal by introducing a community-serving pediatric hospital to support the Village and the region. Such use will complement and support surrounding office, commercial, retail, and other community-serving uses, and will thereby enhance the overall functionality and vitality of the Esplanade and the Village as a whole.

3. The Comprehensive Plan encourages infill development to efficiently use vacant or underutilized land for commercial uses. The Facility will occupy property that has long been vacant and intended for commercial use. The Facility will also encourage other infill development as it will become a regional draw to a commercial area where additional vacant and underutilized properties can be used for additional commercial uses to serve employees, patients, and visitors to the Facility.

4. The Comprehensive Plan encourages the completion of Esplanade, which still has vacant lots. The Facility will fill and activate one of the largest vacant lots within Esplanade.

5. The Comprehensive Plan includes a goal of supporting evolving healthcare needs and states that the Village should collaborate with providers, assess community priorities, and explore partnerships with Midwestern University to expand services. A pediatric hospital will be an amenity serving the Village's healthcare needs. Lurie Children's has been in close contact with Midwestern University about the proposed Facility and looks forward to collaborating with Midwestern on education, clinical training, and community health initiatives.

6. The Comprehensive Plan encourages the Village to continue to examine development regulations to ensure commercial nodes and corridors are adaptable for future market conditions, ensuring their long-term relevance and viability within Downers Grove. The proposed Facility within Esplanade has excellent visibility and access to Interstate 355 and to Butterfield Road, which is a main commercial corridor in the Village. The addition of the Facility to the Esplanade would ensure a long-term, high quality, relevant user that would increase the viability of further and future development in, around, and near the Esplanade.

## 3. Whether the PUD plan complies with the PUD overlay district provisions of Sec. 28.4.030.

**Sec. 28.4.030(a)(1) – Purpose - General**

The PUD amendment for the Facility complies with the General Purpose of Sec. 28.4.030(a)(1)(d) of the PUD Overlay District, in that the Property is located within PUD #31, the Esplanade at Locust Point, which is a development that contains a complementary mix of nonresidential uses and provides for a range of land use types, including the proposed Facility, which is a compatible and complementary use to the existing land use types in Esplanade,

including but not limited to offices, a hotel, restaurants, Midwestern University and a day care facility.

**Sec. 28.4.030(a)(2) – Purpose - Objectives**

The PUD amendment for the Facility will achieve the following Objectives of Sec. 28.4.030(a)(2):

a. 28.4.030(a)(2)(a): Amendment of PUD #31 for the Facility meets the PUD objective of implementation of and consistency with the Guiding DG Comprehensive Plan, as described in greater detail above.

b. 28.4.030(a)(2)(b): Amendment of PUD #31 for the Facility meets the PUD objective of allowing for flexibility and creativity in responding to changing economic and market conditions, allowing greater public benefits than could be achieved using conventional zoning and development regulations. While PUD #31 originally contemplated office buildings for the Property, and then recently residential uses, the amendment to PUD #31 to allow for the Facility on the Property is a direct response to changing market conditions and a need for pediatric health care services in the western suburbs. Conventional zoning and development regulations will not allow for development of the Facility on the Property without approval of the PUD Amendment. If the PUD Amendment is not approved, and the Property can only be developed in accordance with conventional zoning and development regulations, then the public benefits that will result from the Facility would be lost to the Village. Public benefits from the Facility include: high-quality pediatric healthcare that is offered in a setting that is close to patients' homes; high quality jobs; and new employees, patients and visitors in the Village who will use existing commercial businesses in the area, potentially creating growth opportunities for additional commercial uses, and allowing for new economic growth in the Village.

c. 28.4.030(a)(2)(c): Amendment of PUD #31 for the Facility meets the PUD objective of efficient and economical provision of public facilities and services in that the Facility will be a pediatric healthcare facility that will offer these services to the public in an area that is closer to home than Lurie Children's – Streeterville.

d. 28.4.030(a)(2)(g): Amendment of PUD #31 for the Facility meets the PUD objective of high-quality buildings and improvements that are compatible with surrounding areas, as determined by their arrangement, massing, form, character and landscaping. The Facility has been designed to show clear frontage along Lacey Road and to embrace the surroundings by offering views of the forest preserve from the southwest façade of the building. The building responds to the character of Esplanade by angling the building to align its closest façade to the adjacent building's orientations. The building and site expand the walking paths within the property and area, helping to connect patrons and neighbors to nature. The building character is reminiscent of Lurie Children's – Streeterville while drawing on the horizontality of western suburban buildings.

The landscaping draws inspiration from the Morton Arboretum and neighboring Hidden Lake Forest Preserve. The planting mixes use a variety of native grasses, forbs, perennials, shrubs, and trees to recreate microecosystems that mimic the prairies, savannahs, fens and meadows of northern Illinois.

e. 28.4.030(a)(2)(h): Amendment of PUD #31 for the Facility meets the PUD objective of the protection and enhancement of open space amenities and natural resource features. The Facility has been designed to utilize the landscape as an instrument for healing. The site embraces biophilic design principles to create spaces that connect people to nature, provide protected spaces, enhance views, employ natural patterns and forms, and incorporate native planting. A variety of exterior spaces allow for patients and visitors to connect with nature, while views from the rooms and corridors are directed to lush plantings. A series of paths and trails encourage visitors and employees to spend time in the gardens and around the grounds.

Throughout the site, landscape zones have been designed to accept stormwater and filter it back into the soil, cleaning the runoff and reducing stormwater peak flows. Key areas around the site have been sheltered with enhanced evergreen and deciduous buffers to shield service areas and equipment from surrounding roads and neighbors. The design team has engaged with the Morton Arboretum to discuss plantings that will thrive at the site.

f. 28.4.030(a)(2)(i): Amendment of PUD #31 for the Facility meets the PUD objective of the incorporation of sustainable development features including green infrastructure practices in landscapes and parking areas, to maximize the aesthetic and water quality benefits of best practices in stormwater management. The Facility has been designed to implement a stormwater management plan in compliance with the Village of Downers Grove and DuPage County Ordinance requirements. Stormwater management will include both volume control and detention. Volume control will be provided on-site through the use of permeable pavers, wet mesic detention basins, and underground infiltration vaults to provide both water quality and volume reduction measures. Additional detention will be provided in the existing ponds with some modifications to increase the holding capacity. In order to assist with stormwater management, and in keeping with the overall site landscape aesthetic, the required fire lane will be provided in the form of an all-weather driving surface which blends in with the landscaping and doubles as a walking path to promote the health of staff and visitors.

g. 28.4.030(a)(2)(j): Amendment of PUD #31 for the Facility meets the PUD objective of attractive, high-quality landscaping, lighting, architecture, and signage, including the use of native landscaping that reflects the unique character of the Village and the surrounding area. The Facility has been designed to be playful, but not childish. This is done through encouraging people to walk through and around the site with native plantings and welcoming gardens and walking paths. The building materials, brick, metal panel and glass, are inherently high design materials and also accessible, recognizable materials that are arranged on the façade in a playful manner. The large canopies embraced the horizontal nature of prairie style design while also

offering shelter from the weather. The lighting will be LED and integrate into and complement the building, site and landscape, while using the principals of Dark Sky. The signage will be appropriately designed for the needs of a pediatric hospital and clinic with clear designation and size and long-lasting materials.

**Sec. 28.4.030(b) – Procedure**

Lurie Children's is submitting this application and requesting review and approval in accordance with the procedures of DGMC Section 28.12.040

**Sec. 28.4.030(c) – Zoning Map**

PUD #31 is an existing PUD that is currently identified on the zoning map.

**Sec. 28.4.030(d) – Developer's Statement of Intent**

The Property is zoned O-R-M/PUD, Office-Research-Manufacturing/ Planned Unit Development #31. Lurie Children's is proposing to construct a pediatric hospital and health care facility including pediatric inpatient beds, a pediatric emergency department, a surgery department with operating rooms, outpatient ambulatory services, and a helipad (the "Facility").

In March of 2026, the Downers Grove Village Council approved "hospital" as a permitted use within PUD #31, finding that hospital was an appropriate use within PUD #31 and that it was compatible with the Comprehensive Plan. All uses included in the Facility are hospital uses and uses accessory to the hospital use.

The bulk requirements for the proposed building are found in the table below:

| **Item Description** | **Current PUD/Zoning Requirement** | **PUD Proposal** |
|---|---|---|
| **Project Location** | Esplanade at Locust Point (Planned Unit Development #31) | |
| **Project Description** | | |
| **Zoning District** | O-R-M (Office, Research, Manufacturing) | |
| **Permitted Uses** | Office: medical, dental, and health practitioner; hospital | |
| **Maximum Building Height (Table 3-2)** | 140'-0" (measured from established grade at elevation that yields greatest height measurement to top highest point of flat roof, not including parapet or compliant penthouse). | Hospital portion of Building: 86'-0"<br>Clinic portion of Building: 50'-0" |
| **Maximum Floor Area (Table 3-2)** | Gross Site Area: 574,913sf<br>FAR: 0.89 | Hospital Bldg 1 Floor Area: 235,002sf |

| | | |
|---|---|---|
| | Max. Floor Area: 511,672sf | Clinic Bldg 2 Floor Area: 63,667sf<br>Total Floor Area: 298,669sf |
| **Setback Requirements (Table 3-2)** | Street (E, S):<br>Off-Street Parking: 35'-0"<br>Building: 35'-0" plus 1'-0" per 2'-0" of building height above 35'-0"<br>Hospital Bldg 1: 61'-0"<br>Clinic Bldg 2: 43'-0"<br>Side (W): 10'-0"<br>Rear (N): 10'-0" | Street:<br>Off-Street Parking: 35'-0"<br>Hospital Bldg 1: 195'-0"<br>Clinic Bldg 2: 309'-7"<br>Side:<br>Hospital Bldg 1: 107'-4"<br>Clinic Bldg 2: 49'-3"<br>Rear:<br>Hospital Bldg 1: n/a<br>Clinic Bldg 2: 46'-5" |
| **Minimum Landscaped Area/Open Space Requirement** | 15% of gross site area: 86,236sf | Landscaped/Open Areas: approx. 216,925 s.f. with 80,653 s.f. of open space in Street Yard setbacks |
| **Vehicle Parking Requirements** | In accordance with Sec. 28.7.040(g) | 501 parking spaces proposed<br><br>EV parking provided: 0 spaces |
| **Bicycle Parking Requirements** | Minimum: 5% of vehicle parking spaces | 26 bike parking spaces proposed |
| **Off-Street Loading Requirements** | Minimum: 1 space per 100,000sf building area | 3 loading areas |

Signage in PUD #31 is pursuant to a Master Sign Plan and the Zoning Code. Signage proposed includes:

| Sign Type | Description | Qty. | Location | Area | Height |
|---|---|---|---|---|---|
| B | Gateway | 2 | Corner of Lacey and Birchwood;<br>Corner of Lacey and Wood Creek | 36 SF | 5'-0" h. |
| B.1 | Primary Monument | 1 | Main entrance | 50 SF | 15'-0" h. |
| B,2 | Secondary Monument | 2 | Secondary entrances | 30 SF | 10'-0" h. |
| B.3 | Receiving Entrance ID | 1 | Receiving entrance | 12 SF | 8'-0" h. |
| A.2 | Top of Bldg Hand Icon | 2 | East façade; south facade | 201 SF | 16' dia. |
| A.3 | Street Level Hand Icon | 1 | East façade | 95 SF | 11' dia. |
| A.4 | Glass Graphic Hand Icon | 1 | North façade | 95 SF | 11' dia. |
| A.1 | Dimensional Letters | 4 | Canopy mounted at main entrance, emergency, and ambulance entries | 115 SF (main)<br>51 SF (emergency)<br>52 SF (ambulance) | 2'-6" h. |

| | | | | | |
|---|---|---|---|---|---|
| F.1 | Building Address | 1 | Main entrance above doors | | 1’-0” h. |
| F.2 | Dimensional Letters | 1 | Main entrance above doors | | 8” h. |
| H | Vinyl Logo | 1 | Main entrance, emergency entrance, and ambulance entrance doors | | |
| M | Receiving ID | 1 | Above receiving entrance door | | |
| P | Loading Dock Numbers | 3 | Numbers at each dock door | | |
| J.1 | Directional Signs | 9 | At vehicular decision points and parking lot entrances | 6 SF | 6’-0” |
| K.1 | Temporary Light Pole Banners | 12 | Temporary banners on light poles around main drive, for special events, etc. | 21 SF | 9’-0” |
| | Helipad Signage | TBD | Regulatory and safety information as required at helipad (TBD) | | |
| | Interpretive Signage | TBD | Signage for outdoor garden area (TBD) | | |

Lurie Children’s is seeking an amendment to the Master Sign Plan to accommodate additional and/or larger signage for the site. Hospitals inherently require clear signage often to multiple entrances. The size and quantity of signage that was in the master plan is in keeping with a traditional office building development but would not allow the proper location, size and quantity of signage to the main entrance, emergency department and the ambulance entrance that the proposed Facility will require. Patients, families and visitors often arrive at medical facilities in a state of increased anxiety, and providing clear, readily visible signage is essential to the safe flow of traffic and arrivals. In addition to site gateway signs, signage will be needed at each site entry, larger than what is currently allowable per the master sign plan, in order to clearly and effectively direct traffic to the different hospital, ED and ambulance drop-off locations, as well as to parking lots for staff and visitors. Once on the site, having passed the entry signage, additional signage is needed to continue to safely direct all arrivals to their location. As an example, a family member may be focused on finding the ED drop-off location and then need additional signage to help them find visitor parking. Unlike typical office building developments, which have many of the same visitors arriving each day, visitors to the hospital and clinic will often be arriving on site for the first time and could be in a state of distress. By providing clear, effective and carefully placed signage around the site, traffic flows will be improved and visitor safety will be enhanced.

Lurie Children’s is also seeking high rise building signs in excess of the allowed square footage – in Lurie Children’s signature symbol, a child’s hand. These Hand high rise signs are a critical feature of the proposed building. The Hand symbol is a recognizable symbol for Lurie Children’s and the proposed high-rise signs are intended to be beacons that are visible from I-355

and Butterfield Road, helping direct patients and visitors to the hospital, offering a visible and recognizable signal of the location of the hospital.

Lurie Children's is also proposing temporary light pole banners to be able to announce awards and celebrate Lurie Children's accomplishments. Lurie Children's is requesting the ability to install temporary light pole banners for up to 12 weeks per year, with administrative approval by staff.

Finally, Lurie Children's will require helipad signage similar to that depicted in the Helipad Basis of Design Report, which Lurie Children's is requesting be administratively approved by staff when required signage has been finalized with IDOT and FAA.

As described in Section 2 above, the Facility proposed by Lurie Children's meets the goals of the Village's Guiding DG Comprehensive Plan by allowing for mixed-use development of a vacant lot within the Esplanade. It also aligns with Guiding DG in that it supports evolving healthcare needs of the Village, and helps expand partnerships with Midwestern University, who Lurie Children's has already begun collaborating with. Finally, the Facility is located in an area of Downers Grove that has a regional draw as a result of access and visibility.

As described in Section 4 below, Lurie Children's and the proposed Facility will result in significant public benefits for the Village of Downer's Grove, more so than another development that meets otherwise applicable zoning ordinance standards would result. Lurie Children's and the Facility will provide access to high-quality pediatric healthcare services for not only children from the Village, but children from the region. The Facility will lead to high-quality job growth. The Facility will lead to increased activity for area commercial businesses. And, finally, the Facility will allow for high-quality development of a vacant site in the Esplanade.

**Sec. 28.4.030(e) – Regulations and Standards Eligible for Modification**

Lurie Children's is seeking an amendment to the Master Sign Plan to accommodate additional and/or larger signage for the site. Hospitals inherently require clear signage often to multiple entrances. The size and quantity of signage that was in the master plan is in keeping with a traditional office building development but would not allow the proper location, size and quantity of signage to the main entrance, emergency department and the ambulance entrance that the proposed Facility will require. Patients, families and visitors often arrive at medical facilities in a state of increased anxiety, and providing clear, readily visible signage is essential to the safe flow of traffic and arrivals. In addition to site gateway signs, signage will be needed at each site entry, larger than what is currently allowable per the master sign plan, in order to clearly and effectively direct traffic to the different hospital, ED and ambulance drop-off locations, as well as to parking lots for staff and visitors. Once on the site, having passed the entry signage, additional signage is needed to continue to safely direct all arrivals to their location. As an example, a family member may be focused on finding the ED drop-off location and then need

additional signage to help them find visitor parking. Unlike typical office building developments, which have many of the same visitors arriving each day, visitors to the hospital and clinic will often be arriving on site for the first time and could be in a state of distress. By providing clear, effective and carefully placed signage around the site, traffic flows will be improved and visitor safety will be enhanced.

Lurie Children's is proposing deviation from the Master Sign Plan and Zoning Code including:

- Height of primary monument sign to exceed 10 feet – VoDG.28.9.050, Table 9-1
- Quantity of monument signs to be 6 (2 are allowed) – VoDG.28.9.050(b)(1)(e)
- Monument sign setback along Birchwood Place to be reduced to 10 feet (25 feet required) – VoDG.28.9.050(b)(1)(b)
- Overall signage square footage for the site to exceed the allowable square footage – VoDG28.9.050(a)
- Window signage square footage to exceed maximum 25% per window – VoDG 28.9.050(h)(2)
- Directional signs – only allowed to be 2 square feet per sign (6 square feet proposed) – VoDG.28.9.070(c)
- Permission for temporary banner signs – VoDG 28.9.020(b)

The Village Council is authorized to approve PUDs that deviate from strict compliance with zoning regulations if it is determined that the resulting project satisfies the approval criteria of DGMC Section 28.12.040(c)(5). This document is entirely a response to Sec. 28.12.040(c)(5) and Lurie Children's believes that it has satisfied all approval criteria herein.

**Sec. 28.4.030(f) – Lot and Building Regulations**

Lurie Children's is not requesting any modification to the lot or building regulations of the base zoning district as part of this PUD approval, with the exception of planting along the Woodcreek Drive frontage, within the south internal parking lot, and south property setback where a deviation is needed so that trees and other plantings can be substituted or removed to avoid conflicts with the proposed helicopter flight path height restrictions.

The final design of the Facility, including exterior building materials, architectural details, colors, façade articulation, glazing, canopies, screening elements, landscaping, lighting, signage details, and other related site and building design elements, may be refined through final engineering, permitting, and construction document review, provided that such refinements remain in substantial conformance with the plans included herewith and preserve the overall

design intent and quality of the development. We request that any such refinement is subject to review and approval by the Village staff, in accordance with applicable Village procedures.

**Sec.28.4.030(g) – Allowed Uses**

In March of 2026, the Downers Grove Village Council approved "hospital" as a permitted use within PUD #31, finding that hospital was an appropriate use within PUD #31 and that it was compatible with the Comprehensive Plan. All uses included in the Facility are hospital uses and uses accessory to the hospital use.

**Sec.28.4.030(h) – Parking and Loading**

Lurie Children's included a Traffic Study with this application that included a parking evaluation for the Facility. Lurie Children's is proposing to construct 501 parking spaces and believes that all off-street parking and loading requirements are in compliance with Village requirements.

**Sec.28.4.030(i) – Infrastructure and Public Improvement Standards**

Lurie Children's believes that all infrastructure and public improvement standards for streets, sidewalks, stormwater management are in compliance with Village requirements.

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

The proposed Facility will result in multiple public benefits that are greater than, or at least equal to, those that would have resulted from development under the existing PUD. These benefits include:

- Access to high-quality pediatric healthcare services for not only children from the Village, but children from the region. Lurie Children's believes that the proposed Facility will enhance pediatric health care in the western suburbs by introducing pediatric health care facilities that will enable pediatric patients who reside in the area to receive care closer to their homes, and specifically, to receive care from Lurie Children's without traveling to downtown Chicago – Streeterville facility. Lurie Children's goal is to ensure that children and families receive the right care, at the right time, in the right setting. The proposed Facility will expand access to high-quality, family-centered pediatric care while enhancing operational efficiency,

enabling systematic care coordination, and improving patient outcomes. The new Lurie Children's Facility on the Property will be geographically convenient for families, reducing travel times and barriers to high quality care. The location will also enable the potential for future phases and long-term flexibility as patient care advances and community needs evolve. Adjacent property on the north side of Birchwood Place will also be purchased by Lurie Children's and will be available for potential future expansion, subject to all required Village approvals.

- High-quality job growth. Lurie Children's anticipates that the Facility will be an economic engine for the Village and the region, bringing a large number of new high-quality jobs to Downers Grove. In a memorandum prepared by the Illinois Economic Development Corporation regarding the estimated economic impact of the proposed Facility in Downers Grove, included herewith, it was projected that the Facility will create, on the low end, approximately 319 new FTE jobs, and a resulting total of an estimated 552 new jobs - direct, indirect, and induced. This increase in jobs will create approximately $54,137,084 in increased earnings.

- Increased activity for Village commercial businesses. As a result of drawing new employees, patients and visitors to the Esplanade, Lurie Children's anticipates that the Facility will increase activity at nearby commercial businesses with employees, patients, and visitors to the area needing places to dine, shop, and utilize services that are conveniently located to the Facility.

- High-quality development of a vacant site in the Esplanade. As described above, the Facility will be constructed using high-quality materials and is being designed as a 100-year project. The design decisions on the project are being made with longevity in mind. This is a relationship that Lurie Children's wants to have with the Village of Downers Grove for decades to come. The site will be energized and activated, while providing a beautifully designed building and lush landscape that is an amenity to patrons and visitors and will serve as a habitat for bird, bees, and other local wildlife.

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

Lurie Children's has included many details in its Project Narrative and within this response to the Planned Unit Development Review and Approval Criteria, related to design of the building and the site, as well as operations of the proposed use. These details will all be implemented to ensure the high-quality nature of the development and to ensure the interests of

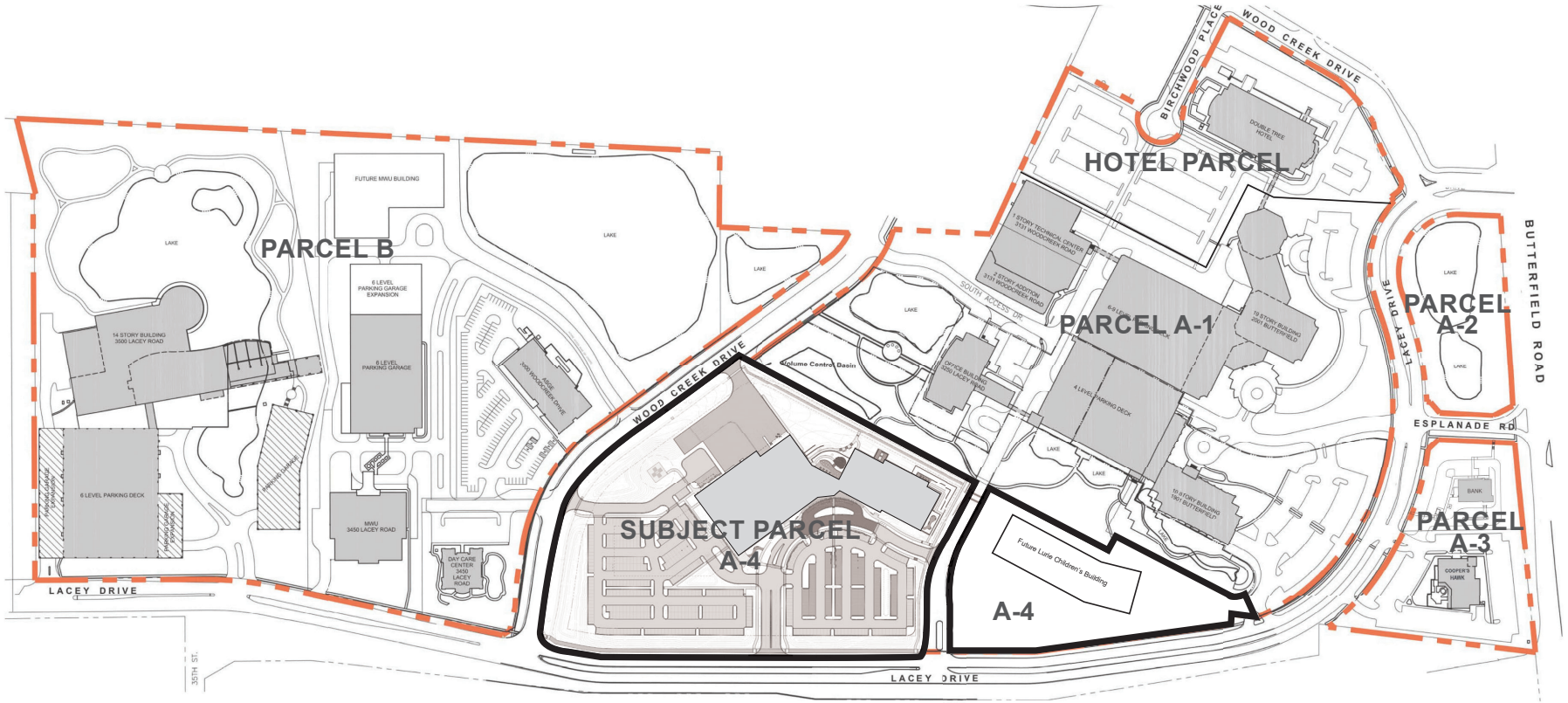
surrounding property owners and residents, existing and future residents of the PUD and the general public are protected.

In addition to those previously detailed design and operational detail, Lurie Children's will implement a stormwater management plan that detains and directs stormwater away from adjacent development and properties. This stormwater management plan will ensure that the development of the Facility will not create any stormwater issues for any adjacent properties or any properties in the Esplanade or the Village

Lurie Children's has obtained a Traffic Impact Study prepared by KLOA traffic engineers for the project which confirms that the area roadway system generally has sufficient reserve capacity to accommodate the traffic generated by the proposed Facility. As part of the Traffic Impact Study, KLOA also prepared a Parking Evaluation, confirming that the proposed parking count will be sufficient to serve the Facility.

Lurie Children's has obtained a Heliport Basis-of-Design Report prepared by AirSafe which describes and depicts the proposed emergency medical service heliport that will be an accessory use to the Facility. This Report describes how the proposed heliport will be designed and constructed. It further details the licensing requirements from the Federal Aviation Administration (the "FAA") and the Illinois Department of Transportation Division of Aeronautics. Finally, it includes a statement and attachments related to Lurie Children's proposed operating policies and procedures. All of this together demonstrates safe and coordinated heliport operations by Lurie Children's, which will ultimately result in safe conditions for the Village.

Lurie Children's will work with the Plan Commission, Village Council, and Village staff on terms and conditions for this PUD Amendment that will protect the interests of surrounding property owners and residents, existing and future residents of Esplanade, and the general public.




## ESPLANADE PUD DATA SUMMARY

### PARCEL "A-1", "A-2" &"A-3'

| | | |
|---|---|---|
| Site Area | 1,449,499 SF | |
| Existing BLDG Floor Area | | |
| Building Floor Areas (Gross F.A.R.) | | |
| 2001 Butterfield | 639,906 SF | |
| 3131 Woodcreek Drive | 80,181 SF | |
| 1901 Butterfield | 296,312 SF | |
| 3250 Lacey Road | 188,802 SF | |
| Cooper's Hawk | 11,400 SF | |
| (1) Bank | 5,000 SF | |
| SubTotal Existing Building Floor Area | 1,221,601 SF | |
| | | |
| A-1 - A-3 Summary | | |
| Built-Up Footprint | 396,400 SF | 27.35 % |
| Paved Area | 267,030 SF | 18.24 % |
| Open Space | | |
| Landscaped "Green" Open Area | 681,868 SF | 47.04 % |
| Water Elements | 104,201 SF | 7.19 % |
| Subtotal Open Space | 786,069 SF | 54.23 % |

### PARCEL "A-4" (Proposed Hospital and Future Lurie Children's Development)

| | | |
|---|---|---|
| Site Area | 767,717 SF | |
| North | 192,804 SF | |
| South | 574,913 SF | |
| Future Bldg Floor Area | | |
| Hospital | 298,669 SF | |
| Future Lurie Children's Development TBD | 384,599 SF | |
| Sub Total Future Building Floor Area (A-4): | 683,268 SF | 89% (0.89 FAR) |
| A-4 Summary | | |
| Built-Up Footprint | 138,888 SF | 18.09% |
| Paved Area | 332,991 SF | 43.37% |
| Open Space | | |
| Landscaped "Green" Open Area | 295,838 SF | 38.53% |
| Water Elements | 0 SF | 0.00% |
| Subtotal Open Space | 295,838 SF | 38.53% |

### PARCEL A-1 - A-4

| | | |
|---|---|---|
| SubTotal Existing Building Floor Area (A-1 - A-3): | 1,221,601 SF | |
| SubTotal Future Building Floor Area (A-4): | 683,268 SF | |
| Proposed Total | 1,904,869 SF | |
| Existing and Future Floor Area | | |
| (per Master Plan 06/03/2011) (A-1 - A-4) | 2,670,196 SF | |
| *Unutilized Floor Area (SF)* | *765,327 SF* | |

### PARCEL "B"

| | | |
|---|---|---|
| Site Area | 1,918,464 SF | |
| Building Floor Area | | |
| Future MWU Building | 185,000 SF | |
| 3300 Woodcreek Drive (ASGE) | 41,822 SF | |
| 3450 Lacye Road (MWU) | 190,087 SF | |
| 3500 Lacey Road | 658,370 SF | |
| 3400 Lacey Road (Day Care Center) | 10,800 SF | |
| Subtotal Building Floor Area: | 1,086,079 SF | 56.61% (.57 FAR) |
| Built-Up Footprint | 461,215 SF | 24.04% |
| Paved Area | 313,856 SF | 16.36% |
| Open Space | | |
| Landscaped "Green" Open Area | 721,935 SF | 37.63% |
| Water Elements | 421,458 SF | 21.97% |
| Subtotal Open Space - Parcel 'B' | 1,143,393 SF | 59.60% |

### HOTEL PARCEL - DOUBLETREE HOTEL

| | | |
|---|---|---|
| Site Area | 308,011 SF | |
| Subtotal Building Floor Area | 204,976 SF | 66.55% (.67 FAR) |
| Built-Up Footprint | 39,648 SF | 12.87% |
| Paved Area | 174,383 SF | 56.62% |
| Open Space | | |
| Landscaped "Green" Open Area | 93,980 SF | 30.51% |
| Water Elements | 0 SF | 0.00% |
| Subtotal Open Space | 93,980 SF | 30.51 % |

### ESPLANADE PUD TOTALS

| | | |
|---|---|---|
| PUD Land Area | 5,258,760 SF | |
| Land Area (Site Area) Excluding Land associated with Butterfield, Lacey, & Woodcreek Roads | 4,443,691 SF | |
| Building Floor Area (Gross F.A.R.+Unutilized) | 3,961,251 SF | 89.14% (0.89 FAR) |
| Built-Up Footprint | 1,036,151 SF | 23.32% |
| Paved Area | 1,088,260 SF | 24.49% |
| Open Space | | |
| Landscaped "Green" Open Area | 1,793,621 SF | 40.36% |
| Water Elements | 525,659 SF | 11.83% |
| Total Open Space | 2,319,280 SF | 52.19% |

PARKING SUMMARY

### EXISTING PARCEL "A-1", "A-2" & "A-3"

| | Required | Provided/ Proposed |
|---|---|---|
| 2001 Butterfield Road | 1,600 Cars @2.5 /1,000 | 1,600 Cars |
| 313 Woodcreek Drive | 160 Cars @2.0 /1,000 | 113 Cars |
| 1901 Butterfield Road | 741 Cars @2.5 /1,000 | 741 Cars |
| 3250 Lacey Road | 472 Cars @2.5 /1,000 | 472 Cars |
| Cooper's Hawk | 148 Cars @10 /1,000 | 148 Cars |
| Bank | 18 Cars @3.5 /1,000 | 118 Cars |
| Subtotal A1, A2, A3 | 3,139 Cars | 3,092 Cars |

### PARCEL "A-4"

| | Required | Provided/ Proposed |
|---|---|---|
| Hospital | 501 Cars | 501 Cars |
| Future Lurie Children's Development TBD | In accordance with Sec. 28.7.040(g) | - |
| Subtotal Future A | TBD | 501 Cars |

### PARCEL " B"

| | Required | Provided/ Proposed |
|---|---|---|
| Future MWU Building | 388 Cars @2.5 /1,000 | 471 Cars |
| 3300 Woodcreek Drive (ASGE) | 98 Cars @2.5/1,000 | 142 Cars |
| 3450 Lacey Road (MWU) | 901 Cars @2.7/1,000 | 889 Cars |
| 3500 Lacey Road | 1,646 Cars @2.5/1,000 | 1,646 Cars |
| 3400 Lacey Road (Day Care) | 36 Cars @2.5/1,000 | 51 Cars |
| Subtotal B | 3,069 Cars | 3,199 Cars |
| Subtotal - Doubletree Hotel | 422 Cars @ 1/Room | 422 Cars |

GRAND TOTAL 7,131 CARS 7,214 CARS

AXIOM CONSULTANTS
A RIJEKERT & MIELKE COMPANY

# DOWNERS GROVE BRANCH

DOWNERS GROVE, IL

GREENSTATE CREDIT UNION

ISSUED FOR

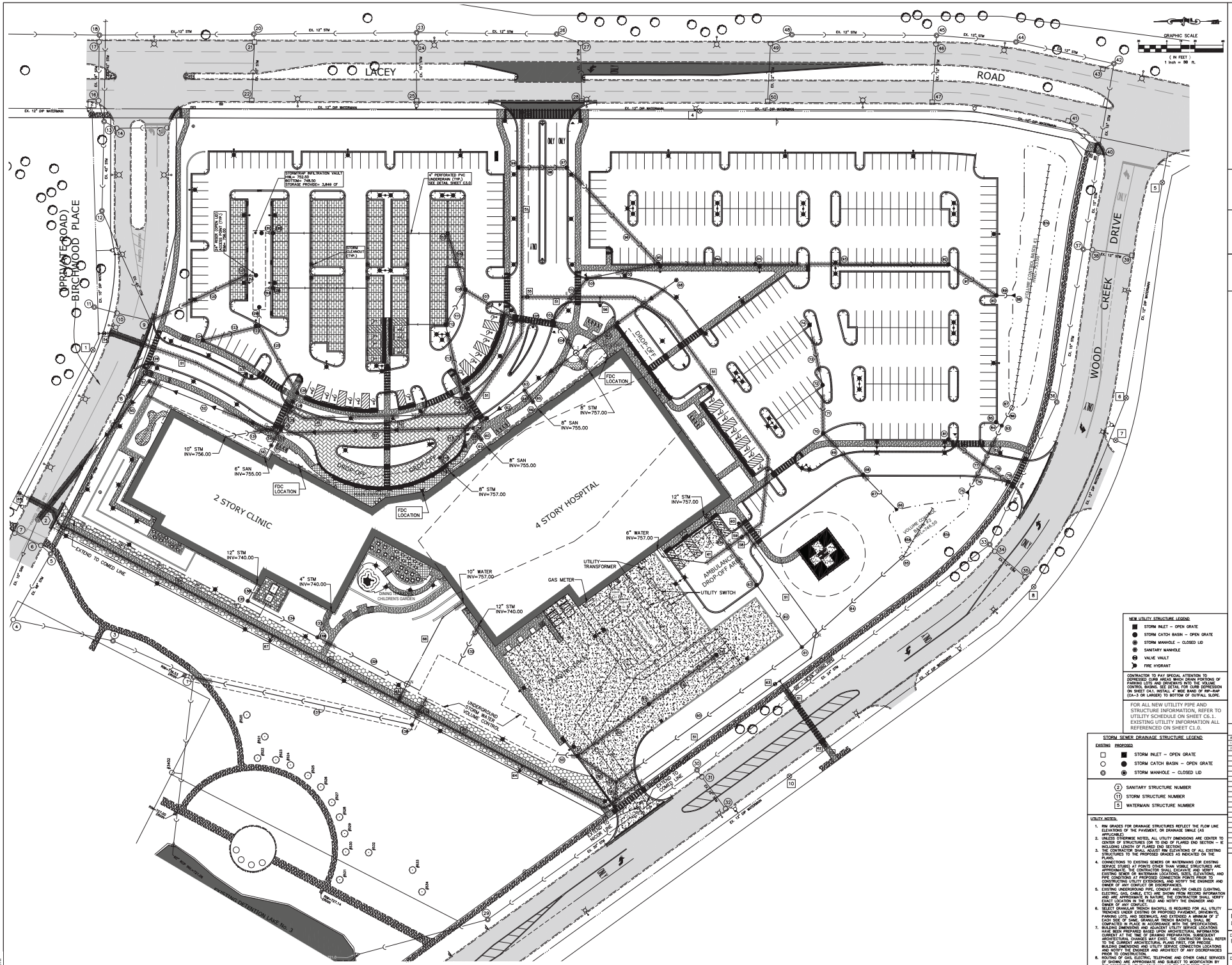
VILLAGE REVIEW

| DESCRIPTION | DATE |
|---|---|
| DATE | 04-22-2025 |
| RTC-1 | 05-14-2025 |

| | |
|---|---|
| DESIGNED BY | MA |
| DETAILED BY | EV |
| CHECKED BY | BB |
| PROJECT NO. | 10208-10037 |

SHEET NAME

PUD SITE PLAN




NEW UTILITY STRUCTURE LEGEND

- STORM INLET – OPEN GRATE
- STORM CATCH BASIN – OPEN GRATE
- STORM MANHOLE – CLOSED LID
- SANITARY MANHOLE
- VALVE VAULT
- FIRE HYDRANT

CONTRACTOR TO PAY SPECIAL ATTENTION TO DEPRESSED CURB AREAS WHICH DRAIN PORTIONS OF PARKING LOTS AND DRIVEWAYS INTO THE VOLUME CONTROL BASINS. SEE DETAIL FOR CURB DEPRESSION ON SHEET C4.1. INSTALL 4' WIDE BAND OF RIP-RAP (CA-3 OR LARGER) TO BOTTOM OF OUTFALL SLOPE.

FOR ALL NEW UTILITY PIPE AND STRUCTURE INFORMATION, REFER TO UTILITY SCHEDULE ON SHEET C6.1. EXISTING UTILITY INFORMATION ALL REFERENCED ON SHEET C1.0.

STORM SEWER DRAINAGE STRUCTURE LEGEND

| EXISTING | PROPOSED | |
|---|---|---|
| □ | ■ | STORM INLET – OPEN GRATE |
| ○ | ● | STORM CATCH BASIN – OPEN GRATE |
| ◎ | ◉ | STORM MANHOLE – CLOSED LID |

(2) SANITARY STRUCTURE NUMBER
(11) STORM STRUCTURE NUMBER
5 WATERMAIN STRUCTURE NUMBER

UTILITY NOTES:

1. RIM GRADES FOR DRAINAGE STRUCTURES REFLECT THE FLOW LINE ELEVATIONS OF THE PAVEMENT, OR DRAINAGE SWALE (AS APPLICABLE).
2. UNLESS OTHERWISE NOTED, ALL UTILITY DIMENSIONS ARE CENTER TO CENTER OF STRUCTURES (OR TO END OF FLARED END SECTION – IE FOR CENTER OF FLARED END SECTION).
3. THE CONTRACTOR SHALL ADJUST RIM ELEVATIONS OF ALL EXISTING STRUCTURES TO THE PROPOSED GRADES AS INDICATED ON THE PLANS.
4. CONNECTIONS TO EXISTING SEWERS OR WATERMAINS (OR EXISTING SERVICE STUBS) AT POINTS OTHER THAN VISIBLE STRUCTURES ARE APPROXIMATE. THE CONTRACTOR SHALL EXCAVATE AND VERIFY, PRIOR TO ORDERING MATERIALS, THE EXACT LOCATION, SIZE AND PIPE CONDITIONS AT PROPOSED CONNECTION POINTS PRIOR TO CONSTRUCTING UTILITY EXTENSIONS, AND NOTIFY THE ENGINEER AND OWNER OF ANY CONFLICT OR DISCREPANCIES.
5. EXISTING UNDERGROUND PIPE, CONDUIT AND/OR CABLES (LIGHTING, ELECTRIC, GAS, CABLE, ETC) ARE SHOWN FROM RECORD INFORMATION AND ARE APPROXIMATE IN NATURE. THE CONTRACTOR SHALL VERIFY ALL SUCH UTILITIES IN THE FIELD AND NOTIFY THE ENGINEER AND OWNER OF ANY CONFLICT.
6. SELECT GRANULAR TRENCH BACKFILL IS REQUIRED FOR ALL UTILITY TRENCHES UNDER EXISTING OR PROPOSED PAVEMENT, DRIVEWAYS, PARKING LOTS, AND SIDEWALKS, AND EXTENDED A MINIMUM OF 2' EACH SIDE OF SAME. GRANULAR TRENCH BACKFILL SHALL BE COMPACTED IN PLACE IN ACCORDANCE WITH THE SPECIFICATIONS.
7. THE ARCHITECTURAL PLANS FOR THIS PROJECT (IF ANY) WERE NOT AVAILABLE AND HAVE BEEN PREPARED BASED UPON ARCHITECTURAL INFORMATION CURRENT AT THE TIME OF DRAWING PREPARATION. SUBSEQUENT ARCHITECTURAL CHANGES MAY EXIST. THE CONTRACTOR SHALL REFER TO THE CURRENT ARCHITECTURAL PLANS FIRST, FOR PRECISE BUILDING DIMENSIONS AND UTILITY SERVICE CONNECTION LOCATIONS AND NOTIFY THE ENGINEER AND ARCHITECT OF ANY DISCREPANCIES PRIOR TO CONSTRUCTION.
8. ROUTING OF GAS, ELECTRIC, TELEPHONE AND OTHER CABLE SERVICES (IF SHOWN) ARE APPROXIMATE AND SUBJECT TO MODIFICATION BY THE RESPECTIVE UTILITY COMPANY AND/OR DEVELOPER. THE CONTRACTOR SHALL COORDINATE THE FINAL UTILITY SERVICE LOCATION WITH EACH UTILITY COMPANY PRIOR TO CONSTRUCTION.

Clayco
THE ART AND SCIENCE OF BUILDING
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Clayco, Inc. 1 South Wacker Drive, Suite 1000, Chicago, IL 60606 312.372.2121 Fax 312.372.2122
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Engineering, LLC

# LURIE CHILDREN'S HOSPITAL - DOWNERS GROVE

ANN & ROBERT H. LURIE CHILDREN'S HOSPITAL OF CHICAGO
3300 Lacey Rd, Downers Grove, IL 60515

DRAWING ISSUE

| # | DESCRIPTION | DATE |
|---|---|---|
| 1 | DRAFT PUD | 06/17/25 |
| 2 | ISSUE FOR PUD | 09/25/25 |

RWG ENG. PROJ. No.
848-296-25

DRAWING TITLE
UTILITY PLAN

DRAWING NO.
C6.0

JOB # 25.009982

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RWG ENGINEERING, LLC
CIVIL ENGINEERING – REAL ESTATE CONSULTING – PROJECT MANAGEMENT
ILLINOIS PROFESSIONAL DESIGN FIRM #184-006370

LIMITATION OF WARRANTY OF ENGINEER'S INSTRUMENTS OF SERVICE

THE ENGINEER AND HIS CONSULTANTS DO NOT WARRANT OR GUARANTEE THE ACCURACY AND COMPLETENESS OF THE DELIVERABLES HEREIN BEYOND A REASONABLE DILIGENCE. IF ANY ERRORS OR OMISSIONS ARE DISCOVERED, THE OWNER OR ANY OTHER PARTY RELYING ON THE ENGINEER SHALL BE PROMPTLY NOTIFIED SO THAT HE MAY HAVE THE OPPORTUNITY TO TAKE WHATEVER STEPS NECESSARY TO RESOLVE THEM. FAILURE TO PROMPTLY NOTIFY THE ENGINEER OF SUCH CONDITIONS SHALL ABSOLVE THE ENGINEER FROM ANY RESPONSIBILITY FOR THE CONSEQUENCES OF SUCH FAILURE. ACTIONS TAKEN WITHOUT THE KNOWLEDGE AND CONSENT OF THE ENGINEER, OR IN CONTRADICTION TO THE ENGINEER'S DELIVERABLES OR RECOMMENDATIONS, SHALL BECOME THE RESPONSIBILITY NOT OF THE ENGINEER BUT OF THE PARTIES RESPONSIBLE FOR TAKING SUCH ACTION.

## LEGEND

| | EXISTING | PROPOSED |
|---|---|---|
| SANITARY MANHOLE | ⊛ | ● |
| STORM MANHOLE | ⊛ | ● |
| CATCH BASIN | ○ | ● |
| INLET | □ | ■ |
| PRECAST FLARED END SECTION | ▷ | ▶ |
| CONCRETE HEADWALL | ⊃ | ⊃ |
| VALVE VAULT | ⊗ | ⊕ |
| VALVE BOX | ▪ | ▪ |
| FIRE HYDRANT | ⊳ | ⊳ |
| BUFFALO BOX | ▫ | ▪ |
| CLEANOUT | ⊠ | ⊞ |
| SANITARY SEWER | -S- | -S- |
| FORCE MAIN | -S- | -S- |
| STORM SEWER | -C- | -C- |
| WATER MAIN | -W- | -W- |
| CONSTRUCT WATER MAIN UNDER SEWER | | |
| GRANULAR TRENCH BACKFILL | | |
| STREET LIGHT | | |
| ELECTRICAL CABLE | -E- | -E- |
| 2" CONDUIT ENCASEMENT | | |
| ELECTRICAL TRANSFORMER OR PEDESTAL | | |
| POWER POLE | -o- | -o- |
| STREET SIGN | | |
| GAS MAIN | -G- | -G- |
| TELEPHONE LINE | -T- | -T- |
| CONTOUR | 749 | 749 |
| SPOT ELEVATION | ×(750.00) | ×750.00 |
| WETLANDS | | |
| FLOODWAY | | |
| FLOODPLAIN | | |
| HIGH WATER LEVEL (HWL) | | |
| NORMAL WATER LEVEL (NWL) | | |
| DIRECTION OF SURFACE FLOW | | |
| DITCH OR SWALE | | |
| OVERFLOW RELIEF ROUTING | | |
| SLOPE BANK | | |
| TREE WITH TRUNK SIZE | | |
| SOIL BORING | | |
| TOPSOIL PROBE | | |
| FENCE LINE, WIRE OR SILT | -x- | -x- |
| FENCE LINE, CHAIN LINK OR IRON | -o- | -o- |
| FENCE LINE, WOOD OR PLASTIC | -□- | -□- |
| CONCRETE SIDEWALK | | |
| CURB AND GUTTER | | |
| DEPRESSED CURB | | |
| REVERSE PITCH CURB & GUTTER | | |
| EASEMENT LINE | | |

## ABBREVIATIONS

| | | | |
|---|---|---|---|
| BL | BASE LINE | NWL | NORMAL WATER LEVEL |
| C | LONG CHORD OF CURVE | PC | POINT OF CURVATURE |
| C & G | CURB AND GUTTER | PT | POINT OF TANGENCY |
| CB | CATCH BASIN | PVI | POINT OF VERTICAL INTERSECTION |
| CL | CENTERLINE | R | RADIUS |
| D | DEGREE OF CURVE | ROW | RIGHT-OF-WAY |
| EP | EDGE OF PAVEMENT | SAN | SANITARY SEWER |
| FF | FINISHED FLOOR | ST | STORM SEWER |
| FG | FINISHED GRADE | T | TANGENCY OF CURVE |
| FL | FLOW LINE | TB | TOP OF BANK |
| FP | FLOODPLAIN | TC | TOP OF CURB |
| FR | FRAME | TF | TOP OF FOUNDATION |
| FW | FLOODWAY | TP | TOP OF PIPE |
| HWL | HIGH WATER LEVEL | TS | TOP OF SIDEWALK |
| INV | INVERT | TW | TOP OF WALK |
| L | LENGTH OF CURVE | WM | WATER MAIN |
| MH | MANHOLE | Δ | INTERSECTION ANGLE |

PRELIMINARY ENGINEERING PLANS
FOR

# LURIE CHILDREN'S HOSPITAL - DOWNERS GROVE

-

3300 LACEY ROAD, DOWNERS GROVE, ILLINOIS 60515

REGIONAL SITE LOCATION MAP




## SHEET INDEX

### SITEWORK CIVIL ENGINEERING PLANS


C0.0. TITLE SHEET
C1.0 EXISTING CONDITIONS PLAN (1"=30')
C2.0 DEMOLITION PLAN (1"=30')
C3.0 SITE GEOMETRIC AND PAVING PLAN (1"=30')
C3.1 ONSITE STRIPING AND SIGNAGE PLAN (1"=30')
C3.2 ENLARGED SITE GEOMETRIC DETAILS
C3.3 PERIMETER ROADWAY IMPROVEMENT PLANS
C4.0 SOIL EROSION AND SEDIMENT CONTROL (SESC) PLAN (1"=40')
C4.1 GRADING PLAN (1"=30')
C4.2 GRADING DETAILS & OFFSITE PONDS EXISTING CONDITIONS PLAN
C5.0 OFFSITE PONDS MODIFICATION FOR ADDITIONAL VOLUME
C6.0 UTILITY PLAN (1"=30')
C6.1 UTILITY SCHEDULES, DETAILS, AND SANITARY SEWER PROFILES
C6.2 STORMWATER VOLUME CONTROL WEST VAULT DETAILS
C6.3 STORMWATER VOLUME CONTROL EAST VAULT DETAILS
C7.0 PROJECT NOTES AND SPECIFICATIONS
C8.0 CONSTRUCTION STANDARDS AND DETAILS


### SUPPLEMENTAL SUPPORTING DOCUMENTS


C9.0 FIRE TRUCK MANEUVERING DIAGRAM (1"=30')


## BENCHMARKS

REFERENCE BENCHMARKS:

DUPAGE COUNTY BENCHMARK 0166:
STATION LOCATED ALONG THE EAST SIDE OF FINLEY ROAD AT THE OVERPASS FOR INTERSTATE 88. STATION IS 110.0 FT. NORTH OF THE CENTERLINE OF A CAR DEALERSHIP ENTRANCE AND 32.0 FT. EAST OF THE CENTERLINE OF FINLEY ROAD NORTHBOUND. MONUMENT IS A 3.5 INCH BRASS DISK ON THE SOUTH END OF THE EAST BRIDGE WALL FOR THE OVERPASS. MONUMENT IS 2.0 FT. ABOVE ROAD GRADE.
ELEVATION = 771.01 FT. (NAVD 88)

DUPAGE COUNTY BENCHMARK LISLE 07:
STATION IS LOCATED AT THE NORTHWEST CORNER OF THE INTERSECTION OF WARRENVILLE ROAD AND HATCH LANE. STATION IS 48.0 FT NORTH OF THE OF NGS HORIZONTAL ACCURACY: PID: DI3578 BENCHMARK CLOSE UP
BENCHMARK LOCATOR REFERENCE FIRST CENTERLINE OF WARRENVILLE ROAD, 33.2 FT WEST OF THE WEST END OF A GUARDRAIL ACROSS NORTH HATCH LANE, AND 27.3 FT EAST-SOUTHEAST OF A SANITARY MANHOLE. MONUMENT IS A STEEL ROD IN CONCRETE WITH AN ALUMINUM ACCESS COVER.
ELEVATION = 721.30 FT. (NAVD 88)

SITE BENCHMARKS:

BENCHMARK "A":
CROSS NOTCH CUT INTO CONCRETE LIGHT POLE BASE LOCATED ON THE SOUTH SIDE OF WOOD CREEK DRIVE APPROXIMATELY .250' WEST OF THE WEST CORNER OF THE SUBJECT PROPERTY.
ELEVATION = 726.16

BENCHMARK "B":
CROSS NOTCH CUT INTO CURB RETURN NEAR HYDRANT AT THE NORTHWEST CORNER OF LACEY ROAD AND BIRCHWOOD PLACE.
ELEVATION = 753.44

## DOWNERS GROVE SANITARY DISTRICT NOTES

1. The Downers Grove Sanitary District Standards and Ordinances shall govern all sanitary sewer construction.
2. The Sewer contractor shall schedule with the District Inspections of the sanitary sewer construction 48 hours in advance of the start of the construction. (630-969-0664)
3. The constructed sewers shall pass all District requirements for air testing, televising and manhole vacuum tests (contractor to refer to DGSD specifications handout).
4. All sanitary sewers shall be PVC pipe with a SDR of 26, complying with ASTM D2241, 160 psi pressure pipe push-on bell and spigot type with rubber ring seal gasket ASTM D3139.
5. "Flex Seal" non-shear couplings (with stainless steel shear ring) shall be used to connect pipes of dissimilar material or size.

## GENERAL NOTES

1. The contractor shall notify the following governmental agencies at least two working days prior to commencement of construction:
   - Village of Downers Grove Engineering and Public Works Department (630-434-5500)
   - Downers Grove Sanitary District (630-969-0664)
2. The contractor shall notify all utility companies and arrange for their facilities to be located prior to work in any easement, right-of-way, or suspected utility location. Repair of any damage to existing facilities shall be the responsibility of the contractor. Utility locations shown herein are for graphic illustration only and are not to be relied upon.
3. Prior to commencement of any offsite construction, the contractor shall secure written authorization that all offsite easements have been secured, and that permission has been granted to enter onto private property.
4. Elevations shown herein reflect NAVD 1988 datum.
5. The boundary and topographic survey data for this project is based on a field survey prepared by Edward J. Molloy and Associates, Inc. dated December 8, 2022. The contractor shall verify existing conditions prior to commencing construction and shall immediately notify the engineer in writing of any differing conditions.
6. RWG Engineering, LLC, it's employees and agents are not responsible for the safety of any party at or on the construction site. Safety is the sole responsibility of the contractor, and any other entity performing work at the site. Neither the owner nor the engineer assumes any responsibility for job site safety or for the means, methods or sequences of construction.
7. Except where modified by the contract documents, all work proposed hereon shall be in accordance with the following specifications, which are hereby made a part hereof:
   A. "Standard Specifications for Road and Bridge Construction in Illinois," as prepared by I.D.O.T. latest edition.
   B. "Standard Specifications for Water and Sewer Main Construction in Illinois," latest edition.
   C. "Illinois Recommended Standards for Sewage Works," as published by the I.E.P.A., latest edition.
   D. The subdivision and development codes and standards of the Village of Downers Grove, as published by the Municipality.
   E. "Illinois Accessibility Code" as published by the State of Illinois Capital Development Board, effective October 23, 2018.
   F. The National Electric Code.
   G. "Illinois Urban Manual" as prepared by the U.S. Dept. of Agriculture latest edition.
8. The Village of Downers Grove Development Ordinance shall take precedence if a conflict in project specifications occurs.

SURFACE WATER DRAINAGE STATEMENT

STATE OF ILLINOIS )
COUNTY OF DUPAGE ) SS

I, ROBERT W. GUDMUNDSON, A REGISTERED PROFESSIONAL ENGINEER IN ILLINOIS, DO HEREBY STATE, THAT TO THE BEST OF MY KNOWLEDGE AND BELIEF, REASONABLE PROVISION HAS BEEN MADE FOR COLLECTION AND DIVERSION OF SURFACE WATERS INTO PUBLIC AREAS OR DRAINS WHICH THE SUBDIVIDER 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 ADJOINING PROPERTY BECAUSE OF THE CONSTRUCTION OF THE SUBDIVISION. I ALSO HEREBY STATE THAT THE PROPERTY WHICH IS THE SUBJECT OF THIS SUBDIVISION OR ANY PART THEREOF IS NOT LOCATED WITHIN A 100 YEAR SPECIAL FLOOD HAZARD AREA AS IDENTIFIED BY THE FEDERAL EMERGENCY MANAGEMENT AGENCY. FLOODPLAIN MAP PANEL No. 17043C0158J AND No. 17043C0159J, DATED AUGUST 01, 2019.

DATED THIS 25TH DAY OF JUNE, 2026

OWNER OR ATTORNEY

ENGINEER

NOTE:
THERE SHALL BE NO STAGING OF ANY TYPE ON PUBLIC PROPERTY OF ANY TYPE, THIS INCLUDES TRUCKS WAITING IN FRONT ON THE STREETS OR IN THE PARKING LOTS ACROSS THE STREET. COORDINATION OF DELIVERIES WILL NEED TO BE OUTLINED IN GREAT DETAILS SO THAT THERE WILL NEVER BE A TRAFFIC PROBLEM ON LACEY ROAD OR WOOD CREEK DRIVE OR BIRCHWOOD PLACE.

NOTE:
ONE FULL SIZE HARD COPY OF THE AS-BUILT FINAL GRADING SURVEY (PRINTED TO SCALE) MUST BE SUBMITTED PRIOR TO SCHEDULING THE FINAL STORMWATER/RIGHT-OF-WAY INSPECTION FOR THE PROJECT. AS APPLICABLE, IT SHALL INCLUDE, BUT IS NOT LIMITED TO, THE ITEMS LISTED IN SECTION 26.700.C OF THE DOWNERS GROVE MUNICIPAL CODE. AS APPLICABLE, IT SHALL ALSO INCLUDE THE AS-BUILT STORAGE VOLUME OF ANY STORMWATER STORAGE OR POST CONSTRUCTION BEST MANAGEMENT PRACTICES (PCBMPs). BEFORE THE PERMIT CAN BE CLOSED, AN ELECTRONIC COPY OF THE APPROVED AS-BUILT GRADING SURVEY IS REQUIRED.

## PROFESSIONAL ENGINEER'S CERTIFICATION

I, ROBERT W. GUDMUNDSON A LICENSED PROFESSIONAL ENGINEER OF ILLINOIS, HEREBY CERTIFY THAT THE CIVIL ENGINEERING PLANS WERE PREPARED ON BEHALF OF ANN & ROBERT H. LURIE CHILDREN'S HOSPITAL OF CHICAGO BY RWG ENGINEERING, LLC STAFF UNDER MY PERSONAL DIRECTION. THIS TECHNICAL SUBMISSION IS INTENDED TO BE USED AS AN INTEGRAL PART OF AND IN CONJUNCTION WITH THE PROJECT SPECIFICATIONS AND CONTRACT DOCUMENTS.

DATED THIS 25TH DAY OF JUNE, A.D., 2026

ILLINOIS LICENSED PROFESSIONAL ENGINEER 062-038423
MY LICENSE EXPIRES ON NOVEMBER 30, 2027

ILLINOIS LICENSED DESIGN FIRM NO. 184-006370

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Formerly JULIE 1-800-892-0123


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THE ART & SCIENCE OF BUILDING

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ZGF
ZIMMER GUNSUL FRASCA ARCHITECTS LLP

Engineering, LLC

LURIE CHILDREN'S HOSPITAL - DOWNERS GROVE
ANN & ROBERT H. LURIE CHILDREN'S HOSPITAL OF CHICAGO
3300 Lacey Rd, Downers Grove, IL 60515

DRAWING ISSUE

| # | DESCRIPTION | DATE |
|---|---|---|
| 1 | DRAFT PUD | 05/7/26 |
| 2 | ISSUE FOR PUD | 05/20/26 |

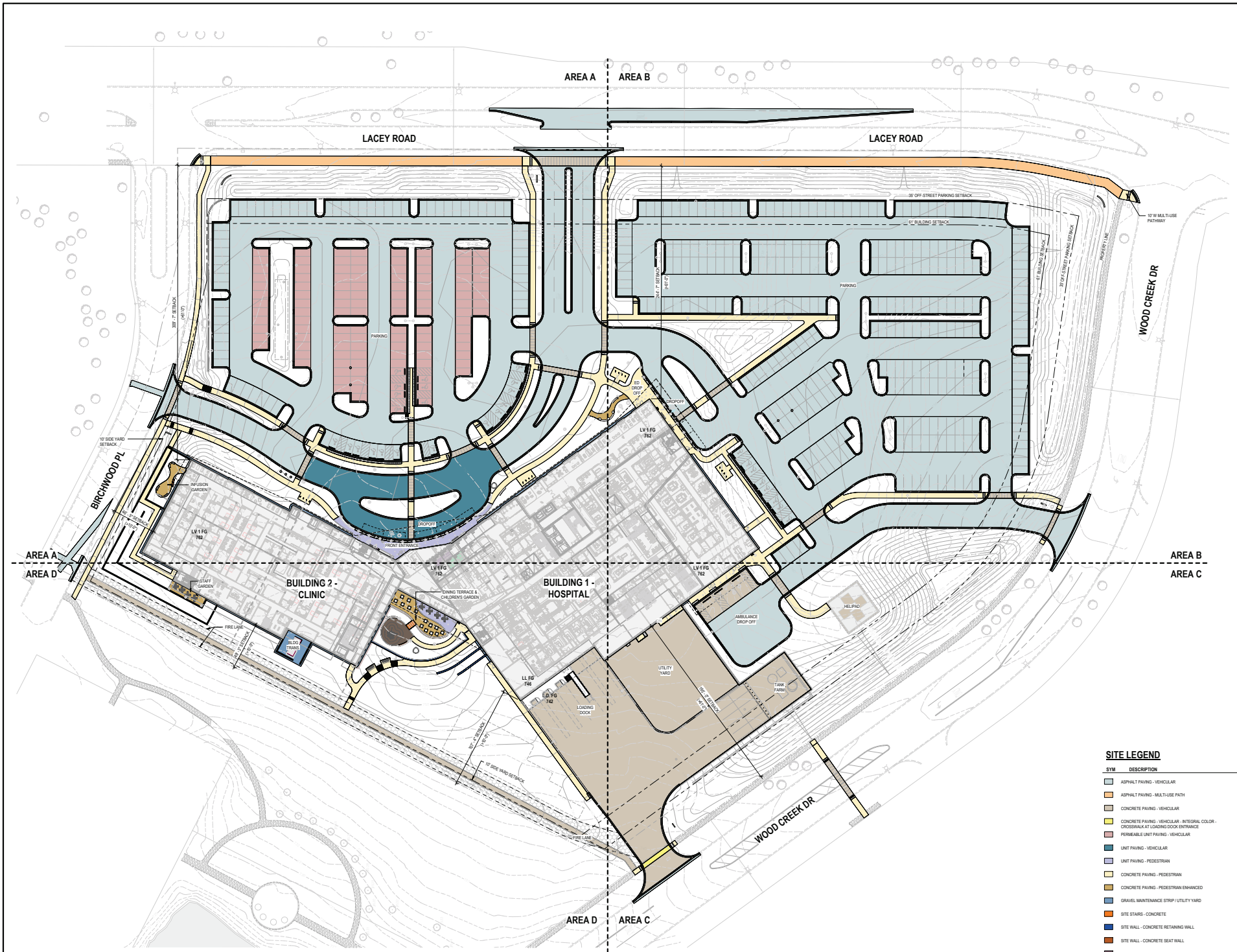
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RWG ENG. PROJ. No.
848-296-25

DRAWING TITLE
TITLE SHEET

DRAWING NO.
C0.0

Job #: 25.009982




## SITE LEGEND

| SYM | DESCRIPTION |
|---|---|
| | ASPHALT PAVING - VEHICULAR |
| | ASPHALT PAVING - MULTI-USE PATH |
| | CONCRETE PAVING - VEHICULAR |
| | CONCRETE PAVING - VEHICULAR - INTEGRAL COLOR - CROSSWALK AT LOADING DOCK ENTRANCE |
| | PERMEABLE UNIT PAVING - VEHICULAR |
| | UNIT PAVING - VEHICULAR |
| | UNIT PAVING - PEDESTRIAN |
| | CONCRETE PAVING - PEDESTRIAN |
| | CONCRETE PAVING - PEDESTRIAN ENHANCED |
| | GRAVEL MAINTENANCE STRIP / UTILITY YARD |
| | SITE STAIRS - CONCRETE |
| | SITE WALL - CONCRETE RETAINING WALL |
| | SITE WALL - CONCRETE SEAT WALL |
| | PLAYGROUND SURFACING |

0 15' 30' 60'

SITE REFERENCE PLAN
1" = 30'-0"

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LURIE CHILDREN'S HOSPITAL - DOWNERS GROVE

ANN & ROBERT H. LURIE CHILDREN'S HOSPITAL OF CHICAGO
3300 Lacey Rd, Downers Grove, IL 60515

DRAWING ISSUE

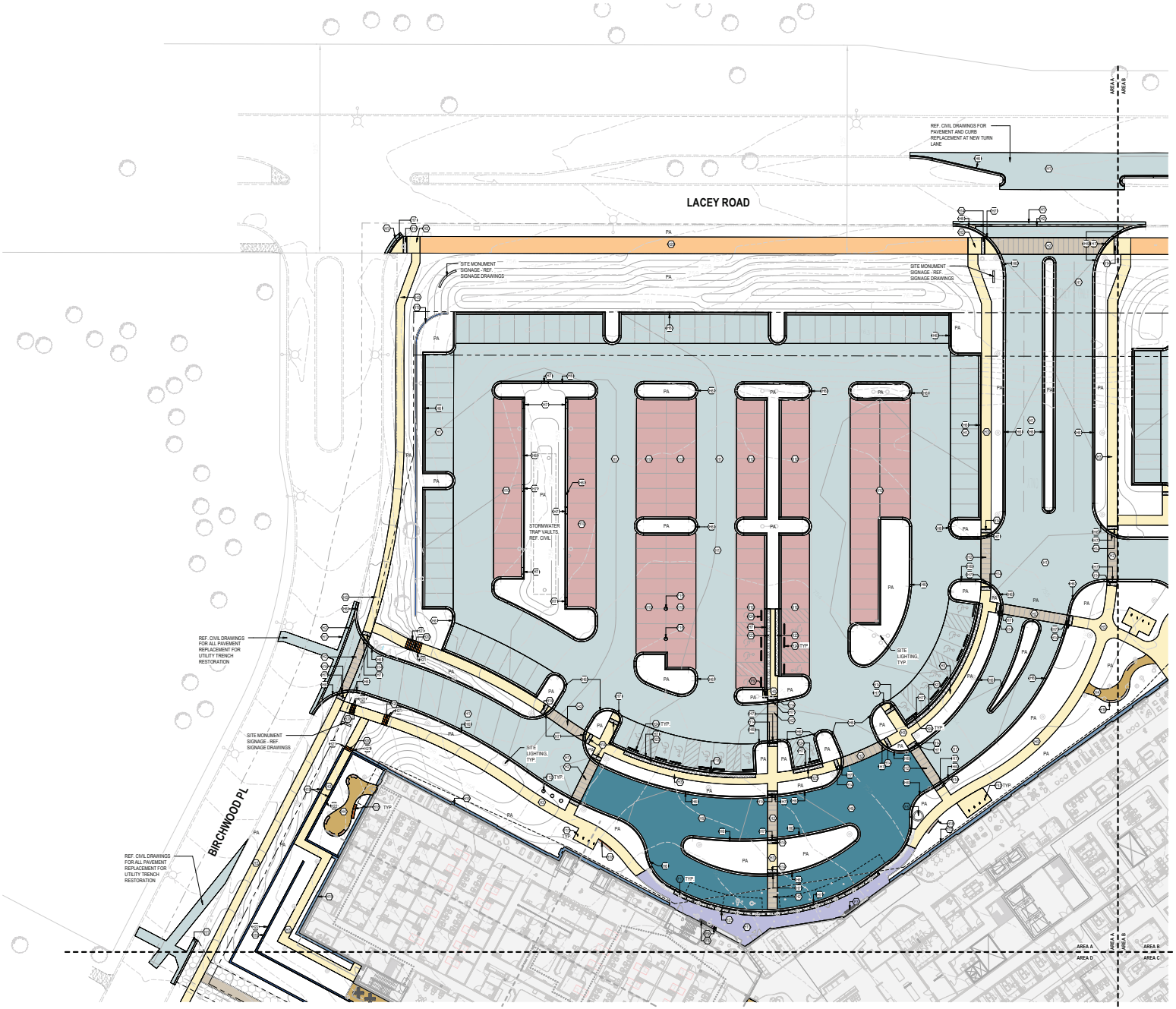
| # | DESCRIPTION | DATE |
|---|---|---|
| | DRAFT PUD | 04.17.2025 |
| | ISSUE FOR PUD | 05.25.2025 |
| | ISSUE FOR PUD (REV 1) | 07.22.2025 |

BUILDING KEY PLAN

DRAWING TITLE
SITE REFERENCE PLAN

DRAWING NO.
L1.100

Job # 25.009982




## SITE NOTES

1. THE CONTRACTOR SHALL PERFORM THE WORK IN ACCORDANCE WITH ALL LAWS, CODE, ORDINANCES, RULES AND REGULATIONS OF ALL GOVERNING AGENCIES. OCCUPANTS ADJACENT TO THIS E PROJECT AREA BOUNDARIES SHALL CONTINUE UNINTERRUPTED OCCUPANCY DURING CONSTRUCTION OF THE PROJECT.
2. IT IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR TO NOTIFY THE LANDSCAPE ARCHITECT OF ANY AND ALL CONFLICTS WITH WORK RELATED TO THE HARDSCAPE AND LANDSCAPE FEATURES PRIOR TO INSTALLATION OF THE UTILITIES IN ORDER TO MAINTAIN THE HIGHEST LEVEL OF DESIGN INTENT OF THE HARDSCAPE AND LANDSCAPE FEATURES.
3. THE CONTRACTOR SHALL PERFORM NO PORTION OF THE WORK AT ANY TIME WITHOUT CONTRACT DOCUMENTS OR, WHERE REQUIRED, APPROVED SHOP DRAWINGS, PRODUCT DATA, OR SAMPLES FOR SUCH PORTIONS OF THE WORK.
4. COORDINATE THE WORK WITH ALL REQUIREMENTS INDICATED IN THE PROJECT DOCUMENTS.
5. THE CONTRACTOR SHALL PROVIDE COMPLETE PROJECT SYSTEMS AND ASSEMBLIES AND COMPLY WITH ALL REQUIREMENTS INDICATED ON THE PROJECT DOCUMENTS.
6. THE CONTRACTOR SHALL COORDINATE THE WORK WITH EQUIPMENT, FURNISHINGS, AND SYSTEMS PRESENT OR PROVIDED BY THE OWNER.
7. VERIFY LOCATIONS OF ALL BUILDINGS, WALLS, EXISTING STRUCTURES, PIPES, ELECTRICAL AND ALL ELEMENTS AFFECTING LANDSCAPE SCOPE OF WORK WITH ARCHITECTURAL AND ENGINEERING DRAWINGS. INFORMATION IN LANDSCAPE ARCHITECTURE PACKAGE IS TO BE READ IN CONJUNCTION WITH ALL RELEVANT ARCHITECTURAL AND ENGINEERING INFORMATION. ADDITIONAL UTILITIES AND SITE ELEMENTS MAY EXIST WHICH ARE NOT SHOWN HEREIN.
8. VERIFY LOCATION OF ALL ADJACENT AND BELOW-GRADE ELECTRICAL, PLUMBING, DATA, CONDUIT, PIPING, DRAINAGE STRUCTURES AND OTHER UTILITY CONNECTIONS WITH THE APPROPRIATE AS-BUILT OR ENGINEERING DRAWINGS. THE CONTRACTOR IS RESPONSIBLE FOR THIS VERIFICATION AND THE PROTECTION OF THESE ELEMENTS. THE CONTRACTOR IS RESPONSIBLE FOR REPAIR OF ANY DAMAGE INCURRED DURING THE EXECUTION OF THE WORK.
9. THE CONTRACTOR SHALL HAVE ALL BELOW-GRADE UTILITY AND SLEEVING WORK INSPECTED AND APPROVED PRIOR TO BEGINNING HARDSCAPE LAYOUT/MARKING/STAKING AND CONSTRUCTION.
10. IT IS THE SOLE RESPONSIBILITY OF THE GENERAL CONTRACTOR AND ANY SUBCONTRACTORS TO COORDINATE SERVICE ROUTING OF ALL UTILITIES INCLUDING BUT NOT LIMITED TO WATER, GAS, TELEPHONE, ELECTRICAL, STORM, SEWER, AND IRRIGATION WITH THE OWNER AND TO AVOID CONFLICTS WITH HARDSCAPE AND LANDSCAPE FEATURES. ALL CONSTRUCTION MUST COMPLY WITH THE PROJECT SPECIFICATIONS AND MUST INTERFERE WITH BUILDING ELEMENTS TO BE PRESERVED.
11. ALL MATERIAL SHALL BE NEW, UNUSED AND TO THE HIGHEST QUALITY IN EVERY RESPECT UNLESS OTHERWISE NOTED.
12. PERFORM THE WORK AT THE PROJECT SITE DURING HOURS SPECIFIED BY THE OWNER.
13. ANY DAMAGE INCURRED DURING THE EXECUTION OF CONSTRUCTION AND PLANTING TO EXISTING TREES OR STRUCTURES IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR.
14. THE CONTRACTOR WILL BE RESPONSIBLE FOR CLEANING ALL WALLS, PAVEMENTS, AND OTHER SURFACES PRIOR TO FINAL INSPECTION.
15. REFERENCE TO SCALE IS FOR FULL-SIZE DRAWINGS. DIMENSIONS SHOWN ON DRAWINGS TAKE PRECEDENCE OVER SCALED DIMENSIONS. DO NOT SCALE FROM DRAWINGS.
16. THE CONTRACTOR IS RESPONSIBLE FOR ACCURATE HORIZONTAL AND VERTICAL ALIGNMENT AND PREPARATION OF LAYOUT/MARKING/STAKING. THE CONTRACTOR IS REQUIRED TO PERFORM CONSTRUCTION LAYOUT / MARKING / STAKING AND SET ELEVATIONS FOR THE FORM WORK PRIOR TO INSPECTION BY THE ARCHITECT FOR APPROVAL.
17. ALL BUILDINGS, WALLS, COLUMNS, STRUCTURES, AND ANY VERTICAL ELEMENTS THAT ABUT CONCRETE PAVING ARE TO HAVE EXPANSION JOINT AS DETAILED HEREWITH.
18. ALL FORM WORK SHALL BE APPROVED FOR GEOMETRY AND GRADES BY THE ARCHITECT PRIOR TO INSTALLATION OF PAVEMENT, PLANTERS OR WALLS.
19. ALL ANGLES TO BE 90 DEGREES AND ALL LINES OF PAVING TO BE PARALLEL UNLESS OTHERWISE NOTED. MAINTAIN HORIZONTAL ALIGNMENT OF ADJACENT ELEMENTS AS NOTED ON THE DRAWINGS.
20. "TYPICAL" OR "TYP" INDICATES IDENTICAL COMPLETE SYSTEM SHALL BE PROVIDED FOR EACH OCCURRENCE OF THE CONDITION NOTES.
21. "SIMILAR" OR "SIM" INDICATES COMPLETE SYSTEM AND COMPONENTS SHALL BE PROVIDED COMPARABLE TO THE CHARACTERISTICS FOR THE CONDITION NOTED.
22. "AS REQUIRED" INDICATES COMPONENTS REQUIRED TO COMPLETE THE NOTED SYSTEM AS INDICATED IN THE PROJECT DOCUMENTS SHALL BE PROVIDED.
23. "ALIGN" INDICATES ACCURATELY PROVIDE FINISH OF FACES OF MATERIALS IN STRAIGHT, TRUE, AND PLUMB RELATION TO ADJACENT MATERIALS.
24. TAKE ALL DIMENSIONS FROM FACE OF FIXED OBJECTS, WALL, OR BUILDING OR TO CENTERLINE OF COLUMNS UNLESS OTHERWISE NOTED. ALL DIMENSIONS CALLED OUT AS "EQUAL" ARE EQUIDISTANT MEASUREMENTS TO DESIGNATED CENTERLINES.
25. ALL LANDSCAPE DIMENSIONS TAKEN TO CENTERLINE OF BUILDING COLUMN SHALL MEAN THE FIRST ROW OF COLUMNS CLOSEST TO THE FACE OF THE BUILDING. SEE ARCHITECTURAL AND AS-BUILT DRAWINGS FOR CORRESPONDING COLUMN LINES.
26. TAKE ALL DIMENSIONS PERPENDICULAR TO ANY REFERENCE LINE, WORK LINE, FACE OF BUILDING, FACE OF WALL, OR CENTERLINE.
27. WHERE NOT SHOWN ON LANDSCAPE DRAWINGS, SEE ENGINEERING AND AS-BUILT DRAWINGS FOR COLUMN GRID, CENTERLINES, BUILDING FACES, AND BENCHMARKS.
28. SEE DRAWINGS FOR DIMENSION OF SITE ELEMENTS. NOTES AND DETAILS ON SPECIFIC DRAWINGS TAKE PRECEDENCE OVER GENERAL NOTES AND TYPICAL DETAILS.
29. IF DIMENSIONS VARY BY 1" OR MORE, CONTACT THE ARCHITECT FOR REVIEW AND CONFIRMATION PRIOR TO PROCEEDING WITH CONSTRUCTION.

## SITE PLAN KEY

| SYM | DESCRIPTION |
|---|---|
| HARDSCAPE | |
| H1 | ASPHALT PAVING - HEAVY DUTY |
| H2 | CONCRETE PAVING - VEHICULAR |
| H3 | CONCRETE PAVING - PEDESTRIAN |
| H4 | CONCRETE PAVING - PEDESTRIAN - ENHANCED INTEGRAL COLOR |
| H5 | CONCRETE PAVING - VEHICULAR - INTEGRAL COLOR |
| H6 | CAST IN PLACE CONCRETE CURB - RAISED |
| H7 | CAST IN PLACE CONCRETE CURB - FLUSH |
| H9 | UNIT PAVING - VEHICULAR STANDARD |
| H10 | UNIT PAVING - VEHICULAR PERMEABLE |
| H11 | UNIT PAVING - PEDESTRIAN |
| H14 | CURB RAMP WITH DETECTABLE WARNING STRIP |
| H15 | GRAVEL MAINTENANCE STRIP |
| H17 | PLAYGROUND SURFACE |
| H18 | WALL TYPE 1 - CONCRETE SEAT WALL |
| H19 | WALL TYPE 2 - CONCRETE RETAINING WALL WITH CLADDING |
| H20 | CAST IN PLACE CONCRETE STAIRS |
| H21 | HANDRAIL |
| H22 | GUARDRAIL WITH SECURITY GLASS GUARDRAIL PANELS |
| H23 | DETECTABLE WARNING STRIP |
| H24 | WHEEL STOP |
| H25 | ASPHALT PAVING - MULTI-USE PATH |
| FURNISHING | |
| F1 | BOLLARD TYPE 1 - CYRCA |
| F3 | BENCH - SURFACE MOUNTED |
| F5 | MOVABLE TABLES AND CHAIRS |
| F8 | INFORMAL SEATING ELEMENT |
| F9 | LITTER / RECYCLE RECEPTACLES |
| F10 | FREESTANDING PLANTERS |
| F11 | BIKE RACK |
| F12 | FLAGPOLE |
| F15 | ELECTRIC VEHICLE CHARGING BOLLARD LOCATION, PREP ONLY |
| F16 | SECURITY GATE: EXIT ONLY |
| F17 | BOLLARD - TYPE 2 |

PA: PLANTING AREA - REFERENCE L4 SERIES SHEETS

SITE PLAN - AREA A
1 / L1.101 — 1" = 20'-0"

0' 10' 20' 40'

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WWW.ZGF.COM

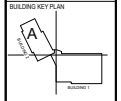
# LURIE CHILDREN'S HOSPITAL - DOWNERS GROVE

ANN & ROBERT H. LURIE CHILDREN'S HOSPITAL OF CHICAGO
3300 Lacey Rd, Downers Grove, IL 60515

DRAWING ISSUE

| # | DESCRIPTION | DATE |
|---|---|---|
| | DRAFT PUD | 06.17.2026 |
| | ISSUE FOR PUD | 06.26.2026 |
| | ISSUE FOR PUD (REV 1) | 07.22.2026 |

BUILDING KEY PLAN

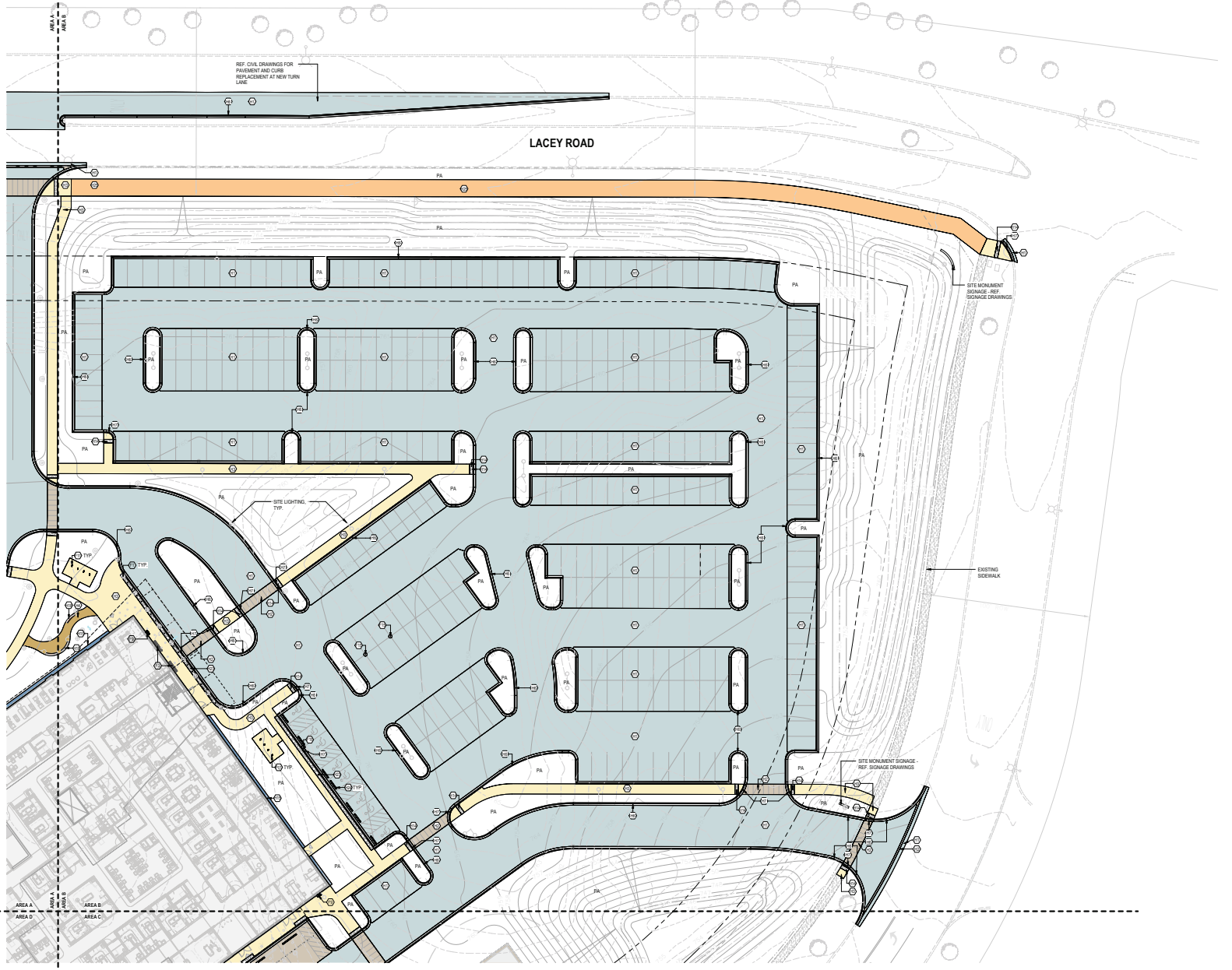



DRAWING TITLE
SITE PLAN - AREA A

DRAWING NO.
L1.101

Job # 25.009982

12/23/2025 4:21:27 PM




1 SITE PLAN - AREA B
1" = 20'-0"

0' 10' 20' 40'

## SITE NOTES

1. THE CONTRACTOR SHALL PERFORM THE WORK IN ACCORDANCE WITH ALL LAWS, CODE, ORDINANCES, RULES AND REGULATIONS OF ALL GOVERNING AGENCIES. OCCUPANTS ADJACENT TO THIS E PROJECT AREA BOUNDARIES SHALL CONTINUE UNINTERRUPTED OCCUPANCY DURING CONSTRUCTION OF THE PROJECT.
2. IT IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR TO NOTIFY THE LANDSCAPE ARCHITECT OF ANY AND ALL CONFLICTS WITH WORK RELATED TO THE HARDSCAPE AND LANDSCAPE FEATURES PRIOR TO INSTALLATION OF THE UTILITIES IN ORDER TO MAINTAIN THE HIGHEST LEVEL OF DESIGN INTENT OF THE HARDSCAPE AND LANDSCAPE FEATURES.
3. THE CONTRACTOR SHALL PERFORM NO PORTION OF THE WORK AT ANY TIME WITHOUT CONTRACT DOCUMENTS OR, WHERE REQUIRED, APPROVED SHOP DRAWINGS, PRODUCT DATA, OR SAMPLES FOR SUCH PORTIONS OF THE WORK.
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7. VERIFY LOCATIONS OF ALL BUILDINGS, WALLS, EXISTING STRUCTURES, PIPES, ELECTRICAL AND ALL ELEMENTS AFFECTING LANDSCAPE SCOPE OF WORK WITH ARCHITECTURAL AND ENGINEERING DRAWINGS. INFORMATION IN LANDSCAPE ARCHITECTURE PACKAGE IS TO BE READ IN CONJUNCTION WITH ALL RELEVANT ARCHITECTURAL AND ENGINEERING INFORMATION. ADDITIONAL UTILITIES AND SITE ELEMENTS MAY EXIST WHICH ARE NOT SHOWN HEREIN.
8. VERIFY LOCATION OF ALL ADJACENT AND BELOW-GRADE ELECTRICAL, PLUMBING, DATA, CONDUIT, PIPING, DRAINAGE STRUCTURES AND OTHER UTILITY CONNECTIONS WITH THE APPROPRIATE AS-BUILT OR ENGINEERING DRAWINGS. THE CONTRACTOR IS RESPONSIBLE FOR THIS VERIFICATION AND THE PROTECTION OF THESE ELEMENTS. THE CONTRACTOR IS RESPONSIBLE FOR REPAIR OF ANY DAMAGE INCURRED DURING THE EXECUTION OF THE WORK.
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13. ANY DAMAGE INCURRED DURING THE EXECUTION OF CONSTRUCTION AND PLANTING TO EXISTING TREES OR STRUCTURES IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR.
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15. REFERENCE TO SCALE IS FOR FULL-SIZE DRAWINGS. DIMENSIONS SHOWN ON DRAWINGS TAKE PRECEDENCE OVER SCALED DIMENSIONS. DO NOT SCALE FROM DRAWINGS.
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19. ALL ANGLES TO BE 90 DEGREES AND ALL LINES OF PAVING TO BE PARALLEL UNLESS OTHERWISE NOTED. MAINTAIN HORIZONTAL ALIGNMENT OF ADJACENT ELEMENTS AS NOTED ON THE DRAWINGS.
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26. TAKE ALL DIMENSIONS PERPENDICULAR TO ANY REFERENCE LINE, WORK LINE, FACE OF BUILDING, FACE OF WALL, OR CENTERLINE.
27. WHERE NOT SHOWN ON LANDSCAPE DRAWINGS, SEE ENGINEERING AND AS-BUILT DRAWINGS FOR COLUMN GRID, CENTERLINES, BUILDING FACES, AND BENCHMARKS.
28. SEE DRAWINGS FOR DIMENSION OF SITE ELEMENTS. NOTES AND DETAILS ON SPECIFIC DRAWINGS TAKE PRECEDENCE OVER GENERAL NOTES AND TYPICAL DETAILS.
29. IF DIMENSIONS VARY BY 1" OR MORE, CONTACT THE ARCHITECT FOR REVIEW AND CONFIRMATION PRIOR TO PROCEEDING WITH CONSTRUCTION.

## SITE PLAN KEY

| SYM | DESCRIPTION |
|---|---|
| HARDSCAPE | |
| H1 | ASPHALT PAVING - HEAVY DUTY |
| H2 | CONCRETE PAVING - VEHICULAR |
| H3 | CONCRETE PAVING - PEDESTRIAN |
| H4 | CONCRETE PAVING - PEDESTRIAN - ENHANCED INTEGRAL COLOR |
| H5 | CONCRETE PAVING - VEHICULAR - INTEGRAL COLOR |
| H6 | CAST IN PLACE CONCRETE CURB - RAISED |
| H7 | CAST IN PLACE CONCRETE CURB - FLUSH |
| H9 | UNIT PAVING - VEHICULAR STANDARD |
| H10 | UNIT PAVING - VEHICULAR PERMEABLE |
| H11 | UNIT PAVING - PEDESTRIAN |
| H14 | CURB RAMP WITH DETECTABLE WARNING STRIP |
| H15 | GRAVEL MAINTENANCE STRIP |
| H17 | PLAYGROUND SURFACE |
| H18 | WALL TYPE 1 - CONCRETE SEAT WALL |
| H19 | WALL TYPE 2 - CONCRETE RETAINING WALL WITH CLADDING |
| H20 | CAST IN PLACE CONCRETE STAIRS |
| H21 | HANDRAIL |
| H22 | GUARDRAIL WITH SECURITY GLASS GUARDRAIL PANELS |
| H23 | DETECTABLE WARNING STRIP |
| H24 | WHEEL STOP |
| H25 | ASPHALT PAVING - MULTI-USE PATH |
| FURNISHING | |
| F1 | BOLLARD TYPE 1 - CYRCA |
| F3 | BENCH - SURFACE MOUNTED |
| F5 | MOVABLE TABLES AND CHAIRS |
| F8 | INFORMAL SEATING ELEMENT |
| F9 | LITTER / RECYCLE RECEPTACLES |
| F10 | FREESTANDING PLANTERS |
| F11 | BIKE RACK |
| F12 | FLAGPOLE |
| F15 | ELECTRIC VEHICLE CHARGING BOLLARD LOCATION; PREP ONLY |
| F16 | SECURITY GATE; EXIT ONLY |
| F17 | BOLLARD - TYPE 2 |

PA: PLANTING AREA - REFERENCE L4 SERIES SHEETS


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ZGF
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SEATTLE, WA 98104
206.623.4646
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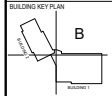

# LURIE CHILDREN'S HOSPITAL - DOWNERS GROVE

ANN & ROBERT H. LURIE CHILDREN'S HOSPITAL OF CHICAGO
3300 Lacey Rd, Downers Grove, IL 60515

DRAWING ISSUE

| # | DESCRIPTION | DATE |
|---|---|---|
| | DRAFT PUD | 04.17.2026 |
| | ISSUE FOR PUD | 05.26.2026 |
| | ISSUE FOR PUD (REV 1) | 07.22.2026 |

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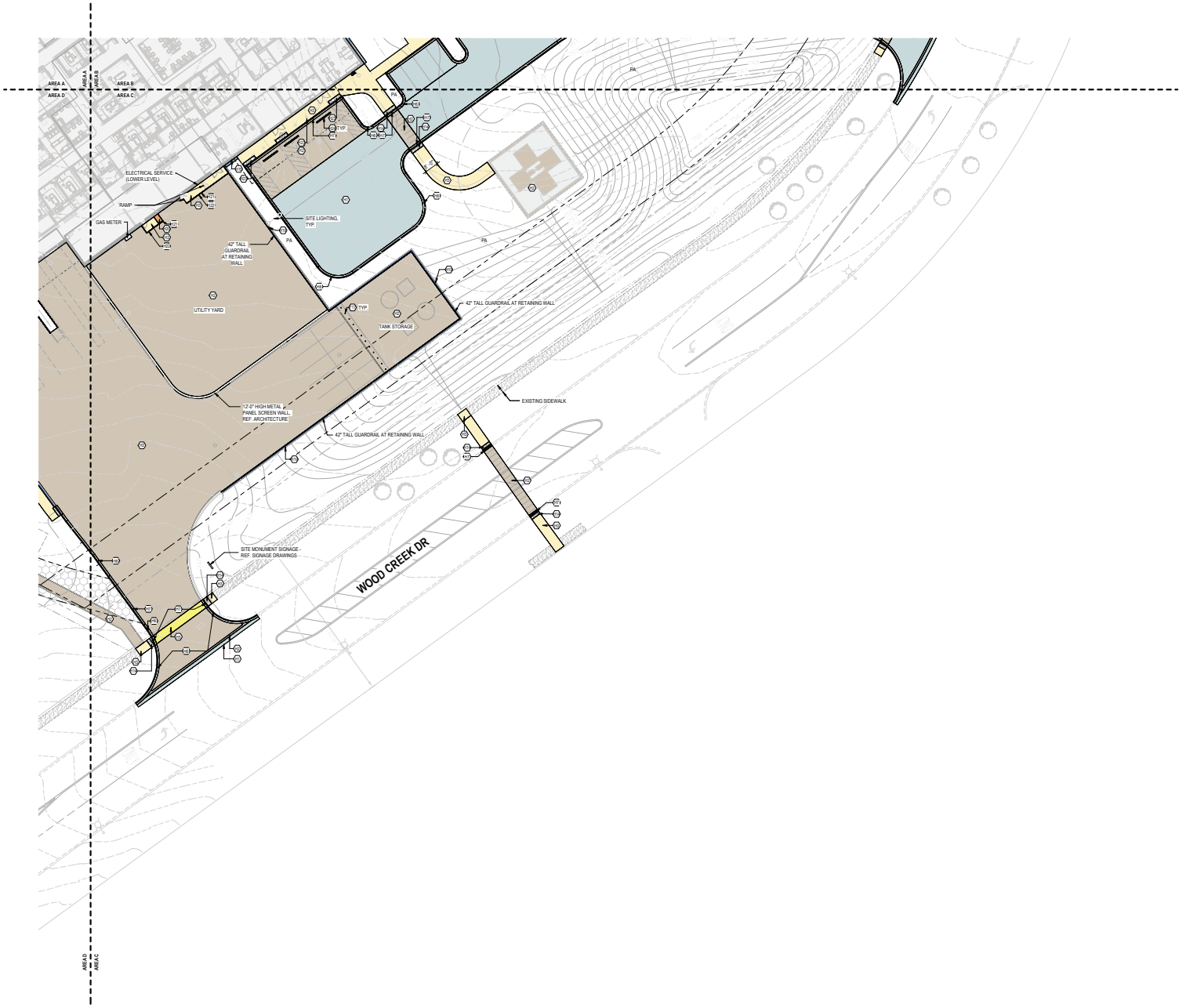



DRAWING TITLE
SITE PLAN - AREA B

DRAWING NO.
L1.102

Job # 25.009982

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1 SITE PLAN - AREA C
L1.103 1" = 20'-0"

0' 10' 20' 40'

PA: PLANTING AREA - REFERENCE L4 SERIES SHEETS

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ZGF
ZIMMER GUNSUL FRASCA ARCHITECTS LLP
925 FOURTH AVENUE, STE 2400
SEATTLE, WA 98104
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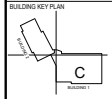

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DRAWING ISSUE

| # | DESCRIPTION | DATE |
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| | DRAFT PUD | 06.17.2025 |
| | ISSUE FOR PUD | 06.26.2025 |
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BUILDING KEY PLAN

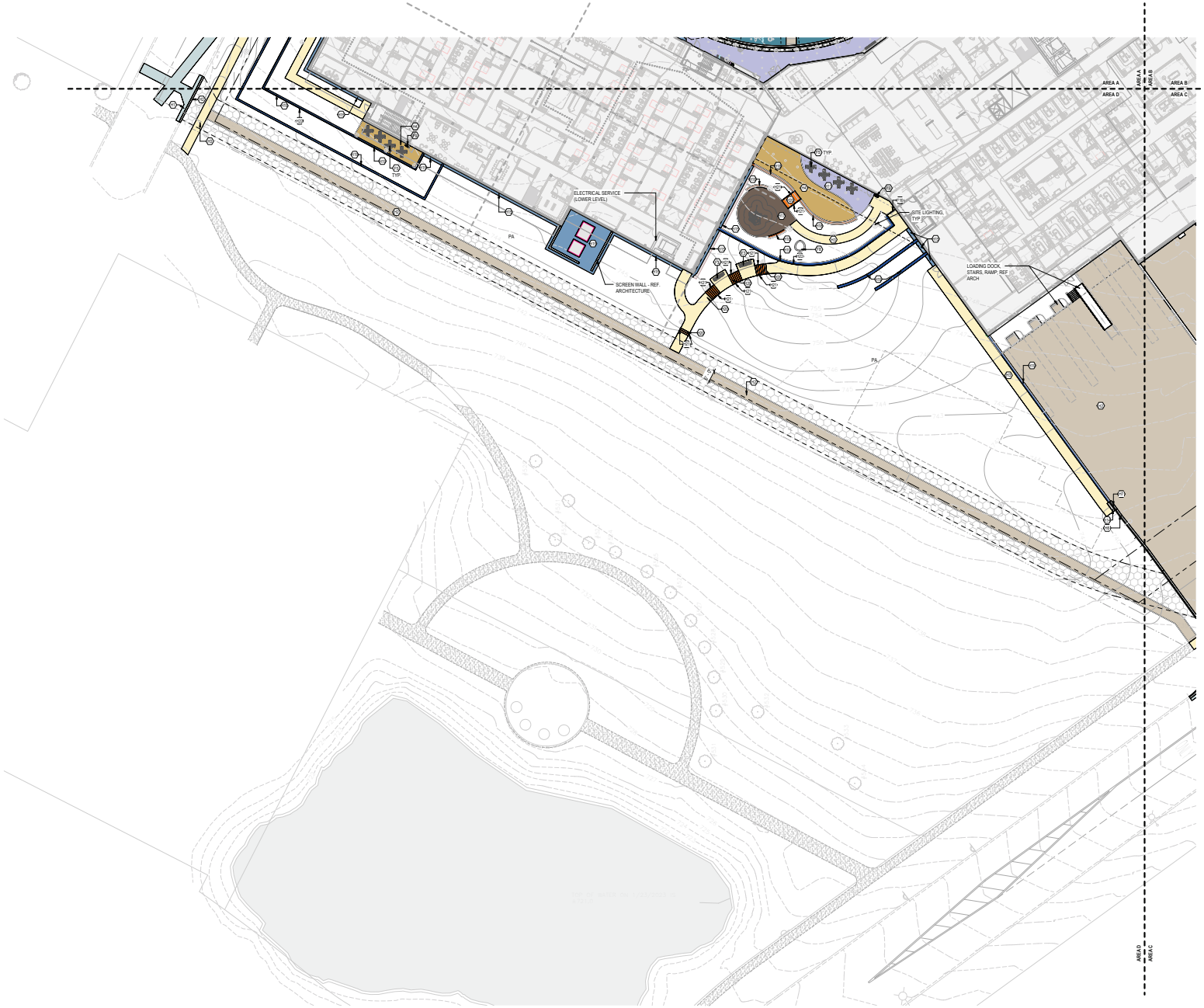



DRAWING TITLE
SITE PLAN - AREA C

DRAWING NO.
L1.103

Job # 25.009982

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SITE PLAN - AREA D
1" = 20'-0"

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24. TAKE ALL DIMENSIONS FROM FACE OF FIXED OBJECTS, WALL, OR BUILDING OR TO CENTERLINE OF COLUMNS UNLESS OTHERWISE NOTED. ALL DIMENSIONS CALLED OUT AS "EQUAL" ARE EQUIDISTANT MEASUREMENTS TO DESIGNATED CENTERLINES.
25. ALL LANDSCAPE DIMENSIONS TAKEN TO CENTERLINE OF BUILDING COLUMN SHALL MEAN THE FIRST ROW OF COLUMNS CLOSEST TO THE FACE OF THE BUILDING. SEE ARCHITECTURAL AND AS-BUILT DRAWINGS FOR CORRESPONDING COLUMN LINES.
26. TAKE ALL DIMENSIONS PERPENDICULAR TO ANY REFERENCE LINE, WORK LINE, FACE OF BUILDING, FACE OF WALL, OR CENTERLINE.
27. WHERE NOT SHOWN ON LANDSCAPE DRAWINGS, SEE ENGINEERING AND AS-BUILT DRAWINGS FOR COLUMN GRID, CENTERLINES, BUILDING FACES, AND BENCHMARKS.
28. SEE DRAWINGS FOR DIMENSION OF SITE ELEMENTS. NOTES AND DETAILS ON SPECIFIC DRAWINGS TAKE PRECEDENCE OVER GENERAL NOTES AND TYPICAL DETAILS.
29. IF DIMENSIONS VARY BY 1" OR MORE, CONTACT THE ARCHITECT FOR REVIEW AND CONFIRMATION PRIOR TO PROCEEDING WITH CONSTRUCTION.

## SITE PLAN KEY

| SYM | DESCRIPTION |
|---|---|
| HARDSCAPE | |
| H1 | ASPHALT PAVING - HEAVY DUTY |
| H2 | CONCRETE PAVING - VEHICULAR |
| H3 | CONCRETE PAVING - PEDESTRIAN |
| H4 | CONCRETE PAVING - PEDESTRIAN - ENHANCED INTEGRAL COLOR |
| H5 | CONCRETE PAVING - VEHICULAR - INTEGRAL COLOR |
| H6 | CAST IN PLACE CONCRETE CURB - RAISED |
| H7 | CAST IN PLACE CONCRETE CURB - FLUSH |
| H9 | UNIT PAVING - VEHICULAR STANDARD |
| H10 | UNIT PAVING - VEHICULAR PERMEABLE |
| H11 | UNIT PAVING - PEDESTRIAN |
| H14 | CURB RAMP WITH DETECTABLE WARNING STRIP |
| H15 | GRAVEL MAINTENANCE STRIP |
| H17 | PLAYGROUND SURFACE |
| H18 | WALL TYPE 1 - CONCRETE SEAT WALL |
| H19 | WALL TYPE 2 - CONCRETE RETAINING WALL WITH CLADDING |
| H20 | CAST IN PLACE CONCRETE STAIRS |
| H21 | HANDRAIL |
| H22 | GUARDWALL WITH SECURITY GLASS GUARDRAIL PANELS |
| H23 | DETECTABLE WARNING STRIP |
| H24 | WHEEL STOP |
| H25 | ASPHALT PAVING - MULTI-USE PATH |
| FURNISHING | |
| F1 | BOLLARD TYPE 1 - CYRCA |
| F3 | BENCH - SURFACE MOUNTED |
| F5 | MOVABLE TABLES AND CHAIRS |
| F8 | INFORMAL SEATING ELEMENT |
| F9 | LITTER / RECYCLE RECEPTACLES |
| F10 | FREESTANDING PLANTERS |
| F11 | BIKE RACK |
| F12 | FLAGPOLE |
| F15 | ELECTRIC VEHICLE CHARGING BOLLARD LOCATION, PREP ONLY |
| F16 | SECURITY GATE; EXIT ONLY |
| F17 | BOLLARD - TYPE 2 |

PA: PLANTING AREA - REFERENCE L4 SERIES SHEETS


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# LURIE CHILDREN'S HOSPITAL - DOWNERS GROVE

ANN & ROBERT H. LURIE CHILDREN'S HOSPITAL OF CHICAGO
3300 Lacey Rd, Downers Grove, IL 60515

DRAWING ISSUE

| # | DESCRIPTION | DATE |
|---|---|---|
| | DRAFT PUD | 06.17.2025 |
| | ISSUE FOR PUD | 05.29.2026 |
| | ISSUE FOR PUD (REV 1) | 07.22.2026 |

BUILDING KEY PLAN

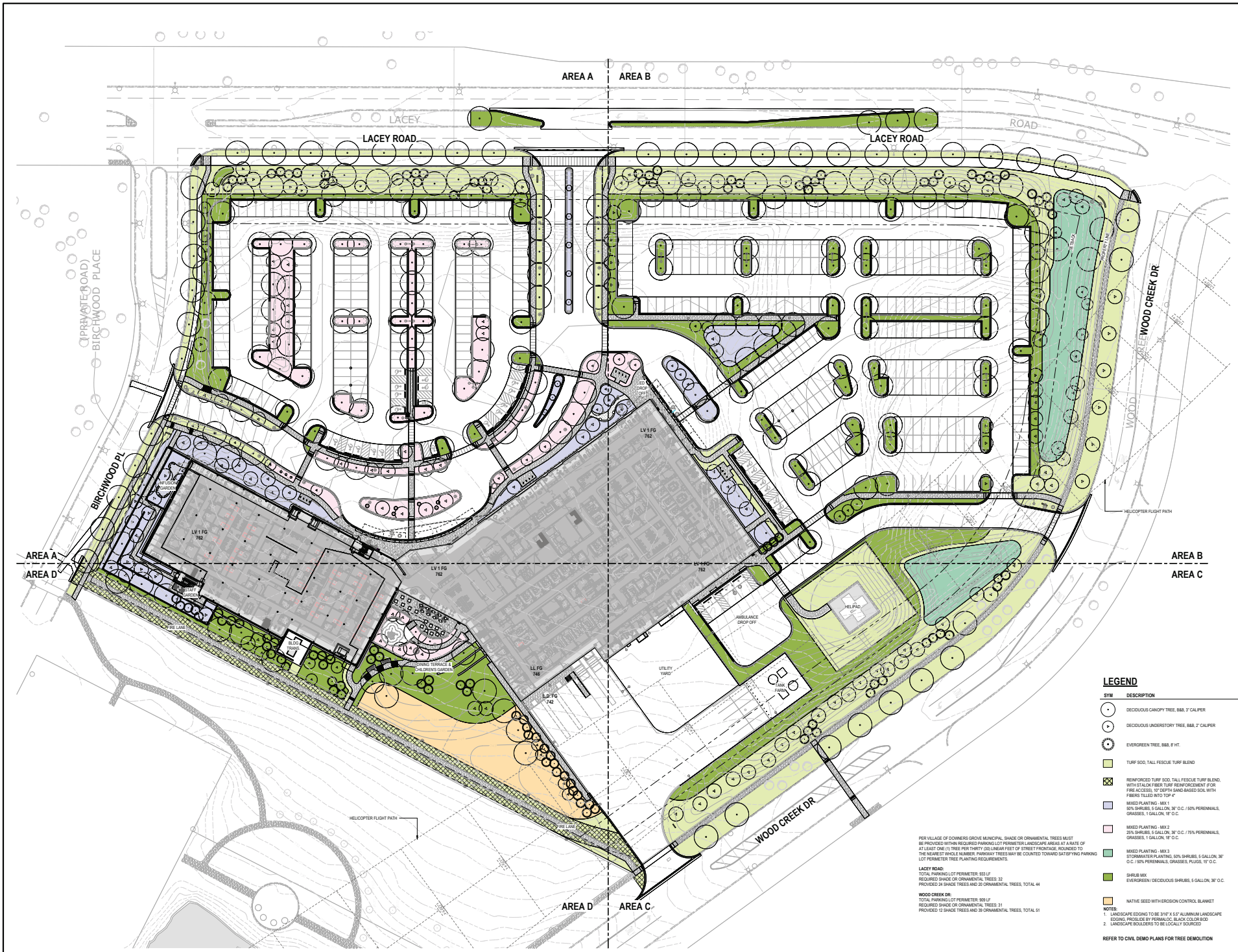



DRAWING TITLE
SITE PLAN - AREA D

DRAWING NO.
L1.104

Job # 25.009982

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PLANTING REFERENCE PLAN
1" = 30'-0"

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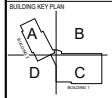
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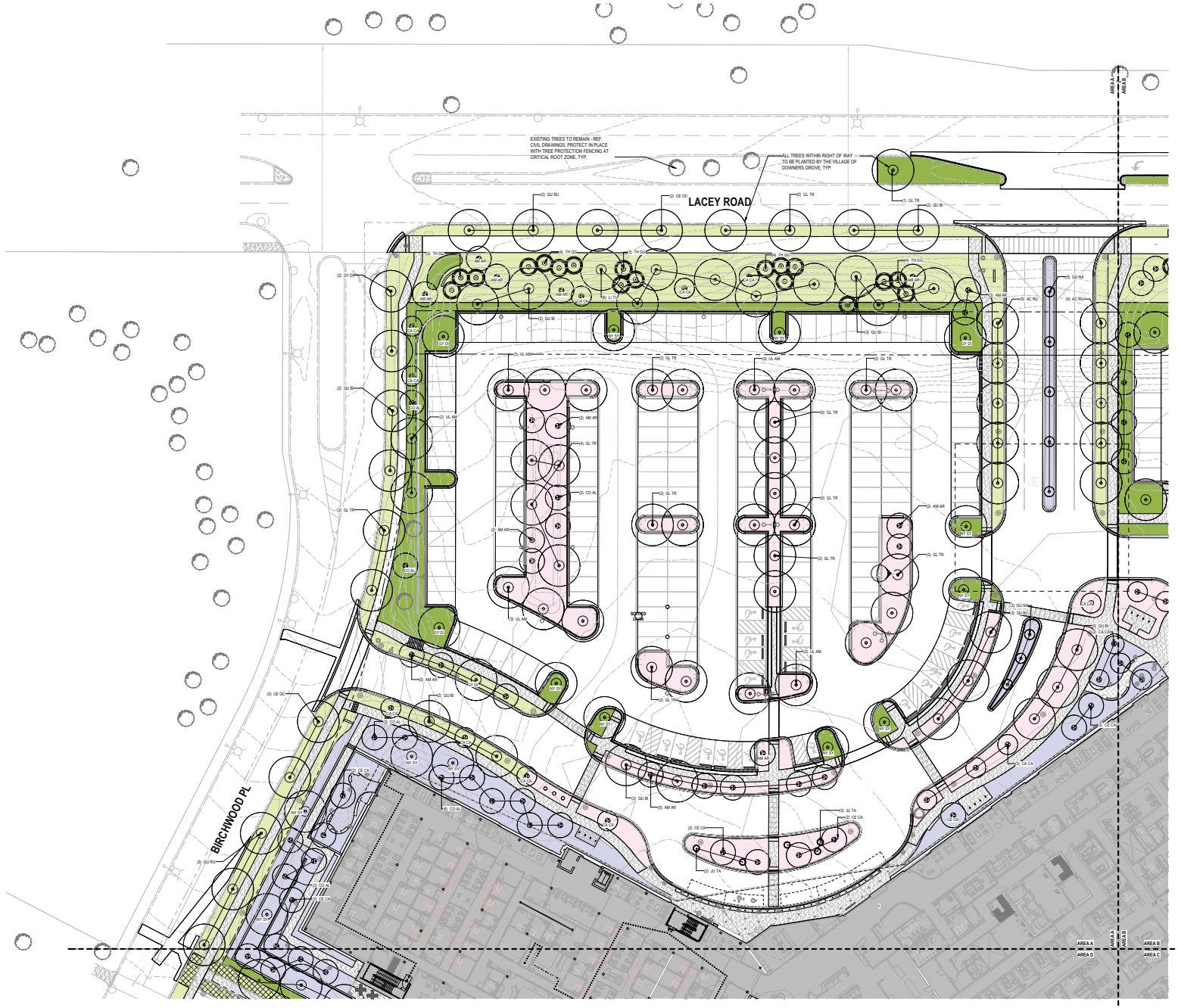
BUILDING KEY PLAN




DRAWING TITLE
PLANTING REFERENCE PLAN

DRAWING NO.
L4.100

Job # 25.009982




1 TREE PLANTING PLAN - AREA A
L4.101 1" = 20'-0"

## PLANTING NOTES

1. PLANT NAMES MAY BE ABBREVIATED ON DRAWINGS. REFER TO PLANTING SCHEDULE AND LEGENDS FOR SYMBOLS, ABBREVIATIONS, BOTANICAL AND COMMON NAMES, SIZES, ESTIMATED QUANTITIES AND OTHER REMARKS.
2. VERIFY ALL DIMENSIONS AND SITE CONDITIONS PRIOR TO STARTING CONSTRUCTION AND IMMEDIATELY NOTIFY THE LANDSCAPE ARCHITECT OF ANY DISCREPANCIES.
3. VERIFY THE LOCATION OF ALL UTILITIES INCLUDING SANITARY AND STORM SEWER + ROOF DRAINS PRIOR TO BEGINNING CONSTRUCTION.
4. ALL WORK PERFORMED SHALL BE IN COMPLIANCE WITH THE CONTRACT DOCUMENTS AND WITH ALL APPLICABLE CODES, STANDARDS AND ORDINANCES.
5. ALL PLANTS SHALL BE GUARANTEED FOR ONE FULL YEAR FROM THE SUBSTANTIAL COMPLETION OF THE LANDSCAPE CONTRACT AT FULL REPLACEMENT VALUE INCLUDING LABOR TO REPLACE PLANT MATERIALS.
6. ALL PLANT MATERIAL SHALL BE OF SPECIMEN QUALITY AND OF THE SIZE AND TYPE SPECIFIED IN THE PLANT SCHEDULE.
7. THE SITE SHALL BE FINISH GRADED BY THE LANDSCAPE CONTRACTOR. THE LANDSCAPE CONTRACTOR SHALL BE RESPONSIBLE TO MAINTAIN FINISHED GRADES AND RE-GRADE ANY AREAS DISTURBED BY LANDSCAPE OPERATIONS.
8. ANY CLEAN, EXCESS SOIL FROM LANDSCAPE OPERATIONS SHALL BE WASTED ON SITE AT THE DISCRETION OF THE CONTRACTOR OR DISPOSED OF OFF SITE. ALL CONSTRUCTION DEBRIS FROM LANDSCAPE OPERATIONS SHALL BE DISPOSED OF OFF SITE.
9. REFER TO SPECIFICATION FOR SOD TYPE. ALL AREAS INDICATED IN THE PLANS TO BE SODDED SHALL BE MOWED JUST PRIOR TO INSTALLATION AND SHALL BE GUARANTEED FOR A PERIOD OF ONE MONTH. ALL SOD AREAS ARE TO BE WATERED DAILY FOR ONE WEEK AND EVERY OTHER DAY FOR THE NEXT TWO WEEKS.
10. ALL PLANTING AREAS MUST BE FREE OF ALL WEEDS AND DEBRIS BEFORE PLANTING, SODDING, AND/OR SEEDING.
11. REF. SPECIFICATIONS AND DETAILS FOR PLANTING METHODS, REQUIREMENTS, SOIL TESTING, MATERIALS, EXECUTIONS AND PLAN PROTECTIONS.
12. PROVIDE AND INSTALL LOCALLY AVAILABLE SHREDDED HARDWOOD MULCH AROUND THE BASE OF ALL TREES AND SHRUBS IN SHRUB BEDS ONLY. IF TREES AND SHRUBS ARE PART OF A PERENNIAL / ORNAMENTAL GRASS / GROUNDCOVER BED, THEN APPLY LOCAL LEAF MULCH TO ALL.
13. WHERE PROVIDED, AREA TAKEOFFS AND PLANT QUANTITY ESTIMATES IN PLANTING SCHEDULE ARE FOR INFORMATION ONLY. CONTRACTOR IS RESPONSIBLE TO DO THEIR OWN QUANTITY TAKE-OFFS FOR ALL PLANT MATERIAL AND SIZES SHOWN ON THE DRAWINGS. IN CASE OF DISCREPANCIES, BRING TO THE ATTENTION OF THE LANDSCAPE ARCHITECT FOR CLARIFICATION.
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16. CONTRACTOR IS RESPONSIBLE TO RESTORE ALL AREAS OF THE SITE OR ADJACENT AREAS WHERE DISTURBED TO A CONDITION THAT MEETS OR EXCEEDS THE CONDITIONS PRIOR TO THE DISTURBANCE.
17. SEE SHEET L4.601 FOR PLANT SCHEDULE.

## LEGEND

| SYM | DESCRIPTION | DETAIL |
|---|---|---|
| | CANOPY TREES | A1 / L4.501 |
| | UNDERSTORY TREES | A1 / L4.501 |
| | EVERGREEN TREES | A2 / L4.501 |

NOTE: REFER TO CIVIL PLANS FOR EXISTING TREE DEMOLITION AND PRESERVATION SCOPE.

## PLANTING KEY

| SYM | BOTANICAL NAME | CULTIVAR |
|---|---|---|
| **DECIDUOUS CANOPY TREES** | | |
| AC RU | ACER RUBRUM | 'MARMO MORTON' |
| CE OC | CELTIS OCCIDENTALIS | 'PRAIRIE PRIDE' |
| GL TR | GLEDITSIA TRIACANTHOS | 'SKYLINE' |
| GY DI | GYMNOCLADUS DIOICUS | 'MORTON' |
| LI TU | LIRIODENDRON TULIPIFERA | 'LITTLE VOLUNTEER' |
| NY SY | NYSSA SYLVATICA | 'DAVID ODOM' |
| PL OC | PLATANUS X ACERIFOLIA | 'MORTON CIRCLE' |
| QU BI | QUERCUS BICOLOR | |
| QU NA | QUERCUS ROBUR × BICOLOR | 'NADLER' |
| | 'NADLER' PP 17604 | |
| QU RU | QUERCUS RUBRA | |
| TA DI | TAXODIUM DISTICHUM | 'SHAWNEE BRAVE' |
| UL AM | ULMUS AMERICANA | 'MORTON GLOSSY' |
| **DECIDUOUS UNDERSTORY TREES** | | |
| AE PA | AESCULUS PAVIA | |
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| CA CA | CARPINUS CAROLINIANA | 'NATIVE FLAME' |
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| JU BU | JUNIPERUS VIRGINIANA | 'BURKII' |
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## LEGEND

| SYM | DESCRIPTION |
|---|---|
| | DECIDUOUS CANOPY TREE, B&B, 3" CALIPER |
| | DECIDUOUS UNDERSTORY TREE, B&B, 2" CALIPER |
| | EVERGREEN TREE, B&B, 8' HT. |
| | TURF SOD, TALL FESCUE TURF BLEND |
| | REINFORCED TURF SOD, TALL FESCUE TURF BLEND, WITH STALOK FIBER TURF REINFORCEMENT (FOR FIRE ACCESS), 10" DEPTH SAND-BASED SOIL WITH FIBERS TILLED INTO TOP 4" |
| | MIXED PLANTING - MIX 1<br>50% SHRUBS, 5 GALLON, 36" O.C. / 50% PERENNIALS, GRASSES, 1 GALLON, 18" O.C. |
| | MIXED PLANTING - MIX 2<br>25% SHRUBS, 5 GALLON, 36" O.C. / 75% PERENNIALS, GRASSES, 1 GALLON, 18" O.C. |
| | MIXED PLANTING - MIX 3<br>STORMWATER PLANTING, 50% SHRUBS, 5 GALLON, 36" O.C. / 50% PERENNIALS, GRASSES, PLUGS, 15" O.C. |
| | SHRUB MIX<br>EVERGREEN / DECIDUOUS SHRUBS, 5 GALLON, 36" O.C. |
| | NATIVE SEED WITH EROSION CONTROL BLANKET |

NOTES:
1. LANDSCAPE EDGING TO BE 3/16" X 6.5" ALUMINUM LANDSCAPE EDGING, PROSLIDE BY PERMALOC, BLACK COLOR BOD
2. LANDSCAPE BOULDERS TO BE LOCALLY SOURCED


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3300 Lacey Rd, Downers Grove, IL 60515

DRAWING ISSUE

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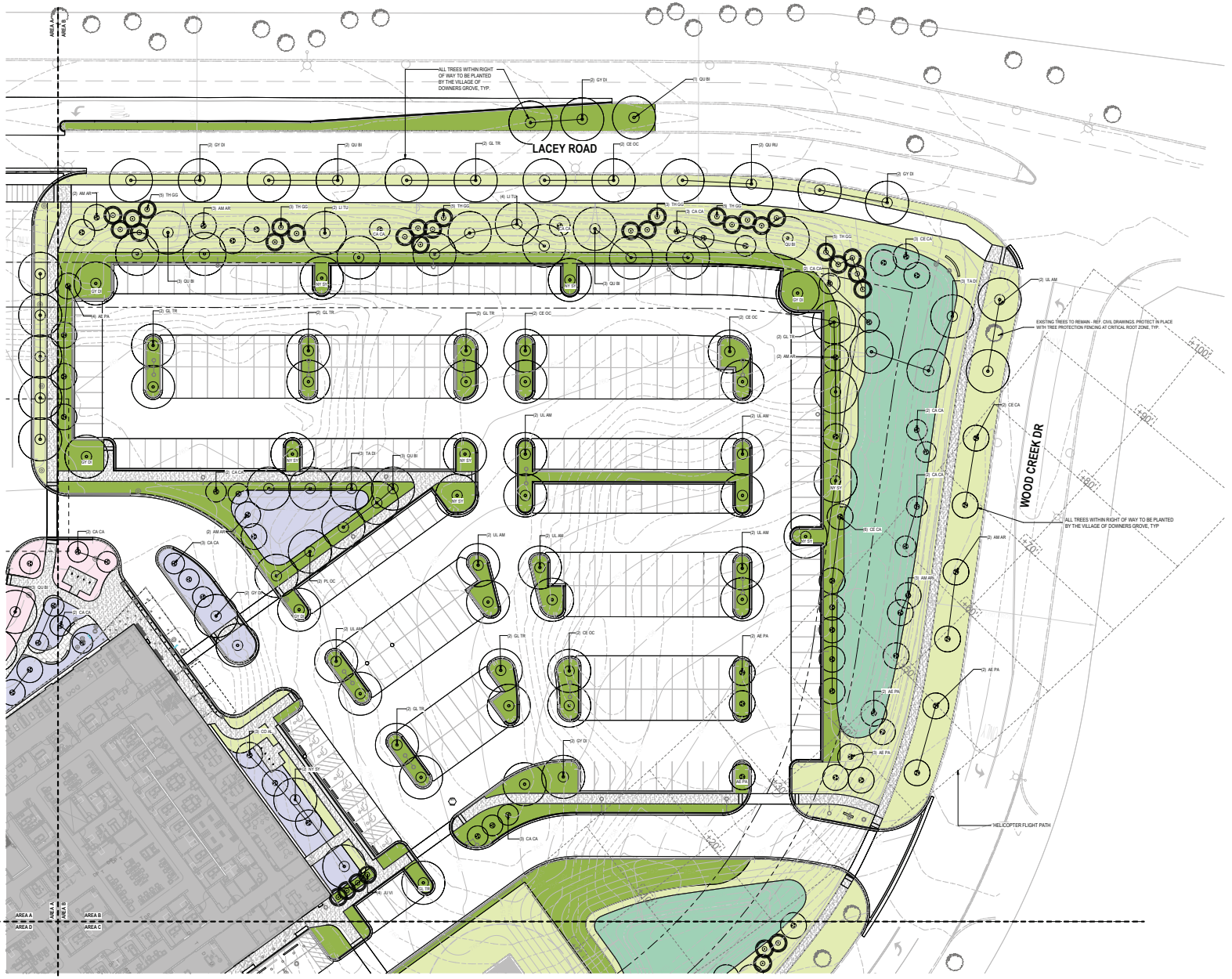
BUILDING KEY PLAN

DRAWING TITLE
PLANTING PLAN - AREA A

DRAWING NO.
L4.101

Job #: 25.009982

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TREE PLANTING PLAN - AREA B

0' 10' 20' 40'

## PLANTING NOTES

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## LEGEND

| SYM | DESCRIPTION | DETAIL |
|---|---|---|
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| | UNDERSTORY TREES | A1 / L4.501 |
| | EVERGREEN TREES | A2 / L4.501 |

NOTE: REFER TO CIVIL PLANS FOR EXISTING TREE DEMOLITION AND PRESERVATION SCOPE.

## PLANTING KEY

| SYM | BOTANICAL NAME | CULTIVAR |
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| QU BI | QUERCUS BICOLOR | |
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## LEGEND

| SYM | DESCRIPTION |
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| | SHRUB MIX<br>EVERGREEN / DECIDUOUS SHRUBS, 5 GALLON, 36" O.C. |
| | NATIVE SEED WITH EROSION CONTROL BLANKET |

NOTES:
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2. LANDSCAPE BOULDERS TO BE LOCALLY SOURCED


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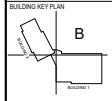

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ANN & ROBERT H. LURIE CHILDREN'S HOSPITAL OF CHICAGO
3300 Lacey Rd, Downers Grove, IL 60515

DRAWING ISSUE

| # | DESCRIPTION | DATE |
|---|---|---|
| | DRAFT PUD | 06.12.2025 |
| | ISSUE FOR PUD | 06.26.2025 |
| | ISSUE FOR PUD (REV 1) | 07.22.2025 |

BUILDING KEY PLAN

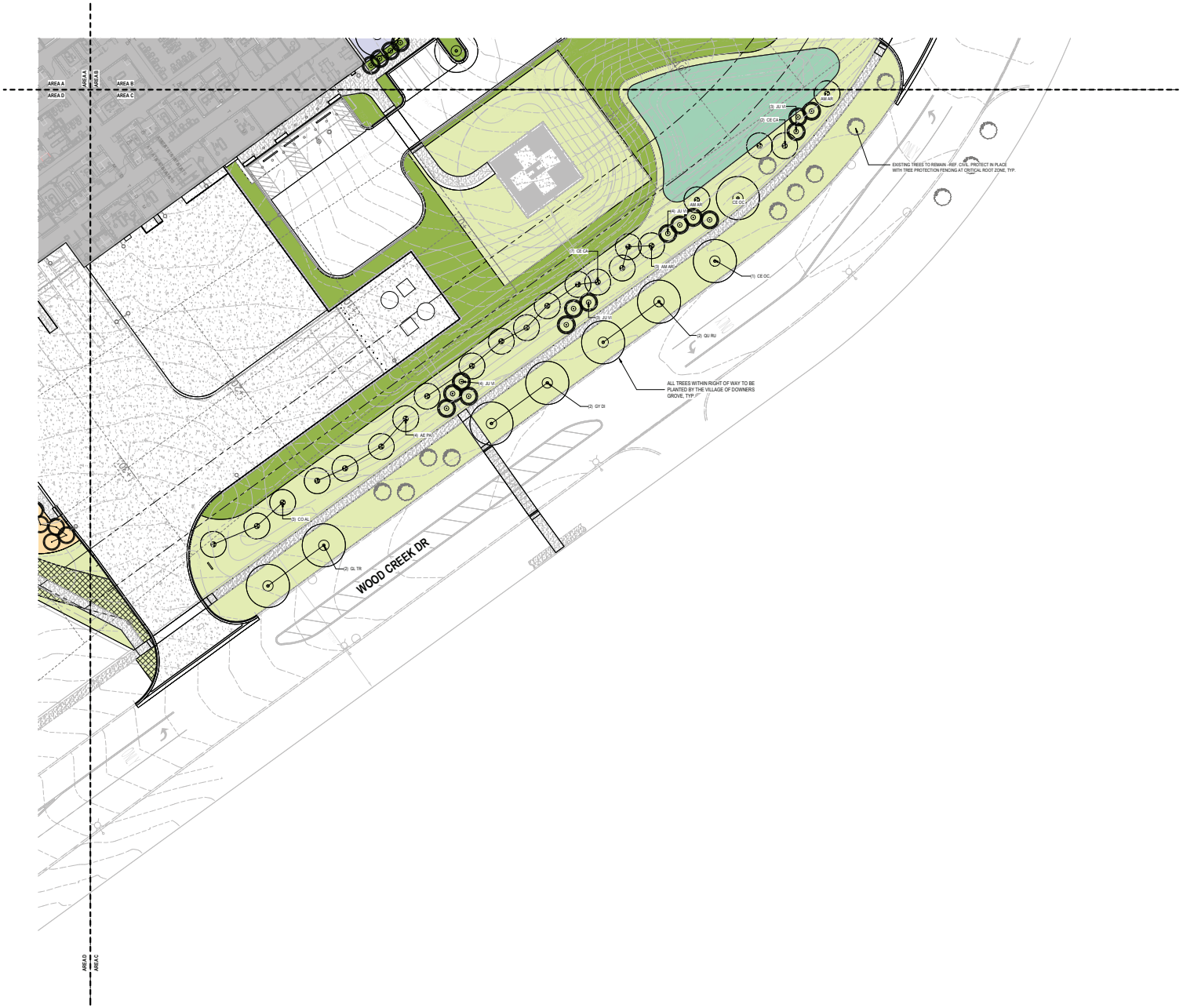



DRAWING TITLE
PLANTING PLAN - AREA B

DRAWING NO.
L4.102

Job # 25.009982

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1 TREE PLANTING PLAN - AREA C
L4.103 1" = 20'-0"

0' 10' 20' 40'

## PLANTING NOTES

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3. VERIFY THE LOCATION OF ALL UTILITIES INCLUDING SANITARY AND STORM SEWER + ROOF DRAINS PRIOR TO BEGINNING CONSTRUCTION.
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8. ANY CLEAN, EXCESS SOIL FROM LANDSCAPE OPERATIONS SHALL BE WASTED ON SITE AT THE DISCRETION OF THE CONTRACTOR OR DISPOSED OF OFF SITE. ALL CONSTRUCTION DEBRIS FROM LANDSCAPE OPERATIONS SHALL BE DISPOSED OF OFF SITE.
9. REFER TO SPECIFICATION FOR SOD TYPE. ALL AREAS INDICATED IN THE PLANS TO BE SODDED SHALL BE MOWED JUST PRIOR TO INSTALLATION AND SHALL BE GUARANTEED FOR A PERIOD OF ONE MONTH. ALL SOD AREAS ARE TO BE WATERED DAILY FOR ONE WEEK AND EVERY OTHER DAY FOR THE NEXT TWO WEEKS.
10. ALL PLANTING AREAS MUST BE FREE OF ALL WEEDS AND DEBRIS BEFORE PLANTING, SODDING, AND/OR SEEDING.
11. REF. SPECIFICATIONS AND DETAILS FOR PLANTING METHODS, REQUIREMENTS, SOIL TESTING, MATERIALS, EXECUTIONS AND PLAN PROTECTIONS.
12. PROVIDE AND INSTALL LOCALLY AVAILABLE SHREDDED HARDWOOD MULCH AROUND THE BASE OF ALL TREES AND SHRUBS IN SHRUB BEDS ONLY. IF TREES AND SHRUBS ARE PART OF A PERENNIAL / ORNAMENTAL GRASS / GROUNDCOVER BED, THEN APPLY LOCAL LEAF MULCH TO ALL.
13. WHERE PROVIDED, AREA TAKEOFFS AND PLANT QUANTITY ESTIMATES IN PLANTING SCHEDULE ARE FOR INFORMATION ONLY. CONTRACTOR IS RESPONSIBLE TO DO THEIR OWN QUANTITY TAKE-OFFS FOR ALL PLANT MATERIAL AND SIZES SHOWN ON THE DRAWINGS. IN CASE OF DISCREPANCIES, BRING TO THE ATTENTION OF THE LANDSCAPE ARCHITECT FOR CLARIFICATION.
14. THE CONTRACTOR SHALL PROVIDE PLANT MATERIAL QUANTITIES TO MATCH THE DRAWINGS AND TO PROVIDE TOTAL COVERAGE AT THE SPECIFIED SPACING.
15. THERE SHALL BE NO SUBSTITUTIONS OF PLANT MATERIAL WITHOUT APPROVAL OF THE OWNER/ARCHITECT. THE OWNER/ARCHITECT ALONE SHALL DETERMINE EQUALITY BASED UPON COMPLETE INFORMATION SUBMITTED BY THE CONTRACTOR. SUBSTITUTIONS SHALL NOT BE MADE UNLESS DRAWINGS AND/OR WRITTEN REQUESTS ARE SUBMITTED TO THE OWNER/ARCHITECT FOR APPROVAL.
16. CONTRACTOR IS RESPONSIBLE TO RESTORE ALL AREAS OF THE SITE OR ADJACENT AREAS WHERE DISTURBED TO A CONDITION THAT MEETS OR EXCEEDS THE CONDITIONS PRIOR TO THE DISTURBANCE.
17. SEE SHEET L4.501 FOR PLANT SCHEDULE.

## LEGEND

| SYM | DESCRIPTION | DETAIL |
|---|---|---|
| | CANOPY TREES | A1 / L4.501 |
| | UNDERSTORY TREES | A1 / L4.501 |
| | EVERGREEN TREES | A2 / L4.501 |

NOTE: REFER TO CIVIL PLANS FOR EXISTING TREE DEMOLITION AND PRESERVATION SCOPE.

## PLANTING KEY

| SYM | BOTANICAL NAME | CULTIVAR |
|---|---|---|
| **DECIDUOUS CANOPY TREES** | | |
| AC RU | ACER RUBRUM | 'MARMO MORTON' |
| CE OC | CELTIS OCCIDENTALIS | 'PRAIRIE PRIDE' |
| GL TR | GLEDITSIA TRIACANTHOS | 'SKYLINE' |
| GY DI | GYMNOCLADUS DIOICUS | 'MORTON' |
| LI TU | LIRIODENDRON TULIPIFERA | 'LITTLE VOLUNTEER' |
| NY SY | NYSSA SYLVATICA | 'DAVID ODOM' |
| PL OC | PLATANUS X ACERIFOLIA | 'MORTON CIRCLE' |
| QU BI | QUERCUS BICOLOR | |
| QU NA | QUERCUS ROBUR x BICOLOR 'NADLER' PP 17604 | 'NADLER' |
| QU RU | QUERCUS RUBRA | |
| TA DI | TAXODIUM DISTICHUM | 'SHAWNEE BRAVE' |
| UL AM | ULMUS AMERICANA | 'MORTON GLOSSY' |
| **DECIDUOUS UNDERSTORY TREES** | | |
| AE PA | AESCULUS PAVIA | |
| AM AR | AMELANCHIER ARBOREA | 'AUTUMN BRILLIANCE' |
| CA CA | CARPINUS CAROLINIANA | 'NATIVE FLAME' |
| CE CA | CERCIS CANADENSIS | |
| CO AL | CORNUS ALTERNIFOLIA | |
| **EVERGREEN TREES** | | |
| JU BU | JUNIPERUS VIRGINIANA | 'BURKII' |
| JU TA | JUNIPERUS VIRGINIANA | 'TAYLOR' |
| JU VI | JUNIPERUS VIRGINIANA | 'CANAERTII' |
| TH GG | THUJA | 'GREEN GIANT' |

## LEGEND

| SYM | DESCRIPTION |
|---|---|
| | DECIDUOUS CANOPY TREE, B&B, 3" CALIPER |
| | DECIDUOUS UNDERSTORY TREE, B&B, 2" CALIPER |
| | EVERGREEN TREE, B&B, 8' HT. |
| | TURF SOD, TALL FESCUE TURF BLEND |
| | REINFORCED TURF SOD, TALL FESCUE TURF BLEND, WITH ST-ALOK FIBER TURF REINFORCEMENT (FOR FIRE ACCESS), 10" DEPTH SAND-BASED SOIL WITH FIBERS TILLED INTO TOP 4" |
| | MIXED PLANTING - MIX 1<br>50% SHRUBS, 5 GALLON, 36" O.C. / 50% PERENNIALS, GRASSES, 1 GALLON, 18" O.C. |
| | MIXED PLANTING - MIX 2<br>25% SHRUBS, 5 GALLON, 36" O.C. / 75% PERENNIALS, GRASSES, 1 GALLON, 18" O.C. |
| | MIXED PLANTING - MIX 3<br>STORMWATER PLANTING, 50% SHRUBS, 5 GALLON, 36" O.C. / 50% PERENNIALS, GRASSES, PLUGS, 15" O.C. |
| | SHRUB MIX<br>EVERGREEN / DECIDUOUS SHRUBS, 5 GALLON, 36" O.C. |
| | NATIVE SEED WITH EROSION CONTROL BLANKET |

NOTES:
1. LANDSCAPE EDGING TO BE 3/16" X 5.5" ALUMINUM LANDSCAPE EDGING, PROSLIDE BY PERMALOC, BLACK COLOR BOD
2. LANDSCAPE BOULDERS TO BE LOCALLY SOURCED

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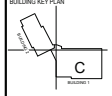
# LURIE CHILDREN'S HOSPITAL - DOWNERS GROVE

ANN & ROBERT H. LURIE CHILDREN'S HOSPITAL OF CHICAGO
3300 Lacey Rd, Downers Grove, IL 60515

DRAWING ISSUE

| # | DESCRIPTION | DATE |
|---|---|---|
| | DRAFT PUD | 06.17.2025 |
| | ISSUE FOR PUD | 06.26.2025 |
| | ISSUE FOR PUD (REV 1) | 07.22.2025 |

BUILDING KEY PLAN




DRAWING TITLE
PLANTING PLAN - AREA C

DRAWING NO.
L4.103

Job # 25.009982

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TREE PLANTING PLAN - AREA D
1" = 20'-0"

0' 10' 20' 40'

## PLANTING NOTES

1. PLANT NAMES MAY BE ABBREVIATED ON DRAWINGS. REFER TO PLANTING SCHEDULE AND LEGENDS FOR SYMBOLS, ABBREVIATIONS, BOTANICAL AND COMMON NAMES, SIZES, ESTIMATED QUANTITIES AND OTHER REMARKS.
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2. LANDSCAPE BOULDERS TO BE LOCALLY SOURCED

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# LURIE CHILDREN'S HOSPITAL - DOWNERS GROVE

ANN & ROBERT H. LURIE CHILDREN'S HOSPITAL OF CHICAGO
3300 Lacey Rd, Downers Grove, IL 60515

DRAWING ISSUE

| # | DESCRIPTION | DATE |
|---|---|---|
| | DRAFT PUD | 06.17.2025 |
| | ISSUE FOR PUD | 09.26.2025 |
| | ISSUE FOR PUD (REV 1) | 07.22.2026 |

BUILDING KEY PLAN




DRAWING TITLE
PLANTING PLAN - AREA D

DRAWING NO.
L4.104

Job # 25.009982

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## MIX 1

**50% shrubs** **5 gal** **36" O.C.**

| | | | |
|---|---|---|---|
| 20% | ju ka | Juniperus x pfitzeriana | Kallay's Compact' |
| 10% | ta ms | Thuja occidentalis | Fire Chief' |
| 10% | ta mi | Taxus x media | Everlow' |
| 5% | ar me | *Aronia melanocarpa* | Morton Iroquois Beauty' |
| 5% | ce am | *Ceanothus americanus* | |
| 5% | di lo | *Diervilla lonicera* | |
| 5% | ha vi | *Hamamelis virginiana* | |
| 10% | hy ar | *Hydrangea arborescens* | Annabelle |
| 10% | il ve | *Ilex verticillata* | Berry Poppins |
| 5% | my pe | *Myrica pensylvanica* | |
| 5% | ph op | *Physocarpus opulifolius* | Amber Jubilee |
| 10% | vi de | *Viburnum dentatum* | Blue Muffin |
| **100%** | | | |

**25% grasses** **1 gal** **24" O.C.**

| | | | |
|---|---|---|---|
| 10% | cp | Carex pensylvanica | |
| 15% | de | Deschampsia cespitosa | Goldtau |
| 10% | er | Eragrostis spectabilis | |
| 20% | pa | Panicum virgatum | Purple Tears |
| 20% | sc | Schizachyrium scoparium | Standing Ovation |
| 25% | sp | Sporobolus heterolepis | |
| **100%** | | | |

**25% perennials** **1 gal** **18" O.C.**

| | | | |
|---|---|---|---|
| 5% | aq | *Aquilegia canadensis* | |
| 5% | ar | *Aralia racemosa* | Sun King |
| 10% | ba | *Baptisia australis* | Purple Smoke |
| 5% | ec | *Echinacea pallida* | |
| 5% | ep | *Echinacea purpurea* | Pixie Meadowbrite |
| 5% | gg | *Geranium maculatum* | |
| 5% | li | *Liatris spicata* | Kobold |
| 5% | mo | *Monarda bradburiana* | |
| 10% | pi | *Parthenium integrifolium* | |
| 10% | pe | *Penstemon digitalis* | Husker Red |
| 5% | py | *Pycnanthemum muticum* | |
| 5% | sn | *Rudbeckia* | American Goldrush |
| 5% | sm | *Spigelia marilandica* | |
| 5% | sh | *Symphyotrichum novae-angliae* | Grape Crush |
| 15% | vn | *Vernonia* | Iron Butterfly |
| **100%** | | | |

**TOTAL SF OF PLANTING MIX 1 = 18,643 SF**
**SHRUBS = 9,321 SF**
**ORNAMENTAL GRASSES & SEDGES = 4,661 SF**
**HERBACEOUS PERENNIALS = 4,661 SF**

## MIX 2

**25% shrubs** **5 gal** **36" O.C.**

| | | | |
|---|---|---|---|
| 20% | ju ka | Juniperus x pfitzeriana | Kallay's Compact' |
| 10% | ta ms | Thuja occidentalis | Fire Chief' |
| 10% | ta mi | Taxus x media | Everlow' |
| 5% | ar me | *Aronia melanocarpa* | Morton Iroquois Beauty' |
| 5% | ce am | *Ceanothus americanus* | |
| 5% | di lo | *Diervilla lonicera* | |
| 5% | ha vi | *Hamamelis virginiana* | |
| 10% | hy ar | *Hydrangea arborescens* | Annabelle |
| 10% | il ve | *Ilex verticillata* | Berry Poppins |
| 5% | my pe | *Myrica pensylvanica* | |
| 5% | ph op | *Physocarpus opulifolius* | Amber Jubilee |
| 10% | vi de | *Viburnum dentatum* | Blue Muffin |
| **100%** | | | |

**30% grasses** **1 gal** **24" O.C.**

| | | | |
|---|---|---|---|
| 10% | cp | Carex pensylvanica | |
| 15% | de | Deschampsia cespitosa | Goldtau |
| 10% | er | Eragrostis spectabilis | |
| 20% | pa | Panicum virgatum | Purple Tears |
| 20% | sc | Schizachyrium scoparium | Standing Ovation |
| 25% | sp | Sporobolus heterolepis | |
| **100%** | | | |

**45% perennials** **1 gal** **18" O.C.**

| | | | |
|---|---|---|---|
| 5% | aq | *Aquilegia canadensis* | |
| 10% | am | *Amsonia hubrichtii* | |
| 5% | ar | *Aralia racemosa* | Sun King |
| 10% | ba | *Baptisia australis* | Purple Smoke |
| 5% | co | *Coreopsis lanceolata* | |
| 5% | ec | *Echinacea pallida* | |
| 5% | ep | *Echinacea purpurea* | Pixie Meadowbrite |
| 5% | ey | *Eryngium yuccifolium* | Prairie Moon |
| 5% | eu | *Eutrochium maculatum* | Gateway |
| 5% | ge | *Geranium maculatum* | |
| 5% | li | *Liatris spicata* | Kobold |
| 5% | mo | *Monarda bradburiana* | |
| 5% | pi | *Parthenium integrifolium* | |
| 5% | pe | *Penstemon digitalis* | Husker Red |
| 5% | py | *Pycnanthemum muticum* | |
| 5% | sn | *Rudbeckia* | American Goldrush |
| 5% | sm | *Spigelia marilandica* | |
| 5% | sh | *Symphyotrichum novae-angliae* | Grape Crush |
| **100%** | | | |

**TOTAL SF = 17,982 SF**
**SHRUBS = 4,495 SF**
**ORNAMENTAL GRASSES & SEDGES = 5,395 SF**
**HERBACEOUS PERENNIALS = 8,092 SF**

## MIX 3 - STORMWATER

**50% shrubs** **5 gal** **36" O.C.**

| | | | |
|---|---|---|---|
| 20% | ar me | *Aronia melanocarpa* | Morton Iroquois Beauty' |
| 40% | il ve | *Ilex verticillata* | Berry Poppins |
| 40% | co si | *Cornus sericea* | Arctic Fire |
| **100%** | | | |

**25% grasses** **Plugs** **15" O.C.**

| | | | |
|---|---|---|---|
| 10% | ca | Carex grayi | |
| 5% | cm | Carex muskingumensis | |
| 10% | cs | Carex stricta | |
| 15% | cv | Carex vulpinoidea | |
| 15% | ju | Juncus effusus | |
| 15% | pa | Panicum virgatum | Heavy Metal' |
| 15% | sc | Schizachyrium scoparium | Standing Ovation' |
| 15% | sp | Sporobolus heterolepis | |
| **100%** | | | |

**25% perennials** **Plugs** **15" O.C.**

| | | | |
|---|---|---|---|
| 15% | ai | *Amsonia illustris* | |
| 15% | ba | *Baptisia australis* | Purple Smoke |
| 10% | co | *Coreopsis lanceolata* | |
| 15% | ed | *Eutrochium dubium* | Little Joe |
| 10% | hi | *Hibiscus moscheutos* | |
| 10% | ir | *Iris virginica var. shrevei* | |
| 15% | li | *Liatris spicata* | |
| 10% | ve | *Veronicastrum virginicum* | |
| **100%** | | | |

**TOTAL SF = 17,524 SF**
**SHRUBS = 8,762 SF**
**ORNAMENTAL GRASSES & SEDGES = 4,381 SF**
**HERBACEOUS PERENNIALS = 4,381 SF**

## SHRUB MIX

**100% shrubs** **5 gal** **48" O.C.**

| | | | |
|---|---|---|---|
| 10% | ju ka | Juniperus x pfitzeriana | Kallay's Compact' |
| 10% | ta ms | Thuja occidentalis | Fire Chief' |
| 10% | ar me | *Aronia melanocarpa* | Morton Iroquois Beauty' |
| 5% | ce am | *Ceanothus americanus* | |
| 10% | co am | *Corylus americana* | |
| 5% | di lo | *Diervilla lonicera* | |
| 10% | hy ar | *Hydrangea arborescens* | Annabelle |
| 10% | il ve | *Ilex verticillata* | Berry Poppins |
| 10% | my pe | *Myrica pensylvanica* | |
| 5% | ph op | *Physocarpus opulifolius* | Amber Jubilee |
| 10% | vi de | *Viburnum dentatum* | Blue Muffin |
| 5% | vi pr | *Viburnum prunifolium* | |
| **100%** | | | |

**TOTAL SF = 5,5713 SF**

**NOTES:**
A SIGNIFICANT PERCENTAGE OF THE PLANTS UTILIZED ARE NATIVE SPECIES AND CULTIVARS. ALL PROPOSED PLANT SPECIES ARE EITHER NATIVE OR ADAPTED TO THE REGION.

## PLANTING SCHEDULE

| QTY | SYM | BOTANICAL NAME | CULTIVAR | COMMON NAME | NATIVE (STRAIGHT) | NATIVE (CULTIVAR) | SIZE | METHOD | SPACING | COMMENTS |
|---|---|---|---|---|---|---|---|---|---|---|
| **DECIDUOUS CANOPY TREES** | | | | | | | | | | |
| 10 | AC RU | ACER RUBRUM | 'MARMO MORTON' | RED MAPLE | | | 2.5" CAL | B&B | PER PLAN | |
| 14 | CE OC | CELTIS OCCIDENTALIS | 'PRAIRIE PRIDE' | HACKBERRY | | | 2.5" CAL | B&B | PER PLAN | |
| 44 | GL TR | GLEDITSIA TRIACANTHOS | 'SKYLINE' | HONEY LOCUST | | | 2.5" CAL | B&B | PER PLAN | |
| 22 | GY DI | GYMNOCLADUS DIOICUS | 'MORTON' | KENTUCKY COFFEE TREE | | | 2.5" CAL | B&B | PER PLAN | |
| 12 | LI TU | LIRODENDRON TULIPIFERA | 'LITTLE VOLUNTEER' | TULIP TREE | | | 2.5" CAL | B&B | PER PLAN | |
| 26 | NY SY | NYSSA SYLVATICA | 'DAVID ODOM' | BLACK GUM | | | 2.5" CAL | B&B | PER PLAN | |
| 2 | PL OC | PLATANUS X ACERIFOLIA | 'MORTON CIRCLE' | AMERICAN SYCAMORE | | | 2.5" CAL | B&B | PER PLAN | |
| 37 | QU BI | QUERCUS BICOLOR | | SWAMP WHITE OAK | | | 2.5" CAL | B&B | PER PLAN | |
| 8 | QU NA | QUERCUS ROBUR × BICOLOR 'NADLER' PP 17924 | 'NADLER' | KINDRED SPIRIT OAK | | | 2.5" CAL | B&B | PER PLAN | |
| 14 | QU RU | QUERCUS RUBRA | | RED OAK | | | 2.5" CAL | B&B | PER PLAN | |
| 6 | TA DI | TAXODIUM DISTICHUM | 'SHAWNEE BRAVE' | BALD CYPRESS | | | 2.5" CAL | B&B | PER PLAN | |
| 28 | UL AM | ULMUS AMERICANA | 'MORTON GLOSSY' | AMERICAN ELM | | | 2.5" CAL | B&B | PER PLAN | |
| **DECIDUOUS UNDERSTORY TREES** | | | | | | | | | | |
| 18 | AE PA | AESCULUS PAVIA | | RED BUCKEYE | | | 2.5" CAL | B&B | PER PLAN | |
| 51 | AM AR | AMELANCHIER ARBOREA | 'AUTUMN BRILLIANCE' | DOWNY SERVICEBERRY | | | 2.5" CAL | B&B | PER PLAN | |
| 45 | CA CA | CARPINUS CAROLINIANA | 'NATIVE FLAME' | AMERICAN HORNBEAM | | | 2.5" CAL | B&B | PER PLAN | |
| 37 | CE CA | CERCIS CANADENSIS | | EASTERN REDBUD | | | 2.5" CAL | B&B | PER PLAN | |
| 21 | CO AL | CORNUS ALTERNIFOLIA | | PAGODA DOGWOOD | | | 2.5" CAL | B&B | PER PLAN | |
| **EVERGREEN TREES** | | | | | | | | | | |
| 13 | JU BU | JUNIPERUS VIRGINIANA | 'BURKII' | EASTERN RED CEDAR | | | 6' | B&B | PER PLAN | |
| 6 | JU TA | JUNIPERUS VIRGINIANA | 'TAYLOR' | EASTERN RED CEDAR | | | 6' | B&B | PER PLAN | |
| 55 | JU VI | JUNIPERUS VIRGINIANA | 'CANAERTII' | EASTERN RED CEDAR | | | 6' | B&B | PER PLAN | |
| 44 | TH GG | THUJA | 'GREEN GIANT' | ARBORVITAE | | | 6' | B&B | PER PLAN | |

**SEED & SOD**

| AREA | SYM | DESCRIPTION | MANUFACTURER | METHOD | COMMENTS |
|---|---|---|---|---|---|
| 89495 SF | SODDED LAWN | LAWN SOD | | SOD | |
| 9279 SF | SODDED LAWN - REINFORCED | REINFORCED TURF | | SOD | |

## GENERAL PLANTING AREAS

| | | | SHRUBS | | | PERENNIALS | | | GRASSES | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| AREA | SYM | DESCRIPTION | % | SPACING | QTY | % | SPACING | QTY | % | SPACING | QTY |
| 18643 SF | P1 | PLANTING MIX 1 | 50% | 36" OC | 1027 | 25% | 18" OC | 4662 | 25% | 24" OC | 4662 |
| 17982 SF | P2 | PLANTING MIX 2 | 25% | 36" OC | 495 | 45% | 18" OC | 3562 | 30% | 24" OC | 5396 |
| 17524 SF | P3 | PLANTING MIX 3 | 50% | 36" OC | 702 | 25% | 15" OC | 1928 | 25% | 15" OC | 4382 |
| 55713 SF | sh mx | SHRUB MIX | 100% | 48" OC | 6130 | | | 0 | | | 0 |

**GENERAL NOTES:**

1. WHERE PROVIDED, AREA TAKEOFFS AND PLANT QUANTITY ESTIMATES IN PLANTING SCHEDULE ARE FOR INFORMATION ONLY. CONTRACTOR IS RESPONSIBLE TO DO THEIR OWN QUANTITY TAKEOFFS FOR ALL PLANT MATERIAL AND SIZES SHOWN ON THE DRAWINGS. IN CASE OF DISCREPANCIES, BRING TO THE ATTENTION OF THE LANDSCAPE ARCHITECT FOR CLARIFICATION.

2. ALL PLANTING MIX AREAS WITH MORE THAN ONE PLANT TYPE PER AREA TO BE INSTALLED IN RANDOM, NATURALISTIC, TRIANGULAR SPACING WITH EACH PLANT IN TYPICAL GROUPINGS OF 7 (MIN) TO 15 (MAX) PLANTS PER MASSING.


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# LURIE CHILDREN'S HOSPITAL - DOWNERS GROVE

ANN & ROBERT H. LURIE CHILDREN'S HOSPITAL OF CHICAGO
3300 Lacey Rd, Downers Grove, IL 60515

DRAWING ISSUE

| # | DESCRIPTION | DATE |
|---|---|---|
| | DRAFT PUD | 06.17.2025 |
| | ISSUE FOR PUD | 09.26.2025 |
| | ISSUE FOR PUD (REV 1) | 07.22.2026 |

BUILDING KEY PLAN




DRAWING TITLE
PLANTING SCHEDULE

DRAWING NO.
L4.601

Job #: 25.009982


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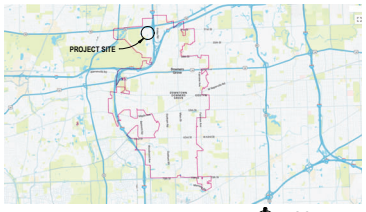
# LURIE CHILDREN'S HOSPITAL - DOWNERS GROVE

## ANN & ROBERT H. LURIE CHILDREN'S HOSPITAL OF CHICAGO
## 3300 LACEY RD, DOWNERS GROVE, IL 60515






REGIONAL MAP

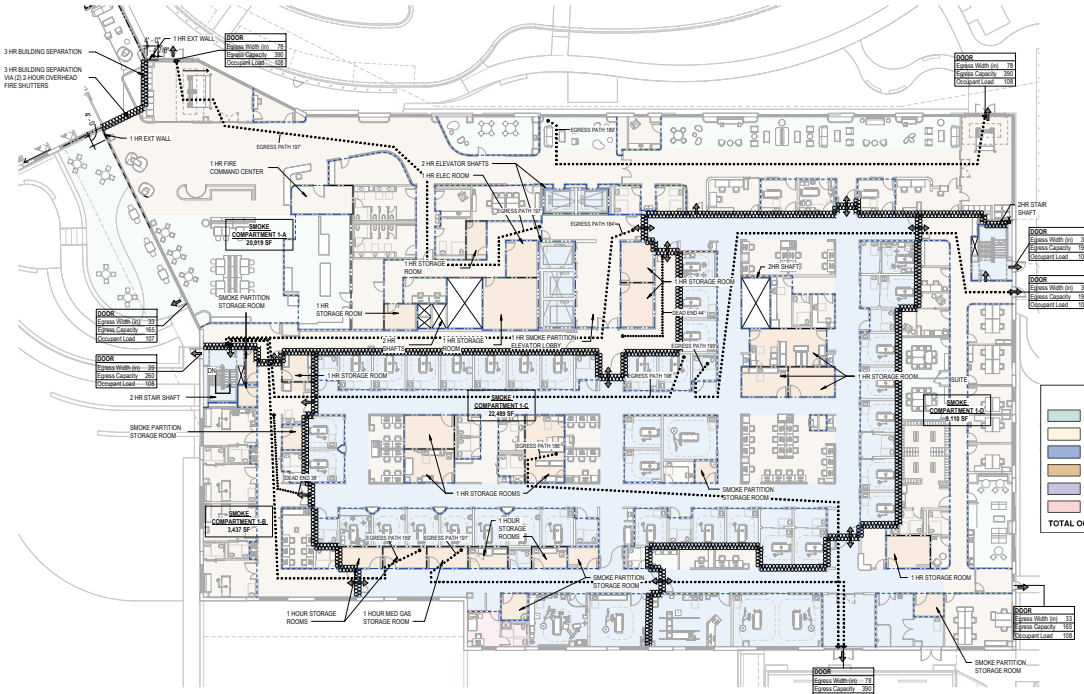



LOCAL MAP

***ISSUE FOR PUD (REV 1) - 07.22.2026***

| | |
|---|---|
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| CONTRACTOR/DEVELOPER<br>CLAYCO<br>THE ART & SCIENCE OF BUILDING<br>35 E WACKER DR, STE 1300<br>CHICAGO, IL 60601<br>Ph 312.698.0747<br>WWW.CLAYCORP.COM | CONTRACTOR/DEVELOPER<br>Skender<br>1330 W FULTON ST, STE 200<br>CHICAGO, IL 60607<br>Ph 312.781.0265<br>WWW.SKENDER.COM |
| CIVIL ENGINEER<br>RWG ENGINEERING, LLC<br>975 E 22ND ST, STE 400<br>WHEATON, IL 60189<br>Ph 630.480.7889<br>WWW.RWG-ENGINEERING.COM | LANDSCAPE ARCHITECT<br>LJC DESIGN & ENGINEERING<br>35 E WACKER DR, STE 1300<br>CHICAGO, IL 60601<br>Ph 312.429.0400<br>WWW.THELJC.COM |
| ENERGY MODELING<br>AFFILIATED ENGINEERS, INC<br>10 S LASALLE ST, STE 2700<br>CHICAGO, IL 60603<br>Ph 312.977.2800<br>WWW.AEICONSULTANTS.COM | CODE CONSULTANT<br>CODE CONSULTANTS, INC.<br>1005 INTERNATIONALE PARKWAY, STE 210<br>WOODRIDGE, IL 60517<br>Ph 708.781.9147<br>WWW.CODECONSULTANTS.COM |
| PARKING ANALYSIS<br>KENIG, LINDGREN, O'HARA, ABOONA, INC<br>9575 W HIGGINS RD, STE 400<br>ROSEMONT, IL 60018<br>Ph 847.518.9990<br>WWW.KLOAINC.COM | LIGHTING DESIGNER<br>PIVOTAL LIGHTING DESIGN<br>10 S LASALLE ST, STE 2700<br>CHICAGO, IL 60603<br>Ph 312.977.2800<br>WWW.AEICONSULTANTS.COM |
| | SIGNAGE<br>FOURFOUR<br>Ph 630.661.3676<br>WWW.FOURFOURDESIGN.COM |

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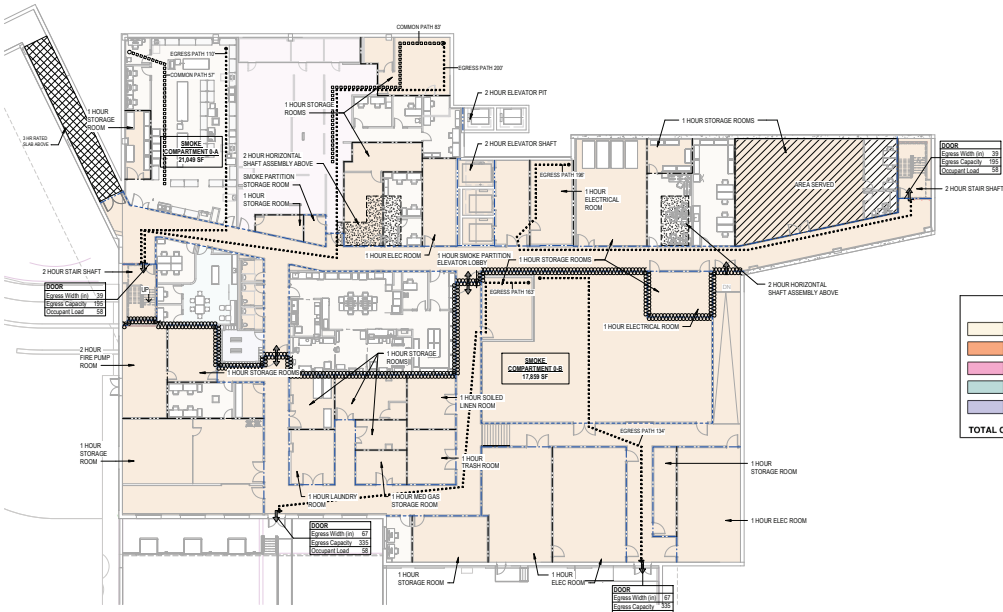



A4 (SUB-D) LIFE SAFETY PLAN - BLDG 1 - LEVEL 1
1/16" = 1'-0"

**OCCUPANT LOAD CALCULATION**

| | |
|---|---|
| WAITING/ DINING/ CONFERENCE/ LOUNGE:: | 6,559 SF / 15 SF PER PERSON = 516 |
| OUTPATIENT/ BUSINESS/ CIRCULATION: | 22,700 SF / 100 SF PER PERSON = 217 |
| INPATIENT/CIRCULATION: | 23,931 SF / 240 SF PER PERSON = 100 |
| STORAGE/ MEP: | 4,392 SF / 300 SF PER PERSON = 15 |
| LOCKER ROOMS: | 635 SF / 50 SF PER PERSON = 13 |
| RESIDENTIAL: | 283 SF / 200 SF PER PERSON = 2 |

**TOTAL OCCUPANT LOAD = 863** **EXIT CAPACITY REQUIRED = 173"**




A1 (SUB-D) LIFE SAFETY PLAN - BLDG 1 - LOWER LEVEL 01
1/16" = 1'-0"

**OCCUPANT LOAD CALCULATION**

| | |
|---|---|
| BUSINESS/CIRCULATION: | 7,552 SF / 100 SF PER PERSON = 76 |
| STORAGE/ MEP /CIRCULATION: | 30,017 SF / 300 SF PER PERSON = 101 |
| KITCHEN: | 2,700 SF / 200 SF PER PERSON = 14 |
| BREAK: | 530 SF / 15 SF PER PERSON = 36 |
| LOCKERS: | 210 SF / 50 SF PER PERSON = 5 |

**TOTAL OCCUPANT LOAD = 232** **EXIT CAPACITY REQUIRED = 47"**

# CODE / LIFESAFETY DATA

**LEGEND**

FEC — FIRE EXTINGUISHER (WALL CABINET)
FE — FIRE EXTINGUISHER (HOOK MOUNTED)
EXIT SIGN
DOOR # / Egress Width (in) # / Egress Capacity # / Occupant Load # — EXIT CAPACITY (OCCUPANTS)
1 HOUR FIRE RATING
SMOKE PARTITION
1 HOUR RATED SMOKE BARRIER
2 HOUR RATED SMOKE BARRIER
3 HOUR RATED SMOKE BARRIER
EGRESS PATH
COMMON PATH
DEAD END PATH

**APPLICABLE CODES**

**CODE INFO**

| | |
|---|---|
| BUILDING: | 2021 IBC W/ DOWNERS GROVE AMEND. |
| MECHANICAL: | 2021 IMC W/ DOWNERS GROVE AMEND. |
| ELECTRICAL: | 2020 NEC W/ DOWNERS GROVE AMEND. |
| PLUMBING: | ILLINOIS PLUMBING CODE W/ DOWNERS GROVE AMEND. |
| ENERGY: | 2024 ILLINOIS ENERGY CONSERVATION CODE WITH D.G. |
| ACCESSIBILITY: | 2010 ADAAG, ILLINOIS ACCESSIBILITY CODE |
| FIRE: | 2021 IFC W/ DOWNERS GROVE AMEND. 2015 FC, AS ADOPTED BY OSFM |
| HEALTH CARE: | 2012 HCFC IL ADMIN CODE IAC TITLE 77, PART 250, SUBPART T |
| LIFE SAFETY: | 2018 FGI HOSPITALS, 2018 FGI OUTPATIENT FACILITIES 2012 LSC, AS ADOPTED BY CMS, TJC, IDPH 2015 LSC, AS ADOPTED BY OSFM |
| FIRE ALARM: | 2025" NFASC W/ DOWNERS GROVE AMEND. |
| SPRINKLER: | 2025" NFPA 13 W/ DOWNERS GROVE AMEND. |
| EM. POWER: | 2019" NFPA 110 W/ DOWNERS GROVE AMEND. |
| FUEL GAS: | 2021 IFGC W/ DOWNERS GROVE AMEND. |
| PROP. MAINT.: | 2021 IPMC W/ DOWNERS GROVE AMEND. |
| ORD.: | DG MUNICIPAL CODE ART. 28 DOWNERS GROVE STORMWATER & FLOOD PLAIN ORD. |

*Note: The referenced standards identified for this project are those referenced by The Village of Downers Grove. Other applicable editions of these standards, such as those adopted and enforced by the Centers for Medicare & Medicaid Services (CMS), the Illinois Department of Public Health (IDPH), and The Joint Commission (TJC) as referenced by the 2012 edition of NFPA 101, Life Safety Code. Where multiple adopted codes or referenced standards apply, the design has been developed to comply with the most restrictive applicable requirement.

**CONSTRUCTION TYPE / USE GROUP / FIRE PROTECTION**

CONSTRUCTION TYPE:
I,SC TYPE II (222), IBC TYPE IB PROTECTED NONCOMBUSTIBLE
NON-SEPARATED MIXED-USE OCCUPANCY GROUPS:
I-2: INSTITUTIONAL CONDITION 2 HEALTH CARE (HOSPITAL)
A-3: ASSEMBLY (ACCESSORY)
B: BUSINESS (ACCESSORY)
S-2: LOW-HAZARD STORAGE (ACCESSORY)

FIRE PROTECTION SYSTEM(S):

| | |
|---|---|
| AUTOMATIC SPRINKLERS: | FULLY SPRINKLERED |
| FIRE HOSE CABINETS: | NOT REQUIRED |
| STANDPIPES: | CLASS I |
| FIRE EXTINGUISHERS: | 75'-0" MAX. TRAVEL DISTANCE (FOR CLASS A HAZARDS) |
| FIRE ALARM: | MANUAL & AUTOMATIC, FD COMM, VOICE/ALARM |

**FIRE RESISTANCE RATINGS IB**

EXIT ENCLOSURES:

| | |
|---|---|
| HORIZONTAL EXIT | |
| STAIR ENCLOSURES | 2 HOURS |
| EXIT PASSAGEWAY | |
| CORRIDORS | SMOKE PARTITION |

**BUILDING & STRUCTURE ELEMENTS**

| | |
|---|---|
| PRIMARY STRUCTURAL FRAME* | 2 HOURS |
| *SUPPORTING ROOF ONLY | 1 HOUR |
| EXT & INT BEARING WALLS* | 2 HOURS |
| *SUPPORTING ROOF ONLY | 1 HOUR |
| EXT & INT NONBEARING WALLS* | 0 HOUR |
| * 1 HOUR AS REQ'D FOR FIRE SEPARATION DISTANCE PER TABLE 705.5 | |
| FLOOR CONSTRUCTION | 2 HOURS |
| ROOF CONSTRUCTION | 1 HOUR* |
| *F-1, H, M, & S-1 WHERE ROOF IS 20' MIN. FROM FLOOR BELOW | 0 HOUR |
| SHAFTS | 2 HOURS |
| ELEVATOR ENCLOSURES | 2 HOURS |
| ELEVATOR MACHINE ROOMS | 2 HOURS |
| FIRE PUMP ROOMS, HIGH-RISE | 2 HOURS |
| FIRE COMMAND CENTER | 1 HOURS |
| EMERGENCY GENERATOR ROOMS | 2 HOUR |
| NON-SPRINKLERED ELEC ROOMS | 2 HOURS |
| BOILER & FUEL-FIRED HEATER ROOMS | 1 HOUR |
| STORAGE ROOMS > 100 SF | 1 HOUR |
| SOILED LINEN ROOMS | 1 HOUR |
| TRASH COLLECTION ROOMS | 1 HOUR |
| 50 SF < STORAGE ROOMS < 100 SF | SMOKE PARTITION |
| CENTRAL/BULK LAUNDRY > 100 SF | 1 HOUR |
| MEDICAL GAS STORAGE ROOMS | 1 HOUR |
| GAS MANIFOLD ROOM | 1 HOUR |
| ELEC ROOMS W/ TF/ORMERS > 112.5 KVA | 1 HOUR |
| SEPARATION BTWN BLDGS | 3 HOURS |
| SMOKE COMPARTMENT | 1 HOUR & SMOKE BARRIER |
| NOTE: THE RATING OF THE BUILDING STRUCTURE CANNOT BE LESS THAN THE ASSEMBLY IT SUPPORTS | |

**BUILDING HEIGHT**

| | |
|---|---|
| ALLOWABLE HEIGHT: | UNLIMITED, 180' |
| ACTUAL HEIGHT: | 4 STORIES, 68', EXCL PENTHOUSE |

**PLAN AREA DATA**

| | |
|---|---|
| ALLOWABLE AREA: | S.F. AREA: |
| TABULAR AREA - (TABLE 506.2) | UNLIMITED |
| PENTHOUSE | 18198 SF |
| LEVEL 4 | 29779 SF |
| LEVEL 3 | 29779 SF |
| LEVEL 2 | 57048 SF |
| LEVEL 1 | 58446 SF |
| LOWER LEVEL | 41752 SF |
| ACTUAL TOTAL BUILDING AREA: | 235002 SF |

**OCCUPANT LOAD**

| OCCUPANT LOAD FACTORS | SF/OCC |
|---|---|
| INSTITUTIONAL SLEEPING | 120 |
| INSTITUTIONAL TREATMENT | 240 |
| ASSEMBLY (A-3) | 15 |
| BUSINESS (B) | 100 |
| STORAGE (S-1) | 300 |

| FLOOR LEVEL | LOAD |
|---|---|
| LEVEL 4 | 259 |
| LEVEL 3 | 245 |
| LEVEL 2 | 373 |
| LEVEL 1 | 863 |
| LOWER LEVEL | 232 |
| ACTUAL TOTAL BUILDING AREA: | 1972 |

**EXIT CAPACITY**

FIRE AREA: SINGLE
FLOOR LEVEL: ENTIRE BUILDING

| ZONE / FLOOR | OCC LOAD | EXIT TYPE & CAPACITY | WIDTH REQUIRED | WIDTH PROVIDED |
|---|---|---|---|---|
| LEVEL 4 | 345 | STAIRS @ 0.3" / OCC | 103.5" | 108" |
| | | DOORS @ 0.2" / OCC | 69" | 78" |
| LEVEL 3 | 333 | STAIRS @ 0.3" / OCC | 99.9" | 108" |
| | | DOORS @ 0.2" / OCC | 66.6" | 78" |
| LEVEL 2 | 373 | STAIRS @ 0.3" / OCC | 111.9" | 108" |
| | | DOORS @ 0.2" / OCC | 74.6" | 78" |
| LEVEL 1 | 863 | STAIRS @ 0.3" / OCC | 0" | 0" |
| | | DOORS @ 0.2" / OCC | 172.6" | 417" |
| LOWER LEVEL | 232 | STAIRS @ 0.3" / OCC | 69.6" | 108" |
| | | DOORS @ 0.2" / OCC | 46.4" | 212" |

**NUMBER OF EXITS**

| | |
|---|---|
| OCC LOAD < 501 | 2 |
| OCC LOAD > 500 | 3 |
| OCC LOAD > 1,000 | 4 |
| SLEEPING SUITE > 1,000 SF | 2 |
| CARE SUITE > 2,500 SF | 2 |

**CORRIDOR MINIMUM CLEAR WIDTH**

| | |
|---|---|
| HEALTHCARE, WHERE REQ'D FOR BEDS MOV'T | 96" |
| OTHER USE GROUPS | 44" |
| AREAS W/ OCC LOAD < 50 | 36" |
| ACCESS TO & UTILITIZATION OF MECH, PLUMB, OR ELEC EQPT | 24" |

**TRAVEL DISTANCES**

| | |
|---|---|
| MAX. EGRESS TRAVEL DISTANCE: (W/ AUTOMATIC SPRINKLER PROTECTION) | I-2 OCCUPANCY = 200' |
| | A-2 OCCUPANCY = 250' |
| | B OCCUPANCY = 300' |
| | S-1 OCCUPANCY = 250' |
| COMMON PATH OF TRAVEL: | I-2 OCCUPANCY = 100' |
| | A-2 OCCUPANCY* = 20' |
| | *LESS THAN 51 OCCUPANTS = 75' |
| | B OCCUPANCY = 100' |
| | S-1 OCCUPANCY = 100' |
| DEAD END CORRIDORS: | I-2 OCCUPANCY = 20' |
| | A-2 OCCUPANCY = 20' |
| | B OCCUPANCY = 50' |
| | S-1 OCCUPANCY = 50' |
| SLEEPING ROOM TRAVEL DISTANCE BTWN ANY POINT AND AN EXIT ACCESS DOOR: | I-2 OCCUPANCY = 50' |
| TRAVEL DISTANCE BTWN ANY POINT AND AN EXIT: | I-2 OCCUPANCY = 200' |
| TRAVEL DISTANCE BTWN ANY POINT IN A SMOKE COMPARTMENT TO A SMOKE BARRIER DOOR: | I-2 OCCUPANCY = 200' |
| TRAVEL DISTANCE WIN SUITE TO EXIT ACCESS DOOR TO A CORRIDOR OR HORIZONTAL EXIT: | I-2 OCCUPANCY = 100' |
| TRAVEL DISTANCE WIN SUITE TO EXIT: | I-2 OCCUPANCY = 200' |


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# LURIE CHILDREN'S HOSPITAL - DOWNERS GROVE

ANN & ROBERT H. LURIE CHILDREN'S HOSPITAL OF CHICAGO
3300 Lacey Rd, Downers Grove, IL 60515

DRAWING ISSUE

| # | DESCRIPTION | DATE |
|---|---|---|
| 1 | ISSUE FOR PUD | 06.25.2026 |
| | ISSUE FOR PUD (REV 1) | 07.22.2026 |

BUILDING KEY PLAN



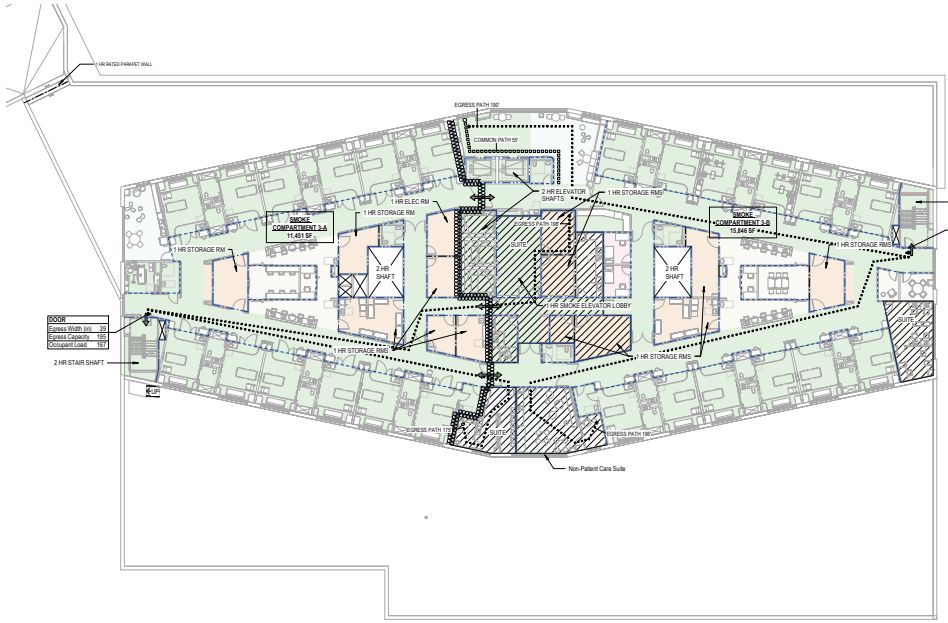

SCALE: As Indicated
0' 8' 16' 32'

DRAWING TITLE
LIFE SAFETY PLAN - BLDG 1 - LOWER LEVEL & LEVEL 1

DRAWING NO.
PUD-03

Job # 25.009982

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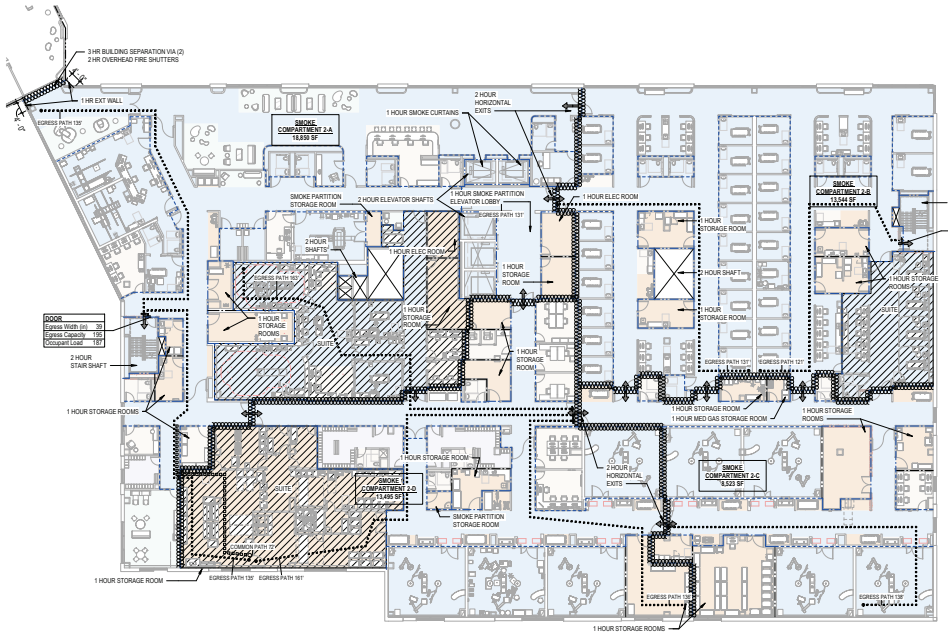



LIFE SAFETY PLAN - BLDG 1 - LEVEL 3
A4 (SUB-04) 1/16" = 1'-0"

**OCCUPANT LOAD CALCULATION**

| | |
|---|---|
| WAITING/ DINING/ LOUNGE: | 1,587 SF / 15 SF PER PERSON = 107 |
| BUSINESS/ CIRCULATION: | 3,172 SF / 100 SF PER PERSON = 33 |
| INPATIENT SLEEPING/ CIRCULATION: | 20,709 SF / 120 SF PER PERSON = 173 |
| STORAGE/ MEP: | 3,049 SF / 300 SF PER PERSON = 11 |
| LOCKER ROOMS: | 316 SF / 50 SF PER PERSON = 7 |
| RESIDENTIAL: | 238 SF / 200 SF PER PERSON = 2 |

**TOTAL OCCUPANT LOAD = 333** **EXIT CAPACITY REQUIRED = 67"**




LIFE SAFETY PLAN - BLDG 1 - LEVEL 2
A3 (SUB-04) 1/16" = 1'-0"

**OCCUPANT LOAD CALCULATION**

| | |
|---|---|
| WAITING: | 1,521 SF / 15 SF PER PERSON = 102 |
| BUSINESS/CIRCULATION: | 5,503 SF / 100 SF PER PERSON = 57 |
| STORAGE/ MEP: | 8,662 SF / 300 SF PER PERSON = 31 |
| LOCKER ROOMS: | 856 SF / 50 SF PER PERSON = 18 |
| INPATIENT/CIRCULATION: | 39,760 SF / 240 SF PER PERSON = 165 |

**TOTAL OCCUPANT LOAD = 373** **EXIT CAPACITY REQUIRED = 75"**

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# CODE / LIFESAFETY DATA

**LEGEND**

FEC / FE — FIRE EXTINGUISHER (WALL CABINET)
FE — FIRE EXTINGUISHER (HOOK MOUNTED)
EXIT SIGN
DOOR # / Egress Width (in) # / Egress Capacity # / Occupant Load # — EXIT CAPACITY (OCCUPANTS)
1 HOUR FIRE RATING
SMOKE PARTITION
1 HOUR RATED SMOKE BARRIER
2 HOUR RATED SMOKE BARRIER
3 HOUR RATED SMOKE BARRIER
EGRESS PATH
COMMON PATH
DEAD END PATH

**APPLICABLE CODES**

**CODE INFO**

| | |
|---|---|
| BUILDING: | 2021 IBC W/ DOWNERS GROVE AMEND. |
| MECHANICAL: | 2021 IMC W/ DOWNERS GROVE AMEND. |
| ELECTRICAL: | 2020 NEC W/ DOWNERS GROVE AMEND. |
| PLUMBING: | ILLINOIS PLUMBING CODE W/ DOWNERS GROVE AMEND. |
| ENERGY: | 2024 ILLINOIS ENERGY CONSERVATION CODE WITH D.G. |
| ACCESSIBILITY: | 2010 ADAAG, ILLINOIS ACCESSIBILITY CODE |
| FIRE: | 2021 IFC W/ DOWNERS GROVE AMEND. 2015 FC, AS ADOPTED BY OSFM |
| HEALTH CARE: | 2012 HCFC IL ADMIN CODE IAC TITLE 77, PART 250, SUBPART T 2018 FGI HOSPITALS, 2018 FGI OUTPATIENT FACILITIES |
| LIFE SAFETY: | 2012 LSC, AS ADOPTED BY CMS, TJC, IDPH 2015 LSC, AS ADOPTED BY OSFM |
| FIRE ALARM: | 2025* NFAGC W/ DOWNERS GROVE AMEND. |
| SPRINKLER: | 2025* NFPA 13 W/ DOWNERS GROVE AMEND. |
| EM. POWER: | 2019* NFPA 110 W/ DOWNERS GROVE AMEND. |
| FUEL GAS: | 2021 IFGC W/ DOWNERS GROVE AMEND. |
| PROP. MAINT.: | 2021 IPMC W/ DOWNERS GROVE AMEND. |
| ORD.: | DG MUNICIPAL CODE ART. 28 DOWNERS GROVE STORMWATER & FLOOD PLAIN ORD. |

*Note: The referenced standards identified for this project are those referenced by The Village of Downers Grove. Other applicable editions of these standards, such as those adopted and enforced by the Centers for Medicare & Medicaid Services (CMS), the Illinois Department of Public Health (IDPH), and The Joint Commission (TJC) as referenced by the 2012 edition of NFPA 101, Life Safety Code. Where multiple adopted codes or referenced standards apply, the design has been developed to comply with the most restrictive applicable requirement.

**CONSTRUCTION TYPE / USE GROUP / FIRE PROTECTION**

CONSTRUCTION TYPE:
LSC TYPE II (222), IBC TYPE IB PROTECTED NONCOMBUSTIBLE
NON-SEPARATED MIXED-USE OCCUPANCY GROUPS:
I-2: INSTITUTIONAL CONDITION 2 HEALTH CARE (HOSPITAL)
A-3: ASSEMBLY (ACCESSORY)
B: BUSINESS (ACCESSORY)
S-2: LOW-HAZARD STORAGE (ACCESSORY)
FIRE PROTECTION SYSTEM(S):

| | |
|---|---|
| AUTOMATIC SPRINKLERS: | FULLY SPRINKLERED |
| FIRE HOSE CABINETS: | NOT REQUIRED |
| STANDPIPES: | CLASS I |
| FIRE EXTINGUISHERS: | 75'-0" MAX. TRAVEL DISTANCE (FOR CLASS A HAZARDS) |
| FIRE ALARM: | MANUAL & AUTOMATIC, FD COMM, VOICE/ALARM |

**FIRE RESISTANCE RATINGS IB**

| | |
|---|---|
| EXIT ENCLOSURES: | |
| HORIZONTAL EXIT | |
| STAIR ENCLOSURES | 2 HOURS |
| EXIT PASSAGEWAY | |
| CORRIDORS | SMOKE PARTITION |

**BUILDING & STRUCTURE ELEMENTS**

| | |
|---|---|
| PRIMARY STRUCTURAL FRAME* | 2 HOURS |
| *SUPPORTING ROOF ONLY | 1 HOUR |
| EXT & INT BEARING WALLS* | 2 HOURS |
| *SUPPORTING ROOF ONLY | 1 HOUR |
| EXT & INT NONBEARING WALLS* | 0 HOUR |
| * 1 HOUR AS REQ'D FOR FIRE SEPARATION DISTANCE PER TABLE 705.5 | |
| FLOOR CONSTRUCTION | 2 HOURS |
| ROOF CONSTRUCTION | 1 HOUR* |
| *F-1, H, M, & S-1 WHERE ROOF IS 20' MIN. FROM FLOOR BELOW | 0 HOUR |
| SHAFTS | 2 HOURS |
| ELEVATOR ENCLOSURES | 2 HOURS |
| ELEVATOR MACHINE ROOMS | 2 HOURS |
| FIRE PUMP ROOMS, HIGH-RISE | 2 HOURS |
| FIRE COMMAND CENTER | 1 HOURS |
| EMERGENCY GENERATOR ROOMS | 2 HOUR |
| NON-SPRINKLERED ELEC ROOMS | 2 HOURS |
| BOILER & FUEL-FIRED HEATER ROOMS | 1 HOUR |
| STORAGE ROOMS > 100 SF | 1 HOUR |
| SOILED LINEN ROOMS | 1 HOUR |
| TRASH COLLECTION ROOMS | 1 HOUR |
| 50 SF < STORAGE ROOMS < 100 SF | SMOKE PARTITION |
| CENTRAL/BULK LAUNDRY > 100 SF | 1 HOUR |
| MEDICAL GAS STORAGE ROOMS | 1 HOUR |
| GAS MANIFOLD ROOM | 1 HOUR |
| ELEC ROOMS W/ TF/ORMERS > 112.5 KVA | 1 HOUR |
| SEPARATION BTWN BLDGS | 3 HOURS |
| SMOKE COMPARTMENT | 1 HOUR & SMOKE BARRIER |
| NOTE: THE RATING OF THE BUILDING STRUCTURE CANNOT BE LESS THAN THE ASSEMBLY IT SUPPORTS | |

**BUILDING HEIGHT**

| | |
|---|---|
| ALLOWABLE HEIGHT: | UNLIMITED, 180' |
| ACTUAL HEIGHT: | 4 STORIES, 68', EXCL PENTHOUSE |

**PLAN AREA DATA**

| | |
|---|---|
| ALLOWABLE AREA: | S.F. AREA: |
| TABULAR AREA - (TABLE 506.2) | UNLIMITED |
| PENTHOUSE | 18198 SF |
| LEVEL 4 | 29779 SF |
| LEVEL 3 | 29779 SF |
| LEVEL 2 | 57048 SF |
| LEVEL 1 | 58446 SF |
| LOWER LEVEL | 41752 SF |
| ACTUAL TOTAL BUILDING AREA: | 235002 SF |

**OCCUPANT LOAD**

| | |
|---|---|
| OCCUPANT LOAD FACTORS | SF/OCC |
| INSTITUTIONAL SLEEPING | 120 |
| INSTITUTIONAL TREATMENT | 240 |
| ASSEMBLY (A-3) | 15 |
| BUSINESS (B) | 100 |
| STORAGE (S-1) | 300 |

| FLOOR LEVEL | LOAD |
|---|---|
| LEVEL 4 | 259 |
| LEVEL 3 | 245 |
| LEVEL 2 | 373 |
| LEVEL 1 | 863 |
| LOWER LEVEL | 232 |
| ACTUAL TOTAL BUILDING AREA: | 1972 |

**EXIT CAPACITY**

FIRE AREA: SINGLE
FLOOR LEVEL: ENTIRE BUILDING

| ZONE / FLOOR | OCC LOAD | EXIT TYPE & CAPACITY | WIDTH REQUIRED | WIDTH PROVIDED |
|---|---|---|---|---|
| LEVEL 4 | 345 | STAIRS @ 0.3" / OCC | 103.5" | 108" |
| | | DOORS @ 0.2" / OCC | 69" | 78" |
| LEVEL 3 | 333 | STAIRS @ 0.3" / OCC | 99.9" | 108" |
| | | DOORS @ 0.2" / OCC | 66.6" | 78" |
| LEVEL 2 | 373 | STAIRS @ 0.3" / OCC | 111.9" | 108" |
| | | DOORS @ 0.2" / OCC | 74.6" | 78" |
| LEVEL 1 | 863 | STAIRS @ 0.3" / OCC | 0" | 0" |
| | | DOORS @ 0.2" / OCC | 172.6" | 417" |
| LOWER LEVEL | 232 | STAIRS @ 0.3" / OCC | 69.6" | 108" |
| | | DOORS @ 0.2" / OCC | 46.4" | 212" |

**NUMBER OF EXITS**

| | |
|---|---|
| OCC LOAD < 501 | 2 |
| OCC LOAD > 500 | 3 |
| OCC LOAD > 1,000 | 4 |
| SLEEPING SUITE > 1,000 SF | 2 |
| CARE SUITE > 2,500 SF | 2 |

**CORRIDOR MINIMUM CLEAR WIDTH**

| | |
|---|---|
| HEALTHCARE, WHERE REQ'D FOR BEDS MOV'T | 96" |
| OTHER USE GROUPS | 44" |
| AREAS W/ OCC LOAD < 50 | 36" |
| ACCESS TO & UTILITIZATION OF MECH, PLUMB, OR ELEC EQPT | 24" |

**TRAVEL DISTANCES**

| | |
|---|---|
| MAX. EGRESS TRAVEL DISTANCE: (W/ AUTOMATIC SPRINKLER PROTECTION) | I-2 OCCUPANCY = 200' |
| | A-2 OCCUPANCY = 250' |
| | B OCCUPANCY = 300' |
| | S-1 OCCUPANCY = 250' |
| COMMON PATH OF TRAVEL: | I-2 OCCUPANCY = 100' |
| | A-2 OCCUPANCY* = 20' |
| | *LESS THAN 51 OCCUPANTS = 75' |
| | B OCCUPANCY = 100' |
| | S-1 OCCUPANCY = 100' |
| DEAD END CORRIDORS: | I-2 OCCUPANCY = 20' |
| | A-2 OCCUPANCY = 20' |
| | B OCCUPANCY = 50' |
| | S-1 OCCUPANCY = 50' |
| SLEEPING ROOM TRAVEL DISTANCE BTWN ANY POINT AND AN EXIT ACCESS DOOR: | I-2 OCCUPANCY = 50' |
| TRAVEL DISTANCE BTWN ANY POINT AND AN EXIT: | I-2 OCCUPANCY = 200' |
| TRAVEL DISTANCE BTWN ANY POINT IN A SMOKE COMPARTMENT TO A SMOKE BARRIER DOOR: | I-2 OCCUPANCY = 200' |
| TRAVEL DISTANCE W/IN SUITE TO EXIT ACCESS DOOR TO A CORRIDOR OR HORIZONTAL EXIT: | I-2 OCCUPANCY = 100' |
| TRAVEL DISTANCE W/IN SUITE TO EXIT: | I-2 OCCUPANCY = 200' |

CLAYCO
FIRE & SAFETY ENGINEERING OF BUILDING
20 EAST WACKER DRIVE, SUITE 1500
CHICAGO, IL 60601
312.372.2100 P.COM
Skender
1550 NORTH BARRINGTON ROAD, SUITE 100
HOFFMAN ESTATES, IL 60169
847.884.3600 P.COM
LJC7
DESIGN & ENGINEERING
30 EAST WACKER DRIVE, 9TH FLOOR
CHICAGO, IL 60601
312.372.2100 P.COM
ZGF
ZIMMER GUNSUL FRASCA ARCHITECTS LLP
925 FOURTH AVENUE, 37TH FLOOR
SEATTLE, WASHINGTON
206.623.4646 P.COM

# LURIE CHILDREN'S HOSPITAL - DOWNERS GROVE

ANN & ROBERT H. LURIE CHILDREN'S HOSPITAL OF CHICAGO
3300 Lacey Rd, Downers Grove, IL 60515

DRAWING ISSUE

| # | DESCRIPTION | DATE |
|---|---|---|
| | ISSUE FOR PUD | 06.25.2025 |
| | ISSUE FOR PUD (REV 1) | 07.22.2025 |

BUILDING KEY PLAN



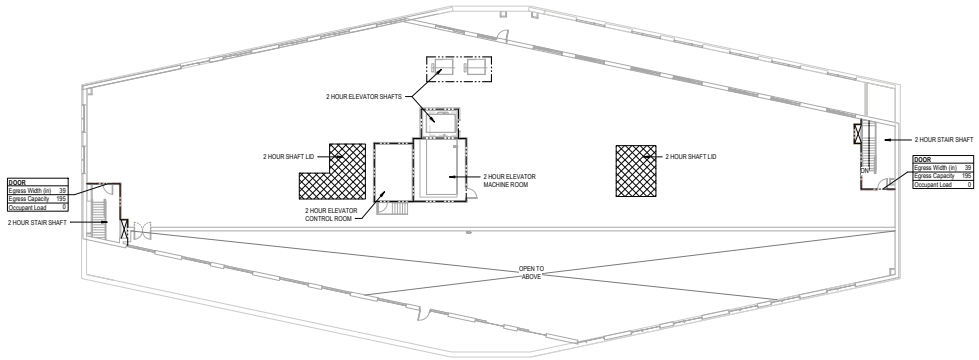

SCALE: As Indicated
0' 8' 16' 32'

DRAWING TITLE
LIFE SAFETY PLAN - BLDG 1 - LEVELS 2 & 3

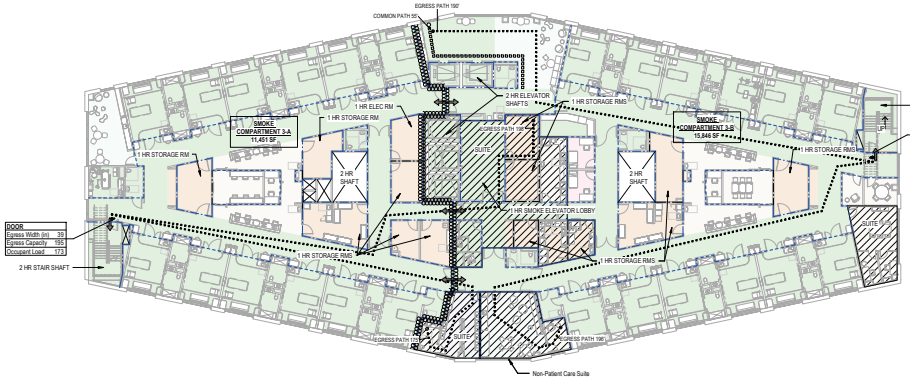
DRAWING NO.
PUD-04

Job # 25.009982

12/23/2025 5:39 PM LJC (R1.0) REVIT MODEL




A4 (SUD-05) LIFE SAFETY PLAN - BLDG 1 - PENTHOUSE
1/16" = 1'-0"




A1 (SUD-05) LIFE SAFETY PLAN - BLDG 1 - LEVEL 4
1/16" = 1'-0"

**OCCUPANT LOAD CALCULATION**

- WAITING/ DINING/ LOUNGE: 1,826 SF / 15 SF PER PERSON = 122
- BUSINESS/ CIRCULATION: 2,933 SF / 100 SF PER PERSON = 30
- INPATIENT SLEEPING/ CIRCULATION: 20,709 SF / 120 SF PER PERSON = 173
- STORAGE/ MEP: 3,049 SF / 300 SF PER PERSON = 11
- LOCKER ROOMS: 316 SF / 50 SF PER PERSON = 7
- RESIDENTIAL: 238 SF / 200 SF PER PERSON = 2

**TOTAL OCCUPANT LOAD = 345** **EXIT CAPACITY REQUIRED = 69"**

# CODE / LIFESAFETY DATA

## LEGEND

FEC — FIRE EXTINGUISHER (WALL CABINET)
FE — FIRE EXTINGUISHER (HOOK MOUNTED)
EXIT SIGN

DOOR
Egress Width (in) #
Egress Capacity #
Occupant Load #
EXIT CAPACITY (OCCUPANTS)

1 HOUR FIRE RATING
SMOKE PARTITION
1 HOUR RATED SMOKE BARRIER
2 HOUR RATED SMOKE BARRIER
3 HOUR RATED SMOKE BARRIER

EGRESS PATH
COMMON PATH
DEAD END PATH

## APPLICABLE CODES

**CODE INFO**

| | |
|---|---|
| BUILDING: | 2021 IBC W/ DOWNERS GROVE AMEND. |
| MECHANICAL: | 2021 IMC W/ DOWNERS GROVE AMEND. |
| ELECTRICAL: | 2020 NEC W/ DOWNERS GROVE AMEND. |
| PLUMBING: | ILLINOIS PLUMBING CODE W/ DOWNERS GROVE AMEND. |
| ENERGY: | 2024 ILLINOIS ENERGY CONSERVATION CODE WITH D.G. |
| ACCESSIBILITY: | 2010 ADAAG, ILL.INOIS ACCESSIBILITY CODE |
| FIRE: | 2021 IFC W/ DOWNERS GROVE AMEND.<br>2015 FC, AS ADOPTED BY OSFM |
| HEALTH CARE: | 2012 HCFC<br>IL ADMIN CODE IAC TITLE 77, PART 250, SUBPART T<br>2018 FGI HOSPITALS, 2018 FGI OUTPATIENT FACILITIES |
| LIFE SAFETY: | 2012 LSC, AS ADOPTED BY CMS, TJC, IDPH<br>2015 LSC, AS ADOPTED BY OSFM |
| FIRE ALARM: | 2025" NFASC W/ DOWNERS GROVE AMEND. |
| SPRINKLER: | 2025" NFPA 13 W/ DOWNERS GROVE AMEND. |
| EM. POWER: | 2019" NFPA 110 W/ DOWNERS GROVE AMEND. |
| FUEL GAS: | 2021 IFGC W/ DOWNERS GROVE AMEND. |
| PROP. MAINT.: | 2021 IPMC W/ DOWNERS GROVE AMEND. |
| ORD.: | DG MUNICIPAL CODE ART. 28<br>DOWNERS GROVE STORMWATER & FLOOD PLAIN ORD. |

*Note: The referenced standards identified for this project are those referenced by The Village of Downers Grove. Other applicable editions of these standards, such as those adopted and enforced by the Centers for Medicare & Medicaid Services (CMS), the Illinois Department of Public Health (IDPH), and The Joint Commission (TJC) as referenced by the 2012 edition of NFPA 101, Life Safety Code. Where multiple adopted codes or referenced standards apply, the design has been developed to comply with the most restrictive applicable requirement.

## CONSTRUCTION TYPE / USE GROUP / FIRE PROTECTION

CONSTRUCTION TYPE:
I,SC TYPE II (222), IBC TYPE IB PROTECTED NONCOMBUSTIBLE
NON-SEPARATED MIXED USE OCCUPANCY GROUPS:
I-2: INSTITUTIONAL CONDITION 2 HEALTH CARE (HOSPITAL)
A-3: ASSEMBLY (ACCESSORY)
B: BUSINESS (ACCESSORY)
S-2: LOW-HAZARD STORAGE (ACCESSORY)

FIRE PROTECTION SYSTEM(S):

| | |
|---|---|
| AUTOMATIC SPRINKLERS: | FULLY SPRINKLERED |
| FIRE HOSE CABINETS: | NOT REQUIRED |
| STANDPIPES: | CLASS I |
| FIRE EXTINGUISHERS: | 75'-0" MAX. TRAVEL DISTANCE (FOR CLASS A HAZARDS) |
| FIRE ALARM: | MANUAL & AUTOMATIC, FD COMM, VOICE/ALARM |

## FIRE RESISTANCE RATINGS IB

| | |
|---|---|
| EXIT ENCLOSURES: | |
| HORIZONTAL EXIT | |
| STAIR ENCLOSURES | 2 HOURS |
| EXIT PASSAGEWAY | |
| CORRIDORS | SMOKE PARTITION |

## BUILDING & STRUCTURE ELEMENTS

| | |
|---|---|
| PRIMARY STRUCTURAL FRAME* | 2 HOURS |
| *SUPPORTING ROOF ONLY | 1 HOUR |
| EXT & INT BEARING WALLS* | 2 HOURS |
| *SUPPORTING ROOF ONLY | 1 HOUR |
| EXT & INT NONBEARING WALLS* | 0 HOUR |
| * 1 HOUR AS REQ'D FOR FIRE SEPARATION DISTANCE PER TABLE 705.5 | |
| FLOOR CONSTRUCTION | 2 HOURS |
| ROOF CONSTRUCTION | 1 HOUR* |
| *F-1, H, M, & S-1 WHERE ROOF IS 20' MIN. FROM FLOOR BELOW | 0 HOUR |
| SHAFTS | 2 HOURS |
| ELEVATOR ENCLOSURES | 2 HOURS |
| ELEVATOR MACHINE ROOMS | 2 HOURS |
| FIRE PUMP ROOMS, HIGH-RISE | 2 HOURS |
| FIRE COMMAND CENTER | 1 HOURS |
| EMERGENCY GENERATOR ROOMS | 2 HOUR |
| NON-SPRINKLERED ELEC ROOMS | 2 HOURS |
| BOILER & FUEL-FIRED HEATER ROOMS | 1 HOUR |
| STORAGE ROOMS > 100 SF | 1 HOUR |
| SOILED LINEN ROOMS | 1 HOUR |
| TRASH COLLECTION ROOMS | 1 HOUR |
| 50 SF < STORAGE ROOMS < 100 SF | SMOKE PARTITION |
| CENTRAL/BULK LAUNDRY > 100 SF | 1 HOUR |
| MEDICAL GAS STORAGE ROOMS | 1 HOUR |
| GAS MANIFOLD ROOM | 1 HOUR |
| ELEC ROOMS W/ TF/ORMERS > 112.5 KVA | 1 HOUR |
| SEPARATION BTWN BLDGS | 3 HOURS |
| SMOKE COMPARTMENT | 1 HOUR & SMOKE BARRIER |
| NOTE: THE RATING OF THE BUILDING STRUCTURE CANNOT BE LESS THAN THE ASSEMBLY IT SUPPORTS | |

## BUILDING HEIGHT

| | |
|---|---|
| ALLOWABLE HEIGHT: | UNLIMITED, 180' |
| ACTUAL HEIGHT: | 4 STORIES, 68', EXCL PENTHOUSE |

## PLAN AREA DATA

| | |
|---|---|
| ALLOWABLE AREA: | S.F. AREA: |
| TABULAR AREA - (TABLE 506.2) | UNLIMITED |
| PENTHOUSE | 18198 SF |
| LEVEL 4 | 29779 SF |
| LEVEL 3 | 29779 SF |
| LEVEL 2 | 57048 SF |
| LEVEL 1 | 58446 SF |
| LOWER LEVEL | 41752 SF |
| ACTUAL TOTAL BUILDING AREA: | 235002 SF |

## OCCUPANT LOAD

| | |
|---|---|
| OCCUPANT LOAD FACTORS | SF/OCC |
| INSTITUTIONAL SLEEPING | 120 |
| INSTITUTIONAL TREATMENT | 240 |
| ASSEMBLY (A-3) | 15 |
| BUSINESS (B) | 100 |
| STORAGE (S-1) | 300 |
| FLOOR LEVEL | LOAD |
| LEVEL 4 | 259 |
| LEVEL 3 | 245 |
| LEVEL 2 | 373 |
| LEVEL 1 | 863 |
| LOWER LEVEL | 232 |
| ACTUAL TOTAL BUILDING AREA: | 1972 |

## EXIT CAPACITY

FIRE AREA: SINGLE
FLOOR LEVEL: ENTIRE BUILDING

| ZONE / FLOOR | OCC LOAD | EXIT TYPE & CAPACITY | WIDTH REQUIRED | WIDTH PROVIDED |
|---|---|---|---|---|
| LEVEL 4 | 345 | STAIRS @ 0.3" / OCC | 103.5" | 108" |
| | | DOORS @ 0.2" / OCC | 69" | 78" |
| LEVEL 3 | 333 | STAIRS @ 0.3" / OCC | 99.9" | 108" |
| | | DOORS @ 0.2" / OCC | 66.6" | 78" |
| LEVEL 2 | 373 | STAIRS @ 0.3" / OCC | 111.9" | 108" |
| | | DOORS @ 0.2" / OCC | 74.6" | 78" |
| LEVEL 1 | 863 | STAIRS @ 0.3" / OCC | 0" | 0" |
| | | DOORS @ 0.2" / OCC | 172.6" | 417" |
| LOWER LEVEL | 232 | STAIRS @ 0.3" / OCC | 69.6" | 108" |
| | | DOORS @ 0.2" / OCC | 46.4" | 212" |

## NUMBER OF EXITS

| | |
|---|---|
| OCC LOAD < 501 | 2 |
| OCC LOAD > 500 | 3 |
| OCC LOAD > 1,000 | 4 |
| SLEEPING SUITE > 1,000 SF | 2 |
| CARE SUITE > 2,500 SF | 2 |

## CORRIDOR MINIMUM CLEAR WIDTH

| | |
|---|---|
| HEALTHCARE, WHERE REQ'D FOR BEDS MOV'T | 96" |
| OTHER USE GROUPS | 44" |
| AREAS W/ OCC LOAD < 50 | 36" |
| ACCESS TO & UTILIZATION OF MECH, PLUMB, OR ELEC EQPT | 24" |

## TRAVEL DISTANCES

| | |
|---|---|
| MAX. EGRESS TRAVEL DISTANCE: (W/ AUTOMATIC SPRINKLER PROTECTION) | I-2 OCCUPANCY = 200'<br>A-2 OCCUPANCY = 250'<br>B OCCUPANCY = 300'<br>S-1 OCCUPANCY = 250' |
| COMMON PATH OF TRAVEL: | I-2 OCCUPANCY = 100'<br>A-2 OCCUPANCY* = 20'<br>*LESS THAN 51 OCCUPANTS = 75'<br>B OCCUPANCY = 100'<br>S-1 OCCUPANCY = 100' |
| DEAD END CORRIDORS: | I-2 OCCUPANCY = 20'<br>A-2 OCCUPANCY = 20'<br>B OCCUPANCY = 50'<br>S-1 OCCUPANCY = 50' |
| SLEEPING ROOM TRAVEL DISTANCE BTWN ANY POINT AND AN EXIT ACCESS DOOR: | I-2 OCCUPANCY = 50' |
| TRAVEL DISTANCE BTWN ANY POINT AND AN EXIT: | I-2 OCCUPANCY = 200' |
| TRAVEL DISTANCE BTWN ANY POINT IN A SMOKE COMPARTMENT TO A SMOKE BARRIER DOOR: | I-2 OCCUPANCY = 200' |
| TRAVEL DISTANCE W/IN SUITE TO EXIT ACCESS DOOR TO A CORRIDOR OR HORIZONTAL EXIT: | I-2 OCCUPANCY = 100' |
| TRAVEL DISTANCE W/IN SUITE TO EXIT: | I-2 OCCUPANCY = 200' |

CLAYCO — FIRE & LIFE SAFETY CONSULTANTS
SKENDER — CONSTRUCTION MANAGEMENT
LJC — DESIGN & ENGINEERING
ZGF — ZIMMER GUNSUL FRASCA ARCHITECTS LLP

# LURIE CHILDREN'S HOSPITAL - DOWNERS GROVE

ANN & ROBERT H. LURIE CHILDREN'S HOSPITAL OF CHICAGO
3300 Lacey Rd, Downers Grove, IL 60515

DRAWING ISSUE

| # | DESCRIPTION | DATE |
|---|---|---|
| 1 | ISSUE FOR PUD | 06.25.2026 |
| 2 | ISSUE FOR PUD (REV 1) | 07.22.2026 |

BUILDING KEY PLAN
BUILDING 2 — BUILDING 1

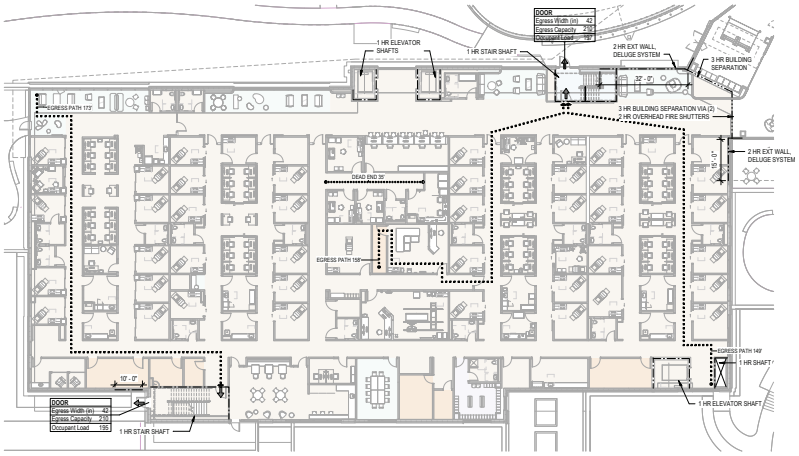
SCALE: As indicated
0' 8' 16' 32'

DRAWING TITLE
LIFE SAFETY PLAN - BLDG 1 - LEVEL 4 & PENTHOUSE

DRAWING NO.
PUD-05

Job # 25.009982

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A4 PUD-06 LIFE SAFETY PLAN - BLDG 2 - LEVEL 1
1/16" = 1'-0"

**OCCUPANT LOAD CALCULATION**

| | |
|---|---|
| WAITING/ CONFERENCE: 1,715 SF / 15 SF PER PERSON = 115 | |
| OUTPATIENT/ BUSINESS/ CIRCULATION: 26,824 SF / 100 SF PER PERSON = 269 | |
| STORAGE/ MEP: 1,048 SF / 300 SF PER PERSON = 4 | |
| LOCKER ROOMS: 261 SF / 50 SF PER PERSON = 6 | |
| **TOTAL OCCUPANT LOAD = 394** | **EXIT CAPACITY REQUIRED = 79"** |




A1 PUD-06 LIFE SAFETY - BLDG 2 - LOWER LEVEL 1
1/16" = 1'-0"

**OCCUPANT LOAD CALCULATION**

| | |
|---|---|
| STORAGE/ MEP: 540 SF / 300 SF PER PERSON = 2 | |
| **TOTAL OCCUPANT LOAD = 2** | **EXIT CAPACITY REQUIRED = 32"** |

## CODE / LIFESAFETY DATA

**LEGEND**

FEC — FIRE EXTINGUISHER (WALL CABINET)
FE — FIRE EXTINGUISHER (HOOK MOUNTED)
EXIT SIGN

| DOOR | # |
|---|---|
| Egress Width (in) | # |
| Egress Capacity | # |
| Occupant Load | # |

EXIT CAPACITY (OCCUPANTS)

1 HOUR FIRE RATING
2 HOUR FIRE RATING
3 HOUR FIRE RATING
1 HOUR RATED SMOKE BARRIER
2 HOUR RATED SMOKE BARRIER
NON-RATED SMOKE BARRIER
EGRESS PATH
COMMON PATH
DEAD END PATH

**APPLICABLE CODES**

**CODE INFO**

| | |
|---|---|
| BUILDING: | 2021 IBC W/ DOWNERS GROVE AMEND. |
| MECHANICAL: | 2021 IMC W/ DOWNERS GROVE AMEND. |
| ELECTRICAL: | 2020* NEC W/ DOWNERS GROVE AMEND |
| PLUMBING: | ILLINOIS PLUMBING CODE W/ DOWNERS GROVE AMEND. |
| ENERGY: | 2024 IECC W/ DOWNERS GROVE & ILLINOIS AMEND. |
| ACCESSIBILITY: | 2010 ADAAG, ILLINOIS ACCESSIBILITY CODE |
| FIRE: | 2021 IFC W/ DOWNERS GROVE AMEND. |
| | 2015 IFC, AS ADOPTED BY OSFM |
| HEALTH CARE: | 2012 HCFI |
| | 2018 FGI HOSPITALS |
| | 2018 FGI OUTPATIENT FACILITIES |
| LIFE SAFETY: | 2012 LSC, AS ADOPTED BY CMS, TJC, IDPH |
| | 2015 LSC, AS ADOPTED BY OSFM |
| FIRE ALARM: | 2025* NFASC W/ DOWNERS GROVE AMEND. |
| SPRINKLER: | 2025* NFPA 13 W/ DOWNERS GROVE AMEND. |
| EM. POWER: | 2019* NFPA 110 W/ DOWNERS GROVE AMEND. |
| FUEL GAS: | 2021 IFGC W/ DOWNERS GROVE AMEND. |
| PROP. MAINT.: | 2021 IPMC W/ DOWNERS GROVE AMEND. |
| ORD.: | DG MUNICIPAL CODE ART. 28 |
| | DOWNERS GROVE STORMWATER & FLOOD PLAIN ORD. |

*Note: The referenced standards identified for this project are those referenced by The Village of Downers Grove. Other applicable editions of these standards, such as those adopted and enforced by the Centers for Medicare & Medicaid Services (CMS), the Illinois Department of Public Health (IDPH), and The Joint Commission (TJC) as referenced by the 2012 edition of NFPA 101, Life Safety Code. Where multiple adopted codes or referenced standards apply, the design has been developed to comply with the most restrictive applicable requirement.

**CONSTRUCTION TYPE / USE GROUP / FIRE PROTECTION**

CONSTRUCTION TYPE:
LSC TYPE II (000), IBC TYPE IIB UNPROTECTED NONCOMBUSTIBLE
NON-SEPARATED MIXED-USE OCCUPANCY GROUPS:
B: BUSINESS
A-3: ASSEMBLY (ACCESSORY)
S: STORAGE (ACCESSORY)
FIRE PROTECTION SYSTEM(S):

| | |
|---|---|
| AUTOMATIC SPRINKLERS: | FULLY SPRINKLERED |
| FIRE HOSE CABINETS: | NOT REQUIRED |
| STANDPIPES: | CLASS I |
| FIRE EXTINGUISHERS: | 75'-0" MAX. TRAVEL DISTANCE |
| FIRE ALARM: | MANUAL & AUTOMATIC |

**FIRE RESISTANCE RATINGS IB**

EXIT ENCLOSURES:

| | |
|---|---|
| HORIZONTAL EXIT | |
| STAIR ENCLOSURES | 1 HOUR |
| EXIT PASSAGEWAY | |
| CORRIDORS | SMOKE PARTITION |

**BUILDING & STRUCTURE ELEMENTS**

| | |
|---|---|
| PRIMARY STRUCTURAL FRAME | 0 HOUR |
| EXT & INT BEARING WALLS | 0 HOUR |
| EXT & INT NONBEARING WALLS* | 0 HOUR |
| *1 HOUR AS REQ'D FOR FIRE SEPARATION DISTANCE PER TABLE 705.5 | |
| FLOOR CONSTRUCTION | 0 HOUR |
| ROOF CONSTRUCTION | 0 HOUR |
| SHAFTS | 1 HOUR |
| ELEVATOR ENCLOSURES | 1 HOUR |
| ELEVATOR MACHINE ROOMS | 1 HOUR |
| FIRE PUMP ROOMS | 1 HOUR |
| EMERGENCY GENERATOR ROOMS | 1 HOUR |
| NON-SPRINKLERED ELEC ROOMS | 2 HOURS |
| BOILER & FUEL-FIRED HEATER ROOMS | SPRINKLER OR 1 HOUR |
| STORAGE ROOMS > 100 SF | SPRINKLER OR 1 HOUR |
| SOILED LINEN ROOMS | SPRINKLER OR 1 HOUR |
| TRASH COLLECTION ROOMS | SPRINKLER OR 1 HOUR |
| 50 SF < STORAGE ROOMS < 100 SF | SPRINKLER OR 1 HOUR |
| CENTRAL/BULK LAUNDRY > 100 SF | SPRINKLER OR 1 HOUR |
| MEDICAL GAS STORAGE ROOMS | SPRINKLER OR 1 HOUR |
| ELEC ROOMS W/ TFORMERS > 112.5 KVA | 1 HOUR |
| SEPARATION BTWN BLDGS | 3 HOURS |

*NOTE: THE RATING OF THE BUILDING STRUCTURE CANNOT BE LESS THAN THE ASSEMBLY IT SUPPORTS.*

**BUILDING HEIGHT**

| | |
|---|---|
| ALLOWABLE HEIGHT: | 4 STORIES, 75' |
| ACTUAL HEIGHT: | 2 STORIES, 36' |

**PLAN AREA DATA**

| | |
|---|---|
| ALLOWABLE AREA: | S.F. AREA: |
| TABULAR AREA - (TABLE 506.2) | 69,000 |
| MAXIMUM PERMITTED TOTAL BUILDING AREA | UNLIMITED |
| ROOF | 288 SF |
| LEVEL 2 | 30606 SF |
| LEVEL 1 | 30775 SF |
| LOWER LEVEL | 1998 SF |
| ACTUAL TOTAL BUILDING AREA: | 63,667 SF |

**OCCUPANT LOAD**

| | |
|---|---|
| OCCUPANT LOAD FACTORS | SF/OCC |
| BUSINESS (B) | 100 |
| ASSEMBLY (A-3) | 15 |
| STORAGE (S-1) | 300 |
| FLOOR LEVEL | LOAD |
| LEVEL 2 | 360 |
| LEVEL 1 | 394 |
| LOWER LEVEL | 2 |
| ACTUAL TOTAL: | 756 |

**EXIT CAPACITY**

FIRE AREA: SINGLE
FLOOR LEVEL: ENTIRE BUILDING

| ZONE / FLOOR | OCC LOAD | EXIT TYPE & CAPACITY | WIDTH REQUIRED | WIDTH PROVIDED |
|---|---|---|---|---|
| LEVEL 2 | 360 | STAIRS @ 0.3" / OCC | 108" | 108" |
| | | DOORS @ 0.2" / OCC | 72" | 78" |
| LEVEL 1 | 394 | STAIRS @ 0.3" / OCC | 0" | 0" |
| | | DOORS @ 0.2" / OCC | 78.8" | 84" |
| LOWER LEVEL | 2 | STAIRS @ 0.3" / OCC | 0" | 0" |
| | | DOORS @ 0.2" / OCC | 10" | 33" |

**NUMBER OF EXITS**

| | |
|---|---|
| OCC LOAD < 501 | 2 |
| OCC LOAD > 500 | 3 |
| OCC LOAD > 1,000 | 4 |

**CORRIDOR MINIMUM CLEAR WIDTH**

| | |
|---|---|
| CORRIDOR* | 44" |
| *AREAS W/ OCC LOAD < 50 | 36" |
| ACCESS TO & UTILITIZATION OF MECH, PLUMB, OR ELEC EQPT | 24" |

**TRAVEL DISTANCES**

| | |
|---|---|
| MAX. EGRESS TRAVEL DISTANCE: (W/ AUTOMATIC SPRINKLER PROTECTION) | B OCCUPANCY = 300' |
| | A-2 OCCUPANCY = 250' |
| | S-1 OCCUPANCY = 250' |
| COMMON PATH OF TRAVEL: | B OCCUPANCY = 100' |
| | A-2 OCCUPANCY* = 20' |
| | *LESS THAN 51 OCCUPANTS = 75' |
| | S-1 OCCUPANCY = 100' |
| DEAD END CORRIDORS: | B OCCUPANCY = 50' |
| | A-2 OCCUPANCY = 20' |
| | S-1 OCCUPANCY = 50' |


CLAYCO — THE ART & SCIENCE OF BUILDING — 35 EAST WACKER DRIVE, SUITE 1300, CHICAGO, IL 60601, 312.332.1000, WWW.CLAYCO.COM
Skender — 1999 HEALTHY WAY, SUITE 200, WOODRIDGE, IL 60517, 630.724.4000, WWW.SKENDER.COM
LJC7 — DESIGN & ENGINEERING — 34 EAST WACKER DRIVE, STE 1300, CHICAGO, IL 60601, 312.332.1000, WWW.LJC7.COM
ZGF — ZIMMER GUNSUL FRASCA ARCHITECTS LLP — 925 FOURTH AVENUE, STE 2400, SEATTLE, WA 98104, 206.623.4646, WWW.ZGF.COM


# LURIE CHILDREN'S HOSPITAL - DOWNERS GROVE

ANN & ROBERT H. LURIE CHILDREN'S HOSPITAL OF CHICAGO
3300 Lacey Rd, Downers Grove, IL 60515

DRAWING ISSUE

| # | DESCRIPTION | DATE |
|---|---|---|
| | ISSUE FOR PUD | 06.25.2026 |
| | ISSUE FOR PUD (REV 1) | 07.22.2026 |

BUILDING KEY PLAN



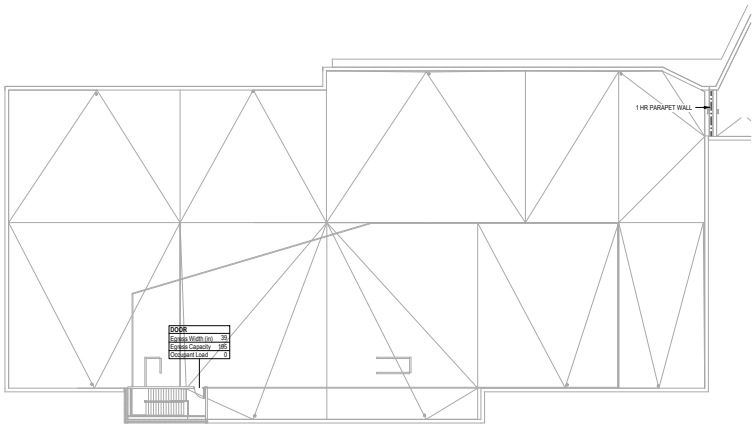

SCALE: As Indicated
0' 10' 20' 40'

DRAWING TITLE
LIFE SAFETY PLAN - BLDG 2 - LOWER LEVEL & LEVEL 1

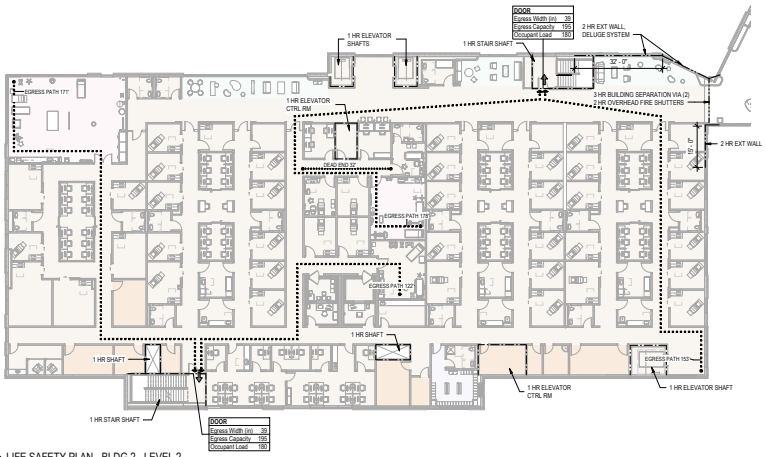
DRAWING NO.
PUD-06

Job # 25.009982

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A4 / HUB-07 LIFE SAFETY PLAN - BLDG 2 - ROOF
1/16" = 1'-0"




A1 / HUB-07 LIFE SAFETY PLAN - BLDG 2 - LEVEL 2
1/16" = 1'-0"

**OCCUPANT LOAD CALCULATION**

| | |
|---|---|
| WAITING: 870 SF / 15 SF PER PERSON = 58 | |
| EXERCISE ROOMS: 1,765 SF / 50 SF PER PERSON = 36 | |
| OUTPATIENT/ BUSINESS/ CIRCULATION: 25,441 SF / 100 SF PER PERSON = 255 | |
| STORAGE/ MEP: 1,470 SF / 300 SF PER PERSON = 5 | |
| LOCKER ROOMS: 261 SF / 50 SF PER PERSON = 6 | |
| **TOTAL OCCUPANT LOAD = 360** | **EXIT CAPACITY REQUIRED = 72"** |

# CODE / LIFESAFETY DATA

## LEGEND

FEC — FIRE EXTINGUISHER (WALL CABINET)
FE — FIRE EXTINGUISHER (HOOK MOUNTED)
EXIT SIGN

| DOOR | # |
|---|---|
| Egress Width (in) | # |
| Egress Capacity | # |
| Occupant Load | # |

EXIT CAPACITY (OCCUPANTS)

1 HOUR FIRE RATING
2 HOUR FIRE RATING
3 HOUR FIRE RATING
1 HOUR RATED SMOKE BARRIER
2 HOUR RATED SMOKE BARRIER
NON-RATED SMOKE BARRIER
EGRESS PATH
COMMON PATH
DEAD END PATH

## APPLICABLE CODES

**CODE INFO**

| | |
|---|---|
| BUILDING: | 2021 IBC W/ DOWNERS GROVE AMEND. |
| MECHANICAL: | 2021 IMC W/ DOWNERS GROVE AMEND. |
| ELECTRICAL: | 2020" NEC W/ DOWNERS GROVE AMEND |
| PLUMBING: | ILLINOIS PLUMBING CODE W/ DOWNERS GROVE AMEND. |
| ENERGY: | 2024 IECC W/ DOWNERS GROVE & ILLINOIS AMEND. |
| ACCESSIBILITY: | 2010 ADAAG, ILLINOIS ACCESSIBILITY CODE |
| FIRE: | 2021 IFC W/ DOWNERS GROVE AMEND.<br>2016 FC, AS ADOPTED BY OSFM |
| HEALTH CARE: | 2012 HCFC<br>2018 FGI HOSPITALS<br>2018 FGI OUTPATIENT FACILITIES |
| LIFE SAFETY: | 2012 LSC, AS ADOPTED BY CMS, TJC, IDPH<br>2015 LSC, AS ADOPTED BY OSFM |
| FIRE ALARM: | 2025" NFASC W/ DOWNERS GROVE AMEND. |
| SPRINKLER: | 2025" NFPA 13 W/ DOWNERS GROVE AMEND. |
| EM. POWER: | 2019" NFPA 110 W/ DOWNERS GROVE AMEND. |
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| FIRE EXTINGUISHERS: | 75'-0" MAX. TRAVEL DISTANCE |
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## FIRE RESISTANCE RATINGS IB

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| | |
|---|---|
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| STORAGE ROOMS > 100 SF | SPRINKLER OR 1 HOUR |
| SOILED LINEN ROOMS | SPRINKLER OR 1 HOUR |
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| FLOOR LEVEL | LOAD |
| LEVEL 2 | 360 |
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## NUMBER OF EXITS

| | |
|---|---|
| OCC LOAD < 501 | 2 |
| OCC LOAD > 500 | 3 |
| OCC LOAD > 1,000 | 4 |

## CORRIDOR MINIMUM CLEAR WIDTH

| | |
|---|---|
| CORRIDOR* | 44" |
| *AREAS W/ OCC LOAD < 50 | 36" |
| ACCESS TO & UTILIZATION OF MECH, PLUMB, OR ELEC EQPT | 24" |

## TRAVEL DISTANCES

| | |
|---|---|
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| DEAD END CORRIDORS: | B OCCUPANCY = 50'<br>A-2 OCCUPANCY = 20'<br>S-1 OCCUPANCY = 50' |

CLAYCO
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1380 RAYMOND BLVD.
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LJC
DESIGN & ENGINEERING
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ZIMMER GUNSUL FRASCA ARCHITECTS LLP
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WWW.ZGF.COM

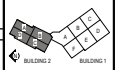
# LURIE CHILDREN'S HOSPITAL - DOWNERS GROVE

ANN & ROBERT H. LURIE CHILDREN'S HOSPITAL OF CHICAGO
3300 Lacey Rd, Downers Grove, IL 60515

DRAWING ISSUE

| # | DESCRIPTION | DATE |
|---|---|---|
| | ISSUE FOR PUD | 06.25.2026 |
| | ISSUE FOR PUD (REV 1) | 07.22.2026 |

BUILDING KEY PLAN




SCALE: As Indicated
0' 10' 20' 40'

DRAWING TITLE
LIFE SAFETY PLAN - BLDG 2 - LEVEL 2 & ROOF

DRAWING NO.
PUD-07

JOB # 25.009982

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VIEW 1: Arrival Experience and Main Façade, Hospital Beyond



VIEW 2: Entry Canopy with Integrated Signage, Clinic Beyond




VIEW 3: Emergency Department Entrance




VIEW 4: Primary Public Entrance



VIEW 5: Loading Dock

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WWW.ZGF.COM

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BUILDING KEY PLAN

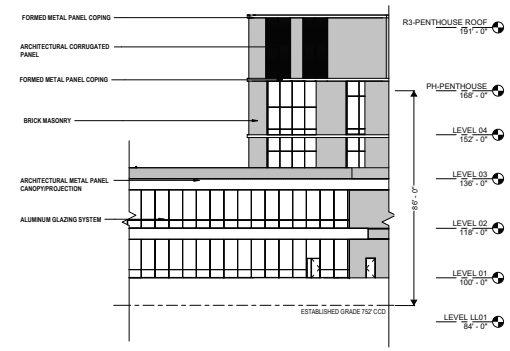



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RENDERINGS

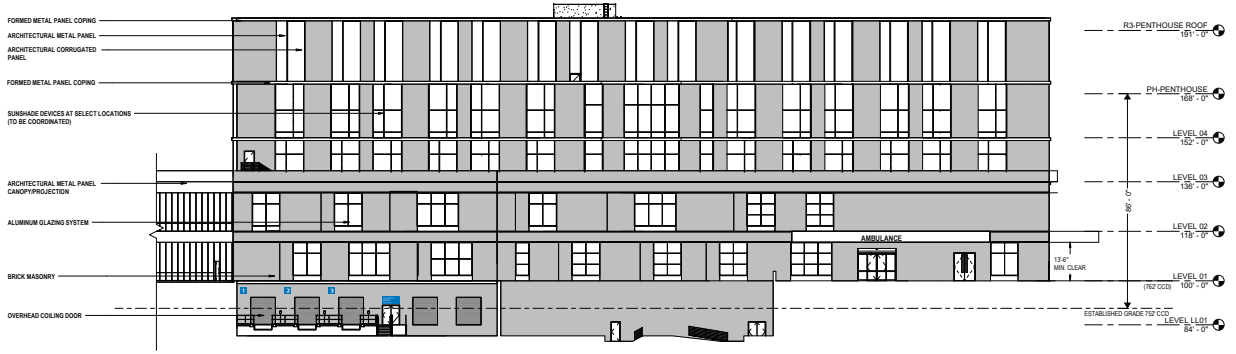
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PUD-15

Job # 25.009982

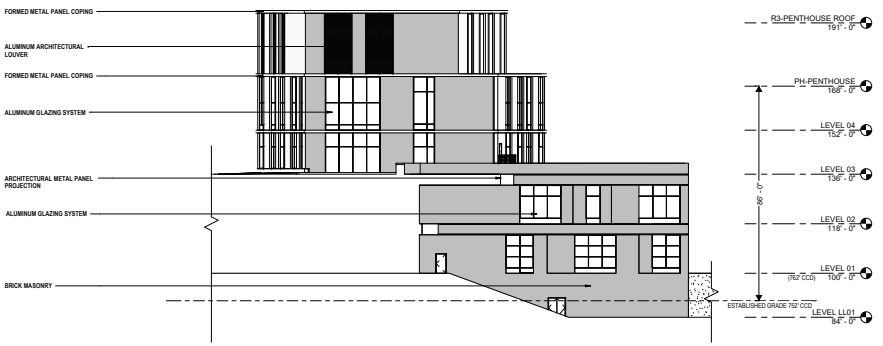
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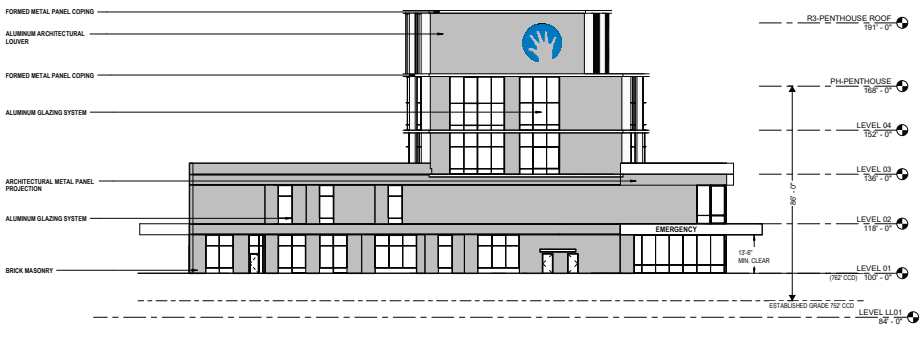

PARTIAL WEST ELEVATION - BLDG 1



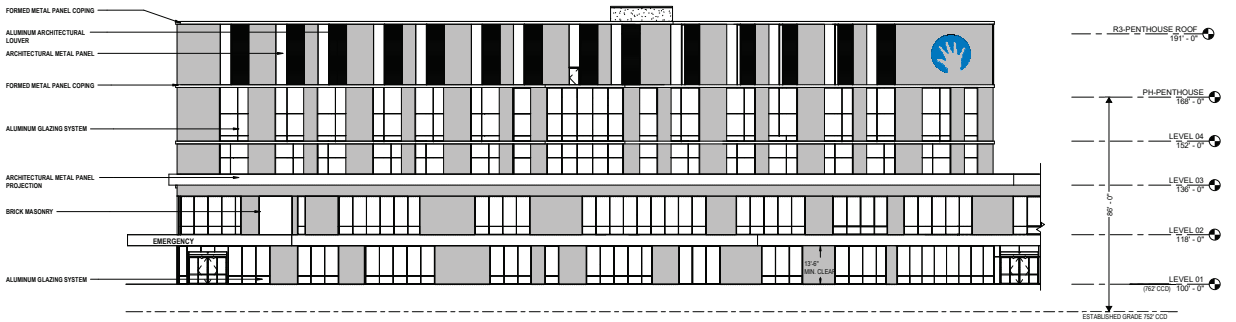

WEST ELEVATION - BLDG 1




NORTH ELEVATION - BLDG 1




SOUTH ELEVATION - BLDG 1




EAST ELEVATION - BLDG 1

## EXTERIOR ELEVATION NOTES

**GENERAL NOTES**

1. ELEVATION GENERAL NOTE
2. ELEVATION GENERAL NOTE

**KEYED NOTES**

- VISION GLASS
- SPANDREL GLASS
- GLASS WITH PRIVACY FILM

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CLAYCO
PRIME ARCHITECT OF RECORD
SKIDMORE, OWINGS & MERRILL LLP
224 S. MICHIGAN AVE., SUITE 1000
CHICAGO, IL 60604
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SKIDMORE.COM

Skender
CONSTRUCTION
1999 W. BALMORAL AVE.
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LJC
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|---|---|---|
| | ISSUE FOR PUD | 06.25.2020 |
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BUILDING KEY PLAN

BUILDING 2 BUILDING 1

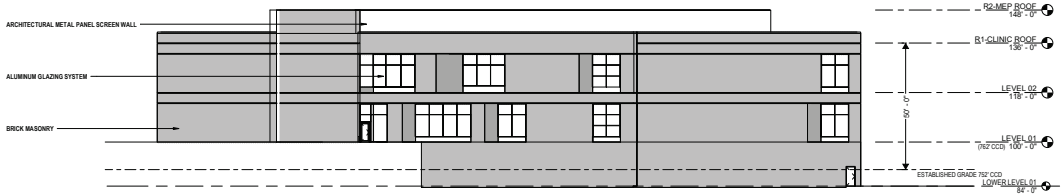
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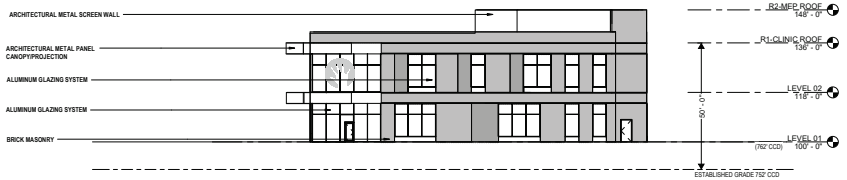
DRAWING NO.
PUD-16

Job # 25.009982

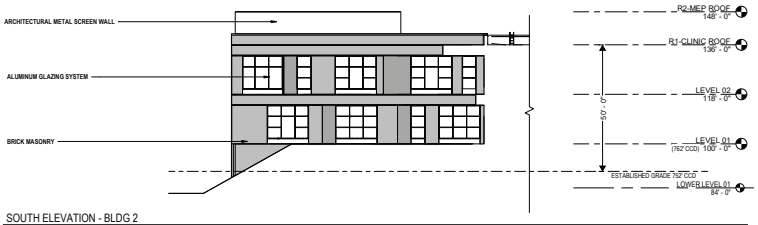
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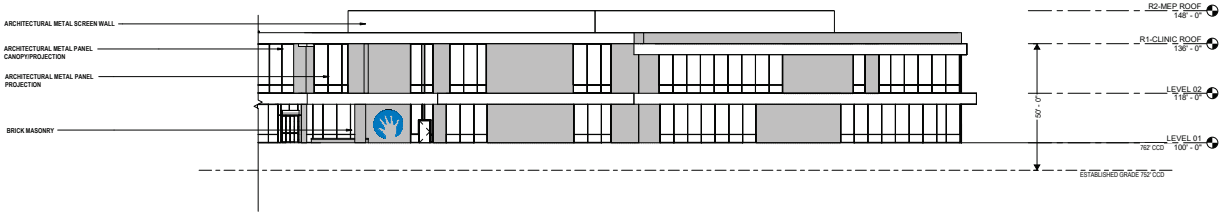

WEST ELEVATION - BLDG 2




NORTH ELEVATION - BLDG 2




SOUTH ELEVATION - BLDG 2




EAST ELEVATION - BLDG 2

## EXTERIOR ELEVATION NOTES

**GENERAL NOTES**

1. ELEVATION GENERAL NOTE
2. ELEVATION GENERAL NOTE

**LEGEND**

- VISION GLASS
- SPANDREL GLASS
- GLASS WITH PRIVACY FILM

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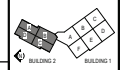
# LURIE CHILDREN'S HOSPITAL - DOWNERS GROVE

ANN & ROBERT H. LURIE CHILDREN'S HOSPITAL OF CHICAGO
3300 Lacey Rd, Downers Grove, IL 60515

DRAWING ISSUE

| # | DESCRIPTION | DATE |
|---|---|---|
| | ISSUE FOR PUD | 06.25.2026 |
| | ISSUE FOR PUD (REV 1) | 07.22.2026 |

BUILDING KEY PLAN




SCALE: As indicated
0' 10' 20' 40'

DRAWING TITLE
EXTERIOR ELEVATIONS - CLINIC

DRAWING NO.
PUD-17

Job # 25.009982

2/23/2026 10:53:29 AM

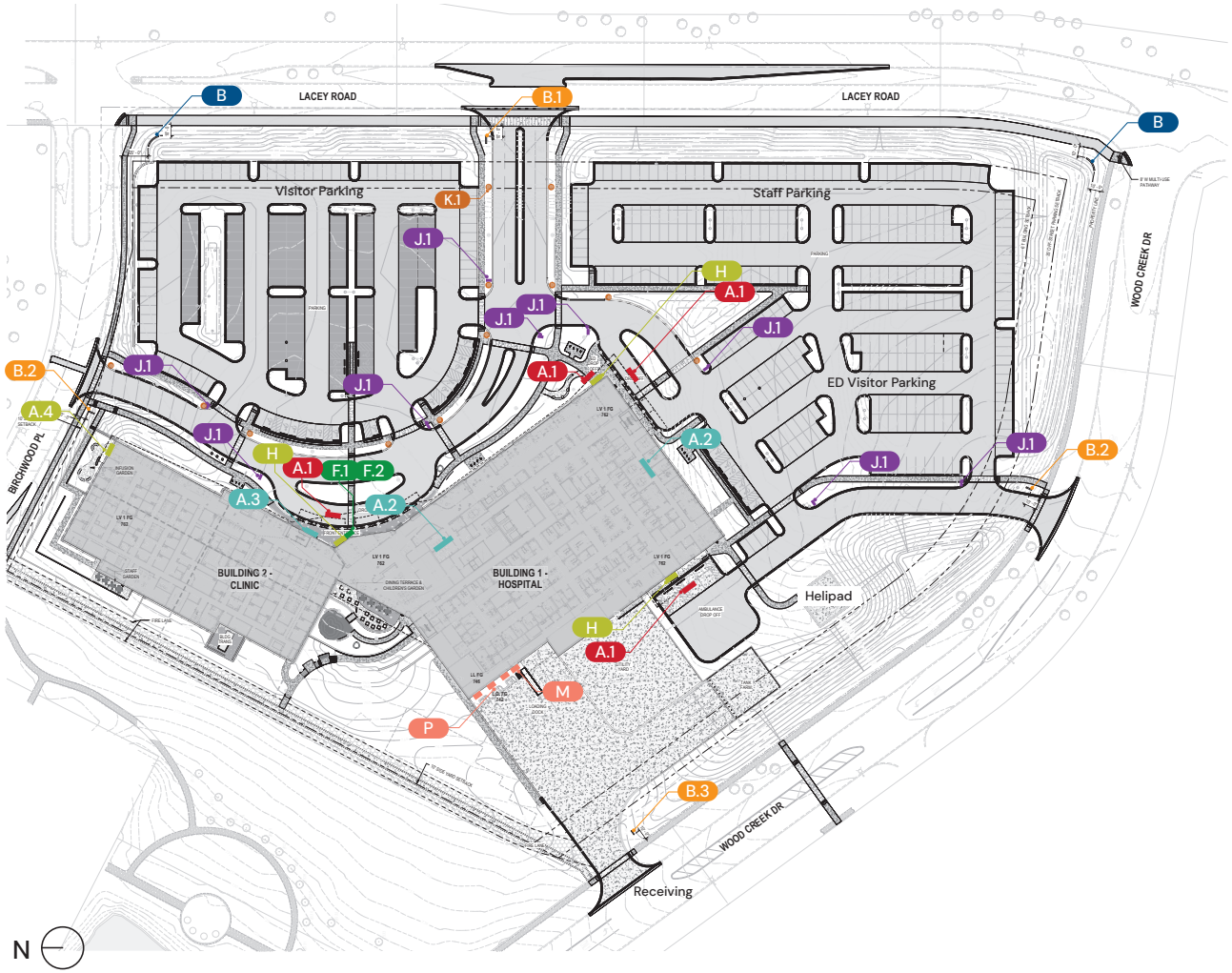
Ann & Robert H. Lurie
Children's® Hospital of Chicago

# EXTERIOR SIGNAGE

ISSUE FOR PUD (REV 1)

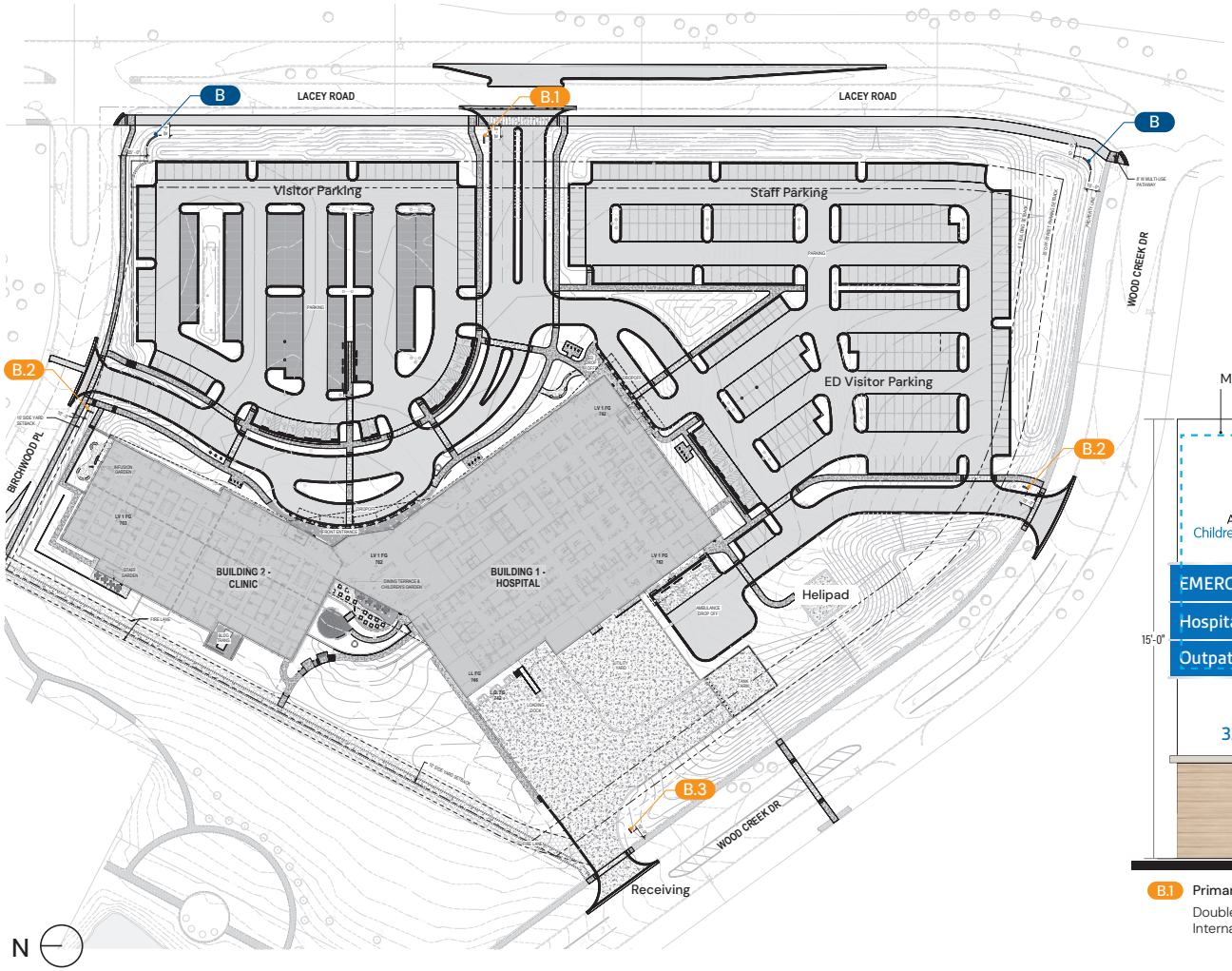
07.22.2026

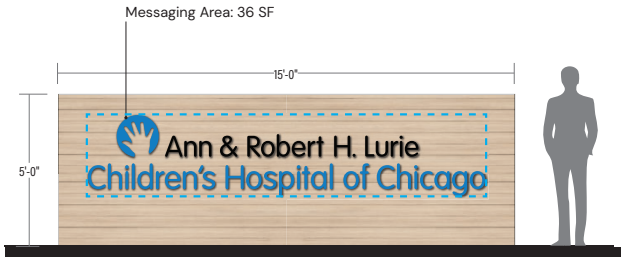
# Sign Type Summary




| | SIGN TYPES | QTY |
|---|---|---|
| B | Site Gateway Sign | 2 |
| B.1 | Primary Monument Sign | 1 |
| B.2 | Secondary Monument | 2 |
| B.3 | Receiving Entrance ID | 1 |
| A.2 | Top of Building Dimensional Hand Icon | 2 |
| A.3 | Pedestrian Level Dimensional Hand Icon | 1 |
| A.4 | Glass Graphic Hand Icon | 1 |
| A.1 | Main Entrance Canopy Dimensional Letters | 1 |
| A.1 | Emergency/Ambulance Entrance Canopy Dimensional Letters | 3 |
| F.1 | Building Address | 1 |
| F.2 | Building Entry Dimensional Letters | 1 |
| H | Vinyl Logo Applique | 3 |
| M | Receiving Entrance ID | 1 |
| P | Loading Dock Number Signs | 3 |
| J.1 | Directional Signs | 9 |
| K.1 | Temporary Light Pole Banners (not shown) | 12 |
| | Helipad Signage (not shown) | TBD |
| | Interpretive Signs (not shown) | TBD |

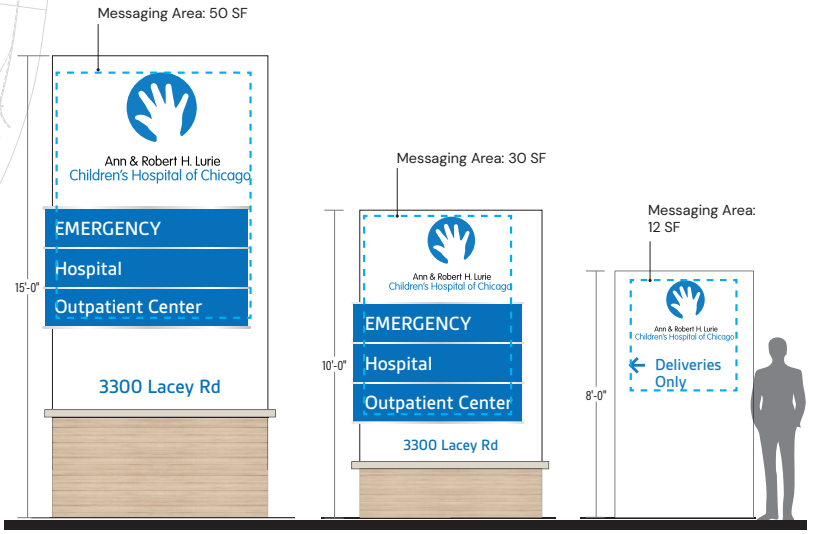
# Monument Signs




**B** Gateway Sign - To Be Designed

Single sided, qty: 2
Halo illuminated lettering




**B.1** Primary Monument

Double sided, qty: 1
Internally illuminated

**B.2** Secondary Monument

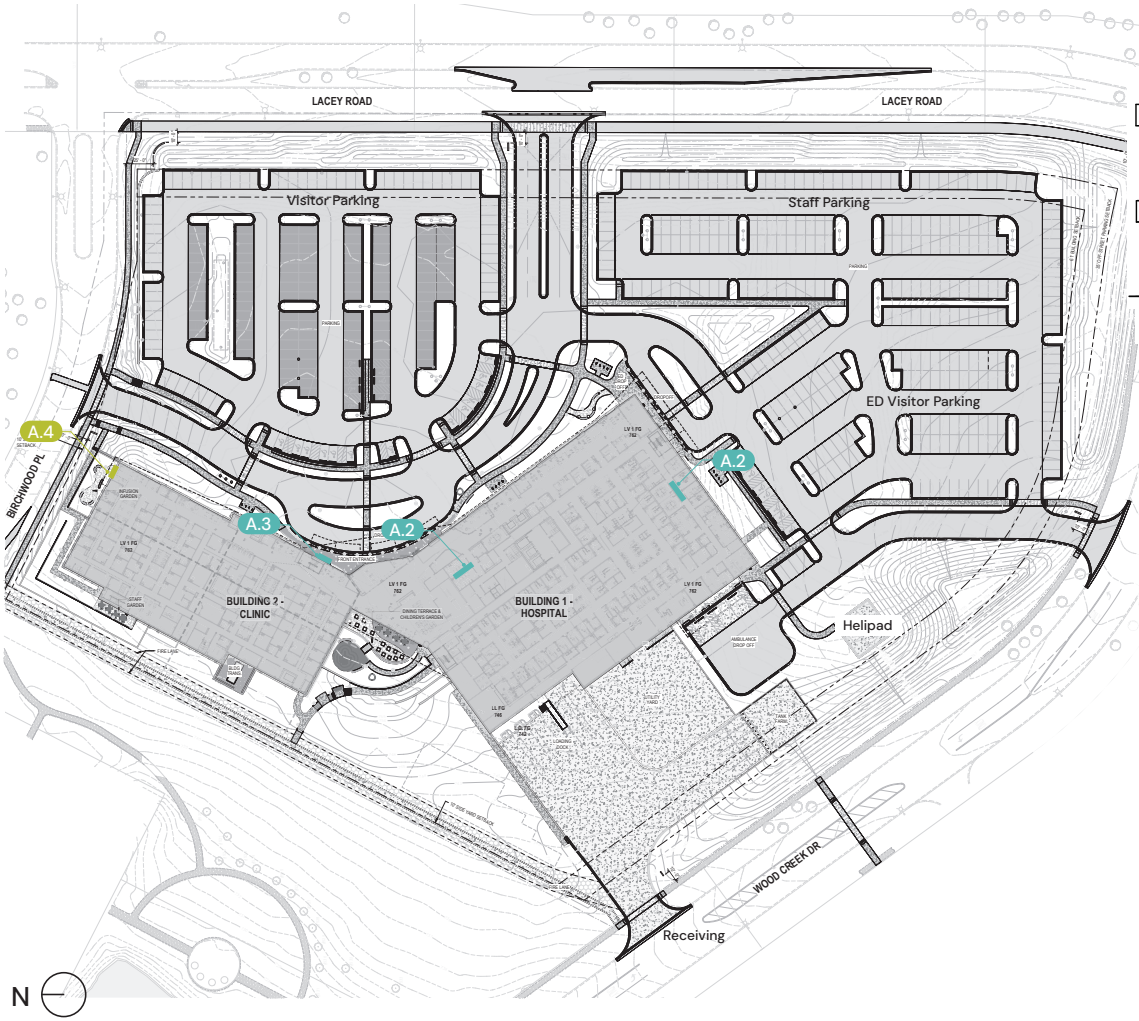
Double sided, qty: 2
Internally illuminated

**B.3** Receiving Entrance ID

Double sided, qty: 1
Non-illuminated

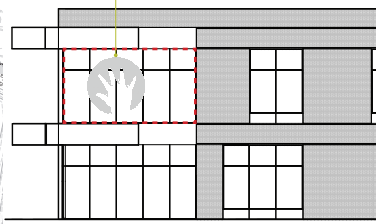
*The signage mockups shown are for massing purposes only and will be further developed in collaboration with the LCH team.*

# Building Signs




**A.4** Glass Graphic Hand Icon
Non-illuminated

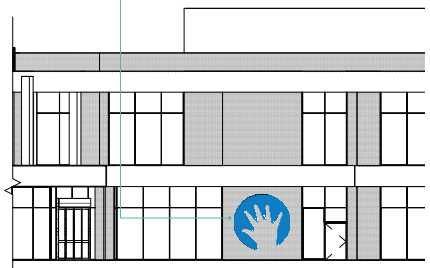
11' diameter
Messaging Area: 95 SF
Glass Area: 350 SF



North Elevation - Bldg 2

**A.3** Pedestrian Level Dimension Hand Icon
Halo illuminated

11' diameter
Messaging Area: 95 SF



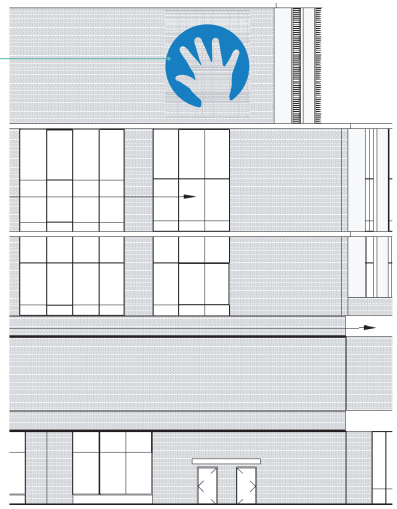
East Elevation - Bldg 2

**A.2** Top of Building Dimensional Hand Icon
Halo illuminated

16' diameter
Messaging Area: 201 SF



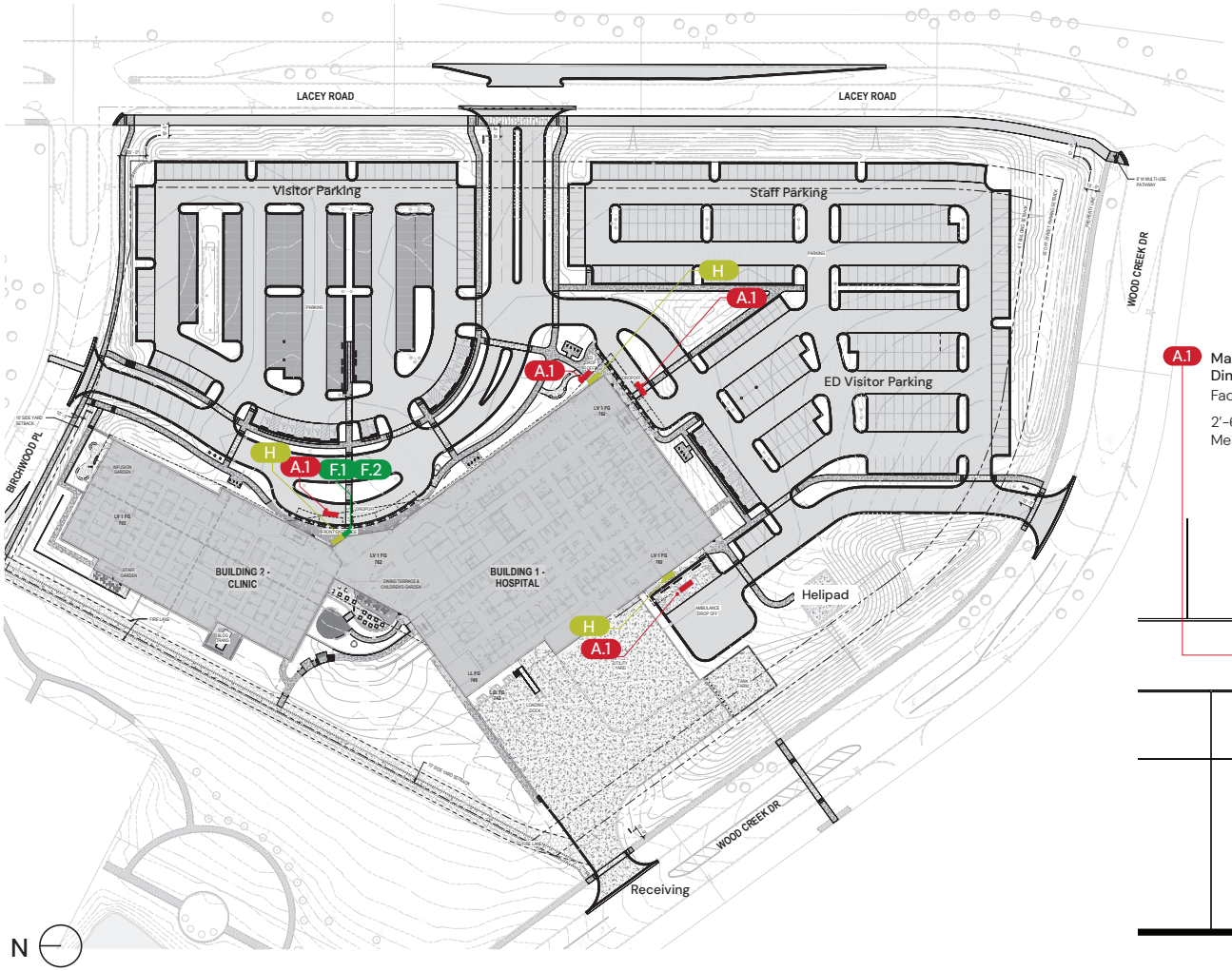
East Elevation - Bldg 1



South Elevation - Bldg 1

*The signage mockups shown are for massing purposes only and will be further developed in collaboration with the LCH team.*

# Entry Signs



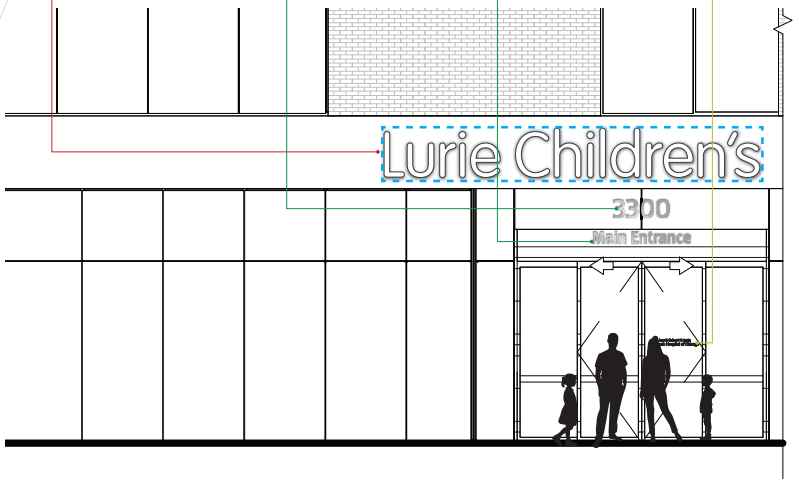

**A.1** Main Entrance Canopy Dimensional Letters
Face illuminated

2'-6" cap height
Messaging Area: 55 SF

**F.1** Building Address
1'-0"h numbers

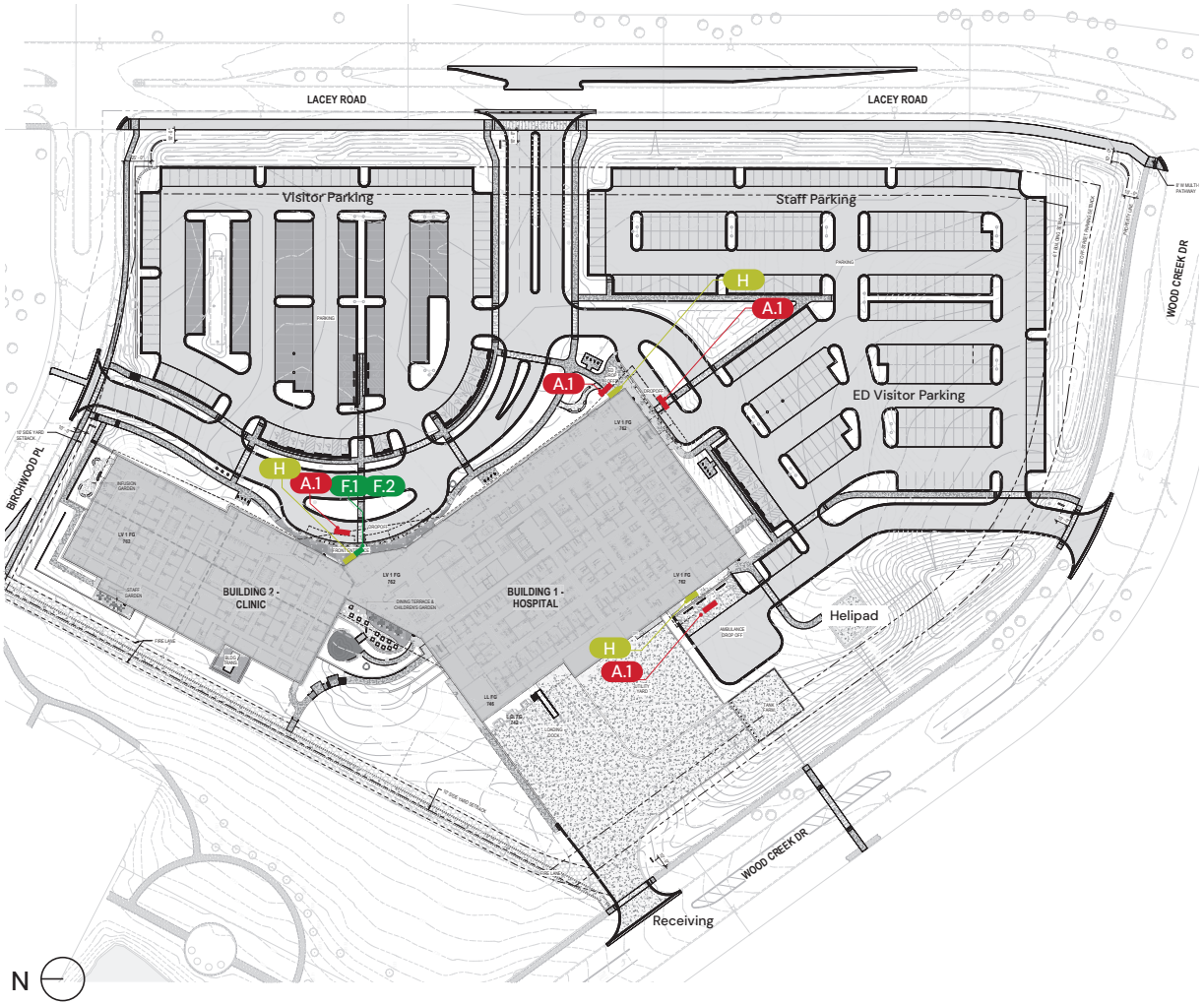
**F.2** Building Entry Dimensional Letters
8" cap height

**H** Vinyl Logo Applique
*Regulatory Information TBD*



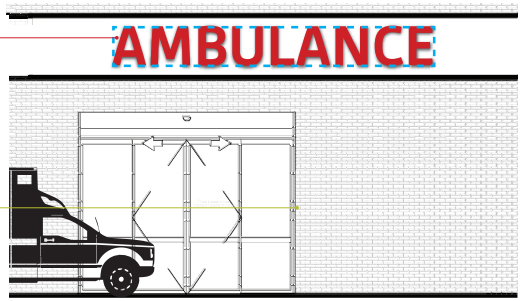

*The signage mockups shown are for massing purposes only and will be further developed in collaboration with the LCH team.*

# Entry Signs



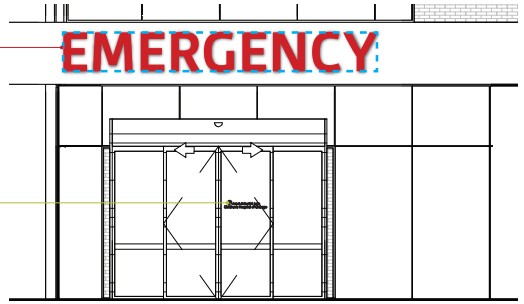

**A.1**
**Emergency/Ambulance Canopy Dimensional Letters**
Face illuminated
2'-6" cap height
Messaging Area: 52 SF

**H**
**Vinyl Logo Applique**
*Regulatory Information TBD*

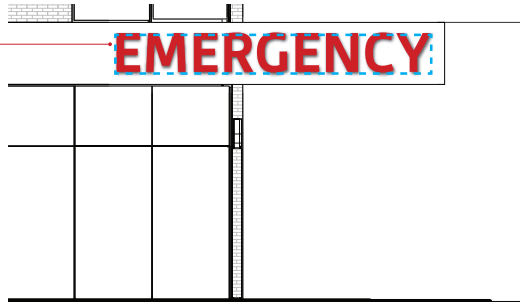



**A.1**
**Emergency/Ambulance Canopy Dimensional Letters**
Face illuminated
2'-6" cap height
Messaging Area: 51 SF

**H**
**Vinyl Logo Applique**
*Regulatory Information TBD*

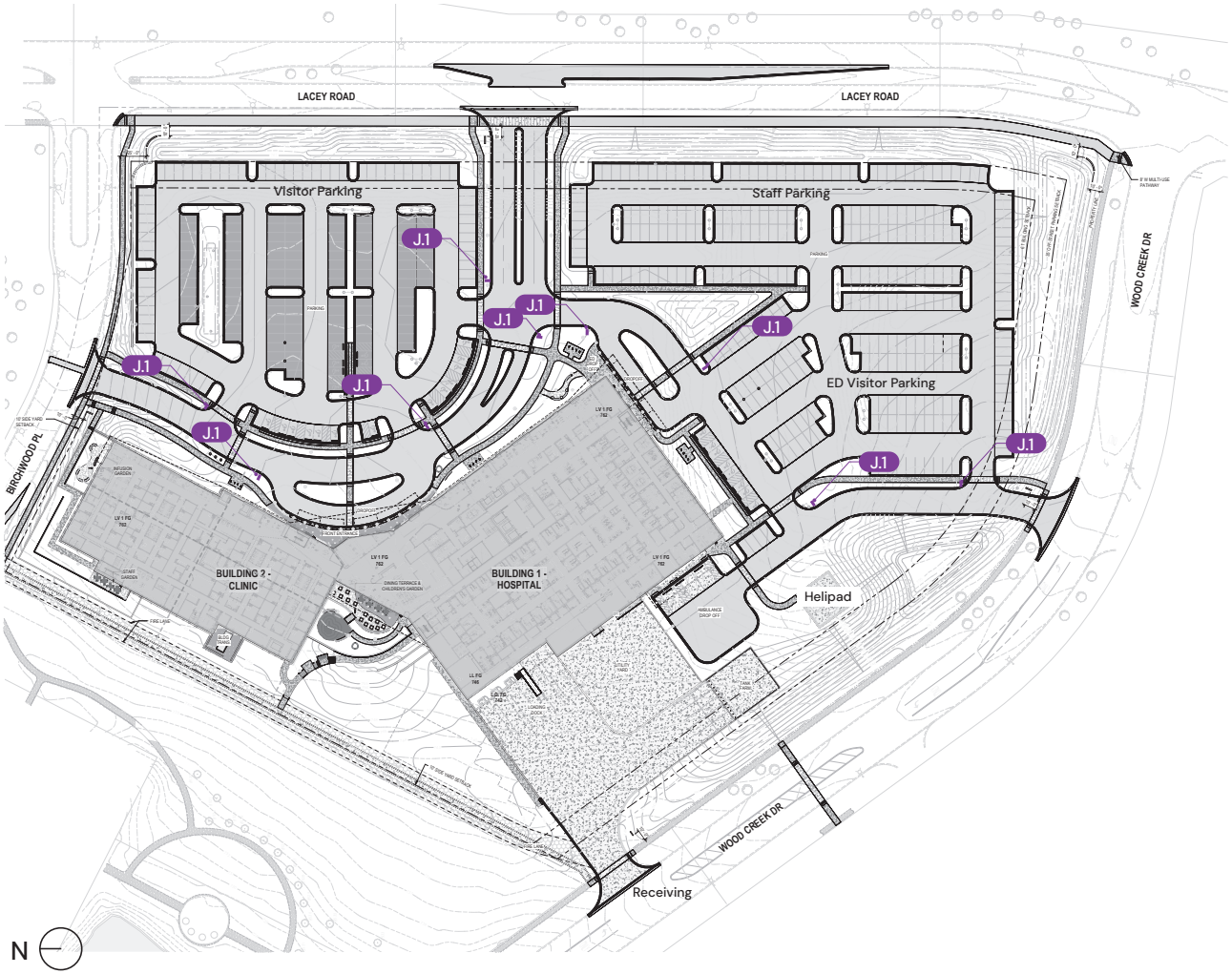


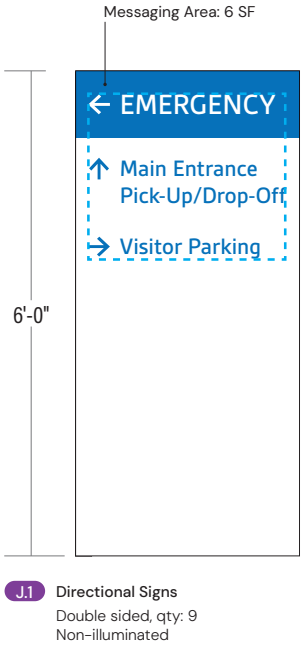

**A.1**
**Emergency/Ambulance Canopy Dimensional Letters**
Face illuminated
2'-6" cap height
Messaging Area: 51 SF




*The signage mockups shown are for massing purposes only and will be further developed in collaboration with the LCH team.*

# Directional Signs

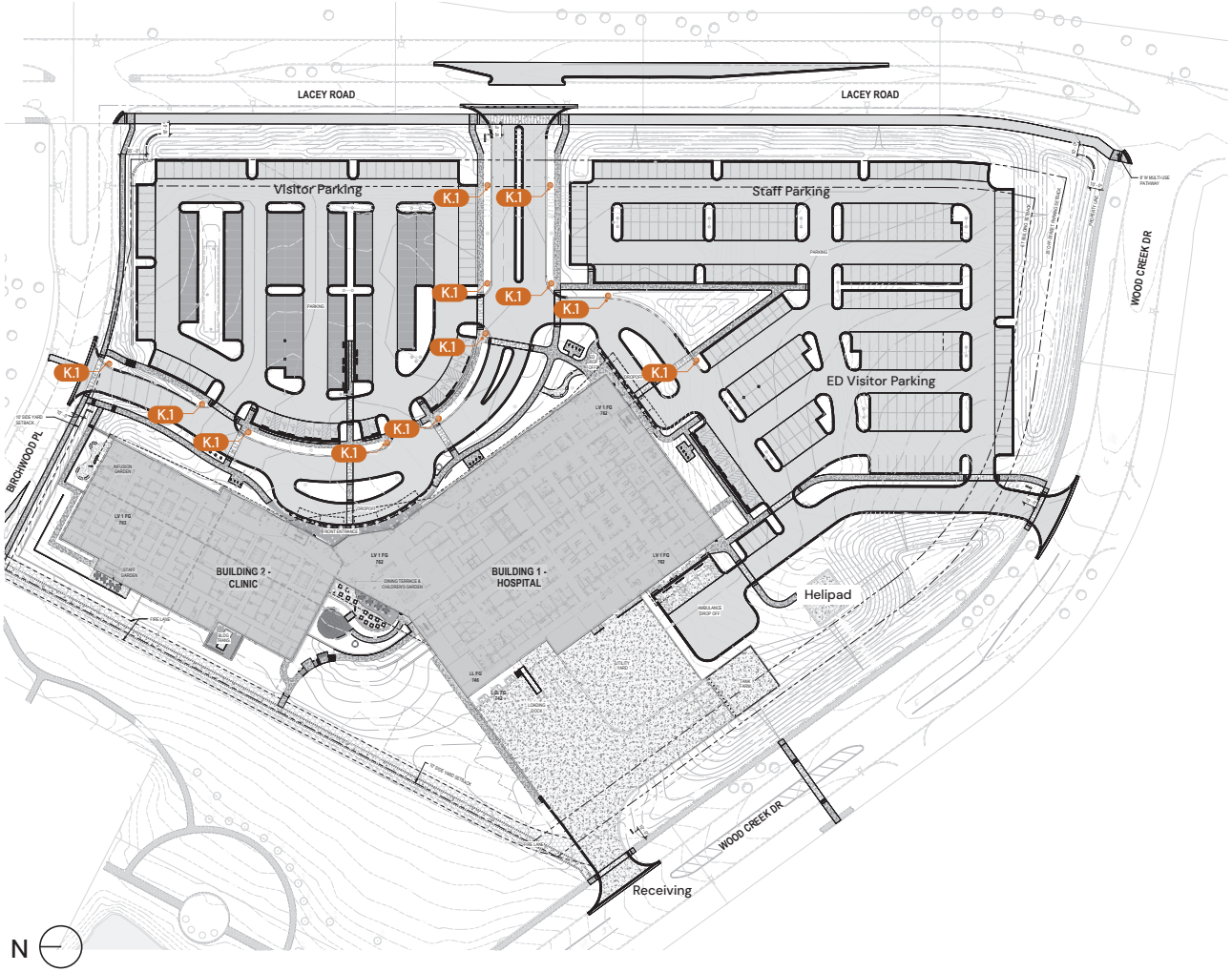


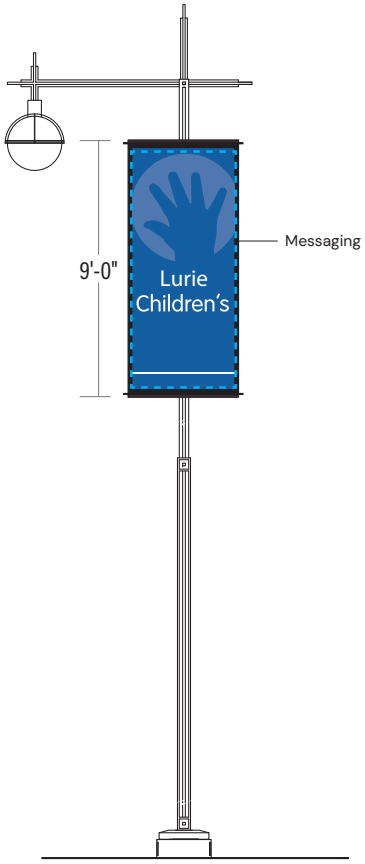




**J.1** Directional Signs
Double sided, qty: 9
Non-illuminated

*The signage mockups shown are for massing purposes only and will be further developed in collaboration with the LCH team.*

# Temporary Light Pole Banners




K.1 Temporary Light Pole Banners
Double sided, qty: 12
Non-illuminated

*The signage mockups shown are for massing purposes only and will be further developed in collaboration with the LCH team.*

*Requirements*

*Table 1 - Zoning regulations for proposed development.*

| Zoning Regulation | Required | Proposed |
|---|---|---|
| Building Lacey Road (East) | Hospital Bldg 1: 61’-0”<br>Clinic Bldg 2: 43’-0” | Hospital Bldg 1: 244’-7”<br>Clinic Bldg 2: 309’-7” |
| Building Woodcreek Drive (South) | Hospital Bldg 1: 61’-0”<br>Clinic Bldg 2: 43’-0” | Hospital Bldg 1: 195’-0”<br>Clinic Bldg 2: n/a |
| Building Side (West) | 10 feet | Hospital Bldg 1: 107’-4”<br>Clinic Bldg 2: 49’-3” |
| Building Rear (North) | 10 feet | Hospital Bldg 1: n/a<br>Clinic Bldg 2: 46’-5” |
| Parking Lacey Road (East) | 35 feet | 35 feet |
| Parking Woodcreek Drive (South) | 35 feet | 35 feet |
| Parking Side (West) | 10 feet | n/a |
| Parking Rear (North) | 10 feet | 11 feet |
| Parking Spaces | 471 spaces (min) | 501 spaces |
| Other Floor Area | 0.89<br>(511,672 sf max) | Hospital Bldg 1:<br>235,002sf<br>Clinic Bldg 2: 63,667sf<br>Total: 298,669sf |
| Other Building Height | 140 feet (max) | Hospital Bldg 1: 86’-0”<br>Clinic Bldg 2: 50’-0” |
| Other Open Space | 86,236.95 square feet<br>(15% of 574,913<br>square feet) | 262,000 square feet<br>(45.57% of 574,913<br>square feet) |

*Deviation Request*

*Table 2 - Deviation requests and petitioner's rationale.*

| Improvement | Relief Request | Petitioner's Rationale |
|---|---|---|
| Monument Signs – Street Frontage (per VoDG.28.9.050(b)(1)e) | Requirement: Two (2) monument signs, one (1) per street frontage<br><br>Proposed: Six (6) in total. One (1) on Birchwood Place, two (2) on Lacey Road, two (2) on Woodcreek Drive, and one (1) at the intersection of Lacey Road and Woodcreek Drive. | Additional monument signage is warranted to support safe, efficient wayfinding for traffic approaching the site from multiple directions, including visitors arriving for routine appointments and emergency-related access. The proposed gateway, primary, and secondary monument signs identify the site and direct vehicles to the appropriate entrances, while the deliveries signs separates service traffic from patient and visitor circulation. |
| Monument Sign – Interior Setback Along Birchwood Place (per VoDG.28.9.050(b)(1)b) | Requirement: Twenty-five (25) from all other lot lines.<br><br>Proposal: Ten (10) feet from North Property line (Birchwood Place). | The requested setback reduction is necessary to improve visibility and wayfinding for visitors accessing the site via the Birchwood Place entrance. |

| Improvement | Relief Request | Petitioner's Rationale |
|---|---|---|
| Window Signs (per VoDG.28.9.050(h)(2)) | Requirement: Can only cover up to twenty-five percent (25%) of one (1) window.<br><br>Proposed: A window sign is proposed on the north elevation of the building, though it utilizes multiple windows. The proposed window sign covers 27% of the overall window area. The combined area of the ten (10) smaller windowpanes is 350 square feet. The proposed logo graphic is 95 square feet, representing 27% coverage when considering the total area of the ten smaller windowpanes. | The proposed frost-look hand logo requires additional window coverage to maintain appropriate scale, visibility, and proportionality with the building façade. |
| Directional Signs (per VoDG.28.9.070(c)) | Requirement: Max allowed for directional signage is two (2) square feet.<br><br>Proposed: Six (6) square feet. | The proposed directional signs require additional sign area to provide legible, multi-message wayfinding for the main entrance, emergency entrance, and associated parking areas. |

| Improvement | Relief Request | Petitioner's Rationale |
|---|---|---|
| Total Sign Area (per VoDG.28.9.050(a)) | Requirement: 672 square feet max<br><br>Proposed: 865 square feet | The requested increase in total sign area is necessary to accommodate a coordinated sign program that provides clear site identification, building branding, and vehicular wayfinding across multiple frontages and access points. |
| Height of Primary Monument Sign (per VoDG28.9.050, Table 9-1) | Requirement: 10 feet max<br><br>Proposed: 15 feet | The requested increase in height of the primary monument sign is necessary to provide for a strong, highly visible sign for the main entrance so that patients, families and visitors can clearly find the hospital, emergency department, ambulance drop-off, and clinic locations |
| Approval of Temporary Banner Signs (per VoDG 28.9.020 (b)) | Requirement: Prohibited<br><br>Proposed: Allow up to 12 weeks per year | Applicant would like to have the ability to announce awards and celebrate accomplishments through temporary light pole banners. |

# Traffic Impact Study
# Ann & Robert H. Lurie Children's Hospital
Downers Grove, Illinois



Prepared For:

Ann & Robert H. Lurie
Children's Hospital of Chicago℠

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

July 22, 2026

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# I. Executive Summary

This report summarizes the results of a traffic impact study conducted by Kenig, Lindgren, O'Hara, Aboona, Inc. (KLOA, Inc.) for the proposed Ann & Robert H. Lurie Children's Hospital to be located within the Esplanade at Locust Point business park in Downers Grove, Illinois.

The objectives of the traffic study are as follows:

- Determine the existing vehicular, pedestrian, and public transportation conditions in the study area to establish a base condition.
- Determine travel routes to the proposed development and evaluate its connectivity to the area roadway network.
- Evaluate the internal circulation, layout, and proposed parking supply of the development
- Assess the impact that the proposed development will have on traffic conditions in the area and determine any roadway modifications and/or improvements that will be necessary to effectively accommodate and mitigate future conditions.

Vehicle counts were conducted during the weekday morning and weekday evening peak periods at the intersections of Butterfield Road with Woodcreek Drive/Lloyd Avenue, Esplanade Road, and the I-355 Interchange and at the intersections of Lacey Road with Woodcreek Drive (North and South), Esplanade Road, the access road north of the site (called Birchwood Place in this report), and Finley Road.

As proposed, the site will be developed with an approximately 298,669 square-foot hospital campus with a 235,507 square-foot hospital and a 63,162 square-foot ambulatory clinic. Access to the hospital will be provided via a full-movement access drive on Lacey Road, via two full-movement access drives on Woodcreek Drive, and a full-movement access drive on Birchwood Place. Parking will be accommodated via 501 surface parking spaces in two parking lots.

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

- The site is well located in regards to the regional and local roadway network which provides flexible connectivity to the Tollway system as well as major arterial roadways.
- The peak hours of trip generation for the proposed hospital will correspond to staff shift changes which will occur outside the peak hours of the roadway system.
- The area roadway system generally has sufficient reserve capacity to accommodate the traffic to be generated by the proposed development.

- Planned improvements to the Butterfield Road corridor by IDOT will improve operations along the roadway.

- The signal timings at the intersection of Butterfield Road with Woodcreek Drive and Lloyd Avenue would benefit from optimization, which will likely occur as part of IDOT's improvements.

- Access to the hospital campus will be provided via a full-movement access drive on Lacey Road, a full-movement access drive on Birchwood Place, and two full-movement access drives on Woodcreek Drive.

  - The proposed access system will accommodate projected hospital traffic volumes.

  - A northbound left-turn lane will be provided on Lacey Road serving the proposed access drive. A southbound right-turn lane will not be warranted. The left turn lane can be provided within the existing median without roadway widening.

  - Eastbound left-turn lanes will be provided on Woodcreek Drive at both proposed access drives.

  - Truck loading and passenger vehicle access will be separated.

- A traffic signal will not be warranted at the intersection of Lacey Road with Woodcreek Drive (South) or Lacey Road with the proposed access drive.

- The proposed internal access road system will efficiently accommodate hospital operations.

- The proposed parking supply of 501 spaces will be adequate in accommodating the peak parking demand of the proposed development.

# 1. Introduction

This report summarizes the methodologies, results, and findings of a traffic impact study conducted by Kenig, Lindgren, O'Hara, Aboona, Inc. (KLOA, Inc.) for the proposed Ann & Robert H. Lurie Children's Hospital to be located in Downers Grove, Illinois. The site, which is currently vacant, is located in the northwest corner of the intersection of Lacey Road with Woodcreek Drive within the Esplanade at Locust Point business park. As proposed, the site will be developed with an approximately 298,669 square-foot hospital campus with a 235,507 square-foot hospital and a 63,162 square-foot ambulatory clinic. Access to the hospital campus will be provided via a full-movement access drive on Lacey Road, via two full-movement access drives on Woodcreek Drive, and a full-movement access drive on Birchwood Place. Parking will be accommodated via 501 surface parking spaces in two parking lots.

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

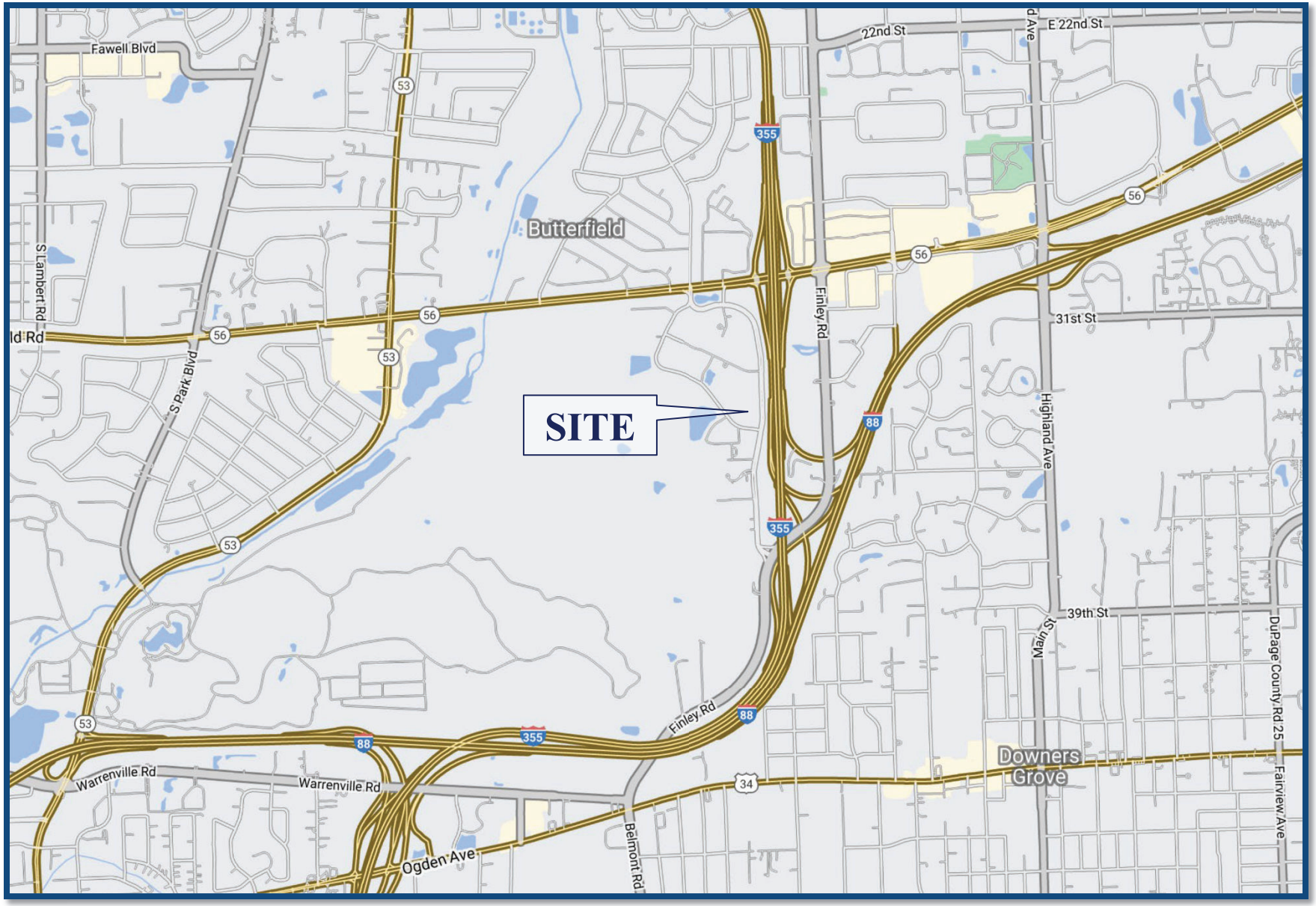
- Existing roadway conditions
- A description of the proposed hospital campus
- Directional distribution of the hospital campus traffic
- Vehicle trip generation for the hospital campus
- Future traffic conditions including access to the hospital campus
- Traffic analyses for the weekday morning and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

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

1. Existing Traffic Conditions – Analyzes the capacity of the existing roadway system using peak hour traffic volumes from traffic counts conducted in 2026.

2. Year 2032 No-Build Conditions – Analyzes the capacity of the existing roadway system using existing traffic volumes increased by an ambient area growth factor not attributable to any particular development.

3. Year 2032 Total Projected Conditions – Analyzes the capacity of the future roadway system using the projected traffic volumes that include the Year 2032 no-build volumes and the traffic estimated to be generated by the proposed hospital campus.




**Site Location**

*Lurie Children's Hospital*
*Downers Grove, Illinois*

**Figure 1**



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




**Aerial View of Site** **Figure 2**

# 2. Existing Conditions

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

## Site Location

The site, which is currently vacant, is bounded by Birchwood Place to the north, Lacey Road to the east, the 3250 Lacey Road office building to the west, and Woodcreek Drive to the south. The site is located within the Esplanade at Locust Point business park. Land uses within the vicinity are primarily office to the north and medical, industrial, office, and education to the south.

## Existing Roadway System Characteristics

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

*Interstate 355 (I-355)*

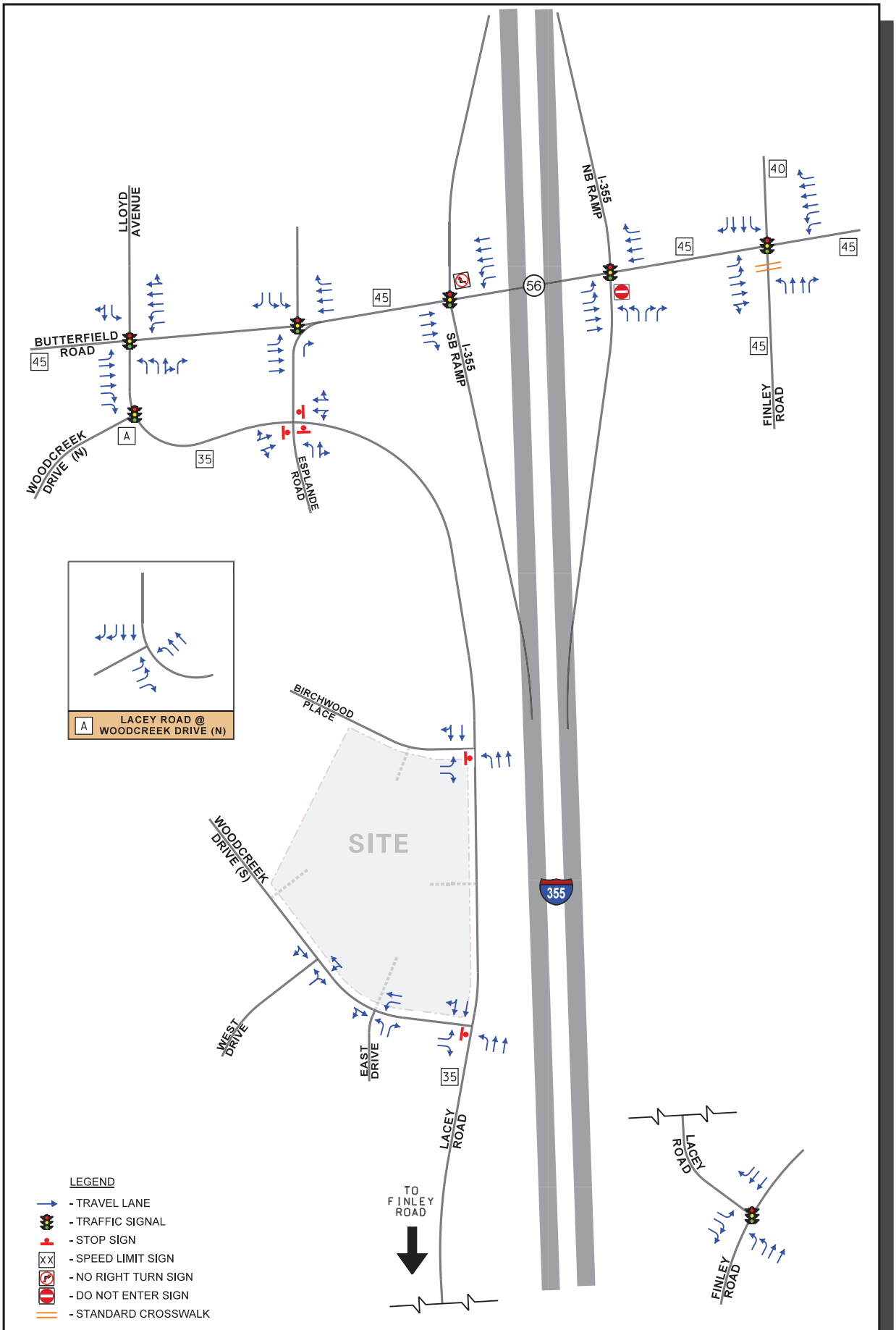
- North-south tollway
- Generally provides three travel lanes in each direction
- Jurisdiction of the Illinois State Toll Highway Authority (ISTHA)
- Carries an annual average daily traffic (AADT) volume of 126,000 vehicles (IDOT 2023)

*Butterfield Road (Illinois Route 56)*

- East-west principal arterial roadway.
- Designated as Strategic Regional Arterial (SRA) route.
- Provides three lanes in each direction narrowing to two lanes in each direction west of Woodcreek Drive
- Jurisdiction of the Illinois Department of Transportation (IDOT)
- Carries an annual AADT volume of 33,000 vehicles (IDOT 2023)
- Posted speed limit of 45 miles per hour

*Finley Road*

- North-south minor arterial roadway
- Not designated as an SRA route
- Provides two lanes in each direction
- Jurisdiction of the DuPage County Division of Transportation (DuDOT)
- Carries an annual AADT volume of 17,400 vehicles (IDOT 2024)
- Posted speed limit of 45 miles per hour




LURIE CHILDRENS HOSPITAL
DOWNERS GROVE, ILLINOIS

EXISTING ROADWAY CHARACTERISTICS

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*Lacey Road*

- North-south minor collector roadway
- Provides two lanes in each direction
- Jurisdiction of the Village of Downers Grove
- Carries an annual AADT volume of 17,400 vehicles (IDOT 2024)
- Posted speed limit of 35 miles per hour

*Woodcreek Drive*

- Circulatory local roadway
- Provides one lane in each direction
- Jurisdiction of the Village of Downers Grove
- Parking is generally permitted on the south/west side of the road
- Woodcreek Drive has a 25 mile per hour speed limit.

*Esplanade Road*

- Northbound only local roadway
- Provides two northbound lanes
- Jurisdiction of the Village of Downers Grove
- Esplanade Road has a 25 mile per hour speed limit.
- Parking is prohibited on both sides of the road.

*Birchwood Place*

Birchwood Place is a Village of Downers Grove road located west of the site which is not included in this study and will not be directly connected to the development. For clarity, the private access road immediately north of the site area, which operates as an extension of Birchwood Place, is called Birchwood Place throughout the report.

*Lloyd Avenue*

- North-south local roadway
- Provides one lane in each direction
- Jurisdiction of Milton Township
- Posted speed limit of 25 miles per hour
- On Street parking is prohibited on both sides of the road from 6:00 A.M. to 7:00 P.M.

## Public Transit

The site area is served by Pace Bus Route 715 which provides weekday service between Darien and Addison along Cass Avenue, 31st Street, Butterfield Road, and Glen Ellyn Road. Within the site area, bus stops are provided at the intersections of Butterfield Road with Woodcreek Drive and Butterfield Road with Esplanade Road.

The site area was previously served by Pace Bus Route 465 which provided weekday service between the Belmont Station of the BNSF Metra Railroad and the uses in and around Esplanade at Locust Point. The closest bus stop for this route is located on Woodcreek Drive immediately adjacent to the site. This route stopped operating in 2020 and service was never continued.

## Planned IDOT Roadway Projects

The segment of Butterfield Road within the site area is part of two IDOT projects which have begun construction.

### *Butterfield Road (IL 56) SMART Corridor*

As planned, the Butterfield Road and 22nd Street corridor from Illinois Route 59 in the west to York Road in the east will be integrated as one of IDOT's new SMART Corridor projects. The project will include implementation of multiple *Intelligent Transportation Systems* elements including the following:

- Signal Modernization, Traffic Signal Interconnect, Travel Time Monitoring, Closed-circuit television cameras, and Dynamic message signs which will be used to coordinate flow along the corridor and provide IDOT and drivers with real time information. This coordination and monitoring will allow for optimization of travel flow along the corridor.

- Transit signal priority and transit vehicle pre-emption which will allow for more efficient operations for transit vehicles along the corridor.

- Emergency vehicle preemption, which is already provided along a majority of the corridor, will be expanded to further improve travel times for emergency vehicles. This will include ambulance traffic destined for the proposed hospital.

- Pedestrian countdown signals to improve pedestrian safety at corridor intersections.

Some additional improvements will be provided with this project including ADA improvements and bus pad improvements. A new bus pad is planned for the southeast corner of the intersection of Woodcreek Drive with Butterfield Road. Construction on this project has already begun.

### *Butterfield Road (IL 56) and IL 53 Project*

As planned, Butterfield Road and IL 53 will be improved through their intersection with each other and east along Butterfield Road to I-355. Butterfield Road currently narrows to two lanes in each direction west of Woodcreek Drive and is planned to be widened to three lanes in each direction through the whole project area. Within the site area, the intersections along Butterfield Road will only be maintained (resurfacing, bridge repair, etc.) with minimal geometric changes in order to accommodate the widening of Butterfield Road west of the site area. Construction on this project has already begun.

## Existing Traffic Volumes

In order to determine current traffic conditions within the study area, KLOA, Inc. conducted peak period traffic counts utilizing Miovision Scout Collection Units at the following intersections:

- Butterfield Road with Woodcreek Drive and Lloyd Avenue
- Butterfield Road with Esplanade Road
- Butterfield Road with the I-355 Interchange
- Lacey Road with Woodcreek Drive (North)
- Lacey Road with Esplanade Road
- Lacey Road with the access road north of the site
- Lacey Road with Woodcreek Drive (South)
- Lacey Road with Finley Road

The traffic counts were conducted on Thursday February 5, 2026, during the weekday morning (6:00 A.M. to 9:00 A.M.) and weekday evening (2:00 P.M. to 6:00 P.M.) peak periods. The results of the traffic counts show that the peak hours of traffic generally occur between 7:45 A.M. and 8:45 A.M. during the weekday morning peak period and between 4:00 P.M. and 5:00 P.M. during the weekday evening peak period. Copies of the traffic count summary sheets are included in the Appendix. The counts at the intersection of Butterfield Road with Woodcreek Drive were compared to counts previously conducted at this intersection in January 2023 be similar but higher indicating the counts reflect typical conditions.

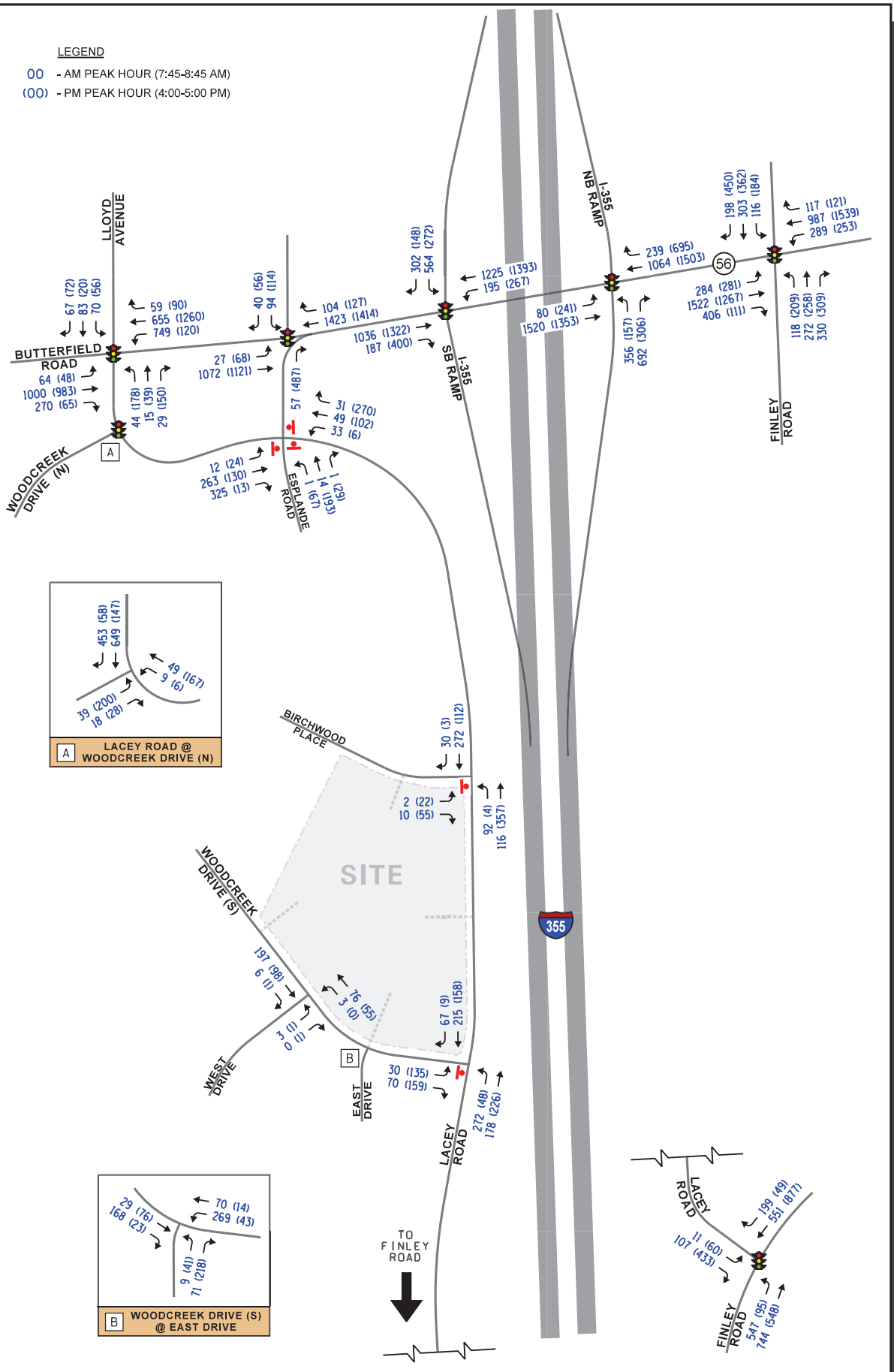
The existing traffic volumes are illustrated in **Figure 4**.

## Crash Analysis

KLOA, Inc. obtained accident data for the most recent available past six years (2020 to 2024) for the study area intersections. A review of the data revealed the following:

- No crashes were reported at the intersections of Lacey Road with Birchwood Place.
- One total crash was reported at the intersection of Lacey Road with Esplanade Road and the intersection of Lacey Road with Woodcreek Drive (South).
- Three total crashes were reported at the intersection of Lacey Road with Woodcreek Drive (North).
- No fatalities were reported at any intersection during the reviewed period.

Summaries of the crash data at the remaining intersections are shown in **Tables 1** through **5**.




LURIE CHILDRENS HOSPITAL
DOWNERS GROVE, ILLINOIS

EXISTING TRAFFIC VOLUMES

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Table 1
BUTTERFIELD ROAD WITH WOODCREEK DRIVE/LLOYD AVENUE – CRASH SUMMARY

| Year | Type of Crash | | | | | | | | Severity | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | A | HO | O | RE | S | T | Other | Total | PD | I | F |
| 2020 | 0 | 0 | 0 | 3 | 0 | 2 | 0 | 5 | 2 | 3 | 0 |
| 2021 | 0 | 0 | 0 | 3 | 1 | 3 | 0 | 7 | 6 | 1 | 0 |
| 2022 | 1 | 0 | 0 | 2 | 0 | 3 | 0 | 6 | 5 | 1 | 0 |
| 2023 | 1 | 0 | 0 | 1 | 0 | 3 | 0 | 5 | 3 | 2 | 0 |
| 2024 | 0 | 0 | 0 | 2 | 1 | 4 | 0 | 7 | 3 | 4 | 0 |
| **Total** | **2** | **0** | **0** | **11** | **2** | **15** | **0** | **30** | **19** | **11** | **0** |
| **Avg** | **<1.0** | **--** | **--** | **2.2** | **<1.0** | **3.0** | **--** | **6.0** | **3.8** | **2.2** | **--** |

A – Angle; HO – Head On; O – Object; RE – Rear End; S – Sideswipe; T – Turning
PD – Property Damage; I – Injury; F - Fatal

Table 2
BUTTERFIELD ROAD WITH ESPLANADE ROAD – CRASH SUMMARY

| Year | Type of Crash | | | | | | | | Severity | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | A | HO | O | RE | S | T | Other | Total | PD | I | F |
| 2020 | 0 | 0 | 0 | 1 | 0 | 2 | 0 | 3 | 3 | 0 | 0 |
| 2021 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 0 |
| 2022 | 0 | 0 | 0 | 1 | 0 | 3 | 0 | 4 | 2 | 2 | 0 |
| 2023 | 0 | 0 | 0 | 3 | 0 | 3 | 0 | 6 | 5 | 1 | 0 |
| 2024 | 0 | 0 | 0 | 0 | 0 | 4 | 0 | 4 | 3 | 1 | 0 |
| **Total** | **0** | **0** | **0** | **5** | **0** | **13** | **0** | **18** | **13** | **5** | **0** |
| **Avg** | **--** | **--** | **--** | **1.0** | **--** | **2.6** | **--** | **3.6** | **2.6** | **1.0** | **--** |

A – Angle; HO – Head On; O – Object; RE – Rear End; S – Sideswipe; T – Turning
PD – Property Damage; I – Injury; F - Fatal

Table 3
BUTTERFIELD ROAD WITH I-355 NORTHBOUND RAMPS – CRASH SUMMARY

| Year | Type of Crash | | | | | | | | Severity | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | A | HO | O | RE | S | T | Other | Total | PD | I | F |
| 2020 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 2 | 2 | 0 | 0 |
| 2021 | 0 | 0 | 0 | 1 | 0 | 2 | 1 | 4 | 3 | 1 | 0 |
| 2022 | 0 | 0 | 0 | 3 | 0 | 1 | 0 | 4 | 3 | 1 | 0 |
| 2023 | 0 | 0 | 1 | 1 | 0 | 3 | 0 | 5 | 4 | 1 | 0 |
| 2024 | 0 | 0 | 0 | 2 | 0 | 3 | 0 | 5 | 5 | 0 | 0 |
| **Total** | **0** | **0** | **1** | **7** | **0** | **11** | **1** | **20** | **17** | **3** | **0** |
| **Avg** | **--** | **--** | **<1.0** | **1.4** | **--** | **2.2** | **<1.0** | **4.0** | **3.6** | **<1.0** | **0** |

A – Angle; HO – Head On; O – Object; RE – Rear End; S – Sideswipe; T – Turning
PD – Property Damage; I – Injury; F - Fatal

Table 4
BUTTERFIELD ROAD WITH I-355 SOUTHBOUND RAMPS – CRASH SUMMARY

| Year | Type of Crash | | | | | | | | Severity | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | A | HO | O | RE | S | T | Other | Total | PD | I | F |
| 2020 | 0 | 0 | 0 | 1 | 0 | 3 | 0 | 4 | 3 | 1 | 0 |
| 2021 | 2 | 0 | 0 | 1 | 0 | 2 | 0 | 5 | 4 | 1 | 0 |
| 2022 | 2 | 0 | 0 | 2 | 0 | 3 | 0 | 7 | 4 | 3 | 0 |
| 2023 | 0 | 0 | 0 | 2 | 0 | 2 | 0 | 4 | 3 | 1 | 0 |
| 2024 | 0 | 0 | 0 | 2 | 0 | 2 | 0 | 4 | 3 | 1 | 0 |
| **Total** | **4** | **0** | **0** | **8** | **0** | **12** | **0** | **24** | **17** | **7** | **0** |
| **Avg** | **<1.0** | **--** | **--** | **1.6** | **--** | **2.4** | **--** | **4.8** | **3.6** | **1.4** | **--** |

A – Angle; HO – Head On; O – Object; RE – Rear End; S – Sideswipe; T – Turning
PD – Property Damage; I – Injury; F - Fatal

Table 5
FINLEY ROAD WITH LACEY ROAD – CRASH SUMMARY

| Year | Type of Crash | | | | | | | | Severity | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | A | HO | O | RE | S | T | Other | Total | PD | I | F |
| 2020 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 0 |
| 2021 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 2022 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 |
| 2023 | 0 | 0 | 1 | 2 | 0 | 1 | 0 | 4 | 3 | 1 | 0 |
| 2024 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 1 | 0 | 0 |
| **Total** | **0** | **0** | **2** | **3** | **0** | **2** | **0** | **7** | **5** | **2** | **0** |
| **Avg** | **--** | **--** | **<1.0** | **<1.0** | **--** | **<1.0** | **--** | **1.4** | **1.0** | **<1.0** | **--** |

A – Angle; HO – Head On; O – Object; RE – Rear End; S – Sideswipe; T – Turning
PD – Property Damage; I – Injury; F - Fatal

# 3. Traffic Characteristics of the Proposed Hospital

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

## Proposed Site and Hospital Campus Plan

As proposed, the site will be developed with an approximately 298,669 square-foot hospital campus with a 235,507 square-foot hospital and a 63,162 square-foot ambulatory clinic. Parking will be accommodated via 501 surface parking spaces in two parking lots. **Figure 5** shows the site plan on an aerial of the roadway network. A copy of the preliminary site plan is included in the Appendix.

Access to the development will be provided as follows:

- A proposed full-movement access drive on Lacey Road located approximately 525 feet north of Woodcreek Drive (Drive A on Figure 5).
    - The access drive will provide two inbound lane and two outbound lanes striped for a left-turn lane and a right-turn lane.
    - Outbound movements will be under stop sign control.
    - A northbound left-turn lane serving this access drive will be provided on Lacey Road within the existing median. This turn lane can be provided without roadway widening, and should provide 145 feet of storage and a 175-foot taper.
- A proposed full-movement access drive on the Birchwood Place located approximately 245 feet west of Lacey Road (Drive B on Figure 5).
    - The access drive will provide one inbound lane and one outbound lane.
    - Outbound movements will be under stop sign control.
    - At its existing intersection with Lacey Road, the access road provides one inbound lane and two outbound lanes, and a northbound left-turn lane is provided on Lacey Road.
- A proposed full-movement access drive on Woodcreek Drive located approximately 400 feet west of Lacey Road opposite an existing office access drive on the south side of Woodcreek Drive. (Drive C on Figure 5)
    - The access drive will provide one inbound lane and one outbound lane.
    - Outbound movements will be under stop sign control.
    - This access drive will be the primary ambulance entrance but will also serve staff and patient traffic.
    - Woodcreek Drive will be restriped to provide an eastbound left-turn lane for vehicles waiting to enter the site.




LURIE CHILDRENS HOSPITAL
DOWNERS GROVE, ILLINOIS

PRELIMINARY SITE PLAN

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- A proposed full-movement access drive on Woodcreek Drive located approximately 920 feet west of Lacey Road (Drive D on Figure 5).
    - This access drive will serve truck traffic accessing the hospital loading bay and will not be connected to the rest of the site access system. Signage indicating this access drive is for deliveries will be provided.
    - The access drive will provide one inbound lane and one outbound lane
    - Outbound movements will be under stop sign control.
    - Woodcreek Drive will be restriped to provide an eastbound left-turn lane for vehicles waiting to enter the site.
    - It should be noted that parking is prohibited on the north side of Woodcreek Drive at this location and parked cars will not inhibit the ability of vehicles to turn into the site.

## Internal Circulation

Within the hospital campus site, traffic will circulate as follows:

- Passenger vehicles, both staff and patients/visitors will be able enter the site via the Lacey Road access, Birchwood Place, and the east Woodcreek Drive access.
    - Truck traffic will be separated and will use the west access drive on Woodcreek Drive.
    - The site is designed such that the Lacey Road access is the primary and most accessible access point.
- The primary internal access road will extend between the Lacey Road access drive and Birchwood Place.
    - From this access road, vehicles will have indirect access to both parking lots, the drop-off/pick-up area, and emergency and ambulance drop-off.
    - The number of intersections along this access road has been limited to promote efficient flow along the access road as it will be a primary internal travel route.
    - Where possible, connections on one side of this access road line up with connections on the other side to reduce the number of intersections.
    - The first internal intersection west of Lacey Road is approximately 215 feet west of Lacey Road to limit the interaction with the intersection.
- The north parking lot will be primarily used by patients and visitors.
    - Access to the lot will be provided via three access drives on the primary internal access road. There will be no direct access to parking from the access road.

- The lot is located near the drop-off/pick-up area and vehicles will be able to easily transition between the two.

- The south parking lot will be primarily used by staff but will not be restricted to staff only.
  - Access to the lot will be provided via connection to the primary internal access road and via the east Woodcreek Drive access.

- The emergency drop-off area will have a dedicated separate loop on the southeast side of the hospital building.
  - The area will be accessible via any passenger vehicle access drive but will most efficiently be accessed from the main site access on Lacey Road.
  - The area is located next to the staff parking lot. This lot will have a lower turnover of vehicles outside of staff shift changes, and staff will be more aware of site operations and better able to yield to emergency traffic.

- The ambulance drop-off area will have a dedicated area on the south side of the hospital.
  - The area will be accessible via any passenger vehicle access drive but will most efficiently be accessed from the Woodcreek Drive east access. This will help separate ambulance traffic from patient/visitor traffic.
  - Similar to the emergency drop-off area, this area is located next to the staff parking lot. This lot will have a lower turnover of vehicles outside of staff shift changes, and staff will be more aware of site operations and better able to yield to emergency traffic.

- The non-emergency drop-off/pick-up area will be provided within a dedicated lane on the east side of building between the hospital and the ambulatory clinic.
  - This area will be accessed via the primary internal access road but will be separated by a median to prevent drop-off/pick-up activity from blocking the primary internal access road.
  - This area is located near the patient/visitor parking lot and vehicles will be able to easily transition between the two.

- Pedestrian circulation will be accommodated via a proposed sidewalk system.
  - The sidewalk system will connect to the existing sidewalk system on Lacey Road and Woodcreek Drive.
  - The existing sidewalk along Lacey Road will be improved to be a shared-use path.
  - Sidewalk will be provided along the west side of the site connecting the Esplanade sidewalk system to the hospital sidewalk system and Woodcreek Drive system.

- Internally, sidewalk will be provided around the proposed buildings and around the perimeter of the patient/visitor parking lot.
- Crosswalks will be provided at multiple locations connecting the parking areas to the building entrances.
    - These crosswalks should be high visibility crosswalks
    - "Stop for Pedestrian" signage should be provided within each crossing.
- Crosswalks will be provided where the sidewalk crosses internal connections to the main access road.
    - These crosswalks should be high visibility crosswalks
    - The access movements turning onto the main access road should be under stop sign control.
- Appropriate ADA accommodations should be provided for all pedestrian routes.

## Roadway Network Access

The proposed hospital campus is located within the Esplanade at Locust Point business park which is well situated within the roadway network with good connectivity to area arterial roadways as well as the tollways including I-355 and I-88. The routes by which vehicles will approach the hospital campus site from the greater roadway network as illustrated in **Figure 6** and described below.

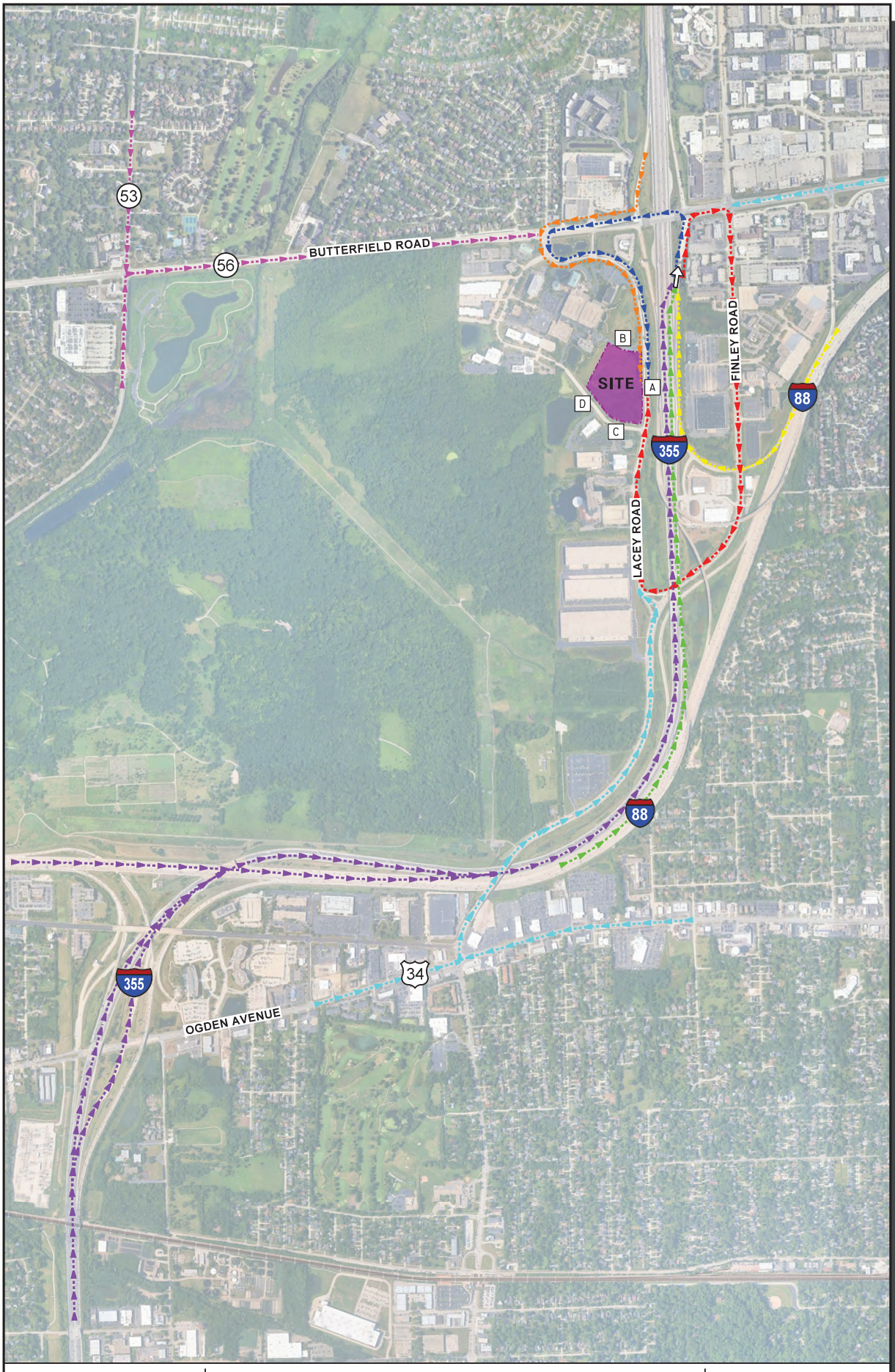
- Traffic *to/from the north on I-355* will turn to/from Butterfield Road at their signalized interchange and approach the site the same way as traffic to/from the east on Butterfield Road.

- Traffic *to/from the south on I-355* will turn to/from Butterfield Road at their signalized interchange and approach the site the same way as traffic to/from the east on Butterfield. In addition, some of this traffic may instead exit at I-355's signalized interchange with Ogden Avenue and approach/depart the site along the same route as traffic to/from Ogden Avenue.

- Traffic *to/from the east on I-88* will merge to/from I-355 south of Butterfield Road and approach/depart the site the same way as traffic to/from the south on I-355. In addition, a small amount of this traffic may instead exit at I-88's signalized interchange with Highland Avenue and approach/depart the site along the same route as traffic to/from the east on Butterfield Road.

- Traffic *to/from the west on I-88* will merge to/from I-355 south of Butterfield Road and approach/depart the site the same way as traffic to/from the south on I-355. In addition, a small amount of this traffic may instead exit at I-355's signalized interchange with Ogden Avenue and approach/depart the site along the same route as traffic to/from Ogden Avenue.

- Traffic from *Butterfield Road (to/from the west) and IL 53* will approach via Butterfield Road and enter at the signalized intersection of Butterfield Road with Woodcreek Drive. This traffic will return via the same intersection.




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REGIONAL ACCESS ROUTES

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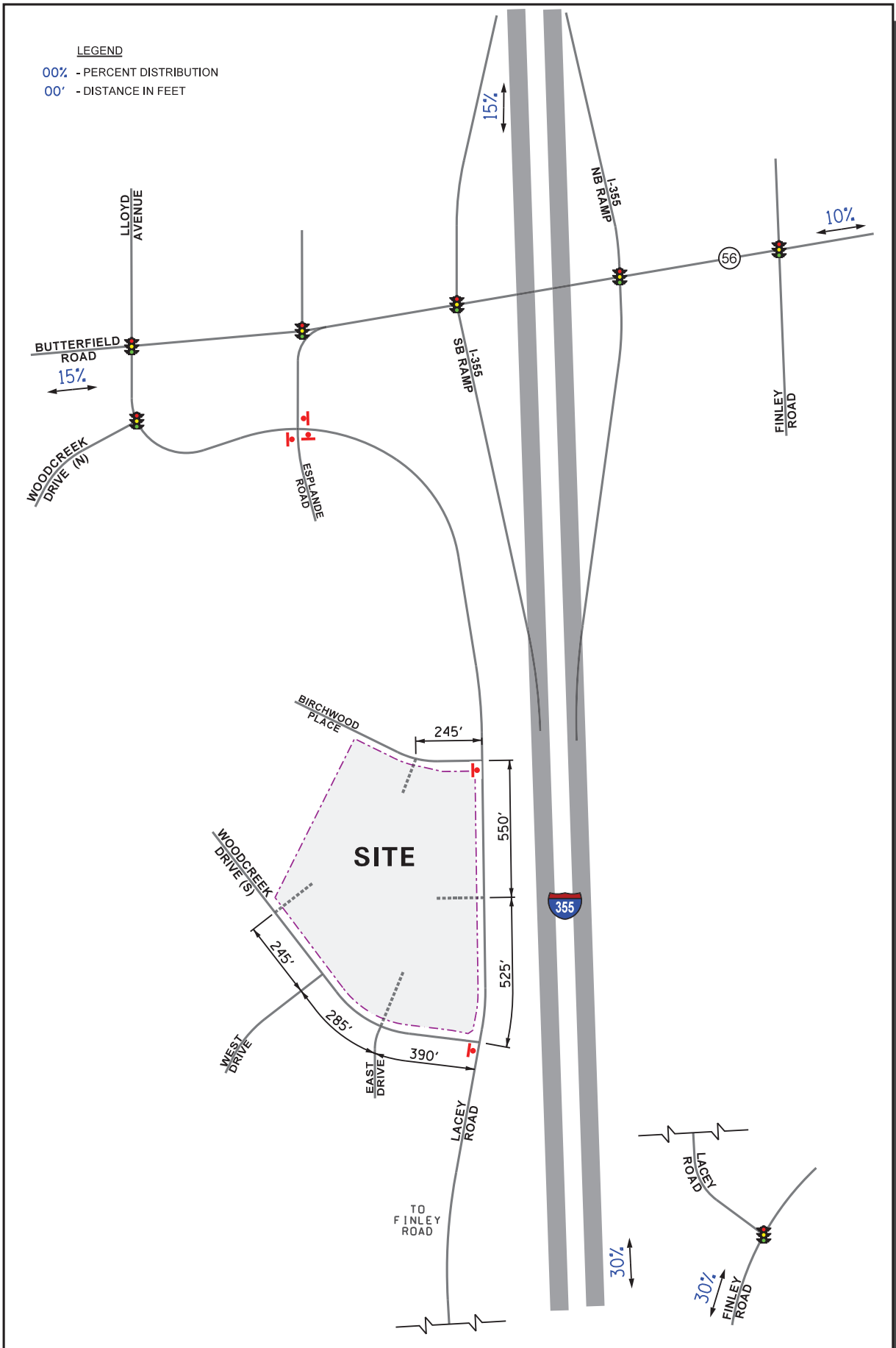
- Traffic from *Butterfield Road (to/from the east)* will approach via Butterfield Road and enter at the signalized intersection of Butterfield Road with Woodcreek Drive. This traffic return via this signal or via the signalized intersection of Butterfield Road with Esplanade Road.

- Traffic from *Ogden Avenue (U.S. Route 34)* will approach via Finley Road and enter at the signalized intersection of Finley Road and Lacey Road. This traffic will return via the same intersection.

- Some traffic approaching from the south on I-355 or I-88 may choose to turn right at the interchange exit and travel south on Finley Road to access the site from the south. It is likely this will only be used by staff familiar with area arriving during peak hours of roadway traffic. It is unlikely any traffic will leave this direction.

## Directional Distribution

The directions from which employees and patient will approach and depart the site were estimated based on the roadway network access and based on existing travel patterns, as determined from the traffic counts. **Figure 7** illustrates the directional distribution of the development-generated traffic. Figure 7 also shows the distance, in feet, between the existing and proposed access intersections.




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DIRECTIONAL DISTRIBUTION

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## Peak Hour Traffic Volumes

The number of peak hour trips to be generated by the proposed hospital campus was estimated twice based on two different methodologies:

- Based on vehicle trip generation rates published by the Institute of Transportation Engineers (ITE) from the *Trip Generation Manual*, 12th Edition
- Based on information provided by the operator for this specific facility.

The ITE trip generation rates were used in this study as they provide for a more conservative analysis of the peak hours. It should be noted that the hospital campus is expected to generate less traffic on weekends. Further, the surrounding office uses generate significantly less traffic on weekends that weekdays. As such, only the weekday was evaluated.

### *Peak Hour Traffic Volumes Based ITE Trip Generation*

The following vehicle trip generation rates from the *Trip Generation Manual*, 12th Edition, published by the ITE were used:

- The "Hospital" (Land-Use Code 610) rates were used to determine the traffic to be generated by the hospital building. The rates were estimated based on the number of beds provided (48 beds) as this number better reflects the actual patient capacity of the hospital. It should be noted that this LUC is based on beds but includes all hospital traffic as it is based on survey data.
- The "Medical-Dental Office Building" (Land-Use Code 720) rates were used to determine the traffic to be generated by the clinic as they more closely match the ambulatory nature of the clinic. The within/near hospital campus sub-use was utilized to reflect the connection to the adjacent Hospital.

**Table 6** shows the weekday morning and weekday evening peak hour traffic to be generated by the proposed development as well as the daily total traffic volumes.

Table 6
PROJECTED DEVELOPMENT-GENERATED TRAFFIC VOLUMES - ITE

| ITE Land-Use Code | Type/Size | Weekday Morning Peak Hour | | | Weekday Evening Peak Hour | | | Daily Trips | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | In | Out | Total | In | Out | Total | In | Out | Total |
| 610 | Hospital (48 Beds) | 62 | 24 | 86 | 27 | 54 | 81 | 573 | 573 | 1,146 |
| 720 | Medical-Dental Office Building[1] (61,714 s.f.) | 123 | 33 | 156 | 31 | 106 | 137 | 1,078 | 1,078 | 2,166 |
| | **Total** | **185** | **57** | **242** | **58** | **160** | **218** | **1,651** | **1,651** | **3,312** |

*Peak Hour Traffic Volumes Based on Operator Information*

The amount of traffic that will be generated by the hospital campus was estimated based on information provided regarding employee count, shift times, and estimated patient and visitor volumes for the proposed hospital campus (hospital and clinic). **Table 7** summarizes the projected trip generation for multiple hours in the morning and evening including the hospital's peak hours of trip generation and the roadway peak hour of trip generation.

Table 7
PROJECTED DEVELOPMENT-GENERATED TRAFFIC VOLUMES
OPERATOR INFORMATION

| Time | In | Out | Total |
|---|---|---|---|
| **Weekday Morning Hours** | | | |
| 6:00 AM | 239 | 16 | 255 |
| 7:00 AM | 18 | 55 | 73 |
| 8:00 AM | 43 | 14 | 57 |
| **Weekday Evening Hours** | | | |
| 4:00 PM | 36 | 66 | 102 |
| 5:00 PM | 33 | 35 | 68 |
| 6:00 PM | 71 | 168 | 239 |
| **Daily Total** | | | |
| 24 Hour Sum | 863 | 863 | 1726 |

*Trip Generation Conclusions*

The following important conclusions can be made based on a comparison of the ITE trip generation and the trip generation based on operator information:

- The peak hours of traffic for the hospital campus (6:00 to 7:00 A.M. and 6:00 to 7:00 P.M) will fall outside the peak hours of roadway traffic (7:45 to 8:45 A.M. and 4:30 to 5:30 P.M.)
    - The time of the hospital campus peak hour (hospital and clinic) is the result of shift schedules of employees, with many employees of both the hospital and clinic beginning their shifts at 7:00 A.M. and ending their shifts at 6:00 P.M.
    - The peak hour of roadway traffic aligns with the typical peak hour of office uses where employees typically start around 8:00 A.M. or 9:00 A.M. and end around 4:00 P.M. or 5:00 P.M. This does not align with the peak hour for the hospital or clinic.

- Patient and visitor traffic will be distributed throughout the day and will not follow a typical commuter schedule.

- It is important to note that traffic on area roadways is much less outside the roadway peak hours. For example, at the intersection of Butterfield Road with Woodcreek Drive and Lloyd Avenue, the weekday morning peak hour of roadway traffic (7:45 to 8:45 A.M.) is more than double the volume of vehicles as the hospital campus peak hour of traffic (6:00 to 7:00 A.M.)

- The ITE traffic projections for the hospital campus during the peak hour of roadway traffic are much higher than the projected hospital campus traffic during those times based on information provided.

  - When analyzing the peak hour of roadway traffic, using the ITE rates for trip generation provides for a conservative analysis as the proposed hospital will likely not generate this much traffic during these times.

- The ITE projections for the hospital campus during the morning and evening peak hours of roadway traffic are comparable (within 21 vehicles) of the projected hospital campus peak hour traffic based on information provided. As such, using the ITE rates is similar to using the peak hour of hospital campus traffic volumes.

- The daily traffic generated by the hospital campus based on ITE is significantly higher than the daily traffic based on information provided. As such, the ITE rate is conservative.

The capacity analysis for this study analyzed the peak hour of roadway traffic and used ITE trip generation rates. Based on the above, it is determined that this is a conservative approach.

# 4. Projected Traffic Conditions

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

## Development Traffic Assignment

The estimated weekday morning and evening peak hour traffic volumes that will be generated by the proposed hospital campus were assigned to the roadway system in accordance with the previously described directional distribution (Figure 7). The traffic assignment for the development is illustrated in **Figure 8.**

## Background (No-Build) Traffic Conditions

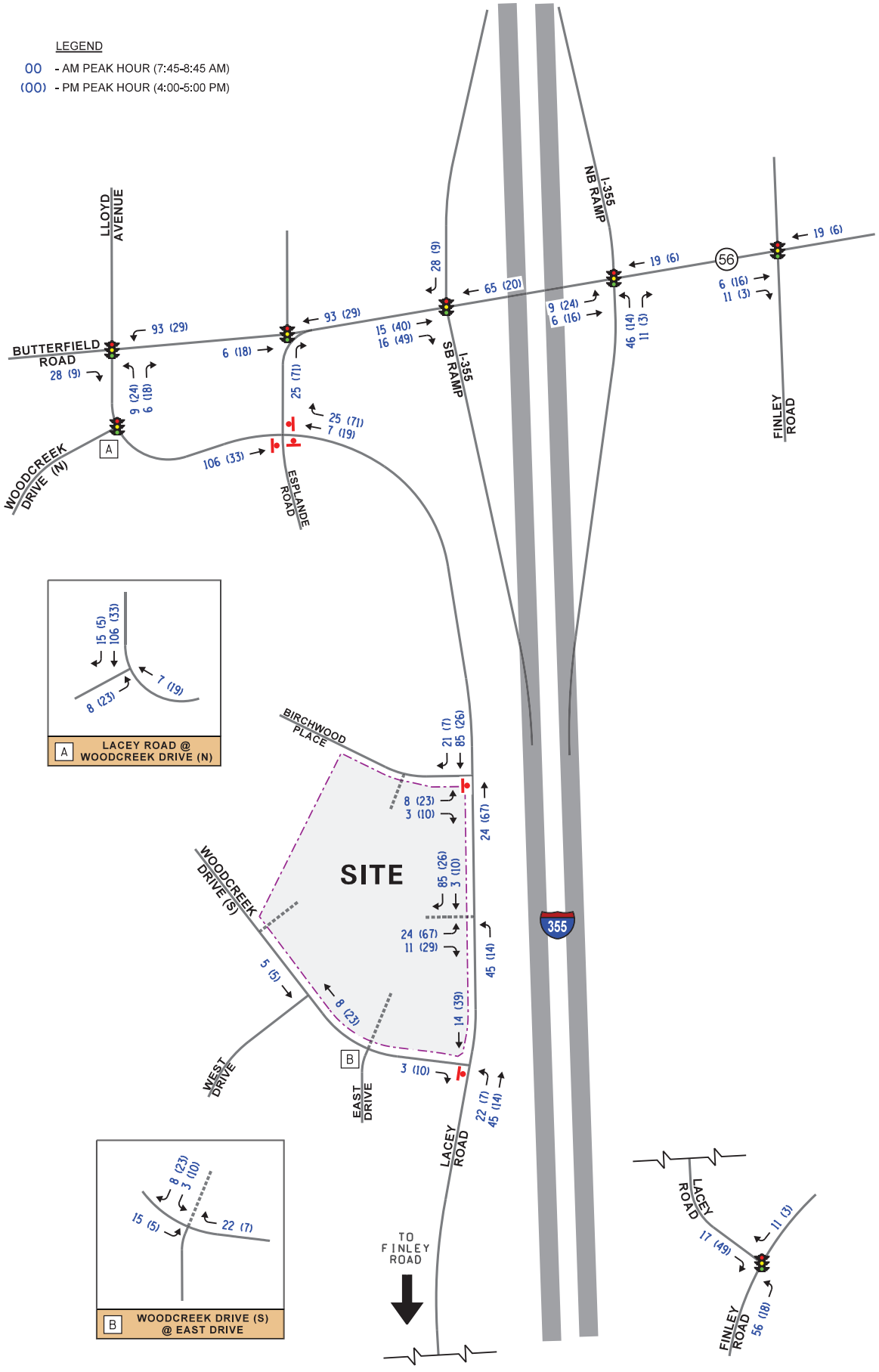
The existing traffic volumes (Figure 4) were increased by a regional growth factor to account for the increase in existing traffic related to regional growth in the area (i.e., not attributable to any particular planned development). Based on Average Daily Traffic (ADT) projections provided by the Chicago Metropolitan Agency for Planning (CMAP), the existing traffic volumes were increased by an annually compounded growth rate of 0.6 percent per year for six years (buildout year plus five years) for a total of approximately 3.7 percent to project Year 2032 background conditions. A copy of the CMAP 2050 projections letter is included in the Appendix.

In addition, the traffic that will be generated by a proposed industrial development on Warrenville Road west of Finley Road was added to the roadway network.

**Figure 9** illustrates the Year 2032 no-build conditions.

## Total Projected Traffic Volumes

The development-generated traffic (Figure 8) was added to the Year 2032 no-build traffic volumes (Figure 9) to determine the Year 2029 total projected traffic volumes, shown in **Figure 10.**

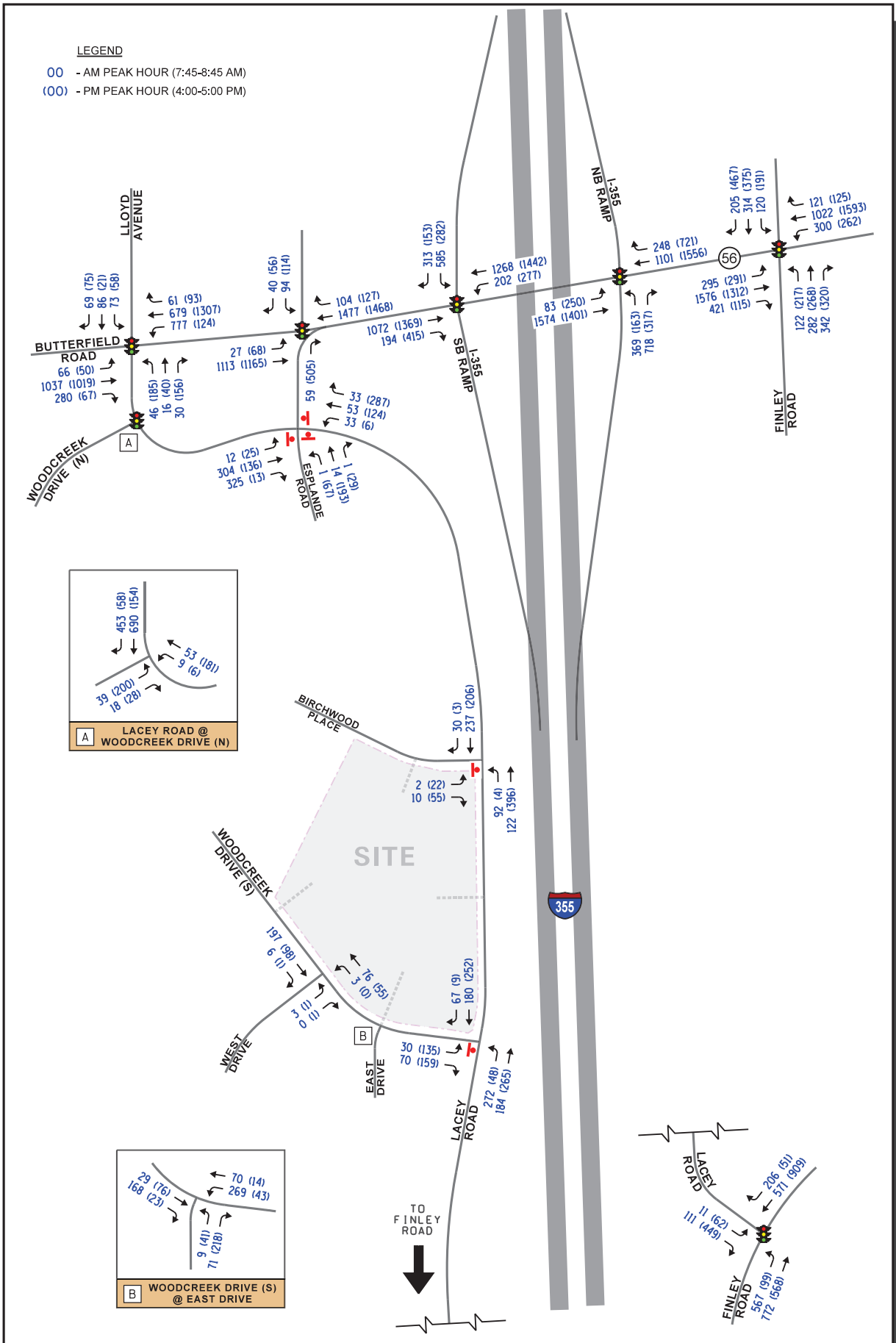



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NEW SITE TRAFFIC VOLUMES

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Job No: 26-010 Figure: 8

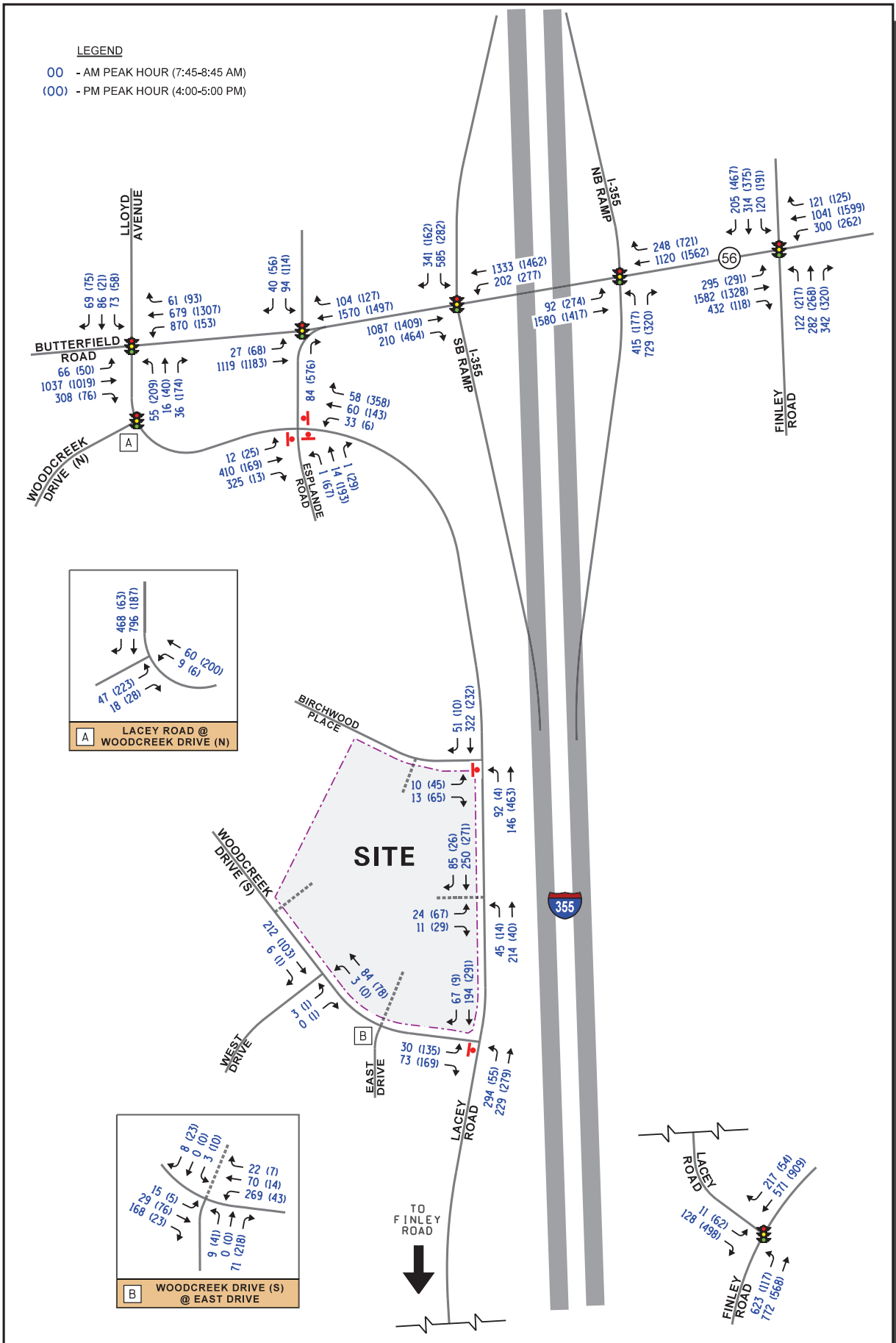



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YEAR 2032 NO-BUILD TRAFFIC VOLUMES

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

Job No: 26-010 Figure: 9




LURIE CHILDRENS HOSPITAL
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YEAR 2032 TOTAL TRAFFIC VOLUMES

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

Job No: 26-010 Figure: 10

# 5. Traffic Analysis and Recommendations

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

## Traffic Analyses

Roadway and adjacent or nearby intersection analyses were performed for the weekday morning and weekday evening peak hours for the existing, Year 2032 no-build, and Year 2032 total projected traffic volumes.

The traffic analyses were performed using the methodologies outlined in the Transportation Research Board's *Highway Capacity Manual (HCM),* 7th Edition and analyzed using Synchro/SimTraffic 12 software. The analysis for the traffic-signal controlled intersections was accomplished using actual and field-measured 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, Year 2032 no-build, and Year 2032 total projected conditions are presented in **Tables 8** through **16**. A discussion of each intersection follows. Summary sheets for the capacity analyses are included in the Appendix.

Table 8
CAPACITY ANALYSIS RESULTS – SIGNALIZED – BUTTERFIELD ROAD WITH WOODCREEK DRIVE/LLOYD AVENUE

| | Peak Hour | Eastbound | | | Westbound | | | Northbound | | | Southbound | | | Overall |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | L | T | R | L | T | R | L | T | R | L | T | R | |
| Existing Conditions | Weekday Morning | E 64.8 | C 27.4 | A 2.9 | E 71.1 | B 13.1 | | D 44.5 | C 27.0 | A 2.5 | E 57.4 | E 58.0 | | D 35.5 |
| | | C - 24.2 | | | D - 42.8 | | | C - 29.9 | | | E - 57.8 | | | |
| | Weekday Evening | E 70.1 | B 14 | A 0.0 | F 82.2 | A 5.7 | | D 40.4 | C 21 | B 11.9 | E 79.2 | C 28.4 | | B 16.9 |
| | | B - 15.7 | | | B - 11.9 | | | C - 28.1 | | | D - 47.6 | | | |
| No-Build Conditions | Weekday Morning | E 65.0 | C 28.2 | A 2.9 | E 72.9 | B 12.7 | | E 58.6 | C 25.9 | A 2.0 | E 57.4 | E 59.1 | | D 36.3 |
| | | C - 24.8 | | | D - 43.5 | | | D - 36.4 | | | E - 58.5 | | | |
| | Weekday Evening | E 70.3 | B 14.3 | A 0.0 | F 82.5 | A 6.1 | | D 41.1 | C 21.5 | B 11.7 | F 80.1 | C 28.4 | | B 17.3 |
| | | B - 16 | | | B - 12.3 | | | C - 28.6 | | | D - 47.8 | | | |
| Projected Conditions | Weekday Morning | E 65.0 | C 28.2 | A 2.8 | F 113.0 | B 11.7 | | E 66.3 | C 22.3 | A 1.3 | E 65.5 | E 59.6 | | D 47.6 |
| | | C - 24.4 | | | E – 66.4 | | | D – 40.1 | | | E - 61.5 | | | |
| | Weekday Morning[1] | E 65.0 | C 27.1 | A 2.8 | F 96.7 | B 10.1 | | E 72.3 | D 46.1 | A 2.8 | E 70.4 | E 71.6 | | D 43.6 |
| | | C – 23.5 | | | E – 56.9 | | | D – 49.6 | | | E – 71.2 | | | |
| | Weekday Evening | E 70.3 | B 15.1 | A 0.3 | F 85.8 | A 6.2 | | D 43.6 | B 19.8 | B 11.6 | F 80.1 | C 28.4 | | B 18.5 |
| | | B - 16.6 | | | B - 14 | | | C - 29.5 | | | D - 47.8 | | | |

Letter denotes Level of Service L – Left Turn R – Right Turn
Delay is measured in seconds. T – Through 1 – With Optimized Timings

Table 9
CAPACITY ANALYSIS RESULTS – SIGNALIZED – BUTTERFIELD ROAD WITH ESPLANADE ROAD/HOME DEPOT ACCESS

| | Peak Hour | Eastbound | | Westbound | | Northbound | Southbound | | Overall |
|---|---|---|---|---|---|---|---|---|---|
| | | L | T | T | R | R | L | R | |
| **Existing Conditions** | **Weekday Morning** | F<br>95.9 | A<br>0.7 | A<br>6.7 | A<br>0.2 | A<br>0.6 | E<br>58.0 | A<br>5.3 | A<br>6.6 |
| | | A - 3 | | A - 6.2 | | | D - 42.3 | | |
| | **Weekday Evening** | F<br>101.6 | A<br>4.3 | A<br>7.2 | A<br>0.8 | D<br>40.9 | E<br>63.5 | B<br>10.4 | B<br>14.7 |
| | | A - 9.9 | | A - 6.7 | | | D - 46 | | |
| **No-Build Conditions** | **Weekday Morning** | F<br>95.4 | A<br>0.8 | A<br>6.5 | A<br>0.2 | A<br>0.6 | E<br>58.0 | A<br>5.3 | A<br>6.4 |
| | | A - 3 | | A - 6 | | | D - 42.3 | | |
| | **Weekday Evening** | F<br>101.4 | A<br>4.4 | A<br>7.2 | A<br>0.7 | D<br>45.2 | E<br>63.5 | B<br>10.3 | B<br>15.2 |
| | | A - 9.7 | | A - 6.7 | | | D - 46 | | |
| **Projected Conditions** | **Weekday Morning** | F<br>94.9 | A<br>0.8 | A<br>6.2 | A<br>0.1 | A<br>1.7 | E<br>58.0 | A<br>5.3 | A<br>6.3 |
| | | A – 3.0 | | A - 5.8 | | | D - 42.3 | | |
| | **Weekday Evening** | F<br>100.2 | A<br>4.7 | A<br>7.6 | A<br>0.6 | E<br>72.5 | E<br>63.5 | B<br>10.3 | C<br>20.3 |
| | | A - 9.9 | | A - 7.1 | | | D - 45.9 | | |

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

Table 10
CAPACITY ANALYSIS RESULTS – SIGNALIZED – BUTTERFIELD ROAD WITH I-355 SOUTHBOUND RAMPS

| | Peak Hour | Eastbound | | Westbound | | Southbound | | Overall |
|---|---|---|---|---|---|---|---|---|
| | | T | R | L | T | L | R | |
| Existing Conditions | Weekday Morning | A<br>7.2 | A<br>1.1 | E<br>59.6 | B<br>10.6 | D<br>44.6 | D<br>38.5 | B<br>19.7 |
| | | A - 6.3 | | B - 17.3 | | D - 42.5 | | |
| | Weekday Evening | B<br>10.0 | A<br>2.7 | E<br>63.2 | A<br>2.6 | E<br>57.5 | C<br>33.5 | B<br>14.6 |
| | | A - 8.3 | | B - 12.4 | | D - 49 | | |
| No-Build Conditions | Weekday Morning | A<br>7.4 | A<br>1.1 | E<br>60.5 | B<br>11.9 | D<br>43.9 | D<br>38.4 | C<br>20.1 |
| | | A - 6.4 | | B - 18.6 | | D – 42.0 | | |
| | Weekday Evening | B<br>10.4 | A<br>2.9 | E<br>62.8 | A<br>2.5 | E<br>56.8 | C<br>33.7 | B<br>14.6 |
| | | A - 8.7 | | B - 12.2 | | D - 48.6 | | |
| Projected Conditions | Weekday Morning | A<br>7.9 | A<br>1.1 | E<br>60.4 | B<br>13.1 | D<br>42.7 | D<br>41.1 | C<br>20.6 |
| | | A - 6.8 | | B - 19.3 | | D – 42.1 | | |
| | Weekday Evening | B<br>11.0 | A<br>3.0 | E<br>62.0 | A<br>2.3 | E<br>56.1 | D<br>35.3 | B<br>14.6 |
| | | A – 9.0 | | B - 11.8 | | D - 48.5 | | |

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

Table 11
CAPACITY ANALYSIS RESULTS – SIGNALIZED – BUTTERFIELD ROAD WITH I-355 NORTHBOUND RAMPS

| | Peak Hour | Eastbound | | Westbound | | Northbound | | Overall |
|---|---|---|---|---|---|---|---|---|
| | | T | T | T | R | L | R | |
| **Existing Conditions** | **Weekday Morning** | E<br>60.1 | B<br>12.3 | B<br>17.2 | A<br>7.0 | C<br>34.0 | D<br>43.1 | C<br>21.6 |
| | | B - 14.6 | | B - 15.3 | | D – 40.0 | | |
| | **Weekday Evening** | F<br>80.5 | A<br>2.6 | A<br>5.1 | A<br>2.2 | E<br>57.1 | D<br>39.9 | B<br>12.5 |
| | | B - 14.4 | | A - 4.2 | | D - 45.7 | | |
| **No-Build Conditions** | **Weekday Morning** | E<br>59.8 | B<br>12.9 | B<br>18.1 | A<br>7.3 | C<br>33.7 | D<br>43.8 | C<br>22.2 |
| | | B - 15.2 | | B - 16.1 | | D - 40.4 | | |
| | **Weekday Evening** | F<br>80.8 | A<br>2.8 | A<br>5.4 | A<br>2.6 | E<br>55.7 | D<br>42.8 | B<br>12.9 |
| | | B - 14.6 | | A - 4.5 | | D - 47.2 | | |
| **Projected Conditions** | **Weekday Morning** | E<br>58.3 | B<br>13.4 | B<br>19.0 | A<br>7.6 | C<br>34.0 | D<br>43.7 | C<br>22.8 |
| | | B – 15.9 | | B - 16.6 | | D - 40.2 | | |
| | **Weekday Evening** | F<br>81.8 | A<br>2.8 | A<br>5.7 | A<br>2.7 | E<br>55.8 | D<br>43.6 | B<br>13.6 |
| | | B - 15.6 | | A - 4.7 | | D - 47.9 | | |

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

Table 12
CAPACITY ANALYSIS RESULTS – SIGNALIZED – LACEY ROAD WITH WOODCREEK DRIVE (NORTH)

| | Peak Hour | Eastbound | | Northbound | | Southbound | | Overall |
|---|---|---|---|---|---|---|---|---|
| | | L | R | L | T | T | R | |
| Existing Conditions | Weekday Morning | E<br>55.3 | C<br>23.1 | A<br>1.7 | A<br>2.0 | A<br>1.3 | A<br>0.1 | A<br>3.0 |
| | | D - 45.1 | | A - 1.9 | | A - 0.8 | | |
| | Weekday Evening | E<br>62.0 | B<br>17.0 | A<br>3.2 | A<br>3.4 | A<br>2.0 | A<br>0.0 | C<br>22.7 |
| | | E - 56.4 | | A - 3.4 | | A - 1.4 | | |
| No-Build Conditions | Weekday Morning | E<br>55.3 | C<br>23.1 | A<br>1.7 | A<br>2.0 | A<br>1.5 | A<br>0.1 | A<br>3.0 |
| | | D - 45.1 | | A – 2.0 | | A - 0.9 | | |
| | Weekday Evening | E<br>62.0 | B<br>17.0 | A<br>3.2 | A<br>3.4 | A<br>2.0 | A<br>0.0 | C<br>22.0 |
| | | E - 56.4 | | A - 3.4 | | A - 1.4 | | |
| Projected Conditions | Weekday Morning | E<br>55.5 | C<br>22.8 | A<br>1.8 | A<br>2.1 | A<br>3.7 | A<br>0.6 | A<br>4.5 |
| | | D - 46.4 | | A – 2.0 | | A - 2.5 | | |
| | Weekday Evening | E<br>61.6 | B<br>16.4 | A<br>3.3 | A<br>3.8 | A<br>2.0 | A<br>0.0 | C<br>21.7 |
| | | E - 56.5 | | A - 3.7 | | A - 1.5 | | |

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

Table 13
CAPACITY ANALYSIS RESULTS – SIGNALIZED – FINLEY ROAD WITH LACEY ROAD

| | Peak Hour | Northbound | | Southbound | | Eastbound | | Overall |
|---|---|---|---|---|---|---|---|---|
| | | L | T | T | R | L | R | |
| **Existing Conditions** | **Weekday Morning** | D<br>47.1 | A<br>2.7 | B<br>15.3 | A<br>4.3 | D<br>48.3 | B<br>12.2 | B<br>18.0 |
| | | C - 21.5 | | B - 12.4 | | B - 15.6 | | |
| | **Weekday Evening** | E<br>57.2 | A<br>3.1 | A<br>8.3 | A<br>0.6 | E<br>55.9 | A<br>9.5 | B<br>10.6 |
| | | B - 11.1 | | A - 7.9 | | B - 15.2 | | |
| **No-Build Conditions** | **Weekday Morning** | D<br>46.8 | A<br>2.8 | B<br>15.8 | A<br>4.9 | D<br>48.2 | B<br>12.1 | B<br>18.1 |
| | | C - 21.4 | | B - 12.9 | | B - 15.4 | | |
| | **Weekday Evening** | E<br>57.3 | A<br>3.1 | A<br>8.5 | A<br>0.6 | E<br>56 | A<br>9.5 | B<br>10.7 |
| | | B - 11.2 | | A - 8.1 | | B - 15.1 | | |
| **Projected Conditions** | **Weekday Morning** | D<br>45.8 | A<br>2.8 | B<br>17.1 | A<br>6.5 | D<br>48.1 | B<br>11.8 | B<br>18.9 |
| | | C – 22.0 | | B - 14.2 | | B – 14.7 | | |
| | **Weekday Evening** | E<br>57.4 | A<br>3.2 | A<br>9.1 | A<br>0.6 | D<br>54.9 | A<br>9.3 | B<br>11.3 |
| | | B - 12.5 | | A - 8.6 | | B - 14.3 | | |

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

Table 14
CAPACITY ANALYSIS RESULTS – UNSIGNALIZED – EXISTING CONDITIONS

| Intersection | Weekday Morning Peak Hour | | Weekday Evening Peak Hour | |
|---|---|---|---|---|
| | LOS | Delay | LOS | Delay |
| **Lacey Road with Esplanade Drive[1]** | | | | |
| • Overall | B | 10.4 | B | 11.9 |
| • Eastbound Approach | B | 10.9 | A | 9.9 |
| • Westbound Approach | A | 8.1 | B | 12.7 |
| • Northbound Approach | A | 8.8 | B | 12.1 |
| **Lacey Road with Birchwood Place[2]** | | | | |
| • Eastbound Left Turn | B | 12.1 | B | 10.8 |
| • Eastbound Right Turn | A | 9.3 | A | 8.9 |
| • Northbound Left Turn | A | 8.2 | A | 7.5 |
| **Lacey Road with Woodcreek Drive (South)[2]** | | | | |
| • Eastbound Left Turn | C | 17.3 | B | 12.7 |
| • Eastbound Right Turn | A | 9.6 | A | 9.6 |
| • Northbound Left Turn | A | 8.7 | A | 7.7 |
| **Woodcreek Drive with West Existing Office Access Drive[2]** | | | | |
| • Westbound Left Turn | A | 7.8 | -- | -- |
| • Northbound Approach | B | 10.8 | A | 9.1 |
| **Woodcreek Drive with East Existing Office Access Drive[2]** | | | | |
| • Westbound Left Turn | A | 8.6 | A | 7.5 |
| • Northbound Approach | B | 10.8 | A | 9.9 |

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

Table 15
CAPACITY ANALYSIS RESULTS – UNSIGNALIZED – NO-BUILD CONDITIONS

| Intersection | Weekday Morning Peak Hour | | Weekday Evening Peak Hour | |
|---|---|---|---|---|
| | LOS | Delay | LOS | Delay |
| **Lacey Road with Esplanade Drive[1]** | | | | |
| • Overall | B | 10.9 | B | 12.2 |
| • Eastbound Approach | B | 11.5 | A | 10.0 |
| • Westbound Approach | A | 8.2 | B | 13.0 |
| • Northbound Approach | A | 8.9 | B | 12.4 |
| **Lacey Road with Birchwood Place[2]** | | | | |
| • Eastbound Left Turn | B | 11.8 | B | 11.6 |
| • Eastbound Right Turn | A | 9.1 | A | 9.3 |
| • Northbound Left Turn | A | 8.1 | A | 7.7 |
| **Lacey Road with Woodcreek Drive (South)[2]** | | | | |
| • Eastbound Left Turn | C | 16.9 | B | 14.0 |
| • Eastbound Right Turn | A | 9.4 | B | 10.1 |
| • Northbound Left Turn | A | 8.6 | A | 8.0 |
| **Woodcreek Drive with West Existing Office Access Drive[2]** | | | | |
| • Westbound Left Turn | A | 7.8 | -- | -- |
| • Northbound Approach | B | 10.8 | A | 9.1 |
| **Woodcreek Drive with East Existing Office Access Drive[2]** | | | | |
| • Westbound Left Turn | A | 8.6 | A | 7.5 |
| • Northbound Approach | B | 10.8 | A | 9.9 |

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

Table 16
CAPACITY ANALYSIS RESULTS – UNSIGNALIZED – PROJECTED CONDITIONS

| Intersection | Weekday Morning Peak Hour | | Weekday Evening Peak Hour | |
|---|---|---|---|---|
| | LOS | Delay | LOS | Delay |
| **Lacey Road with Esplanade Drive[1]** | | | | |
| • Overall | B | 12.1 | C | 15.2 |
| • Eastbound Approach | B | 12.9 | A | 10.7 |
| • Westbound Approach | A | 8.4 | C | 18.1 |
| • Northbound Approach | A | 9.2 | B | 13.4 |
| **Lacey Road with Birchwood Place[2]** | | | | |
| • Eastbound Left Turn | B | 12.8 | B | 12.0 |
| • Eastbound Right Turn | A | 9.5 | A | 9.3 |
| • Northbound Left Turn | A | 8.4 | A | 7.8 |
| **Lacey Road with Proposed Site Access Drive[2]** | | | | |
| • Eastbound Left Turn | B | 13.0 | B | 14.0 |
| • Eastbound Right Turn | A | 9.3 | A | 9.3 |
| • Northbound Left Turn | A | 8.1 | A | 7.9 |
| **Lacey Road with Woodcreek Drive (South)[2]** | | | | |
| • Eastbound Left Turn | C | 18.3 | B | 14.5 |
| • Eastbound Right Turn | A | 9.5 | B | 10.3 |
| • Northbound Left Turn | A | 8.7 | A | 8.0 |
| **Woodcreek Drive with West Existing Office Access Drive** | | | | |
| • Westbound Left Turn | A | 7.8 | -- | -- |
| • Northbound Approach | B | 11.1 | A | 9.2 |
| **Woodcreek Drive with East Existing Office Access Drive and the Proposed East Site Access Drive[2]** | | | | |
| • Eastbound Left Turn | A | 7.4 | A | 7.3 |
| • Westbound Left Turn | A | 8.6 | A | 7.5 |
| • Northbound Approach | B | 11.3 | B | 10.0 |
| • Southbound Approach | B | 13.2 | A | 9.6 |

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

## Discussion and Recommendations

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

### *Butterfield Road with Woodcreek Drive and Lloyd Avenue*

The results of the capacity analyses indicate that the intersection currently operates as follows:

- The intersection currently operates at an overall Level of Service (LOS) D during the weekday morning peak hour and LOS B during the weekday evening peak hour.
- The eastbound and westbound left-turn movements and some northbound and southbound movements operate at LOS E or F.
    - This is the result of the long cycle length (125 to 135 seconds during the peak hours), the protected only operation of all left-turn movements, and the fact that Butterfield Road movements receive a majority of green time.
    - All left-turn movements operate with a volume to capacity (v/c) ratio of less than one and 95$^{th}$ percentile queues that can be accommodated within the existing turn lanes.

Under Year 2032 total projected conditions, this intersection is projected to continue to operate as follows:

- The intersection will continue to operate at LOS D during the weekday morning peak hour and LOS B during the weekday evening peak hour.
- Left-turn movements will continue to be accommodated as with existing conditions with the exception of the westbound left turn during the weekday morning which is projected to have 95$^{th}$ percentile queues of up to 636 feet.
    - This movement operates close to capacity under existing conditions.
    - Under projected conditions, SimTraffic simulation of the roadway network indicate that 95$^{th}$ percentile queues may be shorter. This is the result of the coordination of signals along Butterfield Road.
    - Regardless, it is recommended that the timings at this intersection be optimized to better accommodate the westbound left-turn movement during the weekday morning peak hour.
- Table 8 shows a possible alternative with adjusted weekday morning signal timings where green time was taken from Woodcreek Drive and Llyod Avenue and given to the

westbound left-turn movement. With this recommendation, the intersection is projected to operate as follows:

- The westbound left-turn movement is projected to operate with a volume to capacity ratio (v/c) of less than one.
- 95th percentile queues for the westbound left-turn movement are not projected to exceed 545 feet which can be accommodated within the existing turn lanes.
- All other movements will continue to be accommodated. This alternative does not reduce the amount of green time given to the through movements on Butterfield Road.
- These findings are confirmed by SimTraffic simulation of the roadway network which indicates that westbound left-turn movements will be accommodated.

As previously discussed, IDOT is modernizing this intersection as part of their ongoing SMART corridor project along the Butterfield corridor. Optimization of signal timings by IDOT to accommodate the increased volume of left turns would be beneficial to intersection operations. Further, the new corridor improvements should generally improve coordination and traffic flow through this intersection. As such, this intersection will have sufficient reserve capacity to accommodate the traffic to be generated by the proposed hospital campus as the ongoing IDOT improvements should improve intersection capacity and should allow for the existing westbound dual left-turn lanes to accommodate queuing.

*Butterfield Road with Esplanade Road*

The results of the capacity analyses indicate that the intersection currently operates as follows:

- The intersection currently operates at an overall LOS A during the weekday morning peak hour and LOS B during the weekday evening peak hour.
- The eastbound left-turn movement and some northbound and southbound movements operate at LOS D, E, or F.
  - This is the result of the long cycle length (125 to 135 seconds during the peak hours), the protected only operation of all left-turn movements, the split phase operations of the north and south legs, and the fact that Butterfield Road movements receive a majority of green time.
  - All movements operate with a volume to capacity (v/c) ratio of less than one and 95th percentile queues that can be accommodated within the existing turn lanes.
  - The northbound approach is right-turn only with two right-turn lanes. The geometry of this approach and coordination of Butterfield Road signals allows for a high volume of right-turn on red movements from the northbound approach which is

accurate to field observations. As a result, the northbound approach operates more efficiently than shown.

Under Year 2032 total projected conditions, this intersection is projected to continue to operate as follows:

- The intersection is projected to operate at LOS A during the weekday morning peak hour and LOS B during the weekday evening peak hour.
- Left-turn movements will continue to be accommodated within existing turn lanes.
- The northbound right-turn movement is projected to operate at LOS E during the weekday evening peak hour.
    - As with existing conditions, this movement receives limited green time but has a significant amount of right-turn on red traffic.
    - SimTraffic Simulation indicates that a large volume of traffic will continue to be able to turn right on red.
    - Northbound queues are not projected to extend to Lacey Road.

As such, this intersection will have sufficient reserve capacity to accommodate the traffic to be generated by the proposed hospital campus and will be further improved as part of IDOT's ongoing SMART corridor project.

*Butterfield Road with the I-355 Interchange*

The results of the capacity analyses indicate that the interchange currently operates as follows:

- Both intersections currently operate at an overall LOS C or better during the weekday morning and weekday evening peak hours and are projected to continue to do so under projected conditions.
- Some eastbound and westbound left-turn movements and some northbound and southbound movements operate at LOS E or F.
    - This is the result of the long cycle length (125 to 135 seconds during the peak hours), the protected only operation of all left-turn movements, and the fact that Butterfield Road movements receive a majority of green time.
    - All movements operate with a volume to capacity (v/c) ratio of less than one and 95$^{th}$ percentile queues that can be accommodated within the existing turn lanes and are projected to continue to do so under projected conditions.

- Along with the other signals in the Butterfield Corridor, these signals benefit from coordination with the adjacent intersections. SimTraffic simulation shows that these intersections will continue to work efficiently as part of the system in the future.

As such, this intersection will have sufficient reserve capacity to accommodate the traffic to be generated by the proposed hospital campus and will be further improved as part of IDOT's ongoing SMART corridor project.

*Lacey Road with Woodcreek Drive (North)*

The results of the capacity analyses indicate that the intersection operates as follows:

- The intersection currently operates at an overall LOS A during the weekday morning peak hour and LOS C during the weekday evening peak hour. Under total projected conditions, the intersection is projected to operate at the same LOS during both peak hours.

- The eastbound movements operate at up to LOS E this is the result of the close proximity of this signal to Butterfield Road and the coordination between the signals. All movements operate with a volume to capacity (v/c) ratio of less than one and 95th percentile queues that can be accommodated within the existing turn lanes and are projected to continue to do so.

- The coordination of this signal with the intersection of Butterfield Road with Woodcreek Drive results in limited to no queues between the signals. This operation is confirmed by SimTraffic simulation for the existing and projected conditions.

As such, this intersection will have sufficient reserve capacity to accommodate the traffic to be generated by the proposed hospital campus and no roadway improvements or traffic control modifications are required.

*Lacey Road with Finley Road*

The results of the capacity analyses indicate that the intersection operates as follows:

- The intersection currently operates at an overall LOS B during the weekday morning and weekday evening peak hours. Under total projected conditions, the intersection is projected to operate at LOS B during both peak hours.

- The northbound left turn operates at up to LOS E. This is the result of the long cycle length (110 to 120 seconds during the peak hours), and the protected only operation of the movement. However, the movements operate with a volume to capacity (v/c) ratio of less than one and 95$^{th}$ percentile queues that can be accommodated within the existing turn lane.

As such, this intersection will have sufficient reserve capacity to accommodate the traffic to be generated by the proposed hospital campus and no roadway improvements or traffic control modifications are required.

*Lacey Road with Esplanade Road*

The results of the capacity analyses indicate that overall, this intersection currently operates at LOS A during the weekday morning peak hour and LOS B during the weekday evening peak hour. Under Year 2032 no-build and total projected conditions, this intersection is projected to operate at LOS B during both peak hours. As such, the intersection has sufficient reserve capacity to accommodate the traffic to be generated by the development and no roadway improvements or traffic control modifications are required.

*Lacey Road with Birchwood Place*

Birchwood Place serves multiple uses north and west of the site. As proposed, a new site access drive will be provided on the south side of Birchwood Place approximately 360 feet west of Lacy Road.

The results of the capacity analysis indicate that this intersection operates as follows:

- Outbound movements from Birchwood Place currently operate at LOS B or better during the weekday morning and weekday evening peak hours and are projected to continue to with the addition of site traffic.

- The northbound left-turn movement operates at LOS A during both peak hours and is projected to continue to do so. Northbound left turn 95$^{th}$ percentile queues can continue to be accommodated within the existing turn lane.

As such, the intersection has sufficient reserve capacity to accommodate the traffic to be generated by the proposed hospital campus and no roadway improvements or traffic control modifications are required.

*Lacey Road with the Proposed Site Access Drive*

As proposed, a full-movement access drive will be provided on Lacey Road located approximately 600 feet north of Woodcreek Drive. The access drive will provide two inbound lanes and two outbound lanes with outbound movements under stop sign control. A northbound left-turn lane serving this access drive will be provided on Lacey Road within the existing median. This turn lane can be provided without roadway widening, and should provide 145 feet of storage and a 175-foot taper.

Under Year 2032 total projected conditions, this intersection is projected to operate as follows:

- Outbound movements from the access drive are projected to operate at LOS B or better during the weekday morning and weekday evening peak hours.

- The northbound left-turn movement is projected to operate at LOS A during both peak hours with 95$^{th}$ percentile queues of one to two vehicles which could be contained within the proposed turn lane.

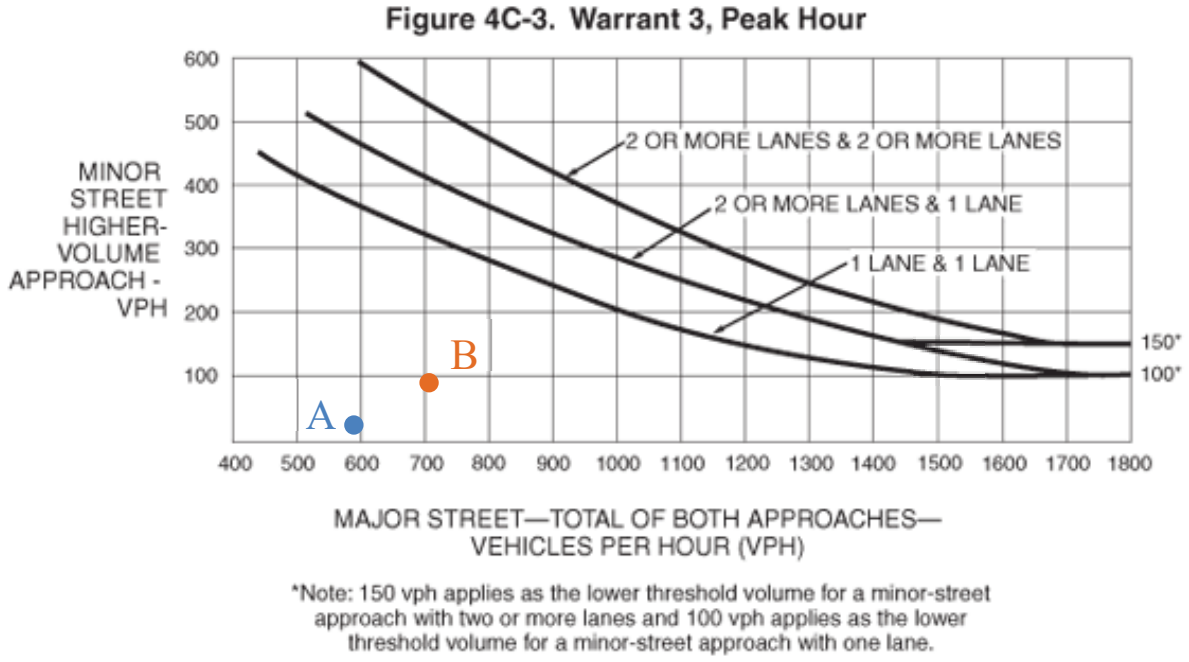
- When the projected traffic volumes at this access drive are compared to the right-turn lane guidelines in Chapter 36 of IDOT's BDE Manual, a southbound right-turn lane will not be warranted on Lacey Road serving the access drive.

A traffic signal warrant analysis was performed for this intersection based on the Federal Highway Administration's *Manual on Uniform Traffic Control Devices for Streets and Highways* (MUTCD), 2009. For the purposes of this study, Signal Warrant 3 (Peak Hour) was used. **Table 17** contains the peak hour traffic volumes at this intersection. **Figure 11** shows the peak hour volumes plotted on the Warrant 3 traffic volume graph. As can be seen, a traffic signal is not warranted during either peak hour. It should be noted that if the peak hour volumes were compared to the MUTCD signal warrants for four-hour or eight-hour timer periods, the peak hour traffic volumes would not meet the criteria for a single hour.
As such, the proposed access drive will be sufficient to accommodate the traffic projected to be generated by the proposed development and will ensure efficient and flexible access is provided.

Table 17
WARRANT VOLUME SUMMARY – LACEY ROAD WITH THE SITE ACCESS DRIVE

| Condition | Peak Hour | Figure 10 Reference | Minor Approach[1] | Major Approach (Two-Way)[4] | Signal Warrant Met?[5] |
|---|---|---|---|---|---|
| Projected Volumes | **Weekday Morning** | A | 35 | 594 | No |
| | **Weekday Evening** | B | 96 | 711 | No |

1 – The Access Drive is the minor approach
2 – Lacey Road is the major approach
3 - MUTCD Signal Warrant 3 (Peak Hour), two or more lanes on major approach, two lanes on minor approach.




***MUTCD* Signal Warrant 3 (Peak Hour)** **Figure 11**

*Lacey Road with Woodcreek Drive (South)*

The results of the capacity analysis indicate that this intersection operates as follows:

- Turning movements from the Woodcreek Drive currently operate at LOS B or better during the weekday morning and weekday evening peak hours and are projected to continue to under projected conditions.

- The northbound left-turn movement operates at LOS A during both peak hours and is projected to continue to do so. Northbound left turn 95$^{th}$ percentile queues can continue to be accommodated within the existing turn lane.

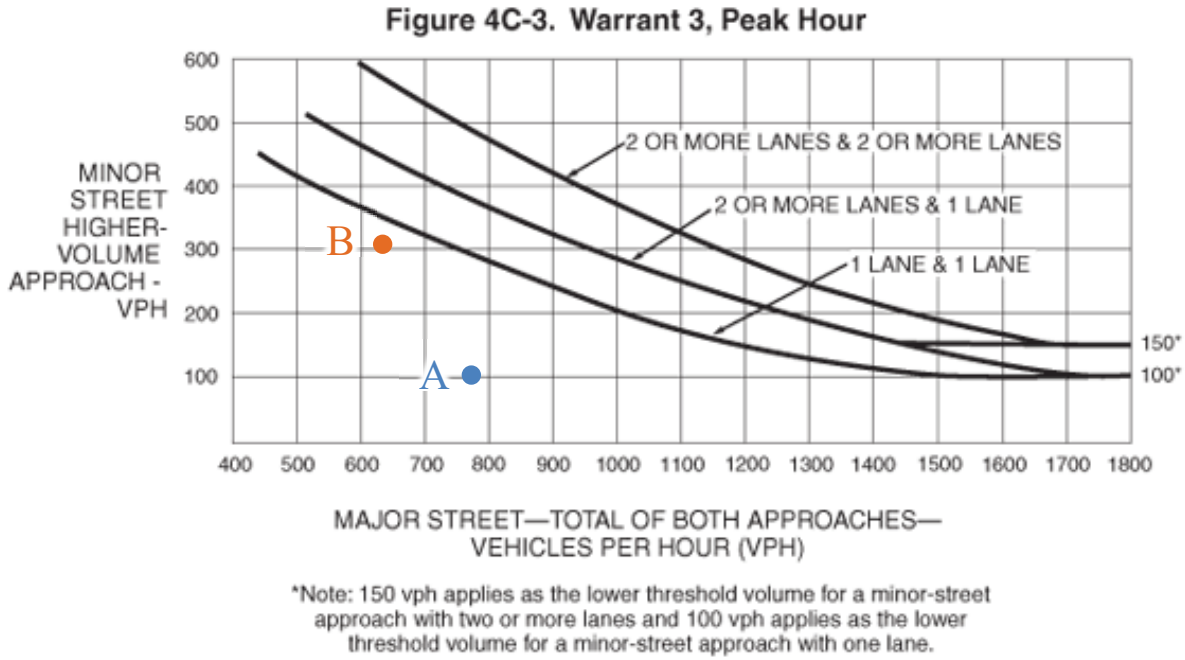
A traffic signal warrant analysis was performed for this intersection based on the Federal Highway Administration's *Manual on Uniform Traffic Control Devices for Streets and Highways* (MUTCD), 2009. For the purposes of this study, Signal Warrant 3 (Peak Hour) was used. **Table 18** contains the peak hour traffic volumes at this intersection. **Figure 12** shows the peak hour volumes plotted on the Warrant 3 traffic volume graph. As can be seen, a traffic signal is not warranted during either peak hour.

As such, the intersection has sufficient reserve capacity to accommodate the traffic to be generated by the proposed hospital campus and no roadway improvements or traffic control modifications are required.

Table 18
WARRANT VOLUME SUMMARY – LACEY ROAD WITH WOODCREEK DRIVE (SOUTH)

| Condition | Peak Hour | Figure 11 Reference | Minor Approach[1] | Major Approach (Two-Way)[4] | Signal Warrant Met?[5] |
|---|---|---|---|---|---|
| Projected Volumes | Weekday Morning | A | 103 | 784 | No |
| | Weekday Evening | B | 304 | 634 | No |

1 – The Access Drive is the minor approach
2 – Lacey Road is the major approach
3 - MUTCD Signal Warrant 3 (Peak Hour), two or more lanes on major approach, two lanes on minor approach.




***MUTCD* Signal Warrant 3 (Peak Hour)** **Figure 12**

*Woodcreek Drive with the Site Access Drives*

As proposed, two full-movement access drives will be provided on Woodcreek Drive located approximately 400 and 950 feet west of Lacey Road. The access drives will provide one inbound lane and one outbound lane with outbound movements under stop sign control. The east drive will serve passenger vehicles and the west drive will serve only trucks. Inbound left turn movements will be provided on Woodcreek Drive serving both site access drives.

Under Year 2032 total projected conditions, outbound movements from the east access drive are projected to operate at LOS A during the weekday morning and weekday evening peak hours. Further, inbound left-turn movements are projected to operate at LOS A during both peak hours. The west access drive will carry a very low volume of traffic as it will only serve delivery trucks. As such, the proposed access drives will be sufficient to accommodate the traffic projected to be generated by the proposed development and will ensure efficient and flexible access is provided.

*Emergency Vehicles*

The proposed hospital will have ambulance traffic generated by the ER. The following should be noted:

- The development will generate a limited volume of ambulance traffic.
- The width of both Lacey Road and Woodcreek Drive will allow ambulances to easily bypass stopped vehicles.
- Emergency traffic will have a limited impact on the operations of the intersections within the Esplanade at Locust Point business park.

- Area signalized intersections have emergency preemption equipment allowing allowing for faster traversal for emergency vehicles.
- Area signalized intersections are coordinated which should be beneficial in restoring typical traffic patterns after an emergency preemption event. The planned IDOT SMART corridor system should further increase the adabtability of the traffic signals on Butterfield Road.

## Parking Evaluation

The proposed development will have 501 parking spaces in two surface parking lots. The proposed parking supply was evaluated based on ITE rate and based on information provided by the operator. It was determined that the proposed parking supply will adequately accommodate the parking demand of the proposed development.

### *ITE Parking Demand Rates*

Based on peak parking demand rates from the ITE Parking Generation Manual, 6th Edition the peak parking demand was estimated as follows:

- ITE LUC 610 (Hospital)
  - Average Peak Parking Demand: 3.89 spaces/bed,
  - 48 Beds,187 spaces needed
- ITE LUC 720 (Medical-Dental Office Building, Hospital Campus)
  - Average Peak Parking Demand: 3.58 spaces/1,000 square feet.
  - 63,162 square feet., 226 spaces needed
- Total estimated peak parking demand: 413 (88 space surplus)

### *Hospital Information*

**Table 19** summarizes the estimated hourly peak parking demand of the entire hospital campus based on information provided by the operator. As can be seen, the estimated peak parking demand will be 380 spaces occurring at 3:00 P.M. This results in a surplus of 121 spaces.

### *Evaluation*

Based on the above, it was determined that the proposed parking supply will adequately accommodate the parking demand of the proposed development. It should be noted that the total parking count has been intentionally designed to accommodate the operational requirements and patient/family needs associated with a pediatric hospital and the ambulatory clinic which based on operator experience requires a parking ratio of five spaces per 1,000 square-feet of building area.

In addition to providing and exceeding the appropriate number of accessible parking spaces, the parking count recognizes that pediatric patients are often accompanied by multiple family members or caregivers who may travel separately. As a result, the total parking supply of 501 spaces is intended to ensure sufficient on-site capacity is always available to accommodate patients, families, visitors, and staff during peak demand periods.

Table 19
HOURLY PARKING DEMAND – OPERATOR INFORMATION

| Hour | Weekday Morning | | | Weekday Evening | | |
|---|---|---|---|---|---|---|
| | Staff | Patient/ Visitor | Total | Staff | Patient/ Visitor | Total |
| 12:00 | 84 | 68 | **152** | 257 | 90 | **347** |
| 1:00 | 82 | 62 | **144** | 257 | 95 | **352** |
| 2:00 | 82 | 58 | **140** | 257 | 115 | **372** |
| 3:00 | 84 | 56 | **140** | 271 | 109 | **380** |
| 4:00 | 74 | 54 | **128** | 247 | 96 | **343** |
| 5:00 | 74 | 53 | **127** | 246 | 90 | **336** |
| 6:00 | 63 | 53 | **116** | 111 | 82 | **193** |
| 7:00 | 248 | 69 | **317** | 99 | 79 | **178** |
| 8:00 | 249 | 93 | **342** | 86 | 79 | **165** |
| 9:00 | 257 | 106 | **363** | 84 | 79 | **163** |
| 10:00 | 257 | 118 | **375** | 84 | 76 | **160** |
| 11:00 | 257 | 111 | **368** | 84 | 73 | **157** |

# 6. Conclusion

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

- As proposed, the site will be developed with an approximately 298,669 square-foot hospital campus with a 235,507 square-foot hospital and a 63,162 square-foot ambulatory clinic
- The site is well located in regards to the regional and local roadway network which provides flexible connectivity to the Tollway system as well as major arterial roadways.
- The peak hour of trip generation for the proposed hospital will correspond to staff shift changes which will occur outside the peak hour of the roadway system.
- The area roadway system generally has sufficient reserve capacity to accommodate the traffic to be generated by the proposed development.
    - Planned improvements to the Butterfield Road corridor by IDOT will improve operations along the roadway.
    - The signal timings at the intersection of Butterfield Road with Woodcreek Drive and Lloyd Avenue would benefit from optimization, which will likely occur as part of IDOT's improvements.
- Access to the hospital campus will be provided via a full-movement access drive on Lacey Road, a full-movement access drive on Birchwood Place, and two full-movement access drives on Woodcreek Drive.
    - The proposed access system will accommodate projected hospital campus traffic volumes.
    - A northbound left-turn lane will be provided on Lacey Road serving the proposed access drive. A southbound right-turn lane will not be warranted. The left turn lane can be provided within the existing median without roadway widening.
    - Eastbound left-turn lanes will be provided on Woodcreek Drive at both proposed access drives.
    - Truck loading and passenger vehicle access will be separated.
- A traffic signal will not be warranted at the intersection of Lacey Road with Woodcreek Drive (South) or Lacey Road with the proposed access drive.
- The proposed internal access road system will efficiently accommodate hospital campus operations.
- The proposed parking supply of 501 spaces will be adequate in accommodating the peak parking demand of the proposed development.

# Appendix

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

# Traffic Count Summary Sheets

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

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

Count Name: ButterField Rd and Entrance Rd
TMC
Site Code:
Start Date: 02/05/2026


# Turning Movement Data

| Start Time | ButterField Rd Eastbound | | | | | | ButterField Rd Westbound | | | | | | Highway Entrance Northbound | | | | | | Highway Entrance 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 | |
| 6:00 AM | 0 | 0 | 98 | 22 | 0 | 120 | 0 | 9 | 89 | 0 | 0 | 98 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 27 | 0 | 14 | 0 | 41 | 259 |
| 6:15 AM | 0 | 0 | 125 | 34 | 0 | 159 | 0 | 22 | 111 | 0 | 0 | 133 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 45 | 0 | 24 | 0 | 69 | 361 |
| 6:30 AM | 0 | 0 | 182 | 42 | 0 | 224 | 0 | 16 | 117 | 0 | 0 | 133 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 19 | 0 | 36 | 0 | 55 | 412 |
| 6:45 AM | 0 | 0 | 187 | 36 | 0 | 223 | 0 | 17 | 185 | 0 | 0 | 202 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 97 | 0 | 49 | 0 | 146 | 571 |
| Hourly Total | 0 | 0 | 592 | 134 | 0 | 726 | 0 | 64 | 502 | 0 | 0 | 566 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 188 | 0 | 123 | 0 | 311 | 1603 |
| 7:00 AM | 0 | 0 | 194 | 48 | 0 | 242 | 0 | 28 | 122 | 0 | 0 | 150 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 80 | 0 | 30 | 0 | 110 | 502 |
| 7:15 AM | 0 | 0 | 253 | 42 | 0 | 295 | 0 | 31 | 209 | 0 | 0 | 240 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 111 | 0 | 53 | 0 | 164 | 699 |
| 7:30 AM | 0 | 0 | 268 | 61 | 0 | 329 | 0 | 32 | 244 | 0 | 0 | 276 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 123 | 1 | 52 | 0 | 176 | 781 |
| 7:45 AM | 0 | 0 | 311 | 39 | 0 | 350 | 0 | 50 | 233 | 0 | 0 | 283 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 158 | 0 | 72 | 0 | 230 | 863 |
| Hourly Total | 0 | 0 | 1026 | 190 | 0 | 1216 | 0 | 141 | 808 | 0 | 0 | 949 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 472 | 1 | 207 | 0 | 680 | 2845 |
| 8:00 AM | 0 | 0 | 250 | 61 | 0 | 311 | 1 | 56 | 288 | 0 | 0 | 345 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 135 | 1 | 87 | 0 | 223 | 879 |
| 8:15 AM | 0 | 0 | 238 | 50 | 0 | 288 | 0 | 39 | 278 | 0 | 0 | 317 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 124 | 0 | 72 | 0 | 196 | 801 |
| 8:30 AM | 0 | 0 | 237 | 37 | 0 | 274 | 0 | 49 | 262 | 0 | 0 | 311 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 147 | 0 | 71 | 0 | 218 | 803 |
| 8:45 AM | 0 | 0 | 192 | 43 | 0 | 235 | 0 | 27 | 242 | 0 | 0 | 269 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 117 | 1 | 49 | 0 | 167 | 671 |
| Hourly Total | 0 | 0 | 917 | 191 | 0 | 1108 | 1 | 171 | 1070 | 0 | 0 | 1242 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 523 | 2 | 279 | 0 | 804 | 3154 |
| 9:00 AM | 0 | 0 | 204 | 41 | 0 | 245 | 1 | 38 | 212 | 0 | 0 | 251 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 93 | 0 | 51 | 0 | 144 | 640 |
| 9:15 AM | 0 | 0 | 177 | 40 | 0 | 217 | 0 | 39 | 212 | 0 | 0 | 251 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 93 | 0 | 52 | 0 | 145 | 613 |
| 9:30 AM | 0 | 0 | 189 | 41 | 0 | 230 | 0 | 50 | 186 | 0 | 0 | 236 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 78 | 0 | 33 | 0 | 111 | 577 |
| 9:45 AM | 0 | 0 | 192 | 40 | 0 | 232 | 0 | 39 | 166 | 0 | 0 | 205 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 87 | 0 | 32 | 0 | 119 | 556 |
| Hourly Total | 0 | 0 | 762 | 162 | 0 | 924 | 1 | 166 | 776 | 0 | 0 | 943 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 351 | 0 | 168 | 0 | 519 | 2386 |
| *** BREAK *** | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 2:00 PM | 0 | 0 | 242 | 71 | 0 | 313 | 0 | 71 | 222 | 0 | 0 | 293 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 39 | 0 | 25 | 0 | 64 | 670 |
| 2:15 PM | 0 | 0 | 207 | 71 | 2 | 278 | 0 | 60 | 222 | 0 | 1 | 282 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 46 | 0 | 18 | 1 | 64 | 624 |
| 2:30 PM | 0 | 0 | 231 | 77 | 0 | 308 | 0 | 60 | 210 | 0 | 0 | 270 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 52 | 0 | 24 | 0 | 76 | 654 |
| 2:45 PM | 0 | 0 | 259 | 59 | 0 | 318 | 0 | 65 | 229 | 0 | 0 | 294 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 43 | 2 | 28 | 0 | 73 | 685 |
| Hourly Total | 0 | 0 | 939 | 278 | 2 | 1217 | 0 | 256 | 883 | 0 | 1 | 1139 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 180 | 2 | 95 | 1 | 277 | 2633 |
| 3:00 PM | 0 | 0 | 224 | 85 | 0 | 309 | 1 | 98 | 235 | 0 | 0 | 334 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 66 | 0 | 18 | 0 | 84 | 727 |
| 3:15 PM | 0 | 0 | 275 | 79 | 0 | 354 | 0 | 72 | 266 | 0 | 0 | 338 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 58 | 0 | 23 | 0 | 81 | 773 |
| 3:30 PM | 0 | 0 | 309 | 104 | 0 | 413 | 1 | 72 | 235 | 0 | 0 | 308 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 79 | 0 | 33 | 0 | 112 | 833 |
| 3:45 PM | 0 | 0 | 288 | 76 | 0 | 364 | 1 | 80 | 285 | 0 | 0 | 366 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 81 | 0 | 46 | 0 | 127 | 857 |
| Hourly Total | 0 | 0 | 1096 | 344 | 0 | 1440 | 3 | 322 | 1021 | 0 | 0 | 1346 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 284 | 0 | 120 | 0 | 404 | 3190 |
| 4:00 PM | 0 | 0 | 322 | 116 | 0 | 438 | 0 | 68 | 332 | 0 | 0 | 400 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 54 | 0 | 36 | 0 | 90 | 928 |
| 4:15 PM | 0 | 0 | 281 | 101 | 0 | 382 | 0 | 80 | 326 | 0 | 0 | 406 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 75 | 0 | 34 | 0 | 109 | 897 |
| 4:30 PM | 0 | 0 | 329 | 104 | 0 | 433 | 0 | 66 | 301 | 0 | 0 | 367 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 81 | 0 | 38 | 0 | 119 | 919 |
| 4:45 PM | 0 | 0 | 305 | 79 | 0 | 384 | 0 | 53 | 317 | 0 | 0 | 370 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 62 | 0 | 40 | 0 | 102 | 856 |

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Hourly Total | 0 | 0 | 1237 | 400 | 0 | 1637 | 0 | 267 | 1276 | 0 | 0 | 1543 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 272 | 0 | 148 | 0 | 420 | 3600 |
| 5:00 PM | 0 | 0 | 347 | 115 | 0 | 462 | 0 | 65 | 322 | 0 | 0 | 387 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 70 | 0 | 30 | 0 | 100 | 949 |
| 5:15 PM | 0 | 0 | 310 | 96 | 0 | 406 | 0 | 63 | 390 | 0 | 0 | 453 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 66 | 0 | 45 | 0 | 111 | 970 |
| 5:30 PM | 0 | 0 | 317 | 74 | 0 | 391 | 0 | 53 | 312 | 0 | 0 | 365 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 58 | 0 | 47 | 0 | 105 | 861 |
| 5:45 PM | 0 | 0 | 264 | 59 | 0 | 323 | 0 | 49 | 254 | 0 | 0 | 303 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 67 | 0 | 43 | 0 | 110 | 736 |
| Hourly Total | 0 | 0 | 1238 | 344 | 0 | 1582 | 0 | 230 | 1278 | 0 | 0 | 1508 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 261 | 0 | 165 | 0 | 426 | 3516 |
| Grand Total | 0 | 0 | 7807 | 2043 | 2 | 9850 | 5 | 1617 | 7614 | 0 | 1 | 9236 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2531 | 5 | 1305 | 1 | 3841 | 22927 |
| Approach % | 0.0 | 0.0 | 79.3 | 20.7 | - | - | 0.1 | 17.5 | 82.4 | 0.0 | - | - | 0.0 | 0.0 | 0.0 | 0.0 | - | - | 0.0 | 65.9 | 0.1 | 34.0 | - | - | - |
| Total % | 0.0 | 0.0 | 34.1 | 8.9 | - | 43.0 | 0.0 | 7.1 | 33.2 | 0.0 | - | 40.3 | 0.0 | 0.0 | 0.0 | 0.0 | - | 0.0 | 0.0 | 11.0 | 0.0 | 5.7 | - | 16.8 | - |
| Lights | 0 | 0 | 7678 | 1998 | - | 9676 | 5 | 1547 | 7476 | 0 | - | 9028 | 0 | 0 | 0 | 0 | - | 0 | 0 | 2447 | 4 | 1244 | - | 3695 | 22399 |
| % Lights | - | - | 98.3 | 97.8 | - | 98.2 | 100.0 | 95.7 | 98.2 | - | - | 97.7 | - | - | - | - | - | - | - | 96.7 | 80.0 | 95.3 | - | 96.2 | 97.7 |
| Buses | 0 | 0 | 19 | 3 | - | 22 | 0 | 7 | 21 | 0 | - | 28 | 0 | 0 | 0 | 0 | - | 0 | 0 | 4 | 0 | 7 | - | 11 | 61 |
| % Buses | - | - | 0.2 | 0.1 | - | 0.2 | 0.0 | 0.4 | 0.3 | - | - | 0.3 | - | - | - | - | - | - | - | 0.2 | 0.0 | 0.5 | - | 0.3 | 0.3 |
| Single-Unit Trucks | 0 | 0 | 77 | 32 | - | 109 | 0 | 45 | 76 | 0 | - | 121 | 0 | 0 | 0 | 0 | - | 0 | 0 | 63 | 0 | 47 | - | 110 | 340 |
| % Single-Unit Trucks | - | - | 1.0 | 1.6 | - | 1.1 | 0.0 | 2.8 | 1.0 | - | - | 1.3 | - | - | - | - | - | - | - | 2.5 | 0.0 | 3.6 | - | 2.9 | 1.5 |
| Articulated Trucks | 0 | 0 | 33 | 10 | - | 43 | 0 | 18 | 41 | 0 | - | 59 | 0 | 0 | 0 | 0 | - | 0 | 0 | 17 | 1 | 7 | - | 25 | 127 |
| % Articulated Trucks | - | - | 0.4 | 0.5 | - | 0.4 | 0.0 | 1.1 | 0.5 | - | - | 0.6 | - | - | - | - | - | - | - | 0.7 | 20.0 | 0.5 | - | 0.7 | 0.6 |
| 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 |
| Pedestrians | - | - | - | - | 2 | - | - | - | - | - | 1 | - | - | - | - | - | 0 | - | - | - | - | - | 1 | - | - |
| % Pedestrians | - | - | - | - | 100.0 | - | - | - | - | - | 100.0 | - | - | - | - | - | - | - | - | - | - | - | 100.0 | - | - |

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Count Name: ButterField Rd and Entrance Rd
TMC
Site Code:
Start Date: 02/05/2026


# Turning Movement Peak Hour Data (7:45 AM)

| Start Time | ButterField Rd Eastbound | | | | | | ButterField Rd Westbound | | | | | | Highway Entrance Northbound | | | | | | Highway Entrance Southbound | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | U-Turn | Left | Thru | Right | Peds | App. Total | U-Turn | Left | Thru | Right | Peds | App. Total | U-Turn | Left | Thru | Right | Peds | App. Total | U-Turn | Left | Thru | Right | Peds | App. Total | Int. Total |
| 7:45 AM | 0 | 0 | 311 | 39 | 0 | 350 | 0 | 50 | 233 | 0 | 0 | 283 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 158 | 0 | 72 | 0 | 230 | 863 |
| 8:00 AM | 0 | 0 | 250 | 61 | 0 | 311 | 1 | 56 | 288 | 0 | 0 | 345 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 135 | 1 | 87 | 0 | 223 | 879 |
| 8:15 AM | 0 | 0 | 238 | 50 | 0 | 288 | 0 | 39 | 278 | 0 | 0 | 317 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 124 | 0 | 72 | 0 | 196 | 801 |
| 8:30 AM | 0 | 0 | 237 | 37 | 0 | 274 | 0 | 49 | 262 | 0 | 0 | 311 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 147 | 0 | 71 | 0 | 218 | 803 |
| Total | 0 | 0 | 1036 | 187 | 0 | 1223 | 1 | 194 | 1061 | 0 | 0 | 1256 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 564 | 1 | 302 | 0 | 867 | 3346 |
| Approach % | 0.0 | 0.0 | 84.7 | 15.3 | - | - | 0.1 | 15.4 | 84.5 | 0.0 | - | - | 0.0 | 0.0 | 0.0 | 0.0 | - | - | 0.0 | 65.1 | 0.1 | 34.8 | - | - | - |
| Total % | 0.0 | 0.0 | 31.0 | 5.6 | - | 36.6 | 0.0 | 5.8 | 31.7 | 0.0 | - | 37.5 | 0.0 | 0.0 | 0.0 | 0.0 | - | 0.0 | 0.0 | 16.9 | 0.0 | 9.0 | - | 25.9 | - |
| PHF | 0.000 | 0.000 | 0.833 | 0.766 | - | 0.874 | 0.250 | 0.866 | 0.921 | 0.000 | - | 0.910 | 0.000 | 0.000 | 0.000 | 0.000 | - | 0.000 | 0.000 | 0.892 | 0.250 | 0.868 | - | 0.942 | 0.952 |
| Lights | 0 | 0 | 1013 | 179 | - | 1192 | 1 | 175 | 1033 | 0 | - | 1209 | 0 | 0 | 0 | 0 | - | 0 | 0 | 553 | 0 | 288 | - | 841 | 3242 |
| % Lights | - | - | 97.8 | 95.7 | - | 97.5 | 100.0 | 90.2 | 97.4 | - | - | 96.3 | - | - | - | - | - | - | - | 98.0 | 0.0 | 95.4 | - | 97.0 | 96.9 |
| Buses | 0 | 0 | 4 | 2 | - | 6 | 0 | 1 | 7 | 0 | - | 8 | 0 | 0 | 0 | 0 | - | 0 | 0 | 0 | 0 | 2 | - | 2 | 16 |
| % Buses | - | - | 0.4 | 1.1 | - | 0.5 | 0.0 | 0.5 | 0.7 | - | - | 0.6 | - | - | - | - | - | - | - | 0.0 | 0.0 | 0.7 | - | 0.2 | 0.5 |
| Single-Unit Trucks | 0 | 0 | 15 | 4 | - | 19 | 0 | 14 | 17 | 0 | - | 31 | 0 | 0 | 0 | 0 | - | 0 | 0 | 9 | 0 | 11 | - | 20 | 70 |
| % Single-Unit Trucks | - | - | 1.4 | 2.1 | - | 1.6 | 0.0 | 7.2 | 1.6 | - | - | 2.5 | - | - | - | - | - | - | - | 1.6 | 0.0 | 3.6 | - | 2.3 | 2.1 |
| Articulated Trucks | 0 | 0 | 4 | 2 | - | 6 | 0 | 4 | 4 | 0 | - | 8 | 0 | 0 | 0 | 0 | - | 0 | 0 | 2 | 1 | 1 | - | 4 | 18 |
| % Articulated Trucks | - | - | 0.4 | 1.1 | - | 0.5 | 0.0 | 2.1 | 0.4 | - | - | 0.6 | - | - | - | - | - | - | - | 0.4 | 100.0 | 0.3 | - | 0.5 | 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 | 0.0 |
| Pedestrians | - | - | - | - | 0 | - | - | - | - | - | 0 | - | - | - | - | - | 0 | - | - | - | - | - | 0 | - | - |
| % Pedestrians | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |

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Count Name: ButterField Rd and Entrance Rd
TMC
Site Code:
Start Date: 02/05/2026


# Turning Movement Peak Hour Data (4:00 PM)

| Start Time | ButterField Rd Eastbound | | | | | | ButterField Rd Westbound | | | | | | Highway Entrance Northbound | | | | | | Highway Entrance 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 |
| 4:00 PM | 0 | 0 | 322 | 116 | 0 | 438 | 0 | 68 | 332 | 0 | 0 | 400 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 54 | 0 | 36 | 0 | 90 | 928 |
| 4:15 PM | 0 | 0 | 281 | 101 | 0 | 382 | 0 | 80 | 326 | 0 | 0 | 406 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 75 | 0 | 34 | 0 | 109 | 897 |
| 4:30 PM | 0 | 0 | 329 | 104 | 0 | 433 | 0 | 66 | 301 | 0 | 0 | 367 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 81 | 0 | 38 | 0 | 119 | 919 |
| 4:45 PM | 0 | 0 | 305 | 79 | 0 | 384 | 0 | 53 | 317 | 0 | 0 | 370 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 62 | 0 | 40 | 0 | 102 | 856 |
| Total | 0 | 0 | 1237 | 400 | 0 | 1637 | 0 | 267 | 1276 | 0 | 0 | 1543 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 272 | 0 | 148 | 0 | 420 | 3600 |
| Approach % | 0.0 | 0.0 | 75.6 | 24.4 | - | - | 0.0 | 17.3 | 82.7 | 0.0 | - | - | 0.0 | 0.0 | 0.0 | 0.0 | - | - | 0.0 | 64.8 | 0.0 | 35.2 | - | - | - |
| Total % | 0.0 | 0.0 | 34.4 | 11.1 | - | 45.5 | 0.0 | 7.4 | 35.4 | 0.0 | - | 42.9 | 0.0 | 0.0 | 0.0 | 0.0 | - | 0.0 | 0.0 | 7.6 | 0.0 | 4.1 | - | 11.7 | - |
| PHF | 0.000 | 0.000 | 0.940 | 0.862 | - | 0.934 | 0.000 | 0.834 | 0.961 | 0.000 | - | 0.950 | 0.000 | 0.000 | 0.000 | 0.000 | - | 0.000 | 0.000 | 0.840 | 0.000 | 0.925 | - | 0.882 | 0.970 |
| Lights | 0 | 0 | 1219 | 397 | - | 1616 | 0 | 262 | 1271 | 0 | - | 1533 | 0 | 0 | 0 | 0 | - | 0 | 0 | 268 | 0 | 145 | - | 413 | 3562 |
| % Lights | - | - | 98.5 | 99.3 | - | 98.7 | - | 98.1 | 99.6 | - | - | 99.4 | - | - | - | - | - | - | - | 98.5 | - | 98.0 | - | 98.3 | 98.9 |
| Buses | 0 | 0 | 0 | 0 | - | 0 | 0 | 0 | 1 | 0 | - | 1 | 0 | 0 | 0 | 0 | - | 0 | 0 | 0 | 0 | 0 | - | 0 | 1 |
| % Buses | - | - | 0.0 | 0.0 | - | 0.0 | - | 0.0 | 0.1 | - | - | 0.1 | - | - | - | - | - | - | - | 0.0 | - | 0.0 | - | 0.0 | 0.0 |
| Single-Unit Trucks | 0 | 0 | 11 | 3 | - | 14 | 0 | 2 | 3 | 0 | - | 5 | 0 | 0 | 0 | 0 | - | 0 | 0 | 1 | 0 | 3 | - | 4 | 23 |
| % Single-Unit Trucks | - | - | 0.9 | 0.8 | - | 0.9 | - | 0.7 | 0.2 | - | - | 0.3 | - | - | - | - | - | - | - | 0.4 | - | 2.0 | - | 1.0 | 0.6 |
| Articulated Trucks | 0 | 0 | 7 | 0 | - | 7 | 0 | 3 | 1 | 0 | - | 4 | 0 | 0 | 0 | 0 | - | 0 | 0 | 3 | 0 | 0 | - | 3 | 14 |
| % Articulated Trucks | - | - | 0.6 | 0.0 | - | 0.4 | - | 1.1 | 0.1 | - | - | 0.3 | - | - | - | - | - | - | - | 1.1 | - | 0.0 | - | 0.7 | 0.4 |
| 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 |
| Pedestrians | - | - | - | - | 0 | - | - | - | - | - | 0 | - | - | - | - | - | 0 | - | - | - | - | - | 0 | - | - |
| % Pedestrians | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |

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Count Name: Butterfield Rd and Highway Exist
TMC
Site Code:
Start Date: 02/05/2026


# Turning Movement Data

| Start Time | Butterfield Rd Eastbound | | | | | | Butterfield Rd Westbound | | | | | | Highway Exist Northbound | | | | | | Highway Exist 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 | |
| 6:00 AM | 0 | 7 | 124 | 0 | 0 | 131 | 0 | 0 | 78 | 25 | 0 | 103 | 0 | 20 | 0 | 58 | 0 | 78 | 0 | 0 | 0 | 0 | 0 | 0 | 312 |
| 6:15 AM | 0 | 14 | 142 | 0 | 0 | 156 | 0 | 0 | 112 | 30 | 0 | 142 | 0 | 22 | 0 | 79 | 0 | 101 | 0 | 0 | 0 | 0 | 0 | 0 | 399 |
| 6:30 AM | 0 | 16 | 222 | 0 | 0 | 238 | 0 | 0 | 108 | 40 | 0 | 148 | 0 | 38 | 0 | 90 | 0 | 128 | 0 | 0 | 0 | 0 | 0 | 0 | 514 |
| 6:45 AM | 1 | 21 | 244 | 0 | 0 | 266 | 0 | 0 | 146 | 49 | 0 | 195 | 0 | 46 | 0 | 140 | 0 | 186 | 0 | 0 | 0 | 0 | 0 | 0 | 647 |
| Hourly Total | 1 | 58 | 732 | 0 | 0 | 791 | 0 | 0 | 444 | 144 | 0 | 588 | 0 | 126 | 0 | 367 | 0 | 493 | 0 | 0 | 0 | 0 | 0 | 0 | 1872 |
| 7:00 AM | 0 | 24 | 181 | 0 | 0 | 205 | 0 | 0 | 127 | 57 | 0 | 184 | 0 | 34 | 0 | 116 | 0 | 150 | 0 | 0 | 0 | 0 | 0 | 0 | 539 |
| 7:15 AM | 0 | 44 | 221 | 0 | 0 | 265 | 0 | 0 | 201 | 83 | 0 | 284 | 0 | 59 | 0 | 140 | 0 | 199 | 0 | 0 | 0 | 0 | 0 | 0 | 748 |
| 7:30 AM | 0 | 35 | 254 | 0 | 0 | 289 | 0 | 0 | 232 | 78 | 0 | 310 | 0 | 58 | 0 | 151 | 0 | 209 | 0 | 0 | 0 | 0 | 0 | 0 | 808 |
| 7:45 AM | 0 | 15 | 297 | 0 | 0 | 312 | 0 | 0 | 270 | 67 | 0 | 337 | 0 | 76 | 0 | 221 | 0 | 297 | 0 | 0 | 0 | 0 | 0 | 0 | 946 |
| Hourly Total | 0 | 118 | 953 | 0 | 0 | 1071 | 0 | 0 | 830 | 285 | 0 | 1115 | 0 | 227 | 0 | 628 | 0 | 855 | 0 | 0 | 0 | 0 | 0 | 0 | 3041 |
| 8:00 AM | 1 | 23 | 295 | 0 | 0 | 319 | 0 | 0 | 244 | 62 | 0 | 306 | 0 | 106 | 0 | 167 | 0 | 273 | 0 | 0 | 0 | 0 | 0 | 0 | 898 |
| 8:15 AM | 0 | 17 | 269 | 0 | 0 | 286 | 0 | 0 | 250 | 57 | 0 | 307 | 0 | 75 | 0 | 156 | 0 | 231 | 0 | 0 | 0 | 0 | 0 | 0 | 824 |
| 8:30 AM | 0 | 24 | 288 | 0 | 0 | 312 | 0 | 0 | 226 | 53 | 0 | 279 | 0 | 99 | 0 | 148 | 0 | 247 | 0 | 0 | 0 | 0 | 0 | 0 | 838 |
| 8:45 AM | 1 | 16 | 232 | 0 | 0 | 249 | 0 | 0 | 184 | 50 | 0 | 234 | 0 | 76 | 0 | 165 | 0 | 241 | 0 | 0 | 0 | 0 | 0 | 0 | 724 |
| Hourly Total | 2 | 80 | 1084 | 0 | 0 | 1166 | 0 | 0 | 904 | 222 | 0 | 1126 | 0 | 356 | 0 | 636 | 0 | 992 | 0 | 0 | 0 | 0 | 0 | 0 | 3284 |
| 9:00 AM | 0 | 12 | 291 | 0 | 0 | 303 | 1 | 0 | 208 | 58 | 0 | 267 | 0 | 55 | 0 | 146 | 0 | 201 | 0 | 0 | 2 | 0 | 0 | 2 | 773 |
| 9:15 AM | 0 | 18 | 250 | 0 | 0 | 268 | 0 | 0 | 199 | 43 | 0 | 242 | 0 | 55 | 0 | 104 | 0 | 159 | 0 | 0 | 0 | 0 | 0 | 0 | 669 |
| 9:30 AM | 1 | 24 | 223 | 0 | 0 | 248 | 0 | 0 | 195 | 61 | 0 | 256 | 0 | 44 | 0 | 87 | 0 | 131 | 0 | 0 | 1 | 0 | 0 | 1 | 636 |
| 9:45 AM | 0 | 22 | 250 | 0 | 0 | 272 | 0 | 0 | 171 | 58 | 0 | 229 | 0 | 40 | 0 | 94 | 0 | 134 | 0 | 0 | 0 | 0 | 0 | 0 | 635 |
| Hourly Total | 1 | 76 | 1014 | 0 | 0 | 1091 | 1 | 0 | 773 | 220 | 0 | 994 | 0 | 194 | 0 | 431 | 0 | 625 | 0 | 0 | 3 | 0 | 0 | 3 | 2713 |
| *** BREAK *** | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 2:00 PM | 2 | 27 | 253 | 0 | 0 | 282 | 0 | 0 | 278 | 95 | 0 | 373 | 0 | 26 | 0 | 38 | 0 | 64 | 0 | 0 | 0 | 0 | 0 | 0 | 719 |
| 2:15 PM | 0 | 26 | 227 | 0 | 0 | 253 | 1 | 0 | 266 | 111 | 0 | 378 | 0 | 32 | 0 | 54 | 0 | 86 | 0 | 0 | 0 | 0 | 0 | 0 | 717 |
| 2:30 PM | 0 | 31 | 253 | 0 | 0 | 284 | 0 | 0 | 262 | 113 | 0 | 375 | 0 | 27 | 0 | 42 | 0 | 69 | 0 | 0 | 0 | 0 | 0 | 0 | 728 |
| 2:45 PM | 0 | 39 | 245 | 0 | 0 | 284 | 0 | 0 | 277 | 88 | 0 | 365 | 0 | 37 | 0 | 47 | 0 | 84 | 0 | 0 | 0 | 0 | 0 | 0 | 733 |
| Hourly Total | 2 | 123 | 978 | 0 | 0 | 1103 | 1 | 0 | 1083 | 407 | 0 | 1491 | 0 | 122 | 0 | 181 | 0 | 303 | 0 | 0 | 0 | 0 | 0 | 0 | 2897 |
| 3:00 PM | 0 | 42 | 262 | 0 | 0 | 304 | 0 | 0 | 314 | 132 | 0 | 446 | 0 | 40 | 0 | 52 | 0 | 92 | 0 | 0 | 0 | 0 | 0 | 0 | 842 |
| 3:15 PM | 0 | 23 | 281 | 0 | 0 | 304 | 0 | 0 | 280 | 133 | 0 | 413 | 0 | 45 | 0 | 77 | 0 | 122 | 0 | 0 | 0 | 0 | 0 | 0 | 839 |
| 3:30 PM | 0 | 58 | 349 | 0 | 0 | 407 | 0 | 0 | 273 | 155 | 0 | 428 | 0 | 26 | 0 | 60 | 0 | 86 | 0 | 0 | 0 | 0 | 0 | 0 | 921 |
| 3:45 PM | 0 | 48 | 331 | 0 | 0 | 379 | 0 | 0 | 283 | 153 | 0 | 436 | 0 | 39 | 0 | 86 | 0 | 125 | 0 | 0 | 0 | 0 | 1 | 0 | 940 |
| Hourly Total | 0 | 171 | 1223 | 0 | 0 | 1394 | 0 | 0 | 1150 | 573 | 0 | 1723 | 0 | 150 | 0 | 275 | 0 | 425 | 0 | 0 | 0 | 0 | 1 | 0 | 3542 |
| 4:00 PM | 1 | 51 | 333 | 0 | 0 | 385 | 1 | 0 | 360 | 177 | 0 | 538 | 0 | 39 | 0 | 61 | 0 | 100 | 0 | 0 | 0 | 0 | 0 | 0 | 1023 |
| 4:15 PM | 0 | 58 | 299 | 0 | 0 | 357 | 0 | 0 | 373 | 172 | 0 | 545 | 0 | 33 | 0 | 80 | 0 | 113 | 0 | 0 | 0 | 0 | 0 | 0 | 1015 |
| 4:30 PM | 1 | 73 | 351 | 0 | 0 | 425 | 0 | 0 | 348 | 184 | 0 | 532 | 0 | 46 | 0 | 80 | 0 | 126 | 0 | 0 | 0 | 0 | 0 | 0 | 1083 |
| 4:45 PM | 0 | 57 | 320 | 0 | 0 | 377 | 0 | 0 | 338 | 162 | 0 | 500 | 0 | 39 | 0 | 85 | 0 | 124 | 0 | 0 | 0 | 0 | 0 | 0 | 1001 |

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Hourly Total | 2 | 239 | 1303 | 0 | 0 | 1544 | 1 | 0 | 1419 | 695 | 0 | 2115 | 0 | 157 | 0 | 306 | 0 | 463 | 0 | 0 | 0 | 0 | 0 | 0 | 4122 |
| 5:00 PM | 0 | 49 | 328 | 0 | 0 | 377 | 0 | 0 | 372 | 186 | 0 | 558 | 0 | 41 | 0 | 79 | 0 | 120 | 0 | 0 | 0 | 0 | 0 | 0 | 1055 |
| 5:15 PM | 0 | 56 | 322 | 0 | 0 | 378 | 0 | 0 | 354 | 187 | 0 | 541 | 0 | 47 | 0 | 65 | 0 | 112 | 0 | 0 | 0 | 0 | 0 | 0 | 1031 |
| 5:30 PM | 0 | 34 | 329 | 0 | 0 | 363 | 0 | 0 | 345 | 139 | 0 | 484 | 0 | 40 | 0 | 53 | 0 | 93 | 0 | 0 | 0 | 0 | 0 | 0 | 940 |
| 5:45 PM | 0 | 36 | 279 | 0 | 0 | 315 | 0 | 0 | 301 | 112 | 0 | 413 | 0 | 34 | 0 | 55 | 0 | 89 | 0 | 0 | 0 | 0 | 0 | 0 | 817 |
| Hourly Total | 0 | 175 | 1258 | 0 | 0 | 1433 | 0 | 0 | 1372 | 624 | 0 | 1996 | 0 | 162 | 0 | 252 | 0 | 414 | 0 | 0 | 0 | 0 | 0 | 0 | 3843 |
| Grand Total | 8 | 1040 | 8545 | 0 | 0 | 9593 | 3 | 0 | 7975 | 3170 | 0 | 11148 | 0 | 1494 | 0 | 3076 | 0 | 4570 | 0 | 0 | 3 | 0 | 1 | 3 | 25314 |
| Approach % | 0.1 | 10.8 | 89.1 | 0.0 | - | - | 0.0 | 0.0 | 71.5 | 28.4 | - | - | 0.0 | 32.7 | 0.0 | 67.3 | - | - | 0.0 | 0.0 | 100.0 | 0.0 | - | - | - |
| Total % | 0.0 | 4.1 | 33.8 | 0.0 | - | 37.9 | 0.0 | 0.0 | 31.5 | 12.5 | - | 44.0 | 0.0 | 5.9 | 0.0 | 12.2 | - | 18.1 | 0.0 | 0.0 | 0.0 | 0.0 | - | 0.0 | - |
| Lights | 8 | 1016 | 8400 | 0 | - | 9424 | 3 | 0 | 7811 | 3083 | - | 10897 | 0 | 1448 | 0 | 2956 | - | 4404 | 0 | 0 | 3 | 0 | - | 3 | 24728 |
| % Lights | 100.0 | 97.7 | 98.3 | - | - | 98.2 | 100.0 | - | 97.9 | 97.3 | - | 97.7 | - | 96.9 | - | 96.1 | - | 96.4 | - | - | 100.0 | - | - | 100.0 | 97.7 |
| Buses | 0 | 4 | 18 | 0 | - | 22 | 0 | 0 | 31 | 8 | - | 39 | 0 | 1 | 0 | 6 | - | 7 | 0 | 0 | 0 | 0 | - | 0 | 68 |
| % Buses | 0.0 | 0.4 | 0.2 | - | - | 0.2 | 0.0 | - | 0.4 | 0.3 | - | 0.3 | - | 0.1 | - | 0.2 | - | 0.2 | - | - | 0.0 | - | - | 0.0 | 0.3 |
| Single-Unit Trucks | 0 | 16 | 81 | 0 | - | 97 | 0 | 0 | 89 | 62 | - | 151 | 0 | 34 | 0 | 90 | - | 124 | 0 | 0 | 0 | 0 | - | 0 | 372 |
| % Single-Unit Trucks | 0.0 | 1.5 | 0.9 | - | - | 1.0 | 0.0 | - | 1.1 | 2.0 | - | 1.4 | - | 2.3 | - | 2.9 | - | 2.7 | - | - | 0.0 | - | - | 0.0 | 1.5 |
| Articulated Trucks | 0 | 4 | 46 | 0 | - | 50 | 0 | 0 | 44 | 17 | - | 61 | 0 | 11 | 0 | 24 | - | 35 | 0 | 0 | 0 | 0 | - | 0 | 146 |
| % Articulated Trucks | 0.0 | 0.4 | 0.5 | - | - | 0.5 | 0.0 | - | 0.6 | 0.5 | - | 0.5 | - | 0.7 | - | 0.8 | - | 0.8 | - | - | 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 | 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 |
| Pedestrians | - | - | - | - | 0 | - | - | - | - | - | 0 | - | - | - | - | - | 0 | - | - | - | - | - | 1 | - | - |
| % Pedestrians | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 100.0 | - | - |

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Count Name: Butterfield Rd and Highway Exist
TMC
Site Code:
Start Date: 02/05/2026


# Turning Movement Peak Hour Data (7:45 AM)

| Start Time | Butterfield Rd Eastbound | | | | | | Butterfield Rd Westbound | | | | | | Highway Exist Northbound | | | | | | Highway Exist Southbound | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | U-Turn | Left | Thru | Right | Peds | App. Total | U-Turn | Left | Thru | Right | Peds | App. Total | U-Turn | Left | Thru | Right | Peds | App. Total | U-Turn | Left | Thru | Right | Peds | App. Total | Int. Total |
| 7:45 AM | 0 | 15 | 297 | 0 | 0 | 312 | 0 | 0 | 270 | 67 | 0 | 337 | 0 | 76 | 0 | 221 | 0 | 297 | 0 | 0 | 0 | 0 | 0 | 0 | 946 |
| 8:00 AM | 1 | 23 | 295 | 0 | 0 | 319 | 0 | 0 | 244 | 62 | 0 | 306 | 0 | 106 | 0 | 167 | 0 | 273 | 0 | 0 | 0 | 0 | 0 | 0 | 898 |
| 8:15 AM | 0 | 17 | 269 | 0 | 0 | 286 | 0 | 0 | 250 | 57 | 0 | 307 | 0 | 75 | 0 | 156 | 0 | 231 | 0 | 0 | 0 | 0 | 0 | 0 | 824 |
| 8:30 AM | 0 | 24 | 288 | 0 | 0 | 312 | 0 | 0 | 226 | 53 | 0 | 279 | 0 | 99 | 0 | 148 | 0 | 247 | 0 | 0 | 0 | 0 | 0 | 0 | 838 |
| Total | 1 | 79 | 1149 | 0 | 0 | 1229 | 0 | 0 | 990 | 239 | 0 | 1229 | 0 | 356 | 0 | 692 | 0 | 1048 | 0 | 0 | 0 | 0 | 0 | 0 | 3506 |
| Approach % | 0.1 | 6.4 | 93.5 | 0.0 | - | - | 0.0 | 0.0 | 80.6 | 19.4 | - | - | 0.0 | 34.0 | 0.0 | 66.0 | - | - | 0.0 | 0.0 | 0.0 | 0.0 | - | - | - |
| Total % | 0.0 | 2.3 | 32.8 | 0.0 | - | 35.1 | 0.0 | 0.0 | 28.2 | 6.8 | - | 35.1 | 0.0 | 10.2 | 0.0 | 19.7 | - | 29.9 | 0.0 | 0.0 | 0.0 | 0.0 | - | 0.0 | - |
| PHF | 0.250 | 0.823 | 0.967 | 0.000 | - | 0.963 | 0.000 | 0.000 | 0.917 | 0.892 | - | 0.912 | 0.000 | 0.840 | 0.000 | 0.783 | - | 0.882 | 0.000 | 0.000 | 0.000 | 0.000 | - | 0.000 | 0.927 |
| Lights | 1 | 74 | 1133 | 0 | - | 1208 | 0 | 0 | 952 | 224 | - | 1176 | 0 | 339 | 0 | 675 | - | 1014 | 0 | 0 | 0 | 0 | - | 0 | 3398 |
| % Lights | 100.0 | 93.7 | 98.6 | - | - | 98.3 | - | - | 96.2 | 93.7 | - | 95.7 | - | 95.2 | - | 97.5 | - | 96.8 | - | - | - | - | - | - | 96.9 |
| Buses | 0 | 1 | 2 | 0 | - | 3 | 0 | 0 | 8 | 1 | - | 9 | 0 | 1 | 0 | 0 | - | 1 | 0 | 0 | 0 | 0 | - | 0 | 13 |
| % Buses | 0.0 | 1.3 | 0.2 | - | - | 0.2 | - | - | 0.8 | 0.4 | - | 0.7 | - | 0.3 | - | 0.0 | - | 0.1 | - | - | - | - | - | - | 0.4 |
| Single-Unit Trucks | 0 | 3 | 10 | 0 | - | 13 | 0 | 0 | 22 | 8 | - | 30 | 0 | 13 | 0 | 15 | - | 28 | 0 | 0 | 0 | 0 | - | 0 | 71 |
| % Single-Unit Trucks | 0.0 | 3.8 | 0.9 | - | - | 1.1 | - | - | 2.2 | 3.3 | - | 2.4 | - | 3.7 | - | 2.2 | - | 2.7 | - | - | - | - | - | - | 2.0 |
| Articulated Trucks | 0 | 1 | 4 | 0 | - | 5 | 0 | 0 | 8 | 6 | - | 14 | 0 | 3 | 0 | 2 | - | 5 | 0 | 0 | 0 | 0 | - | 0 | 24 |
| % Articulated Trucks | 0.0 | 1.3 | 0.3 | - | - | 0.4 | - | - | 0.8 | 2.5 | - | 1.1 | - | 0.8 | - | 0.3 | - | 0.5 | - | - | - | - | - | - | 0.7 |
| 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 | - | - | - | - | 0 | - | - | - | - | - | 0 | - | - | - | - | - | 0 | - | - | - | - | - | 0 | - | - |
| % Pedestrians | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |

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Count Name: Butterfield Rd and Highway Exist
TMC
Site Code:
Start Date: 02/05/2026


# Turning Movement Peak Hour Data (4:00 PM)

| Start Time | Butterfield Rd Eastbound | | | | | | Butterfield Rd Westbound | | | | | | Highway Exist Northbound | | | | | | Highway Exist 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 | 1 | 51 | 333 | 0 | 0 | 385 | 1 | 0 | 360 | 177 | 0 | 538 | 0 | 39 | 0 | 61 | 0 | 100 | 0 | 0 | 0 | 0 | 0 | 0 | 1023 |
| 4:15 PM | 0 | 58 | 299 | 0 | 0 | 357 | 0 | 0 | 373 | 172 | 0 | 545 | 0 | 33 | 0 | 80 | 0 | 113 | 0 | 0 | 0 | 0 | 0 | 0 | 1015 |
| 4:30 PM | 1 | 73 | 351 | 0 | 0 | 425 | 0 | 0 | 348 | 184 | 0 | 532 | 0 | 46 | 0 | 80 | 0 | 126 | 0 | 0 | 0 | 0 | 0 | 0 | 1083 |
| 4:45 PM | 0 | 57 | 320 | 0 | 0 | 377 | 0 | 0 | 338 | 162 | 0 | 500 | 0 | 39 | 0 | 85 | 0 | 124 | 0 | 0 | 0 | 0 | 0 | 0 | 1001 |
| Total | 2 | 239 | 1303 | 0 | 0 | 1544 | 1 | 0 | 1419 | 695 | 0 | 2115 | 0 | 157 | 0 | 306 | 0 | 463 | 0 | 0 | 0 | 0 | 0 | 0 | 4122 |
| Approach % | 0.1 | 15.5 | 84.4 | 0.0 | - | - | 0.0 | 0.0 | 67.1 | 32.9 | - | - | 0.0 | 33.9 | 0.0 | 66.1 | - | - | 0.0 | 0.0 | 0.0 | 0.0 | - | - | - |
| Total % | 0.0 | 5.8 | 31.6 | 0.0 | - | 37.5 | 0.0 | 0.0 | 34.4 | 16.9 | - | 51.3 | 0.0 | 3.8 | 0.0 | 7.4 | - | 11.2 | 0.0 | 0.0 | 0.0 | 0.0 | - | 0.0 | - |
| PHF | 0.500 | 0.818 | 0.928 | 0.000 | - | 0.908 | 0.250 | 0.000 | 0.951 | 0.944 | - | 0.970 | 0.000 | 0.853 | 0.000 | 0.900 | - | 0.919 | 0.000 | 0.000 | 0.000 | 0.000 | - | 0.000 | 0.952 |
| Lights | 2 | 234 | 1284 | 0 | - | 1520 | 1 | 0 | 1408 | 684 | - | 2093 | 0 | 155 | 0 | 292 | - | 447 | 0 | 0 | 0 | 0 | - | 0 | 4060 |
| % Lights | 100.0 | 97.9 | 98.5 | - | - | 98.4 | 100.0 | - | 99.2 | 98.4 | - | 99.0 | - | 98.7 | - | 95.4 | - | 96.5 | - | - | - | - | - | - | 98.5 |
| Buses | 0 | 0 | 1 | 0 | - | 1 | 0 | 0 | 1 | 2 | - | 3 | 0 | 0 | 0 | 0 | - | 0 | 0 | 0 | 0 | 0 | - | 0 | 4 |
| % Buses | 0.0 | 0.0 | 0.1 | - | - | 0.1 | 0.0 | - | 0.1 | 0.3 | - | 0.1 | - | 0.0 | - | 0.0 | - | 0.0 | - | - | - | - | - | - | 0.1 |
| Single-Unit Trucks | 0 | 3 | 10 | 0 | - | 13 | 0 | 0 | 7 | 6 | - | 13 | 0 | 1 | 0 | 12 | - | 13 | 0 | 0 | 0 | 0 | - | 0 | 39 |
| % Single-Unit Trucks | 0.0 | 1.3 | 0.8 | - | - | 0.8 | 0.0 | - | 0.5 | 0.9 | - | 0.6 | - | 0.6 | - | 3.9 | - | 2.8 | - | - | - | - | - | - | 0.9 |
| Articulated Trucks | 0 | 2 | 8 | 0 | - | 10 | 0 | 0 | 3 | 3 | - | 6 | 0 | 1 | 0 | 2 | - | 3 | 0 | 0 | 0 | 0 | - | 0 | 19 |
| % Articulated Trucks | 0.0 | 0.8 | 0.6 | - | - | 0.6 | 0.0 | - | 0.2 | 0.4 | - | 0.3 | - | 0.6 | - | 0.7 | - | 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 | - | - | - | - | - | - | 0.0 |
| Pedestrians | - | - | - | - | 0 | - | - | - | - | - | 0 | - | - | - | - | - | 0 | - | - | - | - | - | 0 | - | - |
| % Pedestrians | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |

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Count Name: Butterfield+Road+and+Lacey+Road TMC
Site Code:
Start Date: 02/05/2026


# Turning Movement Data

| Start Time | Butterfield Rd Eastbound | | | | | | Butterfield Rd Westbound | | | | | | Lacey Rd Northbound | | | | | | Lloyd rd 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 | |
| 6:00 AM | 0 | 1 | 119 | 12 | 0 | 132 | 0 | 27 | 67 | 4 | 0 | 98 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 6 | 2 | 8 | 0 | 16 | 247 |
| 6:15 AM | 0 | 2 | 118 | 9 | 0 | 129 | 0 | 39 | 79 | 5 | 0 | 123 | 0 | 3 | 0 | 4 | 0 | 7 | 0 | 18 | 2 | 6 | 0 | 26 | 285 |
| 6:30 AM | 0 | 1 | 177 | 23 | 0 | 201 | 0 | 56 | 97 | 5 | 0 | 158 | 0 | 2 | 0 | 3 | 0 | 5 | 0 | 19 | 1 | 9 | 0 | 29 | 393 |
| 6:45 AM | 0 | 3 | 176 | 24 | 0 | 203 | 0 | 80 | 126 | 7 | 0 | 213 | 0 | 7 | 1 | 1 | 0 | 9 | 0 | 16 | 5 | 10 | 0 | 31 | 456 |
| Hourly Total | 0 | 7 | 590 | 68 | 0 | 665 | 0 | 202 | 369 | 21 | 0 | 592 | 0 | 12 | 1 | 9 | 0 | 22 | 0 | 59 | 10 | 33 | 0 | 102 | 1381 |
| 7:00 AM | 0 | 3 | 145 | 34 | 0 | 182 | 0 | 69 | 105 | 8 | 0 | 182 | 0 | 6 | 1 | 3 | 0 | 10 | 0 | 15 | 6 | 17 | 0 | 38 | 412 |
| 7:15 AM | 0 | 5 | 256 | 32 | 0 | 293 | 0 | 94 | 130 | 13 | 1 | 237 | 0 | 8 | 2 | 3 | 0 | 13 | 0 | 20 | 12 | 10 | 0 | 42 | 585 |
| 7:30 AM | 0 | 9 | 276 | 63 | 0 | 348 | 0 | 125 | 204 | 18 | 0 | 347 | 0 | 14 | 0 | 3 | 0 | 17 | 0 | 22 | 15 | 30 | 0 | 67 | 779 |
| 7:45 AM | 0 | 21 | 264 | 63 | 0 | 348 | 1 | 167 | 187 | 9 | 0 | 364 | 0 | 14 | 1 | 6 | 0 | 21 | 0 | 15 | 14 | 24 | 0 | 53 | 786 |
| Hourly Total | 0 | 38 | 941 | 192 | 0 | 1171 | 1 | 455 | 626 | 48 | 1 | 1130 | 0 | 42 | 4 | 15 | 0 | 61 | 0 | 72 | 47 | 81 | 0 | 200 | 2562 |
| 8:00 AM | 0 | 21 | 229 | 77 | 0 | 327 | 0 | 208 | 133 | 13 | 0 | 354 | 0 | 10 | 5 | 6 | 0 | 21 | 0 | 18 | 25 | 6 | 0 | 49 | 751 |
| 8:15 AM | 0 | 10 | 186 | 73 | 0 | 269 | 0 | 197 | 155 | 19 | 0 | 371 | 0 | 11 | 4 | 8 | 0 | 23 | 0 | 18 | 24 | 16 | 0 | 58 | 721 |
| 8:30 AM | 0 | 12 | 213 | 57 | 0 | 282 | 0 | 176 | 180 | 18 | 0 | 374 | 0 | 9 | 5 | 9 | 0 | 23 | 0 | 19 | 20 | 21 | 0 | 60 | 739 |
| 8:45 AM | 1 | 10 | 205 | 63 | 0 | 279 | 0 | 127 | 139 | 17 | 0 | 283 | 0 | 10 | 8 | 3 | 0 | 21 | 0 | 10 | 17 | 19 | 0 | 46 | 629 |
| Hourly Total | 1 | 53 | 833 | 270 | 0 | 1157 | 0 | 708 | 607 | 67 | 0 | 1382 | 0 | 40 | 22 | 26 | 0 | 88 | 0 | 65 | 86 | 62 | 0 | 213 | 2840 |
| 9:00 AM | 0 | 11 | 200 | 33 | 0 | 244 | 0 | 80 | 155 | 14 | 0 | 249 | 0 | 10 | 1 | 9 | 0 | 20 | 0 | 12 | 9 | 7 | 0 | 28 | 541 |
| 9:15 AM | 0 | 8 | 185 | 32 | 0 | 225 | 0 | 84 | 178 | 8 | 0 | 270 | 0 | 9 | 3 | 7 | 0 | 19 | 0 | 7 | 6 | 11 | 0 | 24 | 538 |
| 9:30 AM | 0 | 5 | 141 | 25 | 0 | 171 | 0 | 55 | 141 | 6 | 0 | 202 | 0 | 10 | 0 | 12 | 0 | 22 | 0 | 11 | 5 | 8 | 0 | 24 | 419 |
| 9:45 AM | 0 | 4 | 197 | 18 | 0 | 219 | 0 | 50 | 150 | 13 | 0 | 213 | 0 | 10 | 2 | 11 | 0 | 23 | 0 | 13 | 5 | 8 | 0 | 26 | 481 |
| Hourly Total | 0 | 28 | 723 | 108 | 0 | 859 | 0 | 269 | 624 | 41 | 0 | 934 | 0 | 39 | 6 | 39 | 0 | 84 | 0 | 43 | 25 | 34 | 0 | 102 | 1979 |
| *** BREAK *** | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 2:00 PM | 0 | 7 | 237 | 11 | 0 | 255 | 3 | 35 | 209 | 16 | 0 | 263 | 0 | 14 | 3 | 17 | 0 | 34 | 0 | 10 | 8 | 8 | 0 | 26 | 578 |
| 2:15 PM | 1 | 4 | 174 | 16 | 0 | 195 | 2 | 28 | 182 | 10 | 0 | 222 | 0 | 16 | 4 | 19 | 0 | 39 | 0 | 11 | 5 | 10 | 0 | 26 | 482 |
| 2:30 PM | 0 | 5 | 194 | 7 | 1 | 206 | 1 | 32 | 208 | 13 | 0 | 254 | 0 | 17 | 6 | 21 | 1 | 44 | 0 | 8 | 4 | 15 | 0 | 27 | 531 |
| 2:45 PM | 0 | 12 | 210 | 14 | 0 | 236 | 0 | 28 | 219 | 18 | 0 | 265 | 0 | 24 | 8 | 25 | 0 | 57 | 0 | 11 | 5 | 16 | 0 | 32 | 590 |
| Hourly Total | 1 | 28 | 815 | 48 | 1 | 892 | 6 | 123 | 818 | 57 | 0 | 1004 | 0 | 71 | 21 | 82 | 1 | 174 | 0 | 40 | 22 | 49 | 0 | 111 | 2181 |
| 3:00 PM | 0 | 9 | 190 | 14 | 0 | 213 | 0 | 26 | 218 | 21 | 0 | 265 | 0 | 22 | 8 | 36 | 0 | 66 | 0 | 13 | 8 | 16 | 0 | 37 | 581 |
| 3:15 PM | 0 | 14 | 211 | 11 | 0 | 236 | 1 | 26 | 247 | 28 | 0 | 302 | 0 | 25 | 2 | 29 | 0 | 56 | 0 | 13 | 1 | 13 | 0 | 27 | 621 |
| 3:30 PM | 0 | 11 | 279 | 9 | 0 | 299 | 0 | 32 | 225 | 19 | 0 | 276 | 0 | 34 | 5 | 27 | 0 | 66 | 0 | 24 | 6 | 14 | 0 | 44 | 685 |
| 3:45 PM | 0 | 12 | 261 | 12 | 0 | 285 | 1 | 70 | 273 | 21 | 0 | 365 | 0 | 28 | 7 | 16 | 0 | 51 | 0 | 14 | 4 | 14 | 0 | 32 | 733 |
| Hourly Total | 0 | 46 | 941 | 46 | 0 | 1033 | 2 | 154 | 963 | 89 | 0 | 1208 | 0 | 109 | 22 | 108 | 0 | 239 | 0 | 64 | 19 | 57 | 0 | 140 | 2620 |
| 4:00 PM | 0 | 11 | 274 | 18 | 0 | 303 | 0 | 26 | 318 | 24 | 0 | 368 | 0 | 41 | 11 | 41 | 0 | 93 | 0 | 13 | 7 | 13 | 0 | 33 | 797 |
| 4:15 PM | 0 | 12 | 238 | 13 | 0 | 263 | 0 | 39 | 258 | 22 | 0 | 319 | 0 | 45 | 7 | 24 | 0 | 76 | 0 | 15 | 3 | 15 | 0 | 33 | 691 |
| 4:30 PM | 0 | 7 | 223 | 16 | 0 | 246 | 0 | 32 | 328 | 23 | 0 | 383 | 0 | 46 | 14 | 61 | 0 | 121 | 0 | 17 | 6 | 19 | 0 | 42 | 792 |
| 4:45 PM | 0 | 18 | 248 | 18 | 1 | 284 | 0 | 23 | 298 | 21 | 0 | 342 | 0 | 41 | 6 | 20 | 0 | 67 | 0 | 11 | 4 | 25 | 0 | 40 | 733 |

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Hourly Total | 0 | 48 | 983 | 65 | 1 | 1096 | 0 | 120 | 1202 | 90 | 0 | 1412 | 0 | 173 | 38 | 146 | 0 | 357 | 0 | 56 | 20 | 72 | 0 | 148 | 3013 |
| 5:00 PM | 0 | 4 | 206 | 13 | 0 | 223 | 0 | 24 | 310 | 23 | 0 | 357 | 0 | 50 | 12 | 59 | 0 | 121 | 0 | 15 | 3 | 15 | 0 | 33 | 734 |
| 5:15 PM | 0 | 17 | 278 | 16 | 0 | 311 | 0 | 17 | 300 | 22 | 0 | 339 | 0 | 33 | 4 | 29 | 0 | 66 | 0 | 16 | 8 | 12 | 0 | 36 | 752 |
| 5:30 PM | 0 | 10 | 247 | 13 | 0 | 270 | 0 | 35 | 321 | 18 | 0 | 374 | 0 | 31 | 9 | 26 | 0 | 66 | 0 | 11 | 4 | 16 | 0 | 31 | 741 |
| 5:45 PM | 0 | 10 | 211 | 19 | 0 | 240 | 0 | 21 | 257 | 20 | 0 | 298 | 0 | 18 | 5 | 18 | 0 | 41 | 0 | 9 | 7 | 11 | 0 | 27 | 606 |
| Hourly Total | 0 | 41 | 942 | 61 | 0 | 1044 | 0 | 97 | 1188 | 83 | 0 | 1368 | 0 | 132 | 30 | 132 | 0 | 294 | 0 | 51 | 22 | 54 | 0 | 127 | 2833 |
| Grand Total | 2 | 289 | 6768 | 858 | 2 | 7917 | 9 | 2128 | 6397 | 496 | 1 | 9030 | 0 | 618 | 144 | 557 | 1 | 1319 | 0 | 450 | 251 | 442 | 0 | 1143 | 19409 |
| Approach % | 0.0 | 3.7 | 85.5 | 10.8 | - | - | 0.1 | 23.6 | 70.8 | 5.5 | - | - | 0.0 | 46.9 | 10.9 | 42.2 | - | - | 0.0 | 39.4 | 22.0 | 38.7 | - | - | - |
| Total % | 0.0 | 1.5 | 34.9 | 4.4 | - | 40.8 | 0.0 | 11.0 | 33.0 | 2.6 | - | 46.5 | 0.0 | 3.2 | 0.7 | 2.9 | - | 6.8 | 0.0 | 2.3 | 1.3 | 2.3 | - | 5.9 | - |
| Lights | 2 | 284 | 6652 | 852 | - | 7790 | 7 | 2102 | 6255 | 489 | - | 8853 | 0 | 613 | 144 | 545 | - | 1302 | 0 | 444 | 249 | 433 | - | 1126 | 19071 |
| % Lights | 100.0 | 98.3 | 98.3 | 99.3 | - | 98.4 | 77.8 | 98.8 | 97.8 | 98.6 | - | 98.0 | - | 99.2 | 100.0 | 97.8 | - | 98.7 | - | 98.7 | 99.2 | 98.0 | - | 98.5 | 98.3 |
| Buses | 0 | 3 | 23 | 0 | - | 26 | 0 | 3 | 27 | 2 | - | 32 | 0 | 0 | 0 | 0 | - | 0 | 0 | 4 | 0 | 5 | - | 9 | 67 |
| % Buses | 0.0 | 1.0 | 0.3 | 0.0 | - | 0.3 | 0.0 | 0.1 | 0.4 | 0.4 | - | 0.4 | - | 0.0 | 0.0 | 0.0 | - | 0.0 | - | 0.9 | 0.0 | 1.1 | - | 0.8 | 0.3 |
| Single-Unit Trucks | 0 | 2 | 53 | 4 | - | 59 | 1 | 20 | 74 | 4 | - | 99 | 0 | 5 | 0 | 11 | - | 16 | 0 | 2 | 2 | 3 | - | 7 | 181 |
| % Single-Unit Trucks | 0.0 | 0.7 | 0.8 | 0.5 | - | 0.7 | 11.1 | 0.9 | 1.2 | 0.8 | - | 1.1 | - | 0.8 | 0.0 | 2.0 | - | 1.2 | - | 0.4 | 0.8 | 0.7 | - | 0.6 | 0.9 |
| Articulated Trucks | 0 | 0 | 40 | 2 | - | 42 | 1 | 3 | 41 | 1 | - | 46 | 0 | 0 | 0 | 1 | - | 1 | 0 | 0 | 0 | 1 | - | 1 | 90 |
| % Articulated Trucks | 0.0 | 0.0 | 0.6 | 0.2 | - | 0.5 | 11.1 | 0.1 | 0.6 | 0.2 | - | 0.5 | - | 0.0 | 0.0 | 0.2 | - | 0.1 | - | 0.0 | 0.0 | 0.2 | - | 0.1 | 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 | 0.0 | 0.0 | - | 0.0 | - | 0.0 | 0.0 | 0.0 | - | 0.0 | 0.0 |
| Pedestrians | - | - | - | - | 2 | - | - | - | - | - | 1 | - | - | - | - | - | 1 | - | - | - | - | - | 0 | - | - |
| % Pedestrians | - | - | - | - | 100.0 | - | - | - | - | - | 100.0 | - | - | - | - | - | 100.0 | - | - | - | - | - | - | - | - |

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Count Name: Butterfield+Road+and+Lacey+Road TMC
Site Code:
Start Date: 02/05/2026


# Turning Movement Peak Hour Data (7:45 AM)

| Start Time | Butterfield Rd Eastbound | | | | | | Butterfield Rd Westbound | | | | | | Lacey Rd Northbound | | | | | | Lloyd rd 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 | |
| 7:45 AM | 0 | 21 | 264 | 63 | 0 | 348 | 1 | 167 | 187 | 9 | 0 | 364 | 0 | 14 | 1 | 6 | 0 | 21 | 0 | 15 | 14 | 24 | 0 | 53 | 786 |
| 8:00 AM | 0 | 21 | 229 | 77 | 0 | 327 | 0 | 208 | 133 | 13 | 0 | 354 | 0 | 10 | 5 | 6 | 0 | 21 | 0 | 18 | 25 | 6 | 0 | 49 | 751 |
| 8:15 AM | 0 | 10 | 186 | 73 | 0 | 269 | 0 | 197 | 155 | 19 | 0 | 371 | 0 | 11 | 4 | 8 | 0 | 23 | 0 | 18 | 24 | 16 | 0 | 58 | 721 |
| 8:30 AM | 0 | 12 | 213 | 57 | 0 | 282 | 0 | 176 | 180 | 18 | 0 | 374 | 0 | 9 | 5 | 9 | 0 | 23 | 0 | 19 | 20 | 21 | 0 | 60 | 739 |
| Total | 0 | 64 | 892 | 270 | 0 | 1226 | 1 | 748 | 655 | 59 | 0 | 1463 | 0 | 44 | 15 | 29 | 0 | 88 | 0 | 70 | 83 | 67 | 0 | 220 | 2997 |
| Approach % | 0.0 | 5.2 | 72.8 | 22.0 | - | - | 0.1 | 51.1 | 44.8 | 4.0 | - | - | 0.0 | 50.0 | 17.0 | 33.0 | - | - | 0.0 | 31.8 | 37.7 | 30.5 | - | - | - |
| Total % | 0.0 | 2.1 | 29.8 | 9.0 | - | 40.9 | 0.0 | 25.0 | 21.9 | 2.0 | - | 48.8 | 0.0 | 1.5 | 0.5 | 1.0 | - | 2.9 | 0.0 | 2.3 | 2.8 | 2.2 | - | 7.3 | - |
| PHF | 0.000 | 0.762 | 0.845 | 0.877 | - | 0.881 | 0.250 | 0.899 | 0.876 | 0.776 | - | 0.978 | 0.000 | 0.786 | 0.750 | 0.806 | - | 0.957 | 0.000 | 0.921 | 0.830 | 0.698 | - | 0.917 | 0.953 |
| Lights | 0 | 63 | 866 | 269 | - | 1198 | 1 | 747 | 621 | 54 | - | 1423 | 0 | 44 | 15 | 27 | - | 86 | 0 | 68 | 82 | 64 | - | 214 | 2921 |
| % Lights | - | 98.4 | 97.1 | 99.6 | - | 97.7 | 100.0 | 99.9 | 94.8 | 91.5 | - | 97.3 | - | 100.0 | 100.0 | 93.1 | - | 97.7 | - | 97.1 | 98.8 | 95.5 | - | 97.3 | 97.5 |
| Buses | 0 | 1 | 5 | 0 | - | 6 | 0 | 0 | 8 | 1 | - | 9 | 0 | 0 | 0 | 0 | - | 0 | 0 | 2 | 0 | 3 | - | 5 | 20 |
| % Buses | - | 1.6 | 0.6 | 0.0 | - | 0.5 | 0.0 | 0.0 | 1.2 | 1.7 | - | 0.6 | - | 0.0 | 0.0 | 0.0 | - | 0.0 | - | 2.9 | 0.0 | 4.5 | - | 2.3 | 0.7 |
| Single-Unit Trucks | 0 | 0 | 13 | 1 | - | 14 | 0 | 1 | 21 | 3 | - | 25 | 0 | 0 | 0 | 2 | - | 2 | 0 | 0 | 1 | 0 | - | 1 | 42 |
| % Single-Unit Trucks | - | 0.0 | 1.5 | 0.4 | - | 1.1 | 0.0 | 0.1 | 3.2 | 5.1 | - | 1.7 | - | 0.0 | 0.0 | 6.9 | - | 2.3 | - | 0.0 | 1.2 | 0.0 | - | 0.5 | 1.4 |
| Articulated Trucks | 0 | 0 | 8 | 0 | - | 8 | 0 | 0 | 5 | 1 | - | 6 | 0 | 0 | 0 | 0 | - | 0 | 0 | 0 | 0 | 0 | - | 0 | 14 |
| % Articulated Trucks | - | 0.0 | 0.9 | 0.0 | - | 0.7 | 0.0 | 0.0 | 0.8 | 1.7 | - | 0.4 | - | 0.0 | 0.0 | 0.0 | - | 0.0 | - | 0.0 | 0.0 | 0.0 | - | 0.0 | 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 | 0.0 | - | 0.0 | - | 0.0 | 0.0 | 0.0 | - | 0.0 | 0.0 |
| Pedestrians | - | - | - | - | 0 | - | - | - | - | - | 0 | - | - | - | - | - | 0 | - | - | - | - | - | 0 | - | - |
| % Pedestrians | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |

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Count Name: Butterfield+Road+and+Lacey+Road TMC
Site Code:
Start Date: 02/05/2026


# Turning Movement Peak Hour Data (4:00 PM)

| Start Time | Butterfield Rd Eastbound | | | | | | Butterfield Rd Westbound | | | | | | Lacey Rd Northbound | | | | | | Lloyd rd 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 |
| 4:00 PM | 0 | 11 | 274 | 18 | 0 | 303 | 0 | 26 | 318 | 24 | 0 | 368 | 0 | 41 | 11 | 41 | 0 | 93 | 0 | 13 | 7 | 13 | 0 | 33 | 797 |
| 4:15 PM | 0 | 12 | 238 | 13 | 0 | 263 | 0 | 39 | 258 | 22 | 0 | 319 | 0 | 45 | 7 | 24 | 0 | 76 | 0 | 15 | 3 | 15 | 0 | 33 | 691 |
| 4:30 PM | 0 | 7 | 223 | 16 | 0 | 246 | 0 | 32 | 328 | 23 | 0 | 383 | 0 | 46 | 14 | 61 | 0 | 121 | 0 | 17 | 6 | 19 | 0 | 42 | 792 |
| 4:45 PM | 0 | 18 | 248 | 18 | 1 | 284 | 0 | 23 | 298 | 21 | 0 | 342 | 0 | 41 | 6 | 20 | 0 | 67 | 0 | 11 | 4 | 25 | 0 | 40 | 733 |
| Total | 0 | 48 | 983 | 65 | 1 | 1096 | 0 | 120 | 1202 | 90 | 0 | 1412 | 0 | 173 | 38 | 146 | 0 | 357 | 0 | 56 | 20 | 72 | 0 | 148 | 3013 |
| Approach % | 0.0 | 4.4 | 89.7 | 5.9 | - | - | 0.0 | 8.5 | 85.1 | 6.4 | - | - | 0.0 | 48.5 | 10.6 | 40.9 | - | - | 0.0 | 37.8 | 13.5 | 48.6 | - | - | - |
| Total % | 0.0 | 1.6 | 32.6 | 2.2 | - | 36.4 | 0.0 | 4.0 | 39.9 | 3.0 | - | 46.9 | 0.0 | 5.7 | 1.3 | 4.8 | - | 11.8 | 0.0 | 1.9 | 0.7 | 2.4 | - | 4.9 | - |
| PHF | 0.000 | 0.667 | 0.897 | 0.903 | - | 0.904 | 0.000 | 0.769 | 0.916 | 0.938 | - | 0.922 | 0.000 | 0.940 | 0.679 | 0.598 | - | 0.738 | 0.000 | 0.824 | 0.714 | 0.720 | - | 0.881 | 0.945 |
| Lights | 0 | 46 | 971 | 64 | - | 1081 | 0 | 119 | 1198 | 90 | - | 1407 | 0 | 172 | 38 | 144 | - | 354 | 0 | 56 | 20 | 71 | - | 147 | 2989 |
| % Lights | - | 95.8 | 98.8 | 98.5 | - | 98.6 | - | 99.2 | 99.7 | 100.0 | - | 99.6 | - | 99.4 | 100.0 | 98.6 | - | 99.2 | - | 100.0 | 100.0 | 98.6 | - | 99.3 | 99.2 |
| Buses | 0 | 1 | 1 | 0 | - | 2 | 0 | 0 | 1 | 0 | - | 1 | 0 | 0 | 0 | 0 | - | 0 | 0 | 0 | 0 | 0 | - | 0 | 3 |
| % Buses | - | 2.1 | 0.1 | 0.0 | - | 0.2 | - | 0.0 | 0.1 | 0.0 | - | 0.1 | - | 0.0 | 0.0 | 0.0 | - | 0.0 | - | 0.0 | 0.0 | 0.0 | - | 0.0 | 0.1 |
| Single-Unit Trucks | 0 | 1 | 4 | 1 | - | 6 | 0 | 1 | 2 | 0 | - | 3 | 0 | 1 | 0 | 2 | - | 3 | 0 | 0 | 0 | 1 | - | 1 | 13 |
| % Single-Unit Trucks | - | 2.1 | 0.4 | 1.5 | - | 0.5 | - | 0.8 | 0.2 | 0.0 | - | 0.2 | - | 0.6 | 0.0 | 1.4 | - | 0.8 | - | 0.0 | 0.0 | 1.4 | - | 0.7 | 0.4 |
| Articulated Trucks | 0 | 0 | 7 | 0 | - | 7 | 0 | 0 | 1 | 0 | - | 1 | 0 | 0 | 0 | 0 | - | 0 | 0 | 0 | 0 | 0 | - | 0 | 8 |
| % Articulated Trucks | - | 0.0 | 0.7 | 0.0 | - | 0.6 | - | 0.0 | 0.1 | 0.0 | - | 0.1 | - | 0.0 | 0.0 | 0.0 | - | 0.0 | - | 0.0 | 0.0 | 0.0 | - | 0.0 | 0.3 |
| Bicycles on Road | 0 | 0 | 0 | 0 | - | 0 | 0 | 0 | 0 | 0 | - | 0 | 0 | 0 | 0 | 0 | - | 0 | 0 | 0 | 0 | 0 | - | 0 | 0 |
| % Bicycles on Road | - | 0.0 | 0.0 | 0.0 | - | 0.0 | - | 0.0 | 0.0 | 0.0 | - | 0.0 | - | 0.0 | 0.0 | 0.0 | - | 0.0 | - | 0.0 | 0.0 | 0.0 | - | 0.0 | 0.0 |
| Pedestrians | - | - | - | - | 1 | - | - | - | - | - | 0 | - | - | - | - | - | 0 | - | - | - | - | - | 0 | - | - |
| % Pedestrians | - | - | - | - | 100.0 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |

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Count Name: butterfield+with+esplanade TMC
Site Code:
Start Date: 02/05/2026


# Turning Movement Data

| Start Time | Butterfield rd Eastbound | | | | | | Butterfield rd Westbound | | | | | | Esplande Rd Northbound | | | | | | Easton Dr 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 | |
| 6:00 AM | 0 | 0 | 120 | 0 | 0 | 120 | 0 | 0 | 93 | 6 | 0 | 99 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 3 | 0 | 4 | 0 | 7 | 227 |
| 6:15 AM | 0 | 3 | 139 | 0 | 0 | 142 | 0 | 0 | 124 | 11 | 0 | 135 | 0 | 0 | 0 | 3 | 0 | 3 | 0 | 9 | 0 | 1 | 0 | 10 | 290 |
| 6:30 AM | 0 | 2 | 187 | 0 | 0 | 189 | 0 | 0 | 150 | 10 | 0 | 160 | 0 | 0 | 0 | 6 | 0 | 6 | 0 | 20 | 0 | 11 | 0 | 31 | 386 |
| 6:45 AM | 0 | 3 | 190 | 0 | 0 | 193 | 0 | 0 | 205 | 10 | 0 | 215 | 0 | 0 | 0 | 7 | 0 | 7 | 0 | 17 | 0 | 1 | 0 | 18 | 433 |
| Hourly Total | 0 | 8 | 636 | 0 | 0 | 644 | 0 | 0 | 572 | 37 | 0 | 609 | 0 | 0 | 0 | 17 | 0 | 17 | 0 | 49 | 0 | 17 | 0 | 66 | 1336 |
| 7:00 AM | 0 | 6 | 212 | 0 | 0 | 218 | 0 | 0 | 154 | 10 | 0 | 164 | 0 | 0 | 0 | 11 | 0 | 11 | 0 | 17 | 0 | 6 | 0 | 23 | 416 |
| 7:15 AM | 0 | 8 | 263 | 0 | 0 | 271 | 0 | 0 | 251 | 18 | 0 | 269 | 0 | 0 | 0 | 14 | 0 | 14 | 0 | 23 | 0 | 10 | 0 | 33 | 587 |
| 7:30 AM | 0 | 6 | 300 | 0 | 0 | 306 | 0 | 0 | 323 | 17 | 0 | 340 | 0 | 0 | 0 | 15 | 0 | 15 | 0 | 22 | 0 | 11 | 0 | 33 | 694 |
| 7:45 AM | 0 | 7 | 310 | 0 | 0 | 317 | 0 | 0 | 375 | 26 | 0 | 401 | 0 | 0 | 0 | 11 | 0 | 11 | 0 | 27 | 0 | 5 | 0 | 32 | 761 |
| Hourly Total | 0 | 27 | 1085 | 0 | 0 | 1112 | 0 | 0 | 1103 | 71 | 0 | 1174 | 0 | 0 | 0 | 51 | 0 | 51 | 0 | 89 | 0 | 32 | 0 | 121 | 2458 |
| 8:00 AM | 0 | 9 | 268 | 0 | 0 | 277 | 0 | 0 | 334 | 25 | 0 | 359 | 0 | 0 | 0 | 15 | 0 | 15 | 0 | 24 | 0 | 8 | 0 | 32 | 683 |
| 8:15 AM | 0 | 3 | 245 | 0 | 0 | 248 | 0 | 0 | 317 | 20 | 0 | 337 | 0 | 0 | 0 | 15 | 0 | 15 | 0 | 19 | 0 | 16 | 0 | 35 | 635 |
| 8:30 AM | 1 | 7 | 243 | 0 | 0 | 251 | 0 | 0 | 310 | 33 | 0 | 343 | 0 | 0 | 0 | 16 | 0 | 16 | 0 | 24 | 0 | 11 | 0 | 35 | 645 |
| 8:45 AM | 0 | 10 | 191 | 0 | 0 | 201 | 0 | 0 | 269 | 23 | 0 | 292 | 0 | 0 | 0 | 9 | 0 | 9 | 0 | 24 | 0 | 6 | 0 | 30 | 532 |
| Hourly Total | 1 | 29 | 947 | 0 | 0 | 977 | 0 | 0 | 1230 | 101 | 0 | 1331 | 0 | 0 | 0 | 55 | 0 | 55 | 0 | 91 | 0 | 41 | 0 | 132 | 2495 |
| 9:00 AM | 0 | 17 | 222 | 0 | 0 | 239 | 0 | 0 | 249 | 23 | 0 | 272 | 0 | 0 | 0 | 16 | 0 | 16 | 0 | 23 | 0 | 9 | 0 | 32 | 559 |
| 9:15 AM | 0 | 11 | 168 | 0 | 0 | 179 | 0 | 0 | 234 | 25 | 0 | 259 | 0 | 0 | 0 | 17 | 0 | 17 | 0 | 30 | 0 | 15 | 0 | 45 | 500 |
| 9:30 AM | 1 | 12 | 177 | 2 | 0 | 192 | 0 | 0 | 192 | 19 | 0 | 211 | 0 | 0 | 0 | 22 | 6 | 22 | 0 | 32 | 0 | 7 | 0 | 39 | 464 |
| 9:45 AM | 0 | 13 | 184 | 0 | 0 | 197 | 0 | 0 | 179 | 21 | 0 | 200 | 0 | 0 | 0 | 25 | 4 | 25 | 0 | 24 | 0 | 12 | 0 | 36 | 458 |
| Hourly Total | 1 | 53 | 751 | 2 | 0 | 807 | 0 | 0 | 854 | 88 | 0 | 942 | 0 | 0 | 0 | 80 | 10 | 80 | 0 | 109 | 0 | 43 | 0 | 152 | 1981 |
| *** BREAK *** | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 2:00 PM | 0 | 9 | 245 | 0 | 0 | 254 | 1 | 0 | 226 | 38 | 0 | 265 | 0 | 0 | 1 | 48 | 0 | 49 | 0 | 32 | 0 | 20 | 0 | 52 | 620 |
| 2:15 PM | 0 | 14 | 199 | 0 | 0 | 213 | 1 | 0 | 213 | 34 | 0 | 248 | 0 | 0 | 0 | 62 | 0 | 62 | 0 | 29 | 0 | 15 | 0 | 44 | 567 |
| 2:30 PM | 0 | 14 | 212 | 0 | 0 | 226 | 0 | 0 | 214 | 34 | 0 | 248 | 0 | 0 | 0 | 70 | 0 | 70 | 0 | 38 | 0 | 23 | 0 | 61 | 605 |
| 2:45 PM | 0 | 19 | 215 | 0 | 0 | 234 | 1 | 0 | 235 | 32 | 0 | 268 | 0 | 0 | 0 | 60 | 0 | 60 | 0 | 37 | 0 | 21 | 0 | 58 | 620 |
| Hourly Total | 0 | 56 | 871 | 0 | 0 | 927 | 3 | 0 | 888 | 138 | 0 | 1029 | 0 | 0 | 1 | 240 | 0 | 241 | 0 | 136 | 0 | 79 | 0 | 215 | 2412 |
| 3:00 PM | 0 | 18 | 228 | 0 | 0 | 246 | 1 | 0 | 253 | 28 | 0 | 282 | 0 | 0 | 0 | 65 | 0 | 65 | 0 | 27 | 0 | 17 | 0 | 44 | 637 |
| 3:15 PM | 0 | 21 | 266 | 0 | 0 | 287 | 0 | 0 | 252 | 30 | 0 | 282 | 0 | 0 | 0 | 72 | 0 | 72 | 0 | 23 | 0 | 19 | 0 | 42 | 683 |
| 3:30 PM | 0 | 18 | 277 | 0 | 0 | 295 | 0 | 0 | 257 | 34 | 0 | 291 | 0 | 0 | 0 | 117 | 0 | 117 | 0 | 30 | 0 | 20 | 0 | 50 | 753 |
| 3:45 PM | 0 | 20 | 279 | 0 | 0 | 299 | 0 | 0 | 321 | 33 | 1 | 354 | 0 | 0 | 0 | 86 | 0 | 86 | 0 | 26 | 0 | 16 | 0 | 42 | 781 |
| Hourly Total | 0 | 77 | 1050 | 0 | 0 | 1127 | 1 | 0 | 1083 | 125 | 1 | 1209 | 0 | 0 | 0 | 340 | 0 | 340 | 0 | 106 | 0 | 72 | 0 | 178 | 2854 |
| 4:00 PM | 0 | 16 | 302 | 0 | 0 | 318 | 0 | 0 | 341 | 30 | 0 | 371 | 0 | 0 | 0 | 122 | 0 | 122 | 0 | 26 | 0 | 19 | 0 | 45 | 856 |
| 4:15 PM | 0 | 15 | 263 | 0 | 0 | 278 | 0 | 0 | 306 | 38 | 0 | 344 | 0 | 0 | 0 | 113 | 0 | 113 | 0 | 21 | 0 | 11 | 0 | 32 | 767 |
| 4:30 PM | 0 | 12 | 324 | 0 | 0 | 336 | 0 | 0 | 345 | 30 | 0 | 375 | 0 | 0 | 0 | 128 | 1 | 128 | 0 | 38 | 0 | 15 | 0 | 53 | 892 |
| 4:45 PM | 0 | 25 | 237 | 0 | 0 | 262 | 0 | 0 | 322 | 29 | 0 | 351 | 0 | 0 | 0 | 119 | 0 | 119 | 0 | 29 | 0 | 11 | 0 | 40 | 772 |

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Hourly Total | 0 | 68 | 1126 | 0 | 0 | 1194 | 0 | 0 | 1314 | 127 | 0 | 1441 | 0 | 0 | 0 | 482 | 1 | 482 | 0 | 114 | 0 | 56 | 0 | 170 | 3287 |
| 5:00 PM | 0 | 17 | 285 | 0 | 0 | 302 | 0 | 0 | 336 | 28 | 0 | 364 | 0 | 0 | 0 | 125 | 0 | 125 | 0 | 37 | 0 | 14 | 0 | 51 | 842 |
| 5:15 PM | 0 | 13 | 316 | 0 | 0 | 329 | 0 | 0 | 332 | 42 | 0 | 374 | 0 | 0 | 0 | 91 | 0 | 91 | 0 | 26 | 0 | 14 | 0 | 40 | 834 |
| 5:30 PM | 1 | 15 | 281 | 0 | 0 | 297 | 2 | 0 | 334 | 34 | 0 | 370 | 0 | 0 | 1 | 62 | 0 | 63 | 0 | 29 | 0 | 18 | 0 | 47 | 777 |
| 5:45 PM | 0 | 11 | 226 | 0 | 0 | 237 | 2 | 0 | 302 | 27 | 0 | 331 | 0 | 0 | 0 | 60 | 0 | 60 | 0 | 33 | 0 | 16 | 0 | 49 | 677 |
| Hourly Total | 1 | 56 | 1108 | 0 | 0 | 1165 | 4 | 0 | 1304 | 131 | 0 | 1439 | 0 | 0 | 1 | 338 | 0 | 339 | 0 | 125 | 0 | 62 | 0 | 187 | 3130 |
| Grand Total | 3 | 374 | 7574 | 2 | 0 | 7953 | 8 | 0 | 8348 | 818 | 1 | 9174 | 0 | 0 | 2 | 1603 | 11 | 1605 | 0 | 819 | 0 | 402 | 0 | 1221 | 19953 |
| Approach % | 0.0 | 4.7 | 95.2 | 0.0 | - | - | 0.1 | 0.0 | 91.0 | 8.9 | - | - | 0.0 | 0.0 | 0.1 | 99.9 | - | - | 0.0 | 67.1 | 0.0 | 32.9 | - | - | - |
| Total % | 0.0 | 1.9 | 38.0 | 0.0 | - | 39.9 | 0.0 | 0.0 | 41.8 | 4.1 | - | 46.0 | 0.0 | 0.0 | 0.0 | 8.0 | - | 8.0 | 0.0 | 4.1 | 0.0 | 2.0 | - | 6.1 | - |
| Lights | 3 | 368 | 7455 | 0 | - | 7826 | 8 | 0 | 8191 | 792 | - | 8991 | 0 | 0 | 2 | 1592 | - | 1594 | 0 | 803 | 0 | 392 | - | 1195 | 19606 |
| % Lights | 100.0 | 98.4 | 98.4 | 0.0 | - | 98.4 | 100.0 | - | 98.1 | 96.8 | - | 98.0 | - | - | 100.0 | 99.3 | - | 99.3 | - | 98.0 | - | 97.5 | - | 97.9 | 98.3 |
| Buses | 0 | 2 | 25 | 0 | - | 27 | 0 | 0 | 26 | 7 | - | 33 | 0 | 0 | 0 | 0 | - | 0 | 0 | 1 | 0 | 7 | - | 8 | 68 |
| % Buses | 0.0 | 0.5 | 0.3 | 0.0 | - | 0.3 | 0.0 | - | 0.3 | 0.9 | - | 0.4 | - | - | 0.0 | 0.0 | - | 0.0 | - | 0.1 | - | 1.7 | - | 0.7 | 0.3 |
| Single-Unit Trucks | 0 | 4 | 66 | 1 | - | 71 | 0 | 0 | 90 | 16 | - | 106 | 0 | 0 | 0 | 10 | - | 10 | 0 | 11 | 0 | 3 | - | 14 | 201 |
| % Single-Unit Trucks | 0.0 | 1.1 | 0.9 | 50.0 | - | 0.9 | 0.0 | - | 1.1 | 2.0 | - | 1.2 | - | - | 0.0 | 0.6 | - | 0.6 | - | 1.3 | - | 0.7 | - | 1.1 | 1.0 |
| Articulated Trucks | 0 | 0 | 28 | 1 | - | 29 | 0 | 0 | 41 | 3 | - | 44 | 0 | 0 | 0 | 1 | - | 1 | 0 | 4 | 0 | 0 | - | 4 | 78 |
| % Articulated Trucks | 0.0 | 0.0 | 0.4 | 50.0 | - | 0.4 | 0.0 | - | 0.5 | 0.4 | - | 0.5 | - | - | 0.0 | 0.1 | - | 0.1 | - | 0.5 | - | 0.0 | - | 0.3 | 0.4 |
| Bicycles on Road | 0 | 0 | 0 | 0 | - | 0 | 0 | 0 | 0 | 0 | - | 0 | 0 | 0 | 0 | 0 | - | 0 | 0 | 0 | 0 | 0 | - | 0 | 0 |
| % Bicycles on Road | 0.0 | 0.0 | 0.0 | 0.0 | - | 0.0 | 0.0 | - | 0.0 | 0.0 | - | 0.0 | - | - | 0.0 | 0.0 | - | 0.0 | - | 0.0 | - | 0.0 | - | 0.0 | 0.0 |
| Pedestrians | - | - | - | - | 0 | - | - | - | - | - | 1 | - | - | - | - | - | 11 | - | - | - | - | - | 0 | - | - |
| % Pedestrians | - | - | - | - | - | - | - | - | - | - | 100.0 | - | - | - | - | - | 100.0 | - | - | - | - | - | - | - | - |

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Count Name: butterfield+with+esplanade TMC
Site Code:
Start Date: 02/05/2026


# Turning Movement Peak Hour Data (7:45 AM)

| Start Time | Butterfield rd Eastbound | | | | | | Butterfield rd Westbound | | | | | | Esplande Rd Northbound | | | | | | Easton Dr Southbound | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | U-Turn | Left | Thru | Right | Peds | App. Total | U-Turn | Left | Thru | Right | Peds | App. Total | U-Turn | Left | Thru | Right | Peds | App. Total | U-Turn | Left | Thru | Right | Peds | App. Total | Int. Total |
| 7:45 AM | 0 | 7 | 310 | 0 | 0 | 317 | 0 | 0 | 375 | 26 | 0 | 401 | 0 | 0 | 0 | 11 | 0 | 11 | 0 | 27 | 0 | 5 | 0 | 32 | 761 |
| 8:00 AM | 0 | 9 | 268 | 0 | 0 | 277 | 0 | 0 | 334 | 25 | 0 | 359 | 0 | 0 | 0 | 15 | 0 | 15 | 0 | 24 | 0 | 8 | 0 | 32 | 683 |
| 8:15 AM | 0 | 3 | 245 | 0 | 0 | 248 | 0 | 0 | 317 | 20 | 0 | 337 | 0 | 0 | 0 | 15 | 0 | 15 | 0 | 19 | 0 | 16 | 0 | 35 | 635 |
| 8:30 AM | 1 | 7 | 243 | 0 | 0 | 251 | 0 | 0 | 310 | 33 | 0 | 343 | 0 | 0 | 0 | 16 | 0 | 16 | 0 | 24 | 0 | 11 | 0 | 35 | 645 |
| Total | 1 | 26 | 1066 | 0 | 0 | 1093 | 0 | 0 | 1336 | 104 | 0 | 1440 | 0 | 0 | 0 | 57 | 0 | 57 | 0 | 94 | 0 | 40 | 0 | 134 | 2724 |
| Approach % | 0.1 | 2.4 | 97.5 | 0.0 | - | - | 0.0 | 0.0 | 92.8 | 7.2 | - | - | 0.0 | 0.0 | 0.0 | 100.0 | - | - | 0.0 | 70.1 | 0.0 | 29.9 | - | - | - |
| Total % | 0.0 | 1.0 | 39.1 | 0.0 | - | 40.1 | 0.0 | 0.0 | 49.0 | 3.8 | - | 52.9 | 0.0 | 0.0 | 0.0 | 2.1 | - | 2.1 | 0.0 | 3.5 | 0.0 | 1.5 | - | 4.9 | - |
| PHF | 0.250 | 0.722 | 0.860 | 0.000 | - | 0.862 | 0.000 | 0.000 | 0.891 | 0.788 | - | 0.898 | 0.000 | 0.000 | 0.000 | 0.891 | - | 0.891 | 0.000 | 0.870 | 0.000 | 0.625 | - | 0.957 | 0.895 |
| Lights | 1 | 26 | 1039 | 0 | - | 1066 | 0 | 0 | 1305 | 99 | - | 1404 | 0 | 0 | 0 | 57 | - | 57 | 0 | 92 | 0 | 38 | - | 130 | 2657 |
| % Lights | 100.0 | 100.0 | 97.5 | - | - | 97.5 | - | - | 97.7 | 95.2 | - | 97.5 | - | - | - | 100.0 | - | 100.0 | - | 97.9 | - | 95.0 | - | 97.0 | 97.5 |
| Buses | 0 | 0 | 6 | 0 | - | 6 | 0 | 0 | 6 | 1 | - | 7 | 0 | 0 | 0 | 0 | - | 0 | 0 | 0 | 0 | 1 | - | 1 | 14 |
| % Buses | 0.0 | 0.0 | 0.6 | - | - | 0.5 | - | - | 0.4 | 1.0 | - | 0.5 | - | - | - | 0.0 | - | 0.0 | - | 0.0 | - | 2.5 | - | 0.7 | 0.5 |
| Single-Unit Trucks | 0 | 0 | 17 | 0 | - | 17 | 0 | 0 | 21 | 3 | - | 24 | 0 | 0 | 0 | 0 | - | 0 | 0 | 2 | 0 | 1 | - | 3 | 44 |
| % Single-Unit Trucks | 0.0 | 0.0 | 1.6 | - | - | 1.6 | - | - | 1.6 | 2.9 | - | 1.7 | - | - | - | 0.0 | - | 0.0 | - | 2.1 | - | 2.5 | - | 2.2 | 1.6 |
| Articulated Trucks | 0 | 0 | 4 | 0 | - | 4 | 0 | 0 | 4 | 1 | - | 5 | 0 | 0 | 0 | 0 | - | 0 | 0 | 0 | 0 | 0 | - | 0 | 9 |
| % Articulated Trucks | 0.0 | 0.0 | 0.4 | - | - | 0.4 | - | - | 0.3 | 1.0 | - | 0.3 | - | - | - | 0.0 | - | 0.0 | - | 0.0 | - | 0.0 | - | 0.0 | 0.3 |
| Bicycles on Road | 0 | 0 | 0 | 0 | - | 0 | 0 | 0 | 0 | 0 | - | 0 | 0 | 0 | 0 | 0 | - | 0 | 0 | 0 | 0 | 0 | - | 0 | 0 |
| % Bicycles on Road | 0.0 | 0.0 | 0.0 | - | - | 0.0 | - | - | 0.0 | 0.0 | - | 0.0 | - | - | - | 0.0 | - | 0.0 | - | 0.0 | - | 0.0 | - | 0.0 | 0.0 |
| Pedestrians | - | - | - | - | 0 | - | - | - | - | - | 0 | - | - | - | - | - | 0 | - | - | - | - | - | 0 | - | - |
| % Pedestrians | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |

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Count Name: butterfield+with+esplanade TMC
Site Code:
Start Date: 02/05/2026


# Turning Movement Peak Hour Data (4:00 PM)

| Start Time | Butterfield rd Eastbound | | | | | | Butterfield rd Westbound | | | | | | Esplande Rd Northbound | | | | | | Easton Dr 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 |
| 4:00 PM | 0 | 16 | 302 | 0 | 0 | 318 | 0 | 0 | 341 | 30 | 0 | 371 | 0 | 0 | 0 | 122 | 0 | 122 | 0 | 26 | 0 | 19 | 0 | 45 | 856 |
| 4:15 PM | 0 | 15 | 263 | 0 | 0 | 278 | 0 | 0 | 306 | 38 | 0 | 344 | 0 | 0 | 0 | 113 | 0 | 113 | 0 | 21 | 0 | 11 | 0 | 32 | 767 |
| 4:30 PM | 0 | 12 | 324 | 0 | 0 | 336 | 0 | 0 | 345 | 30 | 0 | 375 | 0 | 0 | 0 | 128 | 1 | 128 | 0 | 38 | 0 | 15 | 0 | 53 | 892 |
| 4:45 PM | 0 | 25 | 237 | 0 | 0 | 262 | 0 | 0 | 322 | 29 | 0 | 351 | 0 | 0 | 0 | 119 | 0 | 119 | 0 | 29 | 0 | 11 | 0 | 40 | 772 |
| Total | 0 | 68 | 1126 | 0 | 0 | 1194 | 0 | 0 | 1314 | 127 | 0 | 1441 | 0 | 0 | 0 | 482 | 1 | 482 | 0 | 114 | 0 | 56 | 0 | 170 | 3287 |
| Approach % | 0.0 | 5.7 | 94.3 | 0.0 | - | - | 0.0 | 0.0 | 91.2 | 8.8 | - | - | 0.0 | 0.0 | 0.0 | 100.0 | - | - | 0.0 | 67.1 | 0.0 | 32.9 | - | - | - |
| Total % | 0.0 | 2.1 | 34.3 | 0.0 | - | 36.3 | 0.0 | 0.0 | 40.0 | 3.9 | - | 43.8 | 0.0 | 0.0 | 0.0 | 14.7 | - | 14.7 | 0.0 | 3.5 | 0.0 | 1.7 | - | 5.2 | - |
| PHF | 0.000 | 0.680 | 0.869 | 0.000 | - | 0.888 | 0.000 | 0.000 | 0.952 | 0.836 | - | 0.961 | 0.000 | 0.000 | 0.000 | 0.941 | - | 0.941 | 0.000 | 0.750 | 0.000 | 0.737 | - | 0.802 | 0.921 |
| Lights | 0 | 68 | 1112 | 0 | - | 1180 | 0 | 0 | 1305 | 125 | - | 1430 | 0 | 0 | 0 | 481 | - | 481 | 0 | 108 | 0 | 56 | - | 164 | 3255 |
| % Lights | - | 100.0 | 98.8 | - | - | 98.8 | - | - | 99.3 | 98.4 | - | 99.2 | - | - | - | 99.8 | - | 99.8 | - | 94.7 | - | 100.0 | - | 96.5 | 99.0 |
| Buses | 0 | 0 | 1 | 0 | - | 1 | 0 | 0 | 2 | 0 | - | 2 | 0 | 0 | 0 | 0 | - | 0 | 0 | 0 | 0 | 0 | - | 0 | 3 |
| % Buses | - | 0.0 | 0.1 | - | - | 0.1 | - | - | 0.2 | 0.0 | - | 0.1 | - | - | - | 0.0 | - | 0.0 | - | 0.0 | - | 0.0 | - | 0.0 | 0.1 |
| Single-Unit Trucks | 0 | 0 | 10 | 0 | - | 10 | 0 | 0 | 5 | 2 | - | 7 | 0 | 0 | 0 | 1 | - | 1 | 0 | 6 | 0 | 0 | - | 6 | 24 |
| % Single-Unit Trucks | - | 0.0 | 0.9 | - | - | 0.8 | - | - | 0.4 | 1.6 | - | 0.5 | - | - | - | 0.2 | - | 0.2 | - | 5.3 | - | 0.0 | - | 3.5 | 0.7 |
| Articulated Trucks | 0 | 0 | 3 | 0 | - | 3 | 0 | 0 | 2 | 0 | - | 2 | 0 | 0 | 0 | 0 | - | 0 | 0 | 0 | 0 | 0 | - | 0 | 5 |
| % Articulated Trucks | - | 0.0 | 0.3 | - | - | 0.3 | - | - | 0.2 | 0.0 | - | 0.1 | - | - | - | 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 |
| Pedestrians | - | - | - | - | 0 | - | - | - | - | - | 0 | - | - | - | - | - | 1 | - | - | - | - | - | 0 | - | - |
| % Pedestrians | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 100.0 | - | - | - | - | - | - | - | - |

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Count Name: finley rd and butterfield Rd
Site Code:
Start Date: 02/11/2026


# Turning Movement Data

| Start Time | Butterfield Road Eastbound | | | | | | Butterfield Road Westbound | | | | | | finley rd Northbound | | | | | | finley rd 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 | |
| 6:07 AM | 0 | 33 | 113 | 40 | 0 | 186 | 0 | 25 | 70 | 15 | 0 | 110 | 0 | 15 | 22 | 29 | 0 | 66 | 0 | 11 | 28 | 30 | 0 | 69 | 431 |
| 6:22 AM | 0 | 42 | 177 | 33 | 0 | 252 | 0 | 29 | 101 | 20 | 1 | 150 | 0 | 30 | 40 | 47 | 0 | 117 | 0 | 7 | 38 | 27 | 0 | 72 | 591 |
| 6:37 AM | 0 | 67 | 213 | 63 | 0 | 343 | 0 | 71 | 168 | 35 | 0 | 274 | 0 | 32 | 54 | 70 | 0 | 156 | 0 | 19 | 63 | 30 | 0 | 112 | 885 |
| 6:52 AM | 0 | 90 | 239 | 52 | 0 | 381 | 0 | 48 | 204 | 42 | 0 | 294 | 0 | 38 | 60 | 67 | 0 | 165 | 0 | 24 | 64 | 34 | 0 | 122 | 962 |
| Hourly Total | 0 | 232 | 742 | 188 | 0 | 1162 | 0 | 173 | 543 | 112 | 1 | 828 | 0 | 115 | 176 | 213 | 0 | 504 | 0 | 61 | 193 | 121 | 0 | 375 | 2869 |
| 7:07 AM | 0 | 59 | 232 | 47 | 0 | 338 | 0 | 56 | 128 | 26 | 0 | 210 | 0 | 20 | 57 | 34 | 0 | 111 | 0 | 13 | 55 | 45 | 0 | 113 | 772 |
| 7:22 AM | 0 | 49 | 215 | 87 | 0 | 351 | 0 | 57 | 142 | 33 | 0 | 232 | 0 | 28 | 60 | 56 | 0 | 144 | 0 | 31 | 66 | 47 | 0 | 144 | 871 |
| 7:37 AM | 0 | 50 | 271 | 103 | 0 | 424 | 1 | 70 | 156 | 24 | 0 | 251 | 0 | 44 | 87 | 102 | 0 | 233 | 0 | 22 | 69 | 64 | 0 | 155 | 1063 |
| 7:52 AM | 0 | 75 | 316 | 87 | 0 | 478 | 0 | 88 | 142 | 29 | 0 | 259 | 0 | 30 | 66 | 85 | 0 | 181 | 0 | 29 | 82 | 57 | 0 | 168 | 1086 |
| Hourly Total | 0 | 233 | 1034 | 324 | 0 | 1591 | 1 | 271 | 568 | 112 | 0 | 952 | 0 | 122 | 270 | 277 | 0 | 669 | 0 | 95 | 272 | 213 | 0 | 580 | 3792 |
| 8:07 AM | 2 | 72 | 315 | 117 | 0 | 506 | 0 | 62 | 208 | 33 | 0 | 303 | 0 | 26 | 73 | 80 | 0 | 179 | 0 | 25 | 73 | 44 | 0 | 142 | 1130 |
| 8:22 AM | 3 | 74 | 278 | 104 | 0 | 459 | 0 | 67 | 199 | 25 | 0 | 291 | 0 | 31 | 70 | 72 | 0 | 173 | 0 | 30 | 73 | 52 | 0 | 155 | 1078 |
| 8:37 AM | 0 | 58 | 319 | 98 | 1 | 475 | 0 | 72 | 210 | 30 | 0 | 312 | 0 | 31 | 63 | 93 | 0 | 187 | 0 | 32 | 75 | 45 | 0 | 152 | 1126 |
| 8:52 AM | 2 | 77 | 260 | 120 | 0 | 459 | 0 | 64 | 179 | 28 | 0 | 271 | 0 | 24 | 69 | 76 | 0 | 169 | 0 | 26 | 73 | 41 | 0 | 140 | 1039 |
| Hourly Total | 7 | 281 | 1172 | 439 | 1 | 1899 | 0 | 265 | 796 | 116 | 0 | 1177 | 0 | 112 | 275 | 321 | 0 | 708 | 0 | 113 | 294 | 182 | 0 | 589 | 4373 |
| 9:07 AM | 0 | 80 | 262 | 87 | 0 | 429 | 0 | 60 | 178 | 22 | 0 | 260 | 0 | 25 | 62 | 64 | 0 | 151 | 0 | 27 | 59 | 44 | 0 | 130 | 970 |
| 9:22 AM | 1 | 75 | 216 | 53 | 0 | 345 | 0 | 52 | 167 | 24 | 0 | 243 | 0 | 28 | 45 | 84 | 0 | 157 | 0 | 35 | 43 | 53 | 0 | 131 | 876 |
| 9:37 AM | 0 | 71 | 201 | 49 | 0 | 321 | 0 | 54 | 178 | 29 | 0 | 261 | 0 | 20 | 61 | 65 | 0 | 146 | 0 | 25 | 46 | 43 | 0 | 114 | 842 |
| 9:52 AM | 1 | 34 | 98 | 27 | 1 | 160 | 0 | 35 | 63 | 15 | 0 | 113 | 0 | 14 | 20 | 39 | 1 | 73 | 0 | 27 | 28 | 25 | 0 | 80 | 426 |
| Hourly Total | 2 | 260 | 777 | 216 | 1 | 1255 | 0 | 201 | 586 | 90 | 0 | 877 | 0 | 87 | 188 | 252 | 1 | 527 | 0 | 114 | 176 | 165 | 0 | 455 | 3114 |
| *** BREAK *** | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1:52 PM | 0 | 12 | 108 | 7 | 0 | 127 | 0 | 24 | 114 | 22 | 0 | 160 | 0 | 13 | 23 | 35 | 0 | 71 | 0 | 13 | 29 | 34 | 0 | 76 | 434 |
| Hourly Total | 0 | 12 | 108 | 7 | 0 | 127 | 0 | 24 | 114 | 22 | 0 | 160 | 0 | 13 | 23 | 35 | 0 | 71 | 0 | 13 | 29 | 34 | 0 | 76 | 434 |
| 2:07 PM | 0 | 38 | 190 | 34 | 0 | 262 | 1 | 62 | 241 | 38 | 0 | 342 | 0 | 37 | 75 | 66 | 0 | 178 | 1 | 59 | 73 | 81 | 0 | 214 | 996 |
| 2:22 PM | 0 | 42 | 209 | 46 | 3 | 297 | 0 | 62 | 228 | 47 | 0 | 337 | 0 | 35 | 67 | 78 | 0 | 180 | 0 | 50 | 58 | 90 | 0 | 198 | 1012 |
| 2:37 PM | 0 | 63 | 206 | 31 | 0 | 300 | 0 | 65 | 287 | 36 | 0 | 388 | 0 | 34 | 73 | 75 | 0 | 182 | 0 | 52 | 71 | 88 | 0 | 211 | 1081 |
| 2:52 PM | 0 | 56 | 189 | 48 | 0 | 293 | 0 | 77 | 261 | 43 | 0 | 381 | 0 | 33 | 59 | 70 | 0 | 162 | 0 | 44 | 89 | 97 | 0 | 230 | 1066 |
| Hourly Total | 0 | 199 | 794 | 159 | 3 | 1152 | 1 | 266 | 1017 | 164 | 0 | 1448 | 0 | 139 | 274 | 289 | 0 | 702 | 1 | 205 | 291 | 356 | 0 | 853 | 4155 |
| 3:07 PM | 0 | 69 | 211 | 34 | 0 | 314 | 0 | 69 | 317 | 36 | 0 | 422 | 0 | 39 | 99 | 62 | 0 | 200 | 0 | 28 | 85 | 66 | 0 | 179 | 1115 |
| 3:22 PM | 0 | 67 | 238 | 41 | 0 | 346 | 1 | 60 | 280 | 41 | 0 | 382 | 0 | 45 | 59 | 81 | 0 | 185 | 0 | 51 | 93 | 77 | 0 | 221 | 1134 |
| 3:37 PM | 0 | 62 | 223 | 46 | 1 | 331 | 0 | 60 | 328 | 39 | 0 | 427 | 0 | 45 | 76 | 97 | 0 | 218 | 0 | 43 | 84 | 96 | 0 | 223 | 1199 |
| 3:52 PM | 0 | 62 | 237 | 40 | 0 | 339 | 0 | 70 | 352 | 26 | 0 | 448 | 0 | 27 | 56 | 66 | 0 | 149 | 0 | 47 | 71 | 109 | 0 | 227 | 1163 |
| Hourly Total | 0 | 260 | 909 | 161 | 1 | 1330 | 1 | 259 | 1277 | 142 | 0 | 1679 | 0 | 156 | 290 | 306 | 0 | 752 | 0 | 169 | 333 | 348 | 0 | 850 | 4611 |
| 4:07 PM | 0 | 75 | 236 | 24 | 0 | 335 | 0 | 65 | 364 | 42 | 0 | 471 | 0 | 61 | 52 | 101 | 0 | 214 | 0 | 57 | 110 | 153 | 0 | 320 | 1340 |
| 4:22 PM | 0 | 71 | 255 | 16 | 0 | 342 | 0 | 65 | 369 | 29 | 0 | 463 | 0 | 44 | 59 | 65 | 0 | 168 | 0 | 41 | 81 | 90 | 0 | 212 | 1185 |

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 4:37 PM | 0 | 70 | 256 | 26 | 0 | 352 | 0 | 49 | 424 | 28 | 0 | 501 | 0 | 54 | 73 | 72 | 0 | 199 | 0 | 35 | 80 | 109 | 0 | 224 | 1276 |
| 4:52 PM | 0 | 65 | 232 | 45 | 0 | 342 | 0 | 74 | 382 | 22 | 0 | 478 | 3 | 47 | 74 | 71 | 0 | 195 | 0 | 51 | 91 | 98 | 0 | 240 | 1255 |
| Hourly Total | 0 | 281 | 979 | 111 | 0 | 1371 | 0 | 253 | 1539 | 121 | 0 | 1913 | 3 | 206 | 258 | 309 | 0 | 776 | 0 | 184 | 362 | 450 | 0 | 996 | 5056 |
| 5:07 PM | 0 | 79 | 261 | 56 | 0 | 396 | 0 | 74 | 422 | 41 | 0 | 537 | 0 | 73 | 98 | 88 | 0 | 259 | 0 | 52 | 102 | 97 | 0 | 251 | 1443 |
| 5:22 PM | 1 | 72 | 272 | 57 | 0 | 402 | 3 | 80 | 422 | 53 | 0 | 558 | 2 | 46 | 72 | 79 | 0 | 199 | 1 | 43 | 75 | 96 | 0 | 215 | 1374 |
| 5:37 PM | 0 | 86 | 185 | 47 | 2 | 318 | 1 | 72 | 324 | 47 | 0 | 444 | 2 | 58 | 67 | 74 | 0 | 201 | 0 | 41 | 86 | 103 | 0 | 230 | 1193 |
| 5:52 PM | 0 | 38 | 115 | 31 | 0 | 184 | 0 | 25 | 186 | 22 | 0 | 233 | 0 | 18 | 27 | 30 | 0 | 75 | 0 | 22 | 27 | 44 | 0 | 93 | 585 |
| Hourly Total | 1 | 275 | 833 | 191 | 2 | 1300 | 4 | 251 | 1354 | 163 | 0 | 1772 | 4 | 195 | 264 | 271 | 0 | 734 | 1 | 158 | 290 | 340 | 0 | 789 | 4595 |
| Grand Total | 10 | 2033 | 7348 | 1796 | 8 | 11187 | 7 | 1963 | 7794 | 1042 | 1 | 10806 | 7 | 1145 | 2018 | 2273 | 1 | 5443 | 2 | 1112 | 2240 | 2209 | 0 | 5563 | 32999 |
| Approach % | 0.1 | 18.2 | 65.7 | 16.1 | - | - | 0.1 | 18.2 | 72.1 | 9.6 | - | - | 0.1 | 21.0 | 37.1 | 41.8 | - | - | 0.0 | 20.0 | 40.3 | 39.7 | - | - | - |
| Total % | 0.0 | 6.2 | 22.3 | 5.4 | - | 33.9 | 0.0 | 5.9 | 23.6 | 3.2 | - | 32.7 | 0.0 | 3.5 | 6.1 | 6.9 | - | 16.5 | 0.0 | 3.4 | 6.8 | 6.7 | - | 16.9 | - |
| Lights | 10 | 1973 | 7254 | 1746 | - | 10983 | 7 | 1943 | 7671 | 1020 | - | 10641 | 7 | 1122 | 1989 | 2213 | - | 5331 | 2 | 1100 | 2203 | 2126 | - | 5431 | 32386 |
| % Lights | 100.0 | 97.0 | 98.7 | 97.2 | - | 98.2 | 100.0 | 99.0 | 98.4 | 97.9 | - | 98.5 | 100.0 | 98.0 | 98.6 | 97.4 | - | 97.9 | 100.0 | 98.9 | 98.3 | 96.2 | - | 97.6 | 98.1 |
| Buses | 0 | 7 | 2 | 0 | - | 9 | 0 | 1 | 13 | 2 | - | 16 | 0 | 2 | 1 | 15 | - | 18 | 0 | 0 | 2 | 19 | - | 21 | 64 |
| % Buses | 0.0 | 0.3 | 0.0 | 0.0 | - | 0.1 | 0.0 | 0.1 | 0.2 | 0.2 | - | 0.1 | 0.0 | 0.2 | 0.0 | 0.7 | - | 0.3 | 0.0 | 0.0 | 0.1 | 0.9 | - | 0.4 | 0.2 |
| Single-Unit Trucks | 0 | 33 | 50 | 30 | - | 113 | 0 | 15 | 75 | 16 | - | 106 | 0 | 15 | 23 | 39 | - | 77 | 0 | 7 | 25 | 44 | - | 76 | 372 |
| % Single-Unit Trucks | 0.0 | 1.6 | 0.7 | 1.7 | - | 1.0 | 0.0 | 0.8 | 1.0 | 1.5 | - | 1.0 | 0.0 | 1.3 | 1.1 | 1.7 | - | 1.4 | 0.0 | 0.6 | 1.1 | 2.0 | - | 1.4 | 1.1 |
| Articulated Trucks | 0 | 20 | 42 | 20 | - | 82 | 0 | 4 | 35 | 4 | - | 43 | 0 | 6 | 5 | 6 | - | 17 | 0 | 5 | 10 | 20 | - | 35 | 177 |
| % Articulated Trucks | 0.0 | 1.0 | 0.6 | 1.1 | - | 0.7 | 0.0 | 0.2 | 0.4 | 0.4 | - | 0.4 | 0.0 | 0.5 | 0.2 | 0.3 | - | 0.3 | 0.0 | 0.4 | 0.4 | 0.9 | - | 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 | 0.0 | 0.0 | 0.0 | - | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | - | 0.0 | 0.0 |
| Pedestrians | - | - | - | - | 8 | - | - | - | - | - | 1 | - | - | - | - | - | 1 | - | - | - | - | - | 0 | - | - |
| % Pedestrians | - | - | - | - | 100.0 | - | - | - | - | - | 100.0 | - | - | - | - | - | 100.0 | - | - | - | - | - | - | - | - |

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Count Name: finley rd and butterfield Rd
Site Code:
Start Date: 02/11/2026


# Turning Movement Peak Hour Data (7:52 AM)

| Start Time | Butterfield Road Eastbound | | | | | | Butterfield Road Westbound | | | | | | finley rd Northbound | | | | | | finley rd Southbound | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | U-Turn | Left | Thru | Right | Peds | App. Total | U-Turn | Left | Thru | Right | Peds | App. Total | U-Turn | Left | Thru | Right | Peds | App. Total | U-Turn | Left | Thru | Right | Peds | App. Total | Int. Total |
| 7:52 AM | 0 | 75 | 316 | 87 | 0 | 478 | 0 | 88 | 142 | 29 | 0 | 259 | 0 | 30 | 66 | 85 | 0 | 181 | 0 | 29 | 82 | 57 | 0 | 168 | 1086 |
| 8:07 AM | 2 | 72 | 315 | 117 | 0 | 506 | 0 | 62 | 208 | 33 | 0 | 303 | 0 | 26 | 73 | 80 | 0 | 179 | 0 | 25 | 73 | 44 | 0 | 142 | 1130 |
| 8:22 AM | 3 | 74 | 278 | 104 | 0 | 459 | 0 | 67 | 199 | 25 | 0 | 291 | 0 | 31 | 70 | 72 | 0 | 173 | 0 | 30 | 73 | 52 | 0 | 155 | 1078 |
| 8:37 AM | 0 | 58 | 319 | 98 | 1 | 475 | 0 | 72 | 210 | 30 | 0 | 312 | 0 | 31 | 63 | 93 | 0 | 187 | 0 | 32 | 75 | 45 | 0 | 152 | 1126 |
| Total | 5 | 279 | 1228 | 406 | 1 | 1918 | 0 | 289 | 759 | 117 | 0 | 1165 | 0 | 118 | 272 | 330 | 0 | 720 | 0 | 116 | 303 | 198 | 0 | 617 | 4420 |
| Approach % | 0.3 | 14.5 | 64.0 | 21.2 | - | - | 0.0 | 24.8 | 65.2 | 10.0 | - | - | 0.0 | 16.4 | 37.8 | 45.8 | - | - | 0.0 | 18.8 | 49.1 | 32.1 | - | - | - |
| Total % | 0.1 | 6.3 | 27.8 | 9.2 | - | 43.4 | 0.0 | 6.5 | 17.2 | 2.6 | - | 26.4 | 0.0 | 2.7 | 6.2 | 7.5 | - | 16.3 | 0.0 | 2.6 | 6.9 | 4.5 | - | 14.0 | - |
| PHF | 0.556 | 1.240 | 1.283 | 1.157 | - | 1.264 | 0.000 | 1.095 | 1.205 | 1.182 | - | 1.245 | 0.000 | 1.269 | 1.242 | 1.183 | - | 1.283 | 0.000 | 1.208 | 1.232 | 1.158 | - | 1.224 | 1.304 |
| Lights | 5 | 272 | 1218 | 397 | - | 1892 | 0 | 287 | 739 | 115 | - | 1141 | 0 | 118 | 268 | 320 | - | 706 | 0 | 116 | 297 | 187 | - | 600 | 4339 |
| % Lights | 100.0 | 97.5 | 99.2 | 97.8 | - | 98.6 | - | 99.3 | 97.4 | 98.3 | - | 97.9 | - | 100.0 | 98.5 | 97.0 | - | 98.1 | - | 100.0 | 98.0 | 94.4 | - | 97.2 | 98.2 |
| Buses | 0 | 0 | 0 | 0 | - | 0 | 0 | 0 | 1 | 0 | - | 1 | 0 | 0 | 0 | 0 | - | 0 | 0 | 0 | 0 | 5 | - | 5 | 6 |
| % Buses | 0.0 | 0.0 | 0.0 | 0.0 | - | 0.0 | - | 0.0 | 0.1 | 0.0 | - | 0.1 | - | 0.0 | 0.0 | 0.0 | - | 0.0 | - | 0.0 | 0.0 | 2.5 | - | 0.8 | 0.1 |
| Single-Unit Trucks | 0 | 3 | 6 | 6 | - | 15 | 0 | 2 | 12 | 2 | - | 16 | 0 | 0 | 3 | 10 | - | 13 | 0 | 0 | 5 | 3 | - | 8 | 52 |
| % Single-Unit Trucks | 0.0 | 1.1 | 0.5 | 1.5 | - | 0.8 | - | 0.7 | 1.6 | 1.7 | - | 1.4 | - | 0.0 | 1.1 | 3.0 | - | 1.8 | - | 0.0 | 1.7 | 1.5 | - | 1.3 | 1.2 |
| Articulated Trucks | 0 | 4 | 4 | 3 | - | 11 | 0 | 0 | 7 | 0 | - | 7 | 0 | 0 | 1 | 0 | - | 1 | 0 | 0 | 1 | 3 | - | 4 | 23 |
| % Articulated Trucks | 0.0 | 1.4 | 0.3 | 0.7 | - | 0.6 | - | 0.0 | 0.9 | 0.0 | - | 0.6 | - | 0.0 | 0.4 | 0.0 | - | 0.1 | - | 0.0 | 0.3 | 1.5 | - | 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 | 0.0 | - | 0.0 | - | 0.0 | 0.0 | 0.0 | - | 0.0 | 0.0 |
| Pedestrians | - | - | - | - | 1 | - | - | - | - | - | 0 | - | - | - | - | - | 0 | - | - | - | - | - | 0 | - | - |
| % Pedestrians | - | - | - | - | 100.0 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |

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Count Name: finley rd and butterfield Rd
Site Code:
Start Date: 02/11/2026


# Turning Movement Peak Hour Data (4:07 PM)

| Start Time | Butterfield Road Eastbound | | | | | | Butterfield Road Westbound | | | | | | finley rd Northbound | | | | | | finley rd 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 | |
| 4:07 PM | 0 | 75 | 236 | 24 | 0 | 335 | 0 | 65 | 364 | 42 | 0 | 471 | 0 | 61 | 52 | 101 | 0 | 214 | 0 | 57 | 110 | 153 | 0 | 320 | 1340 |
| 4:22 PM | 0 | 71 | 255 | 16 | 0 | 342 | 0 | 65 | 369 | 29 | 0 | 463 | 0 | 44 | 59 | 65 | 0 | 168 | 0 | 41 | 81 | 90 | 0 | 212 | 1185 |
| 4:37 PM | 0 | 70 | 256 | 26 | 0 | 352 | 0 | 49 | 424 | 28 | 0 | 501 | 0 | 54 | 73 | 72 | 0 | 199 | 0 | 35 | 80 | 109 | 0 | 224 | 1276 |
| 4:52 PM | 0 | 65 | 232 | 45 | 0 | 342 | 0 | 74 | 382 | 22 | 0 | 478 | 3 | 47 | 74 | 71 | 0 | 195 | 0 | 51 | 91 | 98 | 0 | 240 | 1255 |
| Total | 0 | 281 | 979 | 111 | 0 | 1371 | 0 | 253 | 1539 | 121 | 0 | 1913 | 3 | 206 | 258 | 309 | 0 | 776 | 0 | 184 | 362 | 450 | 0 | 996 | 5056 |
| Approach % | 0.0 | 20.5 | 71.4 | 8.1 | - | - | 0.0 | 13.2 | 80.4 | 6.3 | - | - | 0.4 | 26.5 | 33.2 | 39.8 | - | - | 0.0 | 18.5 | 36.3 | 45.2 | - | - | - |
| Total % | 0.0 | 5.6 | 19.4 | 2.2 | - | 27.1 | 0.0 | 5.0 | 30.4 | 2.4 | - | 37.8 | 0.1 | 4.1 | 5.1 | 6.1 | - | 15.3 | 0.0 | 3.6 | 7.2 | 8.9 | - | 19.7 | - |
| PHF | 0.000 | 1.249 | 1.275 | 0.822 | - | 1.298 | 0.000 | 1.140 | 1.210 | 0.960 | - | 1.273 | 0.333 | 1.126 | 1.162 | 1.020 | - | 1.209 | 0.000 | 1.076 | 1.097 | 0.980 | - | 1.038 | 1.258 |
| Lights | 0 | 272 | 971 | 109 | - | 1352 | 0 | 250 | 1525 | 120 | - | 1895 | 3 | 201 | 254 | 303 | - | 761 | 0 | 183 | 360 | 439 | - | 982 | 4990 |
| % Lights | - | 96.8 | 99.2 | 98.2 | - | 98.6 | - | 98.8 | 99.1 | 99.2 | - | 99.1 | 100.0 | 97.6 | 98.4 | 98.1 | - | 98.1 | - | 99.5 | 99.4 | 97.6 | - | 98.6 | 98.7 |
| Buses | 0 | 0 | 1 | 0 | - | 1 | 0 | 0 | 5 | 0 | - | 5 | 0 | 0 | 0 | 2 | - | 2 | 0 | 0 | 0 | 2 | - | 2 | 10 |
| % Buses | - | 0.0 | 0.1 | 0.0 | - | 0.1 | - | 0.0 | 0.3 | 0.0 | - | 0.3 | 0.0 | 0.0 | 0.0 | 0.6 | - | 0.3 | - | 0.0 | 0.0 | 0.4 | - | 0.2 | 0.2 |
| Single-Unit Trucks | 0 | 3 | 2 | 1 | - | 6 | 0 | 2 | 5 | 0 | - | 7 | 0 | 4 | 4 | 3 | - | 11 | 0 | 0 | 2 | 4 | - | 6 | 30 |
| % Single-Unit Trucks | - | 1.1 | 0.2 | 0.9 | - | 0.4 | - | 0.8 | 0.3 | 0.0 | - | 0.4 | 0.0 | 1.9 | 1.6 | 1.0 | - | 1.4 | - | 0.0 | 0.6 | 0.9 | - | 0.6 | 0.6 |
| Articulated Trucks | 0 | 6 | 5 | 1 | - | 12 | 0 | 1 | 4 | 1 | - | 6 | 0 | 1 | 0 | 1 | - | 2 | 0 | 1 | 0 | 5 | - | 6 | 26 |
| % Articulated Trucks | - | 2.1 | 0.5 | 0.9 | - | 0.9 | - | 0.4 | 0.3 | 0.8 | - | 0.3 | 0.0 | 0.5 | 0.0 | 0.3 | - | 0.3 | - | 0.5 | 0.0 | 1.1 | - | 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 | 0.0 | - | 0.0 | - | 0.0 | 0.0 | 0.0 | - | 0.0 | 0.0 |
| Pedestrians | - | - | - | - | 0 | - | - | - | - | - | 0 | - | - | - | - | - | 0 | - | - | - | - | - | 0 | - | - |
| % Pedestrians | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |

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Count Name: Finley+Road+and+Lacey+Road
TMC
Site Code:
Start Date: 02/05/2026


# Turning Movement Data

| Start Time | Lacey Rd Eastbound | | | | | Finley Rd Northbound | | | | | Finley Rd Southbound | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | U-Turn | Left | Right | Peds | App. Total | U-Turn | Left | Thru | Peds | App. Total | U-Turn | Thru | Right | Peds | App. Total | Int. Total |
| 6:00 AM | 0 | 2 | 5 | 0 | 7 | 0 | 19 | 87 | 0 | 106 | 0 | 44 | 7 | 0 | 51 | 164 |
| 6:15 AM | 0 | 1 | 5 | 0 | 6 | 0 | 34 | 81 | 0 | 115 | 0 | 58 | 7 | 0 | 65 | 186 |
| 6:30 AM | 0 | 8 | 7 | 0 | 15 | 0 | 16 | 93 | 0 | 109 | 0 | 71 | 13 | 0 | 84 | 208 |
| 6:45 AM | 0 | 2 | 6 | 0 | 8 | 0 | 61 | 119 | 0 | 180 | 0 | 91 | 16 | 0 | 107 | 295 |
| Hourly Total | 0 | 13 | 23 | 0 | 36 | 0 | 130 | 380 | 0 | 510 | 0 | 264 | 43 | 0 | 307 | 853 |
| 7:00 AM | 0 | 2 | 18 | 0 | 20 | 0 | 76 | 137 | 0 | 213 | 0 | 79 | 18 | 0 | 97 | 330 |
| 7:15 AM | 0 | 2 | 21 | 0 | 23 | 0 | 76 | 195 | 0 | 271 | 0 | 101 | 16 | 0 | 117 | 411 |
| 7:30 AM | 0 | 1 | 22 | 0 | 23 | 0 | 113 | 177 | 0 | 290 | 0 | 115 | 29 | 0 | 144 | 457 |
| 7:45 AM | 0 | 1 | 30 | 0 | 31 | 0 | 140 | 210 | 0 | 350 | 0 | 150 | 50 | 0 | 200 | 581 |
| Hourly Total | 0 | 6 | 91 | 0 | 97 | 0 | 405 | 719 | 0 | 1124 | 0 | 445 | 113 | 0 | 558 | 1779 |
| 8:00 AM | 0 | 3 | 23 | 0 | 26 | 0 | 135 | 175 | 0 | 310 | 0 | 148 | 60 | 0 | 208 | 544 |
| 8:15 AM | 0 | 3 | 21 | 0 | 24 | 0 | 157 | 194 | 0 | 351 | 0 | 122 | 42 | 0 | 164 | 539 |
| 8:30 AM | 0 | 4 | 33 | 0 | 37 | 0 | 115 | 165 | 0 | 280 | 0 | 131 | 47 | 0 | 178 | 495 |
| 8:45 AM | 0 | 11 | 24 | 0 | 35 | 0 | 118 | 156 | 0 | 274 | 0 | 144 | 44 | 0 | 188 | 497 |
| Hourly Total | 0 | 21 | 101 | 0 | 122 | 0 | 525 | 690 | 0 | 1215 | 0 | 545 | 193 | 0 | 738 | 2075 |
| 9:00 AM | 0 | 11 | 29 | 0 | 40 | 0 | 76 | 165 | 0 | 241 | 0 | 116 | 32 | 0 | 148 | 429 |
| 9:15 AM | 0 | 6 | 18 | 0 | 24 | 0 | 60 | 141 | 0 | 201 | 0 | 90 | 40 | 0 | 130 | 355 |
| 9:30 AM | 0 | 3 | 14 | 0 | 17 | 0 | 43 | 140 | 0 | 183 | 0 | 111 | 23 | 0 | 134 | 334 |
| 9:45 AM | 0 | 3 | 23 | 0 | 26 | 0 | 41 | 114 | 0 | 155 | 0 | 99 | 11 | 0 | 110 | 291 |
| Hourly Total | 0 | 23 | 84 | 0 | 107 | 0 | 220 | 560 | 0 | 780 | 0 | 416 | 106 | 0 | 522 | 1409 |
| *** BREAK *** | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 2:00 PM | 0 | 6 | 36 | 0 | 42 | 0 | 23 | 107 | 0 | 130 | 0 | 133 | 5 | 0 | 138 | 310 |
| 2:15 PM | 0 | 7 | 43 | 0 | 50 | 0 | 26 | 103 | 0 | 129 | 0 | 144 | 7 | 0 | 151 | 330 |
| 2:30 PM | 0 | 12 | 48 | 0 | 60 | 0 | 17 | 102 | 0 | 119 | 0 | 172 | 4 | 0 | 176 | 355 |
| 2:45 PM | 0 | 6 | 49 | 0 | 55 | 0 | 15 | 104 | 0 | 119 | 1 | 162 | 8 | 0 | 171 | 345 |
| Hourly Total | 0 | 31 | 176 | 0 | 207 | 0 | 81 | 416 | 0 | 497 | 1 | 611 | 24 | 0 | 636 | 1340 |
| 3:00 PM | 0 | 4 | 73 | 0 | 77 | 0 | 15 | 115 | 0 | 130 | 0 | 163 | 5 | 0 | 168 | 375 |
| 3:15 PM | 1 | 11 | 65 | 0 | 77 | 0 | 21 | 120 | 0 | 141 | 1 | 185 | 5 | 0 | 191 | 409 |
| 3:30 PM | 0 | 14 | 65 | 0 | 79 | 0 | 20 | 142 | 0 | 162 | 0 | 201 | 8 | 0 | 209 | 450 |
| 3:45 PM | 0 | 8 | 67 | 0 | 75 | 0 | 21 | 148 | 0 | 169 | 1 | 190 | 8 | 0 | 199 | 443 |
| Hourly Total | 1 | 37 | 270 | 0 | 308 | 0 | 77 | 525 | 0 | 602 | 2 | 739 | 26 | 0 | 767 | 1677 |
| 4:00 PM | 0 | 16 | 118 | 0 | 134 | 0 | 27 | 135 | 0 | 162 | 0 | 210 | 10 | 0 | 220 | 516 |
| 4:15 PM | 0 | 13 | 98 | 0 | 111 | 0 | 26 | 147 | 0 | 173 | 0 | 229 | 8 | 0 | 237 | 521 |
| 4:30 PM | 0 | 21 | 118 | 0 | 139 | 0 | 21 | 126 | 0 | 147 | 0 | 215 | 19 | 0 | 234 | 520 |
| 4:45 PM | 0 | 10 | 99 | 0 | 109 | 0 | 21 | 140 | 0 | 161 | 0 | 223 | 12 | 0 | 235 | 505 |
| Hourly Total | 0 | 60 | 433 | 0 | 493 | 0 | 95 | 548 | 0 | 643 | 0 | 877 | 49 | 0 | 926 | 2062 |

| | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 5:00 PM | 0 | 16 | 138 | 0 | 154 | 0 | 48 | 100 | 0 | 148 | 0 | 141 | 7 | 0 | 148 | 450 |
| 5:15 PM | 0 | 9 | 101 | 0 | 110 | 0 | 46 | 124 | 0 | 170 | 0 | 136 | 6 | 0 | 142 | 422 |
| 5:30 PM | 0 | 10 | 86 | 0 | 96 | 0 | 46 | 94 | 0 | 140 | 0 | 134 | 6 | 0 | 140 | 376 |
| 5:45 PM | 0 | 7 | 59 | 0 | 66 | 0 | 23 | 87 | 0 | 110 | 0 | 136 | 6 | 0 | 142 | 318 |
| Hourly Total | 0 | 42 | 384 | 0 | 426 | 0 | 163 | 405 | 0 | 568 | 0 | 547 | 25 | 0 | 572 | 1566 |
| Grand Total | 1 | 233 | 1562 | 0 | 1796 | 0 | 1696 | 4243 | 0 | 5939 | 3 | 4444 | 579 | 0 | 5026 | 12761 |
| Approach % | 0.1 | 13.0 | 87.0 | - | - | 0.0 | 28.6 | 71.4 | - | - | 0.1 | 88.4 | 11.5 | - | - | - |
| Total % | 0.0 | 1.8 | 12.2 | - | 14.1 | 0.0 | 13.3 | 33.2 | - | 46.5 | 0.0 | 34.8 | 4.5 | - | 39.4 | - |
| Lights | 1 | 226 | 1544 | - | 1771 | 0 | 1661 | 4175 | - | 5836 | 3 | 4353 | 563 | - | 4919 | 12526 |
| % Lights | 100.0 | 97.0 | 98.8 | - | 98.6 | - | 97.9 | 98.4 | - | 98.3 | 100.0 | 98.0 | 97.2 | - | 97.9 | 98.2 |
| Buses | 0 | 0 | 1 | - | 1 | 0 | 0 | 11 | - | 11 | 0 | 9 | 0 | - | 9 | 21 |
| % Buses | 0.0 | 0.0 | 0.1 | - | 0.1 | - | 0.0 | 0.3 | - | 0.2 | 0.0 | 0.2 | 0.0 | - | 0.2 | 0.2 |
| Single-Unit Trucks | 0 | 5 | 14 | - | 19 | 0 | 32 | 40 | - | 72 | 0 | 50 | 14 | - | 64 | 155 |
| % Single-Unit Trucks | 0.0 | 2.1 | 0.9 | - | 1.1 | - | 1.9 | 0.9 | - | 1.2 | 0.0 | 1.1 | 2.4 | - | 1.3 | 1.2 |
| Articulated Trucks | 0 | 2 | 3 | - | 5 | 0 | 3 | 17 | - | 20 | 0 | 32 | 2 | - | 34 | 59 |
| % Articulated Trucks | 0.0 | 0.9 | 0.2 | - | 0.3 | - | 0.2 | 0.4 | - | 0.3 | 0.0 | 0.7 | 0.3 | - | 0.7 | 0.5 |
| Bicycles on Road | 0 | 0 | 0 | - | 0 | 0 | 0 | 0 | - | 0 | 0 | 0 | 0 | - | 0 | 0 |
| % Bicycles on Road | 0.0 | 0.0 | 0.0 | - | 0.0 | - | 0.0 | 0.0 | - | 0.0 | 0.0 | 0.0 | 0.0 | - | 0.0 | 0.0 |
| Pedestrians | - | - | - | 0 | - | - | - | - | 0 | - | - | - | - | 0 | - | - |
| % Pedestrians | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |

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

Count Name: Finley+Road+and+Lacey+Road
TMC
Site Code:
Start Date: 02/05/2026


# Turning Movement Peak Hour Data (7:45 AM)

| Start Time | Lacey Rd Eastbound | | | | | Finley Rd Northbound | | | | | Finley Rd Southbound | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | U-Turn | Left | Right | Peds | App. Total | U-Turn | Left | Thru | Peds | App. Total | U-Turn | Thru | Right | Peds | App. Total | Int. Total |
| 7:45 AM | 0 | 1 | 30 | 0 | 31 | 0 | 140 | 210 | 0 | 350 | 0 | 150 | 50 | 0 | 200 | 581 |
| 8:00 AM | 0 | 3 | 23 | 0 | 26 | 0 | 135 | 175 | 0 | 310 | 0 | 148 | 60 | 0 | 208 | 544 |
| 8:15 AM | 0 | 3 | 21 | 0 | 24 | 0 | 157 | 194 | 0 | 351 | 0 | 122 | 42 | 0 | 164 | 539 |
| 8:30 AM | 0 | 4 | 33 | 0 | 37 | 0 | 115 | 165 | 0 | 280 | 0 | 131 | 47 | 0 | 178 | 495 |
| Total | 0 | 11 | 107 | 0 | 118 | 0 | 547 | 744 | 0 | 1291 | 0 | 551 | 199 | 0 | 750 | 2159 |
| Approach % | 0.0 | 9.3 | 90.7 | - | - | 0.0 | 42.4 | 57.6 | - | - | 0.0 | 73.5 | 26.5 | - | - | - |
| Total % | 0.0 | 0.5 | 5.0 | - | 5.5 | 0.0 | 25.3 | 34.5 | - | 59.8 | 0.0 | 25.5 | 9.2 | - | 34.7 | - |
| PHF | 0.000 | 0.688 | 0.811 | - | 0.797 | 0.000 | 0.871 | 0.886 | - | 0.920 | 0.000 | 0.918 | 0.829 | - | 0.901 | 0.929 |
| Lights | 0 | 10 | 103 | - | 113 | 0 | 544 | 735 | - | 1279 | 0 | 533 | 197 | - | 730 | 2122 |
| % Lights | - | 90.9 | 96.3 | - | 95.8 | - | 99.5 | 98.8 | - | 99.1 | - | 96.7 | 99.0 | - | 97.3 | 98.3 |
| Buses | 0 | 0 | 0 | - | 0 | 0 | 0 | 1 | - | 1 | 0 | 2 | 0 | - | 2 | 3 |
| % Buses | - | 0.0 | 0.0 | - | 0.0 | - | 0.0 | 0.1 | - | 0.1 | - | 0.4 | 0.0 | - | 0.3 | 0.1 |
| Single-Unit Trucks | 0 | 1 | 3 | - | 4 | 0 | 1 | 7 | - | 8 | 0 | 9 | 2 | - | 11 | 23 |
| % Single-Unit Trucks | - | 9.1 | 2.8 | - | 3.4 | - | 0.2 | 0.9 | - | 0.6 | - | 1.6 | 1.0 | - | 1.5 | 1.1 |
| Articulated Trucks | 0 | 0 | 1 | - | 1 | 0 | 2 | 1 | - | 3 | 0 | 7 | 0 | - | 7 | 11 |
| % Articulated Trucks | - | 0.0 | 0.9 | - | 0.8 | - | 0.4 | 0.1 | - | 0.2 | - | 1.3 | 0.0 | - | 0.9 | 0.5 |
| 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 | - | - | - | - | 0 | - | - |
| % Pedestrians | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |

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Rosemont, Illinois, United States 60018
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Count Name: Finley+Road+and+Lacey+Road
TMC
Site Code:
Start Date: 02/05/2026


# Turning Movement Peak Hour Data (4:00 PM)

| Start Time | Lacey Rd Eastbound | | | | | Finley Rd Northbound | | | | | Finley Rd 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 | 16 | 118 | 0 | 134 | 0 | 27 | 135 | 0 | 162 | 0 | 210 | 10 | 0 | 220 | 516 |
| 4:15 PM | 0 | 13 | 98 | 0 | 111 | 0 | 26 | 147 | 0 | 173 | 0 | 229 | 8 | 0 | 237 | 521 |
| 4:30 PM | 0 | 21 | 118 | 0 | 139 | 0 | 21 | 126 | 0 | 147 | 0 | 215 | 19 | 0 | 234 | 520 |
| 4:45 PM | 0 | 10 | 99 | 0 | 109 | 0 | 21 | 140 | 0 | 161 | 0 | 223 | 12 | 0 | 235 | 505 |
| Total | 0 | 60 | 433 | 0 | 493 | 0 | 95 | 548 | 0 | 643 | 0 | 877 | 49 | 0 | 926 | 2062 |
| Approach % | 0.0 | 12.2 | 87.8 | - | - | 0.0 | 14.8 | 85.2 | - | - | 0.0 | 94.7 | 5.3 | - | - | - |
| Total % | 0.0 | 2.9 | 21.0 | - | 23.9 | 0.0 | 4.6 | 26.6 | - | 31.2 | 0.0 | 42.5 | 2.4 | - | 44.9 | - |
| PHF | 0.000 | 0.714 | 0.917 | - | 0.887 | 0.000 | 0.880 | 0.932 | - | 0.929 | 0.000 | 0.957 | 0.645 | - | 0.977 | 0.989 |
| Lights | 0 | 58 | 432 | - | 490 | 0 | 91 | 538 | - | 629 | 0 | 870 | 42 | - | 912 | 2031 |
| % Lights | - | 96.7 | 99.8 | - | 99.4 | - | 95.8 | 98.2 | - | 97.8 | - | 99.2 | 85.7 | - | 98.5 | 98.5 |
| Buses | 0 | 0 | 0 | - | 0 | 0 | 0 | 2 | - | 2 | 0 | 0 | 0 | - | 0 | 2 |
| % Buses | - | 0.0 | 0.0 | - | 0.0 | - | 0.0 | 0.4 | - | 0.3 | - | 0.0 | 0.0 | - | 0.0 | 0.1 |
| Single-Unit Trucks | 0 | 1 | 1 | - | 2 | 0 | 4 | 4 | - | 8 | 0 | 5 | 7 | - | 12 | 22 |
| % Single-Unit Trucks | - | 1.7 | 0.2 | - | 0.4 | - | 4.2 | 0.7 | - | 1.2 | - | 0.6 | 14.3 | - | 1.3 | 1.1 |
| Articulated Trucks | 0 | 1 | 0 | - | 1 | 0 | 0 | 4 | - | 4 | 0 | 2 | 0 | - | 2 | 7 |
| % Articulated Trucks | - | 1.7 | 0.0 | - | 0.2 | - | 0.0 | 0.7 | - | 0.6 | - | 0.2 | 0.0 | - | 0.2 | 0.3 |
| Bicycles on Road | 0 | 0 | 0 | - | 0 | 0 | 0 | 0 | - | 0 | 0 | 0 | 0 | - | 0 | 0 |
| % Bicycles on Road | - | 0.0 | 0.0 | - | 0.0 | - | 0.0 | 0.0 | - | 0.0 | - | 0.0 | 0.0 | - | 0.0 | 0.0 |
| Pedestrians | - | - | - | 0 | - | - | - | - | 0 | - | - | - | - | 0 | - | - |
| % Pedestrians | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |

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Count Name: Lacey+Rd+with+Access+Rd TMC
Site Code:
Start Date: 02/10/2026


# Turning Movement Data

| Start Time | Birchwood Dr Eastbound | | | | | Lacey Rd Northbound | | | | | Lacey Rd Southbound | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | U-Turn | Left | Right | Peds | App. Total | U-Turn | Left | Thru | Peds | App. Total | U-Turn | Thru | Right | Peds | App. Total | Int. Total |
| 6:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 4 | 0 | 6 | 0 | 11 | 1 | 0 | 12 | 18 |
| 6:15 AM | 0 | 1 | 0 | 0 | 1 | 0 | 1 | 5 | 0 | 6 | 0 | 7 | 1 | 0 | 8 | 15 |
| 6:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 8 | 12 | 0 | 20 | 0 | 20 | 3 | 0 | 23 | 43 |
| 6:45 AM | 0 | 2 | 2 | 0 | 4 | 0 | 7 | 19 | 0 | 26 | 0 | 28 | 3 | 0 | 31 | 61 |
| Hourly Total | 0 | 3 | 2 | 0 | 5 | 0 | 18 | 40 | 0 | 58 | 0 | 66 | 8 | 0 | 74 | 137 |
| 7:00 AM | 0 | 0 | 1 | 0 | 1 | 0 | 13 | 14 | 0 | 27 | 0 | 22 | 2 | 0 | 24 | 52 |
| 7:15 AM | 0 | 2 | 3 | 0 | 5 | 0 | 12 | 21 | 0 | 33 | 0 | 32 | 2 | 0 | 34 | 72 |
| 7:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 17 | 31 | 0 | 48 | 0 | 42 | 3 | 0 | 45 | 93 |
| 7:45 AM | 0 | 1 | 2 | 0 | 3 | 0 | 19 | 29 | 0 | 48 | 0 | 68 | 5 | 0 | 73 | 124 |
| Hourly Total | 0 | 3 | 6 | 0 | 9 | 0 | 61 | 95 | 0 | 156 | 0 | 164 | 12 | 0 | 176 | 341 |
| 8:00 AM | 0 | 0 | 3 | 0 | 3 | 0 | 25 | 26 | 0 | 51 | 0 | 80 | 7 | 0 | 87 | 141 |
| 8:15 AM | 0 | 1 | 3 | 0 | 4 | 0 | 24 | 31 | 0 | 55 | 0 | 54 | 6 | 0 | 60 | 119 |
| 8:30 AM | 0 | 0 | 2 | 0 | 2 | 0 | 24 | 28 | 0 | 52 | 0 | 70 | 12 | 0 | 82 | 136 |
| 8:45 AM | 0 | 3 | 3 | 0 | 6 | 0 | 20 | 32 | 0 | 52 | 0 | 70 | 5 | 0 | 75 | 133 |
| Hourly Total | 0 | 4 | 11 | 0 | 15 | 0 | 93 | 117 | 0 | 210 | 0 | 274 | 30 | 0 | 304 | 529 |
| 9:00 AM | 0 | 0 | 4 | 0 | 4 | 0 | 15 | 19 | 0 | 34 | 0 | 40 | 2 | 0 | 42 | 80 |
| 9:15 AM | 0 | 2 | 0 | 1 | 2 | 0 | 9 | 26 | 0 | 35 | 0 | 33 | 5 | 0 | 38 | 75 |
| 9:30 AM | 0 | 1 | 2 | 0 | 3 | 0 | 4 | 27 | 0 | 31 | 0 | 26 | 2 | 0 | 28 | 62 |
| 9:45 AM | 0 | 1 | 0 | 0 | 1 | 1 | 5 | 19 | 0 | 25 | 0 | 20 | 7 | 0 | 27 | 53 |
| Hourly Total | 0 | 4 | 6 | 1 | 10 | 1 | 33 | 91 | 0 | 125 | 0 | 119 | 16 | 0 | 135 | 270 |
| *** BREAK *** | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 2:00 PM | 0 | 7 | 0 | 4 | 7 | 0 | 1 | 36 | 0 | 37 | 1 | 19 | 0 | 0 | 20 | 64 |
| 2:15 PM | 0 | 3 | 1 | 0 | 4 | 0 | 1 | 39 | 0 | 40 | 0 | 13 | 1 | 0 | 14 | 58 |
| 2:30 PM | 0 | 3 | 3 | 2 | 6 | 0 | 3 | 29 | 0 | 32 | 0 | 15 | 1 | 0 | 16 | 54 |
| 2:45 PM | 0 | 4 | 9 | 0 | 13 | 0 | 2 | 40 | 0 | 42 | 1 | 19 | 2 | 0 | 22 | 77 |
| Hourly Total | 0 | 17 | 13 | 6 | 30 | 0 | 7 | 144 | 0 | 151 | 2 | 66 | 4 | 0 | 72 | 253 |
| 3:00 PM | 0 | 4 | 5 | 0 | 9 | 0 | 4 | 56 | 0 | 60 | 0 | 22 | 1 | 0 | 23 | 92 |
| 3:15 PM | 0 | 3 | 6 | 0 | 9 | 0 | 1 | 50 | 0 | 51 | 0 | 17 | 0 | 0 | 17 | 77 |
| 3:30 PM | 0 | 0 | 7 | 1 | 7 | 2 | 1 | 84 | 0 | 87 | 0 | 23 | 0 | 0 | 23 | 117 |
| 3:45 PM | 0 | 3 | 8 | 1 | 11 | 1 | 0 | 76 | 0 | 77 | 0 | 29 | 2 | 0 | 31 | 119 |
| Hourly Total | 0 | 10 | 26 | 2 | 36 | 3 | 6 | 266 | 0 | 275 | 0 | 91 | 3 | 0 | 94 | 405 |
| 4:00 PM | 0 | 7 | 14 | 0 | 21 | 0 | 1 | 87 | 0 | 88 | 0 | 16 | 0 | 0 | 16 | 125 |
| 4:15 PM | 0 | 5 | 12 | 0 | 17 | 1 | 0 | 100 | 0 | 101 | 0 | 23 | 1 | 0 | 24 | 142 |
| 4:30 PM | 0 | 5 | 18 | 0 | 23 | 0 | 1 | 102 | 0 | 103 | 0 | 35 | 0 | 0 | 35 | 161 |
| 4:45 PM | 0 | 5 | 11 | 0 | 16 | 0 | 1 | 68 | 0 | 69 | 2 | 23 | 2 | 0 | 27 | 112 |
| Hourly Total | 0 | 22 | 55 | 0 | 77 | 1 | 3 | 357 | 0 | 361 | 2 | 97 | 3 | 0 | 102 | 540 |

| | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 5:00 PM | 0 | 13 | 19 | 1 | 32 | 0 | 0 | 86 | 0 | 86 | 0 | 33 | 0 | 0 | 33 | 151 |
| 5:15 PM | 0 | 7 | 15 | 0 | 22 | 0 | 3 | 61 | 0 | 64 | 0 | 19 | 0 | 0 | 19 | 105 |
| 5:30 PM | 0 | 3 | 13 | 0 | 16 | 0 | 3 | 50 | 0 | 53 | 0 | 11 | 0 | 0 | 11 | 80 |
| 5:45 PM | 0 | 3 | 12 | 1 | 15 | 0 | 2 | 49 | 0 | 51 | 1 | 15 | 0 | 0 | 16 | 82 |
| Hourly Total | 0 | 26 | 59 | 2 | 85 | 0 | 8 | 246 | 0 | 254 | 1 | 78 | 0 | 0 | 79 | 418 |
| Grand Total | 0 | 89 | 178 | 11 | 267 | 5 | 229 | 1356 | 0 | 1590 | 5 | 955 | 76 | 0 | 1036 | 2893 |
| Approach % | 0.0 | 33.3 | 66.7 | - | - | 0.3 | 14.4 | 85.3 | - | - | 0.5 | 92.2 | 7.3 | - | - | - |
| Total % | 0.0 | 3.1 | 6.2 | - | 9.2 | 0.2 | 7.9 | 46.9 | - | 55.0 | 0.2 | 33.0 | 2.6 | - | 35.8 | - |
| Lights | 0 | 86 | 176 | - | 262 | 5 | 226 | 1344 | - | 1575 | 5 | 937 | 75 | - | 1017 | 2854 |
| % Lights | - | 96.6 | 98.9 | - | 98.1 | 100.0 | 98.7 | 99.1 | - | 99.1 | 100.0 | 98.1 | 98.7 | - | 98.2 | 98.7 |
| Buses | 0 | 0 | 0 | - | 0 | 0 | 0 | 0 | - | 0 | 0 | 0 | 0 | - | 0 | 0 |
| % Buses | - | 0.0 | 0.0 | - | 0.0 | 0.0 | 0.0 | 0.0 | - | 0.0 | 0.0 | 0.0 | 0.0 | - | 0.0 | 0.0 |
| Single-Unit Trucks | 0 | 3 | 2 | - | 5 | 0 | 3 | 8 | - | 11 | 0 | 9 | 1 | - | 10 | 26 |
| % Single-Unit Trucks | - | 3.4 | 1.1 | - | 1.9 | 0.0 | 1.3 | 0.6 | - | 0.7 | 0.0 | 0.9 | 1.3 | - | 1.0 | 0.9 |
| Articulated Trucks | 0 | 0 | 0 | - | 0 | 0 | 0 | 4 | - | 4 | 0 | 9 | 0 | - | 9 | 13 |
| % Articulated Trucks | - | 0.0 | 0.0 | - | 0.0 | 0.0 | 0.0 | 0.3 | - | 0.3 | 0.0 | 0.9 | 0.0 | - | 0.9 | 0.4 |
| Bicycles on Road | 0 | 0 | 0 | - | 0 | 0 | 0 | 0 | - | 0 | 0 | 0 | 0 | - | 0 | 0 |
| % Bicycles on Road | - | 0.0 | 0.0 | - | 0.0 | 0.0 | 0.0 | 0.0 | - | 0.0 | 0.0 | 0.0 | 0.0 | - | 0.0 | 0.0 |
| Pedestrians | - | - | - | 11 | - | - | - | - | 0 | - | - | - | - | 0 | - | - |
| % Pedestrians | - | - | - | 100.0 | - | - | - | - | - | - | - | - | - | - | - | - |

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(847)518-9990 abowen@kloainc.com

Count Name: Lacey+Rd+with+Access+Rd TMC
Site Code:
Start Date: 02/10/2026


# Turning Movement Peak Hour Data (7:45 AM)

| Start Time | Birchwood Dr Eastbound | | | | | Lacey Rd Northbound | | | | | Lacey Rd Southbound | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | U-Turn | Left | Right | Peds | App. Total | U-Turn | Left | Thru | Peds | App. Total | U-Turn | Thru | Right | Peds | App. Total | Int. Total |
| 7:45 AM | 0 | 1 | 2 | 0 | 3 | 0 | 19 | 29 | 0 | 48 | 0 | 68 | 5 | 0 | 73 | 124 |
| 8:00 AM | 0 | 0 | 3 | 0 | 3 | 0 | 25 | 26 | 0 | 51 | 0 | 80 | 7 | 0 | 87 | 141 |
| 8:15 AM | 0 | 1 | 3 | 0 | 4 | 0 | 24 | 31 | 0 | 55 | 0 | 54 | 6 | 0 | 60 | 119 |
| 8:30 AM | 0 | 0 | 2 | 0 | 2 | 0 | 24 | 28 | 0 | 52 | 0 | 70 | 12 | 0 | 82 | 136 |
| Total | 0 | 2 | 10 | 0 | 12 | 0 | 92 | 114 | 0 | 206 | 0 | 272 | 30 | 0 | 302 | 520 |
| Approach % | 0.0 | 16.7 | 83.3 | - | - | 0.0 | 44.7 | 55.3 | - | - | 0.0 | 90.1 | 9.9 | - | - | - |
| Total % | 0.0 | 0.4 | 1.9 | - | 2.3 | 0.0 | 17.7 | 21.9 | - | 39.6 | 0.0 | 52.3 | 5.8 | - | 58.1 | - |
| PHF | 0.000 | 0.500 | 0.833 | - | 0.750 | 0.000 | 0.920 | 0.919 | - | 0.936 | 0.000 | 0.850 | 0.625 | - | 0.868 | 0.922 |
| Lights | 0 | 2 | 10 | - | 12 | 0 | 91 | 113 | - | 204 | 0 | 271 | 30 | - | 301 | 517 |
| % Lights | - | 100.0 | 100.0 | - | 100.0 | - | 98.9 | 99.1 | - | 99.0 | - | 99.6 | 100.0 | - | 99.7 | 99.4 |
| Buses | 0 | 0 | 0 | - | 0 | 0 | 0 | 0 | - | 0 | 0 | 0 | 0 | - | 0 | 0 |
| % Buses | - | 0.0 | 0.0 | - | 0.0 | - | 0.0 | 0.0 | - | 0.0 | - | 0.0 | 0.0 | - | 0.0 | 0.0 |
| Single-Unit Trucks | 0 | 0 | 0 | - | 0 | 0 | 1 | 0 | - | 1 | 0 | 0 | 0 | - | 0 | 1 |
| % Single-Unit Trucks | - | 0.0 | 0.0 | - | 0.0 | - | 1.1 | 0.0 | - | 0.5 | - | 0.0 | 0.0 | - | 0.0 | 0.2 |
| Articulated Trucks | 0 | 0 | 0 | - | 0 | 0 | 0 | 1 | - | 1 | 0 | 1 | 0 | - | 1 | 2 |
| % Articulated Trucks | - | 0.0 | 0.0 | - | 0.0 | - | 0.0 | 0.9 | - | 0.5 | - | 0.4 | 0.0 | - | 0.3 | 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 | - | - | - | - | 0 | - | - |
| % Pedestrians | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |

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Count Name: Lacey+Rd+with+Access+Rd TMC
Site Code:
Start Date: 02/10/2026


# Turning Movement Peak Hour Data (4:00 PM)

| Start Time | Birchwood Dr Eastbound | | | | | Lacey Rd Northbound | | | | | Lacey Rd 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 | 7 | 14 | 0 | 21 | 0 | 1 | 87 | 0 | 88 | 0 | 16 | 0 | 0 | 16 | 125 |
| 4:15 PM | 0 | 5 | 12 | 0 | 17 | 1 | 0 | 100 | 0 | 101 | 0 | 23 | 1 | 0 | 24 | 142 |
| 4:30 PM | 0 | 5 | 18 | 0 | 23 | 0 | 1 | 102 | 0 | 103 | 0 | 35 | 0 | 0 | 35 | 161 |
| 4:45 PM | 0 | 5 | 11 | 0 | 16 | 0 | 1 | 68 | 0 | 69 | 2 | 23 | 2 | 0 | 27 | 112 |
| Total | 0 | 22 | 55 | 0 | 77 | 1 | 3 | 357 | 0 | 361 | 2 | 97 | 3 | 0 | 102 | 540 |
| Approach % | 0.0 | 28.6 | 71.4 | - | - | 0.3 | 0.8 | 98.9 | - | - | 2.0 | 95.1 | 2.9 | - | - | - |
| Total % | 0.0 | 4.1 | 10.2 | - | 14.3 | 0.2 | 0.6 | 66.1 | - | 66.9 | 0.4 | 18.0 | 0.6 | - | 18.9 | - |
| PHF | 0.000 | 0.786 | 0.764 | - | 0.837 | 0.250 | 0.750 | 0.875 | - | 0.876 | 0.250 | 0.693 | 0.375 | - | 0.729 | 0.839 |
| Lights | 0 | 21 | 55 | - | 76 | 1 | 3 | 356 | - | 360 | 2 | 94 | 3 | - | 99 | 535 |
| % Lights | - | 95.5 | 100.0 | - | 98.7 | 100.0 | 100.0 | 99.7 | - | 99.7 | 100.0 | 96.9 | 100.0 | - | 97.1 | 99.1 |
| Buses | 0 | 0 | 0 | - | 0 | 0 | 0 | 0 | - | 0 | 0 | 0 | 0 | - | 0 | 0 |
| % Buses | - | 0.0 | 0.0 | - | 0.0 | 0.0 | 0.0 | 0.0 | - | 0.0 | 0.0 | 0.0 | 0.0 | - | 0.0 | 0.0 |
| Single-Unit Trucks | 0 | 1 | 0 | - | 1 | 0 | 0 | 0 | - | 0 | 0 | 1 | 0 | - | 1 | 2 |
| % Single-Unit Trucks | - | 4.5 | 0.0 | - | 1.3 | 0.0 | 0.0 | 0.0 | - | 0.0 | 0.0 | 1.0 | 0.0 | - | 1.0 | 0.4 |
| Articulated Trucks | 0 | 0 | 0 | - | 0 | 0 | 0 | 1 | - | 1 | 0 | 2 | 0 | - | 2 | 3 |
| % Articulated Trucks | - | 0.0 | 0.0 | - | 0.0 | 0.0 | 0.0 | 0.3 | - | 0.3 | 0.0 | 2.1 | 0.0 | - | 2.0 | 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 | - | 0.0 | 0.0 |
| Pedestrians | - | - | - | 0 | - | - | - | - | 0 | - | - | - | - | 0 | - | - |
| % Pedestrians | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |

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Count Name: Lacey+Rd+with+Woodcreek+Dr
TMC
Site Code:
Start Date: 02/05/2026


# Turning Movement Data

| Start Time | Woodcreek Dr Eastbound | | | | | Lacey Rd Northbound | | | | | Lacey Rd Southbound | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | U-Turn | Left | Right | Peds | App. Total | U-Turn | Left | Thru | Peds | App. Total | U-Turn | Thru | Right | Peds | App. Total | Int. Total |
| 6:00 AM | 0 | 0 | 1 | 0 | 1 | 0 | 5 | 3 | 0 | 8 | 0 | 8 | 0 | 0 | 8 | 17 |
| 6:15 AM | 0 | 0 | 2 | 0 | 2 | 0 | 13 | 8 | 0 | 21 | 0 | 6 | 1 | 0 | 7 | 30 |
| 6:30 AM | 0 | 2 | 2 | 0 | 4 | 0 | 12 | 10 | 0 | 22 | 0 | 19 | 1 | 0 | 20 | 46 |
| 6:45 AM | 0 | 0 | 1 | 0 | 1 | 0 | 16 | 27 | 0 | 43 | 0 | 18 | 2 | 0 | 20 | 64 |
| Hourly Total | 0 | 2 | 6 | 0 | 8 | 0 | 46 | 48 | 0 | 94 | 0 | 51 | 4 | 0 | 55 | 157 |
| 7:00 AM | 0 | 2 | 5 | 0 | 7 | 0 | 25 | 21 | 0 | 46 | 0 | 20 | 2 | 0 | 22 | 75 |
| 7:15 AM | 0 | 4 | 7 | 0 | 11 | 0 | 33 | 23 | 0 | 56 | 0 | 29 | 4 | 0 | 33 | 100 |
| 7:30 AM | 0 | 8 | 8 | 0 | 16 | 0 | 52 | 35 | 0 | 87 | 0 | 32 | 11 | 0 | 43 | 146 |
| 7:45 AM | 0 | 5 | 13 | 0 | 18 | 0 | 77 | 45 | 0 | 122 | 0 | 45 | 18 | 0 | 63 | 203 |
| Hourly Total | 0 | 19 | 33 | 0 | 52 | 0 | 187 | 124 | 0 | 311 | 0 | 126 | 35 | 0 | 161 | 524 |
| 8:00 AM | 1 | 9 | 14 | 0 | 24 | 0 | 87 | 33 | 0 | 120 | 0 | 45 | 22 | 0 | 67 | 211 |
| 8:15 AM | 0 | 7 | 20 | 0 | 27 | 0 | 71 | 53 | 0 | 124 | 0 | 41 | 21 | 0 | 62 | 213 |
| 8:30 AM | 0 | 8 | 21 | 0 | 29 | 0 | 37 | 47 | 0 | 84 | 0 | 41 | 6 | 0 | 47 | 160 |
| 8:45 AM | 0 | 3 | 6 | 0 | 9 | 0 | 32 | 45 | 0 | 77 | 0 | 46 | 5 | 0 | 51 | 137 |
| Hourly Total | 1 | 27 | 61 | 0 | 89 | 0 | 227 | 178 | 0 | 405 | 0 | 173 | 54 | 0 | 227 | 721 |
| 9:00 AM | 0 | 1 | 9 | 0 | 10 | 0 | 17 | 30 | 0 | 47 | 0 | 38 | 3 | 0 | 41 | 98 |
| 9:15 AM | 0 | 4 | 5 | 0 | 9 | 0 | 10 | 23 | 0 | 33 | 0 | 27 | 4 | 0 | 31 | 73 |
| 9:30 AM | 0 | 10 | 3 | 0 | 13 | 0 | 7 | 24 | 0 | 31 | 0 | 25 | 9 | 0 | 34 | 78 |
| 9:45 AM | 0 | 9 | 9 | 0 | 18 | 0 | 8 | 19 | 0 | 27 | 0 | 22 | 2 | 0 | 24 | 69 |
| Hourly Total | 0 | 24 | 26 | 0 | 50 | 0 | 42 | 96 | 0 | 138 | 0 | 112 | 18 | 0 | 130 | 318 |
| *** BREAK *** | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 2:00 PM | 0 | 7 | 8 | 0 | 15 | 0 | 7 | 32 | 0 | 39 | 0 | 19 | 2 | 0 | 21 | 75 |
| 2:15 PM | 0 | 13 | 12 | 0 | 25 | 0 | 6 | 29 | 0 | 35 | 0 | 18 | 0 | 0 | 18 | 78 |
| 2:30 PM | 0 | 16 | 19 | 0 | 35 | 0 | 5 | 39 | 0 | 44 | 0 | 15 | 1 | 0 | 16 | 95 |
| 2:45 PM | 0 | 18 | 14 | 0 | 32 | 0 | 6 | 27 | 0 | 33 | 0 | 17 | 1 | 0 | 18 | 83 |
| Hourly Total | 0 | 54 | 53 | 0 | 107 | 0 | 24 | 127 | 0 | 151 | 0 | 69 | 4 | 0 | 73 | 331 |
| 3:00 PM | 0 | 17 | 30 | 0 | 47 | 0 | 2 | 33 | 0 | 35 | 0 | 23 | 0 | 0 | 23 | 105 |
| 3:15 PM | 0 | 34 | 28 | 0 | 62 | 0 | 11 | 28 | 0 | 39 | 0 | 17 | 2 | 0 | 19 | 120 |
| 3:30 PM | 0 | 29 | 32 | 0 | 61 | 0 | 4 | 36 | 0 | 40 | 0 | 19 | 0 | 0 | 19 | 120 |
| 3:45 PM | 0 | 15 | 22 | 0 | 37 | 0 | 9 | 33 | 0 | 42 | 0 | 27 | 5 | 0 | 32 | 111 |
| Hourly Total | 0 | 95 | 112 | 0 | 207 | 0 | 26 | 130 | 0 | 156 | 0 | 86 | 7 | 0 | 93 | 456 |
| 4:00 PM | 0 | 31 | 43 | 0 | 74 | 0 | 16 | 60 | 0 | 76 | 0 | 44 | 3 | 0 | 47 | 197 |
| 4:15 PM | 0 | 30 | 44 | 0 | 74 | 0 | 12 | 42 | 0 | 54 | 0 | 35 | 3 | 0 | 38 | 166 |
| 4:30 PM | 0 | 37 | 36 | 0 | 73 | 0 | 13 | 50 | 0 | 63 | 0 | 41 | 3 | 0 | 44 | 180 |
| 4:45 PM | 0 | 37 | 36 | 0 | 73 | 0 | 6 | 58 | 0 | 64 | 0 | 38 | 0 | 0 | 38 | 175 |
| Hourly Total | 0 | 135 | 159 | 0 | 294 | 0 | 47 | 210 | 0 | 257 | 0 | 158 | 9 | 0 | 167 | 718 |

| | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 5:00 PM | 0 | 23 | 38 | 0 | 61 | 0 | 16 | 44 | 0 | 60 | 0 | 45 | 4 | 0 | 49 | 170 |
| 5:15 PM | 0 | 13 | 38 | 0 | 51 | 0 | 17 | 41 | 0 | 58 | 0 | 31 | 2 | 0 | 33 | 142 |
| 5:30 PM | 0 | 10 | 23 | 0 | 33 | 0 | 11 | 51 | 0 | 62 | 0 | 27 | 2 | 0 | 29 | 124 |
| 5:45 PM | 0 | 17 | 8 | 0 | 25 | 0 | 1 | 30 | 0 | 31 | 0 | 23 | 1 | 0 | 24 | 80 |
| Hourly Total | 0 | 63 | 107 | 0 | 170 | 0 | 45 | 166 | 0 | 211 | 0 | 126 | 9 | 0 | 135 | 516 |
| Grand Total | 1 | 419 | 557 | 0 | 977 | 0 | 644 | 1079 | 0 | 1723 | 0 | 901 | 140 | 0 | 1041 | 3741 |
| Approach % | 0.1 | 42.9 | 57.0 | - | - | 0.0 | 37.4 | 62.6 | - | - | 0.0 | 86.6 | 13.4 | - | - | - |
| Total % | 0.0 | 11.2 | 14.9 | - | 26.1 | 0.0 | 17.2 | 28.8 | - | 46.1 | 0.0 | 24.1 | 3.7 | - | 27.8 | - |
| Lights | 1 | 418 | 548 | - | 967 | 0 | 636 | 1068 | - | 1704 | 0 | 894 | 139 | - | 1033 | 3704 |
| % Lights | 100.0 | 99.8 | 98.4 | - | 99.0 | - | 98.8 | 99.0 | - | 98.9 | - | 99.2 | 99.3 | - | 99.2 | 99.0 |
| Buses | 0 | 0 | 1 | - | 1 | 0 | 0 | 0 | - | 0 | 0 | 0 | 0 | - | 0 | 1 |
| % Buses | 0.0 | 0.0 | 0.2 | - | 0.1 | - | 0.0 | 0.0 | - | 0.0 | - | 0.0 | 0.0 | - | 0.0 | 0.0 |
| Single-Unit Trucks | 0 | 1 | 8 | - | 9 | 0 | 8 | 11 | - | 19 | 0 | 4 | 1 | - | 5 | 33 |
| % Single-Unit Trucks | 0.0 | 0.2 | 1.4 | - | 0.9 | - | 1.2 | 1.0 | - | 1.1 | - | 0.4 | 0.7 | - | 0.5 | 0.9 |
| Articulated Trucks | 0 | 0 | 0 | - | 0 | 0 | 0 | 0 | - | 0 | 0 | 3 | 0 | - | 3 | 3 |
| % Articulated Trucks | 0.0 | 0.0 | 0.0 | - | 0.0 | - | 0.0 | 0.0 | - | 0.0 | - | 0.3 | 0.0 | - | 0.3 | 0.1 |
| Bicycles on Road | 0 | 0 | 0 | - | 0 | 0 | 0 | 0 | - | 0 | 0 | 0 | 0 | - | 0 | 0 |
| % Bicycles on Road | 0.0 | 0.0 | 0.0 | - | 0.0 | - | 0.0 | 0.0 | - | 0.0 | - | 0.0 | 0.0 | - | 0.0 | 0.0 |
| Pedestrians | - | - | - | 0 | - | - | - | - | 0 | - | - | - | - | 0 | - | - |
| % Pedestrians | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |

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Count Name: Lacey+Rd+with+Woodcreek+Dr
TMC
Site Code:
Start Date: 02/05/2026


# Turning Movement Peak Hour Data (7:45 AM)

| Start Time | Woodcreek Dr Eastbound | | | | | Lacey Rd Northbound | | | | | Lacey Rd Southbound | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | U-Turn | Left | Right | Peds | App. Total | U-Turn | Left | Thru | Peds | App. Total | U-Turn | Thru | Right | Peds | App. Total | Int. Total |
| 7:45 AM | 0 | 5 | 13 | 0 | 18 | 0 | 77 | 45 | 0 | 122 | 0 | 45 | 18 | 0 | 63 | 203 |
| 8:00 AM | 1 | 9 | 14 | 0 | 24 | 0 | 87 | 33 | 0 | 120 | 0 | 45 | 22 | 0 | 67 | 211 |
| 8:15 AM | 0 | 7 | 20 | 0 | 27 | 0 | 71 | 53 | 0 | 124 | 0 | 41 | 21 | 0 | 62 | 213 |
| 8:30 AM | 0 | 8 | 21 | 0 | 29 | 0 | 37 | 47 | 0 | 84 | 0 | 41 | 6 | 0 | 47 | 160 |
| Total | 1 | 29 | 68 | 0 | 98 | 0 | 272 | 178 | 0 | 450 | 0 | 172 | 67 | 0 | 239 | 787 |
| Approach % | 1.0 | 29.6 | 69.4 | - | - | 0.0 | 60.4 | 39.6 | - | - | 0.0 | 72.0 | 28.0 | - | - | - |
| Total % | 0.1 | 3.7 | 8.6 | - | 12.5 | 0.0 | 34.6 | 22.6 | - | 57.2 | 0.0 | 21.9 | 8.5 | - | 30.4 | - |
| PHF | 0.250 | 0.806 | 0.810 | - | 0.845 | 0.000 | 0.782 | 0.840 | - | 0.907 | 0.000 | 0.956 | 0.761 | - | 0.892 | 0.924 |
| Lights | 1 | 29 | 66 | - | 96 | 0 | 272 | 178 | - | 450 | 0 | 172 | 67 | - | 239 | 785 |
| % Lights | 100.0 | 100.0 | 97.1 | - | 98.0 | - | 100.0 | 100.0 | - | 100.0 | - | 100.0 | 100.0 | - | 100.0 | 99.7 |
| Buses | 0 | 0 | 0 | - | 0 | 0 | 0 | 0 | - | 0 | 0 | 0 | 0 | - | 0 | 0 |
| % Buses | 0.0 | 0.0 | 0.0 | - | 0.0 | - | 0.0 | 0.0 | - | 0.0 | - | 0.0 | 0.0 | - | 0.0 | 0.0 |
| Single-Unit Trucks | 0 | 0 | 2 | - | 2 | 0 | 0 | 0 | - | 0 | 0 | 0 | 0 | - | 0 | 2 |
| % Single-Unit Trucks | 0.0 | 0.0 | 2.9 | - | 2.0 | - | 0.0 | 0.0 | - | 0.0 | - | 0.0 | 0.0 | - | 0.0 | 0.3 |
| Articulated Trucks | 0 | 0 | 0 | - | 0 | 0 | 0 | 0 | - | 0 | 0 | 0 | 0 | - | 0 | 0 |
| % Articulated Trucks | 0.0 | 0.0 | 0.0 | - | 0.0 | - | 0.0 | 0.0 | - | 0.0 | - | 0.0 | 0.0 | - | 0.0 | 0.0 |
| Bicycles on Road | 0 | 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 | - | - | - | 0 | - | - | - | - | 0 | - | - | - | - | 0 | - | - |
| % Pedestrians | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |

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Count Name: Lacey+Rd+with+Woodcreek+Dr
TMC
Site Code:
Start Date: 02/05/2026


# Turning Movement Peak Hour Data (4:00 PM)

| Start Time | Woodcreek Dr Eastbound | | | | | Lacey Rd Northbound | | | | | Lacey Rd 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 | 31 | 43 | 0 | 74 | 0 | 16 | 60 | 0 | 76 | 0 | 44 | 3 | 0 | 47 | 197 |
| 4:15 PM | 0 | 30 | 44 | 0 | 74 | 0 | 12 | 42 | 0 | 54 | 0 | 35 | 3 | 0 | 38 | 166 |
| 4:30 PM | 0 | 37 | 36 | 0 | 73 | 0 | 13 | 50 | 0 | 63 | 0 | 41 | 3 | 0 | 44 | 180 |
| 4:45 PM | 0 | 37 | 36 | 0 | 73 | 0 | 6 | 58 | 0 | 64 | 0 | 38 | 0 | 0 | 38 | 175 |
| Total | 0 | 135 | 159 | 0 | 294 | 0 | 47 | 210 | 0 | 257 | 0 | 158 | 9 | 0 | 167 | 718 |
| Approach % | 0.0 | 45.9 | 54.1 | - | - | 0.0 | 18.3 | 81.7 | - | - | 0.0 | 94.6 | 5.4 | - | - | - |
| Total % | 0.0 | 18.8 | 22.1 | - | 40.9 | 0.0 | 6.5 | 29.2 | - | 35.8 | 0.0 | 22.0 | 1.3 | - | 23.3 | - |
| PHF | 0.000 | 0.912 | 0.903 | - | 0.993 | 0.000 | 0.734 | 0.875 | - | 0.845 | 0.000 | 0.898 | 0.750 | - | 0.888 | 0.911 |
| Lights | 0 | 135 | 158 | - | 293 | 0 | 46 | 209 | - | 255 | 0 | 156 | 9 | - | 165 | 713 |
| % Lights | - | 100.0 | 99.4 | - | 99.7 | - | 97.9 | 99.5 | - | 99.2 | - | 98.7 | 100.0 | - | 98.8 | 99.3 |
| Buses | 0 | 0 | 0 | - | 0 | 0 | 0 | 0 | - | 0 | 0 | 0 | 0 | - | 0 | 0 |
| % Buses | - | 0.0 | 0.0 | - | 0.0 | - | 0.0 | 0.0 | - | 0.0 | - | 0.0 | 0.0 | - | 0.0 | 0.0 |
| Single-Unit Trucks | 0 | 0 | 1 | - | 1 | 0 | 1 | 1 | - | 2 | 0 | 2 | 0 | - | 2 | 5 |
| % Single-Unit Trucks | - | 0.0 | 0.6 | - | 0.3 | - | 2.1 | 0.5 | - | 0.8 | - | 1.3 | 0.0 | - | 1.2 | 0.7 |
| Articulated Trucks | 0 | 0 | 0 | - | 0 | 0 | 0 | 0 | - | 0 | 0 | 0 | 0 | - | 0 | 0 |
| % Articulated Trucks | - | 0.0 | 0.0 | - | 0.0 | - | 0.0 | 0.0 | - | 0.0 | - | 0.0 | 0.0 | - | 0.0 | 0.0 |
| Bicycles on Road | 0 | 0 | 0 | - | 0 | 0 | 0 | 0 | - | 0 | 0 | 0 | 0 | - | 0 | 0 |
| % Bicycles on Road | - | 0.0 | 0.0 | - | 0.0 | - | 0.0 | 0.0 | - | 0.0 | - | 0.0 | 0.0 | - | 0.0 | 0.0 |
| Pedestrians | - | - | - | 0 | - | - | - | - | 0 | - | - | - | - | 0 | - | - |
| % Pedestrians | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |

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

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

Count Name: Lacey+Road+and+Woodcreek+Drive TMC
Site Code:
Start Date: 02/05/2026


# Turning Movement Data

| Start Time | Eastbound Approach Eastbound | | | | | Lacey Rd Northbound | | | | | Lacey Rd Southbound | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | U-Turn | Left | Right | Peds | App. Total | U-Turn | Left | Thru | Peds | App. Total | U-Turn | Thru | Right | Peds | App. Total | Int. Total |
| 6:00 AM | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 1 | 0 | 28 | 13 | 0 | 41 | 43 |
| 6:15 AM | 0 | 4 | 2 | 0 | 6 | 0 | 0 | 4 | 0 | 4 | 0 | 26 | 28 | 0 | 54 | 64 |
| 6:30 AM | 0 | 3 | 1 | 0 | 4 | 0 | 0 | 1 | 0 | 1 | 0 | 50 | 27 | 0 | 77 | 82 |
| 6:45 AM | 0 | 3 | 3 | 0 | 6 | 0 | 2 | 7 | 0 | 9 | 0 | 72 | 49 | 0 | 121 | 136 |
| Hourly Total | 0 | 11 | 6 | 0 | 17 | 0 | 2 | 13 | 0 | 15 | 0 | 176 | 117 | 0 | 293 | 325 |
| 7:00 AM | 0 | 9 | 7 | 0 | 16 | 0 | 1 | 4 | 0 | 5 | 0 | 67 | 36 | 0 | 103 | 124 |
| 7:15 AM | 0 | 5 | 2 | 0 | 7 | 0 | 3 | 6 | 0 | 9 | 0 | 85 | 69 | 0 | 154 | 170 |
| 7:30 AM | 0 | 7 | 4 | 0 | 11 | 0 | 1 | 16 | 0 | 17 | 0 | 120 | 72 | 0 | 192 | 220 |
| 7:45 AM | 0 | 8 | 3 | 0 | 11 | 0 | 3 | 6 | 0 | 9 | 0 | 147 | 101 | 0 | 248 | 268 |
| Hourly Total | 0 | 29 | 16 | 0 | 45 | 0 | 8 | 32 | 0 | 40 | 0 | 419 | 278 | 0 | 697 | 782 |
| 8:00 AM | 0 | 12 | 3 | 0 | 15 | 0 | 0 | 10 | 0 | 10 | 0 | 165 | 133 | 0 | 298 | 323 |
| 8:15 AM | 0 | 9 | 8 | 0 | 17 | 0 | 3 | 17 | 0 | 20 | 0 | 155 | 123 | 0 | 278 | 315 |
| 8:30 AM | 0 | 10 | 4 | 0 | 14 | 0 | 3 | 15 | 0 | 18 | 0 | 158 | 79 | 0 | 237 | 269 |
| 8:45 AM | 0 | 4 | 2 | 0 | 6 | 0 | 4 | 14 | 0 | 18 | 0 | 144 | 58 | 0 | 202 | 226 |
| Hourly Total | 0 | 35 | 17 | 0 | 52 | 0 | 10 | 56 | 0 | 66 | 0 | 622 | 393 | 0 | 1015 | 1133 |
| 9:00 AM | 0 | 8 | 4 | 0 | 12 | 0 | 3 | 11 | 0 | 14 | 0 | 83 | 40 | 0 | 123 | 149 |
| 9:15 AM | 0 | 12 | 6 | 0 | 18 | 0 | 1 | 5 | 0 | 6 | 0 | 81 | 35 | 0 | 116 | 140 |
| 9:30 AM | 0 | 10 | 2 | 0 | 12 | 0 | 2 | 12 | 0 | 14 | 1 | 58 | 31 | 0 | 90 | 116 |
| 9:45 AM | 0 | 12 | 7 | 0 | 19 | 0 | 1 | 9 | 0 | 10 | 0 | 33 | 29 | 0 | 62 | 91 |
| Hourly Total | 0 | 42 | 19 | 0 | 61 | 0 | 7 | 37 | 0 | 44 | 1 | 255 | 135 | 0 | 391 | 496 |
| *** BREAK *** | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 2:00 PM | 0 | 20 | 4 | 0 | 24 | 0 | 0 | 11 | 0 | 11 | 2 | 25 | 22 | 0 | 49 | 84 |
| 2:15 PM | 0 | 20 | 12 | 0 | 32 | 0 | 2 | 18 | 0 | 20 | 0 | 30 | 18 | 0 | 48 | 100 |
| 2:30 PM | 0 | 25 | 4 | 0 | 29 | 0 | 1 | 24 | 0 | 25 | 0 | 24 | 15 | 0 | 39 | 93 |
| 2:45 PM | 0 | 29 | 6 | 0 | 35 | 0 | 0 | 24 | 0 | 24 | 0 | 30 | 18 | 0 | 48 | 107 |
| Hourly Total | 0 | 94 | 26 | 0 | 120 | 0 | 3 | 77 | 0 | 80 | 2 | 109 | 73 | 0 | 184 | 384 |
| 3:00 PM | 0 | 42 | 14 | 0 | 56 | 0 | 0 | 26 | 0 | 26 | 1 | 25 | 18 | 0 | 44 | 126 |
| 3:15 PM | 0 | 31 | 5 | 0 | 36 | 0 | 0 | 24 | 0 | 24 | 0 | 23 | 14 | 0 | 37 | 97 |
| 3:30 PM | 0 | 33 | 9 | 0 | 42 | 0 | 1 | 37 | 0 | 38 | 0 | 29 | 10 | 0 | 39 | 119 |
| 3:45 PM | 0 | 24 | 7 | 0 | 31 | 0 | 3 | 26 | 0 | 29 | 0 | 38 | 19 | 0 | 57 | 117 |
| Hourly Total | 0 | 130 | 35 | 0 | 165 | 0 | 4 | 113 | 0 | 117 | 1 | 115 | 61 | 0 | 177 | 459 |
| 4:00 PM | 0 | 50 | 6 | 0 | 56 | 0 | 3 | 46 | 0 | 49 | 0 | 41 | 10 | 0 | 51 | 156 |
| 4:15 PM | 0 | 39 | 6 | 0 | 45 | 0 | 0 | 31 | 0 | 31 | 0 | 37 | 15 | 0 | 52 | 128 |
| 4:30 PM | 0 | 73 | 10 | 0 | 83 | 0 | 1 | 50 | 1 | 51 | 0 | 36 | 16 | 0 | 52 | 186 |
| 4:45 PM | 0 | 38 | 6 | 0 | 44 | 0 | 2 | 40 | 0 | 42 | 0 | 29 | 17 | 0 | 46 | 132 |
| Hourly Total | 0 | 200 | 28 | 0 | 228 | 0 | 6 | 167 | 1 | 173 | 0 | 143 | 58 | 0 | 201 | 602 |

| | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 5:00 PM | 0 | 66 | 11 | 0 | 77 | 0 | 2 | 51 | 0 | 53 | 0 | 27 | 12 | 0 | 39 | 169 |
| 5:15 PM | 0 | 29 | 8 | 0 | 37 | 0 | 0 | 35 | 0 | 35 | 0 | 30 | 20 | 0 | 50 | 122 |
| 5:30 PM | 0 | 30 | 6 | 0 | 36 | 0 | 2 | 40 | 0 | 42 | 0 | 35 | 12 | 0 | 47 | 125 |
| 5:45 PM | 0 | 18 | 8 | 0 | 26 | 0 | 0 | 24 | 0 | 24 | 0 | 38 | 10 | 0 | 48 | 98 |
| Hourly Total | 0 | 143 | 33 | 0 | 176 | 0 | 4 | 150 | 0 | 154 | 0 | 130 | 54 | 0 | 184 | 514 |
| Grand Total | 0 | 684 | 180 | 0 | 864 | 0 | 44 | 645 | 1 | 689 | 4 | 1969 | 1169 | 0 | 3142 | 4695 |
| Approach % | 0.0 | 79.2 | 20.8 | - | - | 0.0 | 6.4 | 93.6 | - | - | 0.1 | 62.7 | 37.2 | - | - | - |
| Total % | 0.0 | 14.6 | 3.8 | - | 18.4 | 0.0 | 0.9 | 13.7 | - | 14.7 | 0.1 | 41.9 | 24.9 | - | 66.9 | - |
| Lights | 0 | 672 | 175 | - | 847 | 0 | 43 | 640 | - | 683 | 4 | 1957 | 1144 | - | 3105 | 4635 |
| % Lights | - | 98.2 | 97.2 | - | 98.0 | - | 97.7 | 99.2 | - | 99.1 | 100.0 | 99.4 | 97.9 | - | 98.8 | 98.7 |
| Buses | 0 | 0 | 0 | - | 0 | 0 | 0 | 0 | - | 0 | 0 | 0 | 2 | - | 2 | 2 |
| % Buses | - | 0.0 | 0.0 | - | 0.0 | - | 0.0 | 0.0 | - | 0.0 | 0.0 | 0.0 | 0.2 | - | 0.1 | 0.0 |
| Single-Unit Trucks | 0 | 11 | 5 | - | 16 | 0 | 1 | 5 | - | 6 | 0 | 8 | 21 | - | 29 | 51 |
| % Single-Unit Trucks | - | 1.6 | 2.8 | - | 1.9 | - | 2.3 | 0.8 | - | 0.9 | 0.0 | 0.4 | 1.8 | - | 0.9 | 1.1 |
| Articulated Trucks | 0 | 1 | 0 | - | 1 | 0 | 0 | 0 | - | 0 | 0 | 4 | 2 | - | 6 | 7 |
| % Articulated Trucks | - | 0.1 | 0.0 | - | 0.1 | - | 0.0 | 0.0 | - | 0.0 | 0.0 | 0.2 | 0.2 | - | 0.2 | 0.1 |
| Bicycles on Road | 0 | 0 | 0 | - | 0 | 0 | 0 | 0 | - | 0 | 0 | 0 | 0 | - | 0 | 0 |
| % Bicycles on Road | - | 0.0 | 0.0 | - | 0.0 | - | 0.0 | 0.0 | - | 0.0 | 0.0 | 0.0 | 0.0 | - | 0.0 | 0.0 |
| Pedestrians | - | - | - | 0 | - | - | - | - | 1 | - | - | - | - | 0 | - | - |
| % Pedestrians | - | - | - | - | - | - | - | - | 100.0 | - | - | - | - | - | - | - |

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Rosemont, Illinois, United States 60018
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Count Name: Lacey+Road+and+Woodcreek+Drive TMC
Site Code:
Start Date: 02/05/2026


# Turning Movement Peak Hour Data (7:45 AM)

| Start Time | Eastbound Approach Eastbound | | | | | Lacey Rd Northbound | | | | | Lacey Rd Southbound | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | U-Turn | Left | Right | Peds | App. Total | U-Turn | Left | Thru | Peds | App. Total | U-Turn | Thru | Right | Peds | App. Total | Int. Total |
| 7:45 AM | 0 | 8 | 3 | 0 | 11 | 0 | 3 | 6 | 0 | 9 | 0 | 147 | 101 | 0 | 248 | 268 |
| 8:00 AM | 0 | 12 | 3 | 0 | 15 | 0 | 0 | 10 | 0 | 10 | 0 | 165 | 133 | 0 | 298 | 323 |
| 8:15 AM | 0 | 9 | 8 | 0 | 17 | 0 | 3 | 17 | 0 | 20 | 0 | 155 | 123 | 0 | 278 | 315 |
| 8:30 AM | 0 | 10 | 4 | 0 | 14 | 0 | 3 | 15 | 0 | 18 | 0 | 158 | 79 | 0 | 237 | 269 |
| Total | 0 | 39 | 18 | 0 | 57 | 0 | 9 | 48 | 0 | 57 | 0 | 625 | 436 | 0 | 1061 | 1175 |
| Approach % | 0.0 | 68.4 | 31.6 | - | - | 0.0 | 15.8 | 84.2 | - | - | 0.0 | 58.9 | 41.1 | - | - | - |
| Total % | 0.0 | 3.3 | 1.5 | - | 4.9 | 0.0 | 0.8 | 4.1 | - | 4.9 | 0.0 | 53.2 | 37.1 | - | 90.3 | - |
| PHF | 0.000 | 0.813 | 0.563 | - | 0.838 | 0.000 | 0.750 | 0.706 | - | 0.713 | 0.000 | 0.947 | 0.820 | - | 0.890 | 0.909 |
| Lights | 0 | 37 | 18 | - | 55 | 0 | 9 | 48 | - | 57 | 0 | 625 | 433 | - | 1058 | 1170 |
| % Lights | - | 94.9 | 100.0 | - | 96.5 | - | 100.0 | 100.0 | - | 100.0 | - | 100.0 | 99.3 | - | 99.7 | 99.6 |
| Buses | 0 | 0 | 0 | - | 0 | 0 | 0 | 0 | - | 0 | 0 | 0 | 0 | - | 0 | 0 |
| % Buses | - | 0.0 | 0.0 | - | 0.0 | - | 0.0 | 0.0 | - | 0.0 | - | 0.0 | 0.0 | - | 0.0 | 0.0 |
| Single-Unit Trucks | 0 | 2 | 0 | - | 2 | 0 | 0 | 0 | - | 0 | 0 | 0 | 3 | - | 3 | 5 |
| % Single-Unit Trucks | - | 5.1 | 0.0 | - | 3.5 | - | 0.0 | 0.0 | - | 0.0 | - | 0.0 | 0.7 | - | 0.3 | 0.4 |
| Articulated Trucks | 0 | 0 | 0 | - | 0 | 0 | 0 | 0 | - | 0 | 0 | 0 | 0 | - | 0 | 0 |
| % Articulated Trucks | - | 0.0 | 0.0 | - | 0.0 | - | 0.0 | 0.0 | - | 0.0 | - | 0.0 | 0.0 | - | 0.0 | 0.0 |
| 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 | - | - | - | - | 0 | - | - |
| % Pedestrians | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |

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Count Name: Lacey+Road+and+Woodcreek+Drive TMC
Site Code:
Start Date: 02/05/2026


# Turning Movement Peak Hour Data (4:00 PM)

| Start Time | Eastbound Approach Eastbound | | | | | Lacey Rd Northbound | | | | | Lacey Rd 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 | 50 | 6 | 0 | 56 | 0 | 3 | 46 | 0 | 49 | 0 | 41 | 10 | 0 | 51 | 156 |
| 4:15 PM | 0 | 39 | 6 | 0 | 45 | 0 | 0 | 31 | 0 | 31 | 0 | 37 | 15 | 0 | 52 | 128 |
| 4:30 PM | 0 | 73 | 10 | 0 | 83 | 0 | 1 | 50 | 1 | 51 | 0 | 36 | 16 | 0 | 52 | 186 |
| 4:45 PM | 0 | 38 | 6 | 0 | 44 | 0 | 2 | 40 | 0 | 42 | 0 | 29 | 17 | 0 | 46 | 132 |
| Total | 0 | 200 | 28 | 0 | 228 | 0 | 6 | 167 | 1 | 173 | 0 | 143 | 58 | 0 | 201 | 602 |
| Approach % | 0.0 | 87.7 | 12.3 | - | - | 0.0 | 3.5 | 96.5 | - | - | 0.0 | 71.1 | 28.9 | - | - | - |
| Total % | 0.0 | 33.2 | 4.7 | - | 37.9 | 0.0 | 1.0 | 27.7 | - | 28.7 | 0.0 | 23.8 | 9.6 | - | 33.4 | - |
| PHF | 0.000 | 0.685 | 0.700 | - | 0.687 | 0.000 | 0.500 | 0.835 | - | 0.848 | 0.000 | 0.872 | 0.853 | - | 0.966 | 0.809 |
| Lights | 0 | 198 | 27 | - | 225 | 0 | 6 | 166 | - | 172 | 0 | 142 | 56 | - | 198 | 595 |
| % Lights | - | 99.0 | 96.4 | - | 98.7 | - | 100.0 | 99.4 | - | 99.4 | - | 99.3 | 96.6 | - | 98.5 | 98.8 |
| Buses | 0 | 0 | 0 | - | 0 | 0 | 0 | 0 | - | 0 | 0 | 0 | 0 | - | 0 | 0 |
| % Buses | - | 0.0 | 0.0 | - | 0.0 | - | 0.0 | 0.0 | - | 0.0 | - | 0.0 | 0.0 | - | 0.0 | 0.0 |
| Single-Unit Trucks | 0 | 2 | 1 | - | 3 | 0 | 0 | 1 | - | 1 | 0 | 1 | 2 | - | 3 | 7 |
| % Single-Unit Trucks | - | 1.0 | 3.6 | - | 1.3 | - | 0.0 | 0.6 | - | 0.6 | - | 0.7 | 3.4 | - | 1.5 | 1.2 |
| Articulated Trucks | 0 | 0 | 0 | - | 0 | 0 | 0 | 0 | - | 0 | 0 | 0 | 0 | - | 0 | 0 |
| % Articulated Trucks | - | 0.0 | 0.0 | - | 0.0 | - | 0.0 | 0.0 | - | 0.0 | - | 0.0 | 0.0 | - | 0.0 | 0.0 |
| Bicycles on Road | 0 | 0 | 0 | - | 0 | 0 | 0 | 0 | - | 0 | 0 | 0 | 0 | - | 0 | 0 |
| % Bicycles on Road | - | 0.0 | 0.0 | - | 0.0 | - | 0.0 | 0.0 | - | 0.0 | - | 0.0 | 0.0 | - | 0.0 | 0.0 |
| Pedestrians | - | - | - | 0 | - | - | - | - | 1 | - | - | - | - | 0 | - | - |
| % Pedestrians | - | - | - | - | - | - | - | - | 100.0 | - | - | - | - | - | - | - |

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Rosemont, Illinois, United States 60018
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Count Name: Woodcreek Dr and Access Dr
TMC
Site Code:
Start Date: 02/05/2026


# Turning Movement Data

| Start Time | Woodcreek Dr Eastbound | | | | | Woodcreek Dr Westbound | | | | | access drive Northbound | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | U-Turn | Thru | Right | Peds | App. Total | U-Turn | Left | Thru | Peds | App. Total | U-Turn | Left | Right | Peds | App. Total | Int. Total |
| 6:00 AM | 0 | 1 | 1 | 0 | 2 | 0 | 1 | 4 | 0 | 5 | 0 | 0 | 0 | 0 | 0 | 7 |
| 6:15 AM | 0 | 1 | 4 | 0 | 5 | 0 | 1 | 12 | 0 | 13 | 0 | 0 | 1 | 0 | 1 | 19 |
| 6:30 AM | 0 | 2 | 0 | 0 | 2 | 0 | 6 | 6 | 0 | 12 | 0 | 0 | 2 | 0 | 2 | 16 |
| 6:45 AM | 0 | 0 | 7 | 0 | 7 | 0 | 8 | 11 | 0 | 19 | 0 | 0 | 0 | 0 | 0 | 26 |
| Hourly Total | 0 | 4 | 12 | 0 | 16 | 0 | 16 | 33 | 0 | 49 | 0 | 0 | 3 | 0 | 3 | 68 |
| 7:00 AM | 0 | 3 | 9 | 0 | 12 | 0 | 21 | 7 | 0 | 28 | 0 | 0 | 4 | 1 | 4 | 44 |
| 7:15 AM | 0 | 7 | 11 | 0 | 18 | 0 | 22 | 14 | 0 | 36 | 0 | 0 | 4 | 2 | 4 | 58 |
| 7:30 AM | 0 | 3 | 43 | 0 | 46 | 0 | 46 | 15 | 0 | 61 | 0 | 2 | 12 | 2 | 14 | 121 |
| 7:45 AM | 0 | 5 | 51 | 0 | 56 | 0 | 72 | 17 | 0 | 89 | 0 | 2 | 15 | 2 | 17 | 162 |
| Hourly Total | 0 | 18 | 114 | 0 | 132 | 0 | 161 | 53 | 0 | 214 | 0 | 4 | 35 | 7 | 39 | 385 |
| 8:00 AM | 1 | 6 | 58 | 0 | 65 | 0 | 89 | 18 | 0 | 107 | 0 | 3 | 18 | 1 | 21 | 193 |
| 8:15 AM | 0 | 9 | 45 | 0 | 54 | 0 | 73 | 19 | 0 | 92 | 0 | 1 | 17 | 1 | 18 | 164 |
| 8:30 AM | 0 | 7 | 14 | 0 | 21 | 0 | 35 | 8 | 0 | 43 | 0 | 3 | 21 | 1 | 24 | 88 |
| 8:45 AM | 0 | 3 | 12 | 0 | 15 | 1 | 23 | 13 | 0 | 37 | 0 | 1 | 6 | 0 | 7 | 59 |
| Hourly Total | 1 | 25 | 129 | 0 | 155 | 1 | 220 | 58 | 0 | 279 | 0 | 8 | 62 | 3 | 70 | 504 |
| 9:00 AM | 0 | 2 | 9 | 0 | 11 | 0 | 13 | 6 | 0 | 19 | 0 | 2 | 9 | 0 | 11 | 41 |
| 9:15 AM | 0 | 2 | 8 | 0 | 10 | 0 | 15 | 3 | 0 | 18 | 0 | 4 | 8 | 0 | 12 | 40 |
| 9:30 AM | 0 | 2 | 5 | 0 | 7 | 0 | 10 | 7 | 0 | 17 | 0 | 2 | 9 | 0 | 11 | 35 |
| 9:45 AM | 0 | 2 | 2 | 0 | 4 | 0 | 5 | 2 | 0 | 7 | 0 | 1 | 15 | 0 | 16 | 27 |
| Hourly Total | 0 | 8 | 24 | 0 | 32 | 0 | 43 | 18 | 0 | 61 | 0 | 9 | 41 | 0 | 50 | 143 |
| *** BREAK *** | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 2:00 PM | 0 | 3 | 4 | 0 | 7 | 0 | 5 | 4 | 0 | 9 | 0 | 2 | 13 | 2 | 15 | 31 |
| 2:15 PM | 0 | 4 | 3 | 0 | 7 | 0 | 6 | 0 | 0 | 6 | 0 | 4 | 21 | 0 | 25 | 38 |
| 2:30 PM | 0 | 5 | 3 | 0 | 8 | 0 | 6 | 0 | 0 | 6 | 0 | 2 | 29 | 0 | 31 | 45 |
| 2:45 PM | 0 | 6 | 5 | 0 | 11 | 0 | 5 | 2 | 0 | 7 | 0 | 8 | 27 | 0 | 35 | 53 |
| Hourly Total | 0 | 18 | 15 | 0 | 33 | 0 | 22 | 6 | 0 | 28 | 0 | 16 | 90 | 2 | 106 | 167 |
| 3:00 PM | 0 | 19 | 4 | 0 | 23 | 0 | 1 | 1 | 0 | 2 | 0 | 1 | 26 | 0 | 27 | 52 |
| 3:15 PM | 0 | 12 | 13 | 0 | 25 | 0 | 9 | 3 | 0 | 12 | 0 | 4 | 51 | 0 | 55 | 92 |
| 3:30 PM | 0 | 11 | 6 | 0 | 17 | 0 | 1 | 4 | 0 | 5 | 0 | 8 | 47 | 3 | 55 | 77 |
| 3:45 PM | 0 | 8 | 8 | 0 | 16 | 0 | 8 | 3 | 0 | 11 | 0 | 10 | 30 | 0 | 40 | 67 |
| Hourly Total | 0 | 50 | 31 | 0 | 81 | 0 | 19 | 11 | 0 | 30 | 0 | 23 | 154 | 3 | 177 | 288 |
| 4:00 PM | 0 | 24 | 2 | 0 | 26 | 0 | 13 | 7 | 0 | 20 | 0 | 9 | 48 | 0 | 57 | 103 |
| 4:15 PM | 0 | 15 | 7 | 0 | 22 | 0 | 11 | 4 | 0 | 15 | 0 | 11 | 58 | 0 | 69 | 106 |
| 4:30 PM | 0 | 16 | 5 | 0 | 21 | 0 | 14 | 2 | 0 | 16 | 0 | 17 | 59 | 1 | 76 | 113 |
| 4:45 PM | 0 | 21 | 9 | 0 | 30 | 0 | 5 | 1 | 0 | 6 | 0 | 4 | 53 | 0 | 57 | 93 |
| Hourly Total | 0 | 76 | 23 | 0 | 99 | 0 | 43 | 14 | 0 | 57 | 0 | 41 | 218 | 1 | 259 | 415 |

| | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 5:00 PM | 0 | 14 | 6 | 0 | 20 | 0 | 19 | 1 | 0 | 20 | 0 | 10 | 47 | 2 | 57 | 97 |
| 5:15 PM | 0 | 13 | 6 | 0 | 19 | 0 | 17 | 2 | 0 | 19 | 0 | 2 | 36 | 0 | 38 | 76 |
| 5:30 PM | 0 | 7 | 5 | 0 | 12 | 0 | 12 | 0 | 0 | 12 | 0 | 2 | 28 | 0 | 30 | 54 |
| 5:45 PM | 0 | 3 | 3 | 0 | 6 | 0 | 2 | 1 | 0 | 3 | 0 | 2 | 21 | 1 | 23 | 32 |
| Hourly Total | 0 | 37 | 20 | 0 | 57 | 0 | 50 | 4 | 0 | 54 | 0 | 16 | 132 | 3 | 148 | 259 |
| Grand Total | 1 | 236 | 368 | 0 | 605 | 1 | 574 | 197 | 0 | 772 | 0 | 117 | 735 | 19 | 852 | 2229 |
| Approach % | 0.2 | 39.0 | 60.8 | - | - | 0.1 | 74.4 | 25.5 | - | - | 0.0 | 13.7 | 86.3 | - | - | - |
| Total % | 0.0 | 10.6 | 16.5 | - | 27.1 | 0.0 | 25.8 | 8.8 | - | 34.6 | 0.0 | 5.2 | 33.0 | - | 38.2 | - |
| Lights | 1 | 227 | 367 | - | 595 | 1 | 573 | 189 | - | 763 | 0 | 117 | 734 | - | 851 | 2209 |
| % Lights | 100.0 | 96.2 | 99.7 | - | 98.3 | 100.0 | 99.8 | 95.9 | - | 98.8 | - | 100.0 | 99.9 | - | 99.9 | 99.1 |
| Buses | 0 | 1 | 0 | - | 1 | 0 | 0 | 0 | - | 0 | 0 | 0 | 0 | - | 0 | 1 |
| % Buses | 0.0 | 0.4 | 0.0 | - | 0.2 | 0.0 | 0.0 | 0.0 | - | 0.0 | - | 0.0 | 0.0 | - | 0.0 | 0.0 |
| Single-Unit Trucks | 0 | 8 | 1 | - | 9 | 0 | 1 | 8 | - | 9 | 0 | 0 | 1 | - | 1 | 19 |
| % Single-Unit Trucks | 0.0 | 3.4 | 0.3 | - | 1.5 | 0.0 | 0.2 | 4.1 | - | 1.2 | - | 0.0 | 0.1 | - | 0.1 | 0.9 |
| Articulated Trucks | 0 | 0 | 0 | - | 0 | 0 | 0 | 0 | - | 0 | 0 | 0 | 0 | - | 0 | 0 |
| % Articulated Trucks | 0.0 | 0.0 | 0.0 | - | 0.0 | 0.0 | 0.0 | 0.0 | - | 0.0 | - | 0.0 | 0.0 | - | 0.0 | 0.0 |
| Bicycles on Road | 0 | 0 | 0 | - | 0 | 0 | 0 | 0 | - | 0 | 0 | 0 | 0 | - | 0 | 0 |
| % Bicycles on Road | 0.0 | 0.0 | 0.0 | - | 0.0 | 0.0 | 0.0 | 0.0 | - | 0.0 | - | 0.0 | 0.0 | - | 0.0 | 0.0 |
| Pedestrians | - | - | - | 0 | - | - | - | - | 0 | - | - | - | - | 19 | - | - |
| % Pedestrians | - | - | - | - | - | - | - | - | - | - | - | - | - | 100.0 | - | - |

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Count Name: Woodcreek Dr and Access Dr
TMC
Site Code:
Start Date: 02/05/2026


# Turning Movement Peak Hour Data (7:45 AM)

| Start Time | Woodcreek Dr Eastbound | | | | | Woodcreek Dr Westbound | | | | | access drive Northbound | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | U-Turn | Thru | Right | Peds | App. Total | U-Turn | Left | Thru | Peds | App. Total | U-Turn | Left | Right | Peds | App. Total | Int. Total |
| 7:45 AM | 0 | 5 | 51 | 0 | 56 | 0 | 72 | 17 | 0 | 89 | 0 | 2 | 15 | 2 | 17 | 162 |
| 8:00 AM | 1 | 6 | 58 | 0 | 65 | 0 | 89 | 18 | 0 | 107 | 0 | 3 | 18 | 1 | 21 | 193 |
| 8:15 AM | 0 | 9 | 45 | 0 | 54 | 0 | 73 | 19 | 0 | 92 | 0 | 1 | 17 | 1 | 18 | 164 |
| 8:30 AM | 0 | 7 | 14 | 0 | 21 | 0 | 35 | 8 | 0 | 43 | 0 | 3 | 21 | 1 | 24 | 88 |
| Total | 1 | 27 | 168 | 0 | 196 | 0 | 269 | 62 | 0 | 331 | 0 | 9 | 71 | 5 | 80 | 607 |
| Approach % | 0.5 | 13.8 | 85.7 | - | - | 0.0 | 81.3 | 18.7 | - | - | 0.0 | 11.3 | 88.8 | - | - | - |
| Total % | 0.2 | 4.4 | 27.7 | - | 32.3 | 0.0 | 44.3 | 10.2 | - | 54.5 | 0.0 | 1.5 | 11.7 | - | 13.2 | - |
| PHF | 0.250 | 0.750 | 0.724 | - | 0.754 | 0.000 | 0.756 | 0.816 | - | 0.773 | 0.000 | 0.750 | 0.845 | - | 0.833 | 0.786 |
| Lights | 1 | 25 | 168 | - | 194 | 0 | 269 | 62 | - | 331 | 0 | 9 | 71 | - | 80 | 605 |
| % Lights | 100.0 | 92.6 | 100.0 | - | 99.0 | - | 100.0 | 100.0 | - | 100.0 | - | 100.0 | 100.0 | - | 100.0 | 99.7 |
| Buses | 0 | 0 | 0 | - | 0 | 0 | 0 | 0 | - | 0 | 0 | 0 | 0 | - | 0 | 0 |
| % Buses | 0.0 | 0.0 | 0.0 | - | 0.0 | - | 0.0 | 0.0 | - | 0.0 | - | 0.0 | 0.0 | - | 0.0 | 0.0 |
| Single-Unit Trucks | 0 | 2 | 0 | - | 2 | 0 | 0 | 0 | - | 0 | 0 | 0 | 0 | - | 0 | 2 |
| % Single-Unit Trucks | 0.0 | 7.4 | 0.0 | - | 1.0 | - | 0.0 | 0.0 | - | 0.0 | - | 0.0 | 0.0 | - | 0.0 | 0.3 |
| Articulated Trucks | 0 | 0 | 0 | - | 0 | 0 | 0 | 0 | - | 0 | 0 | 0 | 0 | - | 0 | 0 |
| % Articulated Trucks | 0.0 | 0.0 | 0.0 | - | 0.0 | - | 0.0 | 0.0 | - | 0.0 | - | 0.0 | 0.0 | - | 0.0 | 0.0 |
| Bicycles on Road | 0 | 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 | - | - | - | 0 | - | - | - | - | 0 | - | - | - | - | 5 | - | - |
| % Pedestrians | - | - | - | - | - | - | - | - | - | - | - | - | - | 100.0 | - | - |

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9575 W. Higgins Rd., Suite 400

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

Count Name: Woodcreek Dr and Access Dr
TMC
Site Code:
Start Date: 02/05/2026


# Turning Movement Peak Hour Data (4:00 PM)

| Start Time | Woodcreek Dr Eastbound | | | | | Woodcreek Dr Westbound | | | | | access drive Northbound | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | U-Turn | Thru | Right | Peds | App. Total | U-Turn | Left | Thru | Peds | App. Total | U-Turn | Left | Right | Peds | App. Total | Int. Total |
| 4:00 PM | 0 | 24 | 2 | 0 | 26 | 0 | 13 | 7 | 0 | 20 | 0 | 9 | 48 | 0 | 57 | 103 |
| 4:15 PM | 0 | 15 | 7 | 0 | 22 | 0 | 11 | 4 | 0 | 15 | 0 | 11 | 58 | 0 | 69 | 106 |
| 4:30 PM | 0 | 16 | 5 | 0 | 21 | 0 | 14 | 2 | 0 | 16 | 0 | 17 | 59 | 1 | 76 | 113 |
| 4:45 PM | 0 | 21 | 9 | 0 | 30 | 0 | 5 | 1 | 0 | 6 | 0 | 4 | 53 | 0 | 57 | 93 |
| Total | 0 | 76 | 23 | 0 | 99 | 0 | 43 | 14 | 0 | 57 | 0 | 41 | 218 | 1 | 259 | 415 |
| Approach % | 0.0 | 76.8 | 23.2 | - | - | 0.0 | 75.4 | 24.6 | - | - | 0.0 | 15.8 | 84.2 | - | - | - |
| Total % | 0.0 | 18.3 | 5.5 | - | 23.9 | 0.0 | 10.4 | 3.4 | - | 13.7 | 0.0 | 9.9 | 52.5 | - | 62.4 | - |
| PHF | 0.000 | 0.792 | 0.639 | - | 0.825 | 0.000 | 0.768 | 0.500 | - | 0.713 | 0.000 | 0.603 | 0.924 | - | 0.852 | 0.918 |
| Lights | 0 | 75 | 23 | - | 98 | 0 | 43 | 13 | - | 56 | 0 | 41 | 218 | - | 259 | 413 |
| % Lights | - | 98.7 | 100.0 | - | 99.0 | - | 100.0 | 92.9 | - | 98.2 | - | 100.0 | 100.0 | - | 100.0 | 99.5 |
| Buses | 0 | 0 | 0 | - | 0 | 0 | 0 | 0 | - | 0 | 0 | 0 | 0 | - | 0 | 0 |
| % Buses | - | 0.0 | 0.0 | - | 0.0 | - | 0.0 | 0.0 | - | 0.0 | - | 0.0 | 0.0 | - | 0.0 | 0.0 |
| Single-Unit Trucks | 0 | 1 | 0 | - | 1 | 0 | 0 | 1 | - | 1 | 0 | 0 | 0 | - | 0 | 2 |
| % Single-Unit Trucks | - | 1.3 | 0.0 | - | 1.0 | - | 0.0 | 7.1 | - | 1.8 | - | 0.0 | 0.0 | - | 0.0 | 0.5 |
| Articulated Trucks | 0 | 0 | 0 | - | 0 | 0 | 0 | 0 | - | 0 | 0 | 0 | 0 | - | 0 | 0 |
| % Articulated Trucks | - | 0.0 | 0.0 | - | 0.0 | - | 0.0 | 0.0 | - | 0.0 | - | 0.0 | 0.0 | - | 0.0 | 0.0 |
| Bicycles on Road | 0 | 0 | 0 | - | 0 | 0 | 0 | 0 | - | 0 | 0 | 0 | 0 | - | 0 | 0 |
| % Bicycles on Road | - | 0.0 | 0.0 | - | 0.0 | - | 0.0 | 0.0 | - | 0.0 | - | 0.0 | 0.0 | - | 0.0 | 0.0 |
| Pedestrians | - | - | - | 0 | - | - | - | - | 0 | - | - | - | - | 1 | - | - |
| % Pedestrians | - | - | - | - | - | - | - | - | - | - | - | - | - | 100.0 | - | - |

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

Count Name: Woodcreek Dr and Western Access Dr TMC
Site Code:
Start Date: 02/05/2026


# Turning Movement Data

| Start Time | Eastbound Approach Eastbound | | | | | Woodcreek Dr Northbound | | | | | Woodcreek Dr Southbound | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | U-Turn | Left | Right | Peds | App. Total | U-Turn | Left | Thru | Peds | App. Total | U-Turn | Thru | Right | Peds | App. Total | Int. Total |
| 6:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 7 | 0 | 7 | 0 | 2 | 0 | 0 | 2 | 9 |
| 6:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 9 | 0 | 9 | 0 | 5 | 0 | 0 | 5 | 14 |
| 6:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 5 | 0 | 6 | 0 | 2 | 0 | 0 | 2 | 8 |
| 6:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 11 | 0 | 11 | 0 | 12 | 0 | 0 | 12 | 23 |
| Hourly Total | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 32 | 0 | 33 | 0 | 21 | 0 | 0 | 21 | 54 |
| 7:00 AM | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 5 | 0 | 7 | 0 | 11 | 0 | 0 | 11 | 18 |
| 7:15 AM | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 13 | 0 | 14 | 0 | 21 | 1 | 0 | 22 | 36 |
| 7:30 AM | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 16 | 0 | 17 | 0 | 43 | 0 | 0 | 43 | 60 |
| 7:45 AM | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 20 | 0 | 20 | 0 | 58 | 2 | 0 | 60 | 80 |
| Hourly Total | 0 | 0 | 0 | 1 | 0 | 4 | 0 | 54 | 0 | 58 | 0 | 133 | 3 | 0 | 136 | 194 |
| 8:00 AM | 0 | 3 | 0 | 7 | 3 | 0 | 2 | 17 | 0 | 19 | 0 | 71 | 1 | 0 | 72 | 94 |
| 8:15 AM | 0 | 0 | 0 | 6 | 0 | 0 | 0 | 20 | 0 | 20 | 0 | 52 | 2 | 0 | 54 | 74 |
| 8:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 11 | 0 | 12 | 0 | 16 | 1 | 0 | 17 | 29 |
| 8:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 13 | 0 | 13 | 0 | 13 | 0 | 0 | 13 | 26 |
| Hourly Total | 0 | 3 | 0 | 13 | 3 | 0 | 3 | 61 | 0 | 64 | 0 | 152 | 4 | 0 | 156 | 223 |
| 9:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 9 | 0 | 10 | 0 | 10 | 3 | 0 | 13 | 23 |
| 9:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 5 | 0 | 5 | 0 | 10 | 0 | 0 | 10 | 15 |
| 9:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 9 | 0 | 9 | 0 | 7 | 0 | 0 | 7 | 16 |
| 9:45 AM | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 4 | 0 | 4 | 0 | 5 | 1 | 0 | 6 | 11 |
| Hourly Total | 0 | 1 | 0 | 0 | 1 | 0 | 1 | 27 | 0 | 28 | 0 | 32 | 4 | 0 | 36 | 65 |
| *** BREAK *** | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 2:00 PM | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 6 | 0 | 6 | 0 | 8 | 0 | 0 | 8 | 14 |
| 2:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 5 | 0 | 5 | 0 | 9 | 0 | 0 | 9 | 14 |
| 2:30 PM | 0 | 2 | 0 | 0 | 2 | 0 | 0 | 3 | 0 | 3 | 0 | 8 | 1 | 0 | 9 | 14 |
| 2:45 PM | 0 | 2 | 0 | 0 | 2 | 0 | 0 | 10 | 0 | 10 | 0 | 9 | 0 | 0 | 9 | 21 |
| Hourly Total | 0 | 4 | 0 | 2 | 4 | 0 | 0 | 24 | 0 | 24 | 0 | 34 | 1 | 0 | 35 | 63 |
| 3:00 PM | 0 | 0 | 2 | 2 | 2 | 0 | 0 | 1 | 0 | 1 | 0 | 26 | 0 | 0 | 26 | 29 |
| 3:15 PM | 0 | 1 | 3 | 2 | 4 | 0 | 0 | 9 | 0 | 9 | 0 | 18 | 0 | 0 | 18 | 31 |
| 3:30 PM | 0 | 0 | 0 | 3 | 0 | 0 | 1 | 11 | 0 | 12 | 0 | 17 | 0 | 0 | 17 | 29 |
| 3:45 PM | 0 | 0 | 3 | 0 | 3 | 0 | 0 | 14 | 0 | 14 | 0 | 13 | 0 | 0 | 13 | 30 |
| Hourly Total | 0 | 1 | 8 | 7 | 9 | 0 | 1 | 35 | 0 | 36 | 0 | 74 | 0 | 0 | 74 | 119 |
| 4:00 PM | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 16 | 0 | 16 | 0 | 22 | 0 | 0 | 22 | 39 |
| 4:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 14 | 0 | 14 | 0 | 21 | 1 | 0 | 22 | 36 |
| 4:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 18 | 0 | 18 | 1 | 19 | 0 | 0 | 20 | 38 |
| 4:45 PM | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 4 | 0 | 4 | 0 | 26 | 0 | 0 | 26 | 31 |
| Hourly Total | 0 | 1 | 1 | 0 | 2 | 0 | 0 | 52 | 0 | 52 | 1 | 88 | 1 | 0 | 90 | 144 |

| | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 5:00 PM | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 12 | 0 | 12 | 0 | 21 | 0 | 0 | 21 | 33 |
| 5:15 PM | 0 | 1 | 0 | 1 | 1 | 0 | 0 | 3 | 0 | 3 | 0 | 18 | 0 | 0 | 18 | 22 |
| 5:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 3 | 0 | 11 | 0 | 0 | 11 | 14 |
| 5:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 2 | 0 | 6 | 0 | 0 | 6 | 8 |
| Hourly Total | 0 | 1 | 0 | 2 | 1 | 0 | 0 | 20 | 0 | 20 | 0 | 56 | 0 | 0 | 56 | 77 |
| Grand Total | 0 | 11 | 9 | 25 | 20 | 4 | 6 | 305 | 0 | 315 | 1 | 590 | 13 | 0 | 604 | 939 |
| Approach % | 0.0 | 55.0 | 45.0 | - | - | 1.3 | 1.9 | 96.8 | - | - | 0.2 | 97.7 | 2.2 | - | - | - |
| Total % | 0.0 | 1.2 | 1.0 | - | 2.1 | 0.4 | 0.6 | 32.5 | - | 33.5 | 0.1 | 62.8 | 1.4 | - | 64.3 | - |
| Lights | 0 | 11 | 9 | - | 20 | 4 | 6 | 297 | - | 307 | 1 | 580 | 13 | - | 594 | 921 |
| % Lights | - | 100.0 | 100.0 | - | 100.0 | 100.0 | 100.0 | 97.4 | - | 97.5 | 100.0 | 98.3 | 100.0 | - | 98.3 | 98.1 |
| Buses | 0 | 0 | 0 | - | 0 | 0 | 0 | 0 | - | 0 | 0 | 0 | 0 | - | 0 | 0 |
| % Buses | - | 0.0 | 0.0 | - | 0.0 | 0.0 | 0.0 | 0.0 | - | 0.0 | 0.0 | 0.0 | 0.0 | - | 0.0 | 0.0 |
| Single-Unit Trucks | 0 | 0 | 0 | - | 0 | 0 | 0 | 8 | - | 8 | 0 | 10 | 0 | - | 10 | 18 |
| % Single-Unit Trucks | - | 0.0 | 0.0 | - | 0.0 | 0.0 | 0.0 | 2.6 | - | 2.5 | 0.0 | 1.7 | 0.0 | - | 1.7 | 1.9 |
| Articulated Trucks | 0 | 0 | 0 | - | 0 | 0 | 0 | 0 | - | 0 | 0 | 0 | 0 | - | 0 | 0 |
| % Articulated Trucks | - | 0.0 | 0.0 | - | 0.0 | 0.0 | 0.0 | 0.0 | - | 0.0 | 0.0 | 0.0 | 0.0 | - | 0.0 | 0.0 |
| Bicycles on Road | 0 | 0 | 0 | - | 0 | 0 | 0 | 0 | - | 0 | 0 | 0 | 0 | - | 0 | 0 |
| % Bicycles on Road | - | 0.0 | 0.0 | - | 0.0 | 0.0 | 0.0 | 0.0 | - | 0.0 | 0.0 | 0.0 | 0.0 | - | 0.0 | 0.0 |
| Pedestrians | - | - | - | 25 | - | - | - | - | 0 | - | - | - | - | 0 | - | - |
| % Pedestrians | - | - | - | 100.0 | - | - | - | - | - | - | - | - | - | - | - | - |

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Count Name: Woodcreek Dr and Western Access Dr TMC
Site Code:
Start Date: 02/05/2026


# Turning Movement Peak Hour Data (7:45 AM)

| Start Time | Eastbound Approach Eastbound | | | | | Woodcreek Dr Northbound | | | | | Woodcreek Dr Southbound | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | U-Turn | Left | Right | Peds | App. Total | U-Turn | Left | Thru | Peds | App. Total | U-Turn | Thru | Right | Peds | App. Total | Int. Total |
| 7:45 AM | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 20 | 0 | 20 | 0 | 58 | 2 | 0 | 60 | 80 |
| 8:00 AM | 0 | 3 | 0 | 7 | 3 | 0 | 2 | 17 | 0 | 19 | 0 | 71 | 1 | 0 | 72 | 94 |
| 8:15 AM | 0 | 0 | 0 | 6 | 0 | 0 | 0 | 20 | 0 | 20 | 0 | 52 | 2 | 0 | 54 | 74 |
| 8:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 11 | 0 | 12 | 0 | 16 | 1 | 0 | 17 | 29 |
| Total | 0 | 3 | 0 | 14 | 3 | 0 | 3 | 68 | 0 | 71 | 0 | 197 | 6 | 0 | 203 | 277 |
| Approach % | 0.0 | 100.0 | 0.0 | - | - | 0.0 | 4.2 | 95.8 | - | - | 0.0 | 97.0 | 3.0 | - | - | - |
| Total % | 0.0 | 1.1 | 0.0 | - | 1.1 | 0.0 | 1.1 | 24.5 | - | 25.6 | 0.0 | 71.1 | 2.2 | - | 73.3 | - |
| PHF | 0.000 | 0.250 | 0.000 | - | 0.250 | 0.000 | 0.375 | 0.850 | - | 0.888 | 0.000 | 0.694 | 0.750 | - | 0.705 | 0.737 |
| Lights | 0 | 3 | 0 | - | 3 | 0 | 3 | 68 | - | 71 | 0 | 195 | 6 | - | 201 | 275 |
| % Lights | - | 100.0 | - | - | 100.0 | - | 100.0 | 100.0 | - | 100.0 | - | 99.0 | 100.0 | - | 99.0 | 99.3 |
| Buses | 0 | 0 | 0 | - | 0 | 0 | 0 | 0 | - | 0 | 0 | 0 | 0 | - | 0 | 0 |
| % Buses | - | 0.0 | - | - | 0.0 | - | 0.0 | 0.0 | - | 0.0 | - | 0.0 | 0.0 | - | 0.0 | 0.0 |
| Single-Unit Trucks | 0 | 0 | 0 | - | 0 | 0 | 0 | 0 | - | 0 | 0 | 2 | 0 | - | 2 | 2 |
| % Single-Unit Trucks | - | 0.0 | - | - | 0.0 | - | 0.0 | 0.0 | - | 0.0 | - | 1.0 | 0.0 | - | 1.0 | 0.7 |
| 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 |
| 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 |
| Pedestrians | - | - | - | 14 | - | - | - | - | 0 | - | - | - | - | 0 | - | - |
| % Pedestrians | - | - | - | 100.0 | - | - | - | - | - | - | - | - | - | - | - | - |

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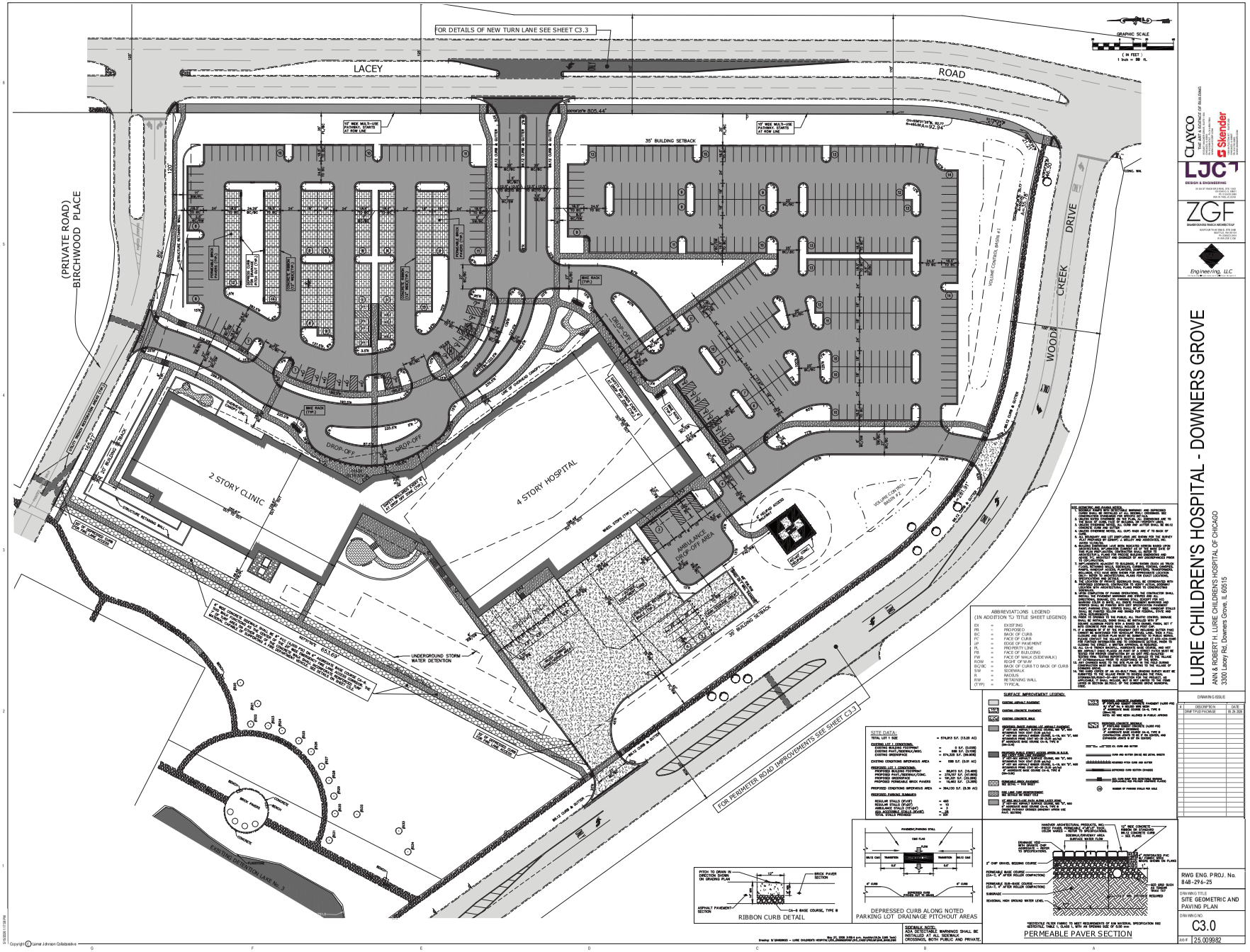
Rosemont, Illinois, United States 60018
(847)518-9990 abowen@kloainc.com

Count Name: Woodcreek Dr and Western Access Dr TMC
Site Code:
Start Date: 02/05/2026


# Turning Movement Peak Hour Data (4:00 PM)

| Start Time | Eastbound Approach Eastbound | | | | | Woodcreek Dr Northbound | | | | | Woodcreek Dr 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 | 1 | 0 | 0 | 1 | 0 | 0 | 16 | 0 | 16 | 0 | 22 | 0 | 0 | 22 | 39 |
| 4:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 14 | 0 | 14 | 0 | 21 | 1 | 0 | 22 | 36 |
| 4:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 18 | 0 | 18 | 1 | 19 | 0 | 0 | 20 | 38 |
| 4:45 PM | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 4 | 0 | 4 | 0 | 26 | 0 | 0 | 26 | 31 |
| Total | 0 | 1 | 1 | 0 | 2 | 0 | 0 | 52 | 0 | 52 | 1 | 88 | 1 | 0 | 90 | 144 |
| Approach % | 0.0 | 50.0 | 50.0 | - | - | 0.0 | 0.0 | 100.0 | - | - | 1.1 | 97.8 | 1.1 | - | - | - |
| Total % | 0.0 | 0.7 | 0.7 | - | 1.4 | 0.0 | 0.0 | 36.1 | - | 36.1 | 0.7 | 61.1 | 0.7 | - | 62.5 | - |
| PHF | 0.000 | 0.250 | 0.250 | - | 0.500 | 0.000 | 0.000 | 0.722 | - | 0.722 | 0.250 | 0.846 | 0.250 | - | 0.865 | 0.923 |
| Lights | 0 | 1 | 1 | - | 2 | 0 | 0 | 51 | - | 51 | 1 | 87 | 1 | - | 89 | 142 |
| % Lights | - | 100.0 | 100.0 | - | 100.0 | - | - | 98.1 | - | 98.1 | 100.0 | 98.9 | 100.0 | - | 98.9 | 98.6 |
| Buses | 0 | 0 | 0 | - | 0 | 0 | 0 | 0 | - | 0 | 0 | 0 | 0 | - | 0 | 0 |
| % Buses | - | 0.0 | 0.0 | - | 0.0 | - | - | 0.0 | - | 0.0 | 0.0 | 0.0 | 0.0 | - | 0.0 | 0.0 |
| Single-Unit Trucks | 0 | 0 | 0 | - | 0 | 0 | 0 | 1 | - | 1 | 0 | 1 | 0 | - | 1 | 2 |
| % Single-Unit Trucks | - | 0.0 | 0.0 | - | 0.0 | - | - | 1.9 | - | 1.9 | 0.0 | 1.1 | 0.0 | - | 1.1 | 1.4 |
| Articulated Trucks | 0 | 0 | 0 | - | 0 | 0 | 0 | 0 | - | 0 | 0 | 0 | 0 | - | 0 | 0 |
| % Articulated Trucks | - | 0.0 | 0.0 | - | 0.0 | - | - | 0.0 | - | 0.0 | 0.0 | 0.0 | 0.0 | - | 0.0 | 0.0 |
| 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 | - | - | - | - | 0 | - | - |
| % Pedestrians | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |

# Site Plan




ABBREVIATIONS LEGEND
(IN ADDITION TO TITLE SHEET LEGEND)

| | | |
|---|---|---|
| EX | = | EXISTING |
| PR | = | PROPOSED |
| BC | = | BACK OF CURB |
| FC | = | FACE OF CURB |
| EP | = | EDGE OF PAVEMENT |
| PL | = | PROPERTY LINE |
| FB | = | FACE OF BUILDING |
| FW | = | FACE OF WALK (SIDEWALK) |
| ROW | = | RIGHT OF WAY |
| BOW | = | BACK OF WALK CURB TO BACK OF CURB |
| SW | = | SIDEWALK |
| R | = | RADIUS |
| RW | = | RETAINING WALL |
| (TYP) | = | TYPICAL |

SURFACE IMPROVEMENT LEGEND:

SITE DATA:
TOTAL LOT 1 SIZE = 974,913 S.F. (13.20 AC)

EXISTING LOT 1 CONDITIONS:
EXISTING BUILDING FOOTPRINT = 0 S.F. (0.00)
EXISTING PVMT./SIDEWALK/MISC. = 556 S.F. (0.10)
EXISTING GRASS/FIELD = 974,357 S.F. (99.90)
EXISTING CONDITIONS IMPERVIOUS AREA = 556 S.F. (0.01 AC)

PROPOSED LOT 1 CONDITIONS:
PROPOSED BUILDING FOOTPRINT = 83,872 S.F. (15.480)
PROPOSED PVMT./SIDEWALK/CURB = 191,127 S.F. (19.38%)
PROPOSED GRASS/FIELD = 791,041 S.F. (81.14%)
PROPOSED PERMEABLE BRICK PAVERS = 19,483 S.F. (1.98%)
PROPOSED CONDITIONS IMPERVIOUS AREA = 366,510 S.F. (8.38 AC)

PROPOSED PARKING SUMMARY:
REGULAR STALLS (9'x18') = 465
HANDICAP STALLS (8'x18') = 7
AMBULANCE STALLS (10'x18') = 2
VAN ACCESSIBLE STALLS (16'x18') = 10
TOTAL STALLS PROVIDED = 484

RIBBON CURB DETAIL

DEPRESSED CURB ALONG NOTED PARKING LOT DRAINAGE PITCHOUT AREAS

SIDEWALK NOTE:
ADA DETECTABLE WARNINGS SHALL BE INSTALLED AT ALL SIDEWALK CROSSINGS, BOTH PUBLIC AND PRIVATE.

PERMEABLE PAVER SECTION

CLAYCO
5 Stender
LJC
DESIGN & ENGINEERING
ZGF
Engineering, LLC

# LURIE CHILDREN'S HOSPITAL - DOWNERS GROVE

ANN & ROBERT H. LURIE CHILDREN'S HOSPITAL OF CHICAGO
3300 Lacey Rd. Downers Grove, IL 60515

DRAWING ISSUE

| # | DESCRIPTION | DATE |
|---|---|---|
| | DRAFT PLD PACKAGE | 8.29.2025 |

RWG ENG. PROJ. No.
848-296-25

DRAWING TITLE
SITE GEOMETRIC AND PAVING PLAN

DRAWING NO.
C3.0

Job # 25.009982

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# ITE Trip Generation Sheets

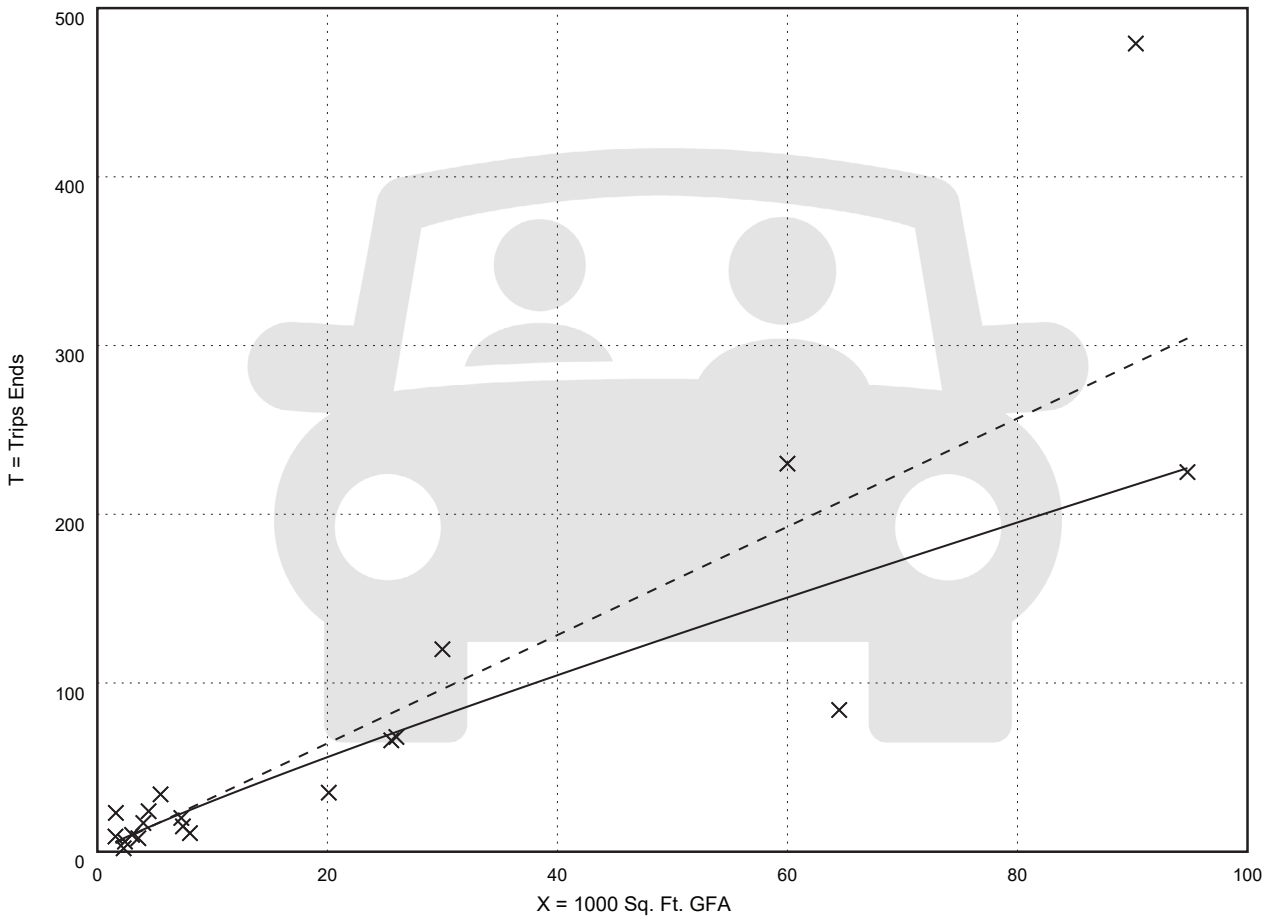
# Medical-Dental Office Building - Stand-Alone (720)

| | |
|---|---|
| **Vehicle Trip Ends vs:** | **1000 Sq. Ft. GFA** |
| **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: | 20 |
| Avg. 1000 Sq. Ft. GFA: | 23 |
| Directional Distribution: | 78% entering, 22% exiting |

## Vehicle Trip Generation per 1000 Sq. Ft. GFA

| Average Rate | Range of Rates | Standard Deviation |
|---|---|---|
| 3.21 | 0.87 - 14.30 | 1.61 |

## Data Plot and Equation




**Fitted Curve Equation: Ln(T) = 0.90 Ln(X) + 1.33**

**$R^2$= 0.80**

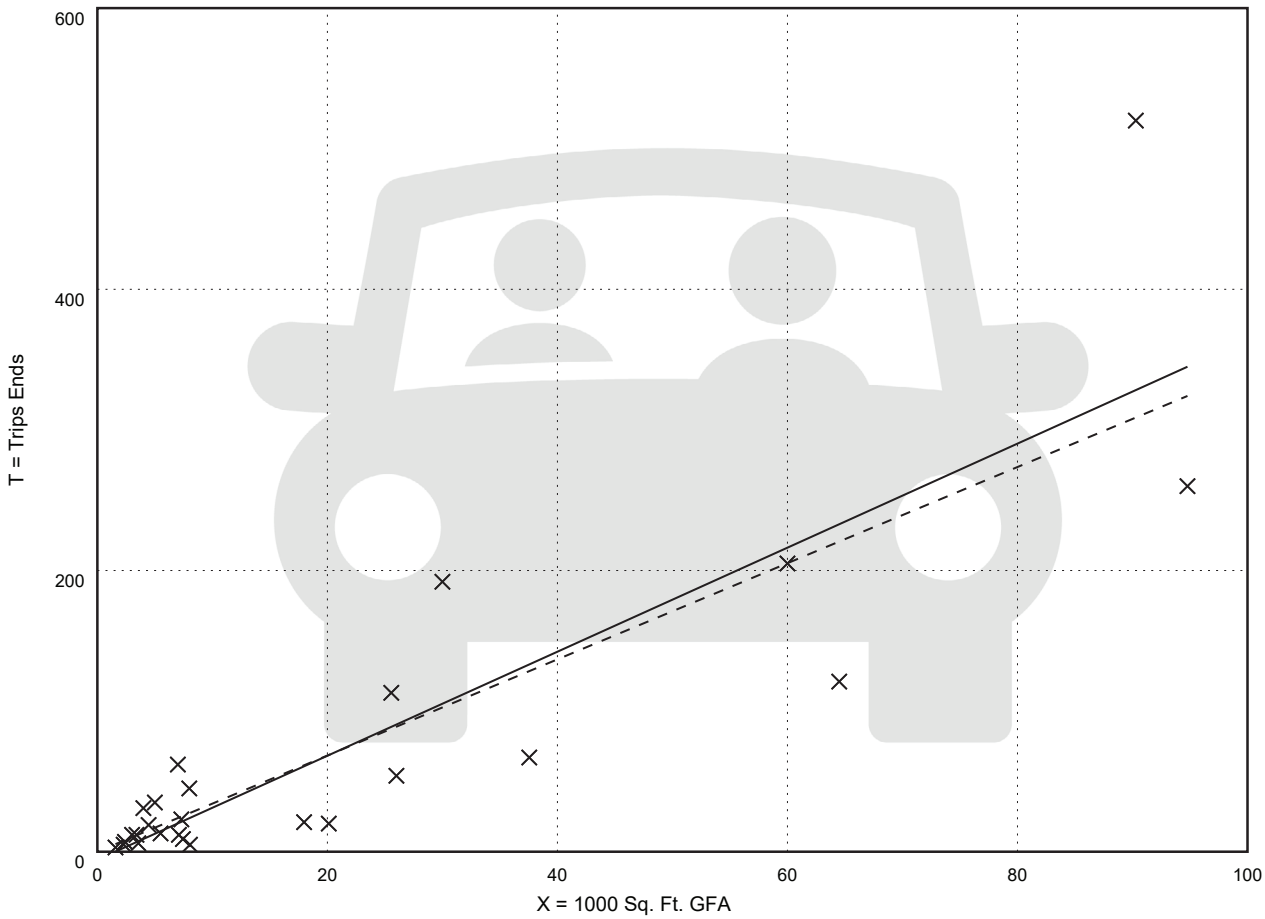
# Medical-Dental Office Building - Stand-Alone (720)

| | |
|---|---|
| **Vehicle Trip Ends vs:** | **1000 Sq. Ft. GFA** |
| **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: | 26 |
| Avg. 1000 Sq. Ft. GFA: | 21 |
| Directional Distribution: | 30% entering, 70% exiting |

## Vehicle Trip Generation per 1000 Sq. Ft. GFA

| Average Rate | Range of Rates | Standard Deviation |
|---|---|---|
| 3.42 | 0.62 - 8.86 | 1.89 |

## Data Plot and Equation




**Fitted Curve Equation: T = 3.70(X) - 5.75**

**$R^2$= 0.76**

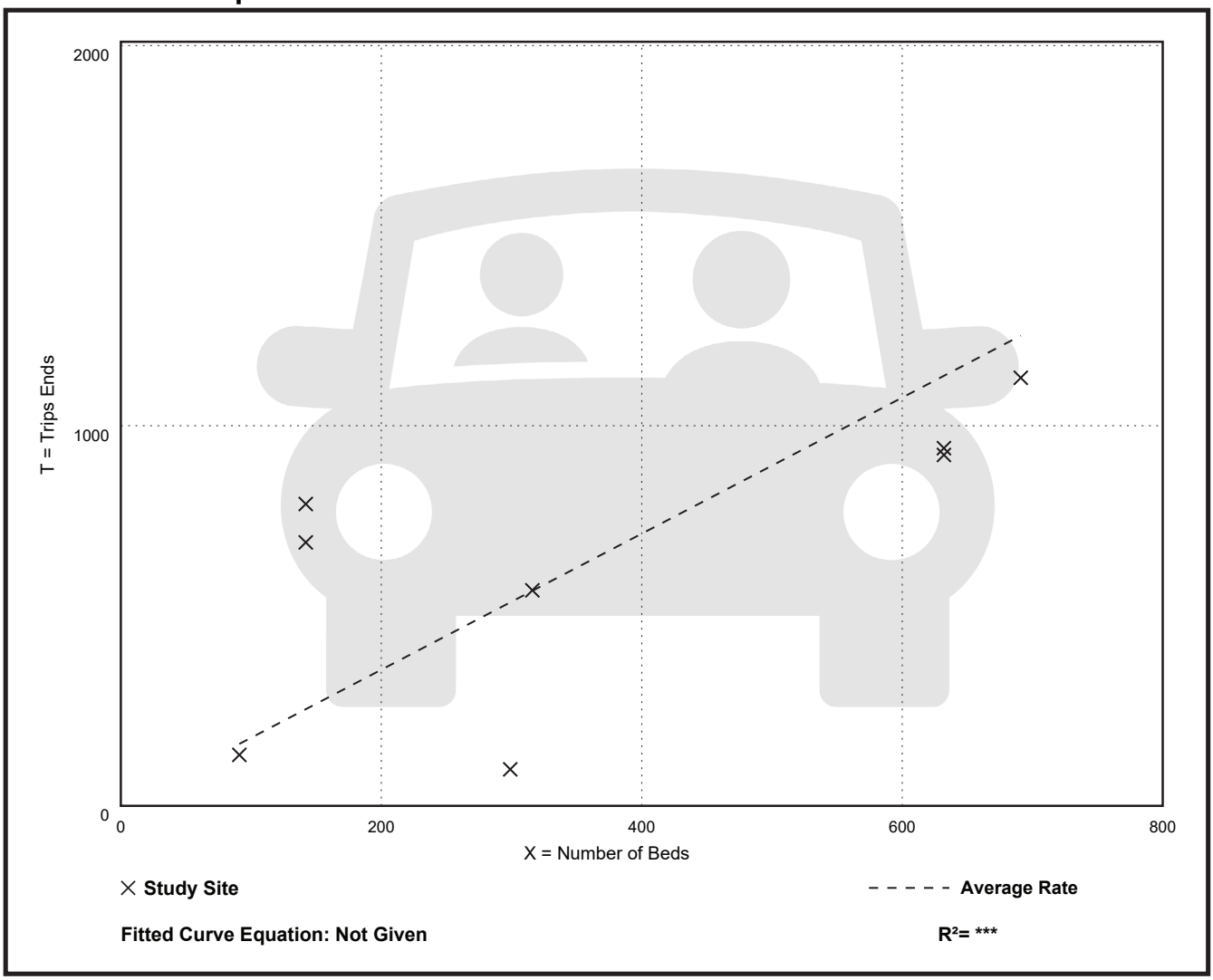
# Hospital
# (610)

| | |
|---|---|
| **Vehicle Trip Ends vs:** | **Beds** |
| **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: | 8 |
| Avg. Num. of Beds: | 368 |
| Directional Distribution: | 72% entering, 28% exiting |

## Vehicle Trip Generation per Bed

| Average Rate | Range of Rates | Standard Deviation |
|---|---|---|
| 1.79 | 0.32 - 5.59 | 1.28 |

## Data Plot and Equation




**Fitted Curve Equation: Not Given**

**$R^2$= *****

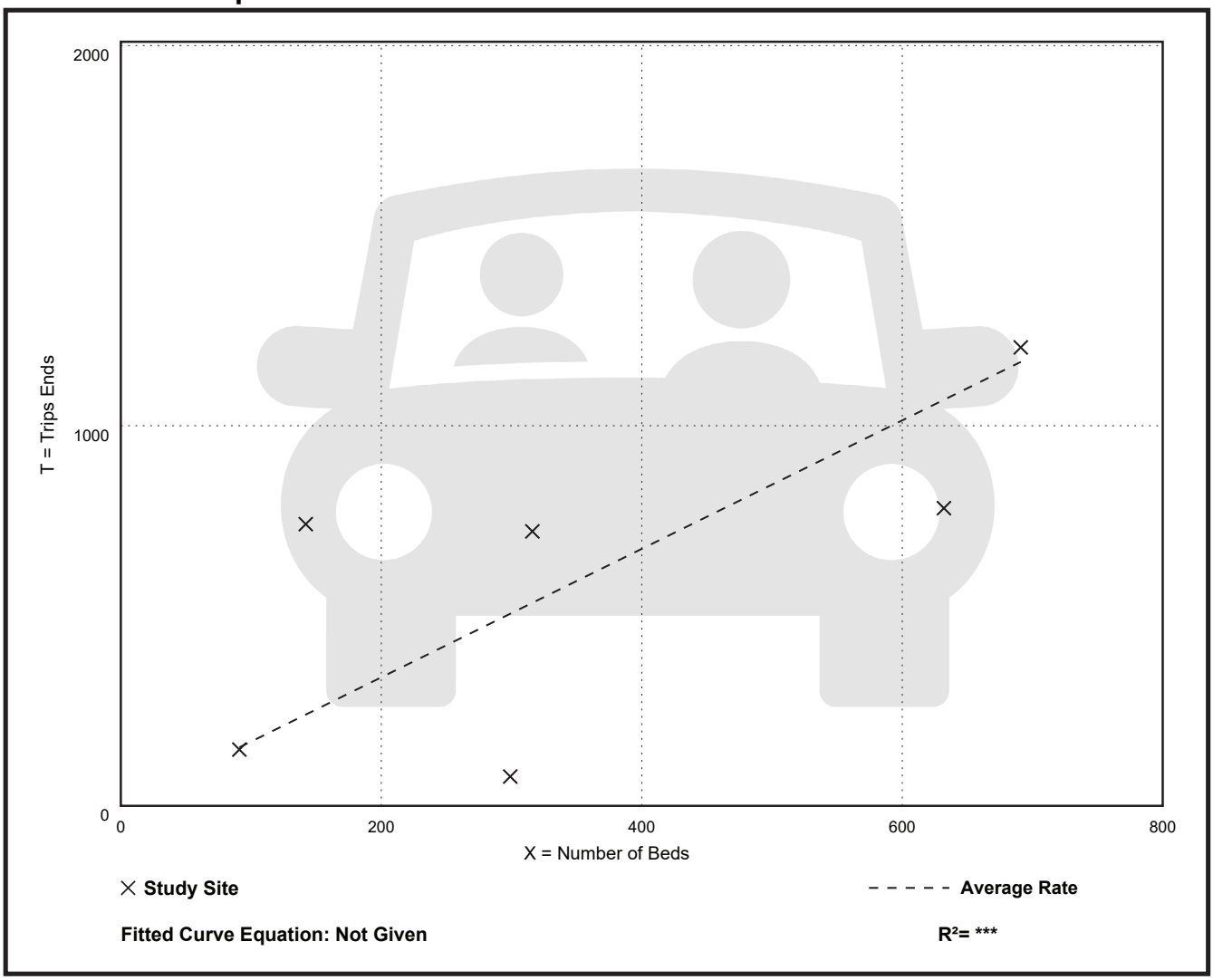
# Hospital
# (610)

| | |
|---|---|
| **Vehicle Trip Ends vs:** | **Beds** |
| **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: | 6 |
| Avg. Num. of Beds: | 362 |
| Directional Distribution: | 33% entering, 67% exiting |

## Vehicle Trip Generation per Bed

| Average Rate | Range of Rates | Standard Deviation |
|---|---|---|
| 1.69 | 0.26 - 5.22 | 1.20 |

## Data Plot and Equation




**Fitted Curve Equation: Not Given**

**$R^2$= *****

# CMAP 2050 Projections Letter

Chicago Metropolitan Agency for Planning

433 West Van Buren Street, Suite 450
Chicago, IL 60607

cmap.illinois.gov | 312-454-0400

January 28, 2026

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

***Subject: Lacey Road - Finley Road - Butterfield Road***
IDOT

Dear Ms. May:

In response to a request made on your behalf and dated January 27, 2026, we have developed year 2050 average daily traffic (ADT) projections for the subject location.

| ROAD SEGMENT | Current ADT | Year 2050 ADT |
|---|---|---|
| Lacey Rd at Finley Rd | 3,950 | **4,700** |
| Finley Rd west of Lacey Rd | 17,400 | **20,200** |
| Finley Rd east of Lacey Rd | 14,800 | **17,200** |
| Butterfield Rd at Lacey Rd | 33,000 | **39,300** |
| Lacey Rd at Birchwood Pl | 3,950 | **4,700** |

Traffic projections are developed using existing ADT data provided in the request letter and the results from the December 2025 CMAP Travel Demand Analysis. The regional travel model uses CMAP 2050 socioeconomic projections and assumes the implementation of the ON TO 2050 Comprehensive Regional Plan for the Northeastern Illinois area. The provision of this data in support of your request does not constitute a CMAP endorsement of the proposed development or any subsequent developments.

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

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

cc: Rios (IDOT)
2026_TrafficForecasts\DownersGrove\du-07-26\du-07-26.docx

# Level of Service Criteria

LEVEL OF SERVICE CRITERIA

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

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

Source: *Highway Capacity Manual*, 7th Edition.

# Capacity Analysis Summary Sheets

Existing Weekday Morning Peak Hour

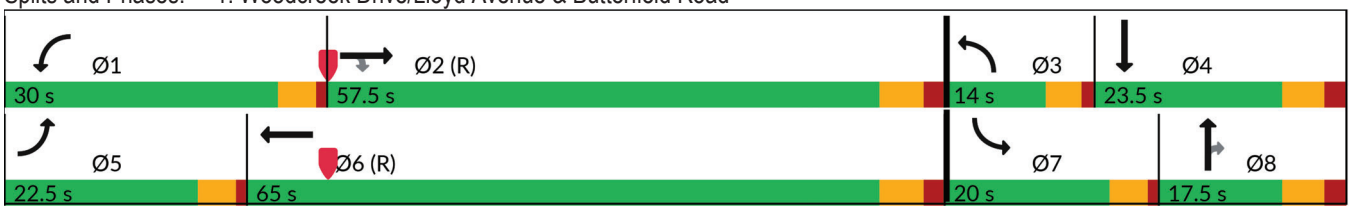


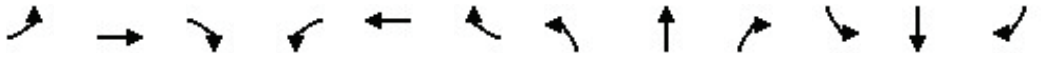
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 64 | 1000 | 270 | 749 | 655 | 59 | 44 | 15 | 29 | 70 | 83 | 67 |
| Future Volume (vph) | 64 | 1000 | 270 | 749 | 655 | 59 | 44 | 15 | 29 | 70 | 83 | 67 |
| Ideal Flow (vphpl) | 1900 | 2000 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Width (ft) | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 |
| Grade (%) | | 0% | | | 0% | | | 0% | | | 0% | |
| Storage Length (ft) | 265 | | 465 | 0 | | 0 | 118 | | 0 | 120 | | 0 |
| Storage Lanes | 1 | | 2 | 2 | | 0 | 1 | | 1 | 1 | | 0 |
| Taper Length (ft) | 85 | | | 25 | | | 45 | | | 85 | | |
| Lane Util. Factor | 1.00 | 0.91 | 0.88 | 0.97 | 0.91 | 0.91 | 0.97 | 0.95 | 0.95 | 1.00 | 1.00 | 1.00 |
| Ped Bike Factor | | | | | | | | | | | | |
| Frt | | | 0.850 | | 0.988 | | | 0.946 | 0.850 | | 0.933 | |
| Flt Protected | 0.950 | | | 0.950 | | | 0.950 | | | 0.950 | | |
| Satd. Flow (prot) | 1770 | 5301 | 2842 | 3502 | 4869 | 0 | 3502 | 1666 | 1434 | 1752 | 1732 | 0 |
| Flt Permitted | 0.950 | | | 0.950 | | | 0.950 | | | 0.950 | | |
| Satd. Flow (perm) | 1770 | 5301 | 2842 | 3502 | 4869 | 0 | 3502 | 1666 | 1434 | 1752 | 1732 | 0 |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Satd. Flow (RTOR) | | | 284 | | 16 | | | 9 | 183 | | 27 | |
| Link Speed (mph) | | 45 | | | 45 | | | 30 | | | 30 | |
| Link Distance (ft) | | 2017 | | | 601 | | | 290 | | | 452 | |
| Travel Time (s) | | 30.6 | | | 9.1 | | | 6.6 | | | 10.3 | |
| Confl. Peds. (#/hr) | | | | | | | | | | | | |
| Confl. Bikes (#/hr) | | | | | | | | | | | | |
| Peak Hour Factor | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 |
| Growth Factor | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% |
| Heavy Vehicles (%) | 2% | 3% | 0% | 0% | 5% | 8% | 0% | 0% | 7% | 3% | 1% | 4% |
| Bus Blockages (#/hr) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Parking (#/hr) | | | | | | | | | | | | |
| Mid-Block Traffic (%) | | 0% | | | 0% | | | 0% | | | 0% | |
| Shared Lane Traffic (%) | | | | | | | | | 28% | | | |
| Lane Group Flow (vph) | 67 | 1053 | 284 | 788 | 751 | 0 | 46 | 25 | 22 | 74 | 158 | 0 |
| Turn Type | Prot | NA | Perm | Prot | NA | | Prot | NA | Perm | Prot | NA | |
| Protected Phases | 5 | 2 | | 1 | 6 | | 3 | 8 | | 7 | 4 | |
| Permitted Phases | | | 2 | | | | | | 8 | | | |
| Detector Phase | 5 | 2 | 2 | 1 | 6 | | 3 | 8 | 8 | 7 | 4 | |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 3.0 | 15.0 | 15.0 | 3.0 | 15.0 | | 3.0 | 8.0 | 8.0 | 3.0 | 8.0 | |
| Minimum Split (s) | 7.5 | 21.0 | 21.0 | 7.5 | 21.0 | | 11.0 | 14.0 | 14.0 | 7.5 | 14.0 | |
| Total Split (s) | 22.5 | 57.5 | 57.5 | 30.0 | 65.0 | | 14.0 | 17.5 | 17.5 | 20.0 | 23.5 | |
| Total Split (%) | 18.0% | 46.0% | 46.0% | 24.0% | 52.0% | | 11.2% | 14.0% | 14.0% | 16.0% | 18.8% | |
| Yellow Time (s) | 3.5 | 4.0 | 4.0 | 3.5 | 4.0 | | 3.5 | 4.0 | 4.0 | 3.5 | 4.0 | |
| All-Red Time (s) | 1.0 | 2.0 | 2.0 | 1.0 | 2.0 | | 1.0 | 2.0 | 2.0 | 1.0 | 2.0 | |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | |
| Total Lost Time (s) | 4.5 | 6.0 | 6.0 | 4.5 | 6.0 | | 4.5 | 6.0 | 6.0 | 4.5 | 6.0 | |
| Lead/Lag | Lead | Lag | Lag | Lead | Lag | | Lead | Lag | Lag | Lead | Lag | |
| Lead-Lag Optimize? | Yes | Yes | Yes | Yes | Yes | | Yes | Yes | Yes | Yes | Yes | |
| Recall Mode | None | C-Min | C-Min | None | C-Min | | None | None | None | None | None | |
| Act Effct Green (s) | 10.1 | 52.4 | 52.4 | 31.5 | 75.9 | | 7.1 | 11.2 | 11.2 | 14.0 | 15.1 | |
| Actuated g/C Ratio | 0.08 | 0.42 | 0.42 | 0.25 | 0.61 | | 0.06 | 0.09 | 0.09 | 0.11 | 0.12 | |

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| v/c Ratio | 0.47 | 0.47 | 0.21 | 0.89 | 0.25 | | 0.23 | 0.16 | 0.07 | 0.38 | 0.68 | |
| Control Delay (s/veh) | 64.8 | 27.4 | 2.9 | 71.1 | 13.1 | | 44.5 | 27.0 | 2.5 | 57.4 | 58.0 | |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | |
| Total Delay (s/veh) | 64.8 | 27.4 | 2.9 | 71.1 | 13.1 | | 44.5 | 27.0 | 2.5 | 57.4 | 58.0 | |
| LOS | E | C | A | E | B | | D | C | A | E | E | |
| Approach Delay (s/veh) | | 24.2 | | | 42.8 | | | 29.9 | | | 57.8 | |
| Approach LOS | | C | | | D | | | C | | | E | |
| Queue Length 50th (ft) | 54 | 231 | 0 | 352 | 112 | | 18 | 14 | 0 | 60 | 103 | |
| Queue Length 95th (ft) | 100 | 274 | 29 | #514 | 103 | | 27 | 42 | 0 | 109 | 175 | |
| Internal Link Dist (ft) | | 1937 | | | 521 | | | 210 | | | 372 | |
| Turn Bay Length (ft) | 265 | | 465 | | | | 118 | | | 120 | | |
| Base Capacity (vph) | 254 | 2221 | 1355 | 881 | 2962 | | 266 | 171 | 305 | 246 | 269 | |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | |
| Reduced v/c Ratio | 0.26 | 0.47 | 0.21 | 0.89 | 0.25 | | 0.17 | 0.15 | 0.07 | 0.30 | 0.59 | |

| Intersection Summary | | | |
|---|---|---|---|
| Area Type: | Other | | |
| Cycle Length: 125 | | | |
| Actuated Cycle Length: 125 | | | |
| Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Green | | | |
| Natural Cycle: 70 | | | |
| Control Type: Actuated-Coordinated | | | |
| Maximum v/c Ratio: 0.89 | | | |
| Intersection Signal Delay (s/veh): 35.5 | | Intersection LOS: D | |
| Intersection Capacity Utilization 69.0% | | ICU Level of Service C | |
| Analysis Period (min) 15 | | | |
| # 95th percentile volume exceeds capacity, queue may be longer. | | | |
| Queue shown is maximum after two cycles. | | | |

Splits and Phases: 1: Woodcreek Drive/Lloyd Avenue & Butterfield Road



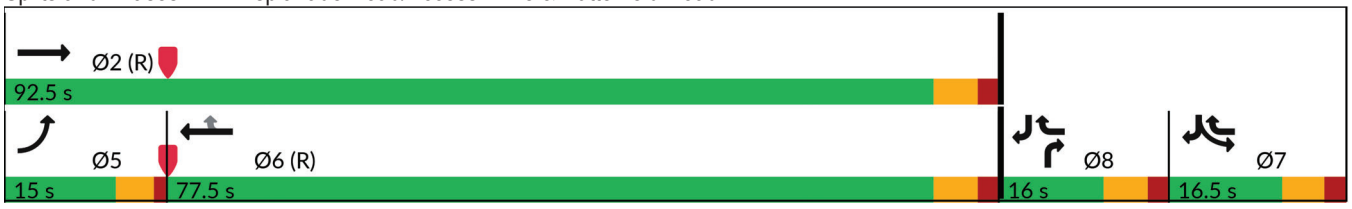


| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 27 | 1072 | 0 | 0 | 1423 | 104 | 0 | 0 | 57 | 94 | 0 | 40 |
| Future Volume (vph) | 27 | 1072 | 0 | 0 | 1423 | 104 | 0 | 0 | 57 | 94 | 0 | 40 |
| Ideal Flow (vphpl) | 1900 | 2000 | 1900 | 1900 | 2000 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Width (ft) | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 |
| Grade (%) | | 0% | | | 0% | | | 0% | | | 0% | |
| Storage Length (ft) | 230 | | 0 | 60 | | 175 | 0 | | 0 | 0 | | 100 |
| Storage Lanes | 1 | | 0 | 2 | | 1 | 0 | | 2 | 2 | | 1 |
| Taper Length (ft) | 210 | | | 300 | | | 25 | | | 25 | | |
| Lane Util. Factor | 1.00 | 0.91 | 1.00 | 1.00 | 0.81 | 1.00 | 1.00 | 1.00 | 0.88 | 0.97 | 1.00 | 1.00 |
| Ped Bike Factor | | | | | | | | | | | | |
| Frt | | | | | | 0.850 | | | 0.850 | | | 0.850 |
| Flt Protected | 0.950 | | | | | | | | | 0.950 | | |
| Satd. Flow (prot) | 1805 | 5301 | 0 | 0 | 7941 | 1538 | 0 | 0 | 2842 | 3433 | 0 | 1538 |
| Flt Permitted | 0.950 | | | | | | | | | 0.950 | | |
| Satd. Flow (perm) | 1805 | 5301 | 0 | 0 | 7941 | 1538 | 0 | 0 | *2900 | 3433 | 0 | 1538 |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Satd. Flow (RTOR) | | | | | | 117 | | | *312 | | | 65 |
| Link Speed (mph) | | 45 | | | 45 | | | 30 | | | 30 | |
| Link Distance (ft) | | 601 | | | 603 | | | 352 | | | 378 | |
| Travel Time (s) | | 9.1 | | | 9.1 | | | 8.0 | | | 8.6 | |
| Confl. Peds. (#/hr) | | | | | | | | | | | | |
| Confl. Bikes (#/hr) | | | | | | | | | | | | |
| Peak Hour Factor | 0.89 | 0.89 | 0.89 | 0.89 | 0.89 | 0.89 | 0.89 | 0.89 | 0.89 | 0.89 | 0.89 | 0.89 |
| Growth Factor | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% |
| Heavy Vehicles (%) | 0% | 3% | 0% | 0% | 2% | 5% | 0% | 0% | 0% | 2% | 0% | 5% |
| Bus Blockages (#/hr) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Parking (#/hr) | | | | | | | | | | | | |
| Mid-Block Traffic (%) | | 0% | | | 0% | | | 0% | | | 0% | |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 30 | 1204 | 0 | 0 | 1599 | 117 | 0 | 0 | 64 | 106 | 0 | 45 |
| Turn Type | Prot | NA | | | NA | custom | | | Prot | Prot | | custom |
| Protected Phases | 5 | 2 | | | 6 | 7 8 | | | 8 | 7 | | 7 8 |
| Permitted Phases | | | | | | 6 | | | 8 | 7 | | |
| Detector Phase | 5 | 2 | | | 6 | 7 8 | | | 8 | 7 | | 7 8 |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 3.0 | 15.0 | | | 15.0 | | | | 8.0 | 8.0 | | |
| Minimum Split (s) | 7.5 | 21.0 | | | 21.0 | | | | 14.0 | 14.0 | | |
| Total Split (s) | 15.0 | 92.5 | | | 77.5 | | | | 16.0 | 16.5 | | |
| Total Split (%) | 12.0% | 74.0% | | | 62.0% | | | | 12.8% | 13.2% | | |
| Yellow Time (s) | 3.5 | 4.0 | | | 4.0 | | | | 4.0 | 4.0 | | |
| All-Red Time (s) | 1.0 | 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) | 4.5 | 6.0 | | | 6.0 | | | | 6.0 | 6.0 | | |
| Lead/Lag | Lead | | | | Lag | | | | Lead | Lag | | |
| Lead-Lag Optimize? | Yes | | | | Yes | | | | Yes | Yes | | |
| Recall Mode | None | C-Min | | | C-Min | | | | None | None | | |
| Act Effct Green (s) | 7.6 | 88.8 | | | 80.9 | 113.5 | | | 8.0 | 10.2 | | 24.2 |
| Actuated g/C Ratio | 0.06 | 0.71 | | | 0.65 | 0.91 | | | 0.06 | 0.08 | | 0.19 |

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| v/c Ratio | 0.28 | 0.32 | | | 0.31 | 0.08 | | | 0.13 | 0.38 | | 0.13 |
| Control Delay (s/veh) | 95.9 | 0.7 | | | 6.7 | 0.2 | | | 0.6 | 58.0 | | 5.3 |
| Queue Delay | 0.0 | 0.0 | | | 0.0 | 0.0 | | | 0.0 | 0.0 | | 0.0 |
| Total Delay (s/veh) | 95.9 | 0.7 | | | 6.7 | 0.2 | | | 0.6 | 58.0 | | 5.3 |
| LOS | F | A | | | A | A | | | A | E | | A |
| Approach Delay (s/veh) | | 3.0 | | | 6.2 | | | 0.6 | | | 42.3 | |
| Approach LOS | | A | | | A | | | A | | | D | |
| Queue Length 50th (ft) | 26 | 7 | | | 163 | 0 | | | 0 | 43 | | 0 |
| Queue Length 95th (ft) | m55 | 11 | | | 72 | 0 | | | 0 | 71 | | 19 |
| Internal Link Dist (ft) | | 521 | | | 523 | | | 272 | | | 298 | |
| Turn Bay Length (ft) | 230 | | | | | 175 | | | | | | 100 |
| Base Capacity (vph) | 151 | 3765 | | | 5138 | 1343 | | | 519 | 302 | | 312 |
| Starvation Cap Reductn | 0 | 0 | | | 0 | 0 | | | 0 | 0 | | 0 |
| Spillback Cap Reductn | 0 | 0 | | | 0 | 0 | | | 0 | 0 | | 0 |
| Storage Cap Reductn | 0 | 0 | | | 0 | 0 | | | 0 | 0 | | 0 |
| Reduced v/c Ratio | 0.20 | 0.32 | | | 0.31 | 0.09 | | | 0.12 | 0.35 | | 0.14 |

| Intersection Summary | | | |
|---|---|---|---|
| Area Type: | Other | | |
| Cycle Length: 125 | | | |
| Actuated Cycle Length: 125 | | | |
| Offset: 10 (8%), Referenced to phase 2:EBT and 6:WBT, Start of Green | | | |
| Natural Cycle: 60 | | | |
| Control Type: Actuated-Coordinated | | | |
| Maximum v/c Ratio: 0.38 | | | |
| Intersection Signal Delay (s/veh): 6.6 | | Intersection LOS: A | |
| Intersection Capacity Utilization 43.0% | | ICU Level of Service A | |
| Analysis Period (min) 15 | | | |
| * User Entered Value | | | |
| m Volume for 95th percentile queue is metered by upstream signal. | | | |

Splits and Phases: 2: Esplanade Road/Access Drive & Butterfield Road





| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 0 | 1036 | 187 | 195 | 1225 | 0 | 0 | 0 | 0 | 564 | 0 | 302 |
| Future Volume (vph) | 0 | 1036 | 187 | 195 | 1225 | 0 | 0 | 0 | 0 | 564 | 0 | 302 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 2000 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Width (ft) | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 |
| Grade (%) | | 0% | | | 0% | | | 0% | | | 0% | |
| Storage Length (ft) | 150 | | 155 | 0 | | 0 | 0 | | 0 | 180 | | 0 |
| Storage Lanes | 2 | | 1 | 2 | | 0 | 0 | | 0 | 2 | | 1 |
| Taper Length (ft) | 300 | | | 25 | | | 25 | | | 215 | | |
| Lane Util. Factor | 1.00 | 0.81 | 1.00 | 0.97 | 0.91 | 1.00 | 1.00 | 1.00 | 1.00 | 0.97 | 1.00 | 1.00 |
| Ped Bike Factor | | | | | | | | | | | | |
| Frt | | | 0.850 | | | | | | | | | 0.850 |
| Flt Protected | | | | 0.950 | | | | | | 0.950 | | |
| Satd. Flow (prot) | 0 | 7544 | 1553 | 3183 | 5301 | 0 | 0 | 0 | 0 | 3433 | 0 | 1538 |
| Flt Permitted | | | | 0.950 | | | | | | 0.950 | | |
| Satd. Flow (perm) | 0 | 7544 | 1553 | 3183 | 5301 | 0 | 0 | 0 | 0 | 3433 | 0 | 1538 |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Satd. Flow (RTOR) | | | 38 | | | | | | | | | 79 |
| Link Speed (mph) | | 45 | | | 45 | | | 30 | | | 30 | |
| Link Distance (ft) | | 603 | | | 617 | | | 673 | | | 836 | |
| Travel Time (s) | | 9.1 | | | 9.3 | | | 15.3 | | | 19.0 | |
| Confl. Peds. (#/hr) | | | | | | | | | | | | |
| Confl. Bikes (#/hr) | | | | | | | | | | | | |
| Peak Hour Factor | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 |
| Growth Factor | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% |
| Heavy Vehicles (%) | 0% | 2% | 4% | 10% | 3% | 0% | 0% | 0% | 0% | 2% | 0% | 5% |
| Bus Blockages (#/hr) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Parking (#/hr) | | | | | | | | | | | | |
| Mid-Block Traffic (%) | | 0% | | | 0% | | | 0% | | | 0% | |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 0 | 1091 | 197 | 205 | 1289 | 0 | 0 | 0 | 0 | 594 | 0 | 318 |
| Turn Type | | NA | custom | Prot | NA | | | | | Prot | | Perm |
| Protected Phases | | 2 | | 1 | 6 | | | | | 7 | | |
| Permitted Phases | | | 2 7 | | | | | | | | | 7 |
| Detector Phase | | 2 | 2 7 | 1 | 6 | | | | | 7 | | 7 |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | | 15.0 | | 3.0 | 15.0 | | | | | 8.0 | | 8.0 |
| Minimum Split (s) | | 21.0 | | 9.0 | 21.0 | | | | | 14.0 | | 14.0 |
| Total Split (s) | | 58.7 | | 16.3 | 75.0 | | | | | 50.0 | | 50.0 |
| Total Split (%) | | 47.0% | | 13.0% | 60.0% | | | | | 40.0% | | 40.0% |
| 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 | | Lag | | Lead | | | | | | | | |
| Lead-Lag Optimize? | | Yes | | Yes | | | | | | | | |
| Recall Mode | | C-Min | | None | C-Min | | | | | None | | None |
| Act Effct Green (s) | | 62.2 | 100.6 | 12.4 | 80.6 | | | | | 32.4 | | 32.4 |
| Actuated g/C Ratio | | 0.50 | 0.80 | 0.10 | 0.64 | | | | | 0.26 | | 0.26 |

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| v/c Ratio | | 0.29 | 0.16 | 0.65 | 0.38 | | | | | 0.67 | | 0.70 |
| Control Delay (s/veh) | | 7.2 | 1.1 | 59.6 | 10.6 | | | | | 44.6 | | 38.5 |
| Queue Delay | | 0.0 | 0.0 | 0.0 | 0.0 | | | | | 0.0 | | 0.0 |
| Total Delay (s/veh) | | 7.2 | 1.1 | 59.6 | 10.6 | | | | | 44.6 | | 38.5 |
| LOS | | A | A | E | B | | | | | D | | D |
| Approach Delay (s/veh) | | 6.3 | | | 17.3 | | | | | | 42.5 | |
| Approach LOS | | A | | | B | | | | | | D | |
| Queue Length 50th (ft) | | 44 | 0 | 80 | 76 | | | | | 229 | | 186 |
| Queue Length 95th (ft) | | 54 | 0 | #151 | 238 | | | | | 254 | | 260 |
| Internal Link Dist (ft) | | 523 | | | 537 | | | 593 | | | 756 | |
| Turn Bay Length (ft) | | | 155 | | | | | | | 180 | | |
| Base Capacity (vph) | | 3753 | 1397 | 317 | 3417 | | | | | 1208 | | 592 |
| Starvation Cap Reductn | | 0 | 0 | 0 | 0 | | | | | 0 | | 0 |
| Spillback Cap Reductn | | 0 | 0 | 0 | 0 | | | | | 0 | | 0 |
| Storage Cap Reductn | | 0 | 0 | 0 | 0 | | | | | 0 | | 0 |
| Reduced v/c Ratio | | 0.29 | 0.14 | 0.65 | 0.38 | | | | | 0.49 | | 0.54 |

| Intersection Summary | | | |
|---|---|---|---|
| Area Type: | Other | | |
| Cycle Length: 125 | | | |
| Actuated Cycle Length: 125 | | | |
| Offset: 18.8 (15%), Referenced to phase 2:EBT and 6:WBT, Start of Green | | | |
| Natural Cycle: 50 | | | |
| Control Type: Actuated-Coordinated | | | |
| Maximum v/c Ratio: 0.70 | | | |
| Intersection Signal Delay (s/veh): 19.7 | | Intersection LOS: B | |
| Intersection Capacity Utilization 62.1% | | ICU Level of Service B | |
| Analysis Period (min) 15 | | | |
| # 95th percentile volume exceeds capacity, queue may be longer. | | | |
| Queue shown is maximum after two cycles. | | | |

Splits and Phases: 3: I-355 SB Ramps & Butterfield Road



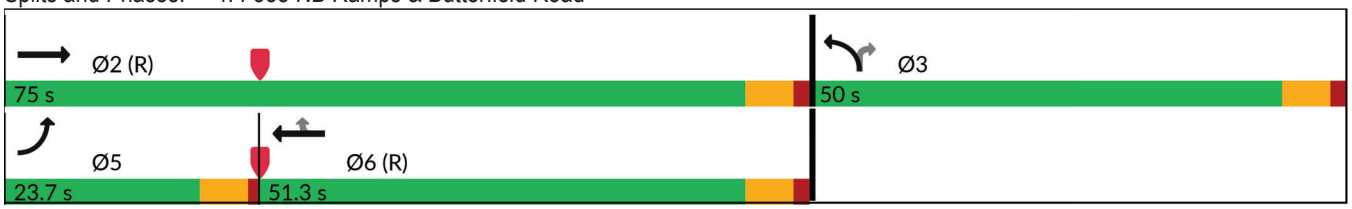


| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 80 | 1520 | 0 | 0 | 1064 | 239 | 356 | 0 | 692 | 0 | 0 | 0 |
| Future Volume (vph) | 80 | 1520 | 0 | 0 | 1064 | 239 | 356 | 0 | 692 | 0 | 0 | 0 |
| Ideal Flow (vphpl) | 1900 | 2000 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Width (ft) | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 |
| Grade (%) | | 0% | | | 0% | | | 0% | | | 0% | |
| Storage Length (ft) | 0 | | 0 | 150 | | 0 | 370 | | 0 | 0 | | 0 |
| Storage Lanes | 2 | | 0 | 2 | | 1 | 2 | | 2 | 0 | | 0 |
| Taper Length (ft) | 25 | | | 300 | | | 180 | | | 25 | | |
| Lane Util. Factor | 0.97 | 0.91 | 1.00 | 1.00 | 0.81 | 1.00 | 0.97 | 1.00 | 0.88 | 1.00 | 1.00 | 1.00 |
| Ped Bike Factor | | | | | | | | | | | | |
| Frt | | | | | | 0.850 | | | 0.850 | | | |
| Flt Protected | 0.950 | | | | | | 0.950 | | | | | |
| Satd. Flow (prot) | 3303 | 5406 | 0 | 0 | 7399 | 1524 | 3335 | 0 | 2787 | 0 | 0 | 0 |
| Flt Permitted | 0.950 | | | | | | 0.950 | | | | | |
| Satd. Flow (perm) | 3303 | 5406 | 0 | 0 | 7399 | 1524 | 3335 | 0 | 2787 | 0 | 0 | 0 |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Satd. Flow (RTOR) | | | | | | 257 | | | 74 | | | |
| Link Speed (mph) | | 45 | | | 45 | | | 30 | | | 30 | |
| Link Distance (ft) | | 617 | | | 559 | | | 683 | | | 840 | |
| Travel Time (s) | | 9.3 | | | 8.5 | | | 15.5 | | | 19.1 | |
| Confl. Peds. (#/hr) | | | | | | | | | | | | |
| Confl. Bikes (#/hr) | | | | | | | | | | | | |
| Peak Hour Factor | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 |
| Growth Factor | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% |
| Heavy Vehicles (%) | 6% | 1% | 0% | 0% | 4% | 6% | 5% | 0% | 2% | 0% | 0% | 0% |
| Bus Blockages (#/hr) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Parking (#/hr) | | | | | | | | | | | | |
| Mid-Block Traffic (%) | | 0% | | | 0% | | | 0% | | | 0% | |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 86 | 1634 | 0 | 0 | 1144 | 257 | 383 | 0 | 744 | 0 | 0 | 0 |
| Turn Type | Prot | NA | | | NA | Perm | Prot | | Perm | | | |
| Protected Phases | 5 | 2 | | | 6 | | 3 | | | | | |
| Permitted Phases | | | | | | 6 | | | 3 | | | |
| Detector Phase | 5 | 2 | | | 6 | 6 | 3 | | 3 | | | |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 3.0 | 15.0 | | | 15.0 | 15.0 | 8.0 | | 8.0 | | | |
| Minimum Split (s) | 8.5 | 22.0 | | | 22.0 | 22.0 | 14.0 | | 14.0 | | | |
| Total Split (s) | 23.7 | 75.0 | | | 51.3 | 51.3 | 50.0 | | 50.0 | | | |
| Total Split (%) | 19.0% | 60.0% | | | 41.0% | 41.0% | 40.0% | | 40.0% | | | |
| Yellow Time (s) | 4.5 | 4.5 | | | 4.5 | 4.5 | 4.5 | | 4.5 | | | |
| All-Red Time (s) | 1.0 | 1.5 | | | 1.5 | 1.5 | 1.5 | | 1.5 | | | |
| Lost Time Adjust (s) | 0.0 | 0.0 | | | 0.0 | 0.0 | 0.0 | | 0.0 | | | |
| Total Lost Time (s) | 5.5 | 6.0 | | | 6.0 | 6.0 | 6.0 | | 6.0 | | | |
| Lead/Lag | Lead | | | | Lag | Lag | | | | | | |
| Lead-Lag Optimize? | Yes | | | | Yes | Yes | | | | | | |
| Recall Mode | None | C-Min | | | C-Min | C-Min | None | | None | | | |
| Act Effct Green (s) | 8.6 | 74.3 | | | 60.1 | 60.1 | 38.7 | | 38.7 | | | |
| Actuated g/C Ratio | 0.07 | 0.59 | | | 0.48 | 0.48 | 0.31 | | 0.31 | | | |

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| v/c Ratio | 0.38 | 0.51 | | | 0.32 | 0.30 | 0.37 | | 0.81 | | | |
| Control Delay (s/veh) | 60.1 | 12.1 | | | 17.2 | 7.0 | 34.0 | | 43.1 | | | |
| Queue Delay | 0.0 | 0.2 | | | 0.0 | 0.0 | 0.0 | | 0.0 | | | |
| Total Delay (s/veh) | 60.1 | 12.3 | | | 17.2 | 7.0 | 34.0 | | 43.1 | | | |
| LOS | E | B | | | B | A | C | | D | | | |
| Approach Delay (s/veh) | | 14.6 | | | 15.3 | | | 40.0 | | | | |
| Approach LOS | | B | | | B | | | D | | | | |
| Queue Length 50th (ft) | 34 | 280 | | | 165 | 77 | 127 | | 287 | | | |
| Queue Length 95th (ft) | 45 | 419 | | | 216 | 134 | 164 | | 355 | | | |
| Internal Link Dist (ft) | | 537 | | | 479 | | | 603 | | | 760 | |
| Turn Bay Length (ft) | | | | | | | 370 | | | | | |
| Base Capacity (vph) | 480 | 3212 | | | 3559 | 866 | 1173 | | 1028 | | | |
| Starvation Cap Reductn | 0 | 567 | | | 0 | 0 | 0 | | 0 | | | |
| Spillback Cap Reductn | 0 | 15 | | | 0 | 0 | 0 | | 0 | | | |
| Storage Cap Reductn | 0 | 0 | | | 0 | 0 | 0 | | 0 | | | |
| Reduced v/c Ratio | 0.18 | 0.62 | | | 0.32 | 0.30 | 0.33 | | 0.72 | | | |

| Intersection Summary | | | |
|---|---|---|---|
| Area Type: | Other | | |
| Cycle Length: 125 | | | |
| Actuated Cycle Length: 125 | | | |
| Offset: 54 (43%), Referenced to phase 2:EBT and 6:WBT, Start of Green | | | |
| Natural Cycle: 50 | | | |
| Control Type: Actuated-Coordinated | | | |
| Maximum v/c Ratio: 0.81 | | | |
| Intersection Signal Delay (s/veh): 21.6 | | Intersection LOS: C | |
| Intersection Capacity Utilization 62.1% | | ICU Level of Service B | |
| Analysis Period (min) 15 | | | |

Splits and Phases: 4: I-355 NB Ramps & Butterfield Road





| Lane Group | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (vph) | 39 | 18 | 9 | 49 | 649 | 453 |
| Future Volume (vph) | 39 | 18 | 9 | 49 | 649 | 453 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 2000 | 2000 | 1900 |
| Lane Width (ft) | 12 | 12 | 12 | 12 | 12 | 12 |
| Grade (%) | 0% | | | 0% | 0% | |
| Storage Length (ft) | 160 | 0 | 125 | | | 115 |
| Storage Lanes | 2 | 1 | 1 | | | 0 |
| Taper Length (ft) | 100 | | 90 | | | |
| Lane Util. Factor | 0.97 | 1.00 | 1.00 | 0.95 | 0.95 | 0.88 |
| Ped Bike Factor | | | | | | |
| Frt | | 0.850 | | | | 0.850 |
| Flt Protected | 0.950 | | 0.950 | | | |
| Satd. Flow (prot) | 3335 | 1615 | 1805 | 3800 | 3800 | 2814 |
| Flt Permitted | 0.950 | | 0.364 | | | |
| Satd. Flow (perm) | 3335 | 1615 | 692 | 3800 | 3800 | 2814 |
| Right Turn on Red | | Yes | | | | Yes |
| Satd. Flow (RTOR) | | 20 | | | | 498 |
| Link Speed (mph) | 30 | | | 35 | 35 | |
| Link Distance (ft) | 556 | | | 645 | 290 | |
| Travel Time (s) | 12.6 | | | 12.6 | 5.6 | |
| Confl. Peds. (#/hr) | | | | | | |
| Confl. Bikes (#/hr) | | | | | | |
| Peak Hour Factor | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 |
| Growth Factor | 100% | 100% | 100% | 100% | 100% | 100% |
| Heavy Vehicles (%) | 5% | 0% | 0% | 0% | 0% | 1% |
| Bus Blockages (#/hr) | 0 | 0 | 0 | 0 | 0 | 0 |
| Parking (#/hr) | | | | | | |
| Mid-Block Traffic (%) | 0% | | | 0% | 0% | |
| Shared Lane Traffic (%) | | | | | | |
| Lane Group Flow (vph) | 43 | 20 | 10 | 54 | 713 | 498 |
| Turn Type | Prot | Prot | pm+pt | NA | NA | pm+ov |
| Protected Phases | 4 | 4 | 5 | 2 | 6 | 4 |
| Permitted Phases | | | 2 | | | 6 |
| Detector Phase | 4 | 4 | 5 | 2 | 6 | 4 |
| Switch Phase | | | | | | |
| Minimum Initial (s) | 8.0 | 8.0 | 3.0 | 15.0 | 15.0 | 8.0 |
| Minimum Split (s) | 14.0 | 14.0 | 6.5 | 21.0 | 21.0 | 14.0 |
| Total Split (s) | 34.0 | 34.0 | 12.0 | 91.0 | 79.0 | 34.0 |
| Total Split (%) | 27.2% | 27.2% | 9.6% | 72.8% | 63.2% | 27.2% |
| Yellow Time (s) | 4.0 | 4.0 | 3.5 | 4.0 | 4.0 | 4.0 |
| All-Red Time (s) | 2.0 | 2.0 | 0.0 | 2.0 | 2.0 | 2.0 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Lost Time (s) | 6.0 | 6.0 | 3.5 | 6.0 | 6.0 | 6.0 |
| Lead/Lag | | | Lead | | Lag | |
| Lead-Lag Optimize? | | | Yes | | Yes | |
| Recall Mode | None | None | None | C-Min | C-Min | None |
| Act Effct Green (s) | 9.3 | 9.3 | 106.2 | 103.7 | 101.9 | 121.9 |
| Actuated g/C Ratio | 0.07 | 0.07 | 0.85 | 0.83 | 0.82 | 0.98 |

| Lane Group | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| v/c Ratio | 0.17 | 0.14 | 0.02 | 0.02 | 0.23 | 0.18 |
| Control Delay (s/veh) | 55.3 | 23.1 | 1.7 | 2.0 | 0.9 | 0.1 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.5 | 0.0 |
| Total Delay (s/veh) | 55.3 | 23.1 | 1.7 | 2.0 | 1.3 | 0.1 |
| LOS | E | C | A | A | A | A |
| Approach Delay (s/veh) | 45.1 | | | 1.9 | 0.8 | |
| Approach LOS | D | | | A | A | |
| Queue Length 50th (ft) | 18 | 0 | 1 | 3 | 12 | 0 |
| Queue Length 95th (ft) | 37 | 25 | 4 | 6 | m25 | m0 |
| Internal Link Dist (ft) | 476 | | | 565 | 210 | |
| Turn Bay Length (ft) | 160 | | 125 | | | 115 |
| Base Capacity (vph) | 747 | 377 | 663 | 3153 | 3097 | 2814 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 1814 | 514 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.06 | 0.05 | 0.02 | 0.02 | 0.56 | 0.22 |

| Intersection Summary | | | |
|---|---|---|---|
| Area Type: | Other | | |
| Cycle Length: 125 | | | |
| Actuated Cycle Length: 125 | | | |
| Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBT, Start of Green | | | |
| Natural Cycle: 45 | | | |
| Control Type: Actuated-Coordinated | | | |
| Maximum v/c Ratio: 0.23 | | | |
| Intersection Signal Delay (s/veh): 3.0 | | Intersection LOS: A | |
| Intersection Capacity Utilization 33.7% | | ICU Level of Service A | |
| Analysis Period (min) 15 | | | |

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

Splits and Phases: 6: Lacey Road & Woodcreek Drive

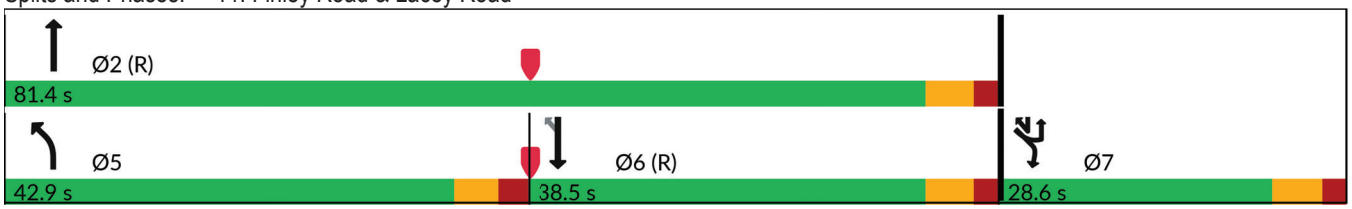


| Lane Group | NBL | NBT | SBT | SBR | SEL | SER |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (vph) | 547 | 744 | 551 | 199 | 11 | 107 |
| Future Volume (vph) | 547 | 744 | 551 | 199 | 11 | 107 |
| Ideal Flow (vphpl) | 1900 | 2000 | 2000 | 1900 | 1900 | 1900 |
| Lane Width (ft) | 12 | 12 | 12 | 12 | 12 | 12 |
| Grade (%) | | 0% | 0% | | 0% | |
| Storage Length (ft) | 305 | | | 400 | 0 | 205 |
| Storage Lanes | 2 | | | 1 | 1 | 1 |
| Taper Length (ft) | 230 | | | | 0 | |
| Lane Util. Factor | 0.97 | 0.95 | 0.95 | 1.00 | 1.00 | 0.88 |
| Ped Bike Factor | | | | | | |
| Frt | | | | 0.850 | | 0.850 |
| Flt Protected | 0.950 | | | | 0.950 | |
| Satd. Flow (prot) | 3467 | 3762 | 3689 | 1599 | 1656 | 2733 |
| Flt Permitted | 0.950 | | | | 0.950 | |
| Satd. Flow (perm) | 3467 | 3762 | 3689 | 1599 | 1656 | 2733 |
| Right Turn on Red | | | | Yes | | Yes |
| Satd. Flow (RTOR) | | | | 107 | | 115 |
| Link Speed (mph) | | 45 | 45 | | 35 | |
| Link Distance (ft) | | 681 | 1175 | | 1160 | |
| Travel Time (s) | | 10.3 | 17.8 | | 22.6 | |
| Confl. Peds. (#/hr) | | | | | | |
| Confl. Bikes (#/hr) | | | | | | |
| Peak Hour Factor | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 |
| Growth Factor | 100% | 100% | 100% | 100% | 100% | 100% |
| Heavy Vehicles (%) | 1% | 1% | 3% | 1% | 9% | 4% |
| Bus Blockages (#/hr) | 0 | 0 | 0 | 0 | 0 | 0 |
| Parking (#/hr) | | | | | | |
| Mid-Block Traffic (%) | | 0% | 0% | | 0% | |
| Shared Lane Traffic (%) | | | | | | |
| Lane Group Flow (vph) | 588 | 800 | 592 | 214 | 12 | 115 |
| Turn Type | Prot | NA | NA | pm+ov | Prot | Prot |
| Protected Phases | 5 | 2 | 6 | 7 | 7 | 7 |
| Permitted Phases | | | | 6 | | |
| Detector Phase | 5 | 2 | 6 | 7 | 7 | 7 |
| Switch Phase | | | | | | |
| Minimum Initial (s) | 4.0 | 15.0 | 15.0 | 8.0 | 8.0 | 8.0 |
| Minimum Split (s) | 10.0 | 21.0 | 21.0 | 14.0 | 14.0 | 14.0 |
| Total Split (s) | 42.9 | 81.4 | 38.5 | 28.6 | 28.6 | 28.6 |
| Total Split (%) | 39.0% | 74.0% | 35.0% | 26.0% | 26.0% | 26.0% |
| Yellow Time (s) | 3.5 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| All-Red Time (s) | 2.5 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Lost Time (s) | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 |
| Lead/Lag | Lead | | Lag | | | |
| Lead-Lag Optimize? | Yes | | Yes | | | |
| Recall Mode | None | C-Min | C-Min | None | None | None |
| Act Effct Green (s) | 24.3 | 89.5 | 59.2 | 73.7 | 8.5 | 8.5 |
| Actuated g/C Ratio | 0.22 | 0.81 | 0.54 | 0.67 | 0.08 | 0.08 |

| Lane Group | NBL | NBT | SBT | SBR | SEL | SER |
|---|---|---|---|---|---|---|
| v/c Ratio | 0.77 | 0.26 | 0.30 | 0.19 | 0.09 | 0.36 |
| Control Delay (s/veh) | 47.1 | 2.7 | 15.3 | 4.3 | 48.3 | 12.2 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay (s/veh) | 47.1 | 2.7 | 15.3 | 4.3 | 48.3 | 12.2 |
| LOS | D | A | B | A | D | B |
| Approach Delay (s/veh) | | 21.5 | 12.4 | | 15.6 | |
| Approach LOS | | C | B | | B | |
| Queue Length 50th (ft) | 204 | 52 | 116 | 24 | 9 | 0 |
| Queue Length 95th (ft) | 247 | 78 | 183 | 62 | 29 | 30 |
| Internal Link Dist (ft) | | 601 | 1095 | | 1080 | |
| Turn Bay Length (ft) | 305 | | | 400 | | 205 |
| Base Capacity (vph) | 1163 | 3060 | 1985 | 1298 | 340 | 652 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.51 | 0.26 | 0.30 | 0.16 | 0.04 | 0.18 |

| Intersection Summary | | | |
|---|---|---|---|
| Area Type: | Other | | |
| Cycle Length: 110 | | | |
| Actuated Cycle Length: 110 | | | |
| Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Green | | | |
| Natural Cycle: 50 | | | |
| Control Type: Actuated-Coordinated | | | |
| Maximum v/c Ratio: 0.77 | | | |
| Intersection Signal Delay (s/veh): 18.0 | | Intersection LOS: B | |
| Intersection Capacity Utilization 51.7% | | ICU Level of Service A | |
| Analysis Period (min) 15 | | | |

Splits and Phases: 11: Finley Road & Lacey Road



| Intersection | |
|---|---|
| Intersection Delay, s/veh | 10.4 |
| Intersection LOS | B |

| Movement | EBL | EBT | EBR | WB | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Vol, veh/h | 12 | 263 | 325 | 0 | 33 | 49 | 31 | 1 | 14 | 1 | 0 | 0 |
| Future Vol, veh/h | 12 | 263 | 325 | 0 | 33 | 49 | 31 | 1 | 14 | 1 | 0 | 0 |
| Peak Hour Factor | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 |
| Heavy Vehicles, % | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mvmt Flow | 13 | 277 | 342 | 0 | 35 | 52 | 33 | 1 | 15 | 1 | 0 | 0 |
| Number of Lanes | 0 | 2 | 0 | 0 | 0 | 2 | 0 | 1 | 1 | 0 | 0 | 0 |

| Approach | EB | WB | NB |
|---|---|---|---|
| Opposing Approach | WB | EB | |
| Opposing Lanes | 2 | 2 | 0 |
| Conflicting Approach Left | | NB | EB |
| Conflicting Lanes Left | 0 | 2 | 2 |
| Conflicting Approach Right | NB | | WB |
| Conflicting Lanes Right | 2 | 0 | 2 |
| HCM Control Delay, s/veh | 10.9 | 8.1 | 8.8 |
| HCM LOS | B | A | A |

| Lane | NBLn1 | NBLn2 | EBLn1 | EBLn2 | WBLn1 | WBLn2 |
|---|---|---|---|---|---|---|
| Vol Left, % | 100% | 0% | 8% | 0% | 57% | 0% |
| Vol Thru, % | 0% | 93% | 92% | 29% | 43% | 44% |
| Vol Right, % | 0% | 7% | 0% | 71% | 0% | 56% |
| Sign Control | Stop | Stop | Stop | Stop | Stop | Stop |
| Traffic Vol by Lane | 1 | 15 | 144 | 457 | 58 | 56 |
| LT Vol | 1 | 0 | 12 | 0 | 33 | 0 |
| Through Vol | 0 | 14 | 132 | 132 | 25 | 25 |
| RT Vol | 0 | 1 | 0 | 325 | 0 | 31 |
| Lane Flow Rate | 1 | 16 | 151 | 481 | 61 | 58 |
| Geometry Grp | 5 | 5 | 5 | 5 | 5 | 5 |
| Degree of til () | 0.002 | 0.026 | 0.194 | 0.546 | 0.089 | 0.075 |
| Departure Headway (Hd) | 6.526 | 5.975 | 4.63 | 4.089 | 5.31 | 4.629 |
| Convergence, /N | es | es | es | es | es | es |
| Cap | 551 | 602 | 770 | 875 | 678 | 778 |
| Service Time | 4.232 | 3.681 | 2.39 | 1.849 | 3.012 | 2.331 |
| HCM Lane V/C Ratio | 0.002 | 0.027 | 0.196 | 0.55 | 0.09 | 0.075 |
| HCM Control Delay, s/veh | 9.2 | 8.8 | 8.5 | 11.7 | 8.5 | 7.7 |
| HCM Lane LOS | A | A | A | B | A | A |
| HCM 95th-tile Q | 0 | 0.1 | 0.7 | 3.4 | 0.3 | 0.2 |

| Intersection | |
|---|---|
| Intersection Delay, s/veh | |
| Intersection LOS | |

| Movement | SBR |
|---|---|
| Lane Configurations | |
| Traffic Vol, veh/h | 0 |
| Future Vol, veh/h | 0 |
| Peak Hour Factor | 0.95 |
| Heavy Vehicles, % | 0 |
| Mvmt Flow | 0 |
| Number of Lanes | 0 |

| Approach | |
|---|---|
| Opposing Approach | |
| Opposing Lanes | |
| Conflicting Approach Left | |
| Conflicting Lanes Left | |
| Conflicting Approach Right | |
| Conflicting Lanes Right | |
| HCM Control Delay, s/veh | |
| HCM LOS | |

| Intersection | |
|---|---|
| Int Delay, s/veh | 1.7 |

| Movement | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 2 | 10 | 92 | 116 | 272 | 30 |
| Future Vol, veh/h | 2 | 10 | 92 | 116 | 272 | 30 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Free | Free | Free | Free |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | 45 | 0 | 80 | - | - | - |
| Veh in Median Storage, # | 1 | - | - | 0 | 0 | - |
| Grade, % | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 0 | 0 | 1 | 1 | 0 | 0 |
| Mvmt Flow | 2 | 11 | 100 | 126 | 296 | 33 |

| Major/Minor | Minor2 | | Major1 | | Major2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 575 | 164 | 328 | 0 | - | 0 |
| Stage 1 | 312 | - | - | - | - | - |
| Stage 2 | 263 | - | - | - | - | - |
| Critical Hdwy | 6.8 | 6.9 | 4.12 | - | - | - |
| Critical Hdwy Stg 1 | 5.8 | - | - | - | - | - |
| Critical Hdwy Stg 2 | 5.8 | - | - | - | - | - |
| Follow-up Hdwy | 3.5 | 3.3 | 2.21 | - | - | - |
| Pot Cap-1 Maneuver | 453 | 858 | 1235 | - | - | - |
| Stage 1 | 721 | - | - | - | - | - |
| Stage 2 | 763 | - | - | - | - | - |
| Platoon blocked, % | | | | - | - | - |
| Mov Cap-1 Maneuver | 417 | 858 | 1235 | - | - | - |
| Mov Cap-2 Maneuver | 512 | - | - | - | - | - |
| Stage 1 | 663 | - | - | - | - | - |
| Stage 2 | 763 | - | - | - | - | - |

| Approach | EB | NB | SB |
|---|---|---|---|
| HCM Ctrl Dly, s/v | 9.72 | 3.61 | 0 |
| HCM LOS | A | | |

| Minor Lane/Major Mvmt | NBL | NBT | EBLn1 | EBLn2 | SBT | SBR |
|---|---|---|---|---|---|---|
| Capacity (veh/h) | 1235 | - | 512 | 858 | - | - |
| HCM Lane V/C Ratio | 0.081 | - | 0.004 | 0.013 | - | - |
| HCM Ctrl Dly (s/v) | 8.2 | - | 12.1 | 9.3 | - | - |
| HCM Lane LOS | A | - | B | A | - | - |
| HCM 95th %tile Q(veh) | 0.3 | - | 0 | 0 | - | - |

| Intersection | |
|---|---|
| Int Delay, s/veh | 4.3 |

| Movement | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 30 | 70 | 272 | 178 | 215 | 67 |
| Future Vol, veh/h | 30 | 70 | 272 | 178 | 215 | 67 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Free | Free | Free | Free |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | 115 | 0 | 180 | - | - | - |
| Veh in Median Storage, # | 1 | - | - | 0 | 0 | - |
| Grade, % | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 0 | 3 | 0 | 0 | 0 | 0 |
| Mvmt Flow | 33 | 76 | 296 | 193 | 234 | 73 |

| Major/Minor | Minor2 | | Major1 | | Major2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 958 | 153 | 307 | 0 | - | 0 |
| Stage 1 | 270 | - | - | - | - | - |
| Stage 2 | 688 | - | - | - | - | - |
| Critical Hdwy | 6.8 | 6.96 | 4.1 | - | - | - |
| Critical Hdwy Stg 1 | 5.8 | - | - | - | - | - |
| Critical Hdwy Stg 2 | 5.8 | - | - | - | - | - |
| Follow-up Hdwy | 3.5 | 3.33 | 2.2 | - | - | - |
| Pot Cap-1 Maneuver | 259 | 862 | 1266 | - | - | - |
| Stage 1 | 757 | - | - | - | - | - |
| Stage 2 | 466 | - | - | - | - | - |
| Platoon blocked, % | | | | - | - | - |
| Mov Cap-1 Maneuver | 198 | 862 | 1266 | - | - | - |
| Mov Cap-2 Maneuver | 325 | - | - | - | - | - |
| Stage 1 | 580 | - | - | - | - | - |
| Stage 2 | 466 | - | - | - | - | - |

| Approach | EB | NB | SB |
|---|---|---|---|
| HCM Ctrl Dly, s/v | 11.9 | 5.26 | 0 |
| HCM LOS | B | | |

| Minor Lane/Major Mvmt | NBL | NBT | EBLn1 | EBLn2 | SBT | SBR |
|---|---|---|---|---|---|---|
| Capacity (veh/h) | 1266 | - | 325 | 862 | - | - |
| HCM Lane V/C Ratio | 0.234 | - | 0.1 | 0.088 | - | - |
| HCM Ctrl Dly (s/v) | 8.7 | - | 17.3 | 9.6 | - | - |
| HCM Lane LOS | A | - | C | A | - | - |
| HCM 95th %tile Q(veh) | 0.9 | - | 0.3 | 0.3 | - | - |

| Intersection | |
|---|---|
| Int Delay, s/veh | 0.2 |

| Movement | SET | SER | NWL | NWT | NEL | NER |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 197 | 6 | 3 | 76 | 3 | 0 |
| Future Vol, veh/h | 197 | 6 | 3 | 76 | 3 | 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 | 74 | 74 | 74 | 74 | 74 | 74 |
| Heavy Vehicles, % | 1 | 0 | 0 | 0 | 0 | 0 |
| Mvmt Flow | 266 | 8 | 4 | 103 | 4 | 0 |

| Major/Minor | Major1 | | Major2 | | Minor1 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 0 | 0 | 274 | 0 | 381 | 270 |
| Stage 1 | - | - | - | - | 270 | - |
| Stage 2 | - | - | - | - | 111 | - |
| 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 | - | - | 1300 | - | 625 | 773 |
| Stage 1 | - | - | - | - | 780 | - |
| Stage 2 | - | - | - | - | 919 | - |
| Platoon blocked, % | - | - | | - | | |
| Mov Cap-1 Maneuver | - | - | 1300 | - | 623 | 773 |
| Mov Cap-2 Maneuver | - | - | - | - | 623 | - |
| Stage 1 | - | - | - | - | 780 | - |
| Stage 2 | - | - | - | - | 916 | - |

| Approach | SE | NW | NE |
|---|---|---|---|
| HCM Ctrl Dly, s/v | 0 | 0.3 | 10.82 |
| HCM LOS | | | B |

| Minor Lane/Major Mvmt | NELn1 | NWL | NWT | SET | SER |
|---|---|---|---|---|---|
| Capacity (veh/h) | 623 | 68 | - | - | - |
| HCM Lane V/C Ratio | 0.007 | 0.003 | - | - | - |
| HCM Ctrl Dly (s/v) | 10.8 | 7.8 | 0 | - | - |
| HCM Lane LOS | B | A | A | - | - |
| HCM 95th %tile Q(veh) | 0 | 0 | - | - | - |

| Intersection | |
|---|---|
| Int Delay, s/veh | 5.2 |

| Movement | EBT | EBR | WBL | WBT | NBL | NBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 29 | 168 | 269 | 70 | 9 | 71 |
| Future Vol, veh/h | 29 | 168 | 269 | 70 | 9 | 71 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | 90 | - | 0 | 0 |
| Veh in Median Storage, # | 0 | - | - | 0 | 0 | - |
| Grade, % | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 79 | 79 | 79 | 79 | 79 | 79 |
| Heavy Vehicles, % | 7 | 0 | 0 | 0 | 0 | 0 |
| Mvmt Flow | 37 | 213 | 341 | 89 | 11 | 90 |

| Major/Minor | Major1 | | Major2 | | Minor1 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 0 | 0 | 249 | 0 | 913 | 143 |
| Stage 1 | - | - | - | - | 143 | - |
| Stage 2 | - | - | - | - | 770 | - |
| 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 | - | - | 1328 | - | 306 | 910 |
| Stage 1 | - | - | - | - | 889 | - |
| Stage 2 | - | - | - | - | 461 | - |
| Platoon blocked, % | - | - | | - | | |
| Mov Cap-1 Maneuver | - | - | 1328 | - | 228 | 910 |
| Mov Cap-2 Maneuver | - | - | - | - | 228 | - |
| Stage 1 | - | - | - | - | 889 | - |
| Stage 2 | - | - | - | - | 342 | - |

| Approach | EB | WB | NB |
|---|---|---|---|
| HCM Ctrl Dly, s/v | 0 | 6.86 | 10.77 |
| HCM LOS | | | B |

| Minor Lane/Major Mvmt | NBLn1 | NBLn2 | EBT | EBR | WBL | WBT |
|---|---|---|---|---|---|---|
| Capacity (veh/h) | 228 | 910 | - | - | 1328 | - |
| HCM Lane V/C Ratio | 0.05 | 0.099 | - | - | 0.256 | - |
| HCM Ctrl Dly (s/v) | 21.6 | 9.4 | - | - | 8.6 | - |
| HCM Lane LOS | C | A | - | - | A | - |
| HCM 95th %tile Q(veh) | 0.2 | 0.3 | - | - | 1 | - |

# Capacity Analysis Summary Sheets

Existing Weekday Evening Peak Hour

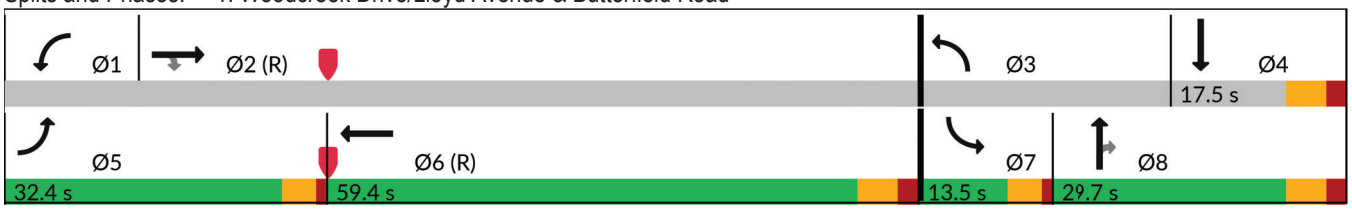


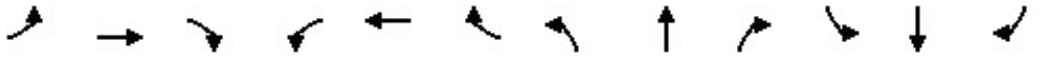
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 48 | 983 | 65 | 120 | 1260 | 90 | 178 | 39 | 150 | 56 | 20 | 72 |
| Future Volume (vph) | 48 | 983 | 65 | 120 | 1260 | 90 | 178 | 39 | 150 | 56 | 20 | 72 |
| Ideal Flow (vphpl) | 1900 | 2000 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Width (ft) | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 |
| Grade (%) | | 0% | | | 0% | | | 0% | | | 0% | |
| Storage Length (ft) | 265 | | 465 | 0 | | 0 | 118 | | 0 | 120 | | 0 |
| Storage Lanes | 1 | | 2 | 2 | | 0 | 1 | | 1 | 1 | | 0 |
| Taper Length (ft) | 85 | | | 25 | | | 45 | | | 85 | | |
| Lane Util. Factor | 1.00 | 0.91 | 0.88 | 0.97 | 0.91 | 0.91 | 0.97 | 0.95 | 0.95 | 1.00 | 1.00 | 1.00 |
| Ped Bike Factor | | | | | | | | | | | | |
| Frt | | | 0.850 | | 0.990 | | | 0.910 | 0.850 | | 0.882 | |
| Flt Protected | 0.950 | | | 0.950 | | | 0.950 | | | 0.950 | | |
| Satd. Flow (prot) | 1736 | 5406 | 2787 | 3467 | 5135 | 0 | 3467 | 1633 | 1519 | 1805 | 1663 | 0 |
| Flt Permitted | 0.950 | | | 0.950 | | | 0.950 | | | 0.950 | | |
| Satd. Flow (perm) | 1736 | 5406 | 2787 | 3467 | 5135 | 0 | 3467 | 1633 | 1519 | 1805 | 1663 | 0 |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Satd. Flow (RTOR) | | | 133 | | 10 | | | 49 | 133 | | 76 | |
| Link Speed (mph) | | 45 | | | 45 | | | 30 | | | 30 | |
| Link Distance (ft) | | 2017 | | | 601 | | | 290 | | | 452 | |
| Travel Time (s) | | 30.6 | | | 9.1 | | | 6.6 | | | 10.3 | |
| Confl. Peds. (#/hr) | | | | | | | | | | | | |
| Confl. Bikes (#/hr) | | | | | | | | | | | | |
| Peak Hour Factor | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 |
| Growth Factor | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% |
| Heavy Vehicles (%) | 4% | 1% | 2% | 1% | 0% | 0% | 1% | 0% | 1% | 0% | 0% | 1% |
| Bus Blockages (#/hr) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Parking (#/hr) | | | | | | | | | | | | |
| Mid-Block Traffic (%) | | 0% | | | 0% | | | 0% | | | 0% | |
| Shared Lane Traffic (%) | | | | | | | | | 39% | | | |
| Lane Group Flow (vph) | 51 | 1035 | 68 | 126 | 1421 | 0 | 187 | 103 | 96 | 59 | 97 | 0 |
| Turn Type | Prot | NA | Perm | Prot | NA | | Prot | NA | Perm | Prot | NA | |
| Protected Phases | 5 | 2 | | 1 | 6 | | 3 | 8 | | 7 | 4 | |
| Permitted Phases | | | 2 | | | | | | 8 | | | |
| Detector Phase | 5 | 2 | 2 | 1 | 6 | | 3 | 8 | 8 | 7 | 4 | |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 3.0 | 15.0 | 15.0 | 3.0 | 15.0 | | 3.0 | 8.0 | 8.0 | 3.0 | 8.0 | |
| Minimum Split (s) | 7.5 | 21.0 | 21.0 | 7.5 | 21.0 | | 7.5 | 14.0 | 14.0 | 7.5 | 14.0 | |
| Total Split (s) | 32.4 | 78.3 | 78.3 | 13.5 | 59.4 | | 25.6 | 29.7 | 29.7 | 13.5 | 17.5 | |
| Total Split (%) | 24.0% | 58.0% | 58.0% | 10.0% | 44.0% | | 19.0% | 22.0% | 22.0% | 10.0% | 13.0% | |
| Yellow Time (s) | 3.5 | 4.0 | 4.0 | 3.5 | 4.0 | | 3.5 | 4.0 | 4.0 | 3.5 | 4.0 | |
| All-Red Time (s) | 1.0 | 2.0 | 2.0 | 1.0 | 2.0 | | 1.0 | 2.0 | 2.0 | 1.0 | 2.0 | |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | |
| Total Lost Time (s) | 4.5 | 6.0 | 6.0 | 4.5 | 6.0 | | 4.5 | 6.0 | 6.0 | 4.5 | 6.0 | |
| Lead/Lag | Lead | Lag | Lag | Lead | Lag | | Lead | Lag | Lag | Lead | Lag | |
| Lead-Lag Optimize? | Yes | Yes | Yes | Yes | Yes | | Yes | Yes | Yes | Yes | Yes | |
| Recall Mode | None | C-Min | C-Min | None | C-Min | | None | None | None | None | None | |
| Act Effct Green (s) | 9.4 | 81.7 | 81.7 | 10.0 | 84.5 | | 12.6 | 16.1 | 16.1 | 8.2 | 9.6 | |
| Actuated g/C Ratio | 0.07 | 0.61 | 0.61 | 0.07 | 0.63 | | 0.09 | 0.12 | 0.12 | 0.06 | 0.07 | |

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| v/c Ratio | 0.43 | 0.32 | 0.04 | 0.49 | 0.44 | | 0.58 | 0.43 | 0.32 | 0.54 | 0.51 | |
| Control Delay (s/veh) | 70.1 | 14.0 | 0.0 | 82.2 | 5.7 | | 40.4 | 21.0 | 11.9 | 79.2 | 28.4 | |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | |
| Total Delay (s/veh) | 70.1 | 14.0 | 0.0 | 82.2 | 5.7 | | 40.4 | 21.0 | 11.9 | 79.2 | 28.4 | |
| LOS | E | B | A | F | A | | D | C | B | E | C | |
| Approach Delay (s/veh) | | 15.7 | | | 11.9 | | | 28.1 | | | 47.6 | |
| Approach LOS | | B | | | B | | | C | | | D | |
| Queue Length 50th (ft) | 45 | 151 | 0 | 61 | 43 | | 80 | 49 | 23 | 51 | 18 | |
| Queue Length 95th (ft) | 89 | 218 | 0 | 96 | 72 | | 119 | 98 | 69 | 100 | 74 | |
| Internal Link Dist (ft) | | 1937 | | | 521 | | | 210 | | | 372 | |
| Turn Bay Length (ft) | 265 | | 465 | | | | 118 | | | 120 | | |
| Base Capacity (vph) | 358 | 3273 | 1739 | 265 | 3217 | | 541 | 327 | 376 | 120 | 216 | |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 75 | | 0 | 0 | 0 | 0 | 0 | |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | |
| Reduced v/c Ratio | 0.14 | 0.32 | 0.04 | 0.48 | 0.45 | | 0.35 | 0.31 | 0.26 | 0.49 | 0.45 | |

| Intersection Summary | | | |
|---|---|---|---|
| Area Type: | Other | | |
| Cycle Length: 135 | | | |
| Actuated Cycle Length: 135 | | | |
| Offset: 116.1 (86%), Referenced to phase 2:EBT and 6:WBT, Start of Green | | | |
| Natural Cycle: 60 | | | |
| Control Type: Actuated-Coordinated | | | |
| Maximum v/c Ratio: 0.58 | | | |
| Intersection Signal Delay (s/veh): 16.9 | | Intersection LOS: B | |
| Intersection Capacity Utilization 55.2% | | ICU Level of Service B | |
| Analysis Period (min) 15 | | | |

Splits and Phases: 1: Woodcreek Drive/Lloyd Avenue & Butterfield Road





| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 68 | 1121 | 0 | 0 | 1414 | 127 | 0 | 0 | 487 | 114 | 0 | 56 |
| Future Volume (vph) | 68 | 1121 | 0 | 0 | 1414 | 127 | 0 | 0 | 487 | 114 | 0 | 56 |
| Ideal Flow (vphpl) | 1900 | 2000 | 1900 | 1900 | 2000 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Width (ft) | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 |
| Grade (%) | | 0% | | | 0% | | | 0% | | | 0% | |
| Storage Length (ft) | 230 | | 0 | 60 | | 175 | 0 | | 0 | 0 | | 100 |
| Storage Lanes | 1 | | 0 | 2 | | 1 | 0 | | 2 | 2 | | 1 |
| Taper Length (ft) | 210 | | | 300 | | | 25 | | | 25 | | |
| Lane Util. Factor | 1.00 | 0.91 | 1.00 | 1.00 | 0.81 | 1.00 | 1.00 | 1.00 | *1.00 | 0.97 | 1.00 | 1.00 |
| Ped Bike Factor | | | | | | | | | | | | |
| Frt | | | | | | 0.850 | | | 0.850 | | | 0.850 |
| Flt Protected | 0.950 | | | | | | | | | 0.950 | | |
| Satd. Flow (prot) | 1805 | 5406 | 0 | 0 | 8020 | 1583 | 0 | 0 | 3230 | 3335 | 0 | 1615 |
| Flt Permitted | 0.950 | | | | | | | | | 0.950 | | |
| Satd. Flow (perm) | 1805 | 5406 | 0 | 0 | 8020 | 1583 | 0 | 0 | 3230 | 3335 | 0 | 1615 |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Satd. Flow (RTOR) | | | | | | 138 | | | *330 | | | 61 |
| Link Speed (mph) | | 45 | | | 45 | | | 30 | | | 30 | |
| Link Distance (ft) | | 601 | | | 603 | | | 352 | | | 378 | |
| Travel Time (s) | | 9.1 | | | 9.1 | | | 8.0 | | | 8.6 | |
| Confl. Peds. (#/hr) | | | | | | | | | | | | |
| Confl. Bikes (#/hr) | | | | | | | | | | | | |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Growth Factor | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% |
| Heavy Vehicles (%) | 0% | 1% | 0% | 0% | 1% | 2% | 0% | 0% | 0% | 5% | 0% | 0% |
| Bus Blockages (#/hr) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Parking (#/hr) | | | | | | | | | | | | |
| Mid-Block Traffic (%) | | 0% | | | 0% | | | 0% | | | 0% | |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 74 | 1218 | 0 | 0 | 1537 | 138 | 0 | 0 | 529 | 124 | 0 | 61 |
| Turn Type | Prot | NA | | | NA | custom | | | Prot | Prot | | custom |
| Protected Phases | 5 | 2 | | | 6 | 7 8 | | | 8 | 7 | | 7 8 |
| Permitted Phases | | | | | | 6 | | | 8 | 7 | | |
| Detector Phase | 5 | 2 | | | 6 | 7 8 | | | 8 | 7 | | 7 8 |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 3.0 | 15.0 | | | 15.0 | | | | 8.0 | 8.0 | | |
| Minimum Split (s) | 7.5 | 21.0 | | | 21.0 | | | | 14.0 | 14.0 | | |
| Total Split (s) | 16.2 | 95.8 | | | 79.6 | | | | 18.9 | 20.3 | | |
| Total Split (%) | 12.0% | 71.0% | | | 59.0% | | | | 14.0% | 15.0% | | |
| Yellow Time (s) | 3.5 | 4.0 | | | 4.0 | | | | 4.0 | 4.0 | | |
| All-Red Time (s) | 1.0 | 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) | 4.5 | 6.0 | | | 6.0 | | | | 6.0 | 6.0 | | |
| Lead/Lag | Lead | | | | Lag | | | | Lead | Lag | | |
| Lead-Lag Optimize? | Yes | | | | Yes | | | | Yes | Yes | | |
| Recall Mode | None | C-Min | | | C-Min | | | | None | None | | |
| Act Effct Green (s) | 10.2 | 93.5 | | | 81.0 | 117.7 | | | 12.2 | 11.3 | | 29.5 |
| Actuated g/C Ratio | 0.08 | 0.69 | | | 0.60 | 0.87 | | | 0.09 | 0.08 | | 0.22 |

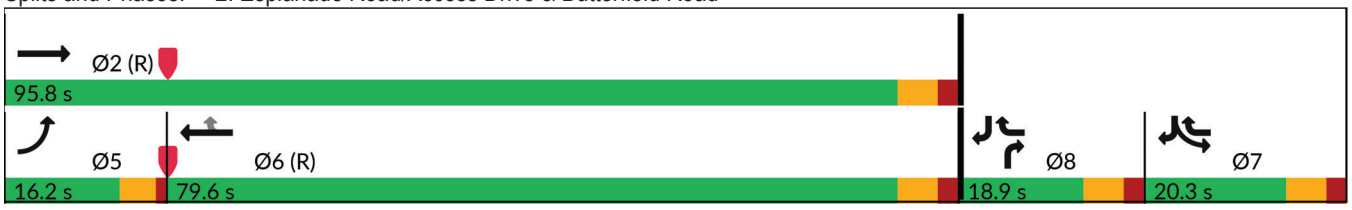
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| v/c Ratio | 0.54 | 0.33 | | | 0.32 | 0.10 | | | 0.89 | 0.44 | | 0.15 |
| Control Delay (s/veh) | 101.6 | 4.3 | | | 7.2 | 0.8 | | | 40.9 | 63.5 | | 10.4 |
| Queue Delay | 0.0 | 0.0 | | | 0.0 | 0.0 | | | 0.0 | 0.0 | | 0.0 |
| Total Delay (s/veh) | 101.6 | 4.3 | | | 7.2 | 0.8 | | | 40.9 | 63.5 | | 10.4 |
| LOS | F | A | | | A | A | | | D | E | | B |
| Approach Delay (s/veh) | | 9.9 | | | 6.7 | | | 40.9 | | | 46.0 | |
| Approach LOS | | A | | | A | | | D | | | D | |
| Queue Length 50th (ft) | 69 | 60 | | | 127 | 8 | | | 87 | 56 | | 0 |
| Queue Length 95th (ft) | 124 | 71 | | | 147 | 2 | | | #178 | 89 | | 36 |
| Internal Link Dist (ft) | | 521 | | | 523 | | | 272 | | | 298 | |
| Turn Bay Length (ft) | 230 | | | | | 175 | | | | | | 100 |
| Base Capacity (vph) | 158 | 3742 | | | 4812 | 1412 | | | 607 | 353 | | 429 |
| Starvation Cap Reductn | 0 | 0 | | | 0 | 0 | | | 0 | 0 | | 0 |
| Spillback Cap Reductn | 0 | 0 | | | 0 | 0 | | | 0 | 0 | | 0 |
| Storage Cap Reductn | 0 | 0 | | | 0 | 0 | | | 0 | 0 | | 0 |
| Reduced v/c Ratio | 0.47 | 0.33 | | | 0.32 | 0.10 | | | 0.87 | 0.35 | | 0.14 |

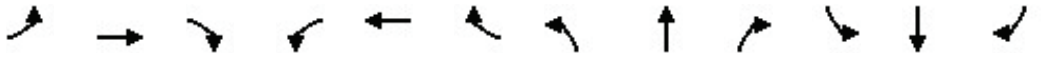
| Intersection Summary | | | |
|---|---|---|---|
| Area Type: | Other | | |
| Cycle Length: 135 | | | |
| Actuated Cycle Length: 135 | | | |
| Offset: 104 (77%), Referenced to phase 2:EBT and 6:WBT, Start of Green | | | |
| Natural Cycle: 60 | | | |
| Control Type: Actuated-Coordinated | | | |
| Maximum v/c Ratio: 0.89 | | | |
| Intersection Signal Delay (s/veh): 14.7 | | Intersection LOS: B | |
| Intersection Capacity Utilization 54.3% | | ICU Level of Service A | |
| Analysis Period (min) 15 | | | |

* User Entered Value

\# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 2: Esplanade Road/Access Drive & Butterfield Road





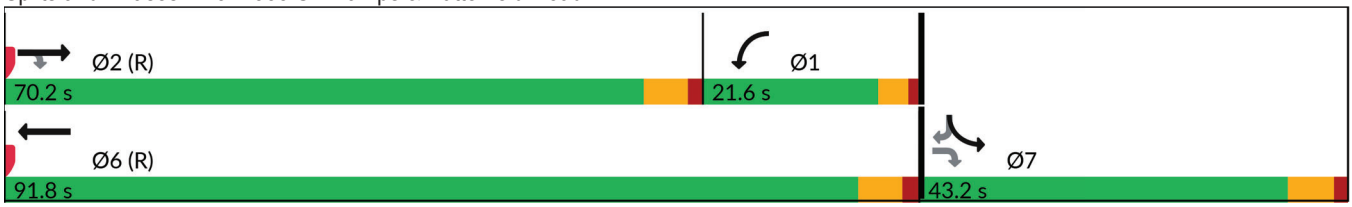
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 0 | 1322 | 400 | 267 | 1393 | 0 | 0 | 0 | 0 | 272 | 0 | 148 |
| Future Volume (vph) | 0 | 1322 | 400 | 267 | 1393 | 0 | 0 | 0 | 0 | 272 | 0 | 148 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 2000 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Width (ft) | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 |
| Grade (%) | | 0% | | | 0% | | | 0% | | | 0% | |
| Storage Length (ft) | 150 | | 155 | 0 | | 0 | 0 | | 0 | 180 | | 0 |
| Storage Lanes | 2 | | 1 | 2 | | 0 | 0 | | 0 | 2 | | 1 |
| Taper Length (ft) | 300 | | | 25 | | | 25 | | | 215 | | |
| Lane Util. Factor | 1.00 | 0.81 | 1.00 | 0.97 | 0.91 | 1.00 | 1.00 | 1.00 | 1.00 | 0.97 | 1.00 | 1.00 |
| Ped Bike Factor | | | | | | | | | | | | |
| Frt | | | 0.850 | | | | | | | | | 0.850 |
| Flt Protected | | | | 0.950 | | | | | | 0.950 | | |
| Satd. Flow (prot) | 0 | 7619 | 1599 | 3433 | 5460 | 0 | 0 | 0 | 0 | 3467 | 0 | 1583 |
| Flt Permitted | | | | 0.950 | | | | | | 0.950 | | |
| Satd. Flow (perm) | 0 | 7619 | 1599 | 3433 | 5460 | 0 | 0 | 0 | 0 | 3467 | 0 | 1583 |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Satd. Flow (RTOR) | | | 65 | | | | | | | | | 73 |
| Link Speed (mph) | | 45 | | | 45 | | | 30 | | | 30 | |
| Link Distance (ft) | | 603 | | | 618 | | | 665 | | | 844 | |
| Travel Time (s) | | 9.1 | | | 9.4 | | | 15.1 | | | 19.2 | |
| Confl. Peds. (#/hr) | | | | | | | | | | | | |
| Confl. Bikes (#/hr) | | | | | | | | | | | | |
| Peak Hour Factor | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 |
| Growth Factor | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% |
| Heavy Vehicles (%) | 0% | 1% | 1% | 2% | 0% | 0% | 0% | 0% | 0% | 1% | 0% | 2% |
| Bus Blockages (#/hr) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Parking (#/hr) | | | | | | | | | | | | |
| Mid-Block Traffic (%) | | 0% | | | 0% | | | 0% | | | 0% | |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 0 | 1363 | 412 | 275 | 1436 | 0 | 0 | 0 | 0 | 280 | 0 | 153 |
| Turn Type | | NA | custom | Prot | NA | | | | | Prot | | Perm |
| Protected Phases | | 2 | | 1 | 6 | | | | | 7 | | |
| Permitted Phases | | | 2 7 | | | | | | | | | 7 |
| Detector Phase | | 2 | 2 7 | 1 | 6 | | | | | 7 | | 7 |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | | 15.0 | | 3.0 | 15.0 | | | | | 8.0 | | 8.0 |
| Minimum Split (s) | | 21.0 | | 7.0 | 21.0 | | | | | 14.0 | | 14.0 |
| Total Split (s) | | 70.2 | | 21.6 | 91.8 | | | | | 43.2 | | 43.2 |
| Total Split (%) | | 52.0% | | 16.0% | 68.0% | | | | | 32.0% | | 32.0% |
| Yellow Time (s) | | 4.5 | | 3.0 | 4.5 | | | | | 4.5 | | 4.5 |
| All-Red Time (s) | | 1.5 | | 1.0 | 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 | | 4.0 | 6.0 | | | | | 6.0 | | 6.0 |
| Lead/Lag | | Lead | | Lag | | | | | | | | |
| Lead-Lag Optimize? | | Yes | | Yes | | | | | | | | |
| Recall Mode | | C-Min | | None | C-Min | | | | | None | | None |
| Act Effct Green (s) | | 81.9 | 107.4 | 17.6 | 103.5 | | | | | 19.5 | | 19.5 |
| Actuated g/C Ratio | | 0.61 | 0.80 | 0.13 | 0.77 | | | | | 0.14 | | 0.14 |

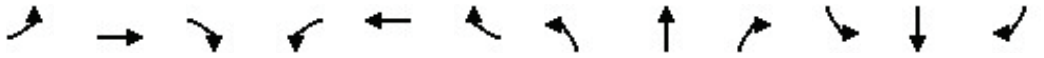
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| v/c Ratio | | 0.30 | 0.32 | 0.62 | 0.34 | | | | | 0.56 | | 0.53 |
| Control Delay (s/veh) | | 10.0 | 2.5 | 63.2 | 2.5 | | | | | 57.5 | | 33.5 |
| Queue Delay | | 0.0 | 0.2 | 0.0 | 0.1 | | | | | 0.0 | | 0.0 |
| Total Delay (s/veh) | | 10.0 | 2.7 | 63.2 | 2.6 | | | | | 57.5 | | 33.5 |
| LOS | | B | A | E | A | | | | | E | | C |
| Approach Delay (s/veh) | | 8.3 | | | 12.4 | | | | | | 49.0 | |
| Approach LOS | | A | | | B | | | | | | D | |
| Queue Length 50th (ft) | | 107 | 39 | 134 | 113 | | | | | 121 | | 65 |
| Queue Length 95th (ft) | | 127 | m49 | 182 | 121 | | | | | 158 | | 132 |
| Internal Link Dist (ft) | | 523 | | | 538 | | | 585 | | | 764 | |
| Turn Bay Length (ft) | | | 155 | | | | | | | 180 | | |
| Base Capacity (vph) | | 4619 | 1285 | 447 | 4184 | | | | | 955 | | 489 |
| Starvation Cap Reductn | | 0 | 317 | 0 | 1115 | | | | | 0 | | 0 |
| Spillback Cap Reductn | | 0 | 0 | 0 | 0 | | | | | 0 | | 0 |
| Storage Cap Reductn | | 0 | 0 | 0 | 0 | | | | | 0 | | 0 |
| Reduced v/c Ratio | | 0.30 | 0.43 | 0.62 | 0.47 | | | | | 0.29 | | 0.31 |

| Intersection Summary | | | |
|---|---|---|---|
| Area Type: | Other | | |
| Cycle Length: 135 | | | |
| Actuated Cycle Length: 135 | | | |
| Offset: 99.9 (74%), Referenced to phase 2:EBT and 6:WBT, Start of Green | | | |
| Natural Cycle: 45 | | | |
| Control Type: Actuated-Coordinated | | | |
| Maximum v/c Ratio: 0.62 | | | |
| Intersection Signal Delay (s/veh): 14.6 | | Intersection LOS: B | |
| Intersection Capacity Utilization 70.3% | | ICU Level of Service C | |
| Analysis Period (min) 15 | | | |

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

Splits and Phases: 3: I-355 SB Ramps & Butterfield Road



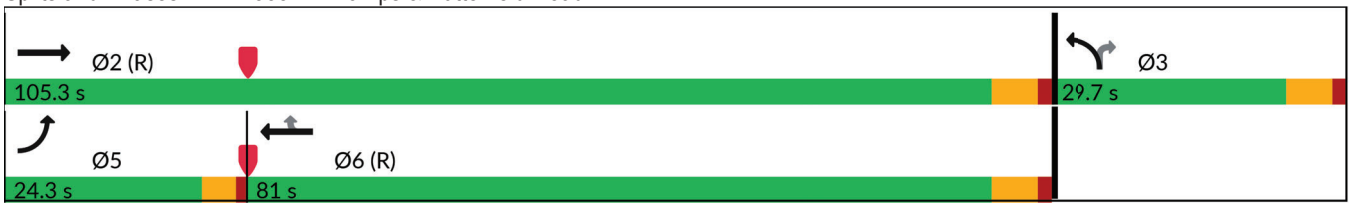


| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 241 | 1353 | 0 | 0 | 1503 | 695 | 157 | 0 | 306 | 0 | 0 | 0 |
| Future Volume (vph) | 241 | 1353 | 0 | 0 | 1503 | 695 | 157 | 0 | 306 | 0 | 0 | 0 |
| Ideal Flow (vphpl) | 1900 | 2000 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Width (ft) | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 |
| Grade (%) | | 0% | | | 0% | | | 0% | | | 0% | |
| Storage Length (ft) | 0 | | 0 | 150 | | 0 | 370 | | 0 | 0 | | 0 |
| Storage Lanes | 2 | | 0 | 2 | | 1 | 2 | | 2 | 0 | | 0 |
| Taper Length (ft) | 25 | | | 300 | | | 180 | | | 25 | | |
| Lane Util. Factor | 0.97 | 0.91 | 1.00 | 1.00 | 0.81 | 1.00 | 0.97 | 1.00 | 0.88 | 1.00 | 1.00 | 1.00 |
| Ped Bike Factor | | | | | | | | | | | | |
| Frt | | | | | | 0.850 | | | 0.850 | | | |
| Flt Protected | 0.950 | | | | | | 0.950 | | | | | |
| Satd. Flow (prot) | 3433 | 5406 | 0 | 0 | 7619 | 1583 | 3467 | 0 | 2707 | 0 | 0 | 0 |
| Flt Permitted | 0.950 | | | | | | 0.950 | | | | | |
| Satd. Flow (perm) | 3433 | 5406 | 0 | 0 | 7619 | 1583 | 3467 | 0 | 2707 | 0 | 0 | 0 |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Satd. Flow (RTOR) | | | | | | 644 | | | 146 | | | |
| Link Speed (mph) | | 45 | | | 45 | | | 30 | | | 30 | |
| Link Distance (ft) | | 618 | | | 559 | | | 683 | | | 840 | |
| Travel Time (s) | | 9.4 | | | 8.5 | | | 15.5 | | | 19.1 | |
| Confl. Peds. (#/hr) | | | | | | | | | | | | |
| Confl. Bikes (#/hr) | | | | | | | | | | | | |
| Peak Hour Factor | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 |
| Growth Factor | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% |
| Heavy Vehicles (%) | 2% | 1% | 0% | 0% | 1% | 2% | 1% | 0% | 5% | 0% | 0% | 0% |
| Bus Blockages (#/hr) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Parking (#/hr) | | | | | | | | | | | | |
| Mid-Block Traffic (%) | | 0% | | | 0% | | | 0% | | | 0% | |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 254 | 1424 | 0 | 0 | 1582 | 732 | 165 | 0 | 322 | 0 | 0 | 0 |
| Turn Type | Prot | NA | | | NA | Perm | Prot | | Perm | | | |
| Protected Phases | 5 | 2 | | | 6 | | 3 | | | | | |
| Permitted Phases | | | | | | 6 | | | 3 | | | |
| Detector Phase | 5 | 2 | | | 6 | 6 | 3 | | 3 | | | |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 3.0 | 15.0 | | | 15.0 | 15.0 | 8.0 | | 8.0 | | | |
| Minimum Split (s) | 7.5 | 22.0 | | | 22.0 | 22.0 | 14.0 | | 14.0 | | | |
| Total Split (s) | 24.3 | 105.3 | | | 81.0 | 81.0 | 29.7 | | 29.7 | | | |
| Total Split (%) | 18.0% | 78.0% | | | 60.0% | 60.0% | 22.0% | | 22.0% | | | |
| Yellow Time (s) | 3.5 | 4.5 | | | 4.5 | 4.5 | 4.5 | | 4.5 | | | |
| All-Red Time (s) | 1.0 | 1.5 | | | 1.5 | 1.5 | 1.5 | | 1.5 | | | |
| Lost Time Adjust (s) | 0.0 | 0.0 | | | 0.0 | 0.0 | 0.0 | | 0.0 | | | |
| Total Lost Time (s) | 4.5 | 6.0 | | | 6.0 | 6.0 | 6.0 | | 6.0 | | | |
| Lead/Lag | Lead | | | | Lag | Lag | | | | | | |
| Lead-Lag Optimize? | Yes | | | | Yes | Yes | | | | | | |
| Recall Mode | None | C-Min | | | C-Min | C-Min | None | | None | | | |
| Act Effct Green (s) | 15.2 | 107.1 | | | 87.4 | 87.4 | 15.9 | | 15.9 | | | |
| Actuated g/C Ratio | 0.11 | 0.79 | | | 0.65 | 0.65 | 0.12 | | 0.12 | | | |

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| v/c Ratio | 0.66 | 0.33 | | | 0.32 | 0.58 | 0.41 | | 0.72 | | | |
| Control Delay (s/veh) | 80.5 | 2.5 | | | 5.1 | 2.1 | 57.1 | | 39.9 | | | |
| Queue Delay | 0.0 | 0.0 | | | 0.0 | 0.1 | 0.0 | | 0.0 | | | |
| Total Delay (s/veh) | 80.5 | 2.6 | | | 5.1 | 2.2 | 57.1 | | 39.9 | | | |
| LOS | F | A | | | A | A | E | | D | | | |
| Approach Delay (s/veh) | | 14.4 | | | 4.2 | | | 45.7 | | | | |
| Approach LOS | | B | | | A | | | D | | | | |
| Queue Length 50th (ft) | 124 | 53 | | | 71 | 11 | 71 | | 89 | | | |
| Queue Length 95th (ft) | 164 | 57 | | | 88 | 22 | 102 | | 141 | | | |
| Internal Link Dist (ft) | | 538 | | | 479 | | | 603 | | | 760 | |
| Turn Bay Length (ft) | | | | | | | 370 | | | | | |
| Base Capacity (vph) | 503 | 4290 | | | 4932 | 1252 | 608 | | 595 | | | |
| Starvation Cap Reductn | 0 | 838 | | | 0 | 69 | 0 | | 0 | | | |
| Spillback Cap Reductn | 0 | 0 | | | 0 | 0 | 0 | | 0 | | | |
| Storage Cap Reductn | 0 | 0 | | | 0 | 0 | 0 | | 0 | | | |
| Reduced v/c Ratio | 0.50 | 0.41 | | | 0.32 | 0.62 | 0.27 | | 0.54 | | | |

| Intersection Summary | | | |
|---|---|---|---|
| Area Type: | Other | | |
| Cycle Length: 135 | | | |
| Actuated Cycle Length: 135 | | | |
| Offset: 75.6 (56%), Referenced to phase 2:EBT and 6:WBT, Start of Green | | | |
| Natural Cycle: 55 | | | |
| Control Type: Actuated-Coordinated | | | |
| Maximum v/c Ratio: 0.72 | | | |
| Intersection Signal Delay (s/veh): 12.5 | | Intersection LOS: B | |
| Intersection Capacity Utilization 70.3% | | ICU Level of Service C | |
| Analysis Period (min) 15 | | | |

Splits and Phases: 4: I-355 NB Ramps & Butterfield Road



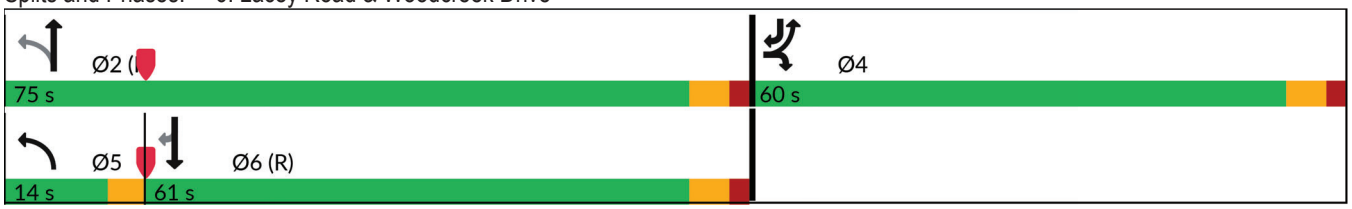


| Lane Group | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (vph) | 200 | 28 | 6 | 167 | 147 | 58 |
| Future Volume (vph) | 200 | 28 | 6 | 167 | 147 | 58 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 2000 | 2000 | 1900 |
| Lane Width (ft) | 12 | 12 | 12 | 12 | 12 | 12 |
| Grade (%) | 0% | | | 0% | 0% | |
| Storage Length (ft) | 160 | 0 | 125 | | | 115 |
| Storage Lanes | 2 | 1 | 1 | | | 0 |
| Taper Length (ft) | 100 | | 90 | | | |
| Lane Util. Factor | 0.97 | 1.00 | 1.00 | 0.95 | 0.95 | 0.88 |
| Ped Bike Factor | | | | | | |
| Frt | | 0.850 | | | | 0.850 |
| Flt Protected | 0.950 | | 0.950 | | | |
| Satd. Flow (prot) | 3467 | 1553 | 1805 | 3762 | 3762 | 2760 |
| Flt Permitted | 0.950 | | 0.617 | | | |
| Satd. Flow (perm) | 3467 | 1553 | 1172 | 3762 | 3762 | 2760 |
| Right Turn on Red | | Yes | | | | Yes |
| Satd. Flow (RTOR) | | 35 | | | | 72 |
| Link Speed (mph) | 30 | | | 35 | 35 | |
| Link Distance (ft) | 556 | | | 645 | 290 | |
| Travel Time (s) | 12.6 | | | 12.6 | 5.6 | |
| Confl. Peds. (#/hr) | | | | | | |
| Confl. Bikes (#/hr) | | | | | | |
| Peak Hour Factor | 0.81 | 0.81 | 0.81 | 0.81 | 0.81 | 0.81 |
| Growth Factor | 100% | 100% | 100% | 100% | 100% | 100% |
| Heavy Vehicles (%) | 1% | 4% | 0% | 1% | 1% | 3% |
| Bus Blockages (#/hr) | 0 | 0 | 0 | 0 | 0 | 0 |
| Parking (#/hr) | | | | | | |
| Mid-Block Traffic (%) | 0% | | | 0% | 0% | |
| Shared Lane Traffic (%) | | | | | | |
| Lane Group Flow (vph) | 247 | 35 | 7 | 206 | 181 | 72 |
| Turn Type | Prot | Prot | pm+pt | NA | NA | pm+ov |
| Protected Phases | 4 | 4 | 5 | 2 | 6 | 4 |
| Permitted Phases | | | 2 | | | 6 |
| Detector Phase | 4 | 4 | 5 | 2 | 6 | 4 |
| Switch Phase | | | | | | |
| Minimum Initial (s) | 8.0 | 8.0 | 3.0 | 15.0 | 15.0 | 8.0 |
| Minimum Split (s) | 14.0 | 14.0 | 6.5 | 21.0 | 21.0 | 14.0 |
| Total Split (s) | 60.0 | 60.0 | 14.0 | 75.0 | 61.0 | 60.0 |
| Total Split (%) | 44.4% | 44.4% | 10.4% | 55.6% | 45.2% | 44.4% |
| Yellow Time (s) | 4.0 | 4.0 | 3.5 | 4.0 | 4.0 | 4.0 |
| All-Red Time (s) | 2.0 | 2.0 | 0.0 | 2.0 | 2.0 | 2.0 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Lost Time (s) | 6.0 | 6.0 | 3.5 | 6.0 | 6.0 | 6.0 |
| Lead/Lag | | | Lead | | Lag | |
| Lead-Lag Optimize? | | | Yes | | Yes | |
| Recall Mode | None | None | None | C-Min | C-Min | None |
| Act Effct Green (s) | 16.2 | 16.2 | 109.3 | 106.8 | 104.9 | 131.9 |
| Actuated g/C Ratio | 0.12 | 0.12 | 0.81 | 0.79 | 0.78 | 0.98 |

| Lane Group | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| v/c Ratio | 0.60 | 0.16 | 0.01 | 0.07 | 0.06 | 0.03 |
| Control Delay (s/veh) | 62.0 | 17.0 | 3.2 | 3.4 | 2.0 | 0.0 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay (s/veh) | 62.0 | 17.0 | 3.2 | 3.4 | 2.0 | 0.0 |
| LOS | E | B | A | A | A | A |
| Approach Delay (s/veh) | 56.4 | | | 3.4 | 1.4 | |
| Approach LOS | E | | | A | A | |
| Queue Length 50th (ft) | 108 | 0 | 1 | 17 | 7 | 0 |
| Queue Length 95th (ft) | 131 | 27 | 4 | 28 | 15 | 0 |
| Internal Link Dist (ft) | 476 | | | 565 | 210 | |
| Turn Bay Length (ft) | 160 | | 125 | | | 115 |
| Base Capacity (vph) | 1386 | 642 | 998 | 2976 | 2924 | 2760 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.18 | 0.05 | 0.01 | 0.07 | 0.06 | 0.03 |

| Intersection Summary | | | |
|---|---|---|---|
| Area Type: | Other | | |
| Cycle Length: 135 | | | |
| Actuated Cycle Length: 135 | | | |
| Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBT, Start of Green | | | |
| Natural Cycle: 45 | | | |
| Control Type: Actuated-Coordinated | | | |
| Maximum v/c Ratio: 0.60 | | | |
| Intersection Signal Delay (s/veh): 22.7 | | Intersection LOS: C | |
| Intersection Capacity Utilization 29.2% | | ICU Level of Service A | |
| Analysis Period (min) 15 | | | |

Splits and Phases: 6: Lacey Road & Woodcreek Drive

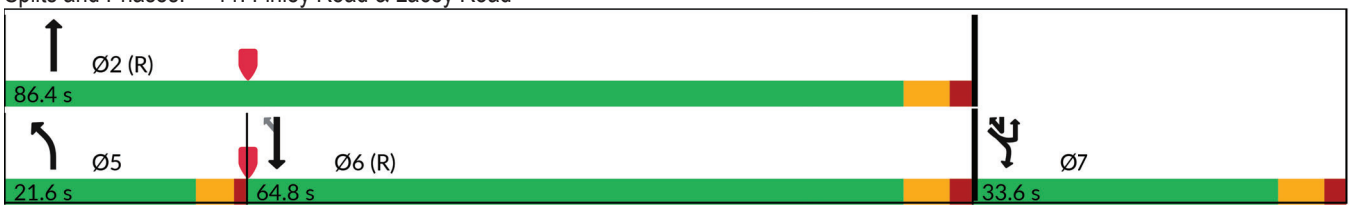


| Lane Group | NBL | NBT | SBT | SBR | SEL | SER |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (vph) | 95 | 548 | 877 | 49 | 60 | 433 |
| Future Volume (vph) | 95 | 548 | 877 | 49 | 60 | 433 |
| Ideal Flow (vphpl) | 1900 | 2000 | 2000 | 1900 | 1900 | 1900 |
| Lane Width (ft) | 12 | 12 | 12 | 12 | 12 | 12 |
| Grade (%) | | 0% | 0% | | 0% | |
| Storage Length (ft) | 305 | | | 400 | 0 | 205 |
| Storage Lanes | 2 | | | 1 | 1 | 1 |
| Taper Length (ft) | 230 | | | | 0 | |
| Lane Util. Factor | 0.97 | 0.95 | 0.95 | 1.00 | 1.00 | 0.88 |
| Ped Bike Factor | | | | | | |
| Frt | | | | 0.850 | | 0.850 |
| Flt Protected | 0.950 | | | | 0.950 | |
| Satd. Flow (prot) | 3367 | 3725 | 3762 | 1417 | 1752 | 2842 |
| Flt Permitted | 0.950 | | | | 0.950 | |
| Satd. Flow (perm) | 3367 | 3725 | 3762 | 1417 | 1752 | 2842 |
| Right Turn on Red | | | | Yes | | Yes |
| Satd. Flow (RTOR) | | | | 49 | | 437 |
| Link Speed (mph) | | 45 | 45 | | 35 | |
| Link Distance (ft) | | 681 | 1175 | | 1160 | |
| Travel Time (s) | | 10.3 | 17.8 | | 22.6 | |
| Confl. Peds. (#/hr) | | | | | | |
| Confl. Bikes (#/hr) | | | | | | |
| Peak Hour Factor | 0.99 | 0.99 | 0.99 | 0.99 | 0.99 | 0.99 |
| Growth Factor | 100% | 100% | 100% | 100% | 100% | 100% |
| Heavy Vehicles (%) | 4% | 2% | 1% | 14% | 3% | 0% |
| Bus Blockages (#/hr) | 0 | 0 | 0 | 0 | 0 | 0 |
| Parking (#/hr) | | | | | | |
| Mid-Block Traffic (%) | | 0% | 0% | | 0% | |
| Shared Lane Traffic (%) | | | | | | |
| Lane Group Flow (vph) | 96 | 554 | 886 | 49 | 61 | 437 |
| Turn Type | Prot | NA | NA | pm+ov | Prot | Prot |
| Protected Phases | 5 | 2 | 6 | 7 | 7 | 7 |
| Permitted Phases | | | | 6 | | |
| Detector Phase | 5 | 2 | 6 | 7 | 7 | 7 |
| Switch Phase | | | | | | |
| Minimum Initial (s) | 3.0 | 15.0 | 15.0 | 8.0 | 8.0 | 8.0 |
| Minimum Split (s) | 7.5 | 21.0 | 21.0 | 14.0 | 14.0 | 14.0 |
| Total Split (s) | 21.6 | 86.4 | 64.8 | 33.6 | 33.6 | 33.6 |
| Total Split (%) | 18.0% | 72.0% | 54.0% | 28.0% | 28.0% | 28.0% |
| Yellow Time (s) | 3.5 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| All-Red Time (s) | 1.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Lost Time (s) | 4.5 | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 |
| Lead/Lag | Lead | | Lag | | | |
| Lead-Lag Optimize? | Yes | | Yes | | | |
| Recall Mode | None | C-Min | C-Min | None | None | None |
| Act Effct Green (s) | 8.8 | 96.5 | 83.2 | 100.7 | 11.5 | 11.5 |
| Actuated g/C Ratio | 0.07 | 0.80 | 0.69 | 0.84 | 0.10 | 0.10 |

| Lane Group | NBL | NBT | SBT | SBR | SEL | SER |
|---|---|---|---|---|---|---|
| v/c Ratio | 0.39 | 0.18 | 0.34 | 0.04 | 0.37 | 0.66 |
| Control Delay (s/veh) | 57.2 | 3.1 | 8.3 | 0.6 | 55.9 | 9.5 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay (s/veh) | 57.2 | 3.1 | 8.3 | 0.6 | 55.9 | 9.5 |
| LOS | E | A | A | A | E | A |
| Approach Delay (s/veh) | | 11.1 | 7.9 | | 15.2 | |
| Approach LOS | | B | A | | B | |
| Queue Length 50th (ft) | 38 | 42 | 131 | 0 | 46 | 0 |
| Queue Length 95th (ft) | 66 | 69 | 200 | 7 | 88 | 51 |
| Internal Link Dist (ft) | | 601 | 1095 | | 1080 | |
| Turn Bay Length (ft) | 305 | | | 400 | | 205 |
| Base Capacity (vph) | 479 | 2995 | 2608 | 1373 | 402 | 990 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.20 | 0.18 | 0.34 | 0.04 | 0.15 | 0.44 |

| Intersection Summary | | | |
|---|---|---|---|
| Area Type: | Other | | |
| Cycle Length: 120 | | | |
| Actuated Cycle Length: 120 | | | |
| Offset: 21.6 (18%), Referenced to phase 2:NBT and 6:SBT, Start of Green | | | |
| Natural Cycle: 45 | | | |
| Control Type: Actuated-Coordinated | | | |
| Maximum v/c Ratio: 0.66 | | | |
| Intersection Signal Delay (s/veh): 10.6 | | Intersection LOS: B | |
| Intersection Capacity Utilization 48.2% | | ICU Level of Service A | |
| Analysis Period (min) 15 | | | |

Splits and Phases: 11: Finley Road & Lacey Road



| Intersection | |
|---|---|
| Intersection Delay, s/veh | 11.9 |
| Intersection LOS | B |

| Movement | EBL | EBT | EBR | WB | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Vol, veh/h | 24 | 130 | 13 | 0 | 6 | 102 | 270 | 67 | 193 | 29 | 0 | 0 |
| Future Vol, veh/h | 24 | 130 | 13 | 0 | 6 | 102 | 270 | 67 | 193 | 29 | 0 | 0 |
| Peak Hour Factor | 0.90 | 0.90 | 0.90 | 0.95 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 |
| Heavy Vehicles, % | 0 | 1 | 0 | 2 | 17 | 0 | 0 | 1 | 0 | 3 | 0 | 0 |
| Mvmt Flow | 27 | 144 | 14 | 0 | 7 | 113 | 300 | 74 | 214 | 32 | 0 | 0 |
| Number of Lanes | 0 | 2 | 0 | 0 | 0 | 2 | 0 | 1 | 1 | 0 | 0 | 0 |

| Approach | EB | WB | NB |
|---|---|---|---|
| Opposing Approach | WB | EB | |
| Opposing Lanes | 2 | 2 | 0 |
| Conflicting Approach Left | | NB | EB |
| Conflicting Lanes Left | 0 | 2 | 2 |
| Conflicting Approach Right | NB | | WB |
| Conflicting Lanes Right | 2 | 0 | 2 |
| HCM Control Delay, s/veh | 9.9 | 12.7 | 12.1 |
| HCM LOS | A | B | B |

| Lane | NBLn1 | NBLn2 | EBLn1 | EBLn2 | WBLn1 | WBLn2 |
|---|---|---|---|---|---|---|
| Vol Left, % | 100% | 0% | 27% | 0% | 11% | 0% |
| Vol Thru, % | 0% | 87% | 73% | 83% | 89% | 16% |
| Vol Right, % | 0% | 13% | 0% | 17% | 0% | 84% |
| Sign Control | Stop | Stop | Stop | Stop | Stop | Stop |
| Traffic Vol by Lane | 67 | 222 | 89 | 78 | 57 | 321 |
| LT Vol | 67 | 0 | 24 | 0 | 6 | 0 |
| Through Vol | 0 | 193 | 65 | 65 | 51 | 51 |
| RT Vol | 0 | 29 | 0 | 13 | 0 | 270 |
| Lane Flow Rate | 74 | 247 | 99 | 87 | 63 | 357 |
| Geometry Grp | 5 | 5 | 5 | 5 | 5 | 5 |
| Degree of til ( ) | 0.136 | 0.408 | 0.169 | 0.142 | 0.108 | 0.513 |
| Departure Headway (Hd) | 6.566 | 5.953 | 6.14 | 5.902 | 6.12 | 5.178 |
| Convergence, /N | es | es | es | es | es | es |
| Cap | 546 | 604 | 584 | 608 | 589 | 699 |
| Service Time | 4.299 | 3.685 | 3.877 | 3.639 | 3.82 | 2.878 |
| HCM Lane V/C Ratio | 0.136 | 0.409 | 0.17 | 0.143 | 0.107 | 0.511 |
| HCM Control Delay, s/veh | 10.3 | 12.7 | 10.1 | 9.6 | 9.6 | 13.2 |
| HCM Lane LOS | B | B | B | A | A | B |
| HCM 95th-tile Q | 0.5 | 2 | 0.6 | 0.5 | 0.4 | 3 |

| Intersection | |
|---|---|
| Intersection Delay, s/veh | |
| Intersection LOS | |

| Movement | SBR |
|---|---|
| Lane Configurations | |
| Traffic Vol, veh/h | 0 |
| Future Vol, veh/h | 0 |
| Peak Hour Factor | 0.90 |
| Heavy Vehicles, % | 0 |
| Mvmt Flow | 0 |
| Number of Lanes | 0 |

| Approach | |
|---|---|
| Opposing Approach | |
| Opposing Lanes | |
| Conflicting Approach Left | |
| Conflicting Lanes Left | |
| Conflicting Approach Right | |
| Conflicting Lanes Right | |
| HCM Control Delay, s/veh | |
| HCM LOS | |

| Intersection | |
|---|---|
| Int Delay, s/veh | 1.4 |

| Movement | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 22 | 55 | 4 | 357 | 112 | 3 |
| Future Vol, veh/h | 22 | 55 | 4 | 357 | 112 | 3 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Free | Free | Free | Free |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | 45 | 0 | 80 | - | - | - |
| Veh in Median Storage, # | 1 | - | - | 0 | 0 | - |
| Grade, % | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 84 | 84 | 84 | 84 | 84 | 84 |
| Heavy Vehicles, % | 5 | 0 | 0 | 0 | 3 | 0 |
| Mvmt Flow | 26 | 65 | 5 | 425 | 133 | 4 |

| Major/Minor | Minor2 | | Major1 | | Major2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 357 | 68 | 137 | 0 | - | 0 |
| Stage 1 | 135 | - | - | - | - | - |
| Stage 2 | 222 | - | - | - | - | - |
| Critical Hdwy | 6.9 | 6.9 | 4.1 | - | - | - |
| Critical Hdwy Stg 1 | 5.9 | - | - | - | - | - |
| Critical Hdwy Stg 2 | 5.9 | - | - | - | - | - |
| Follow-up Hdwy | 3.55 | 3.3 | 2.2 | - | - | - |
| Pot Cap-1 Maneuver | 607 | 987 | 1460 | - | - | - |
| Stage 1 | 868 | - | - | - | - | - |
| Stage 2 | 785 | - | - | - | - | - |
| Platoon blocked, % | | | | - | - | - |
| Mov Cap-1 Maneuver | 605 | 987 | 1460 | - | - | - |
| Mov Cap-2 Maneuver | 649 | - | - | - | - | - |
| Stage 1 | 865 | - | - | - | - | - |
| Stage 2 | 785 | - | - | - | - | - |

| Approach | EB | NB | SB |
|---|---|---|---|
| HCM Ctrl Dly, s/v | 9.44 | 0.08 | 0 |
| HCM LOS | A | | |

| Minor Lane/Major Mvmt | NBL | NBT | EBLn1 | EBLn2 | SBT | SBR |
|---|---|---|---|---|---|---|
| Capacity (veh/h) | 1460 | - | 649 | 987 | - | - |
| HCM Lane V/C Ratio | 0.003 | - | 0.04 | 0.066 | - | - |
| HCM Ctrl Dly (s/v) | 7.5 | - | 10.8 | 8.9 | - | - |
| HCM Lane LOS | A | - | B | A | - | - |
| HCM 95th %tile Q(veh) | 0 | - | 0.1 | 0.2 | - | - |

| Intersection | |
|---|---|
| Int Delay, s/veh | 4.9 |

| Movement | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 135 | 159 | 48 | 226 | 158 | 9 |
| Future Vol, veh/h | 135 | 159 | 48 | 226 | 158 | 9 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Free | Free | Free | Free |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | 115 | 0 | 180 | - | - | - |
| Veh in Median Storage, # | 1 | - | - | 0 | 0 | - |
| Grade, % | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 91 | 91 | 91 | 91 | 91 | 91 |
| Heavy Vehicles, % | 0 | 1 | 2 | 0 | 1 | 0 |
| Mvmt Flow | 148 | 175 | 53 | 248 | 174 | 10 |

| Major/Minor | Minor2 | | Major1 | | Major2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 408 | 92 | 184 | 0 | - | 0 |
| Stage 1 | 179 | - | - | - | - | - |
| Stage 2 | 230 | - | - | - | - | - |
| Critical Hdwy | 6.8 | 6.92 | 4.14 | - | - | - |
| Critical Hdwy Stg 1 | 5.8 | - | - | - | - | - |
| Critical Hdwy Stg 2 | 5.8 | - | - | - | - | - |
| Follow-up Hdwy | 3.5 | 3.31 | 2.22 | - | - | - |
| Pot Cap-1 Maneuver | 576 | 951 | 1389 | - | - | - |
| Stage 1 | 840 | - | - | - | - | - |
| Stage 2 | 793 | - | - | - | - | - |
| Platoon blocked, % | | | | - | - | - |
| Mov Cap-1 Maneuver | 554 | 951 | 1389 | - | - | - |
| Mov Cap-2 Maneuver | 618 | - | - | - | - | - |
| Stage 1 | 808 | - | - | - | - | - |
| Stage 2 | 793 | - | - | - | - | - |

| Approach | EB | NB | SB |
|---|---|---|---|
| HCM Ctrl Dly, s/v | 11.02 | 1.35 | 0 |
| HCM LOS | B | | |

| Minor Lane/Major Mvmt | NBL | NBT | EBLn1 | EBLn2 | SBT | SBR |
|---|---|---|---|---|---|---|
| Capacity (veh/h) | 1389 | - | 618 | 951 | - | - |
| HCM Lane V/C Ratio | 0.038 | - | 0.24 | 0.184 | - | - |
| HCM Ctrl Dly (s/v) | 7.7 | - | 12.7 | 9.6 | - | - |
| HCM Lane LOS | A | - | B | A | - | - |
| HCM 95th %tile Q(veh) | 0.1 | - | 0.9 | 0.7 | - | - |

| Intersection | |
|---|---|
| Int Delay, s/veh | 0.1 |

| Movement | SET | SER | NWL | NWT | NEL | NER |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 98 | 1 | 0 | 55 | 1 | 1 |
| Future Vol, veh/h | 98 | 1 | 0 | 55 | 1 | 1 |
| 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 | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 1 | 0 | 0 | 2 | 0 | 0 |
| Mvmt Flow | 107 | 1 | 0 | 60 | 1 | 1 |

| Major/Minor | Major1 | | Major2 | | Minor1 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 0 | 0 | 108 | 0 | 167 | 107 |
| Stage 1 | - | - | - | - | 107 | - |
| Stage 2 | - | - | - | - | 60 | - |
| 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 | - | - | 1496 | - | 828 | 952 |
| Stage 1 | - | - | - | - | 922 | - |
| Stage 2 | - | - | - | - | 968 | - |
| Platoon blocked, % | - | - | | - | | |
| Mov Cap-1 Maneuver | - | - | 1496 | - | 828 | 952 |
| Mov Cap-2 Maneuver | - | - | - | - | 828 | - |
| Stage 1 | - | - | - | - | 922 | - |
| Stage 2 | - | - | - | - | 968 | - |

| Approach | SE | NW | NE |
|---|---|---|---|
| HCM Ctrl Dly, s/v | 0 | 0 | 9.07 |
| HCM LOS | | | A |

| Minor Lane/Major Mvmt | NELn1 | NWL | NWT | SET | SER |
|---|---|---|---|---|---|
| Capacity (veh/h) | 886 | 1496 | - | - | - |
| HCM Lane V/C Ratio | 0.002 | - | - | - | - |
| HCM Ctrl Dly (s/v) | 9.1 | 0 | - | - | - |
| HCM Lane LOS | A | A | - | - | - |
| HCM 95th %tile Q(veh) | 0 | 0 | - | - | - |

| Intersection | |
|---|---|
| Int Delay, s/veh | 7 |

| Movement | EBT | EBR | WBL | WBT | NBL | NBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 76 | 23 | 43 | 14 | 41 | 218 |
| Future Vol, veh/h | 76 | 23 | 43 | 14 | 41 | 218 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | 90 | - | 0 | 0 |
| Veh in Median Storage, # | 0 | - | - | 0 | 0 | - |
| Grade, % | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 1 | 0 | 0 | 7 | 0 | 0 |
| Mvmt Flow | 83 | 25 | 47 | 15 | 45 | 237 |

| Major/Minor | Major1 | | Major2 | | Minor1 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 0 | 0 | 108 | 0 | 204 | 95 |
| Stage 1 | - | - | - | - | 95 | - |
| Stage 2 | - | - | - | - | 109 | - |
| 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 | - | - | 1496 | - | 789 | 967 |
| Stage 1 | - | - | - | - | 934 | - |
| Stage 2 | - | - | - | - | 921 | - |
| Platoon blocked, % | - | - | | - | | |
| Mov Cap-1 Maneuver | - | - | 1496 | - | 765 | 967 |
| Mov Cap-2 Maneuver | - | - | - | - | 765 | - |
| Stage 1 | - | - | - | - | 934 | - |
| Stage 2 | - | - | - | - | 892 | - |

| Approach | EB | WB | NB |
|---|---|---|---|
| HCM Ctrl Dly, s/v | 0 | 5.65 | 9.94 |
| HCM LOS | | | A |

| Minor Lane/Major Mvmt | NBLn1 | NBLn2 | EBT | EBR | WBL | WBT |
|---|---|---|---|---|---|---|
| Capacity (veh/h) | 765 | 967 | - | - | 1496 | - |
| HCM Lane V/C Ratio | 0.058 | 0.245 | - | - | 0.031 | - |
| HCM Ctrl Dly (s/v) | 10 | 9.9 | - | - | 7.5 | - |
| HCM Lane LOS | A | A | - | - | A | - |
| HCM 95th %tile Q(veh) | 0.2 | 1 | - | - | 0.1 | - |

# Capacity Analysis Summary Sheets

## Year 2032 No-Build Weekday Morning Peak Hour



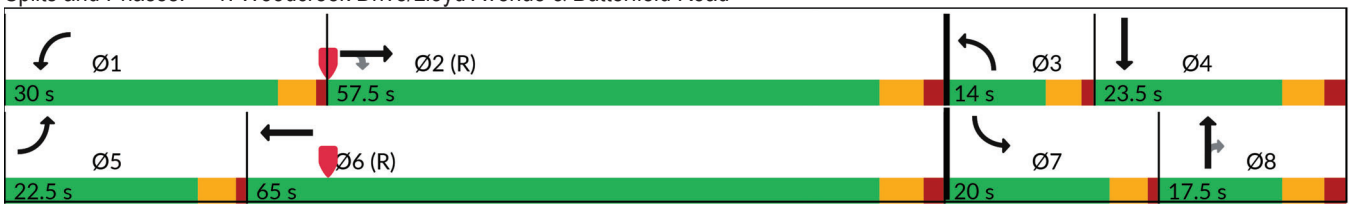
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 66 | 1037 | 280 | 777 | 679 | 61 | 46 | 16 | 30 | 73 | 86 | 69 |
| Future Volume (vph) | 66 | 1037 | 280 | 777 | 679 | 61 | 46 | 16 | 30 | 73 | 86 | 69 |
| Ideal Flow (vphpl) | 1900 | 2000 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Width (ft) | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 |
| Grade (%) | | 0% | | | 0% | | | 0% | | | 0% | |
| Storage Length (ft) | 265 | | 465 | 0 | | 0 | 118 | | 0 | 120 | | 0 |
| Storage Lanes | 1 | | 2 | 2 | | 0 | 1 | | 1 | 1 | | 0 |
| Taper Length (ft) | 85 | | | 25 | | | 45 | | | 85 | | |
| Lane Util. Factor | 1.00 | 0.91 | 0.88 | 0.97 | 0.91 | 0.91 | 0.97 | 0.95 | 0.95 | 1.00 | 1.00 | 1.00 |
| Ped Bike Factor | | | | | | | | | | | | |
| Frt | | | 0.850 | | 0.988 | | | 0.948 | 0.850 | | 0.933 | |
| Flt Protected | 0.950 | | | 0.950 | | | 0.950 | | | 0.950 | | |
| Satd. Flow (prot) | 1770 | 5301 | 2842 | 3502 | 4869 | 0 | 3502 | 1671 | 1434 | 1752 | 1732 | 0 |
| Flt Permitted | 0.950 | | | 0.950 | | | 0.950 | | | 0.950 | | |
| Satd. Flow (perm) | 1770 | 5301 | 2842 | 3502 | 4869 | 0 | 3502 | 1671 | 1434 | 1752 | 1732 | 0 |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Satd. Flow (RTOR) | | | 295 | | 16 | | | 9 | 183 | | 27 | |
| Link Speed (mph) | | 45 | | | 45 | | | 30 | | | 30 | |
| Link Distance (ft) | | 2017 | | | 601 | | | 290 | | | 452 | |
| Travel Time (s) | | 30.6 | | | 9.1 | | | 6.6 | | | 10.3 | |
| Confl. Peds. (#/hr) | | | | | | | | | | | | |
| Confl. Bikes (#/hr) | | | | | | | | | | | | |
| Peak Hour Factor | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 |
| Growth Factor | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% |
| Heavy Vehicles (%) | 2% | 3% | 0% | 0% | 5% | 8% | 0% | 0% | 7% | 3% | 1% | 4% |
| Bus Blockages (#/hr) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Parking (#/hr) | | | | | | | | | | | | |
| Mid-Block Traffic (%) | | 0% | | | 0% | | | 0% | | | 0% | |
| Shared Lane Traffic (%) | | | | | | | | | 27% | | | |
| Lane Group Flow (vph) | 69 | 1092 | 295 | 818 | 779 | 0 | 48 | 26 | 23 | 77 | 164 | 0 |
| Turn Type | Prot | NA | Perm | Prot | NA | | Prot | NA | Perm | Prot | NA | |
| Protected Phases | 5 | 2 | | 1 | 6 | | 3 | 8 | | 7 | 4 | |
| Permitted Phases | | | 2 | | | | | | 8 | | | |
| Detector Phase | 5 | 2 | 2 | 1 | 6 | | 3 | 8 | 8 | 7 | 4 | |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 3.0 | 15.0 | 15.0 | 3.0 | 15.0 | | 3.0 | 8.0 | 8.0 | 3.0 | 8.0 | |
| Minimum Split (s) | 7.5 | 21.0 | 21.0 | 7.5 | 21.0 | | 11.0 | 14.0 | 14.0 | 7.5 | 14.0 | |
| Total Split (s) | 22.5 | 57.5 | 57.5 | 30.0 | 65.0 | | 14.0 | 17.5 | 17.5 | 20.0 | 23.5 | |
| Total Split (%) | 18.0% | 46.0% | 46.0% | 24.0% | 52.0% | | 11.2% | 14.0% | 14.0% | 16.0% | 18.8% | |
| Yellow Time (s) | 3.5 | 4.0 | 4.0 | 3.5 | 4.0 | | 3.5 | 4.0 | 4.0 | 3.5 | 4.0 | |
| All-Red Time (s) | 1.0 | 2.0 | 2.0 | 1.0 | 2.0 | | 1.0 | 2.0 | 2.0 | 1.0 | 2.0 | |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | |
| Total Lost Time (s) | 4.5 | 6.0 | 6.0 | 4.5 | 6.0 | | 4.5 | 6.0 | 6.0 | 4.5 | 6.0 | |
| Lead/Lag | Lead | Lag | Lag | Lead | Lag | | Lead | Lag | Lag | Lead | Lag | |
| Lead-Lag Optimize? | Yes | Yes | Yes | Yes | Yes | | Yes | Yes | Yes | Yes | Yes | |
| Recall Mode | None | C-Min | C-Min | None | C-Min | | None | None | None | None | None | |
| Act Effct Green (s) | 10.2 | 51.5 | 51.5 | 32.1 | 75.5 | | 7.1 | 11.3 | 11.3 | 14.2 | 15.3 | |
| Actuated g/C Ratio | 0.08 | 0.41 | 0.41 | 0.26 | 0.60 | | 0.06 | 0.09 | 0.09 | 0.11 | 0.12 | |

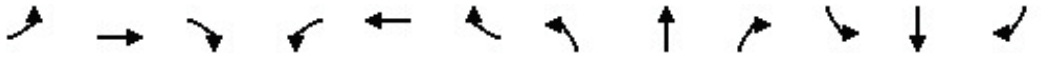
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| v/c Ratio | 0.48 | 0.50 | 0.22 | 0.91 | 0.26 | | 0.24 | 0.16 | 0.08 | 0.39 | 0.69 | |
| Control Delay (s/veh) | 65.0 | 28.2 | 2.9 | 72.9 | 12.7 | | 58.6 | 25.9 | 2.0 | 57.4 | 59.1 | |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | |
| Total Delay (s/veh) | 65.0 | 28.2 | 2.9 | 72.9 | 12.7 | | 58.6 | 25.9 | 2.0 | 57.4 | 59.1 | |
| LOS | E | C | A | E | B | | E | C | A | E | E | |
| Approach Delay (s/veh) | | 24.8 | | | 43.5 | | | 36.4 | | | 58.5 | |
| Approach LOS | | C | | | D | | | D | | | E | |
| Queue Length 50th (ft) | 55 | 241 | 0 | ~365 | 116 | | 19 | 14 | 0 | 62 | 108 | |
| Queue Length 95th (ft) | 102 | 286 | 29 | #541 | 102 | | 42 | 43 | 0 | 112 | 182 | |
| Internal Link Dist (ft) | | 1937 | | | 521 | | | 210 | | | 372 | |
| Turn Bay Length (ft) | 265 | | 465 | | | | 118 | | | 120 | | |
| Base Capacity (vph) | 254 | 2184 | 1344 | 898 | 2947 | | 266 | 172 | 306 | 246 | 270 | |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | |
| Reduced v/c Ratio | 0.27 | 0.50 | 0.22 | 0.91 | 0.26 | | 0.18 | 0.15 | 0.08 | 0.31 | 0.61 | |

**Intersection Summary**

Area Type: Other
Cycle Length: 125
Actuated Cycle Length: 125
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Green
Natural Cycle: 70
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.91
Intersection Signal Delay (s/veh): 36.3 Intersection LOS: D
Intersection Capacity Utilization 70.8% ICU Level of Service C
Analysis Period (min) 15
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 1: Woodcreek Drive/Lloyd Avenue & Butterfield Road



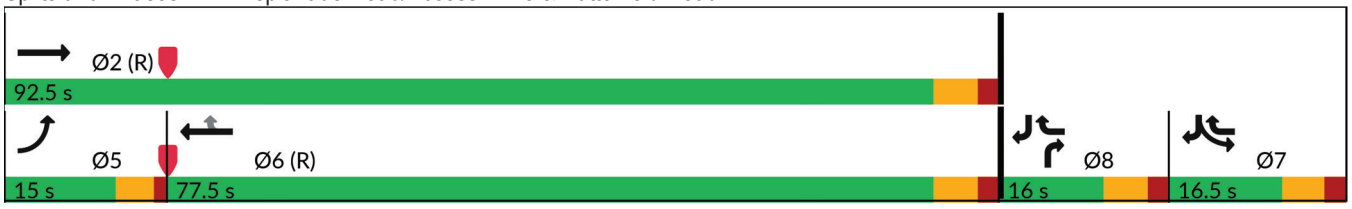


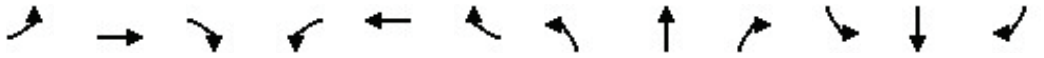
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 27 | 1113 | 0 | 0 | 1477 | 104 | 0 | 0 | 59 | 94 | 0 | 40 |
| Future Volume (vph) | 27 | 1113 | 0 | 0 | 1477 | 104 | 0 | 0 | 59 | 94 | 0 | 40 |
| Ideal Flow (vphpl) | 1900 | 2000 | 1900 | 1900 | 2000 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Width (ft) | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 |
| Grade (%) | | 0% | | | 0% | | | 0% | | | 0% | |
| Storage Length (ft) | 230 | | 0 | 60 | | 175 | 0 | | 0 | 0 | | 100 |
| Storage Lanes | 1 | | 0 | 2 | | 1 | 0 | | 2 | 2 | | 1 |
| Taper Length (ft) | 210 | | | 300 | | | 25 | | | 25 | | |
| Lane Util. Factor | 1.00 | 0.91 | 1.00 | 1.00 | 0.81 | 1.00 | 1.00 | 1.00 | 0.88 | 0.97 | 1.00 | 1.00 |
| Ped Bike Factor | | | | | | | | | | | | |
| Frt | | | | | | 0.850 | | | 0.850 | | | 0.850 |
| Flt Protected | 0.950 | | | | | | | | | 0.950 | | |
| Satd. Flow (prot) | 1805 | 5301 | 0 | 0 | 7941 | 1538 | 0 | 0 | 2842 | 3433 | 0 | 1538 |
| Flt Permitted | 0.950 | | | | | | | | | 0.950 | | |
| Satd. Flow (perm) | 1805 | 5301 | 0 | 0 | 7941 | 1538 | 0 | 0 | *2900 | 3433 | 0 | 1538 |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Satd. Flow (RTOR) | | | | | | 117 | | | *312 | | | 65 |
| Link Speed (mph) | | 45 | | | 45 | | | 30 | | | 30 | |
| Link Distance (ft) | | 601 | | | 603 | | | 352 | | | 378 | |
| Travel Time (s) | | 9.1 | | | 9.1 | | | 8.0 | | | 8.6 | |
| Confl. Peds. (#/hr) | | | | | | | | | | | | |
| Confl. Bikes (#/hr) | | | | | | | | | | | | |
| Peak Hour Factor | 0.89 | 0.89 | 0.89 | 0.89 | 0.89 | 0.89 | 0.89 | 0.89 | 0.89 | 0.89 | 0.89 | 0.89 |
| Growth Factor | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% |
| Heavy Vehicles (%) | 0% | 3% | 0% | 0% | 2% | 5% | 0% | 0% | 0% | 2% | 0% | 5% |
| Bus Blockages (#/hr) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Parking (#/hr) | | | | | | | | | | | | |
| Mid-Block Traffic (%) | | 0% | | | 0% | | | 0% | | | 0% | |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 30 | 1251 | 0 | 0 | 1660 | 117 | 0 | 0 | 66 | 106 | 0 | 45 |
| Turn Type | Prot | NA | | | NA | custom | | | Prot | Prot | | custom |
| Protected Phases | 5 | 2 | | | 6 | 7 8 | | | 8 | 7 | | 7 8 |
| Permitted Phases | | | | | | 6 | | | 8 | 7 | | |
| Detector Phase | 5 | 2 | | | 6 | 7 8 | | | 8 | 7 | | 7 8 |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 3.0 | 15.0 | | | 15.0 | | | | 8.0 | 8.0 | | |
| Minimum Split (s) | 7.5 | 21.0 | | | 21.0 | | | | 14.0 | 14.0 | | |
| Total Split (s) | 15.0 | 92.5 | | | 77.5 | | | | 16.0 | 16.5 | | |
| Total Split (%) | 12.0% | 74.0% | | | 62.0% | | | | 12.8% | 13.2% | | |
| Yellow Time (s) | 3.5 | 4.0 | | | 4.0 | | | | 4.0 | 4.0 | | |
| All-Red Time (s) | 1.0 | 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) | 4.5 | 6.0 | | | 6.0 | | | | 6.0 | 6.0 | | |
| Lead/Lag | Lead | | | | Lag | | | | Lead | Lag | | |
| Lead-Lag Optimize? | Yes | | | | Yes | | | | Yes | Yes | | |
| Recall Mode | None | C-Min | | | C-Min | | | | None | None | | |
| Act Effct Green (s) | 7.6 | 88.8 | | | 80.9 | 113.5 | | | 8.0 | 10.2 | | 24.2 |
| Actuated g/C Ratio | 0.06 | 0.71 | | | 0.65 | 0.91 | | | 0.06 | 0.08 | | 0.19 |

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| v/c Ratio | 0.28 | 0.33 | | | 0.32 | 0.08 | | | 0.14 | 0.38 | | 0.13 |
| Control Delay (s/veh) | 95.4 | 0.8 | | | 6.5 | 0.2 | | | 0.6 | 58.0 | | 5.3 |
| Queue Delay | 0.0 | 0.0 | | | 0.0 | 0.0 | | | 0.0 | 0.0 | | 0.0 |
| Total Delay (s/veh) | 95.4 | 0.8 | | | 6.5 | 0.2 | | | 0.6 | 58.0 | | 5.3 |
| LOS | F | A | | | A | A | | | A | E | | A |
| Approach Delay (s/veh) | | 3.0 | | | 6.0 | | | 0.6 | | | 42.3 | |
| Approach LOS | | A | | | A | | | A | | | D | |
| Queue Length 50th (ft) | 26 | 8 | | | 141 | 0 | | | 0 | 43 | | 0 |
| Queue Length 95th (ft) | m53 | 13 | | | 75 | 0 | | | 0 | 71 | | 19 |
| Internal Link Dist (ft) | | 521 | | | 523 | | | 272 | | | 298 | |
| Turn Bay Length (ft) | 230 | | | | | 175 | | | | | | 100 |
| Base Capacity (vph) | 151 | 3765 | | | 5138 | 1343 | | | 519 | 302 | | 312 |
| Starvation Cap Reductn | 0 | 0 | | | 0 | 0 | | | 0 | 0 | | 0 |
| Spillback Cap Reductn | 0 | 0 | | | 0 | 0 | | | 0 | 0 | | 0 |
| Storage Cap Reductn | 0 | 0 | | | 0 | 0 | | | 0 | 0 | | 0 |
| Reduced v/c Ratio | 0.20 | 0.33 | | | 0.32 | 0.09 | | | 0.13 | 0.35 | | 0.14 |

| Intersection Summary | | | |
|---|---|---|---|
| Area Type: | Other | | |
| Cycle Length: 125 | | | |
| Actuated Cycle Length: 125 | | | |
| Offset: 10 (8%), Referenced to phase 2:EBT and 6:WBT, Start of Green | | | |
| Natural Cycle: 60 | | | |
| Control Type: Actuated-Coordinated | | | |
| Maximum v/c Ratio: 0.38 | | | |
| Intersection Signal Delay (s/veh): 6.4 | | Intersection LOS: A | |
| Intersection Capacity Utilization 43.8% | | ICU Level of Service A | |
| Analysis Period (min) 15 | | | |
| * User Entered Value | | | |
| m Volume for 95th percentile queue is metered by upstream signal. | | | |

Splits and Phases: 2: Esplanade Road/Access Drive & Butterfield Road





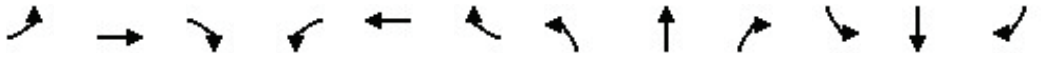
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 0 | 1072 | 194 | 202 | 1268 | 0 | 0 | 0 | 0 | 585 | 0 | 313 |
| Future Volume (vph) | 0 | 1072 | 194 | 202 | 1268 | 0 | 0 | 0 | 0 | 585 | 0 | 313 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 2000 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Width (ft) | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 |
| Grade (%) | | 0% | | | 0% | | | 0% | | | 0% | |
| Storage Length (ft) | 150 | | 155 | 0 | | 0 | 0 | | 0 | 180 | | 0 |
| Storage Lanes | 2 | | 1 | 2 | | 0 | 0 | | 0 | 2 | | 1 |
| Taper Length (ft) | 300 | | | 25 | | | 25 | | | 215 | | |
| Lane Util. Factor | 1.00 | 0.81 | 1.00 | 0.97 | 0.91 | 1.00 | 1.00 | 1.00 | 1.00 | 0.97 | 1.00 | 1.00 |
| Ped Bike Factor | | | | | | | | | | | | |
| Frt | | | 0.850 | | | | | | | | | 0.850 |
| Flt Protected | | | | 0.950 | | | | | | 0.950 | | |
| Satd. Flow (prot) | 0 | 7544 | 1553 | 3183 | 5301 | 0 | 0 | 0 | 0 | 3433 | 0 | 1538 |
| Flt Permitted | | | | 0.950 | | | | | | 0.950 | | |
| Satd. Flow (perm) | 0 | 7544 | 1553 | 3183 | 5301 | 0 | 0 | 0 | 0 | 3433 | 0 | 1538 |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Satd. Flow (RTOR) | | | 33 | | | | | | | | | 79 |
| Link Speed (mph) | | 45 | | | 45 | | | 30 | | | 30 | |
| Link Distance (ft) | | 603 | | | 617 | | | 673 | | | 836 | |
| Travel Time (s) | | 9.1 | | | 9.3 | | | 15.3 | | | 19.0 | |
| Confl. Peds. (#/hr) | | | | | | | | | | | | |
| Confl. Bikes (#/hr) | | | | | | | | | | | | |
| Peak Hour Factor | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 |
| Growth Factor | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% |
| Heavy Vehicles (%) | 0% | 2% | 4% | 10% | 3% | 0% | 0% | 0% | 0% | 2% | 0% | 5% |
| Bus Blockages (#/hr) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Parking (#/hr) | | | | | | | | | | | | |
| Mid-Block Traffic (%) | | 0% | | | 0% | | | 0% | | | 0% | |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 0 | 1128 | 204 | 213 | 1335 | 0 | 0 | 0 | 0 | 616 | 0 | 329 |
| Turn Type | | NA | custom | Prot | NA | | | | | Prot | | Perm |
| Protected Phases | | 2 | | 1 | 6 | | | | | 7 | | |
| Permitted Phases | | | 2 7 | | | | | | | | | 7 |
| Detector Phase | | 2 | 2 7 | 1 | 6 | | | | | 7 | | 7 |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | | 15.0 | | 3.0 | 15.0 | | | | | 8.0 | | 8.0 |
| Minimum Split (s) | | 21.0 | | 9.0 | 21.0 | | | | | 14.0 | | 14.0 |
| Total Split (s) | | 58.7 | | 16.3 | 75.0 | | | | | 50.0 | | 50.0 |
| Total Split (%) | | 47.0% | | 13.0% | 60.0% | | | | | 40.0% | | 40.0% |
| 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 | | Lag | | Lead | | | | | | | | |
| Lead-Lag Optimize? | | Yes | | Yes | | | | | | | | |
| Recall Mode | | C-Min | | None | C-Min | | | | | None | | None |
| Act Effct Green (s) | | 60.9 | 100.4 | 12.6 | 79.5 | | | | | 33.5 | | 33.5 |
| Actuated g/C Ratio | | 0.49 | 0.80 | 0.10 | 0.64 | | | | | 0.27 | | 0.27 |

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| v/c Ratio | | 0.31 | 0.16 | 0.67 | 0.40 | | | | | 0.67 | | 0.70 |
| Control Delay (s/veh) | | 7.4 | 1.1 | 60.5 | 11.9 | | | | | 43.9 | | 38.4 |
| Queue Delay | | 0.0 | 0.0 | 0.0 | 0.0 | | | | | 0.0 | | 0.0 |
| Total Delay (s/veh) | | 7.4 | 1.1 | 60.5 | 11.9 | | | | | 43.9 | | 38.4 |
| LOS | | A | A | E | B | | | | | D | | D |
| Approach Delay (s/veh) | | 6.4 | | | 18.6 | | | | | | 42.0 | |
| Approach LOS | | A | | | B | | | | | | D | |
| Queue Length 50th (ft) | | 45 | 0 | 87 | 101 | | | | | 235 | | 194 |
| Queue Length 95th (ft) | | 55 | 7 | #170 | 257 | | | | | 262 | | 269 |
| Internal Link Dist (ft) | | 523 | | | 537 | | | 593 | | | 756 | |
| Turn Bay Length (ft) | | | 155 | | | | | | | 180 | | |
| Base Capacity (vph) | | 3678 | 1381 | 320 | 3373 | | | | | 1208 | | 592 |
| Starvation Cap Reductn | | 0 | 0 | 0 | 0 | | | | | 0 | | 0 |
| Spillback Cap Reductn | | 0 | 0 | 0 | 0 | | | | | 0 | | 0 |
| Storage Cap Reductn | | 0 | 0 | 0 | 0 | | | | | 0 | | 0 |
| Reduced v/c Ratio | | 0.31 | 0.15 | 0.67 | 0.40 | | | | | 0.51 | | 0.56 |

| Intersection Summary | | | |
|---|---|---|---|
| Area Type: | Other | | |
| Cycle Length: 125 | | | |
| Actuated Cycle Length: 125 | | | |
| Offset: 18.8 (15%), Referenced to phase 2:EBT and 6:WBT, Start of Green | | | |
| Natural Cycle: 50 | | | |
| Control Type: Actuated-Coordinated | | | |
| Maximum v/c Ratio: 0.70 | | | |
| Intersection Signal Delay (s/veh): 20.1 | | Intersection LOS: C | |
| Intersection Capacity Utilization 64.0% | | ICU Level of Service C | |
| Analysis Period (min) 15 | | | |
| # 95th percentile volume exceeds capacity, queue may be longer. | | | |
| Queue shown is maximum after two cycles. | | | |

Splits and Phases: 3: I-355 SB Ramps & Butterfield Road



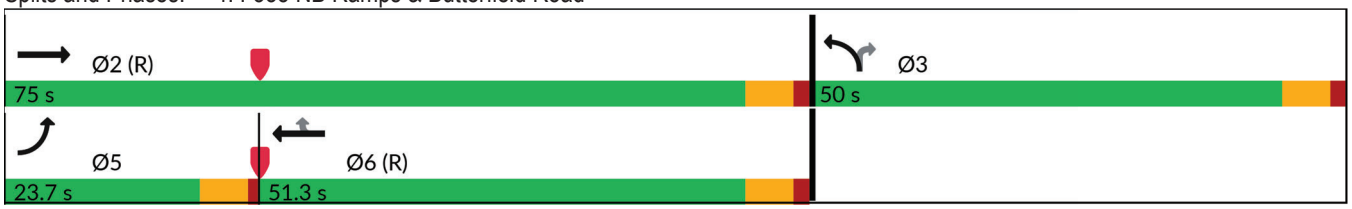


| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 83 | 1574 | 0 | 0 | 1101 | 248 | 369 | 0 | 718 | 0 | 0 | 0 |
| Future Volume (vph) | 83 | 1574 | 0 | 0 | 1101 | 248 | 369 | 0 | 718 | 0 | 0 | 0 |
| Ideal Flow (vphpl) | 1900 | 2000 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Width (ft) | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 |
| Grade (%) | | 0% | | | 0% | | | 0% | | | 0% | |
| Storage Length (ft) | 0 | | 0 | 150 | | 0 | 370 | | 0 | 0 | | 0 |
| Storage Lanes | 2 | | 0 | 2 | | 1 | 2 | | 2 | 0 | | 0 |
| Taper Length (ft) | 25 | | | 300 | | | 180 | | | 25 | | |
| Lane Util. Factor | 0.97 | 0.91 | 1.00 | 1.00 | 0.81 | 1.00 | 0.97 | 1.00 | 0.88 | 1.00 | 1.00 | 1.00 |
| Ped Bike Factor | | | | | | | | | | | | |
| Frt | | | | | | 0.850 | | | 0.850 | | | |
| Flt Protected | 0.950 | | | | | | 0.950 | | | | | |
| Satd. Flow (prot) | 3303 | 5406 | 0 | 0 | 7399 | 1524 | 3335 | 0 | 2787 | 0 | 0 | 0 |
| Flt Permitted | 0.950 | | | | | | 0.950 | | | | | |
| Satd. Flow (perm) | 3303 | 5406 | 0 | 0 | 7399 | 1524 | 3335 | 0 | 2787 | 0 | 0 | 0 |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Satd. Flow (RTOR) | | | | | | 267 | | | 74 | | | |
| Link Speed (mph) | | 45 | | | 45 | | | 30 | | | 30 | |
| Link Distance (ft) | | 617 | | | 559 | | | 683 | | | 840 | |
| Travel Time (s) | | 9.3 | | | 8.5 | | | 15.5 | | | 19.1 | |
| Confl. Peds. (#/hr) | | | | | | | | | | | | |
| Confl. Bikes (#/hr) | | | | | | | | | | | | |
| Peak Hour Factor | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 |
| Growth Factor | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% |
| Heavy Vehicles (%) | 6% | 1% | 0% | 0% | 4% | 6% | 5% | 0% | 2% | 0% | 0% | 0% |
| Bus Blockages (#/hr) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Parking (#/hr) | | | | | | | | | | | | |
| Mid-Block Traffic (%) | | 0% | | | 0% | | | 0% | | | 0% | |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 89 | 1692 | 0 | 0 | 1184 | 267 | 397 | 0 | 772 | 0 | 0 | 0 |
| Turn Type | Prot | NA | | | NA | Perm | Prot | | Perm | | | |
| Protected Phases | 5 | 2 | | | 6 | | 3 | | | | | |
| Permitted Phases | | | | | | 6 | | | 3 | | | |
| Detector Phase | 5 | 2 | | | 6 | 6 | 3 | | 3 | | | |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 3.0 | 15.0 | | | 15.0 | 15.0 | 8.0 | | 8.0 | | | |
| Minimum Split (s) | 8.5 | 22.0 | | | 22.0 | 22.0 | 14.0 | | 14.0 | | | |
| Total Split (s) | 23.7 | 75.0 | | | 51.3 | 51.3 | 50.0 | | 50.0 | | | |
| Total Split (%) | 19.0% | 60.0% | | | 41.0% | 41.0% | 40.0% | | 40.0% | | | |
| Yellow Time (s) | 4.5 | 4.5 | | | 4.5 | 4.5 | 4.5 | | 4.5 | | | |
| All-Red Time (s) | 1.0 | 1.5 | | | 1.5 | 1.5 | 1.5 | | 1.5 | | | |
| Lost Time Adjust (s) | 0.0 | 0.0 | | | 0.0 | 0.0 | 0.0 | | 0.0 | | | |
| Total Lost Time (s) | 5.5 | 6.0 | | | 6.0 | 6.0 | 6.0 | | 6.0 | | | |
| Lead/Lag | Lead | | | | Lag | Lag | | | | | | |
| Lead-Lag Optimize? | Yes | | | | Yes | Yes | | | | | | |
| Recall Mode | None | C-Min | | | C-Min | C-Min | None | | None | | | |
| Act Effct Green (s) | 8.7 | 73.5 | | | 59.3 | 59.3 | 39.5 | | 39.5 | | | |
| Actuated g/C Ratio | 0.07 | 0.59 | | | 0.47 | 0.47 | 0.32 | | 0.32 | | | |

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| v/c Ratio | 0.39 | 0.53 | | | 0.34 | 0.31 | 0.38 | | 0.83 | | | |
| Control Delay (s/veh) | 59.8 | 12.7 | | | 18.1 | 7.3 | 33.7 | | 43.8 | | | |
| Queue Delay | 0.0 | 0.2 | | | 0.0 | 0.0 | 0.0 | | 0.0 | | | |
| Total Delay (s/veh) | 59.8 | 12.9 | | | 18.1 | 7.3 | 33.7 | | 43.8 | | | |
| LOS | E | B | | | B | A | C | | D | | | |
| Approach Delay (s/veh) | | 15.2 | | | 16.1 | | | 40.4 | | | | |
| Approach LOS | | B | | | B | | | D | | | | |
| Queue Length 50th (ft) | 34 | 353 | | | 175 | 80 | 130 | | 299 | | | |
| Queue Length 95th (ft) | 46 | 438 | | | 225 | 137 | 170 | | 373 | | | |
| Internal Link Dist (ft) | | 537 | | | 479 | | | 603 | | | 760 | |
| Turn Bay Length (ft) | | | | | | | 370 | | | | | |
| Base Capacity (vph) | 480 | 3178 | | | 3508 | 863 | 1173 | | 1028 | | | |
| Starvation Cap Reductn | 0 | 540 | | | 0 | 0 | 0 | | 0 | | | |
| Spillback Cap Reductn | 0 | 33 | | | 0 | 0 | 0 | | 0 | | | |
| Storage Cap Reductn | 0 | 0 | | | 0 | 0 | 0 | | 0 | | | |
| Reduced v/c Ratio | 0.19 | 0.64 | | | 0.34 | 0.31 | 0.34 | | 0.75 | | | |

| Intersection Summary | | | |
|---|---|---|---|
| Area Type: | Other | | |
| Cycle Length: 125 | | | |
| Actuated Cycle Length: 125 | | | |
| Offset: 54 (43%), Referenced to phase 2:EBT and 6:WBT, Start of Green | | | |
| Natural Cycle: 50 | | | |
| Control Type: Actuated-Coordinated | | | |
| Maximum v/c Ratio: 0.83 | | | |
| Intersection Signal Delay (s/veh): 22.2 | | Intersection LOS: C | |
| Intersection Capacity Utilization 64.0% | | ICU Level of Service C | |
| Analysis Period (min) 15 | | | |

Splits and Phases: 4: I-355 NB Ramps & Butterfield Road





| Lane Group | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (vph) | 39 | 18 | 9 | 53 | 690 | 453 |
| Future Volume (vph) | 39 | 18 | 9 | 53 | 690 | 453 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 2000 | 2000 | 1900 |
| Lane Width (ft) | 12 | 12 | 12 | 12 | 12 | 12 |
| Grade (%) | 0% | | | 0% | 0% | |
| Storage Length (ft) | 160 | 0 | 125 | | | 115 |
| Storage Lanes | 2 | 1 | 1 | | | 0 |
| Taper Length (ft) | 100 | | 90 | | | |
| Lane Util. Factor | 0.97 | 1.00 | 1.00 | 0.95 | 0.95 | 0.88 |
| Ped Bike Factor | | | | | | |
| Frt | | 0.850 | | | | 0.850 |
| Flt Protected | 0.950 | | 0.950 | | | |
| Satd. Flow (prot) | 3335 | 1615 | 1805 | 3800 | 3800 | 2814 |
| Flt Permitted | 0.950 | | 0.347 | | | |
| Satd. Flow (perm) | 3335 | 1615 | 659 | 3800 | 3800 | 2814 |
| Right Turn on Red | | Yes | | | | Yes |
| Satd. Flow (RTOR) | | 20 | | | | 498 |
| Link Speed (mph) | 30 | | | 35 | 35 | |
| Link Distance (ft) | 556 | | | 645 | 290 | |
| Travel Time (s) | 12.6 | | | 12.6 | 5.6 | |
| Confl. Peds. (#/hr) | | | | | | |
| Confl. Bikes (#/hr) | | | | | | |
| Peak Hour Factor | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 |
| Growth Factor | 100% | 100% | 100% | 100% | 100% | 100% |
| Heavy Vehicles (%) | 5% | 0% | 0% | 0% | 0% | 1% |
| Bus Blockages (#/hr) | 0 | 0 | 0 | 0 | 0 | 0 |
| Parking (#/hr) | | | | | | |
| Mid-Block Traffic (%) | 0% | | | 0% | 0% | |
| Shared Lane Traffic (%) | | | | | | |
| Lane Group Flow (vph) | 43 | 20 | 10 | 58 | 758 | 498 |
| Turn Type | Prot | Prot | pm+pt | NA | NA | pm+ov |
| Protected Phases | 4 | 4 | 5 | 2 | 6 | 4 |
| Permitted Phases | | | 2 | | | 6 |
| Detector Phase | 4 | 4 | 5 | 2 | 6 | 4 |
| Switch Phase | | | | | | |
| Minimum Initial (s) | 8.0 | 8.0 | 3.0 | 15.0 | 15.0 | 8.0 |
| Minimum Split (s) | 14.0 | 14.0 | 6.5 | 21.0 | 21.0 | 14.0 |
| Total Split (s) | 34.0 | 34.0 | 12.0 | 91.0 | 79.0 | 34.0 |
| Total Split (%) | 27.2% | 27.2% | 9.6% | 72.8% | 63.2% | 27.2% |
| Yellow Time (s) | 4.0 | 4.0 | 3.5 | 4.0 | 4.0 | 4.0 |
| All-Red Time (s) | 2.0 | 2.0 | 0.0 | 2.0 | 2.0 | 2.0 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Lost Time (s) | 6.0 | 6.0 | 3.5 | 6.0 | 6.0 | 6.0 |
| Lead/Lag | | | Lead | | Lag | |
| Lead-Lag Optimize? | | | Yes | | Yes | |
| Recall Mode | None | None | None | C-Min | C-Min | None |
| Act Effct Green (s) | 9.3 | 9.3 | 106.2 | 103.7 | 101.9 | 121.9 |
| Actuated g/C Ratio | 0.07 | 0.07 | 0.85 | 0.83 | 0.82 | 0.98 |

| Lane Group | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| v/c Ratio | 0.17 | 0.14 | 0.02 | 0.02 | 0.24 | 0.18 |
| Control Delay (s/veh) | 55.3 | 23.1 | 1.7 | 2.0 | 0.9 | 0.1 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.5 | 0.0 |
| Total Delay (s/veh) | 55.3 | 23.1 | 1.7 | 2.0 | 1.5 | 0.1 |
| LOS | E | C | A | A | A | A |
| Approach Delay (s/veh) | 45.1 | | | 2.0 | 0.9 | |
| Approach LOS | D | | | A | A | |
| Queue Length 50th (ft) | 18 | 0 | 1 | 3 | 12 | 0 |
| Queue Length 95th (ft) | 37 | 25 | 4 | 7 | m37 | m0 |
| Internal Link Dist (ft) | 476 | | | 565 | 210 | |
| Turn Bay Length (ft) | 160 | | 125 | | | 115 |
| Base Capacity (vph) | 747 | 377 | 637 | 3153 | 3097 | 2814 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 1805 | 538 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.06 | 0.05 | 0.02 | 0.02 | 0.59 | 0.22 |

| Intersection Summary | | | |
|---|---|---|---|
| Area Type: | Other | | |
| Cycle Length: 125 | | | |
| Actuated Cycle Length: 125 | | | |
| Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBT, Start of Green | | | |
| Natural Cycle: 45 | | | |
| Control Type: Actuated-Coordinated | | | |
| Maximum v/c Ratio: 0.24 | | | |
| Intersection Signal Delay (s/veh): 3.0 | | Intersection LOS: A | |
| Intersection Capacity Utilization 34.8% | | ICU Level of Service A | |
| Analysis Period (min) 15 | | | |

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

Splits and Phases: 6: Lacey Road & Woodcreek Drive

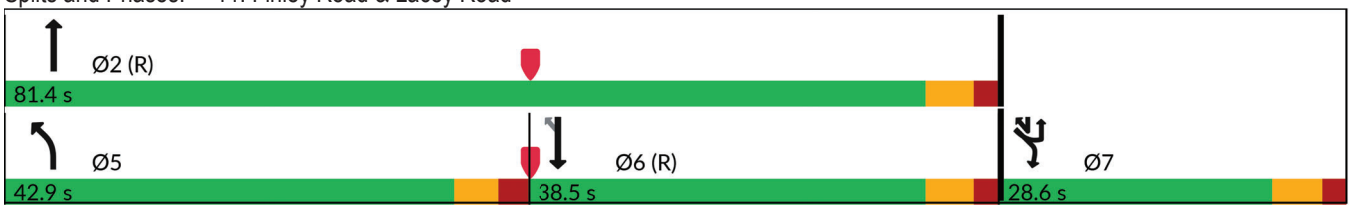


| Lane Group | NBL | NBT | SBT | SBR | SEL | SER |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (vph) | 567 | 772 | 571 | 206 | 11 | 111 |
| Future Volume (vph) | 567 | 772 | 571 | 206 | 11 | 111 |
| Ideal Flow (vphpl) | 1900 | 2000 | 2000 | 1900 | 1900 | 1900 |
| Lane Width (ft) | 12 | 12 | 12 | 12 | 12 | 12 |
| Grade (%) | | 0% | 0% | | 0% | |
| Storage Length (ft) | 305 | | | 400 | 0 | 205 |
| Storage Lanes | 2 | | | 1 | 1 | 1 |
| Taper Length (ft) | 230 | | | | 0 | |
| Lane Util. Factor | 0.97 | 0.95 | 0.95 | 1.00 | 1.00 | 0.88 |
| Ped Bike Factor | | | | | | |
| Frt | | | | 0.850 | | 0.850 |
| Flt Protected | 0.950 | | | | 0.950 | |
| Satd. Flow (prot) | 3467 | 3762 | 3689 | 1599 | 1656 | 2733 |
| Flt Permitted | 0.950 | | | | 0.950 | |
| Satd. Flow (perm) | 3467 | 3762 | 3689 | 1599 | 1656 | 2733 |
| Right Turn on Red | | | | Yes | | Yes |
| Satd. Flow (RTOR) | | | | 98 | | 119 |
| Link Speed (mph) | | 45 | 45 | | 35 | |
| Link Distance (ft) | | 681 | 1175 | | 1160 | |
| Travel Time (s) | | 10.3 | 17.8 | | 22.6 | |
| Confl. Peds. (#/hr) | | | | | | |
| Confl. Bikes (#/hr) | | | | | | |
| Peak Hour Factor | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 |
| Growth Factor | 100% | 100% | 100% | 100% | 100% | 100% |
| Heavy Vehicles (%) | 1% | 1% | 3% | 1% | 9% | 4% |
| Bus Blockages (#/hr) | 0 | 0 | 0 | 0 | 0 | 0 |
| Parking (#/hr) | | | | | | |
| Mid-Block Traffic (%) | | 0% | 0% | | 0% | |
| Shared Lane Traffic (%) | | | | | | |
| Lane Group Flow (vph) | 610 | 830 | 614 | 222 | 12 | 119 |
| Turn Type | Prot | NA | NA | pm+ov | Prot | Prot |
| Protected Phases | 5 | 2 | 6 | 7 | 7 | 7 |
| Permitted Phases | | | | 6 | | |
| Detector Phase | 5 | 2 | 6 | 7 | 7 | 7 |
| Switch Phase | | | | | | |
| Minimum Initial (s) | 4.0 | 15.0 | 15.0 | 8.0 | 8.0 | 8.0 |
| Minimum Split (s) | 10.0 | 21.0 | 21.0 | 14.0 | 14.0 | 14.0 |
| Total Split (s) | 42.9 | 81.4 | 38.5 | 28.6 | 28.6 | 28.6 |
| Total Split (%) | 39.0% | 74.0% | 35.0% | 26.0% | 26.0% | 26.0% |
| Yellow Time (s) | 3.5 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| All-Red Time (s) | 2.5 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Lost Time (s) | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 |
| Lead/Lag | Lead | | Lag | | | |
| Lead-Lag Optimize? | Yes | | Yes | | | |
| Recall Mode | None | C-Min | C-Min | None | None | None |
| Act Effct Green (s) | 25.0 | 89.5 | 58.5 | 73.0 | 8.5 | 8.5 |
| Actuated g/C Ratio | 0.23 | 0.81 | 0.53 | 0.66 | 0.08 | 0.08 |

| Lane Group | NBL | NBT | SBT | SBR | SEL | SER |
|---|---|---|---|---|---|---|
| v/c Ratio | 0.78 | 0.27 | 0.31 | 0.20 | 0.09 | 0.37 |
| Control Delay (s/veh) | 46.8 | 2.8 | 15.8 | 4.9 | 48.2 | 12.1 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay (s/veh) | 46.8 | 2.8 | 15.8 | 4.9 | 48.2 | 12.1 |
| LOS | D | A | B | A | D | B |
| Approach Delay (s/veh) | | 21.4 | 12.9 | | 15.4 | |
| Approach LOS | | C | B | | B | |
| Queue Length 50th (ft) | 211 | 54 | 123 | 29 | 9 | 0 |
| Queue Length 95th (ft) | 254 | 83 | 193 | 70 | 29 | 31 |
| Internal Link Dist (ft) | | 601 | 1095 | | 1080 | |
| Turn Bay Length (ft) | 305 | | | 400 | | 205 |
| Base Capacity (vph) | 1163 | 3059 | 1961 | 1286 | 340 | 656 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.52 | 0.27 | 0.31 | 0.17 | 0.04 | 0.18 |

| Intersection Summary | | | |
|---|---|---|---|
| Area Type: | Other | | |
| Cycle Length: 110 | | | |
| Actuated Cycle Length: 110 | | | |
| Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Green | | | |
| Natural Cycle: 50 | | | |
| Control Type: Actuated-Coordinated | | | |
| Maximum v/c Ratio: 0.78 | | | |
| Intersection Signal Delay (s/veh): 18.1 | | Intersection LOS: B | |
| Intersection Capacity Utilization 52.8% | | ICU Level of Service A | |
| Analysis Period (min) 15 | | | |

Splits and Phases: 11: Finley Road & Lacey Road



| Intersection | |
|---|---|
| Intersection Delay, s/veh | 10.9 |
| Intersection LOS | B |

| Movement | EBL | EBT | EBR | WB | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Vol, veh/h | 12 | 304 | 325 | 0 | 33 | 53 | 33 | 1 | 14 | 1 | 0 | 0 |
| Future Vol, veh/h | 12 | 304 | 325 | 0 | 33 | 53 | 33 | 1 | 14 | 1 | 0 | 0 |
| Peak Hour Factor | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 |
| Heavy Vehicles, % | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mvmt Flow | 13 | 320 | 342 | 0 | 35 | 56 | 35 | 1 | 15 | 1 | 0 | 0 |
| Number of Lanes | 0 | 2 | 0 | 0 | 0 | 2 | 0 | 1 | 1 | 0 | 0 | 0 |

| Approach | EB | WB | NB |
|---|---|---|---|
| Opposing Approach | WB | EB | |
| Opposing Lanes | 2 | 2 | 0 |
| Conflicting Approach Left | | NB | EB |
| Conflicting Lanes Left | 0 | 2 | 2 |
| Conflicting Approach Right | NB | | WB |
| Conflicting Lanes Right | 2 | 0 | 2 |
| HCM Control Delay, s/veh | 11.5 | 8.2 | 8.9 |
| HCM LOS | B | A | A |

| Lane | NBLn1 | NBLn2 | EBLn1 | EBLn2 | WBLn1 | WBLn2 |
|---|---|---|---|---|---|---|
| Vol Left, % | 100% | 0% | 7% | 0% | 55% | 0% |
| Vol Thru, % | 0% | 93% | 93% | 32% | 45% | 45% |
| Vol Right, % | 0% | 7% | 0% | 68% | 0% | 55% |
| Sign Control | Stop | Stop | Stop | Stop | Stop | Stop |
| Traffic Vol by Lane | 1 | 15 | 164 | 477 | 60 | 60 |
| LT Vol | 1 | 0 | 12 | 0 | 33 | 0 |
| Through Vol | 0 | 14 | 152 | 152 | 27 | 27 |
| RT Vol | 0 | 1 | 0 | 325 | 0 | 33 |
| Lane Flow Rate | 1 | 16 | 173 | 502 | 63 | 63 |
| Geometry Grp | 5 | 5 | 5 | 5 | 5 | 5 |
| Degree of til () | 0.002 | 0.027 | 0.222 | 0.574 | 0.093 | 0.081 |
| Departure Headway (Hd) | 6.615 | 6.064 | 4.628 | 4.114 | 5.344 | 4.675 |
| Convergence, /N | es | es | es | es | es | es |
| Cap | 544 | 593 | 770 | 869 | 674 | 770 |
| Service Time | 4.323 | 3.772 | 2.393 | 1.879 | 3.049 | 2.38 |
| HCM Lane V/C Ratio | 0.002 | 0.027 | 0.225 | 0.578 | 0.093 | 0.082 |
| HCM Control Delay, s/veh | 9.3 | 8.9 | 8.7 | 12.4 | 8.6 | 7.8 |
| HCM Lane LOS | A | A | A | B | A | A |
| HCM 95th-tile Q | 0 | 0.1 | 0.8 | 3.7 | 0.3 | 0.3 |

| Intersection | |
|---|---|
| Intersection Delay, s/veh | |
| Intersection LOS | |

| Movement | SBR |
|---|---|
| Lane Configurations | |
| Traffic Vol, veh/h | 0 |
| Future Vol, veh/h | 0 |
| Peak Hour Factor | 0.95 |
| Heavy Vehicles, % | 0 |
| Mvmt Flow | 0 |
| Number of Lanes | 0 |

| Approach | |
|---|---|
| Opposing Approach | |
| Opposing Lanes | |
| Conflicting Approach Left | |
| Conflicting Lanes Left | |
| Conflicting Approach Right | |
| Conflicting Lanes Right | |
| HCM Control Delay, s/veh | |
| HCM LOS | |

| Intersection | |
|---|---|
| Int Delay, s/veh | 1.7 |

| Movement | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 2 | 10 | 92 | 122 | 237 | 30 |
| Future Vol, veh/h | 2 | 10 | 92 | 122 | 237 | 30 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Free | Free | Free | Free |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | 45 | 0 | 80 | - | - | - |
| Veh in Median Storage, # | 1 | - | - | 0 | 0 | - |
| Grade, % | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 0 | 0 | 1 | 1 | 0 | 0 |
| Mvmt Flow | 2 | 11 | 100 | 133 | 258 | 33 |

| Major/Minor | Minor2 | | Major1 | | Major2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 540 | 145 | 290 | 0 | - | 0 |
| Stage 1 | 274 | - | - | - | - | - |
| Stage 2 | 266 | - | - | - | - | - |
| Critical Hdwy | 6.8 | 6.9 | 4.12 | - | - | - |
| Critical Hdwy Stg 1 | 5.8 | - | - | - | - | - |
| Critical Hdwy Stg 2 | 5.8 | - | - | - | - | - |
| Follow-up Hdwy | 3.5 | 3.3 | 2.21 | - | - | - |
| Pot Cap-1 Maneuver | 477 | 882 | 1276 | - | - | - |
| Stage 1 | 754 | - | - | - | - | - |
| Stage 2 | 760 | - | - | - | - | - |
| Platoon blocked, % | | | | - | - | - |
| Mov Cap-1 Maneuver | 439 | 882 | 1276 | - | - | - |
| Mov Cap-2 Maneuver | 531 | - | - | - | - | - |
| Stage 1 | 695 | - | - | - | - | - |
| Stage 2 | 760 | - | - | - | - | - |

| Approach | EB | NB | SB |
|---|---|---|---|
| HCM Ctrl Dly, s/v | 9.58 | 3.47 | 0 |
| HCM LOS | A | | |

| Minor Lane/Major Mvmt | NBL | NBT | EBLn1 | EBLn2 | SBT | SBR |
|---|---|---|---|---|---|---|
| Capacity (veh/h) | 1276 | - | 531 | 882 | - | - |
| HCM Lane V/C Ratio | 0.078 | - | 0.004 | 0.012 | - | - |
| HCM Ctrl Dly (s/v) | 8.1 | - | 11.8 | 9.1 | - | - |
| HCM Lane LOS | A | - | B | A | - | - |
| HCM 95th %tile Q(veh) | 0.3 | - | 0 | 0 | - | - |

| Intersection | |
|---|---|
| Int Delay, s/veh | 4.4 |

| Movement | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 30 | 70 | 272 | 184 | 180 | 67 |
| Future Vol, veh/h | 30 | 70 | 272 | 184 | 180 | 67 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Free | Free | Free | Free |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | 115 | 0 | 180 | - | - | - |
| Veh in Median Storage, # | 1 | - | - | 0 | 0 | - |
| Grade, % | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 0 | 3 | 0 | 0 | 0 | 0 |
| Mvmt Flow | 33 | 76 | 296 | 200 | 196 | 73 |

| Major/Minor | Minor2 | | Major1 | | Major2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 923 | 134 | 268 | 0 | - | 0 |
| Stage 1 | 232 | - | - | - | - | - |
| Stage 2 | 691 | - | - | - | - | - |
| Critical Hdwy | 6.8 | 6.96 | 4.1 | - | - | - |
| Critical Hdwy Stg 1 | 5.8 | - | - | - | - | - |
| Critical Hdwy Stg 2 | 5.8 | - | - | - | - | - |
| Follow-up Hdwy | 3.5 | 3.33 | 2.2 | - | - | - |
| Pot Cap-1 Maneuver | 272 | 887 | 1307 | - | - | - |
| Stage 1 | 791 | - | - | - | - | - |
| Stage 2 | 464 | - | - | - | - | - |
| Platoon blocked, % | | | | - | - | - |
| Mov Cap-1 Maneuver | 211 | 887 | 1307 | - | - | - |
| Mov Cap-2 Maneuver | 334 | - | - | - | - | - |
| Stage 1 | 612 | - | - | - | - | - |
| Stage 2 | 464 | - | - | - | - | - |

| Approach | EB | NB | SB |
|---|---|---|---|
| HCM Ctrl Dly, s/v | 11.69 | 5.1 | 0 |
| HCM LOS | B | | |

| Minor Lane/Major Mvmt | NBL | NBT | EBLn1 | EBLn2 | SBT | SBR |
|---|---|---|---|---|---|---|
| Capacity (veh/h) | 1307 | - | 334 | 887 | - | - |
| HCM Lane V/C Ratio | 0.226 | - | 0.098 | 0.086 | - | - |
| HCM Ctrl Dly (s/v) | 8.6 | - | 16.9 | 9.4 | - | - |
| HCM Lane LOS | A | - | C | A | - | - |
| HCM 95th %tile Q(veh) | 0.9 | - | 0.3 | 0.3 | - | - |

| Intersection | |
|---|---|
| Int Delay, s/veh | 0.2 |

| Movement | SET | SER | NWL | NWT | NEL | NER |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 197 | 6 | 3 | 76 | 3 | 0 |
| Future Vol, veh/h | 197 | 6 | 3 | 76 | 3 | 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 | 74 | 74 | 74 | 74 | 74 | 74 |
| Heavy Vehicles, % | 1 | 0 | 0 | 0 | 0 | 0 |
| Mvmt Flow | 266 | 8 | 4 | 103 | 4 | 0 |

| Major/Minor | Major1 | | Major2 | | Minor1 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 0 | 0 | 274 | 0 | 381 | 270 |
| Stage 1 | - | - | - | - | 270 | - |
| Stage 2 | - | - | - | - | 111 | - |
| 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 | - | - | 1300 | - | 625 | 773 |
| Stage 1 | - | - | - | - | 780 | - |
| Stage 2 | - | - | - | - | 919 | - |
| Platoon blocked, % | - | - | | - | | |
| Mov Cap-1 Maneuver | - | - | 1300 | - | 623 | 773 |
| Mov Cap-2 Maneuver | - | - | - | - | 623 | - |
| Stage 1 | - | - | - | - | 780 | - |
| Stage 2 | - | - | - | - | 916 | - |

| Approach | SE | NW | NE |
|---|---|---|---|
| HCM Ctrl Dly, s/v | 0 | 0.3 | 10.82 |
| HCM LOS | | | B |

| Minor Lane/Major Mvmt | NELn1 | NWL | NWT | SET | SER |
|---|---|---|---|---|---|
| Capacity (veh/h) | 623 | 68 | - | - | - |
| HCM Lane V/C Ratio | 0.007 | 0.003 | - | - | - |
| HCM Ctrl Dly (s/v) | 10.8 | 7.8 | 0 | - | - |
| HCM Lane LOS | B | A | A | - | - |
| HCM 95th %tile Q(veh) | 0 | 0 | - | - | - |

| Intersection | |
|---|---|
| Int Delay, s/veh | 5.2 |

| Movement | EBT | EBR | WBL | WBT | NBL | NBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 29 | 168 | 269 | 70 | 9 | 71 |
| Future Vol, veh/h | 29 | 168 | 269 | 70 | 9 | 71 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | 90 | - | 0 | 0 |
| Veh in Median Storage, # | 0 | - | - | 0 | 0 | - |
| Grade, % | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 79 | 79 | 79 | 79 | 79 | 79 |
| Heavy Vehicles, % | 7 | 0 | 0 | 0 | 0 | 0 |
| Mvmt Flow | 37 | 213 | 341 | 89 | 11 | 90 |

| Major/Minor | Major1 | | Major2 | | Minor1 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 0 | 0 | 249 | 0 | 913 | 143 |
| Stage 1 | - | - | - | - | 143 | - |
| Stage 2 | - | - | - | - | 770 | - |
| 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 | - | - | 1328 | - | 306 | 910 |
| Stage 1 | - | - | - | - | 889 | - |
| Stage 2 | - | - | - | - | 461 | - |
| Platoon blocked, % | - | - | | - | | |
| Mov Cap-1 Maneuver | - | - | 1328 | - | 228 | 910 |
| Mov Cap-2 Maneuver | - | - | - | - | 228 | - |
| Stage 1 | - | - | - | - | 889 | - |
| Stage 2 | - | - | - | - | 342 | - |

| Approach | EB | WB | NB |
|---|---|---|---|
| HCM Ctrl Dly, s/v | 0 | 6.86 | 10.77 |
| HCM LOS | | | B |

| Minor Lane/Major Mvmt | NBLn1 | NBLn2 | EBT | EBR | WBL | WBT |
|---|---|---|---|---|---|---|
| Capacity (veh/h) | 228 | 910 | - | - | 1328 | - |
| HCM Lane V/C Ratio | 0.05 | 0.099 | - | - | 0.256 | - |
| HCM Ctrl Dly (s/v) | 21.6 | 9.4 | - | - | 8.6 | - |
| HCM Lane LOS | C | A | - | - | A | - |
| HCM 95th %tile Q(veh) | 0.2 | 0.3 | - | - | 1 | - |

# Capacity Analysis Summary Sheets

## Year 2032 No-Build Weekday Evening Peak Hour

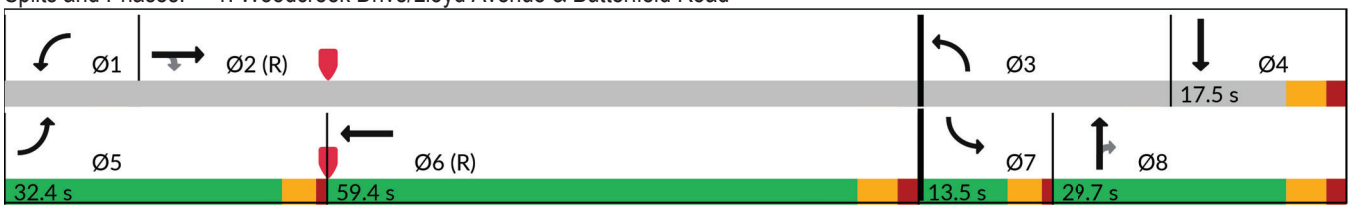


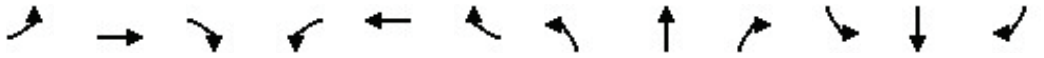
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 50 | 1019 | 67 | 124 | 1307 | 93 | 185 | 40 | 156 | 58 | 21 | 75 |
| Future Volume (vph) | 50 | 1019 | 67 | 124 | 1307 | 93 | 185 | 40 | 156 | 58 | 21 | 75 |
| Ideal Flow (vphpl) | 1900 | 2000 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Width (ft) | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 |
| Grade (%) | | 0% | | | 0% | | | 0% | | | 0% | |
| Storage Length (ft) | 265 | | 465 | 0 | | 0 | 118 | | 0 | 120 | | 0 |
| Storage Lanes | 1 | | 2 | 2 | | 0 | 1 | | 1 | 1 | | 0 |
| Taper Length (ft) | 85 | | | 25 | | | 45 | | | 85 | | |
| Lane Util. Factor | 1.00 | 0.91 | 0.88 | 0.97 | 0.91 | 0.91 | 0.97 | 0.95 | 0.95 | 1.00 | 1.00 | 1.00 |
| Ped Bike Factor | | | | | | | | | | | | |
| Frt | | | 0.850 | | 0.990 | | | 0.909 | 0.850 | | 0.883 | |
| Flt Protected | 0.950 | | | 0.950 | | | 0.950 | | | 0.950 | | |
| Satd. Flow (prot) | 1736 | 5406 | 2787 | 3467 | 5135 | 0 | 3467 | 1631 | 1519 | 1805 | 1665 | 0 |
| Flt Permitted | 0.950 | | | 0.950 | | | 0.950 | | | 0.950 | | |
| Satd. Flow (perm) | 1736 | 5406 | 2787 | 3467 | 5135 | 0 | 3467 | 1631 | 1519 | 1805 | 1665 | 0 |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Satd. Flow (RTOR) | | | 133 | | 10 | | | 49 | 133 | | 79 | |
| Link Speed (mph) | | 45 | | | 45 | | | 30 | | | 30 | |
| Link Distance (ft) | | 2017 | | | 601 | | | 290 | | | 452 | |
| Travel Time (s) | | 30.6 | | | 9.1 | | | 6.6 | | | 10.3 | |
| Confl. Peds. (#/hr) | | | | | | | | | | | | |
| Confl. Bikes (#/hr) | | | | | | | | | | | | |
| Peak Hour Factor | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 |
| Growth Factor | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% |
| Heavy Vehicles (%) | 4% | 1% | 2% | 1% | 0% | 0% | 1% | 0% | 1% | 0% | 0% | 1% |
| Bus Blockages (#/hr) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Parking (#/hr) | | | | | | | | | | | | |
| Mid-Block Traffic (%) | | 0% | | | 0% | | | 0% | | | 0% | |
| Shared Lane Traffic (%) | | | | | | | | | 39% | | | |
| Lane Group Flow (vph) | 53 | 1073 | 71 | 131 | 1474 | 0 | 195 | 106 | 100 | 61 | 101 | 0 |
| Turn Type | Prot | NA | Perm | Prot | NA | | Prot | NA | Perm | Prot | NA | |
| Protected Phases | 5 | 2 | | 1 | 6 | | 3 | 8 | | 7 | 4 | |
| Permitted Phases | | | 2 | | | | | | 8 | | | |
| Detector Phase | 5 | 2 | 2 | 1 | 6 | | 3 | 8 | 8 | 7 | 4 | |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 3.0 | 15.0 | 15.0 | 3.0 | 15.0 | | 3.0 | 8.0 | 8.0 | 3.0 | 8.0 | |
| Minimum Split (s) | 7.5 | 21.0 | 21.0 | 7.5 | 21.0 | | 7.5 | 14.0 | 14.0 | 7.5 | 14.0 | |
| Total Split (s) | 32.4 | 78.3 | 78.3 | 13.5 | 59.4 | | 25.6 | 29.7 | 29.7 | 13.5 | 17.5 | |
| Total Split (%) | 24.0% | 58.0% | 58.0% | 10.0% | 44.0% | | 19.0% | 22.0% | 22.0% | 10.0% | 13.0% | |
| Yellow Time (s) | 3.5 | 4.0 | 4.0 | 3.5 | 4.0 | | 3.5 | 4.0 | 4.0 | 3.5 | 4.0 | |
| All-Red Time (s) | 1.0 | 2.0 | 2.0 | 1.0 | 2.0 | | 1.0 | 2.0 | 2.0 | 1.0 | 2.0 | |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | |
| Total Lost Time (s) | 4.5 | 6.0 | 6.0 | 4.5 | 6.0 | | 4.5 | 6.0 | 6.0 | 4.5 | 6.0 | |
| Lead/Lag | Lead | Lag | Lag | Lead | Lag | | Lead | Lag | Lag | Lead | Lag | |
| Lead-Lag Optimize? | Yes | Yes | Yes | Yes | Yes | | Yes | Yes | Yes | Yes | Yes | |
| Recall Mode | None | C-Min | C-Min | None | C-Min | | None | None | None | None | None | |
| Act Effct Green (s) | 9.5 | 81.3 | 81.3 | 10.1 | 83.9 | | 12.9 | 16.5 | 16.5 | 8.3 | 9.7 | |
| Actuated g/C Ratio | 0.07 | 0.60 | 0.60 | 0.07 | 0.62 | | 0.10 | 0.12 | 0.12 | 0.06 | 0.07 | |

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| v/c Ratio | 0.43 | 0.33 | 0.04 | 0.51 | 0.46 | | 0.59 | 0.44 | 0.33 | 0.55 | 0.52 | |
| Control Delay (s/veh) | 70.3 | 14.3 | 0.0 | 82.5 | 6.1 | | 41.1 | 21.5 | 11.7 | 80.1 | 28.4 | |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | |
| Total Delay (s/veh) | 70.3 | 14.3 | 0.0 | 82.5 | 6.1 | | 41.1 | 21.5 | 11.7 | 80.1 | 28.4 | |
| LOS | E | B | A | F | A | | D | C | B | F | C | |
| Approach Delay (s/veh) | | 16.0 | | | 12.3 | | | 28.6 | | | 47.8 | |
| Approach LOS | | B | | | B | | | C | | | D | |
| Queue Length 50th (ft) | 47 | 160 | 0 | 63 | 43 | | 83 | 56 | 23 | 53 | 19 | |
| Queue Length 95th (ft) | 92 | 228 | 0 | 100 | 78 | | 122 | 101 | 69 | 101 | 75 | |
| Internal Link Dist (ft) | | 1937 | | | 521 | | | 210 | | | 372 | |
| Turn Bay Length (ft) | 265 | | 465 | | | | 118 | | | 120 | | |
| Base Capacity (vph) | 358 | 3255 | 1731 | 266 | 3195 | | 541 | 326 | 376 | 120 | 220 | |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 32 | | 0 | 0 | 0 | 0 | 0 | |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | |
| Reduced v/c Ratio | 0.15 | 0.33 | 0.04 | 0.49 | 0.47 | | 0.36 | 0.33 | 0.27 | 0.51 | 0.46 | |

| Intersection Summary | | | |
|---|---|---|---|
| Area Type: | Other | | |
| Cycle Length: 135 | | | |
| Actuated Cycle Length: 135 | | | |
| Offset: 116.1 (86%), Referenced to phase 2:EBT and 6:WBT, Start of Green | | | |
| Natural Cycle: 60 | | | |
| Control Type: Actuated-Coordinated | | | |
| Maximum v/c Ratio: 0.59 | | | |
| Intersection Signal Delay (s/veh): 17.3 | | Intersection LOS: B | |
| Intersection Capacity Utilization 56.3% | | ICU Level of Service B | |
| Analysis Period (min) 15 | | | |

Splits and Phases: 1: Woodcreek Drive/Lloyd Avenue & Butterfield Road





| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 68 | 1165 | 0 | 0 | 1468 | 127 | 0 | 0 | 505 | 114 | 0 | 56 |
| Future Volume (vph) | 68 | 1165 | 0 | 0 | 1468 | 127 | 0 | 0 | 505 | 114 | 0 | 56 |
| Ideal Flow (vphpl) | 1900 | 2000 | 1900 | 1900 | 2000 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Width (ft) | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 |
| Grade (%) | | 0% | | | 0% | | | 0% | | | 0% | |
| Storage Length (ft) | 230 | | 0 | 60 | | 175 | 0 | | 0 | 0 | | 100 |
| Storage Lanes | 1 | | 0 | 2 | | 1 | 0 | | 2 | 2 | | 1 |
| Taper Length (ft) | 210 | | | 300 | | | 25 | | | 25 | | |
| Lane Util. Factor | 1.00 | 0.91 | 1.00 | 1.00 | 0.81 | 1.00 | 1.00 | 1.00 | *1.00 | 0.97 | 1.00 | 1.00 |
| Ped Bike Factor | | | | | | | | | | | | |
| Frt | | | | | | 0.850 | | | 0.850 | | | 0.850 |
| Flt Protected | 0.950 | | | | | | | | | 0.950 | | |
| Satd. Flow (prot) | 1805 | 5406 | 0 | 0 | 8020 | 1583 | 0 | 0 | 3230 | 3335 | 0 | 1615 |
| Flt Permitted | 0.950 | | | | | | | | | 0.950 | | |
| Satd. Flow (perm) | 1805 | 5406 | 0 | 0 | 8020 | 1583 | 0 | 0 | 3230 | 3335 | 0 | 1615 |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Satd. Flow (RTOR) | | | | | | 138 | | | *330 | | | 61 |
| Link Speed (mph) | | 45 | | | 45 | | | 30 | | | 30 | |
| Link Distance (ft) | | 601 | | | 603 | | | 352 | | | 378 | |
| Travel Time (s) | | 9.1 | | | 9.1 | | | 8.0 | | | 8.6 | |
| Confl. Peds. (#/hr) | | | | | | | | | | | | |
| Confl. Bikes (#/hr) | | | | | | | | | | | | |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Growth Factor | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% |
| Heavy Vehicles (%) | 0% | 1% | 0% | 0% | 1% | 2% | 0% | 0% | 0% | 5% | 0% | 0% |
| Bus Blockages (#/hr) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Parking (#/hr) | | | | | | | | | | | | |
| Mid-Block Traffic (%) | | 0% | | | 0% | | | 0% | | | 0% | |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 74 | 1266 | 0 | 0 | 1596 | 138 | 0 | 0 | 549 | 124 | 0 | 61 |
| Turn Type | Prot | NA | | | NA | custom | | | Prot | Prot | | custom |
| Protected Phases | 5 | 2 | | | 6 | 7 8 | | | 8 | 7 | | 7 8 |
| Permitted Phases | | | | | | 6 | | | 8 | 7 | | |
| Detector Phase | 5 | 2 | | | 6 | 7 8 | | | 8 | 7 | | 7 8 |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 3.0 | 15.0 | | | 15.0 | | | | 8.0 | 8.0 | | |
| Minimum Split (s) | 7.5 | 21.0 | | | 21.0 | | | | 14.0 | 14.0 | | |
| Total Split (s) | 16.2 | 95.8 | | | 79.6 | | | | 18.9 | 20.3 | | |
| Total Split (%) | 12.0% | 71.0% | | | 59.0% | | | | 14.0% | 15.0% | | |
| Yellow Time (s) | 3.5 | 4.0 | | | 4.0 | | | | 4.0 | 4.0 | | |
| All-Red Time (s) | 1.0 | 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) | 4.5 | 6.0 | | | 6.0 | | | | 6.0 | 6.0 | | |
| Lead/Lag | Lead | | | | Lag | | | | Lead | Lag | | |
| Lead-Lag Optimize? | Yes | | | | Yes | | | | Yes | Yes | | |
| Recall Mode | None | C-Min | | | C-Min | | | | None | None | | |
| Act Effct Green (s) | 10.2 | 93.2 | | | 80.7 | 117.7 | | | 12.5 | 11.3 | | 29.8 |
| Actuated g/C Ratio | 0.08 | 0.69 | | | 0.60 | 0.87 | | | 0.09 | 0.08 | | 0.22 |

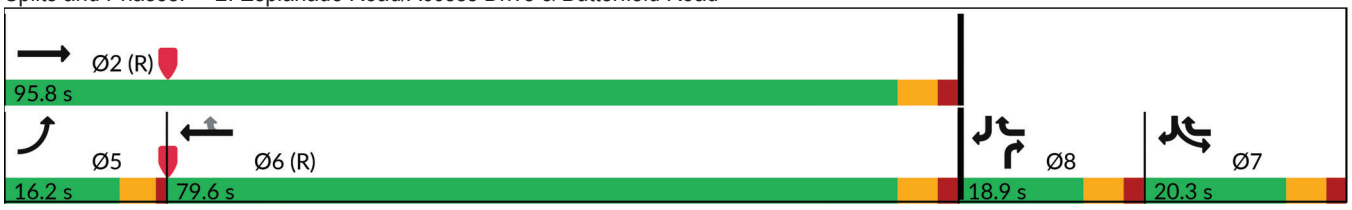
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| v/c Ratio | 0.54 | 0.34 | | | 0.33 | 0.10 | | | 0.92 | 0.44 | | 0.15 |
| Control Delay (s/veh) | 101.4 | 4.4 | | | 7.2 | 0.7 | | | 45.2 | 63.5 | | 10.3 |
| Queue Delay | 0.0 | 0.0 | | | 0.0 | 0.0 | | | 0.0 | 0.0 | | 0.0 |
| Total Delay (s/veh) | 101.4 | 4.4 | | | 7.2 | 0.7 | | | 45.2 | 63.5 | | 10.3 |
| LOS | F | A | | | A | A | | | D | E | | B |
| Approach Delay (s/veh) | | 9.7 | | | 6.7 | | | 45.2 | | | 46.0 | |
| Approach LOS | | A | | | A | | | D | | | D | |
| Queue Length 50th (ft) | 69 | 62 | | | 133 | 6 | | | 98 | 56 | | 0 |
| Queue Length 95th (ft) | 124 | 74 | | | 152 | 0 | | | #197 | 89 | | 36 |
| Internal Link Dist (ft) | | 521 | | | 523 | | | 272 | | | 298 | |
| Turn Bay Length (ft) | 230 | | | | | 175 | | | | | | 100 |
| Base Capacity (vph) | 158 | 3731 | | | 4795 | 1409 | | | 607 | 353 | | 429 |
| Starvation Cap Reductn | 0 | 0 | | | 0 | 0 | | | 0 | 0 | | 0 |
| Spillback Cap Reductn | 0 | 0 | | | 0 | 0 | | | 0 | 0 | | 0 |
| Storage Cap Reductn | 0 | 0 | | | 0 | 0 | | | 0 | 0 | | 0 |
| Reduced v/c Ratio | 0.47 | 0.34 | | | 0.33 | 0.10 | | | 0.90 | 0.35 | | 0.14 |

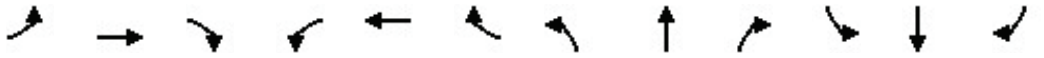
| Intersection Summary | | | |
|---|---|---|---|
| Area Type: | Other | | |
| Cycle Length: 135 | | | |
| Actuated Cycle Length: 135 | | | |
| Offset: 104 (77%), Referenced to phase 2:EBT and 6:WBT, Start of Green | | | |
| Natural Cycle: 60 | | | |
| Control Type: Actuated-Coordinated | | | |
| Maximum v/c Ratio: 0.92 | | | |
| Intersection Signal Delay (s/veh): 15.2 | | Intersection LOS: B | |
| Intersection Capacity Utilization 55.7% | | ICU Level of Service B | |
| Analysis Period (min) 15 | | | |

* User Entered Value

\# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 2: Esplanade Road/Access Drive & Butterfield Road





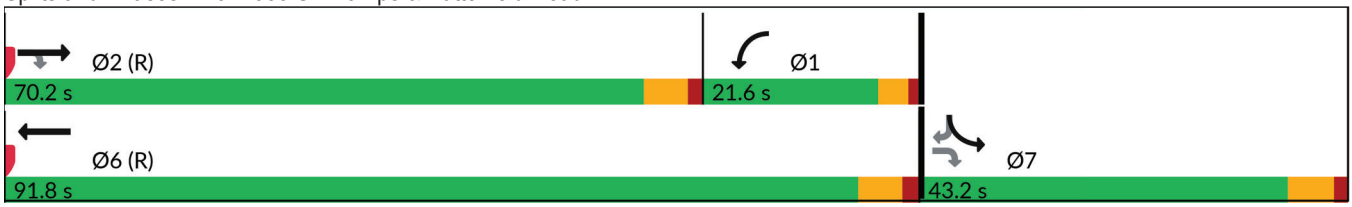
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 0 | 1369 | 415 | 277 | 1442 | 0 | 0 | 0 | 0 | 282 | 0 | 153 |
| Future Volume (vph) | 0 | 1369 | 415 | 277 | 1442 | 0 | 0 | 0 | 0 | 282 | 0 | 153 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 2000 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Width (ft) | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 |
| Grade (%) | | 0% | | | 0% | | | 0% | | | 0% | |
| Storage Length (ft) | 150 | | 155 | 0 | | 0 | 0 | | 0 | 180 | | 0 |
| Storage Lanes | 2 | | 1 | 2 | | 0 | 0 | | 0 | 2 | | 1 |
| Taper Length (ft) | 300 | | | 25 | | | 25 | | | 215 | | |
| Lane Util. Factor | 1.00 | 0.81 | 1.00 | 0.97 | 0.91 | 1.00 | 1.00 | 1.00 | 1.00 | 0.97 | 1.00 | 1.00 |
| Ped Bike Factor | | | | | | | | | | | | |
| Frt | | | 0.850 | | | | | | | | | 0.850 |
| Flt Protected | | | | 0.950 | | | | | | 0.950 | | |
| Satd. Flow (prot) | 0 | 7619 | 1599 | 3433 | 5460 | 0 | 0 | 0 | 0 | 3467 | 0 | 1583 |
| Flt Permitted | | | | 0.950 | | | | | | 0.950 | | |
| Satd. Flow (perm) | 0 | 7619 | 1599 | 3433 | 5460 | 0 | 0 | 0 | 0 | 3467 | 0 | 1583 |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Satd. Flow (RTOR) | | | 58 | | | | | | | | | 73 |
| Link Speed (mph) | | 45 | | | 45 | | | 30 | | | 30 | |
| Link Distance (ft) | | 603 | | | 618 | | | 665 | | | 844 | |
| Travel Time (s) | | 9.1 | | | 9.4 | | | 15.1 | | | 19.2 | |
| Confl. Peds. (#/hr) | | | | | | | | | | | | |
| Confl. Bikes (#/hr) | | | | | | | | | | | | |
| Peak Hour Factor | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 |
| Growth Factor | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% |
| Heavy Vehicles (%) | 0% | 1% | 1% | 2% | 0% | 0% | 0% | 0% | 0% | 1% | 0% | 2% |
| Bus Blockages (#/hr) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Parking (#/hr) | | | | | | | | | | | | |
| Mid-Block Traffic (%) | | 0% | | | 0% | | | 0% | | | 0% | |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 0 | 1411 | 428 | 286 | 1487 | 0 | 0 | 0 | 0 | 291 | 0 | 158 |
| Turn Type | | NA | custom | Prot | NA | | | | | Prot | | Perm |
| Protected Phases | | 2 | | 1 | 6 | | | | | 7 | | |
| Permitted Phases | | | 2 7 | | | | | | | | | 7 |
| Detector Phase | | 2 | 2 7 | 1 | 6 | | | | | 7 | | 7 |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | | 15.0 | | 3.0 | 15.0 | | | | | 8.0 | | 8.0 |
| Minimum Split (s) | | 21.0 | | 7.0 | 21.0 | | | | | 14.0 | | 14.0 |
| Total Split (s) | | 70.2 | | 21.6 | 91.8 | | | | | 43.2 | | 43.2 |
| Total Split (%) | | 52.0% | | 16.0% | 68.0% | | | | | 32.0% | | 32.0% |
| Yellow Time (s) | | 4.5 | | 3.0 | 4.5 | | | | | 4.5 | | 4.5 |
| All-Red Time (s) | | 1.5 | | 1.0 | 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 | | 4.0 | 6.0 | | | | | 6.0 | | 6.0 |
| Lead/Lag | | Lead | | Lag | | | | | | | | |
| Lead-Lag Optimize? | | Yes | | Yes | | | | | | | | |
| Recall Mode | | C-Min | | None | C-Min | | | | | None | | None |
| Act Effct Green (s) | | 81.1 | 107.4 | 17.6 | 102.7 | | | | | 20.3 | | 20.3 |
| Actuated g/C Ratio | | 0.60 | 0.80 | 0.13 | 0.76 | | | | | 0.15 | | 0.15 |

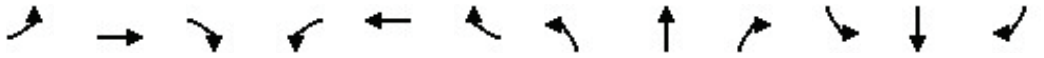
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| v/c Ratio | | 0.31 | 0.33 | 0.64 | 0.36 | | | | | 0.56 | | 0.53 |
| Control Delay (s/veh) | | 10.4 | 2.7 | 62.8 | 2.4 | | | | | 56.8 | | 33.7 |
| Queue Delay | | 0.0 | 0.2 | 0.0 | 0.1 | | | | | 0.0 | | 0.0 |
| Total Delay (s/veh) | | 10.4 | 2.9 | 62.8 | 2.5 | | | | | 56.8 | | 33.7 |
| LOS | | B | A | E | A | | | | | E | | C |
| Approach Delay (s/veh) | | 8.7 | | | 12.2 | | | | | | 48.6 | |
| Approach LOS | | A | | | B | | | | | | D | |
| Queue Length 50th (ft) | | 113 | 42 | 139 | 119 | | | | | 124 | | 69 |
| Queue Length 95th (ft) | | 131 | m52 | 189 | 1 | | | | | 163 | | 138 |
| Internal Link Dist (ft) | | 523 | | | 538 | | | 585 | | | 764 | |
| Turn Bay Length (ft) | | | 155 | | | | | | | 180 | | |
| Base Capacity (vph) | | 4577 | 1283 | 447 | 4153 | | | | | 955 | | 489 |
| Starvation Cap Reductn | | 0 | 301 | 0 | 1042 | | | | | 0 | | 0 |
| Spillback Cap Reductn | | 0 | 0 | 0 | 0 | | | | | 0 | | 0 |
| Storage Cap Reductn | | 0 | 0 | 0 | 0 | | | | | 0 | | 0 |
| Reduced v/c Ratio | | 0.31 | 0.44 | 0.64 | 0.48 | | | | | 0.30 | | 0.32 |

| Intersection Summary | | | |
|---|---|---|---|
| Area Type: | Other | | |
| Cycle Length: 135 | | | |
| Actuated Cycle Length: 135 | | | |
| Offset: 99.9 (74%), Referenced to phase 2:EBT and 6:WBT, Start of Green | | | |
| Natural Cycle: 45 | | | |
| Control Type: Actuated-Coordinated | | | |
| Maximum v/c Ratio: 0.64 | | | |
| Intersection Signal Delay (s/veh): 14.6 | | Intersection LOS: B | |
| Intersection Capacity Utilization 72.2% | | ICU Level of Service C | |
| Analysis Period (min) 15 | | | |

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

Splits and Phases: 3: I-355 SB Ramps & Butterfield Road



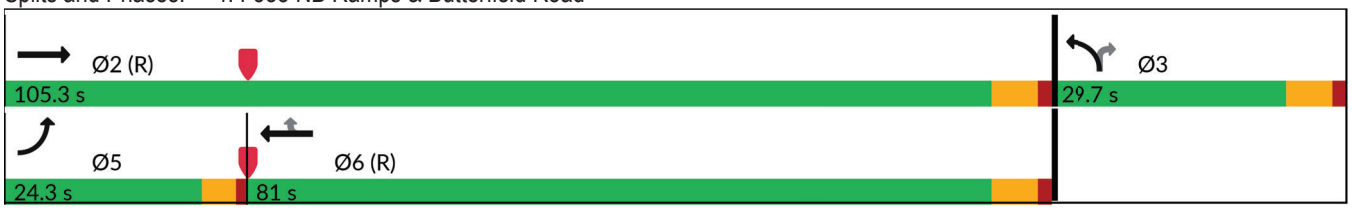


| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 250 | 1401 | 0 | 0 | 1556 | 721 | 163 | 0 | 317 | 0 | 0 | 0 |
| Future Volume (vph) | 250 | 1401 | 0 | 0 | 1556 | 721 | 163 | 0 | 317 | 0 | 0 | 0 |
| Ideal Flow (vphpl) | 1900 | 2000 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Width (ft) | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 |
| Grade (%) | | 0% | | | 0% | | | 0% | | | 0% | |
| Storage Length (ft) | 0 | | 0 | 150 | | 0 | 370 | | 0 | 0 | | 0 |
| Storage Lanes | 2 | | 0 | 2 | | 1 | 2 | | 2 | 0 | | 0 |
| Taper Length (ft) | 25 | | | 300 | | | 180 | | | 25 | | |
| Lane Util. Factor | 0.97 | 0.91 | 1.00 | 1.00 | 0.81 | 1.00 | 0.97 | 1.00 | 0.88 | 1.00 | 1.00 | 1.00 |
| Ped Bike Factor | | | | | | | | | | | | |
| Frt | | | | | | 0.850 | | | 0.850 | | | |
| Flt Protected | 0.950 | | | | | | 0.950 | | | | | |
| Satd. Flow (prot) | 3433 | 5406 | 0 | 0 | 7619 | 1583 | 3467 | 0 | 2707 | 0 | 0 | 0 |
| Flt Permitted | 0.950 | | | | | | 0.950 | | | | | |
| Satd. Flow (perm) | 3433 | 5406 | 0 | 0 | 7619 | 1583 | 3467 | 0 | 2707 | 0 | 0 | 0 |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Satd. Flow (RTOR) | | | | | | 640 | | | 133 | | | |
| Link Speed (mph) | | 45 | | | 45 | | | 30 | | | 30 | |
| Link Distance (ft) | | 618 | | | 559 | | | 683 | | | 840 | |
| Travel Time (s) | | 9.4 | | | 8.5 | | | 15.5 | | | 19.1 | |
| Confl. Peds. (#/hr) | | | | | | | | | | | | |
| Confl. Bikes (#/hr) | | | | | | | | | | | | |
| Peak Hour Factor | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 |
| Growth Factor | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% |
| Heavy Vehicles (%) | 2% | 1% | 0% | 0% | 1% | 2% | 1% | 0% | 5% | 0% | 0% | 0% |
| Bus Blockages (#/hr) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Parking (#/hr) | | | | | | | | | | | | |
| Mid-Block Traffic (%) | | 0% | | | 0% | | | 0% | | | 0% | |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 263 | 1475 | 0 | 0 | 1638 | 759 | 172 | 0 | 334 | 0 | 0 | 0 |
| Turn Type | Prot | NA | | | NA | Perm | Prot | | Perm | | | |
| Protected Phases | 5 | 2 | | | 6 | | 3 | | | | | |
| Permitted Phases | | | | | | 6 | | | 3 | | | |
| Detector Phase | 5 | 2 | | | 6 | 6 | 3 | | 3 | | | |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 3.0 | 15.0 | | | 15.0 | 15.0 | 8.0 | | 8.0 | | | |
| Minimum Split (s) | 7.5 | 22.0 | | | 22.0 | 22.0 | 14.0 | | 14.0 | | | |
| Total Split (s) | 24.3 | 105.3 | | | 81.0 | 81.0 | 29.7 | | 29.7 | | | |
| Total Split (%) | 18.0% | 78.0% | | | 60.0% | 60.0% | 22.0% | | 22.0% | | | |
| Yellow Time (s) | 3.5 | 4.5 | | | 4.5 | 4.5 | 4.5 | | 4.5 | | | |
| All-Red Time (s) | 1.0 | 1.5 | | | 1.5 | 1.5 | 1.5 | | 1.5 | | | |
| Lost Time Adjust (s) | 0.0 | 0.0 | | | 0.0 | 0.0 | 0.0 | | 0.0 | | | |
| Total Lost Time (s) | 4.5 | 6.0 | | | 6.0 | 6.0 | 6.0 | | 6.0 | | | |
| Lead/Lag | Lead | | | | Lag | Lag | | | | | | |
| Lead-Lag Optimize? | Yes | | | | Yes | Yes | | | | | | |
| Recall Mode | None | C-Min | | | C-Min | C-Min | None | | None | | | |
| Act Effct Green (s) | 15.6 | 105.9 | | | 85.8 | 85.8 | 17.1 | | 17.1 | | | |
| Actuated g/C Ratio | 0.12 | 0.78 | | | 0.64 | 0.64 | 0.13 | | 0.13 | | | |

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| v/c Ratio | 0.66 | 0.35 | | | 0.34 | 0.61 | 0.39 | | 0.73 | | | |
| Control Delay (s/veh) | 80.8 | 2.7 | | | 5.4 | 2.4 | 55.7 | | 42.8 | | | |
| Queue Delay | 0.0 | 0.0 | | | 0.0 | 0.2 | 0.0 | | 0.0 | | | |
| Total Delay (s/veh) | 80.8 | 2.8 | | | 5.4 | 2.6 | 55.7 | | 42.8 | | | |
| LOS | F | A | | | A | A | E | | D | | | |
| Approach Delay (s/veh) | | 14.6 | | | 4.5 | | | 47.2 | | | | |
| Approach LOS | | B | | | A | | | D | | | | |
| Queue Length 50th (ft) | 128 | 55 | | | 77 | 11 | 73 | | 102 | | | |
| Queue Length 95th (ft) | 167 | 59 | | | 92 | 30 | 104 | | 154 | | | |
| Internal Link Dist (ft) | | 538 | | | 479 | | | 603 | | | 760 | |
| Turn Bay Length (ft) | | | | | | | 370 | | | | | |
| Base Capacity (vph) | 503 | 4242 | | | 4844 | 1239 | 608 | | 584 | | | |
| Starvation Cap Reductn | 0 | 739 | | | 0 | 71 | 0 | | 0 | | | |
| Spillback Cap Reductn | 0 | 0 | | | 0 | 0 | 0 | | 0 | | | |
| Storage Cap Reductn | 0 | 0 | | | 0 | 0 | 0 | | 0 | | | |
| Reduced v/c Ratio | 0.52 | 0.42 | | | 0.34 | 0.65 | 0.28 | | 0.57 | | | |

| Intersection Summary | | | |
|---|---|---|---|
| Area Type: | Other | | |
| Cycle Length: 135 | | | |
| Actuated Cycle Length: 135 | | | |
| Offset: 75.6 (56%), Referenced to phase 2:EBT and 6:WBT, Start of Green | | | |
| Natural Cycle: 60 | | | |
| Control Type: Actuated-Coordinated | | | |
| Maximum v/c Ratio: 0.73 | | | |
| Intersection Signal Delay (s/veh): 12.9 | | Intersection LOS: B | |
| Intersection Capacity Utilization 72.2% | | ICU Level of Service C | |
| Analysis Period (min) 15 | | | |

Splits and Phases: 4: I-355 NB Ramps & Butterfield Road



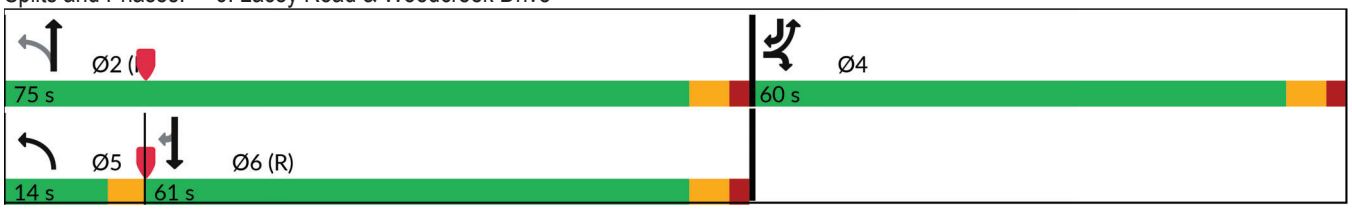


| Lane Group | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (vph) | 200 | 28 | 6 | 181 | 154 | 58 |
| Future Volume (vph) | 200 | 28 | 6 | 181 | 154 | 58 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 2000 | 2000 | 1900 |
| Lane Width (ft) | 12 | 12 | 12 | 12 | 12 | 12 |
| Grade (%) | 0% | | | 0% | 0% | |
| Storage Length (ft) | 160 | 0 | 125 | | | 115 |
| Storage Lanes | 2 | 1 | 1 | | | 0 |
| Taper Length (ft) | 100 | | 90 | | | |
| Lane Util. Factor | 0.97 | 1.00 | 1.00 | 0.95 | 0.95 | 0.88 |
| Ped Bike Factor | | | | | | |
| Frt | | 0.850 | | | | 0.850 |
| Flt Protected | 0.950 | | 0.950 | | | |
| Satd. Flow (prot) | 3467 | 1553 | 1805 | 3762 | 3762 | 2760 |
| Flt Permitted | 0.950 | | 0.611 | | | |
| Satd. Flow (perm) | 3467 | 1553 | 1161 | 3762 | 3762 | 2760 |
| Right Turn on Red | | Yes | | | | Yes |
| Satd. Flow (RTOR) | | 35 | | | | 72 |
| Link Speed (mph) | 30 | | | 35 | 35 | |
| Link Distance (ft) | 556 | | | 645 | 290 | |
| Travel Time (s) | 12.6 | | | 12.6 | 5.6 | |
| Confl. Peds. (#/hr) | | | | | | |
| Confl. Bikes (#/hr) | | | | | | |
| Peak Hour Factor | 0.81 | 0.81 | 0.81 | 0.81 | 0.81 | 0.81 |
| Growth Factor | 100% | 100% | 100% | 100% | 100% | 100% |
| Heavy Vehicles (%) | 1% | 4% | 0% | 1% | 1% | 3% |
| Bus Blockages (#/hr) | 0 | 0 | 0 | 0 | 0 | 0 |
| Parking (#/hr) | | | | | | |
| Mid-Block Traffic (%) | 0% | | | 0% | 0% | |
| Shared Lane Traffic (%) | | | | | | |
| Lane Group Flow (vph) | 247 | 35 | 7 | 223 | 190 | 72 |
| Turn Type | Prot | Prot | pm+pt | NA | NA | pm+ov |
| Protected Phases | 4 | 4 | 5 | 2 | 6 | 4 |
| Permitted Phases | | | 2 | | | 6 |
| Detector Phase | 4 | 4 | 5 | 2 | 6 | 4 |
| Switch Phase | | | | | | |
| Minimum Initial (s) | 8.0 | 8.0 | 3.0 | 15.0 | 15.0 | 8.0 |
| Minimum Split (s) | 14.0 | 14.0 | 6.5 | 21.0 | 21.0 | 14.0 |
| Total Split (s) | 60.0 | 60.0 | 14.0 | 75.0 | 61.0 | 60.0 |
| Total Split (%) | 44.4% | 44.4% | 10.4% | 55.6% | 45.2% | 44.4% |
| Yellow Time (s) | 4.0 | 4.0 | 3.5 | 4.0 | 4.0 | 4.0 |
| All-Red Time (s) | 2.0 | 2.0 | 0.0 | 2.0 | 2.0 | 2.0 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Lost Time (s) | 6.0 | 6.0 | 3.5 | 6.0 | 6.0 | 6.0 |
| Lead/Lag | | | Lead | | Lag | |
| Lead-Lag Optimize? | | | Yes | | Yes | |
| Recall Mode | None | None | None | C-Min | C-Min | None |
| Act Effct Green (s) | 16.2 | 16.2 | 109.3 | 106.8 | 104.9 | 131.9 |
| Actuated g/C Ratio | 0.12 | 0.12 | 0.81 | 0.79 | 0.78 | 0.98 |

| Lane Group | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| v/c Ratio | 0.60 | 0.16 | 0.01 | 0.07 | 0.06 | 0.03 |
| Control Delay (s/veh) | 62.0 | 17.0 | 3.2 | 3.4 | 2.0 | 0.0 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay (s/veh) | 62.0 | 17.0 | 3.2 | 3.4 | 2.0 | 0.0 |
| LOS | E | B | A | A | A | A |
| Approach Delay (s/veh) | 56.4 | | | 3.4 | 1.4 | |
| Approach LOS | E | | | A | A | |
| Queue Length 50th (ft) | 108 | 0 | 1 | 18 | 7 | 0 |
| Queue Length 95th (ft) | 131 | 27 | 4 | 30 | 15 | 0 |
| Internal Link Dist (ft) | 476 | | | 565 | 210 | |
| Turn Bay Length (ft) | 160 | | 125 | | | 115 |
| Base Capacity (vph) | 1386 | 642 | 990 | 2976 | 2924 | 2760 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.18 | 0.05 | 0.01 | 0.07 | 0.06 | 0.03 |

| Intersection Summary | | | |
|---|---|---|---|
| Area Type: | Other | | |
| Cycle Length: 135 | | | |
| Actuated Cycle Length: 135 | | | |
| Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBT, Start of Green | | | |
| Natural Cycle: 45 | | | |
| Control Type: Actuated-Coordinated | | | |
| Maximum v/c Ratio: 0.60 | | | |
| Intersection Signal Delay (s/veh): 22.0 | | Intersection LOS: C | |
| Intersection Capacity Utilization 29.2% | | ICU Level of Service A | |
| Analysis Period (min) 15 | | | |

Splits and Phases: 6: Lacey Road & Woodcreek Drive

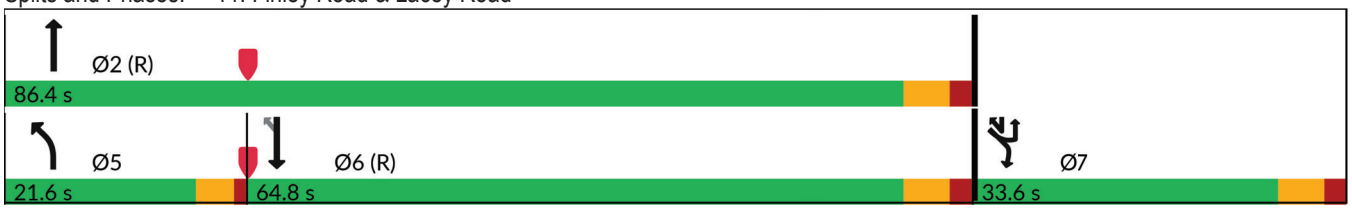


| Lane Group | NBL | NBT | SBT | SBR | SEL | SER |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (vph) | 99 | 568 | 909 | 51 | 62 | 449 |
| Future Volume (vph) | 99 | 568 | 909 | 51 | 62 | 449 |
| Ideal Flow (vphpl) | 1900 | 2000 | 2000 | 1900 | 1900 | 1900 |
| Lane Width (ft) | 12 | 12 | 12 | 12 | 12 | 12 |
| Grade (%) | | 0% | 0% | | 0% | |
| Storage Length (ft) | 305 | | | 400 | 0 | 205 |
| Storage Lanes | 2 | | | 1 | 1 | 1 |
| Taper Length (ft) | 230 | | | | 0 | |
| Lane Util. Factor | 0.97 | 0.95 | 0.95 | 1.00 | 1.00 | 0.88 |
| Ped Bike Factor | | | | | | |
| Frt | | | | 0.850 | | 0.850 |
| Flt Protected | 0.950 | | | | 0.950 | |
| Satd. Flow (prot) | 3367 | 3725 | 3762 | 1417 | 1752 | 2842 |
| Flt Permitted | 0.950 | | | | 0.950 | |
| Satd. Flow (perm) | 3367 | 3725 | 3762 | 1417 | 1752 | 2842 |
| Right Turn on Red | | | | Yes | | Yes |
| Satd. Flow (RTOR) | | | | 52 | | 454 |
| Link Speed (mph) | | 45 | 45 | | 35 | |
| Link Distance (ft) | | 681 | 1175 | | 1160 | |
| Travel Time (s) | | 10.3 | 17.8 | | 22.6 | |
| Confl. Peds. (#/hr) | | | | | | |
| Confl. Bikes (#/hr) | | | | | | |
| Peak Hour Factor | 0.99 | 0.99 | 0.99 | 0.99 | 0.99 | 0.99 |
| Growth Factor | 100% | 100% | 100% | 100% | 100% | 100% |
| Heavy Vehicles (%) | 4% | 2% | 1% | 14% | 3% | 0% |
| Bus Blockages (#/hr) | 0 | 0 | 0 | 0 | 0 | 0 |
| Parking (#/hr) | | | | | | |
| Mid-Block Traffic (%) | | 0% | 0% | | 0% | |
| Shared Lane Traffic (%) | | | | | | |
| Lane Group Flow (vph) | 100 | 574 | 918 | 52 | 63 | 454 |
| Turn Type | Prot | NA | NA | pm+ov | Prot | Prot |
| Protected Phases | 5 | 2 | 6 | 7 | 7 | 7 |
| Permitted Phases | | | | 6 | | |
| Detector Phase | 5 | 2 | 6 | 7 | 7 | 7 |
| Switch Phase | | | | | | |
| Minimum Initial (s) | 3.0 | 15.0 | 15.0 | 8.0 | 8.0 | 8.0 |
| Minimum Split (s) | 7.5 | 21.0 | 21.0 | 14.0 | 14.0 | 14.0 |
| Total Split (s) | 21.6 | 86.4 | 64.8 | 33.6 | 33.6 | 33.6 |
| Total Split (%) | 18.0% | 72.0% | 54.0% | 28.0% | 28.0% | 28.0% |
| Yellow Time (s) | 3.5 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| All-Red Time (s) | 1.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Lost Time (s) | 4.5 | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 |
| Lead/Lag | Lead | | Lag | | | |
| Lead-Lag Optimize? | Yes | | Yes | | | |
| Recall Mode | None | C-Min | C-Min | None | None | None |
| Act Effct Green (s) | 8.9 | 96.4 | 83.0 | 100.6 | 11.6 | 11.6 |
| Actuated g/C Ratio | 0.07 | 0.80 | 0.69 | 0.84 | 0.10 | 0.10 |

| Lane Group | NBL | NBT | SBT | SBR | SEL | SER |
|---|---|---|---|---|---|---|
| v/c Ratio | 0.40 | 0.19 | 0.35 | 0.04 | 0.37 | 0.66 |
| Control Delay (s/veh) | 57.3 | 3.1 | 8.5 | 0.6 | 56.0 | 9.5 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay (s/veh) | 57.3 | 3.1 | 8.5 | 0.6 | 56.0 | 9.5 |
| LOS | E | A | A | A | E | A |
| Approach Delay (s/veh) | | 11.2 | 8.1 | | 15.1 | |
| Approach LOS | | B | A | | B | |
| Queue Length 50th (ft) | 40 | 44 | 138 | 0 | 48 | 0 |
| Queue Length 95th (ft) | 68 | 72 | 211 | 7 | 91 | 51 |
| Internal Link Dist (ft) | | 601 | 1095 | | 1080 | |
| Turn Bay Length (ft) | 305 | | | 400 | | 205 |
| Base Capacity (vph) | 479 | 2991 | 2600 | 1371 | 402 | 1003 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.21 | 0.19 | 0.35 | 0.04 | 0.16 | 0.45 |

| Intersection Summary | | | |
|---|---|---|---|
| Area Type: | Other | | |
| Cycle Length: 120 | | | |
| Actuated Cycle Length: 120 | | | |
| Offset: 21.6 (18%), Referenced to phase 2:NBT and 6:SBT, Start of Green | | | |
| Natural Cycle: 45 | | | |
| Control Type: Actuated-Coordinated | | | |
| Maximum v/c Ratio: 0.66 | | | |
| Intersection Signal Delay (s/veh): 10.7 | | Intersection LOS: B | |
| Intersection Capacity Utilization 49.6% | | ICU Level of Service A | |
| Analysis Period (min) 15 | | | |

Splits and Phases: 11: Finley Road & Lacey Road



| Intersection | |
|---|---|
| Intersection Delay, s/veh | 12.2 |
| Intersection LOS | B |

| Movement | EBL | EBT | EBR | WBU | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Vol, veh/h | 24 | 136 | 13 | 0 | 6 | 124 | 270 | 67 | 193 | 29 | 0 | 0 |
| Future Vol, veh/h | 24 | 136 | 13 | 0 | 6 | 124 | 270 | 67 | 193 | 29 | 0 | 0 |
| Peak Hour Factor | 0.90 | 0.90 | 0.90 | 0.95 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 |
| Heavy Vehicles, % | 0 | 1 | 0 | 2 | 17 | 0 | 0 | 1 | 0 | 3 | 0 | 0 |
| Mvmt Flow | 27 | 151 | 14 | 0 | 7 | 138 | 300 | 74 | 214 | 32 | 0 | 0 |
| Number of Lanes | 0 | 2 | 0 | 0 | 0 | 2 | 0 | 1 | 1 | 0 | 0 | 0 |

| Approach | EB | WB | NB |
|---|---|---|---|
| Opposing Approach | WB | EB | |
| Opposing Lanes | 2 | 2 | 0 |
| Conflicting Approach Left | | NB | EB |
| Conflicting Lanes Left | 0 | 2 | 2 |
| Conflicting Approach Right | NB | | WB |
| Conflicting Lanes Right | 2 | 0 | 2 |
| HCM Control Delay, s/veh | 10 | 13 | 12.4 |
| HCM LOS | A | B | B |

| Lane | NBLn1 | NBLn2 | EBLn1 | EBLn2 | WBLn1 | WBLn2 |
|---|---|---|---|---|---|---|
| Vol Left, % | 100% | 0% | 26% | 0% | 9% | 0% |
| Vol Thru, % | 0% | 87% | 74% | 84% | 91% | 19% |
| Vol Right, % | 0% | 13% | 0% | 16% | 0% | 81% |
| Sign Control | Stop | Stop | Stop | Stop | Stop | Stop |
| Traffic Vol by Lane | 67 | 222 | 92 | 81 | 68 | 332 |
| LT Vol | 67 | 0 | 24 | 0 | 6 | 0 |
| Through Vol | 0 | 193 | 68 | 68 | 62 | 62 |
| RT Vol | 0 | 29 | 0 | 13 | 0 | 270 |
| Lane Flow Rate | 74 | 247 | 102 | 90 | 76 | 369 |
| Geometry Grp | 5 | 5 | 5 | 5 | 5 | 5 |
| Degree of Util (X) | 0.137 | 0.413 | 0.176 | 0.149 | 0.128 | 0.532 |
| Departure Headway (Hd) | 6.641 | 6.027 | 6.184 | 5.954 | 6.107 | 5.194 |
| Convergence, Y/N | Yes | Yes | Yes | Yes | Yes | Yes |
| Cap | 540 | 597 | 581 | 603 | 588 | 694 |
| Service Time | 4.372 | 3.758 | 3.917 | 3.688 | 3.835 | 2.921 |
| HCM Lane V/C Ratio | 0.137 | 0.414 | 0.176 | 0.149 | 0.129 | 0.532 |
| HCM Control Delay, s/veh | 10.4 | 13 | 10.2 | 9.7 | 9.7 | 13.7 |
| HCM Lane LOS | B | B | B | A | A | B |
| HCM 95th-tile Q | 0.5 | 2 | 0.6 | 0.5 | 0.4 | 3.2 |

| Intersection | |
|---|---|
| Intersection Delay, s/veh | |
| Intersection LOS | |

| Movement | SBR |
|---|---|
| Lane Configurations | |
| Traffic Vol, veh/h | 0 |
| Future Vol, veh/h | 0 |
| Peak Hour Factor | 0.90 |
| Heavy Vehicles, % | 0 |
| Mvmt Flow | 0 |
| Number of Lanes | 0 |

| Approach | |
|---|---|
| Opposing Approach | |
| Opposing Lanes | |
| Conflicting Approach Left | |
| Conflicting Lanes Left | |
| Conflicting Approach Right | |
| Conflicting Lanes Right | |
| HCM Control Delay, s/veh | |
| HCM LOS | |

| Intersection | |
|---|---|
| Int Delay, s/veh | 1.2 |

| Movement | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 22 | 55 | 4 | 396 | 206 | 3 |
| Future Vol, veh/h | 22 | 55 | 4 | 396 | 206 | 3 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Free | Free | Free | Free |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | 45 | 0 | 80 | - | - | - |
| Veh in Median Storage, # | 1 | - | - | 0 | 0 | - |
| Grade, % | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 84 | 84 | 84 | 84 | 84 | 84 |
| Heavy Vehicles, % | 5 | 0 | 0 | 0 | 3 | 0 |
| Mvmt Flow | 26 | 65 | 5 | 471 | 245 | 4 |

| Major/Minor | Minor2 | | Major1 | | Major2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 492 | 124 | 249 | 0 | - | 0 |
| Stage 1 | 247 | - | - | - | - | - |
| Stage 2 | 245 | - | - | - | - | - |
| Critical Hdwy | 6.9 | 6.9 | 4.1 | - | - | - |
| Critical Hdwy Stg 1 | 5.9 | - | - | - | - | - |
| Critical Hdwy Stg 2 | 5.9 | - | - | - | - | - |
| Follow-up Hdwy | 3.55 | 3.3 | 2.2 | - | - | - |
| Pot Cap-1 Maneuver | 498 | 909 | 1329 | - | - | - |
| Stage 1 | 762 | - | - | - | - | - |
| Stage 2 | 764 | - | - | - | - | - |
| Platoon blocked, % | | | | - | - | - |
| Mov Cap-1 Maneuver | 496 | 909 | 1329 | - | - | - |
| Mov Cap-2 Maneuver | 574 | - | - | - | - | - |
| Stage 1 | 759 | - | - | - | - | - |
| Stage 2 | 764 | - | - | - | - | - |

| Approach | EB | NB | SB |
|---|---|---|---|
| HCM Ctrl Dly, s/v | 9.92 | 0.08 | 0 |
| HCM LOS | A | | |

| Minor Lane/Major Mvmt | NBL | NBT | EBLn1 | EBLn2 | SBT | SBR |
|---|---|---|---|---|---|---|
| Capacity (veh/h) | 1329 | - | 574 | 909 | - | - |
| HCM Lane V/C Ratio | 0.004 | - | 0.046 | 0.072 | - | - |
| HCM Ctrl Dly (s/v) | 7.7 | - | 11.6 | 9.3 | - | - |
| HCM Lane LOS | A | - | B | A | - | - |
| HCM 95th %tile Q(veh) | 0 | - | 0.1 | 0.2 | - | - |

| Intersection | |
|---|---|
| Int Delay, s/veh | 4.5 |

| Movement | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 135 | 159 | 48 | 265 | 252 | 9 |
| Future Vol, veh/h | 135 | 159 | 48 | 265 | 252 | 9 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Free | Free | Free | Free |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | 115 | 0 | 180 | - | - | - |
| Veh in Median Storage, # | 1 | - | - | 0 | 0 | - |
| Grade, % | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 91 | 91 | 91 | 91 | 91 | 91 |
| Heavy Vehicles, % | 0 | 1 | 2 | 0 | 1 | 0 |
| Mvmt Flow | 148 | 175 | 53 | 291 | 277 | 10 |

| Major/Minor | Minor2 | | Major1 | | Major2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 533 | 143 | 287 | 0 | - | 0 |
| Stage 1 | 282 | - | - | - | - | - |
| Stage 2 | 251 | - | - | - | - | - |
| Critical Hdwy | 6.8 | 6.92 | 4.14 | - | - | - |
| Critical Hdwy Stg 1 | 5.8 | - | - | - | - | - |
| Critical Hdwy Stg 2 | 5.8 | - | - | - | - | - |
| Follow-up Hdwy | 3.5 | 3.31 | 2.22 | - | - | - |
| Pot Cap-1 Maneuver | 482 | 881 | 1272 | - | - | - |
| Stage 1 | 747 | - | - | - | - | - |
| Stage 2 | 774 | - | - | - | - | - |
| Platoon blocked, % | | | | - | - | - |
| Mov Cap-1 Maneuver | 462 | 881 | 1272 | - | - | - |
| Mov Cap-2 Maneuver | 549 | - | - | - | - | - |
| Stage 1 | 716 | - | - | - | - | - |
| Stage 2 | 774 | - | - | - | - | - |

| Approach | EB | NB | SB |
|---|---|---|---|
| HCM Ctrl Dly, s/v | 11.87 | 1.22 | 0 |
| HCM LOS | B | | |

| Minor Lane/Major Mvmt | NBL | NBT | EBLn1 | EBLn2 | SBT | SBR |
|---|---|---|---|---|---|---|
| Capacity (veh/h) | 1272 | - | 549 | 881 | - | - |
| HCM Lane V/C Ratio | 0.041 | - | 0.27 | 0.198 | - | - |
| HCM Ctrl Dly (s/v) | 8 | - | 14 | 10.1 | - | - |
| HCM Lane LOS | A | - | B | B | - | - |
| HCM 95th %tile Q(veh) | 0.1 | - | 1.1 | 0.7 | - | - |

| Intersection | |
|---|---|
| Int Delay, s/veh | 0.1 |

| Movement | SET | SER | NWL | NWT | NEL | NER |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 98 | 1 | 0 | 55 | 1 | 1 |
| Future Vol, veh/h | 98 | 1 | 0 | 55 | 1 | 1 |
| 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 | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 1 | 0 | 0 | 2 | 0 | 0 |
| Mvmt Flow | 107 | 1 | 0 | 60 | 1 | 1 |

| Major/Minor | Major1 | | Major2 | | Minor1 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 0 | 0 | 108 | 0 | 167 | 107 |
| Stage 1 | - | - | - | - | 107 | - |
| Stage 2 | - | - | - | - | 60 | - |
| 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 | - | - | 1496 | - | 828 | 952 |
| Stage 1 | - | - | - | - | 922 | - |
| Stage 2 | - | - | - | - | 968 | - |
| Platoon blocked, % | - | - | | - | | |
| Mov Cap-1 Maneuver | - | - | 1496 | - | 828 | 952 |
| Mov Cap-2 Maneuver | - | - | - | - | 828 | - |
| Stage 1 | - | - | - | - | 922 | - |
| Stage 2 | - | - | - | - | 968 | - |

| Approach | SE | NW | NE |
|---|---|---|---|
| HCM Ctrl Dly, s/v | 0 | 0 | 9.07 |
| HCM LOS | | | A |

| Minor Lane/Major Mvmt | NELn1 | NWL | NWT | SET | SER |
|---|---|---|---|---|---|
| Capacity (veh/h) | 886 | 1496 | - | - | - |
| HCM Lane V/C Ratio | 0.002 | - | - | - | - |
| HCM Ctrl Dly (s/v) | 9.1 | 0 | - | - | - |
| HCM Lane LOS | A | A | - | - | - |
| HCM 95th %tile Q(veh) | 0 | 0 | - | - | - |

| Intersection | |
|---|---|
| Int Delay, s/veh | 7 |

| Movement | EBT | EBR | WBL | WBT | NBL | NBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 76 | 23 | 43 | 14 | 41 | 218 |
| Future Vol, veh/h | 76 | 23 | 43 | 14 | 41 | 218 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | 90 | - | 0 | 0 |
| Veh in Median Storage, # | 0 | - | - | 0 | 0 | - |
| Grade, % | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 1 | 0 | 0 | 7 | 0 | 0 |
| Mvmt Flow | 83 | 25 | 47 | 15 | 45 | 237 |

| Major/Minor | Major1 | | Major2 | | Minor1 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 0 | 0 | 108 | 0 | 204 | 95 |
| Stage 1 | - | - | - | - | 95 | - |
| Stage 2 | - | - | - | - | 109 | - |
| 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 | - | - | 1496 | - | 789 | 967 |
| Stage 1 | - | - | - | - | 934 | - |
| Stage 2 | - | - | - | - | 921 | - |
| Platoon blocked, % | - | - | | - | | |
| Mov Cap-1 Maneuver | - | - | 1496 | - | 765 | 967 |
| Mov Cap-2 Maneuver | - | - | - | - | 765 | - |
| Stage 1 | - | - | - | - | 934 | - |
| Stage 2 | - | - | - | - | 892 | - |

| Approach | EB | WB | NB |
|---|---|---|---|
| HCM Ctrl Dly, s/v | 0 | 5.65 | 9.94 |
| HCM LOS | | | A |

| Minor Lane/Major Mvmt | NBLn1 | NBLn2 | EBT | EBR | WBL | WBT |
|---|---|---|---|---|---|---|
| Capacity (veh/h) | 765 | 967 | - | - | 1496 | - |
| HCM Lane V/C Ratio | 0.058 | 0.245 | - | - | 0.031 | - |
| HCM Ctrl Dly (s/v) | 10 | 9.9 | - | - | 7.5 | - |
| HCM Lane LOS | A | A | - | - | A | - |
| HCM 95th %tile Q(veh) | 0.2 | 1 | - | - | 0.1 | - |

# Capacity Analysis Summary Sheets

Year 2032 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) | 66 | 1037 | 308 | 870 | 679 | 61 | 55 | 16 | 36 | 73 | 86 | 69 |
| Future Volume (vph) | 66 | 1037 | 308 | 870 | 679 | 61 | 55 | 16 | 36 | 73 | 86 | 69 |
| Ideal Flow (vphpl) | 1900 | 2000 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Width (ft) | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 |
| Grade (%) | | 0% | | | 0% | | | 0% | | | 0% | |
| Storage Length (ft) | 265 | | 465 | 0 | | 0 | 118 | | 0 | 120 | | 0 |
| Storage Lanes | 1 | | 2 | 2 | | 0 | 1 | | 1 | 1 | | 0 |
| Taper Length (ft) | 85 | | | 25 | | | 45 | | | 85 | | |
| Lane Util. Factor | 1.00 | 0.91 | 0.88 | 0.97 | 0.91 | 0.91 | 0.97 | 0.95 | 0.95 | 1.00 | 1.00 | 1.00 |
| Ped Bike Factor | | | | | | | | | | | | |
| Frt | | | 0.850 | | 0.988 | | | 0.938 | 0.850 | | 0.933 | |
| Flt Protected | 0.950 | | | 0.950 | | | 0.950 | | | 0.950 | | |
| Satd. Flow (prot) | 1770 | 5301 | 2842 | 3502 | 4869 | 0 | 3502 | 1645 | 1434 | 1752 | 1732 | 0 |
| Flt Permitted | 0.950 | | | 0.950 | | | 0.950 | | | 0.950 | | |
| Satd. Flow (perm) | 1770 | 5301 | 2842 | 3502 | 4869 | 0 | 3502 | 1645 | 1434 | 1752 | 1732 | 0 |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Satd. Flow (RTOR) | | | 324 | | 16 | | | 12 | 183 | | 27 | |
| Link Speed (mph) | | 45 | | | 45 | | | 30 | | | 30 | |
| Link Distance (ft) | | 2017 | | | 601 | | | 290 | | | 452 | |
| Travel Time (s) | | 30.6 | | | 9.1 | | | 6.6 | | | 10.3 | |
| Confl. Peds. (#/hr) | | | | | | | | | | | | |
| Confl. Bikes (#/hr) | | | | | | | | | | | | |
| Peak Hour Factor | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 |
| Growth Factor | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% |
| Heavy Vehicles (%) | 2% | 3% | 0% | 0% | 5% | 8% | 0% | 0% | 7% | 3% | 1% | 4% |
| Bus Blockages (#/hr) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Parking (#/hr) | | | | | | | | | | | | |
| Mid-Block Traffic (%) | | 0% | | | 0% | | | 0% | | | 0% | |
| Shared Lane Traffic (%) | | | | | | | | | 31% | | | |
| Lane Group Flow (vph) | 69 | 1092 | 324 | 916 | 779 | 0 | 58 | 29 | 26 | 77 | 164 | 0 |
| Turn Type | Prot | NA | Perm | Prot | NA | | Prot | NA | Perm | Prot | NA | |
| Protected Phases | 5 | 2 | | 1 | 6 | | 3 | 8 | | 7 | 4 | |
| Permitted Phases | | | 2 | | | | | | 8 | | | |
| Detector Phase | 5 | 2 | 2 | 1 | 6 | | 3 | 8 | 8 | 7 | 4 | |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 3.0 | 15.0 | 15.0 | 3.0 | 15.0 | | 3.0 | 8.0 | 8.0 | 3.0 | 8.0 | |
| Minimum Split (s) | 7.5 | 21.0 | 21.0 | 7.5 | 21.0 | | 11.0 | 14.0 | 14.0 | 7.5 | 14.0 | |
| Total Split (s) | 22.5 | 57.5 | 57.5 | 30.0 | 65.0 | | 14.0 | 17.5 | 17.5 | 20.0 | 23.5 | |
| Total Split (%) | 18.0% | 46.0% | 46.0% | 24.0% | 52.0% | | 11.2% | 14.0% | 14.0% | 16.0% | 18.8% | |
| Yellow Time (s) | 3.5 | 4.0 | 4.0 | 3.5 | 4.0 | | 3.5 | 4.0 | 4.0 | 3.5 | 4.0 | |
| All-Red Time (s) | 1.0 | 2.0 | 2.0 | 1.0 | 2.0 | | 1.0 | 2.0 | 2.0 | 1.0 | 2.0 | |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | |
| Total Lost Time (s) | 4.5 | 6.0 | 6.0 | 4.5 | 6.0 | | 4.5 | 6.0 | 6.0 | 4.5 | 6.0 | |
| Lead/Lag | Lead | Lag | Lag | Lead | Lag | | Lead | Lag | Lag | Lead | Lag | |
| Lead-Lag Optimize? | Yes | Yes | Yes | Yes | Yes | | Yes | Yes | Yes | Yes | Yes | |
| Recall Mode | None | C-Min | C-Min | None | C-Min | | None | None | None | None | None | |
| Act Effct Green (s) | 10.2 | 51.5 | 51.5 | 31.8 | 75.3 | | 7.5 | 12.1 | 12.1 | 10.8 | 15.2 | |
| Actuated g/C Ratio | 0.08 | 0.41 | 0.41 | 0.25 | 0.60 | | 0.06 | 0.10 | 0.10 | 0.09 | 0.12 | |

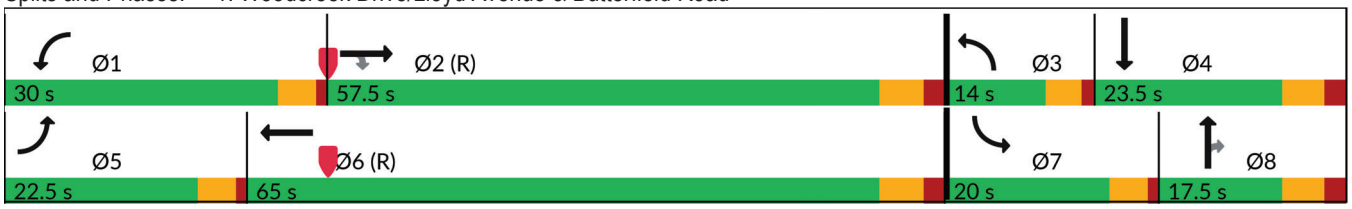
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| v/c Ratio | 0.48 | 0.50 | 0.24 | 1.03 | 0.27 | | 0.28 | 0.17 | 0.09 | 0.51 | 0.70 | |
| Control Delay (s/veh) | 65.0 | 28.2 | 2.8 | 94.1 | 11.7 | | 66.3 | 22.3 | 1.3 | 65.5 | 59.6 | |
| Queue Delay | 0.0 | 0.0 | 0.0 | 18.9 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | |
| Total Delay (s/veh) | 65.0 | 28.2 | 2.8 | 113.0 | 11.7 | | 66.3 | 22.3 | 1.3 | 65.5 | 59.6 | |
| LOS | E | C | A | F | B | | E | C | A | E | E | |
| Approach Delay (s/veh) | | 24.4 | | | 66.4 | | | 40.1 | | | 61.5 | |
| Approach LOS | | C | | | E | | | D | | | E | |
| Queue Length 50th (ft) | 55 | 241 | 0 | ~458 | 112 | | 14 | 13 | 0 | 62 | 108 | |
| Queue Length 95th (ft) | 102 | 286 | 30 | #633 | 95 | | 47 | 27 | 1 | 112 | 183 | |
| Internal Link Dist (ft) | | 1937 | | | 521 | | | 210 | | | 372 | |
| Turn Bay Length (ft) | 265 | | 465 | | | | 118 | | | 120 | | |
| Base Capacity (vph) | 254 | 2184 | 1361 | 892 | 2938 | | 266 | 174 | 307 | 217 | 269 | |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | |
| Spillback Cap Reductn | 0 | 0 | 4 | 43 | 0 | | 0 | 0 | 0 | 0 | 0 | |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | |
| Reduced v/c Ratio | 0.27 | 0.50 | 0.24 | 1.08 | 0.27 | | 0.22 | 0.17 | 0.08 | 0.35 | 0.61 | |

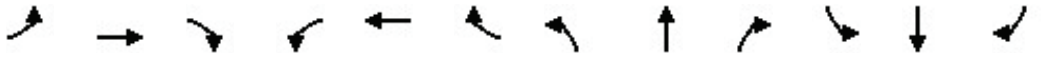
**Intersection Summary**

Area Type: Other
Cycle Length: 125
Actuated Cycle Length: 125
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Green
Natural Cycle: 75
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.03
Intersection Signal Delay (s/veh): 47.6 Intersection LOS: D
Intersection Capacity Utilization 73.4% ICU Level of Service D
Analysis Period (min) 15

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 1: Woodcreek Drive/Lloyd Avenue & Butterfield Road





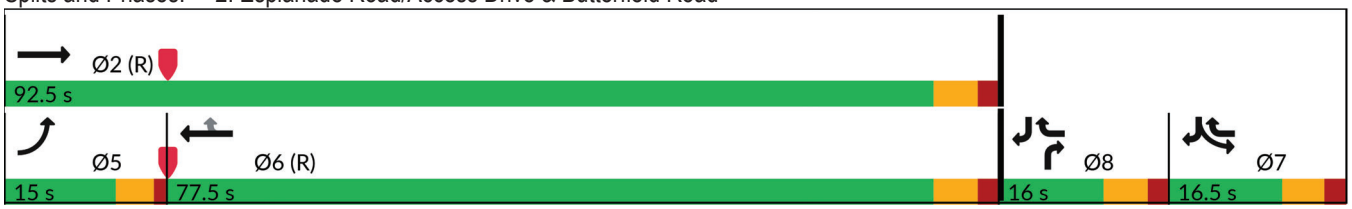
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 27 | 1119 | 0 | 0 | 1570 | 104 | 0 | 0 | 84 | 94 | 0 | 40 |
| Future Volume (vph) | 27 | 1119 | 0 | 0 | 1570 | 104 | 0 | 0 | 84 | 94 | 0 | 40 |
| Ideal Flow (vphpl) | 1900 | 2000 | 1900 | 1900 | 2000 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Width (ft) | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 |
| Grade (%) | | 0% | | | 0% | | | 0% | | | 0% | |
| Storage Length (ft) | 230 | | 0 | 60 | | 175 | 0 | | 0 | 0 | | 100 |
| Storage Lanes | 1 | | 0 | 2 | | 1 | 0 | | 2 | 2 | | 1 |
| Taper Length (ft) | 210 | | | 300 | | | 25 | | | 25 | | |
| Lane Util. Factor | 1.00 | 0.91 | 1.00 | 1.00 | 0.81 | 1.00 | 1.00 | 1.00 | 0.88 | 0.97 | 1.00 | 1.00 |
| Ped Bike Factor | | | | | | | | | | | | |
| Frt | | | | | | 0.850 | | | 0.850 | | | 0.850 |
| Flt Protected | 0.950 | | | | | | | | | 0.950 | | |
| Satd. Flow (prot) | 1805 | 5301 | 0 | 0 | 7941 | 1538 | 0 | 0 | 2842 | 3433 | 0 | 1538 |
| Flt Permitted | 0.950 | | | | | | | | | 0.950 | | |
| Satd. Flow (perm) | 1805 | 5301 | 0 | 0 | 7941 | 1538 | 0 | 0 | 2842 | 3433 | 0 | 1538 |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Satd. Flow (RTOR) | | | | | | 117 | | | 195 | | | 65 |
| Link Speed (mph) | | 45 | | | 45 | | | 30 | | | 30 | |
| Link Distance (ft) | | 601 | | | 603 | | | 352 | | | 378 | |
| Travel Time (s) | | 9.1 | | | 9.1 | | | 8.0 | | | 8.6 | |
| Confl. Peds. (#/hr) | | | | | | | | | | | | |
| Confl. Bikes (#/hr) | | | | | | | | | | | | |
| Peak Hour Factor | 0.89 | 0.89 | 0.89 | 0.89 | 0.89 | 0.89 | 0.89 | 0.89 | 0.89 | 0.89 | 0.89 | 0.89 |
| Growth Factor | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% |
| Heavy Vehicles (%) | 0% | 3% | 0% | 0% | 2% | 5% | 0% | 0% | 0% | 2% | 0% | 5% |
| Bus Blockages (#/hr) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Parking (#/hr) | | | | | | | | | | | | |
| Mid-Block Traffic (%) | | 0% | | | 0% | | | 0% | | | 0% | |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 30 | 1257 | 0 | 0 | 1764 | 117 | 0 | 0 | 94 | 106 | 0 | 45 |
| Turn Type | Prot | NA | | | NA | custom | | | Prot | Prot | | custom |
| Protected Phases | 5 | 2 | | | 6 | 7 8 | | | 8 | 7 | | 7 8 |
| Permitted Phases | | | | | | 6 | | | 8 | 7 | | |
| Detector Phase | 5 | 2 | | | 6 | 7 8 | | | 8 | 7 | | 7 8 |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 3.0 | 15.0 | | | 15.0 | | | | 8.0 | 8.0 | | |
| Minimum Split (s) | 7.5 | 21.0 | | | 21.0 | | | | 14.0 | 14.0 | | |
| Total Split (s) | 15.0 | 92.5 | | | 77.5 | | | | 16.0 | 16.5 | | |
| Total Split (%) | 12.0% | 74.0% | | | 62.0% | | | | 12.8% | 13.2% | | |
| Yellow Time (s) | 3.5 | 4.0 | | | 4.0 | | | | 4.0 | 4.0 | | |
| All-Red Time (s) | 1.0 | 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) | 4.5 | 6.0 | | | 6.0 | | | | 6.0 | 6.0 | | |
| Lead/Lag | Lead | | | | Lag | | | | Lead | Lag | | |
| Lead-Lag Optimize? | Yes | | | | Yes | | | | Yes | Yes | | |
| Recall Mode | None | C-Min | | | C-Min | | | | None | None | | |
| Act Effct Green (s) | 7.6 | 88.8 | | | 80.9 | 113.5 | | | 8.0 | 10.2 | | 24.2 |
| Actuated g/C Ratio | 0.06 | 0.71 | | | 0.65 | 0.91 | | | 0.06 | 0.08 | | 0.19 |

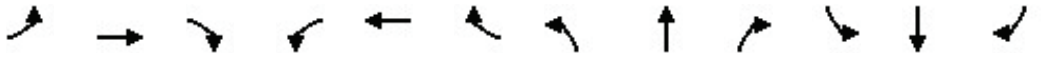
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| v/c Ratio | 0.28 | 0.33 | | | 0.34 | 0.08 | | | 0.26 | 0.38 | | 0.13 |
| Control Delay (s/veh) | 94.9 | 0.8 | | | 6.2 | 0.1 | | | 1.7 | 58.0 | | 5.3 |
| Queue Delay | 0.0 | 0.0 | | | 0.0 | 0.0 | | | 0.0 | 0.0 | | 0.0 |
| Total Delay (s/veh) | 94.9 | 0.8 | | | 6.2 | 0.1 | | | 1.7 | 58.0 | | 5.3 |
| LOS | F | A | | | A | A | | | A | E | | A |
| Approach Delay (s/veh) | | 3.0 | | | 5.8 | | | 1.7 | | | 42.3 | |
| Approach LOS | | A | | | A | | | A | | | D | |
| Queue Length 50th (ft) | 26 | 9 | | | 124 | 0 | | | 0 | 43 | | 0 |
| Queue Length 95th (ft) | m53 | 13 | | | 82 | 0 | | | 0 | 71 | | 19 |
| Internal Link Dist (ft) | | 521 | | | 523 | | | 272 | | | 298 | |
| Turn Bay Length (ft) | 230 | | | | | 175 | | | | | | 100 |
| Base Capacity (vph) | 151 | 3765 | | | 5138 | 1343 | | | 406 | 302 | | 312 |
| Starvation Cap Reductn | 0 | 0 | | | 0 | 0 | | | 0 | 0 | | 0 |
| Spillback Cap Reductn | 0 | 0 | | | 0 | 0 | | | 0 | 0 | | 0 |
| Storage Cap Reductn | 0 | 0 | | | 0 | 0 | | | 0 | 0 | | 0 |
| Reduced v/c Ratio | 0.20 | 0.33 | | | 0.34 | 0.09 | | | 0.23 | 0.35 | | 0.14 |

| Intersection Summary | | | |
|---|---|---|---|
| Area Type: | Other | | |
| Cycle Length: 125 | | | |
| Actuated Cycle Length: 125 | | | |
| Offset: 10 (8%), Referenced to phase 2:EBT and 6:WBT, Start of Green | | | |
| Natural Cycle: 60 | | | |
| Control Type: Actuated-Coordinated | | | |
| Maximum v/c Ratio: 0.38 | | | |
| Intersection Signal Delay (s/veh): 6.3 | | Intersection LOS: A | |
| Intersection Capacity Utilization 43.9% | | ICU Level of Service A | |
| Analysis Period (min) 15 | | | |

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

Splits and Phases: 2: Esplanade Road/Access Drive & Butterfield Road





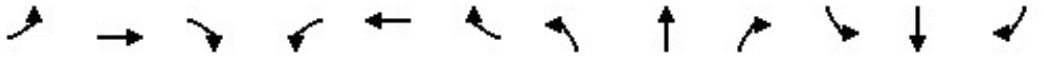
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 0 | 1087 | 210 | 202 | 1333 | 0 | 0 | 0 | 0 | 585 | 0 | 341 |
| Future Volume (vph) | 0 | 1087 | 210 | 202 | 1333 | 0 | 0 | 0 | 0 | 585 | 0 | 341 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 2000 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Width (ft) | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 |
| Grade (%) | | 0% | | | 0% | | | 0% | | | 0% | |
| Storage Length (ft) | 150 | | 155 | 0 | | 0 | 0 | | 0 | 180 | | 0 |
| Storage Lanes | 2 | | 1 | 2 | | 0 | 0 | | 0 | 2 | | 1 |
| Taper Length (ft) | 300 | | | 25 | | | 25 | | | 215 | | |
| Lane Util. Factor | 1.00 | 0.81 | 1.00 | 0.97 | 0.91 | 1.00 | 1.00 | 1.00 | 1.00 | 0.97 | 1.00 | 1.00 |
| Ped Bike Factor | | | | | | | | | | | | |
| Frt | | | 0.850 | | | | | | | | | 0.850 |
| Flt Protected | | | | 0.950 | | | | | | 0.950 | | |
| Satd. Flow (prot) | 0 | 7544 | 1553 | 3183 | 5301 | 0 | 0 | 0 | 0 | 3433 | 0 | 1538 |
| Flt Permitted | | | | 0.950 | | | | | | 0.950 | | |
| Satd. Flow (perm) | 0 | 7544 | 1553 | 3183 | 5301 | 0 | 0 | 0 | 0 | 3433 | 0 | 1538 |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Satd. Flow (RTOR) | | | 33 | | | | | | | | | 79 |
| Link Speed (mph) | | 45 | | | 45 | | | 30 | | | 30 | |
| Link Distance (ft) | | 603 | | | 617 | | | 673 | | | 836 | |
| Travel Time (s) | | 9.1 | | | 9.3 | | | 15.3 | | | 19.0 | |
| Confl. Peds. (#/hr) | | | | | | | | | | | | |
| Confl. Bikes (#/hr) | | | | | | | | | | | | |
| Peak Hour Factor | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 |
| Growth Factor | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% |
| Heavy Vehicles (%) | 0% | 2% | 4% | 10% | 3% | 0% | 0% | 0% | 0% | 2% | 0% | 5% |
| Bus Blockages (#/hr) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Parking (#/hr) | | | | | | | | | | | | |
| Mid-Block Traffic (%) | | 0% | | | 0% | | | 0% | | | 0% | |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 0 | 1144 | 221 | 213 | 1403 | 0 | 0 | 0 | 0 | 616 | 0 | 359 |
| Turn Type | | NA | custom | Prot | NA | | | | | Prot | | Perm |
| Protected Phases | | 2 | | 1 | 6 | | | | | 7 | | |
| Permitted Phases | | | 2 7 | | | | | | | | | 7 |
| Detector Phase | | 2 | 2 7 | 1 | 6 | | | | | 7 | | 7 |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | | 15.0 | | 3.0 | 15.0 | | | | | 8.0 | | 8.0 |
| Minimum Split (s) | | 21.0 | | 9.0 | 21.0 | | | | | 14.0 | | 14.0 |
| Total Split (s) | | 58.7 | | 16.3 | 75.0 | | | | | 50.0 | | 50.0 |
| Total Split (%) | | 47.0% | | 13.0% | 60.0% | | | | | 40.0% | | 40.0% |
| 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 | | Lag | | Lead | | | | | | | | |
| Lead-Lag Optimize? | | Yes | | Yes | | | | | | | | |
| Recall Mode | | C-Min | | None | C-Min | | | | | None | | None |
| Act Effct Green (s) | | 60.2 | 100.6 | 12.4 | 78.6 | | | | | 34.4 | | 34.4 |
| Actuated g/C Ratio | | 0.48 | 0.80 | 0.10 | 0.63 | | | | | 0.28 | | 0.28 |

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| v/c Ratio | | 0.31 | 0.18 | 0.68 | 0.42 | | | | | 0.65 | | 0.75 |
| Control Delay (s/veh) | | 7.9 | 1.1 | 60.4 | 13.0 | | | | | 42.7 | | 41.1 |
| Queue Delay | | 0.0 | 0.0 | 0.0 | 0.1 | | | | | 0.0 | | 0.0 |
| Total Delay (s/veh) | | 7.9 | 1.1 | 60.4 | 13.1 | | | | | 42.7 | | 41.1 |
| LOS | | A | A | E | B | | | | | D | | D |
| Approach Delay (s/veh) | | 6.8 | | | 19.3 | | | | | | 42.1 | |
| Approach LOS | | A | | | B | | | | | | D | |
| Queue Length 50th (ft) | | 50 | 0 | 88 | 130 | | | | | 231 | | 219 |
| Queue Length 95th (ft) | | 59 | 10 | #170 | 286 | | | | | 262 | | 303 |
| Internal Link Dist (ft) | | 523 | | | 537 | | | 593 | | | 756 | |
| Turn Bay Length (ft) | | | 155 | | | | | | | 180 | | |
| Base Capacity (vph) | | 3634 | 1373 | 314 | 3332 | | | | | 1208 | | 592 |
| Starvation Cap Reductn | | 0 | 0 | 0 | 731 | | | | | 0 | | 0 |
| Spillback Cap Reductn | | 0 | 0 | 0 | 0 | | | | | 0 | | 0 |
| Storage Cap Reductn | | 0 | 0 | 0 | 0 | | | | | 0 | | 0 |
| Reduced v/c Ratio | | 0.31 | 0.16 | 0.68 | 0.54 | | | | | 0.51 | | 0.61 |

| Intersection Summary | | | |
|---|---|---|---|
| Area Type: | Other | | |
| Cycle Length: 125 | | | |
| Actuated Cycle Length: 125 | | | |
| Offset: 18.8 (15%), Referenced to phase 2:EBT and 6:WBT, Start of Green | | | |
| Natural Cycle: 50 | | | |
| Control Type: Actuated-Coordinated | | | |
| Maximum v/c Ratio: 0.75 | | | |
| Intersection Signal Delay (s/veh): 20.6 | | Intersection LOS: C | |
| Intersection Capacity Utilization 64.5% | | ICU Level of Service C | |
| Analysis Period (min) 15 | | | |
| # 95th percentile volume exceeds capacity, queue may be longer. | | | |
| Queue shown is maximum after two cycles. | | | |

Splits and Phases: 3: I-355 SB Ramps & Butterfield Road



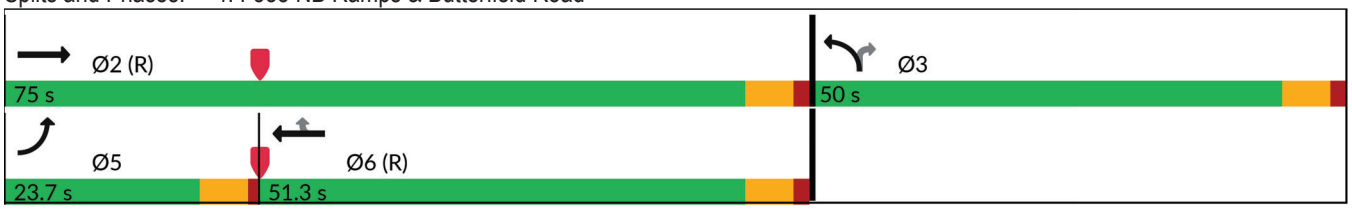


| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 92 | 1580 | 0 | 0 | 1120 | 248 | 415 | 0 | 729 | 0 | 0 | 0 |
| Future Volume (vph) | 92 | 1580 | 0 | 0 | 1120 | 248 | 415 | 0 | 729 | 0 | 0 | 0 |
| Ideal Flow (vphpl) | 1900 | 2000 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Width (ft) | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 |
| Grade (%) | | 0% | | | 0% | | | 0% | | | 0% | |
| Storage Length (ft) | 0 | | 0 | 150 | | 0 | 370 | | 0 | 0 | | 0 |
| Storage Lanes | 2 | | 0 | 2 | | 1 | 2 | | 2 | 0 | | 0 |
| Taper Length (ft) | 25 | | | 300 | | | 180 | | | 25 | | |
| Lane Util. Factor | 0.97 | 0.91 | 1.00 | 1.00 | 0.81 | 1.00 | 0.97 | 1.00 | 0.88 | 1.00 | 1.00 | 1.00 |
| Ped Bike Factor | | | | | | | | | | | | |
| Frt | | | | | | 0.850 | | | 0.850 | | | |
| Flt Protected | 0.950 | | | | | | 0.950 | | | | | |
| Satd. Flow (prot) | 3303 | 5406 | 0 | 0 | 7399 | 1524 | 3335 | 0 | 2787 | 0 | 0 | 0 |
| Flt Permitted | 0.950 | | | | | | 0.950 | | | | | |
| Satd. Flow (perm) | 3303 | 5406 | 0 | 0 | 7399 | 1524 | 3335 | 0 | 2787 | 0 | 0 | 0 |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Satd. Flow (RTOR) | | | | | | 267 | | | 74 | | | |
| Link Speed (mph) | | 45 | | | 45 | | | 30 | | | 30 | |
| Link Distance (ft) | | 617 | | | 559 | | | 683 | | | 840 | |
| Travel Time (s) | | 9.3 | | | 8.5 | | | 15.5 | | | 19.1 | |
| Confl. Peds. (#/hr) | | | | | | | | | | | | |
| Confl. Bikes (#/hr) | | | | | | | | | | | | |
| Peak Hour Factor | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 |
| Growth Factor | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% |
| Heavy Vehicles (%) | 6% | 1% | 0% | 0% | 4% | 6% | 5% | 0% | 2% | 0% | 0% | 0% |
| Bus Blockages (#/hr) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Parking (#/hr) | | | | | | | | | | | | |
| Mid-Block Traffic (%) | | 0% | | | 0% | | | 0% | | | 0% | |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 99 | 1699 | 0 | 0 | 1204 | 267 | 446 | 0 | 784 | 0 | 0 | 0 |
| Turn Type | Prot | NA | | | NA | Perm | Prot | | Perm | | | |
| Protected Phases | 5 | 2 | | | 6 | | 3 | | | | | |
| Permitted Phases | | | | | | 6 | | | 3 | | | |
| Detector Phase | 5 | 2 | | | 6 | 6 | 3 | | 3 | | | |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 3.0 | 15.0 | | | 15.0 | 15.0 | 8.0 | | 8.0 | | | |
| Minimum Split (s) | 8.5 | 22.0 | | | 22.0 | 22.0 | 14.0 | | 14.0 | | | |
| Total Split (s) | 23.7 | 75.0 | | | 51.3 | 51.3 | 50.0 | | 50.0 | | | |
| Total Split (%) | 19.0% | 60.0% | | | 41.0% | 41.0% | 40.0% | | 40.0% | | | |
| Yellow Time (s) | 4.5 | 4.5 | | | 4.5 | 4.5 | 4.5 | | 4.5 | | | |
| All-Red Time (s) | 1.0 | 1.5 | | | 1.5 | 1.5 | 1.5 | | 1.5 | | | |
| Lost Time Adjust (s) | 0.0 | 0.0 | | | 0.0 | 0.0 | 0.0 | | 0.0 | | | |
| Total Lost Time (s) | 5.5 | 6.0 | | | 6.0 | 6.0 | 6.0 | | 6.0 | | | |
| Lead/Lag | Lead | | | | Lag | Lag | | | | | | |
| Lead-Lag Optimize? | Yes | | | | Yes | Yes | | | | | | |
| Recall Mode | None | C-Min | | | C-Min | C-Min | None | | None | | | |
| Act Effct Green (s) | 9.1 | 73.0 | | | 58.3 | 58.3 | 40.0 | | 40.0 | | | |
| Actuated g/C Ratio | 0.07 | 0.58 | | | 0.47 | 0.47 | 0.32 | | 0.32 | | | |

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| v/c Ratio | 0.41 | 0.54 | | | 0.35 | 0.31 | 0.42 | | 0.83 | | | |
| Control Delay (s/veh) | 58.3 | 13.2 | | | 18.6 | 7.6 | 34.0 | | 43.7 | | | |
| Queue Delay | 0.0 | 0.2 | | | 0.0 | 0.0 | 0.0 | | 0.0 | | | |
| Total Delay (s/veh) | 58.3 | 13.4 | | | 18.6 | 7.6 | 34.0 | | 43.7 | | | |
| LOS | E | B | | | B | A | C | | D | | | |
| Approach Delay (s/veh) | | 15.9 | | | 16.6 | | | 40.2 | | | | |
| Approach LOS | | B | | | B | | | D | | | | |
| Queue Length 50th (ft) | 36 | 361 | | | 181 | 81 | 147 | | 302 | | | |
| Queue Length 95th (ft) | 51 | 441 | | | 230 | 139 | 191 | | 382 | | | |
| Internal Link Dist (ft) | | 537 | | | 479 | | | 603 | | | 760 | |
| Turn Bay Length (ft) | | | | | | | 370 | | | | | |
| Base Capacity (vph) | 480 | 3155 | | | 3453 | 853 | 1173 | | 1028 | | | |
| Starvation Cap Reductn | 0 | 526 | | | 0 | 0 | 0 | | 0 | | | |
| Spillback Cap Reductn | 0 | 38 | | | 0 | 0 | 0 | | 0 | | | |
| Storage Cap Reductn | 0 | 0 | | | 0 | 0 | 0 | | 0 | | | |
| Reduced v/c Ratio | 0.21 | 0.65 | | | 0.35 | 0.31 | 0.38 | | 0.76 | | | |

| Intersection Summary | | | |
|---|---|---|---|
| Area Type: | Other | | |
| Cycle Length: 125 | | | |
| Actuated Cycle Length: 125 | | | |
| Offset: 54 (43%), Referenced to phase 2:EBT and 6:WBT, Start of Green | | | |
| Natural Cycle: 55 | | | |
| Control Type: Actuated-Coordinated | | | |
| Maximum v/c Ratio: 0.83 | | | |
| Intersection Signal Delay (s/veh): 22.8 | | Intersection LOS: C | |
| Intersection Capacity Utilization 64.5% | | ICU Level of Service C | |
| Analysis Period (min) 15 | | | |

Splits and Phases: 4: I-355 NB Ramps & Butterfield Road





| Lane Group | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (vph) | 47 | 18 | 9 | 60 | 796 | 468 |
| Future Volume (vph) | 47 | 18 | 9 | 60 | 796 | 468 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 2000 | 2000 | 1900 |
| Lane Width (ft) | 12 | 12 | 12 | 12 | 12 | 12 |
| Grade (%) | 0% | | | 0% | 0% | |
| Storage Length (ft) | 160 | 0 | 125 | | | 115 |
| Storage Lanes | 2 | 1 | 1 | | | 0 |
| Taper Length (ft) | 100 | | 90 | | | |
| Lane Util. Factor | 0.97 | 1.00 | 1.00 | 0.95 | 0.95 | 0.88 |
| Ped Bike Factor | | | | | | |
| Frt | | 0.850 | | | | 0.850 |
| Flt Protected | 0.950 | | 0.950 | | | |
| Satd. Flow (prot) | 3335 | 1615 | 1805 | 3800 | 3800 | 2814 |
| Flt Permitted | 0.950 | | 0.304 | | | |
| Satd. Flow (perm) | 3335 | 1615 | 578 | 3800 | 3800 | 2814 |
| Right Turn on Red | | Yes | | | | Yes |
| Satd. Flow (RTOR) | | 20 | | | | 514 |
| Link Speed (mph) | 30 | | | 35 | 35 | |
| Link Distance (ft) | 556 | | | 645 | 290 | |
| Travel Time (s) | 12.6 | | | 12.6 | 5.6 | |
| Confl. Peds. (#/hr) | | | | | | |
| Confl. Bikes (#/hr) | | | | | | |
| Peak Hour Factor | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 |
| Growth Factor | 100% | 100% | 100% | 100% | 100% | 100% |
| Heavy Vehicles (%) | 5% | 0% | 0% | 0% | 0% | 1% |
| Bus Blockages (#/hr) | 0 | 0 | 0 | 0 | 0 | 0 |
| Parking (#/hr) | | | | | | |
| Mid-Block Traffic (%) | 0% | | | 0% | 0% | |
| Shared Lane Traffic (%) | | | | | | |
| Lane Group Flow (vph) | 52 | 20 | 10 | 66 | 875 | 514 |
| Turn Type | Prot | Prot | pm+pt | NA | NA | pm+ov |
| Protected Phases | 4 | 4 | 5 | 2 | 6 | 4 |
| Permitted Phases | | | 2 | | | 6 |
| Detector Phase | 4 | 4 | 5 | 2 | 6 | 4 |
| Switch Phase | | | | | | |
| Minimum Initial (s) | 8.0 | 8.0 | 3.0 | 15.0 | 15.0 | 8.0 |
| Minimum Split (s) | 14.0 | 14.0 | 6.5 | 21.0 | 21.0 | 14.0 |
| Total Split (s) | 34.0 | 34.0 | 12.0 | 91.0 | 79.0 | 34.0 |
| Total Split (%) | 27.2% | 27.2% | 9.6% | 72.8% | 63.2% | 27.2% |
| Yellow Time (s) | 4.0 | 4.0 | 3.5 | 4.0 | 4.0 | 4.0 |
| All-Red Time (s) | 2.0 | 2.0 | 0.0 | 2.0 | 2.0 | 2.0 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Lost Time (s) | 6.0 | 6.0 | 3.5 | 6.0 | 6.0 | 6.0 |
| Lead/Lag | | | Lead | | Lag | |
| Lead-Lag Optimize? | | | Yes | | Yes | |
| Recall Mode | None | None | None | C-Min | C-Min | None |
| Act Effct Green (s) | 9.5 | 9.5 | 106.0 | 103.5 | 101.6 | 121.9 |
| Actuated g/C Ratio | 0.08 | 0.08 | 0.85 | 0.83 | 0.81 | 0.98 |

| Lane Group | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| v/c Ratio | 0.21 | 0.14 | 0.02 | 0.02 | 0.28 | 0.19 |
| Control Delay (s/veh) | 55.5 | 22.8 | 1.8 | 2.1 | 2.8 | 0.5 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.8 | 0.0 |
| Total Delay (s/veh) | 55.5 | 22.8 | 1.8 | 2.1 | 3.7 | 0.6 |
| LOS | E | C | A | A | A | A |
| Approach Delay (s/veh) | 46.4 | | | 2.0 | 2.5 | |
| Approach LOS | D | | | A | A | |
| Queue Length 50th (ft) | 21 | 0 | 1 | 3 | 15 | 0 |
| Queue Length 95th (ft) | 42 | 25 | 4 | 8 | m244 | m0 |
| Internal Link Dist (ft) | 476 | | | 565 | 210 | |
| Turn Bay Length (ft) | 160 | | 125 | | | 115 |
| Base Capacity (vph) | 747 | 377 | 573 | 3146 | 3090 | 2814 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 1810 | 582 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.07 | 0.05 | 0.02 | 0.02 | 0.68 | 0.23 |

| Intersection Summary | | | |
|---|---|---|---|
| Area Type: | Other | | |
| Cycle Length: 125 | | | |
| Actuated Cycle Length: 125 | | | |
| Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBT, Start of Green | | | |
| Natural Cycle: 45 | | | |
| Control Type: Actuated-Coordinated | | | |
| Maximum v/c Ratio: 0.28 | | | |
| Intersection Signal Delay (s/veh): 4.5 | | Intersection LOS: A | |
| Intersection Capacity Utilization 37.6% | | ICU Level of Service A | |
| Analysis Period (min) 15 | | | |

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

Splits and Phases: 6: Lacey Road & Woodcreek Drive



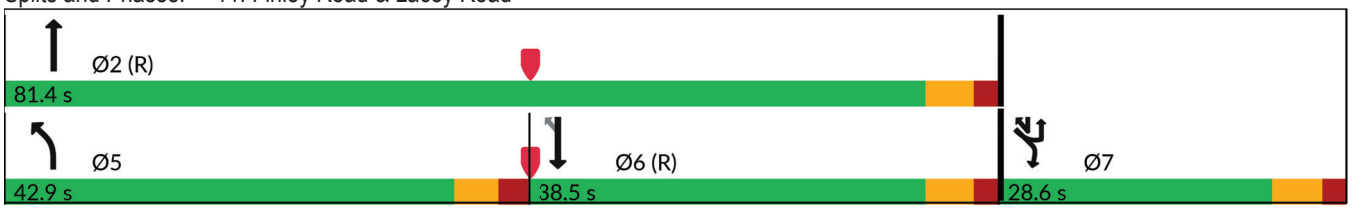


| Lane Group | NBL | NBT | SBT | SBR | SEL | SER |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (vph) | 623 | 772 | 571 | 217 | 11 | 128 |
| Future Volume (vph) | 623 | 772 | 571 | 217 | 11 | 128 |
| Ideal Flow (vphpl) | 1900 | 2000 | 2000 | 1900 | 1900 | 1900 |
| Lane Width (ft) | 12 | 12 | 12 | 12 | 12 | 12 |
| Grade (%) | | 0% | 0% | | 0% | |
| Storage Length (ft) | 305 | | | 400 | 0 | 205 |
| Storage Lanes | 2 | | | 1 | 1 | 1 |
| Taper Length (ft) | 230 | | | | 0 | |
| Lane Util. Factor | 0.97 | 0.95 | 0.95 | 1.00 | 1.00 | 0.88 |
| Ped Bike Factor | | | | | | |
| Frt | | | | 0.850 | | 0.850 |
| Flt Protected | 0.950 | | | | 0.950 | |
| Satd. Flow (prot) | 3467 | 3762 | 3689 | 1599 | 1656 | 2733 |
| Flt Permitted | 0.950 | | | | 0.950 | |
| Satd. Flow (perm) | 3467 | 3762 | 3689 | 1599 | 1656 | 2733 |
| Right Turn on Red | | | | Yes | | Yes |
| Satd. Flow (RTOR) | | | | 76 | | 138 |
| Link Speed (mph) | | 45 | 45 | | 35 | |
| Link Distance (ft) | | 681 | 1175 | | 1160 | |
| Travel Time (s) | | 10.3 | 17.8 | | 22.6 | |
| Confl. Peds. (#/hr) | | | | | | |
| Confl. Bikes (#/hr) | | | | | | |
| Peak Hour Factor | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 |
| Growth Factor | 100% | 100% | 100% | 100% | 100% | 100% |
| Heavy Vehicles (%) | 1% | 1% | 3% | 1% | 9% | 4% |
| Bus Blockages (#/hr) | 0 | 0 | 0 | 0 | 0 | 0 |
| Parking (#/hr) | | | | | | |
| Mid-Block Traffic (%) | | 0% | 0% | | 0% | |
| Shared Lane Traffic (%) | | | | | | |
| Lane Group Flow (vph) | 670 | 830 | 614 | 233 | 12 | 138 |
| Turn Type | Prot | NA | NA | pm+ov | Prot | Prot |
| Protected Phases | 5 | 2 | 6 | 7 | 7 | 7 |
| Permitted Phases | | | | 6 | | |
| Detector Phase | 5 | 2 | 6 | 7 | 7 | 7 |
| Switch Phase | | | | | | |
| Minimum Initial (s) | 4.0 | 15.0 | 15.0 | 8.0 | 8.0 | 8.0 |
| Minimum Split (s) | 10.0 | 21.0 | 21.0 | 14.0 | 14.0 | 14.0 |
| Total Split (s) | 42.9 | 81.4 | 38.5 | 28.6 | 28.6 | 28.6 |
| Total Split (%) | 39.0% | 74.0% | 35.0% | 26.0% | 26.0% | 26.0% |
| Yellow Time (s) | 3.5 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| All-Red Time (s) | 2.5 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Lost Time (s) | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 |
| Lead/Lag | Lead | | Lag | | | |
| Lead-Lag Optimize? | Yes | | Yes | | | |
| Recall Mode | None | C-Min | C-Min | None | None | None |
| Act Effct Green (s) | 27.0 | 89.4 | 56.5 | 71.0 | 8.6 | 8.6 |
| Actuated g/C Ratio | 0.25 | 0.81 | 0.51 | 0.65 | 0.08 | 0.08 |

| Lane Group | NBL | NBT | SBT | SBR | SEL | SER |
|---|---|---|---|---|---|---|
| v/c Ratio | 0.79 | 0.27 | 0.32 | 0.22 | 0.09 | 0.41 |
| Control Delay (s/veh) | 45.8 | 2.8 | 17.1 | 6.5 | 48.1 | 11.8 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay (s/veh) | 45.8 | 2.8 | 17.1 | 6.5 | 48.1 | 11.8 |
| LOS | D | A | B | A | D | B |
| Approach Delay (s/veh) | | 22.0 | 14.2 | | 14.7 | |
| Approach LOS | | C | B | | B | |
| Queue Length 50th (ft) | 231 | 54 | 128 | 40 | 9 | 0 |
| Queue Length 95th (ft) | 276 | 83 | 201 | 88 | 29 | 33 |
| Internal Link Dist (ft) | | 601 | 1095 | | 1080 | |
| Turn Bay Length (ft) | 305 | | | 400 | | 205 |
| Base Capacity (vph) | 1163 | 3058 | 1893 | 1253 | 340 | 671 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.58 | 0.27 | 0.32 | 0.19 | 0.04 | 0.21 |

| Intersection Summary | | | |
|---|---|---|---|
| Area Type: | Other | | |
| Cycle Length: 110 | | | |
| Actuated Cycle Length: 110 | | | |
| Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Green | | | |
| Natural Cycle: 55 | | | |
| Control Type: Actuated-Coordinated | | | |
| Maximum v/c Ratio: 0.79 | | | |
| Intersection Signal Delay (s/veh): 18.9 | | Intersection LOS: B | |
| Intersection Capacity Utilization 54.4% | | ICU Level of Service A | |
| Analysis Period (min) 15 | | | |

Splits and Phases: 11: Finley Road & Lacey Road



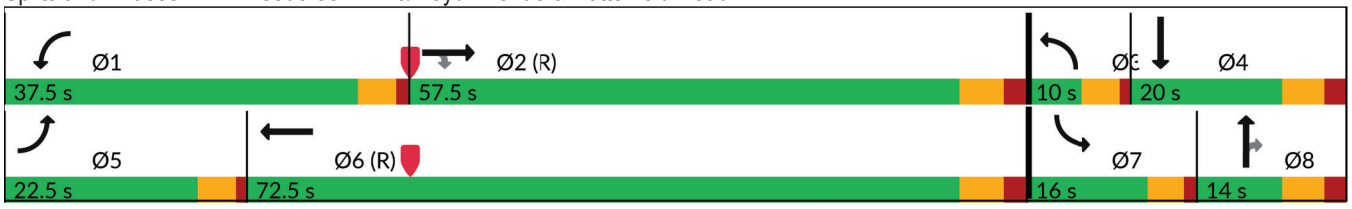


| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 66 | 1037 | 308 | 870 | 679 | 61 | 55 | 16 | 36 | 73 | 86 | 69 |
| Future Volume (vph) | 66 | 1037 | 308 | 870 | 679 | 61 | 55 | 16 | 36 | 73 | 86 | 69 |
| Ideal Flow (vphpl) | 1900 | 2000 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Width (ft) | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 |
| Grade (%) | | 0% | | | 0% | | | 0% | | | 0% | |
| Storage Length (ft) | 265 | | 465 | 0 | | 0 | 118 | | 0 | 120 | | 0 |
| Storage Lanes | 1 | | 2 | 2 | | 0 | 1 | | 1 | 1 | | 0 |
| Taper Length (ft) | 85 | | | 25 | | | 45 | | | 85 | | |
| Lane Util. Factor | 1.00 | 0.91 | 0.88 | 0.97 | 0.91 | 0.91 | 0.97 | 0.95 | 0.95 | 1.00 | 1.00 | 1.00 |
| Ped Bike Factor | | | | | | | | | | | | |
| Frt | | | 0.850 | | 0.988 | | | 0.938 | 0.850 | | 0.933 | |
| Flt Protected | 0.950 | | | 0.950 | | | 0.950 | | | 0.950 | | |
| Satd. Flow (prot) | 1770 | 5301 | 2842 | 3502 | 4869 | 0 | 3502 | 1645 | 1434 | 1752 | 1732 | 0 |
| Flt Permitted | 0.950 | | | 0.950 | | | 0.950 | | | 0.950 | | |
| Satd. Flow (perm) | 1770 | 5301 | 2842 | 3502 | 4869 | 0 | 3502 | 1645 | 1434 | 1752 | 1732 | 0 |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Satd. Flow (RTOR) | | | 324 | | 18 | | | 12 | 183 | | 26 | |
| Link Speed (mph) | | 45 | | | 45 | | | 30 | | | 30 | |
| Link Distance (ft) | | 2017 | | | 601 | | | 290 | | | 452 | |
| Travel Time (s) | | 30.6 | | | 9.1 | | | 6.6 | | | 10.3 | |
| Confl. Peds. (#/hr) | | | | | | | | | | | | |
| Confl. Bikes (#/hr) | | | | | | | | | | | | |
| Peak Hour Factor | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 |
| Growth Factor | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% |
| Heavy Vehicles (%) | 2% | 3% | 0% | 0% | 5% | 8% | 0% | 0% | 7% | 3% | 1% | 4% |
| Bus Blockages (#/hr) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Parking (#/hr) | | | | | | | | | | | | |
| Mid-Block Traffic (%) | | 0% | | | 0% | | | 0% | | | 0% | |
| Shared Lane Traffic (%) | | | | | | | | | 31% | | | |
| Lane Group Flow (vph) | 69 | 1092 | 324 | 916 | 779 | 0 | 58 | 29 | 26 | 77 | 164 | 0 |
| Turn Type | Prot | NA | Perm | Prot | NA | | Prot | NA | Perm | Prot | NA | |
| Protected Phases | 5 | 2 | | 1 | 6 | | 3 | 8 | | 7 | 4 | |
| Permitted Phases | | | 2 | | | | | | 8 | | | |
| Detector Phase | 5 | 2 | 2 | 1 | 6 | | 3 | 8 | 8 | 7 | 4 | |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 3.0 | 15.0 | 15.0 | 3.0 | 15.0 | | 3.0 | 8.0 | 8.0 | 3.0 | 8.0 | |
| Minimum Split (s) | 7.5 | 21.0 | 21.0 | 7.5 | 21.0 | | 7.5 | 14.0 | 14.0 | 7.5 | 14.0 | |
| Total Split (s) | 22.5 | 57.5 | 57.5 | 37.5 | 72.5 | | 10.0 | 14.0 | 14.0 | 16.0 | 20.0 | |
| Total Split (%) | 18.0% | 46.0% | 46.0% | 30.0% | 58.0% | | 8.0% | 11.2% | 11.2% | 12.8% | 16.0% | |
| Yellow Time (s) | 3.5 | 4.0 | 4.0 | 3.5 | 4.0 | | 3.5 | 4.0 | 4.0 | 3.5 | 4.0 | |
| All-Red Time (s) | 1.0 | 2.0 | 2.0 | 1.0 | 2.0 | | 1.0 | 2.0 | 2.0 | 1.0 | 2.0 | |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | |
| Total Lost Time (s) | 4.5 | 6.0 | 6.0 | 4.5 | 6.0 | | 4.5 | 6.0 | 6.0 | 4.5 | 6.0 | |
| Lead/Lag | Lead | Lag | Lag | Lead | Lag | | Lead | Lag | Lag | Lead | Lag | |
| Lead-Lag Optimize? | Yes | Yes | Yes | Yes | Yes | | Yes | Yes | Yes | Yes | Yes | |
| Recall Mode | None | C-Min | C-Min | None | C-Min | | None | None | None | None | None | |
| Act Effct Green (s) | 10.2 | 53.5 | 53.5 | 33.6 | 79.1 | | 5.5 | 9.1 | 9.1 | 9.9 | 13.3 | |
| Actuated g/C Ratio | 0.08 | 0.43 | 0.43 | 0.27 | 0.63 | | 0.04 | 0.07 | 0.07 | 0.08 | 0.11 | |

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| v/c Ratio | 0.48 | 0.48 | 0.23 | 0.97 | 0.25 | | 0.38 | 0.22 | 0.09 | 0.56 | 0.79 | |
| Control Delay (s/veh) | 65.0 | 27.1 | 2.8 | 79.8 | 10.1 | | 72.3 | 46.1 | 2.8 | 70.4 | 71.6 | |
| Queue Delay | 0.0 | 0.0 | 0.0 | 16.9 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | |
| Total Delay (s/veh) | 65.0 | 27.1 | 2.8 | 96.7 | 10.1 | | 72.3 | 46.1 | 2.8 | 70.4 | 71.6 | |
| LOS | E | C | A | F | B | | E | D | A | E | E | |
| Approach Delay (s/veh) | | 23.5 | | | 56.9 | | | 49.6 | | | 71.2 | |
| Approach LOS | | C | | | E | | | D | | | E | |
| Queue Length 50th (ft) | 55 | 241 | 0 | 409 | 112 | | 14 | 13 | 0 | 62 | 111 | |
| Queue Length 95th (ft) | 102 | 286 | 30 | #539 | 94 | | 48 | 51 | 0 | 115 | #219 | |
| Internal Link Dist (ft) | | 1937 | | | 521 | | | 210 | | | 372 | |
| Turn Bay Length (ft) | 265 | | 465 | | | | 118 | | | 120 | | |
| Base Capacity (vph) | 254 | 2270 | 1402 | 942 | 3088 | | 154 | 131 | 274 | 161 | 217 | |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | |
| Spillback Cap Reductn | 0 | 0 | 5 | 60 | 0 | | 0 | 0 | 0 | 0 | 0 | |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | |
| Reduced v/c Ratio | 0.27 | 0.48 | 0.23 | 1.04 | 0.25 | | 0.38 | 0.22 | 0.09 | 0.48 | 0.76 | |

| Intersection Summary | | | |
|---|---|---|---|
| Area Type: | Other | | |
| Cycle Length: 125 | | | |
| Actuated Cycle Length: 125 | | | |
| Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Green | | | |
| Natural Cycle: 75 | | | |
| Control Type: Actuated-Coordinated | | | |
| Maximum v/c Ratio: 0.97 | | | |
| Intersection Signal Delay (s/veh): 43.6 | | Intersection LOS: D | |
| Intersection Capacity Utilization 73.4% | | ICU Level of Service D | |
| Analysis Period (min) 15 | | | |
| # 95th percentile volume exceeds capacity, queue may be longer. | | | |
| Queue shown is maximum after two cycles. | | | |

Splits and Phases: 1: Woodcreek Drive/Lloyd Avenue & Butterfield Road



| Intersection | |
|---|---|
| Intersection Delay, s/veh | 12.1 |
| Intersection LOS | B |

| Movement | EBL | EBT | EBR | WBU | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Vol, veh/h | 12 | 410 | 325 | 0 | 33 | 60 | 58 | 1 | 14 | 1 | 0 | 0 |
| Future Vol, veh/h | 12 | 410 | 325 | 0 | 33 | 60 | 58 | 1 | 14 | 1 | 0 | 0 |
| Peak Hour Factor | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 |
| Heavy Vehicles, % | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mvmt Flow | 13 | 432 | 342 | 0 | 35 | 63 | 61 | 1 | 15 | 1 | 0 | 0 |
| Number of Lanes | 0 | 2 | 0 | 0 | 0 | 2 | 0 | 1 | 1 | 0 | 0 | 0 |

| Approach | EB | WB | NB |
|---|---|---|---|
| Opposing Approach | WB | EB | |
| Opposing Lanes | 2 | 2 | 0 |
| Conflicting Approach Left | | NB | EB |
| Conflicting Lanes Left | 0 | 2 | 2 |
| Conflicting Approach Right | NB | | WB |
| Conflicting Lanes Right | 2 | 0 | 2 |
| HCM Control Delay, s/veh | 12.9 | 8.4 | 9.2 |
| HCM LOS | B | A | A |

| Lane | NBLn1 | NBLn2 | EBLn1 | EBLn2 | WBLn1 | WBLn2 |
|---|---|---|---|---|---|---|
| Vol Left, % | 100% | 0% | 6% | 0% | 52% | 0% |
| Vol Thru, % | 0% | 93% | 94% | 39% | 48% | 34% |
| Vol Right, % | 0% | 7% | 0% | 61% | 0% | 66% |
| Sign Control | Stop | Stop | Stop | Stop | Stop | Stop |
| Traffic Vol by Lane | 1 | 15 | 217 | 530 | 63 | 88 |
| LT Vol | 1 | 0 | 12 | 0 | 33 | 0 |
| Through Vol | 0 | 14 | 205 | 205 | 30 | 30 |
| RT Vol | 0 | 1 | 0 | 325 | 0 | 58 |
| Lane Flow Rate | 1 | 16 | 228 | 558 | 66 | 93 |
| Geometry Grp | 5 | 5 | 5 | 5 | 5 | 5 |
| Degree of Util (X) | 0.002 | 0.028 | 0.294 | 0.647 | 0.1 | 0.122 |
| Departure Headway (Hd) | 6.866 | 6.314 | 4.636 | 4.178 | 5.449 | 4.722 |
| Convergence, Y/N | Yes | Yes | Yes | Yes | Yes | Yes |
| Cap | 523 | 569 | 767 | 854 | 661 | 763 |
| Service Time | 4.578 | 4.027 | 2.415 | 1.958 | 3.154 | 2.427 |
| HCM Lane V/C Ratio | 0.002 | 0.028 | 0.297 | 0.653 | 0.1 | 0.122 |
| HCM Control Delay, s/veh | 9.6 | 9.2 | 9.4 | 14.4 | 8.8 | 8.1 |
| HCM Lane LOS | A | A | A | B | A | A |
| HCM 95th-tile Q | 0 | 0.1 | 1.2 | 4.9 | 0.3 | 0.4 |

| Intersection | |
|---|---|
| Intersection Delay, s/veh | |
| Intersection LOS | |

| Movement | SBR |
|---|---|
| Lane Configurations | |
| Traffic Vol, veh/h | 0 |
| Future Vol, veh/h | 0 |
| Peak Hour Factor | 0.95 |
| Heavy Vehicles, % | 0 |
| Mvmt Flow | 0 |
| Number of Lanes | 0 |

| Approach | |
|---|---|
| Opposing Approach | |
| Opposing Lanes | |
| Conflicting Approach Left | |
| Conflicting Lanes Left | |
| Conflicting Approach Right | |
| Conflicting Lanes Right | |
| HCM Control Delay, s/veh | |
| HCM LOS | |

| Intersection | |
|---|---|
| Int Delay, s/veh | 1.6 |

| Movement | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 10 | 13 | 92 | 146 | 322 | 51 |
| Future Vol, veh/h | 10 | 13 | 92 | 146 | 322 | 51 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Free | Free | Free | Free |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | 45 | 0 | 80 | - | - | - |
| Veh in Median Storage, # | 1 | - | - | 0 | 0 | - |
| Grade, % | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 0 | 0 | 1 | 1 | 0 | 0 |
| Mvmt Flow | 11 | 14 | 100 | 159 | 350 | 55 |

| Major/Minor | Minor2 | | Major1 | | Major2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 657 | 203 | 405 | 0 | - | 0 |
| Stage 1 | 378 | - | - | - | - | - |
| Stage 2 | 279 | - | - | - | - | - |
| Critical Hdwy | 6.8 | 6.9 | 4.12 | - | - | - |
| Critical Hdwy Stg 1 | 5.8 | - | - | - | - | - |
| Critical Hdwy Stg 2 | 5.8 | - | - | - | - | - |
| Follow-up Hdwy | 3.5 | 3.3 | 2.21 | - | - | - |
| Pot Cap-1 Maneuver | 402 | 811 | 1157 | - | - | - |
| Stage 1 | 669 | - | - | - | - | - |
| Stage 2 | 749 | - | - | - | - | - |
| Platoon blocked, % | | | | - | - | - |
| Mov Cap-1 Maneuver | 368 | 811 | 1157 | - | - | - |
| Mov Cap-2 Maneuver | 471 | - | - | - | - | - |
| Stage 1 | 611 | - | - | - | - | - |
| Stage 2 | 749 | - | - | - | - | - |

| Approach | EB | NB | SB |
|---|---|---|---|
| HCM Ctrl Dly, s/v | 10.96 | 3.25 | 0 |
| HCM LOS | B | | |

| Minor Lane/Major Mvmt | NBL | NBT | EBLn1 | EBLn2 | SBT | SBR |
|---|---|---|---|---|---|---|
| Capacity (veh/h) | 1157 | - | 471 | 811 | - | - |
| HCM Lane V/C Ratio | 0.086 | - | 0.023 | 0.017 | - | - |
| HCM Ctrl Dly (s/v) | 8.4 | - | 12.8 | 9.5 | - | - |
| HCM Lane LOS | A | - | B | A | - | - |
| HCM 95th %tile Q(veh) | 0.3 | - | 0.1 | 0.1 | - | - |

| Intersection | |
|---|---|
| Int Delay, s/veh | 1.2 |

| Movement | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 24 | 11 | 45 | 214 | 250 | 85 |
| Future Vol, veh/h | 24 | 11 | 45 | 214 | 250 | 85 |
| 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 | 0 | 0 | - | - | - |
| Veh in Median Storage, # | 0 | - | - | 0 | 0 | - |
| Grade, % | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 95 | 95 | 95 | 95 | 95 | 95 |
| Heavy Vehicles, % | 0 | 0 | 0 | 1 | 0 | 0 |
| Mvmt Flow | 25 | 12 | 47 | 225 | 263 | 89 |

| Major/Minor | Minor2 | | Major1 | | Major2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 515 | 176 | 353 | 0 | - | 0 |
| Stage 1 | 308 | - | - | - | - | - |
| Stage 2 | 207 | - | - | - | - | - |
| Critical Hdwy | 6.8 | 6.9 | 4.1 | - | - | - |
| Critical Hdwy Stg 1 | 5.8 | - | - | - | - | - |
| Critical Hdwy Stg 2 | 5.8 | - | - | - | - | - |
| Follow-up Hdwy | 3.5 | 3.3 | 2.2 | - | - | - |
| Pot Cap-1 Maneuver | 494 | 843 | 1217 | - | - | - |
| Stage 1 | 725 | - | - | - | - | - |
| Stage 2 | 813 | - | - | - | - | - |
| Platoon blocked, % | | | | - | - | - |
| Mov Cap-1 Maneuver | 475 | 843 | 1217 | - | - | - |
| Mov Cap-2 Maneuver | 475 | - | - | - | - | - |
| Stage 1 | 697 | - | - | - | - | - |
| Stage 2 | 813 | - | - | - | - | - |

| Approach | EB | NB | SB |
|---|---|---|---|
| HCM Ctrl Dly, s/v | 11.85 | 1.4 | 0 |
| HCM LOS | B | | |

| Minor Lane/Major Mvmt | NBL | NBT | EBLn1 | EBLn2 | SBT | SBR |
|---|---|---|---|---|---|---|
| Capacity (veh/h) | 1217 | - | 475 | 843 | - | - |
| HCM Lane V/C Ratio | 0.039 | - | 0.053 | 0.014 | - | - |
| HCM Ctrl Dly (s/v) | 8.1 | - | 13 | 9.3 | - | - |
| HCM Lane LOS | A | - | B | A | - | - |
| HCM 95th %tile Q(veh) | 0.1 | - | 0.2 | 0 | - | - |

| Intersection | |
|---|---|
| Int Delay, s/veh | 4.3 |

| Movement | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 30 | 73 | 294 | 229 | 194 | 67 |
| Future Vol, veh/h | 30 | 73 | 294 | 229 | 194 | 67 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Free | Free | Free | Free |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | 115 | 0 | 180 | - | - | - |
| Veh in Median Storage, # | 1 | - | - | 0 | 0 | - |
| Grade, % | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 0 | 3 | 0 | 0 | 0 | 0 |
| Mvmt Flow | 33 | 79 | 320 | 249 | 211 | 73 |

| Major/Minor | Minor2 | | Major1 | | Major2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 1011 | 142 | 284 | 0 | - | 0 |
| Stage 1 | 247 | - | - | - | - | - |
| Stage 2 | 764 | - | - | - | - | - |
| Critical Hdwy | 6.8 | 6.96 | 4.1 | - | - | - |
| Critical Hdwy Stg 1 | 5.8 | - | - | - | - | - |
| Critical Hdwy Stg 2 | 5.8 | - | - | - | - | - |
| Follow-up Hdwy | 3.5 | 3.33 | 2.2 | - | - | - |
| Pot Cap-1 Maneuver | 239 | 877 | 1290 | - | - | - |
| Stage 1 | 777 | - | - | - | - | - |
| Stage 2 | 426 | - | - | - | - | - |
| Platoon blocked, % | | | | - | - | - |
| Mov Cap-1 Maneuver | 180 | 877 | 1290 | - | - | - |
| Mov Cap-2 Maneuver | 304 | - | - | - | - | - |
| Stage 1 | 584 | - | - | - | - | - |
| Stage 2 | 426 | - | - | - | - | - |

| Approach | EB | NB | SB |
|---|---|---|---|
| HCM Ctrl Dly, s/v | 12.06 | 4.89 | 0 |
| HCM LOS | B | | |

| Minor Lane/Major Mvmt | NBL | NBT | EBLn1 | EBLn2 | SBT | SBR |
|---|---|---|---|---|---|---|
| Capacity (veh/h) | 1290 | - | 304 | 877 | - | - |
| HCM Lane V/C Ratio | 0.248 | - | 0.107 | 0.09 | - | - |
| HCM Ctrl Dly (s/v) | 8.7 | - | 18.3 | 9.5 | - | - |
| HCM Lane LOS | A | - | C | A | - | - |
| HCM 95th %tile Q(veh) | 1 | - | 0.4 | 0.3 | - | - |

| Intersection | |
|---|---|
| Int Delay, s/veh | 0.2 |

| Movement | SET | SER | NWL | NWT | NEL | NER |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 212 | 6 | 3 | 84 | 3 | 0 |
| Future Vol, veh/h | 212 | 6 | 3 | 84 | 3 | 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 | - | - | 60 | - | 0 | - |
| Veh in Median Storage, # | 0 | - | - | 0 | 0 | - |
| Grade, % | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 74 | 74 | 74 | 74 | 74 | 74 |
| Heavy Vehicles, % | 1 | 0 | 0 | 0 | 0 | 0 |
| Mvmt Flow | 286 | 8 | 4 | 114 | 4 | 0 |

| Major/Minor | Major1 | | Major2 | | Minor1 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 0 | 0 | 295 | 0 | 412 | 291 |
| Stage 1 | - | - | - | - | 291 | - |
| Stage 2 | - | - | - | - | 122 | - |
| 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 | - | - | 1278 | - | 600 | 753 |
| Stage 1 | - | - | - | - | 764 | - |
| Stage 2 | - | - | - | - | 909 | - |
| Platoon blocked, % | - | - | | - | | |
| Mov Cap-1 Maneuver | - | - | 1278 | - | 598 | 753 |
| Mov Cap-2 Maneuver | - | - | - | - | 598 | - |
| Stage 1 | - | - | - | - | 764 | - |
| Stage 2 | - | - | - | - | 906 | - |

| Approach | SE | NW | NE |
|---|---|---|---|
| HCM Ctrl Dly, s/v | 0 | 0.27 | 11.06 |
| HCM LOS | | | B |

| Minor Lane/Major Mvmt | NELn1 | NWL | NWT | SET | SER |
|---|---|---|---|---|---|
| Capacity (veh/h) | 598 | 1278 | - | - | - |
| HCM Lane V/C Ratio | 0.007 | 0.003 | - | - | - |
| HCM Ctrl Dly (s/v) | 11.1 | 7.8 | - | - | - |
| HCM Lane LOS | B | A | - | - | - |
| HCM 95th %tile Q(veh) | 0 | 0 | - | - | - |

| Intersection | |
|---|---|
| Int Delay, s/veh | 5.3 |

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Vol, veh/h | 15 | 29 | 168 | 269 | 70 | 22 | 9 | 0 | 71 | 3 | 0 | 8 |
| Future Vol, veh/h | 15 | 29 | 168 | 269 | 70 | 22 | 9 | 0 | 71 | 3 | 0 | 8 |
| 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 | 60 | - | - | 90 | - | - | 0 | - | - | - | - | - |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 95 | 79 | 79 | 79 | 79 | 95 | 79 | 95 | 79 | 95 | 95 | 95 |
| Heavy Vehicles, % | 0 | 7 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mvmt Flow | 16 | 37 | 213 | 341 | 89 | 23 | 11 | 0 | 90 | 3 | 0 | 8 |

| Major/Minor | Major1 | | | Major2 | | | Minor1 | | | Minor2 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Conflicting Flow All | 112 | 0 | 0 | 249 | 0 | 0 | 944 | 967 | 143 | 849 | 1062 | 100 |
| Stage 1 | - | - | - | - | - | - | 175 | 175 | - | 781 | 781 | - |
| Stage 2 | - | - | - | - | - | - | 770 | 793 | - | 68 | 281 | - |
| 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 | 1491 | - | - | 1328 | - | - | 244 | 256 | 910 | 283 | 225 | 961 |
| Stage 1 | - | - | - | - | - | - | 832 | 758 | - | 391 | 408 | - |
| Stage 2 | - | - | - | - | - | - | 397 | 403 | - | 947 | 682 | - |
| Platoon blocked, % | | - | - | | - | - | | | | | | |
| Mov Cap-1 Maneuver | 1491 | - | - | 1328 | - | - | 178 | 188 | 910 | 188 | 166 | 961 |
| Mov Cap-2 Maneuver | - | - | - | - | - | - | 178 | 188 | - | 188 | 166 | - |
| Stage 1 | - | - | - | - | - | - | 823 | 750 | - | 291 | 304 | - |
| Stage 2 | - | - | - | - | - | - | 292 | 300 | - | 844 | 675 | - |

| Approach | EB | WB | NB | SB |
|---|---|---|---|---|
| HCM Ctrl Dly, s/v | 0.44 | 6.51 | 11.33 | 13.17 |
| HCM LOS | | | B | B |

| Minor Lane/Major Mvmt | NBLn1 | NBLn2 | EBL | EBT | EBR | WBL | WBT | WBR | SBLn1 |
|---|---|---|---|---|---|---|---|---|---|
| Capacity (veh/h) | 178 | 910 | 1491 | - | - | 1328 | - | - | 452 |
| HCM Lane V/C Ratio | 0.064 | 0.099 | 0.011 | - | - | 0.256 | - | - | 0.026 |
| HCM Ctrl Dly (s/v) | 26.6 | 9.4 | 7.4 | - | - | 8.6 | - | - | 13.2 |
| HCM Lane LOS | D | A | A | - | - | A | - | - | B |
| HCM 95th %tile Q(veh) | 0.2 | 0.3 | 0 | - | - | 1 | - | - | 0.1 |

# Capacity Analysis Summary Sheets

## Year 2032 Total Projected Weekday Evening Peak Hour

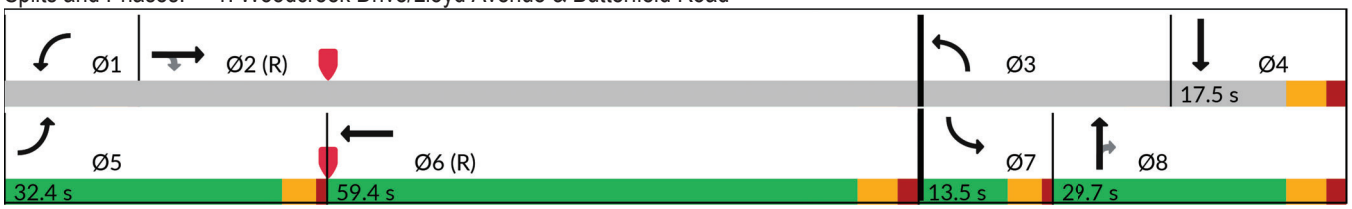


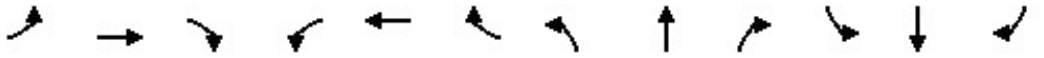
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 50 | 1019 | 76 | 153 | 1307 | 93 | 209 | 40 | 174 | 58 | 21 | 75 |
| Future Volume (vph) | 50 | 1019 | 76 | 153 | 1307 | 93 | 209 | 40 | 174 | 58 | 21 | 75 |
| Ideal Flow (vphpl) | 1900 | 2000 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Width (ft) | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 |
| Grade (%) | | 0% | | | 0% | | | 0% | | | 0% | |
| Storage Length (ft) | 265 | | 465 | 0 | | 0 | 118 | | 0 | 120 | | 0 |
| Storage Lanes | 1 | | 2 | 2 | | 0 | 1 | | 1 | 1 | | 0 |
| Taper Length (ft) | 85 | | | 25 | | | 45 | | | 85 | | |
| Lane Util. Factor | 1.00 | 0.91 | 0.88 | 0.97 | 0.91 | 0.91 | 0.97 | 0.95 | 0.95 | 1.00 | 1.00 | 1.00 |
| Ped Bike Factor | | | | | | | | | | | | |
| Frt | | | 0.850 | | 0.990 | | | 0.905 | 0.850 | | 0.883 | |
| Flt Protected | 0.950 | | | 0.950 | | | 0.950 | | | 0.950 | | |
| Satd. Flow (prot) | 1736 | 5406 | 2787 | 3467 | 5135 | 0 | 3467 | 1623 | 1519 | 1805 | 1665 | 0 |
| Flt Permitted | 0.950 | | | 0.950 | | | 0.950 | | | 0.950 | | |
| Satd. Flow (perm) | 1736 | 5406 | 2787 | 3467 | 5135 | 0 | 3467 | 1623 | 1519 | 1805 | 1665 | 0 |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Satd. Flow (RTOR) | | | 133 | | 10 | | | 56 | 133 | | 79 | |
| Link Speed (mph) | | 45 | | | 45 | | | 30 | | | 30 | |
| Link Distance (ft) | | 2017 | | | 601 | | | 290 | | | 452 | |
| Travel Time (s) | | 30.6 | | | 9.1 | | | 6.6 | | | 10.3 | |
| Confl. Peds. (#/hr) | | | | | | | | | | | | |
| Confl. Bikes (#/hr) | | | | | | | | | | | | |
| Peak Hour Factor | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 |
| Growth Factor | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% |
| Heavy Vehicles (%) | 4% | 1% | 2% | 1% | 0% | 0% | 1% | 0% | 1% | 0% | 0% | 1% |
| Bus Blockages (#/hr) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Parking (#/hr) | | | | | | | | | | | | |
| Mid-Block Traffic (%) | | 0% | | | 0% | | | 0% | | | 0% | |
| Shared Lane Traffic (%) | | | | | | | | | 40% | | | |
| Lane Group Flow (vph) | 53 | 1073 | 80 | 161 | 1474 | 0 | 220 | 115 | 110 | 61 | 101 | 0 |
| Turn Type | Prot | NA | Perm | Prot | NA | | Prot | NA | Perm | Prot | NA | |
| Protected Phases | 5 | 2 | | 1 | 6 | | 3 | 8 | | 7 | 4 | |
| Permitted Phases | | | 2 | | | | | | 8 | | | |
| Detector Phase | 5 | 2 | 2 | 1 | 6 | | 3 | 8 | 8 | 7 | 4 | |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 3.0 | 15.0 | 15.0 | 3.0 | 15.0 | | 3.0 | 8.0 | 8.0 | 3.0 | 8.0 | |
| Minimum Split (s) | 7.5 | 21.0 | 21.0 | 7.5 | 21.0 | | 7.5 | 14.0 | 14.0 | 7.5 | 14.0 | |
| Total Split (s) | 32.4 | 78.3 | 78.3 | 13.5 | 59.4 | | 25.6 | 29.7 | 29.7 | 13.5 | 17.5 | |
| Total Split (%) | 24.0% | 58.0% | 58.0% | 10.0% | 44.0% | | 19.0% | 22.0% | 22.0% | 10.0% | 13.0% | |
| Yellow Time (s) | 3.5 | 4.0 | 4.0 | 3.5 | 4.0 | | 3.5 | 4.0 | 4.0 | 3.5 | 4.0 | |
| All-Red Time (s) | 1.0 | 2.0 | 2.0 | 1.0 | 2.0 | | 1.0 | 2.0 | 2.0 | 1.0 | 2.0 | |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | |
| Total Lost Time (s) | 4.5 | 6.0 | 6.0 | 4.5 | 6.0 | | 4.5 | 6.0 | 6.0 | 4.5 | 6.0 | |
| Lead/Lag | Lead | Lag | Lag | Lead | Lag | | Lead | Lag | Lag | Lead | Lag | |
| Lead-Lag Optimize? | Yes | Yes | Yes | Yes | Yes | | Yes | Yes | Yes | Yes | Yes | |
| Recall Mode | None | C-Min | C-Min | None | C-Min | | None | None | None | None | None | |
| Act Effct Green (s) | 9.5 | 79.6 | 79.6 | 10.8 | 83.0 | | 13.9 | 17.4 | 17.4 | 8.3 | 9.7 | |
| Actuated g/C Ratio | 0.07 | 0.59 | 0.59 | 0.08 | 0.61 | | 0.10 | 0.13 | 0.13 | 0.06 | 0.07 | |

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| v/c Ratio | 0.43 | 0.34 | 0.05 | 0.58 | 0.47 | | 0.62 | 0.45 | 0.35 | 0.55 | 0.52 | |
| Control Delay (s/veh) | 70.3 | 15.1 | 0.3 | 85.8 | 6.2 | | 43.6 | 19.8 | 11.6 | 80.1 | 28.4 | |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | |
| Total Delay (s/veh) | 70.3 | 15.1 | 0.3 | 85.8 | 6.2 | | 43.6 | 19.8 | 11.6 | 80.1 | 28.4 | |
| LOS | E | B | A | F | A | | D | B | B | F | C | |
| Approach Delay (s/veh) | | 16.6 | | | 14.0 | | | 29.5 | | | 47.8 | |
| Approach LOS | | B | | | B | | | C | | | D | |
| Queue Length 50th (ft) | 47 | 167 | 0 | 78 | 43 | | 94 | 52 | 30 | 53 | 19 | |
| Queue Length 95th (ft) | 92 | 228 | 1 | 118 | 78 | | 145 | 104 | 74 | 101 | 75 | |
| Internal Link Dist (ft) | | 1937 | | | 521 | | | 210 | | | 372 | |
| Turn Bay Length (ft) | 265 | | 465 | | | | 118 | | | 120 | | |
| Base Capacity (vph) | 358 | 3189 | 1698 | 279 | 3160 | | 541 | 331 | 376 | 120 | 220 | |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 30 | | 0 | 0 | 0 | 0 | 0 | |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | |
| Reduced v/c Ratio | 0.15 | 0.34 | 0.05 | 0.58 | 0.47 | | 0.41 | 0.35 | 0.29 | 0.51 | 0.46 | |

| Intersection Summary | | | |
|---|---|---|---|
| Area Type: | Other | | |
| Cycle Length: 135 | | | |
| Actuated Cycle Length: 135 | | | |
| Offset: 116.1 (86%), Referenced to phase 2:EBT and 6:WBT, Start of Green | | | |
| Natural Cycle: 60 | | | |
| Control Type: Actuated-Coordinated | | | |
| Maximum v/c Ratio: 0.62 | | | |
| Intersection Signal Delay (s/veh): 18.5 | | Intersection LOS: B | |
| Intersection Capacity Utilization 57.0% | | ICU Level of Service B | |
| Analysis Period (min) 15 | | | |

Splits and Phases: 1: Woodcreek Drive/Lloyd Avenue & Butterfield Road





| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 68 | 1183 | 0 | 0 | 1497 | 127 | 0 | 0 | 576 | 114 | 0 | 56 |
| Future Volume (vph) | 68 | 1183 | 0 | 0 | 1497 | 127 | 0 | 0 | 576 | 114 | 0 | 56 |
| Ideal Flow (vphpl) | 1900 | 2000 | 1900 | 1900 | 2000 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Width (ft) | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 |
| Grade (%) | | 0% | | | 0% | | | 0% | | | 0% | |
| Storage Length (ft) | 230 | | 0 | 60 | | 175 | 0 | | 0 | 0 | | 100 |
| Storage Lanes | 1 | | 0 | 2 | | 1 | 0 | | 2 | 2 | | 1 |
| Taper Length (ft) | 210 | | | 300 | | | 25 | | | 25 | | |
| Lane Util. Factor | 1.00 | 0.91 | 1.00 | 1.00 | 0.81 | 1.00 | 1.00 | 1.00 | *1.00 | 0.97 | 1.00 | 1.00 |
| Ped Bike Factor | | | | | | | | | | | | |
| Frt | | | | | | 0.850 | | | 0.850 | | | 0.850 |
| Flt Protected | 0.950 | | | | | | | | | 0.950 | | |
| Satd. Flow (prot) | 1805 | 5406 | 0 | 0 | 8020 | 1583 | 0 | 0 | 3230 | 3335 | 0 | 1615 |
| Flt Permitted | 0.950 | | | | | | | | | 0.950 | | |
| Satd. Flow (perm) | 1805 | 5406 | 0 | 0 | 8020 | 1583 | 0 | 0 | 3230 | 3335 | 0 | 1615 |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Satd. Flow (RTOR) | | | | | | 138 | | | *330 | | | 61 |
| Link Speed (mph) | | 45 | | | 45 | | | 30 | | | 30 | |
| Link Distance (ft) | | 601 | | | 603 | | | 352 | | | 378 | |
| Travel Time (s) | | 9.1 | | | 9.1 | | | 8.0 | | | 8.6 | |
| Confl. Peds. (#/hr) | | | | | | | | | | | | |
| Confl. Bikes (#/hr) | | | | | | | | | | | | |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Growth Factor | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% |
| Heavy Vehicles (%) | 0% | 1% | 0% | 0% | 1% | 2% | 0% | 0% | 0% | 5% | 0% | 0% |
| Bus Blockages (#/hr) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Parking (#/hr) | | | | | | | | | | | | |
| Mid-Block Traffic (%) | | 0% | | | 0% | | | 0% | | | 0% | |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 74 | 1286 | 0 | 0 | 1627 | 138 | 0 | 0 | 626 | 124 | 0 | 61 |
| Turn Type | Prot | NA | | | NA | custom | | | Prot | Prot | | custom |
| Protected Phases | 5 | 2 | | | 6 | 7 8 | | | 8 | 7 | | 7 8 |
| Permitted Phases | | | | | | 6 | | | 8 | 7 | | |
| Detector Phase | 5 | 2 | | | 6 | 7 8 | | | 8 | 7 | | 7 8 |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 3.0 | 15.0 | | | 15.0 | | | | 8.0 | 8.0 | | |
| Minimum Split (s) | 7.5 | 21.0 | | | 21.0 | | | | 14.0 | 14.0 | | |
| Total Split (s) | 16.2 | 95.8 | | | 79.6 | | | | 18.9 | 20.3 | | |
| Total Split (%) | 12.0% | 71.0% | | | 59.0% | | | | 14.0% | 15.0% | | |
| Yellow Time (s) | 3.5 | 4.0 | | | 4.0 | | | | 4.0 | 4.0 | | |
| All-Red Time (s) | 1.0 | 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) | 4.5 | 6.0 | | | 6.0 | | | | 6.0 | 6.0 | | |
| Lead/Lag | Lead | | | | Lag | | | | Lead | Lag | | |
| Lead-Lag Optimize? | Yes | | | | Yes | | | | Yes | Yes | | |
| Recall Mode | None | C-Min | | | C-Min | | | | None | None | | |
| Act Effct Green (s) | 10.2 | 92.8 | | | 80.3 | 117.7 | | | 12.9 | 11.3 | | 30.2 |
| Actuated g/C Ratio | 0.08 | 0.69 | | | 0.59 | 0.87 | | | 0.10 | 0.08 | | 0.22 |

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| v/c Ratio | 0.54 | 0.35 | | | 0.34 | 0.10 | | | 1.03 | 0.44 | | 0.15 |
| Control Delay (s/veh) | 100.2 | 4.6 | | | 7.6 | 0.6 | | | 72.5 | 63.5 | | 10.3 |
| Queue Delay | 0.0 | 0.0 | | | 0.0 | 0.0 | | | 0.0 | 0.0 | | 0.0 |
| Total Delay (s/veh) | 100.2 | 4.7 | | | 7.6 | 0.6 | | | 72.5 | 63.5 | | 10.3 |
| LOS | F | A | | | A | A | | | E | E | | B |
| Approach Delay (s/veh) | | 9.9 | | | 7.1 | | | 72.5 | | | 45.9 | |
| Approach LOS | | A | | | A | | | E | | | D | |
| Queue Length 50th (ft) | 69 | 67 | | | 139 | 6 | | | ~154 | 56 | | 0 |
| Queue Length 95th (ft) | 123 | 79 | | | 127 | 0 | | | #273 | 89 | | 36 |
| Internal Link Dist (ft) | | 521 | | | 523 | | | 272 | | | 298 | |
| Turn Bay Length (ft) | 230 | | | | | 175 | | | | | | 100 |
| Base Capacity (vph) | 158 | 3715 | | | 4771 | 1417 | | | 607 | 353 | | 443 |
| Starvation Cap Reductn | 0 | 646 | | | 0 | 0 | | | 0 | 0 | | 0 |
| Spillback Cap Reductn | 0 | 0 | | | 0 | 0 | | | 0 | 0 | | 0 |
| Storage Cap Reductn | 0 | 0 | | | 0 | 0 | | | 0 | 0 | | 0 |
| Reduced v/c Ratio | 0.47 | 0.42 | | | 0.34 | 0.10 | | | 1.03 | 0.35 | | 0.14 |

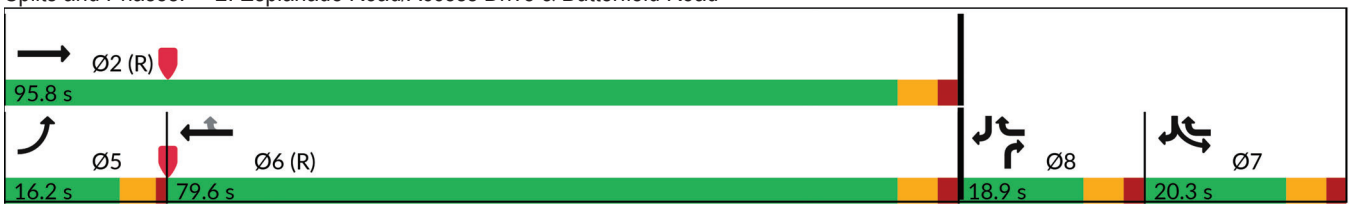
| Intersection Summary | | | |
|---|---|---|---|
| Area Type: | Other | | |
| Cycle Length: 135 | | | |
| Actuated Cycle Length: 135 | | | |
| Offset: 104 (77%), Referenced to phase 2:EBT and 6:WBT, Start of Green | | | |
| Natural Cycle: 60 | | | |
| Control Type: Actuated-Coordinated | | | |
| Maximum v/c Ratio: 1.03 | | | |
| Intersection Signal Delay (s/veh): 20.3 | | Intersection LOS: C | |
| Intersection Capacity Utilization 58.5% | | ICU Level of Service B | |
| Analysis Period (min) 15 | | | |

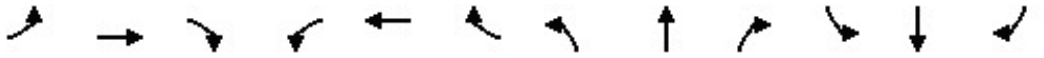
* User Entered Value

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 2: Esplanade Road/Access Drive & Butterfield Road





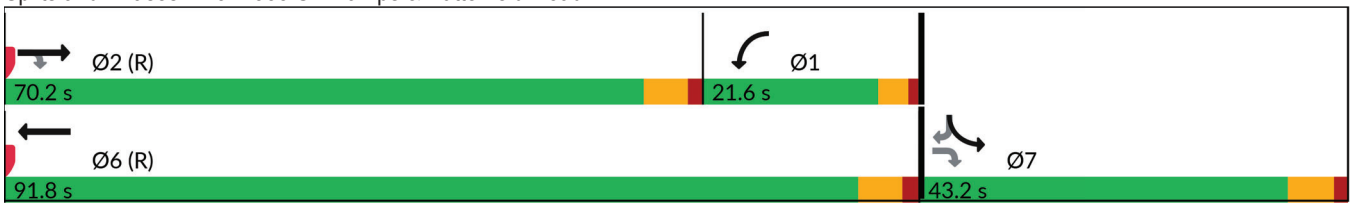
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 0 | 1409 | 464 | 277 | 1462 | 0 | 0 | 0 | 0 | 282 | 0 | 162 |
| Future Volume (vph) | 0 | 1409 | 464 | 277 | 1462 | 0 | 0 | 0 | 0 | 282 | 0 | 162 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 2000 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Width (ft) | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 |
| Grade (%) | | 0% | | | 0% | | | 0% | | | 0% | |
| Storage Length (ft) | 150 | | 155 | 0 | | 0 | 0 | | 0 | 180 | | 0 |
| Storage Lanes | 2 | | 1 | 2 | | 0 | 0 | | 0 | 2 | | 1 |
| Taper Length (ft) | 300 | | | 25 | | | 25 | | | 215 | | |
| Lane Util. Factor | 1.00 | 0.81 | 1.00 | 0.97 | 0.91 | 1.00 | 1.00 | 1.00 | 1.00 | 0.97 | 1.00 | 1.00 |
| Ped Bike Factor | | | | | | | | | | | | |
| Frt | | | 0.850 | | | | | | | | | 0.850 |
| Flt Protected | | | | 0.950 | | | | | | 0.950 | | |
| Satd. Flow (prot) | 0 | 7619 | 1599 | 3433 | 5460 | 0 | 0 | 0 | 0 | 3467 | 0 | 1583 |
| Flt Permitted | | | | 0.950 | | | | | | 0.950 | | |
| Satd. Flow (perm) | 0 | 7619 | 1599 | 3433 | 5460 | 0 | 0 | 0 | 0 | 3467 | 0 | 1583 |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Satd. Flow (RTOR) | | | 58 | | | | | | | | | 73 |
| Link Speed (mph) | | 45 | | | 45 | | | 30 | | | 30 | |
| Link Distance (ft) | | 603 | | | 618 | | | 665 | | | 844 | |
| Travel Time (s) | | 9.1 | | | 9.4 | | | 15.1 | | | 19.2 | |
| Confl. Peds. (#/hr) | | | | | | | | | | | | |
| Confl. Bikes (#/hr) | | | | | | | | | | | | |
| Peak Hour Factor | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 |
| Growth Factor | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% |
| Heavy Vehicles (%) | 0% | 1% | 1% | 2% | 0% | 0% | 0% | 0% | 0% | 1% | 0% | 2% |
| Bus Blockages (#/hr) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Parking (#/hr) | | | | | | | | | | | | |
| Mid-Block Traffic (%) | | 0% | | | 0% | | | 0% | | | 0% | |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 0 | 1453 | 478 | 286 | 1507 | 0 | 0 | 0 | 0 | 291 | 0 | 167 |
| Turn Type | | NA | custom | Prot | NA | | | | | Prot | | Perm |
| Protected Phases | | 2 | | 1 | 6 | | | | | 7 | | |
| Permitted Phases | | | 2 7 | | | | | | | | | 7 |
| Detector Phase | | 2 | 2 7 | 1 | 6 | | | | | 7 | | 7 |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | | 15.0 | | 3.0 | 15.0 | | | | | 8.0 | | 8.0 |
| Minimum Split (s) | | 21.0 | | 7.0 | 21.0 | | | | | 14.0 | | 14.0 |
| Total Split (s) | | 70.2 | | 21.6 | 91.8 | | | | | 43.2 | | 43.2 |
| Total Split (%) | | 52.0% | | 16.0% | 68.0% | | | | | 32.0% | | 32.0% |
| Yellow Time (s) | | 4.5 | | 3.0 | 4.5 | | | | | 4.5 | | 4.5 |
| All-Red Time (s) | | 1.5 | | 1.0 | 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 | | 4.0 | 6.0 | | | | | 6.0 | | 6.0 |
| Lead/Lag | | Lead | | Lag | | | | | | | | |
| Lead-Lag Optimize? | | Yes | | Yes | | | | | | | | |
| Recall Mode | | C-Min | | None | C-Min | | | | | None | | None |
| Act Effct Green (s) | | 80.7 | 107.4 | 17.6 | 102.3 | | | | | 20.7 | | 20.7 |
| Actuated g/C Ratio | | 0.60 | 0.80 | 0.13 | 0.76 | | | | | 0.15 | | 0.15 |

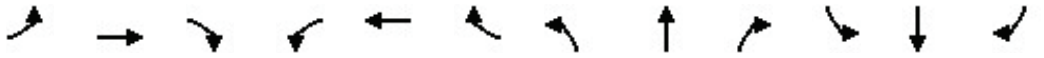
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| v/c Ratio | | 0.32 | 0.37 | 0.64 | 0.36 | | | | | 0.55 | | 0.55 |
| Control Delay (s/veh) | | 11.0 | 2.8 | 62.0 | 2.2 | | | | | 56.1 | | 35.3 |
| Queue Delay | | 0.0 | 0.2 | 0.0 | 0.1 | | | | | 0.0 | | 0.0 |
| Total Delay (s/veh) | | 11.0 | 3.0 | 62.0 | 2.3 | | | | | 56.1 | | 35.3 |
| LOS | | B | A | E | A | | | | | E | | D |
| Approach Delay (s/veh) | | 9.0 | | | 11.8 | | | | | | 48.5 | |
| Approach LOS | | A | | | B | | | | | | D | |
| Queue Length 50th (ft) | | 123 | 46 | 139 | 120 | | | | | 124 | | 77 |
| Queue Length 95th (ft) | | m134 | m55 | 189 | 130 | | | | | 160 | | 145 |
| Internal Link Dist (ft) | | 523 | | | 538 | | | 585 | | | 764 | |
| Turn Bay Length (ft) | | | 155 | | | | | | | 180 | | |
| Base Capacity (vph) | | 4556 | 1283 | 447 | 4139 | | | | | 955 | | 489 |
| Starvation Cap Reductn | | 0 | 270 | 0 | 992 | | | | | 0 | | 0 |
| Spillback Cap Reductn | | 0 | 0 | 0 | 0 | | | | | 0 | | 0 |
| Storage Cap Reductn | | 0 | 0 | 0 | 0 | | | | | 0 | | 0 |
| Reduced v/c Ratio | | 0.32 | 0.47 | 0.64 | 0.48 | | | | | 0.30 | | 0.34 |

| Intersection Summary | | | |
|---|---|---|---|
| Area Type: | Other | | |
| Cycle Length: 135 | | | |
| Actuated Cycle Length: 135 | | | |
| Offset: 99.9 (74%), Referenced to phase 2:EBT and 6:WBT, Start of Green | | | |
| Natural Cycle: 45 | | | |
| Control Type: Actuated-Coordinated | | | |
| Maximum v/c Ratio: 0.64 | | | |
| Intersection Signal Delay (s/veh): 14.6 | | Intersection LOS: B | |
| Intersection Capacity Utilization 72.9% | | ICU Level of Service C | |
| Analysis Period (min) 15 | | | |

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

Splits and Phases: 3: I-355 SB Ramps & Butterfield Road



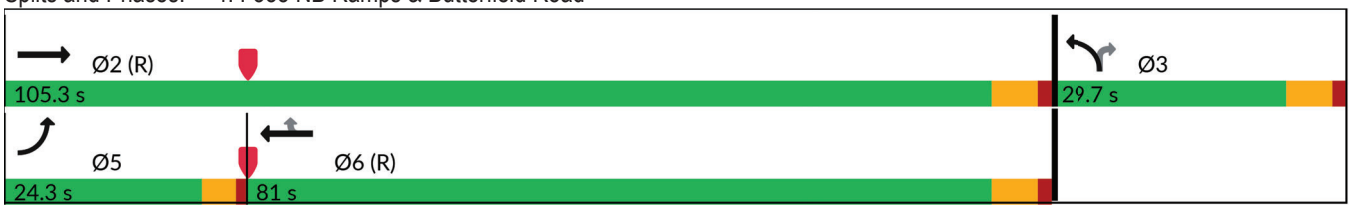


| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 274 | 1417 | 0 | 0 | 1562 | 721 | 177 | 0 | 320 | 0 | 0 | 0 |
| Future Volume (vph) | 274 | 1417 | 0 | 0 | 1562 | 721 | 177 | 0 | 320 | 0 | 0 | 0 |
| Ideal Flow (vphpl) | 1900 | 2000 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Width (ft) | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 |
| Grade (%) | | 0% | | | 0% | | | 0% | | | 0% | |
| Storage Length (ft) | 0 | | 0 | 150 | | 0 | 370 | | 0 | 0 | | 0 |
| Storage Lanes | 2 | | 0 | 2 | | 1 | 2 | | 2 | 0 | | 0 |
| Taper Length (ft) | 25 | | | 300 | | | 180 | | | 25 | | |
| Lane Util. Factor | 0.97 | 0.91 | 1.00 | 1.00 | 0.81 | 1.00 | 0.97 | 1.00 | 0.88 | 1.00 | 1.00 | 1.00 |
| Ped Bike Factor | | | | | | | | | | | | |
| Frt | | | | | | 0.850 | | | 0.850 | | | |
| Flt Protected | 0.950 | | | | | | 0.950 | | | | | |
| Satd. Flow (prot) | 3433 | 5406 | 0 | 0 | 7619 | 1583 | 3467 | 0 | 2707 | 0 | 0 | 0 |
| Flt Permitted | 0.950 | | | | | | 0.950 | | | | | |
| Satd. Flow (perm) | 3433 | 5406 | 0 | 0 | 7619 | 1583 | 3467 | 0 | 2707 | 0 | 0 | 0 |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Satd. Flow (RTOR) | | | | | | 631 | | | 128 | | | |
| Link Speed (mph) | | 45 | | | 45 | | | 30 | | | 30 | |
| Link Distance (ft) | | 618 | | | 559 | | | 683 | | | 840 | |
| Travel Time (s) | | 9.4 | | | 8.5 | | | 15.5 | | | 19.1 | |
| Confl. Peds. (#/hr) | | | | | | | | | | | | |
| Confl. Bikes (#/hr) | | | | | | | | | | | | |
| Peak Hour Factor | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 |
| Growth Factor | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% |
| Heavy Vehicles (%) | 2% | 1% | 0% | 0% | 1% | 2% | 1% | 0% | 5% | 0% | 0% | 0% |
| Bus Blockages (#/hr) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Parking (#/hr) | | | | | | | | | | | | |
| Mid-Block Traffic (%) | | 0% | | | 0% | | | 0% | | | 0% | |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 288 | 1492 | 0 | 0 | 1644 | 759 | 186 | 0 | 337 | 0 | 0 | 0 |
| Turn Type | Prot | NA | | | NA | Perm | Prot | | Perm | | | |
| Protected Phases | 5 | 2 | | | 6 | | 3 | | | | | |
| Permitted Phases | | | | | | 6 | | | 3 | | | |
| Detector Phase | 5 | 2 | | | 6 | 6 | 3 | | 3 | | | |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 3.0 | 15.0 | | | 15.0 | 15.0 | 8.0 | | 8.0 | | | |
| Minimum Split (s) | 7.5 | 22.0 | | | 22.0 | 22.0 | 14.0 | | 14.0 | | | |
| Total Split (s) | 24.3 | 105.3 | | | 81.0 | 81.0 | 29.7 | | 29.7 | | | |
| Total Split (%) | 18.0% | 78.0% | | | 60.0% | 60.0% | 22.0% | | 22.0% | | | |
| Yellow Time (s) | 3.5 | 4.5 | | | 4.5 | 4.5 | 4.5 | | 4.5 | | | |
| All-Red Time (s) | 1.0 | 1.5 | | | 1.5 | 1.5 | 1.5 | | 1.5 | | | |
| Lost Time Adjust (s) | 0.0 | 0.0 | | | 0.0 | 0.0 | 0.0 | | 0.0 | | | |
| Total Lost Time (s) | 4.5 | 6.0 | | | 6.0 | 6.0 | 6.0 | | 6.0 | | | |
| Lead/Lag | Lead | | | | Lag | Lag | | | | | | |
| Lead-Lag Optimize? | Yes | | | | Yes | Yes | | | | | | |
| Recall Mode | None | C-Min | | | C-Min | C-Min | None | | None | | | |
| Act Effct Green (s) | 16.3 | 105.5 | | | 84.6 | 84.6 | 17.5 | | 17.5 | | | |
| Actuated g/C Ratio | 0.12 | 0.78 | | | 0.63 | 0.63 | 0.13 | | 0.13 | | | |

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| v/c Ratio | 0.69 | 0.35 | | | 0.34 | 0.62 | 0.41 | | 0.73 | | | |
| Control Delay (s/veh) | 81.8 | 2.8 | | | 5.7 | 2.5 | 55.8 | | 43.6 | | | |
| Queue Delay | 0.0 | 0.0 | | | 0.0 | 0.2 | 0.0 | | 0.0 | | | |
| Total Delay (s/veh) | 81.8 | 2.8 | | | 5.7 | 2.7 | 55.8 | | 43.6 | | | |
| LOS | F | A | | | A | A | E | | D | | | |
| Approach Delay (s/veh) | | 15.6 | | | 4.7 | | | 47.9 | | | | |
| Approach LOS | | B | | | A | | | D | | | | |
| Queue Length 50th (ft) | 141 | 54 | | | 82 | 10 | 78 | | 105 | | | |
| Queue Length 95th (ft) | 181 | 59 | | | 93 | 32 | 112 | | 159 | | | |
| Internal Link Dist (ft) | | 538 | | | 479 | | | 603 | | | 760 | |
| Turn Bay Length (ft) | | | | | | | 370 | | | | | |
| Base Capacity (vph) | 503 | 4222 | | | 4775 | 1227 | 608 | | 580 | | | |
| Starvation Cap Reductn | 0 | 679 | | | 0 | 70 | 0 | | 0 | | | |
| Spillback Cap Reductn | 0 | 0 | | | 0 | 0 | 0 | | 0 | | | |
| Storage Cap Reductn | 0 | 0 | | | 0 | 0 | 0 | | 0 | | | |
| Reduced v/c Ratio | 0.57 | 0.42 | | | 0.34 | 0.66 | 0.31 | | 0.58 | | | |

| Intersection Summary | | | |
|---|---|---|---|
| Area Type: | Other | | |
| Cycle Length: 135 | | | |
| Actuated Cycle Length: 135 | | | |
| Offset: 75.6 (56%), Referenced to phase 2:EBT and 6:WBT, Start of Green | | | |
| Natural Cycle: 60 | | | |
| Control Type: Actuated-Coordinated | | | |
| Maximum v/c Ratio: 0.73 | | | |
| Intersection Signal Delay (s/veh): 13.6 | | Intersection LOS: B | |
| Intersection Capacity Utilization 72.9% | | ICU Level of Service C | |
| Analysis Period (min) 15 | | | |

Splits and Phases: 4: I-355 NB Ramps & Butterfield Road



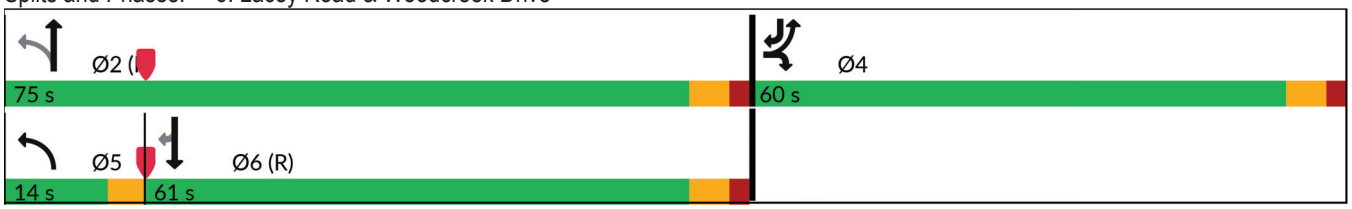


| Lane Group | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (vph) | 223 | 28 | 6 | 200 | 187 | 63 |
| Future Volume (vph) | 223 | 28 | 6 | 200 | 187 | 63 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 2000 | 2000 | 1900 |
| Lane Width (ft) | 12 | 12 | 12 | 12 | 12 | 12 |
| Grade (%) | 0% | | | 0% | 0% | |
| Storage Length (ft) | 160 | 0 | 125 | | | 115 |
| Storage Lanes | 2 | 1 | 1 | | | 0 |
| Taper Length (ft) | 100 | | 90 | | | |
| Lane Util. Factor | 0.97 | 1.00 | 1.00 | 0.95 | 0.95 | 0.88 |
| Ped Bike Factor | | | | | | |
| Frt | | 0.850 | | | | 0.850 |
| Flt Protected | 0.950 | | 0.950 | | | |
| Satd. Flow (prot) | 3467 | 1553 | 1805 | 3762 | 3762 | 2760 |
| Flt Permitted | 0.950 | | 0.587 | | | |
| Satd. Flow (perm) | 3467 | 1553 | 1115 | 3762 | 3762 | 2760 |
| Right Turn on Red | | Yes | | | | Yes |
| Satd. Flow (RTOR) | | 35 | | | | 78 |
| Link Speed (mph) | 30 | | | 35 | 35 | |
| Link Distance (ft) | 556 | | | 645 | 290 | |
| Travel Time (s) | 12.6 | | | 12.6 | 5.6 | |
| Confl. Peds. (#/hr) | | | | | | |
| Confl. Bikes (#/hr) | | | | | | |
| Peak Hour Factor | 0.81 | 0.81 | 0.81 | 0.81 | 0.81 | 0.81 |
| Growth Factor | 100% | 100% | 100% | 100% | 100% | 100% |
| Heavy Vehicles (%) | 1% | 4% | 0% | 1% | 1% | 3% |
| Bus Blockages (#/hr) | 0 | 0 | 0 | 0 | 0 | 0 |
| Parking (#/hr) | | | | | | |
| Mid-Block Traffic (%) | 0% | | | 0% | 0% | |
| Shared Lane Traffic (%) | | | | | | |
| Lane Group Flow (vph) | 275 | 35 | 7 | 247 | 231 | 78 |
| Turn Type | Prot | Prot | pm+pt | NA | NA | pm+ov |
| Protected Phases | 4 | 4 | 5 | 2 | 6 | 4 |
| Permitted Phases | | | 2 | | | 6 |
| Detector Phase | 4 | 4 | 5 | 2 | 6 | 4 |
| Switch Phase | | | | | | |
| Minimum Initial (s) | 8.0 | 8.0 | 3.0 | 15.0 | 15.0 | 8.0 |
| Minimum Split (s) | 14.0 | 14.0 | 6.5 | 21.0 | 21.0 | 14.0 |
| Total Split (s) | 60.0 | 60.0 | 14.0 | 75.0 | 61.0 | 60.0 |
| Total Split (%) | 44.4% | 44.4% | 10.4% | 55.6% | 45.2% | 44.4% |
| Yellow Time (s) | 4.0 | 4.0 | 3.5 | 4.0 | 4.0 | 4.0 |
| All-Red Time (s) | 2.0 | 2.0 | 0.0 | 2.0 | 2.0 | 2.0 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Lost Time (s) | 6.0 | 6.0 | 3.5 | 6.0 | 6.0 | 6.0 |
| Lead/Lag | | | Lead | | Lag | |
| Lead-Lag Optimize? | | | Yes | | Yes | |
| Recall Mode | None | None | None | C-Min | C-Min | None |
| Act Effct Green (s) | 17.3 | 17.3 | 108.2 | 105.7 | 103.8 | 131.9 |
| Actuated g/C Ratio | 0.13 | 0.13 | 0.80 | 0.78 | 0.77 | 0.98 |

| Lane Group | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| v/c Ratio | 0.62 | 0.15 | 0.01 | 0.08 | 0.08 | 0.03 |
| Control Delay (s/veh) | 61.6 | 16.4 | 3.3 | 3.8 | 2.0 | 0.0 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay (s/veh) | 61.6 | 16.4 | 3.3 | 3.8 | 2.0 | 0.0 |
| LOS | E | B | A | A | A | A |
| Approach Delay (s/veh) | 56.5 | | | 3.7 | 1.5 | |
| Approach LOS | E | | | A | A | |
| Queue Length 50th (ft) | 120 | 0 | 1 | 22 | 9 | 0 |
| Queue Length 95th (ft) | 143 | 27 | 4 | 35 | 18 | 0 |
| Internal Link Dist (ft) | 476 | | | 565 | 210 | |
| Turn Bay Length (ft) | 160 | | 125 | | | 115 |
| Base Capacity (vph) | 1386 | 642 | 947 | 2945 | 2893 | 2760 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.20 | 0.05 | 0.01 | 0.08 | 0.08 | 0.03 |

| Intersection Summary | | | |
|---|---|---|---|
| Area Type: | Other | | |
| Cycle Length: 135 | | | |
| Actuated Cycle Length: 135 | | | |
| Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBT, Start of Green | | | |
| Natural Cycle: 45 | | | |
| Control Type: Actuated-Coordinated | | | |
| Maximum v/c Ratio: 0.62 | | | |
| Intersection Signal Delay (s/veh): 21.7 | | Intersection LOS: C | |
| Intersection Capacity Utilization 29.2% | | ICU Level of Service A | |
| Analysis Period (min) 15 | | | |

Splits and Phases: 6: Lacey Road & Woodcreek Drive



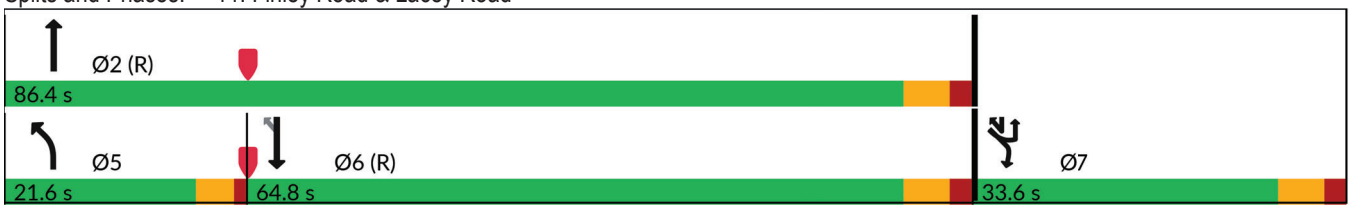


| Lane Group | NBL | NBT | SBT | SBR | SEL | SER |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (vph) | 117 | 568 | 909 | 54 | 62 | 498 |
| Future Volume (vph) | 117 | 568 | 909 | 54 | 62 | 498 |
| Ideal Flow (vphpl) | 1900 | 2000 | 2000 | 1900 | 1900 | 1900 |
| Lane Width (ft) | 12 | 12 | 12 | 12 | 12 | 12 |
| Grade (%) | | 0% | 0% | | 0% | |
| Storage Length (ft) | 305 | | | 400 | 0 | 205 |
| Storage Lanes | 2 | | | 1 | 1 | 1 |
| Taper Length (ft) | 230 | | | | 0 | |
| Lane Util. Factor | 0.97 | 0.95 | 0.95 | 1.00 | 1.00 | 0.88 |
| Ped Bike Factor | | | | | | |
| Frt | | | | 0.850 | | 0.850 |
| Flt Protected | 0.950 | | | | 0.950 | |
| Satd. Flow (prot) | 3367 | 3725 | 3762 | 1417 | 1752 | 2842 |
| Flt Permitted | 0.950 | | | | 0.950 | |
| Satd. Flow (perm) | 3367 | 3725 | 3762 | 1417 | 1752 | 2842 |
| Right Turn on Red | | | | Yes | | Yes |
| Satd. Flow (RTOR) | | | | 55 | | 503 |
| Link Speed (mph) | | 45 | 45 | | 35 | |
| Link Distance (ft) | | 681 | 1175 | | 1160 | |
| Travel Time (s) | | 10.3 | 17.8 | | 22.6 | |
| Confl. Peds. (#/hr) | | | | | | |
| Confl. Bikes (#/hr) | | | | | | |
| Peak Hour Factor | 0.99 | 0.99 | 0.99 | 0.99 | 0.99 | 0.99 |
| Growth Factor | 100% | 100% | 100% | 100% | 100% | 100% |
| Heavy Vehicles (%) | 4% | 2% | 1% | 14% | 3% | 0% |
| Bus Blockages (#/hr) | 0 | 0 | 0 | 0 | 0 | 0 |
| Parking (#/hr) | | | | | | |
| Mid-Block Traffic (%) | | 0% | 0% | | 0% | |
| Shared Lane Traffic (%) | | | | | | |
| Lane Group Flow (vph) | 118 | 574 | 918 | 55 | 63 | 503 |
| Turn Type | Prot | NA | NA | pm+ov | Prot | Prot |
| Protected Phases | 5 | 2 | 6 | 7 | 7 | 7 |
| Permitted Phases | | | | 6 | | |
| Detector Phase | 5 | 2 | 6 | 7 | 7 | 7 |
| Switch Phase | | | | | | |
| Minimum Initial (s) | 3.0 | 15.0 | 15.0 | 8.0 | 8.0 | 8.0 |
| Minimum Split (s) | 7.5 | 21.0 | 21.0 | 14.0 | 14.0 | 14.0 |
| Total Split (s) | 21.6 | 86.4 | 64.8 | 33.6 | 33.6 | 33.6 |
| Total Split (%) | 18.0% | 72.0% | 54.0% | 28.0% | 28.0% | 28.0% |
| Yellow Time (s) | 3.5 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| All-Red Time (s) | 1.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Lost Time (s) | 4.5 | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 |
| Lead/Lag | Lead | | Lag | | | |
| Lead-Lag Optimize? | Yes | | Yes | | | |
| Recall Mode | None | C-Min | C-Min | None | None | None |
| Act Effct Green (s) | 9.6 | 96.0 | 81.9 | 99.9 | 12.0 | 12.0 |
| Actuated g/C Ratio | 0.08 | 0.80 | 0.68 | 0.83 | 0.10 | 0.10 |

| Lane Group | NBL | NBT | SBT | SBR | SEL | SER |
|---|---|---|---|---|---|---|
| v/c Ratio | 0.44 | 0.19 | 0.36 | 0.05 | 0.36 | 0.68 |
| Control Delay (s/veh) | 57.4 | 3.2 | 9.1 | 0.6 | 54.9 | 9.3 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay (s/veh) | 57.4 | 3.2 | 9.1 | 0.6 | 54.9 | 9.3 |
| LOS | E | A | A | A | D | A |
| Approach Delay (s/veh) | | 12.5 | 8.6 | | 14.3 | |
| Approach LOS | | B | A | | B | |
| Queue Length 50th (ft) | 47 | 44 | 142 | 0 | 48 | 0 |
| Queue Length 95th (ft) | 77 | 75 | 220 | 7 | 90 | 52 |
| Internal Link Dist (ft) | | 601 | 1095 | | 1080 | |
| Turn Bay Length (ft) | 305 | | | 400 | | 205 |
| Base Capacity (vph) | 479 | 2980 | 2568 | 1361 | 402 | 1040 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.25 | 0.19 | 0.36 | 0.04 | 0.16 | 0.48 |

| Intersection Summary | | | |
|---|---|---|---|
| Area Type: | Other | | |
| Cycle Length: 120 | | | |
| Actuated Cycle Length: 120 | | | |
| Offset: 21.6 (18%), Referenced to phase 2:NBT and 6:SBT, Start of Green | | | |
| Natural Cycle: 45 | | | |
| Control Type: Actuated-Coordinated | | | |
| Maximum v/c Ratio: 0.68 | | | |
| Intersection Signal Delay (s/veh): 11.3 | | Intersection LOS: B | |
| Intersection Capacity Utilization 51.3% | | ICU Level of Service A | |
| Analysis Period (min) 15 | | | |

Splits and Phases: 11: Finley Road & Lacey Road



| Intersection | |
|---|---|
| Intersection Delay, s/veh | 15.2 |
| Intersection LOS | C |

| Movement | EBL | EBT | EBR | WBU | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Vol, veh/h | 25 | 169 | 13 | 0 | 6 | 143 | 358 | 67 | 193 | 29 | 0 | 0 |
| Future Vol, veh/h | 25 | 169 | 13 | 0 | 6 | 143 | 358 | 67 | 193 | 29 | 0 | 0 |
| Peak Hour Factor | 0.90 | 0.90 | 0.90 | 0.95 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 |
| Heavy Vehicles, % | 0 | 1 | 0 | 2 | 17 | 0 | 0 | 1 | 0 | 3 | 0 | 0 |
| Mvmt Flow | 28 | 188 | 14 | 0 | 7 | 159 | 398 | 74 | 214 | 32 | 0 | 0 |
| Number of Lanes | 0 | 2 | 0 | 0 | 0 | 2 | 0 | 1 | 1 | 0 | 0 | 0 |

| Approach | EB | WB | NB |
|---|---|---|---|
| Opposing Approach | WB | EB | |
| Opposing Lanes | 2 | 2 | 0 |
| Conflicting Approach Left | | NB | EB |
| Conflicting Lanes Left | 0 | 2 | 2 |
| Conflicting Approach Right | NB | | WB |
| Conflicting Lanes Right | 2 | 0 | 2 |
| HCM Control Delay, s/veh | 10.7 | 18.1 | 13.4 |
| HCM LOS | B | C | B |

| Lane | NBLn1 | NBLn2 | EBLn1 | EBLn2 | WBLn1 | WBLn2 |
|---|---|---|---|---|---|---|
| Vol Left, % | 100% | 0% | 23% | 0% | 8% | 0% |
| Vol Thru, % | 0% | 87% | 77% | 87% | 92% | 17% |
| Vol Right, % | 0% | 13% | 0% | 13% | 0% | 83% |
| Sign Control | Stop | Stop | Stop | Stop | Stop | Stop |
| Traffic Vol by Lane | 67 | 222 | 110 | 98 | 78 | 430 |
| LT Vol | 67 | 0 | 25 | 0 | 6 | 0 |
| Through Vol | 0 | 193 | 85 | 85 | 72 | 72 |
| RT Vol | 0 | 29 | 0 | 13 | 0 | 358 |
| Lane Flow Rate | 74 | 247 | 122 | 108 | 86 | 477 |
| Geometry Grp | 5 | 5 | 5 | 5 | 5 | 5 |
| Degree of Util (X) | 0.145 | 0.438 | 0.216 | 0.186 | 0.149 | 0.702 |
| Departure Headway (Hd) | 7.014 | 6.398 | 6.38 | 6.186 | 6.218 | 5.294 |
| Convergence, Y/N | Yes | Yes | Yes | Yes | Yes | Yes |
| Cap | 511 | 562 | 562 | 578 | 577 | 682 |
| Service Time | 4.758 | 4.142 | 4.13 | 3.936 | 3.957 | 3.033 |
| HCM Lane V/C Ratio | 0.145 | 0.44 | 0.217 | 0.187 | 0.149 | 0.699 |
| HCM Control Delay, s/veh | 11 | 14.1 | 10.9 | 10.4 | 10 | 19.6 |
| HCM Lane LOS | B | B | B | B | A | C |
| HCM 95th-tile Q | 0.5 | 2.2 | 0.8 | 0.7 | 0.5 | 5.8 |

| Intersection | |
|---|---|
| Intersection Delay, s/veh | |
| Intersection LOS | |

| Movement | SBR |
|---|---|
| Lane Configurations | |
| Traffic Vol, veh/h | 0 |
| Future Vol, veh/h | 0 |
| Peak Hour Factor | 0.90 |
| Heavy Vehicles, % | 0 |
| Mvmt Flow | 0 |
| Number of Lanes | 0 |

| Approach | |
|---|---|
| Opposing Approach | |
| Opposing Lanes | |
| Conflicting Approach Left | |
| Conflicting Lanes Left | |
| Conflicting Approach Right | |
| Conflicting Lanes Right | |
| HCM Control Delay, s/veh | |
| HCM LOS | |

| Intersection | |
|---|---|
| Int Delay, s/veh | 1.5 |

| Movement | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 45 | 65 | 4 | 463 | 232 | 10 |
| Future Vol, veh/h | 45 | 65 | 4 | 463 | 232 | 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 | 45 | 0 | 80 | - | - | - |
| Veh in Median Storage, # | 1 | - | - | 0 | 0 | - |
| Grade, % | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 84 | 95 | 95 | 95 | 95 | 84 |
| Heavy Vehicles, % | 5 | 2 | 2 | 2 | 2 | 0 |
| Mvmt Flow | 54 | 68 | 4 | 487 | 244 | 12 |

| Major/Minor | Minor2 | | Major1 | | Major2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 502 | 128 | 256 | 0 | - | 0 |
| Stage 1 | 250 | - | - | - | - | - |
| Stage 2 | 252 | - | - | - | - | - |
| Critical Hdwy | 6.9 | 6.94 | 4.14 | - | - | - |
| Critical Hdwy Stg 1 | 5.9 | - | - | - | - | - |
| Critical Hdwy Stg 2 | 5.9 | - | - | - | - | - |
| Follow-up Hdwy | 3.55 | 3.32 | 2.22 | - | - | - |
| Pot Cap-1 Maneuver | 491 | 898 | 1306 | - | - | - |
| Stage 1 | 759 | - | - | - | - | - |
| Stage 2 | 758 | - | - | - | - | - |
| Platoon blocked, % | | | | - | - | - |
| Mov Cap-1 Maneuver | 489 | 898 | 1306 | - | - | - |
| Mov Cap-2 Maneuver | 569 | - | - | - | - | - |
| Stage 1 | 757 | - | - | - | - | - |
| Stage 2 | 758 | - | - | - | - | - |

| Approach | EB | NB | SB |
|---|---|---|---|
| HCM Ctrl Dly, s/v | 10.5 | 0.07 | 0 |
| HCM LOS | B | | |

| Minor Lane/Major Mvmt | NBL | NBT | EBLn1 | EBLn2 | SBT | SBR |
|---|---|---|---|---|---|---|
| Capacity (veh/h) | 1306 | - | 569 | 898 | - | - |
| HCM Lane V/C Ratio | 0.003 | - | 0.094 | 0.076 | - | - |
| HCM Ctrl Dly (s/v) | 7.8 | - | 12 | 9.3 | - | - |
| HCM Lane LOS | A | - | B | A | - | - |
| HCM 95th %tile Q(veh) | 0 | - | 0.3 | 0.2 | - | - |

| Intersection | |
|---|---|
| Int Delay, s/veh | 1.6 |

| Movement | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 67 | 29 | 14 | 400 | 271 | 26 |
| Future Vol, veh/h | 67 | 29 | 14 | 400 | 271 | 26 |
| 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 | 0 | 0 | - | - | - |
| Veh in Median Storage, # | 0 | - | - | 0 | 0 | - |
| Grade, % | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 95 | 95 | 95 | 95 | 95 | 95 |
| Heavy Vehicles, % | 0 | 0 | 0 | 1 | 0 | 0 |
| Mvmt Flow | 71 | 31 | 15 | 421 | 285 | 27 |

| Major/Minor | Minor2 | | Major1 | | Major2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 539 | 156 | 313 | 0 | - | 0 |
| Stage 1 | 299 | - | - | - | - | - |
| Stage 2 | 240 | - | - | - | - | - |
| Critical Hdwy | 6.8 | 6.9 | 4.1 | - | - | - |
| Critical Hdwy Stg 1 | 5.8 | - | - | - | - | - |
| Critical Hdwy Stg 2 | 5.8 | - | - | - | - | - |
| Follow-up Hdwy | 3.5 | 3.3 | 2.2 | - | - | - |
| Pot Cap-1 Maneuver | 477 | 868 | 1259 | - | - | - |
| Stage 1 | 732 | - | - | - | - | - |
| Stage 2 | 783 | - | - | - | - | - |
| Platoon blocked, % | | | | - | - | - |
| Mov Cap-1 Maneuver | 472 | 868 | 1259 | - | - | - |
| Mov Cap-2 Maneuver | 472 | - | - | - | - | - |
| Stage 1 | 724 | - | - | - | - | - |
| Stage 2 | 783 | - | - | - | - | - |

| Approach | EB | NB | SB |
|---|---|---|---|
| HCM Ctrl Dly, s/v | 12.56 | 0.27 | 0 |
| HCM LOS | B | | |

| Minor Lane/Major Mvmt | NBL | NBT | EBLn1 | EBLn2 | SBT | SBR |
|---|---|---|---|---|---|---|
| Capacity (veh/h) | 1259 | - | 472 | 868 | - | - |
| HCM Lane V/C Ratio | 0.012 | - | 0.149 | 0.035 | - | - |
| HCM Ctrl Dly (s/v) | 7.9 | - | 14 | 9.3 | - | - |
| HCM Lane LOS | A | - | B | A | - | - |
| HCM 95th %tile Q(veh) | 0 | - | 0.5 | 0.1 | - | - |

| Intersection | |
|---|---|
| Int Delay, s/veh | 4.5 |

| Movement | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 135 | 169 | 55 | 279 | 291 | 9 |
| Future Vol, veh/h | 135 | 169 | 55 | 279 | 291 | 9 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Free | Free | Free | Free |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | 115 | 0 | 180 | - | - | - |
| Veh in Median Storage, # | 1 | - | - | 0 | 0 | - |
| Grade, % | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 95 | 91 | 91 | 95 | 95 | 95 |
| Heavy Vehicles, % | 2 | 1 | 2 | 0 | 1 | 0 |
| Mvmt Flow | 142 | 186 | 60 | 294 | 306 | 9 |

| Major/Minor | Minor2 | | Major1 | | Major2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 579 | 158 | 316 | 0 | - | 0 |
| Stage 1 | 311 | - | - | - | - | - |
| Stage 2 | 268 | - | - | - | - | - |
| Critical Hdwy | 6.84 | 6.92 | 4.14 | - | - | - |
| Critical Hdwy Stg 1 | 5.84 | - | - | - | - | - |
| Critical Hdwy Stg 2 | 5.84 | - | - | - | - | - |
| Follow-up Hdwy | 3.52 | 3.31 | 2.22 | - | - | - |
| Pot Cap-1 Maneuver | 446 | 863 | 1241 | - | - | - |
| Stage 1 | 716 | - | - | - | - | - |
| Stage 2 | 753 | - | - | - | - | - |
| Platoon blocked, % | | | | - | - | - |
| Mov Cap-1 Maneuver | 424 | 863 | 1241 | - | - | - |
| Mov Cap-2 Maneuver | 519 | - | - | - | - | - |
| Stage 1 | 681 | - | - | - | - | - |
| Stage 2 | 753 | - | - | - | - | - |

| Approach | EB | NB | SB |
|---|---|---|---|
| HCM Ctrl Dly, s/v | 12.14 | 1.37 | 0 |
| HCM LOS | B | | |

| Minor Lane/Major Mvmt | NBL | NBT | EBLn1 | EBLn2 | SBT | SBR |
|---|---|---|---|---|---|---|
| Capacity (veh/h) | 1241 | - | 519 | 863 | - | - |
| HCM Lane V/C Ratio | 0.049 | - | 0.274 | 0.215 | - | - |
| HCM Ctrl Dly (s/v) | 8 | - | 14.5 | 10.3 | - | - |
| HCM Lane LOS | A | - | B | B | - | - |
| HCM 95th %tile Q(veh) | 0.2 | - | 1.1 | 0.8 | - | - |

| Intersection | |
|---|---|
| Int Delay, s/veh | 0.1 |

| Movement | SET | SER | NWL | NWT | NEL | NER |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 103 | 1 | 0 | 78 | 1 | 1 |
| Future Vol, veh/h | 103 | 1 | 0 | 78 | 1 | 1 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | 60 | - | 0 | - |
| Veh in Median Storage, # | 0 | - | - | 0 | 0 | - |
| Grade, % | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 1 | 0 | 0 | 2 | 0 | 0 |
| Mvmt Flow | 112 | 1 | 0 | 85 | 1 | 1 |

| Major/Minor | Major1 | | Major2 | | Minor1 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 0 | 0 | 113 | 0 | 197 | 112 |
| Stage 1 | - | - | - | - | 112 | - |
| Stage 2 | - | - | - | - | 85 | - |
| 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 | - | - | 1489 | - | 796 | 946 |
| Stage 1 | - | - | - | - | 917 | - |
| Stage 2 | - | - | - | - | 944 | - |
| Platoon blocked, % | - | - | | - | | |
| Mov Cap-1 Maneuver | - | - | 1489 | - | 796 | 946 |
| Mov Cap-2 Maneuver | - | - | - | - | 796 | - |
| Stage 1 | - | - | - | - | 917 | - |
| Stage 2 | - | - | - | - | 944 | - |

| Approach | SE | NW | NE |
|---|---|---|---|
| HCM Ctrl Dly, s/v | 0 | 0 | 9.17 |
| HCM LOS | | | A |

| Minor Lane/Major Mvmt | NELn1 | NWL | NWT | SET | SER |
|---|---|---|---|---|---|
| Capacity (veh/h) | 864 | 1489 | - | - | - |
| HCM Lane V/C Ratio | 0.003 | - | - | - | - |
| HCM Ctrl Dly (s/v) | 9.2 | 0 | - | - | - |
| HCM Lane LOS | A | A | - | - | - |
| HCM 95th %tile Q(veh) | 0 | 0 | - | - | - |

| Intersection | |
|---|---|
| Int Delay, s/veh | 7.1 |

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Vol, veh/h | 5 | 76 | 23 | 43 | 14 | 7 | 41 | 0 | 218 | 10 | 0 | 23 |
| Future Vol, veh/h | 5 | 76 | 23 | 43 | 14 | 7 | 41 | 0 | 218 | 10 | 0 | 23 |
| 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 | 60 | - | - | 90 | - | - | 0 | - | - | - | - | - |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 95 | 92 | 92 | 92 | 92 | 95 | 92 | 95 | 92 | 95 | 95 | 95 |
| Heavy Vehicles, % | 2 | 1 | 0 | 0 | 7 | 2 | 0 | 2 | 0 | 2 | 2 | 2 |
| Mvmt Flow | 5 | 83 | 25 | 47 | 15 | 7 | 45 | 0 | 237 | 11 | 0 | 24 |

| Major/Minor | Major1 | | | Major2 | | | Minor1 | | | Minor2 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Conflicting Flow All | 23 | 0 | 0 | 108 | 0 | 0 | 214 | 222 | 95 | 206 | 231 | 19 |
| Stage 1 | - | - | - | - | - | - | 106 | 106 | - | 112 | 112 | - |
| Stage 2 | - | - | - | - | - | - | 109 | 116 | - | 93 | 118 | - |
| Critical Hdwy | 4.12 | - | - | 4.1 | - | - | 7.1 | 6.52 | 6.2 | 7.12 | 6.52 | 6.22 |
| Critical Hdwy Stg 1 | - | - | - | - | - | - | 6.1 | 5.52 | - | 6.12 | 5.52 | - |
| Critical Hdwy Stg 2 | - | - | - | - | - | - | 6.1 | 5.52 | - | 6.12 | 5.52 | - |
| Follow-up Hdwy | 2.218 | - | - | 2.2 | - | - | 3.5 | 4.018 | 3.3 | 3.518 | 4.018 | 3.318 |
| Pot Cap-1 Maneuver | 1593 | - | - | 1496 | - | - | 747 | 677 | 967 | 752 | 669 | 1059 |
| Stage 1 | - | - | - | - | - | - | 905 | 808 | - | 893 | 802 | - |
| Stage 2 | - | - | - | - | - | - | 902 | 800 | - | 914 | 798 | - |
| Platoon blocked, % | | - | - | | - | - | | | | | | |
| Mov Cap-1 Maneuver | 1593 | - | - | 1496 | - | - | 704 | 654 | 967 | 548 | 646 | 1059 |
| Mov Cap-2 Maneuver | - | - | - | - | - | - | 704 | 654 | - | 548 | 646 | - |
| Stage 1 | - | - | - | - | - | - | 902 | 805 | - | 865 | 777 | - |
| Stage 2 | - | - | - | - | - | - | 853 | 775 | - | 688 | 795 | - |

| Approach | EB | WB | NB | SB |
|---|---|---|---|---|
| HCM Ctrl Dly, s/v | 0.34 | 5.05 | 10.01 | 9.55 |
| HCM LOS | | | B | A |

| Minor Lane/Major Mvmt | NBLn1 | NBLn2 | EBL | EBT | EBR | WBL | WBT | WBR | SBLn1 |
|---|---|---|---|---|---|---|---|---|---|
| Capacity (veh/h) | 704 | 967 | 1593 | - | - | 1496 | - | - | 826 |
| HCM Lane V/C Ratio | 0.063 | 0.245 | 0.003 | - | - | 0.031 | - | - | 0.042 |
| HCM Ctrl Dly (s/v) | 10.5 | 9.9 | 7.3 | - | - | 7.5 | - | - | 9.5 |
| HCM Lane LOS | B | A | A | - | - | A | - | - | A |
| HCM 95th %tile Q(veh) | 0.2 | 1 | 0 | - | - | 0.1 | - | - | 0.1 |

AIRSAFE

# LURIE CHILDREN'S HOSPITAL DOWNERS GROVE (LCHDG)
# HELIPORT BASIS-OF-DESIGN REPORT
# JUNE 25, 2026

## INTRODUCTION

This narrative and accompanying drawings describe and depict an emergency medical service heliport at the planned Lurie Children's Hospital in Downers Grove, Illinois.

## LOCATION

The hospital site is west of Interstate 355 and south of Butterfield Road.

Figure 1 HOSPITAL LOCATION



## HELIPORT LOCATION

The LCHDG heliport will be located approximately 160’ from the hospital’s emergency department entrance.

The hospital is planning to implement traffic control measures along the access road from Wood Creek Drive. Control will be active during the final stages of helicopter arrivals and the initial stages of helicopter departures. Signage along the access road will advise drivers of the potential for helicopter operations.

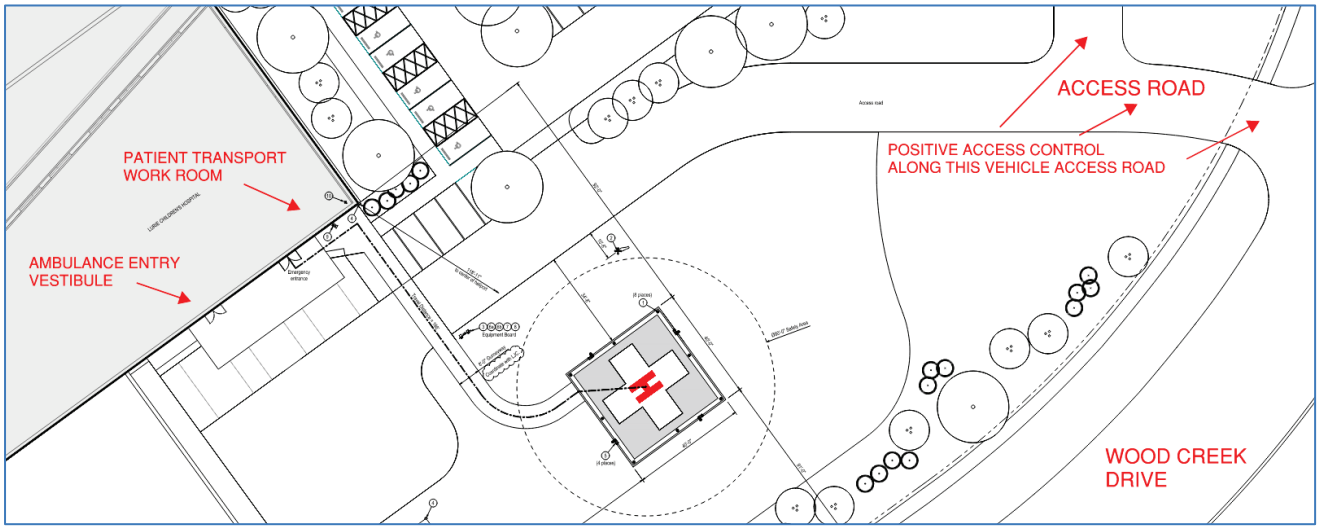



Figure 2 HELIPORT LOCATION

## DESIGN HELICOPTER

Attributes of heliports such as size and weight-bearing capacity are determined by dimensions and weights of helicopters expected to use them. Helicopters used for medical transportation in the Chicago and Downers Grove areas have overall lengths of between 40 and 46 feet and maximum operating weights of between 5,000 and 10,000 pounds. Common among these are the Agusta 109A, Airbus H-145, and the BK-117.

The Airbus H-145 is identified as the *design helicopter* for the LCHDG heliport. A heliport based on its relatively large size will create operational areas that are adequate for all medical helicopters in the region.

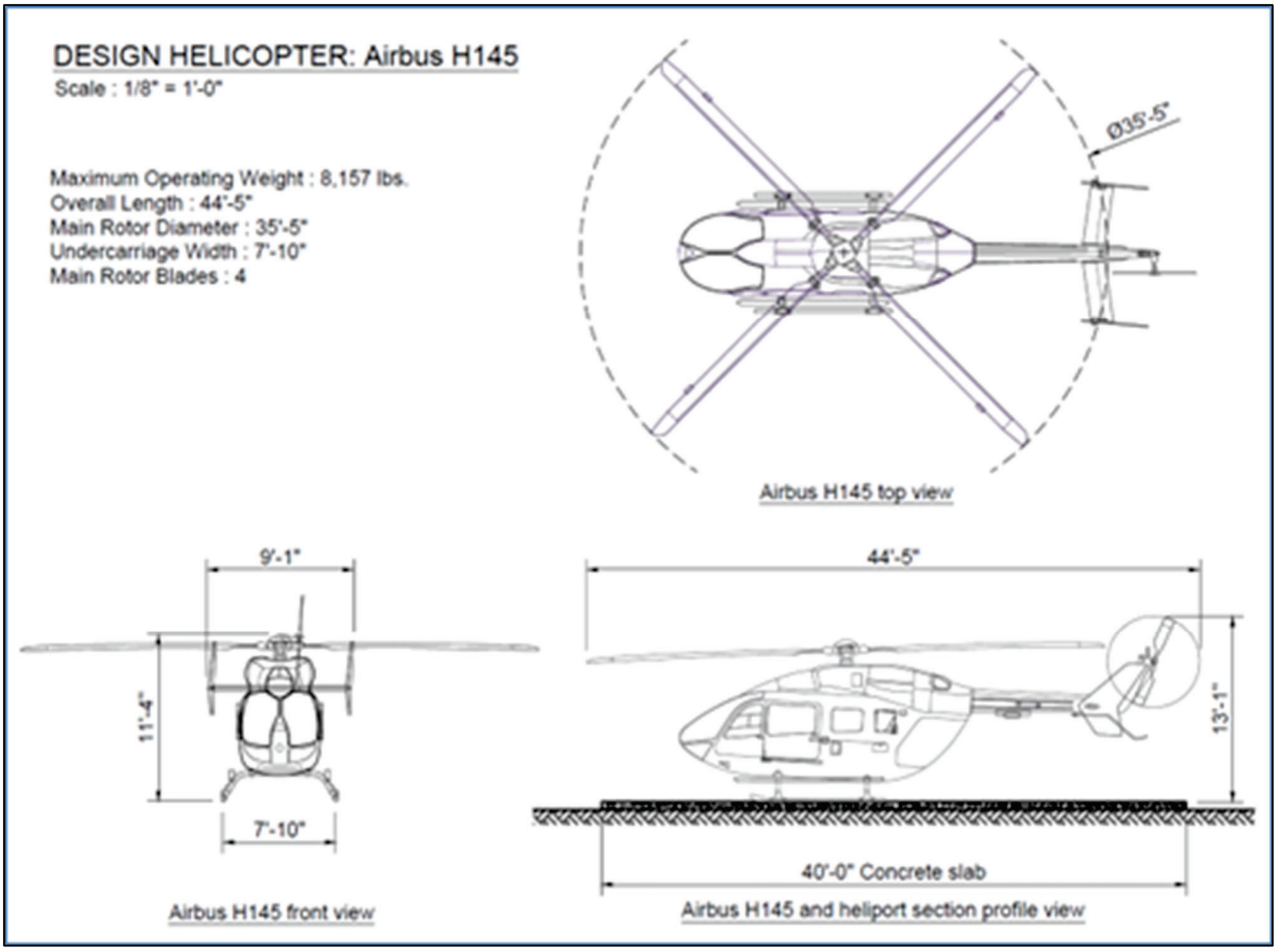



Figure 3 DESIGN HELICOPTER H-145

## JURISDICTION

Federal, state and local authorities have roles to play in development, permitting and operation of the LCHDG heliport. Federal jurisdiction exercised by the Federal Aviation Administration (FAA) is focused on its airspace. The Illinois Department of Transportation's Aeronautics Division licenses heliports. The Village of Downers Grove is responsible for permitting, construction inspections and use.

**Federal Aviation Regulation Title 14 Part 77 (FAR Part 77)**

FAR Part 77 is a federal regulation that establishes standards for addressing existing or planned obstructions to navigable airspace; for determining whether obstructions are or would be hazards to flight and for addressing them. FAR Part 77 defines so-called *imaginary surfaces*. These are geometric, spatial concepts used to supplement processes contained in the regulation.

Three Part 77 surfaces are employed in the LCHDG design. One is called the *Primary Surface*. This conceptual area is at the same elevation as the landing area. Its size is 1.5

times the overall length of the design helicopter. The other two are *Approach/Departure Surfaces*. These surfaces extend upward and outward in opposing directions from the primary surface.

Airsafe's drawings show one primary surface from which approach/departure surfaces rise and widen as they extend northeast and southwest. Approach/departure surfaces will conform to FAR Part 77 standards.

Pilots are not required to operate within airspace surfaces that are identified for FAA purposes. They may use any airspace they deem safe considering wind, visibility and other factors.

Part 157 of the FARs requires sponsors of heliports to file notices of landing area proposals with the FAA. The FAA reviews the planned use of airspace and may reply in one of three ways: no objection (to the use of airspace), objection with suggested mitigation and objection. The airspace plan being developed for LCHDG will result in a no objection letter.

It is important to note that the FAA does not approve or disapprove private use (hospital) heliports. The agency only has the authority to object to, not object to or conditionally object to the use of airspace.

**FAA Helicopter Advisory Circular**

FAA Publication 150/5390-2D titled "Heliports" is a publication that provides information and recommendations about heliport design. It is a useful tool but is not regulatory unless heliports are designed and constructed with funds from the FAA's Airport Improvement Program. The LCHDG heliport design is consistent with the FAA's heliport design publication.

**Illinois State Law Code 14**

Part 14 Subparts G and H of the Illinois State Code address heliport planning and design. Illinois law provides that the state may license heliports. The state Division of Aeronautics will be involved in many aspects of this project including reviews of site plans, drawings and airspace plans. Once provided with planning information the state will file the previously discussed airspace document (Form 7480-1) with the FAA.

## CODE CONFORMANCE

Lurie's Downers Grove heliport will conform to NFPA Publication 418 titled "Heliports." This publication is a common code for heliport design.

Primary code requirements of Publication 418 are:

- One handheld fire extinguisher of at least 80-B:C capacity
- One no-smoking sign
- Two means of access if a surrounding fence is installed.

The fire extinguisher and no smoking sign will be in the ambulance entry vestibule which is directly accessible from the heliport.

## HELIPORT DESCRIPTION

The Lurie Downers Grove heliport will be constructed of 5-1/2" to 6" of Portland Cement Concrete. It will be 40' by 40' in size. It will slope in whatever direction fits the site by between one and two percent. The surface will be medium broom finish to increase surface traction.

Embedded in the edges of the heliport will be green, night vision goggle (NVG) compatible perimeter lights. Attached to the top of concrete at the edges of the heliport will be shielded floodlights. Floodlights will be on an individual electric circuit to allow for their use either in concert with the perimeter lights or only during patient transfers. The latter method is done to preserve pilots' night vision.

A lighted wind indicator will be northeast of the heliport. Further planning might result in a second lighted wind indicator on the hospital roof. The second wind indicator would be positioned so that it is visible from the landing area. Understanding wind conditions that exist above the hospital structure's elevation prior to departure is key to departure safety.

Activation of the perimeter lights, lighted wind indicator and flood lights will be accomplished by switches in the emergency department and/or patient transport work room as decided on during the ongoing planning phase.

Pilots on approach to the heliport will be able to activate perimeter lights, the lighted wind indicator and the flood lights, by communicating with an electronic radio controller through use of their aircraft's radio systems.

A weather system will provide key weather information to hospital staff and helicopter dispatch offices.

The heliport will be surrounded by a 90’ diameter safety area that will not contain any objects that rise more than 2” above the heliports surface.

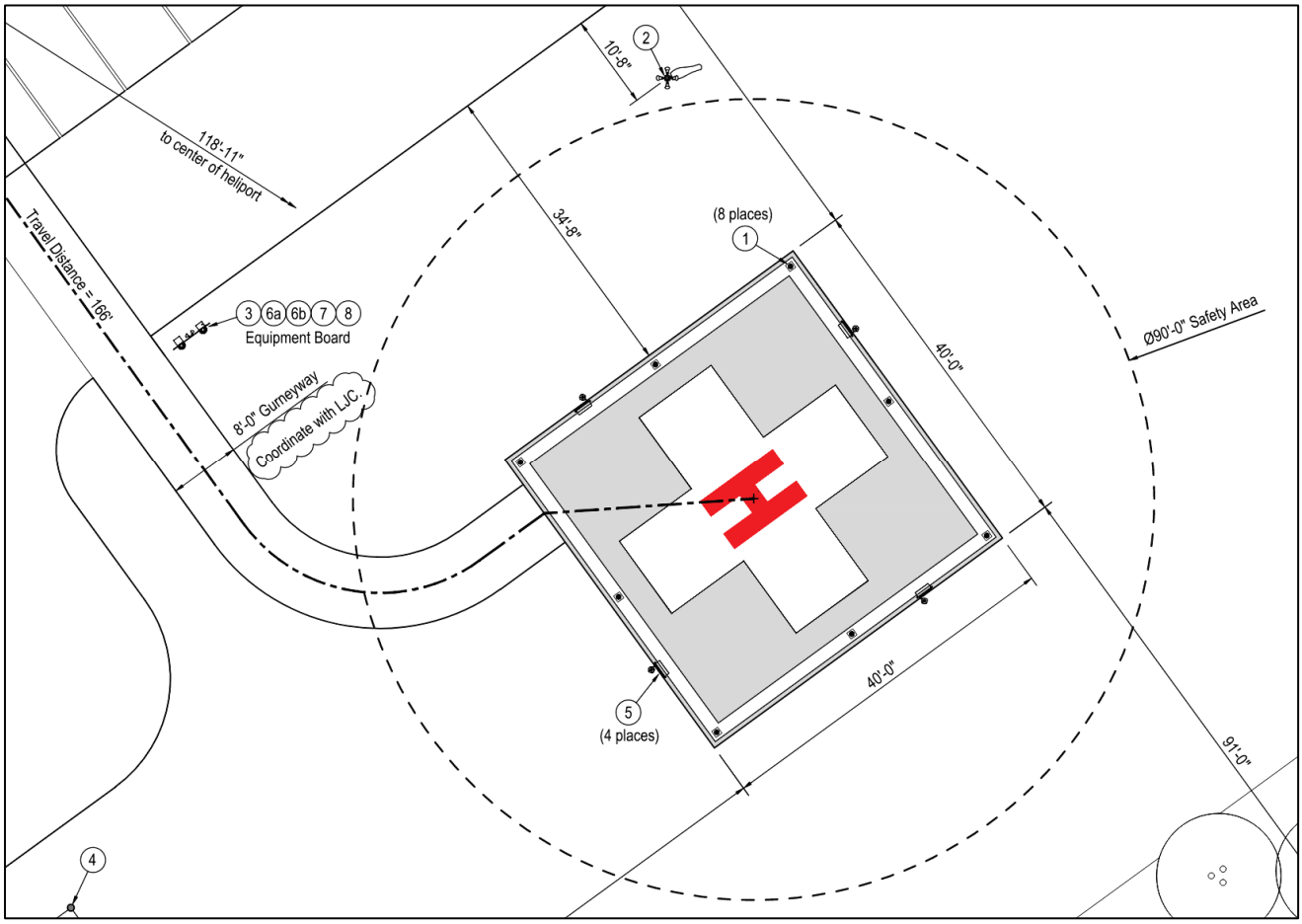



Figure 4 HELIPORT LAYOUT

## GURNEYWAY

A gurneyway extends from the heliport to the emergency department back entrance. It will be 8’ wide to provide sufficient room for attendants on both sides of the gurney.

## GRAPHICS

Painted heliport graphics consist of an 18” wide, white perimeter line; a white cross and a red “H”. The H is oriented to approach/departure directions.

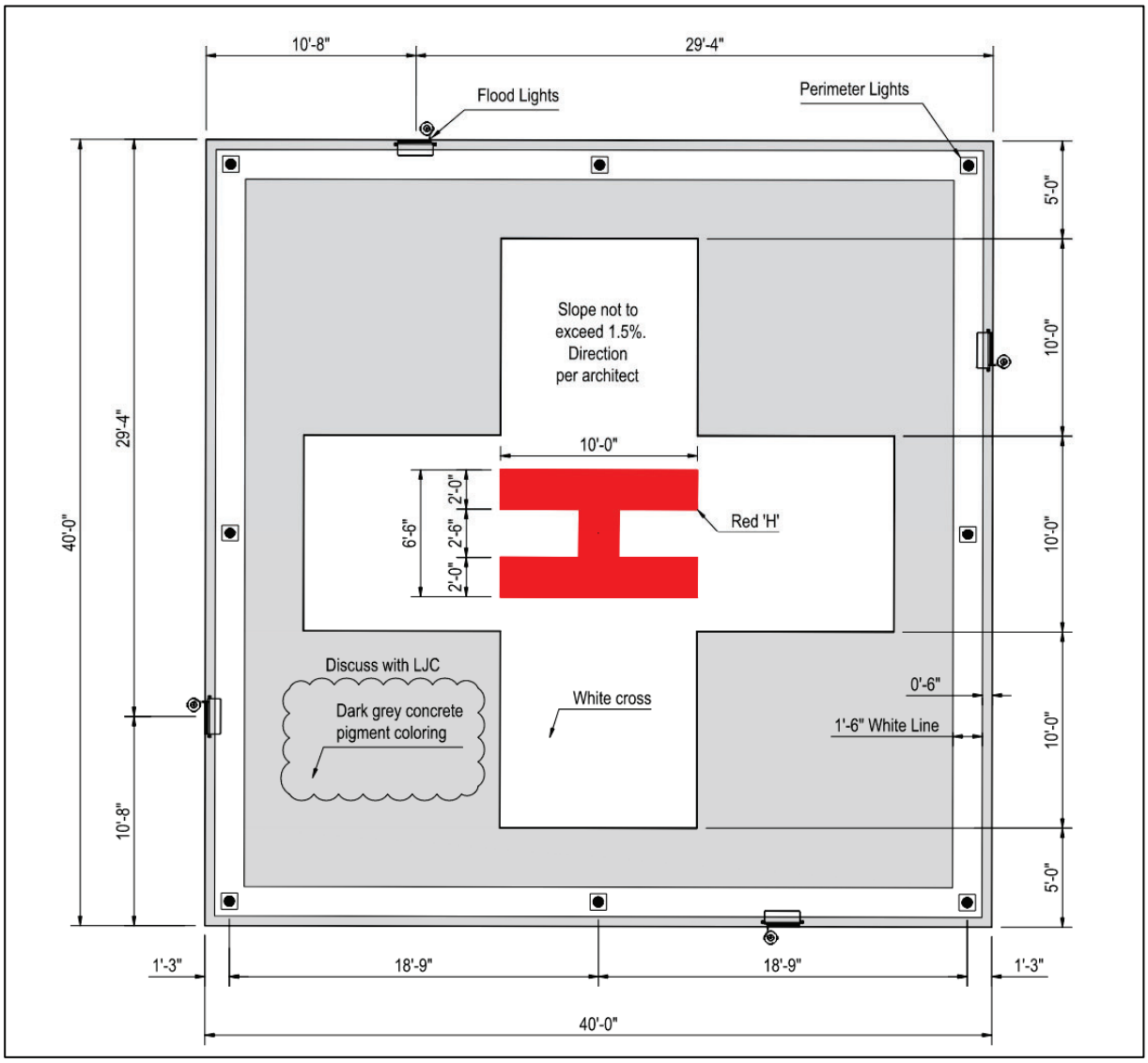



Figure 5 HELIPORT GRAPHICS

## EQUIPMENT/FEATURE LIST

- Semi-flush LED, NVG lights (8)
- Lighted wind indicator (1) or (2) – to be determined
- LED/NVG obstruction lights on the hospital structure (# To be determined)
- Low-wattage floodlights to facilitate patient transfers (4)
- Very-high frequency (VHF) radio controller with roof mounted antenna (1)
- No-smoking / Caution signs (2)
- Hand-held fire extinguisher(s) with UL ratings 80:BC (1) or (2)
- CCTV system (1)
- Weather-reporting system (1)
- Policies and procedures sign (1)

Equipment shown in this section may be seen on Airsafe's drawing H-104. Recommended manufacturers and model numbers are indicated. Numbers in the upper left corners of each drawing may not be in order as they are "snips" from the CAD drawing set.

## EXPANDED HELIPORT EQUIPMENT INFORMATION

**Perimeter Lights**

Perimeter lights identify the structural landing area. It is recommended that they be LED: NVG compatible.

***Performance criteria:*** Green/LED/low profile (2" or less above heliport surface) tested and certified by ETL or similar national testing laboratory recognized by OSHA.

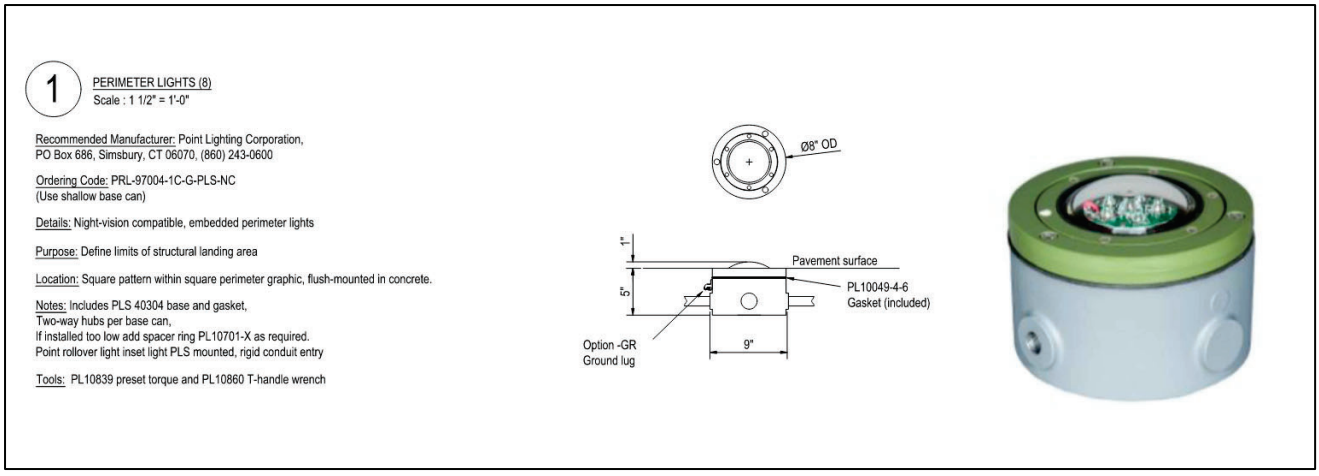



Figure 6 PERIMETER LIGHTS

**Lighted Wind Indicator**

A lighted wind indicator will be located at grade level northeast of the center of the heliport. It will be mounted on a concrete base.

***Performance criteria:*** Conform to L-810 FAA design standard, FAA Size 1, ETL certified.

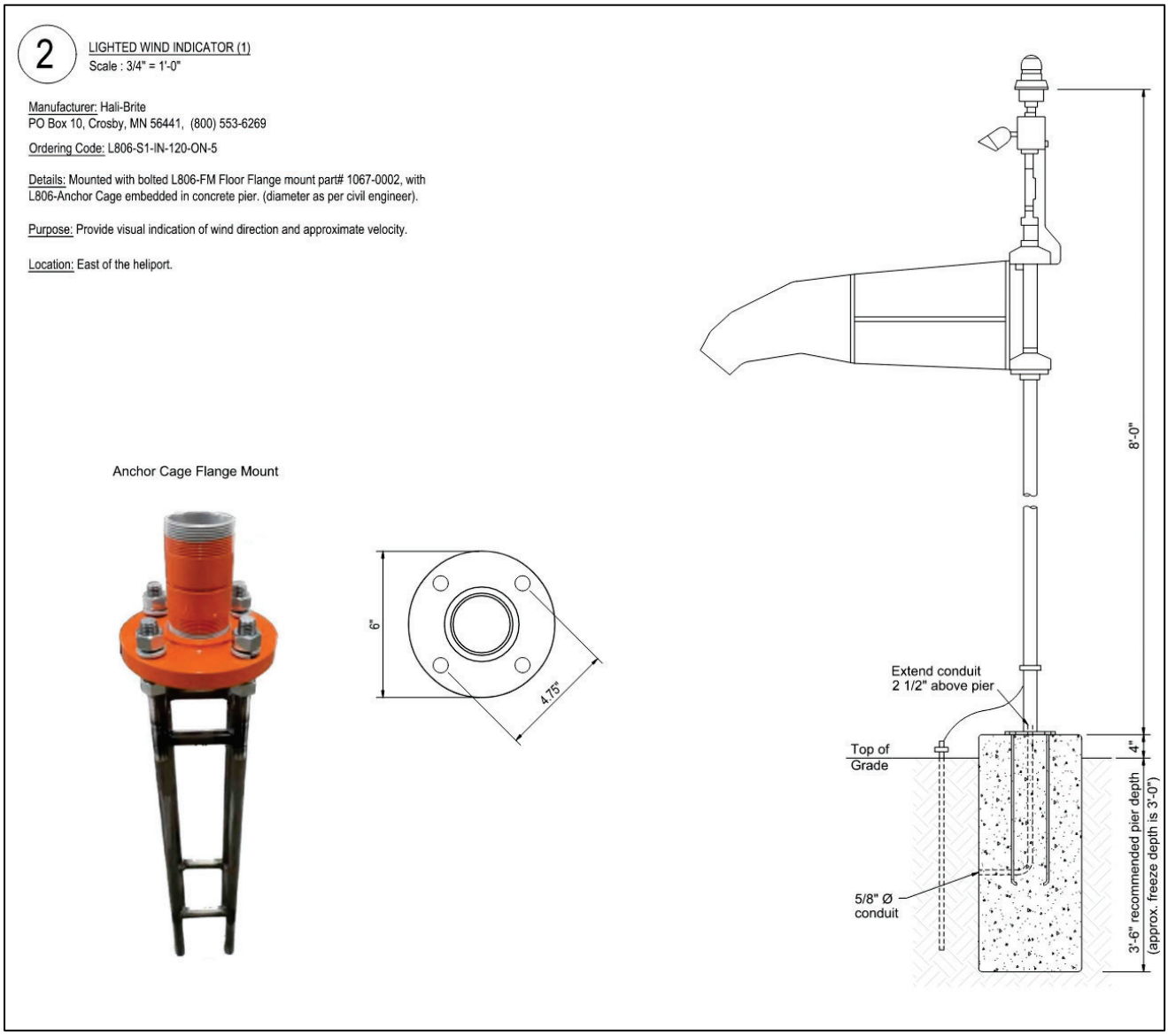



Figure 7 LIGHTED WIND INDICATOR

**Obstruction Lights**

Obstruction lights call attention to key areas of the structure adjacent to the heliport and approach/departure areas.

***Performance criteria:*** ETL-certified to FAA standard L-810, red, LED, NVG-compatible.

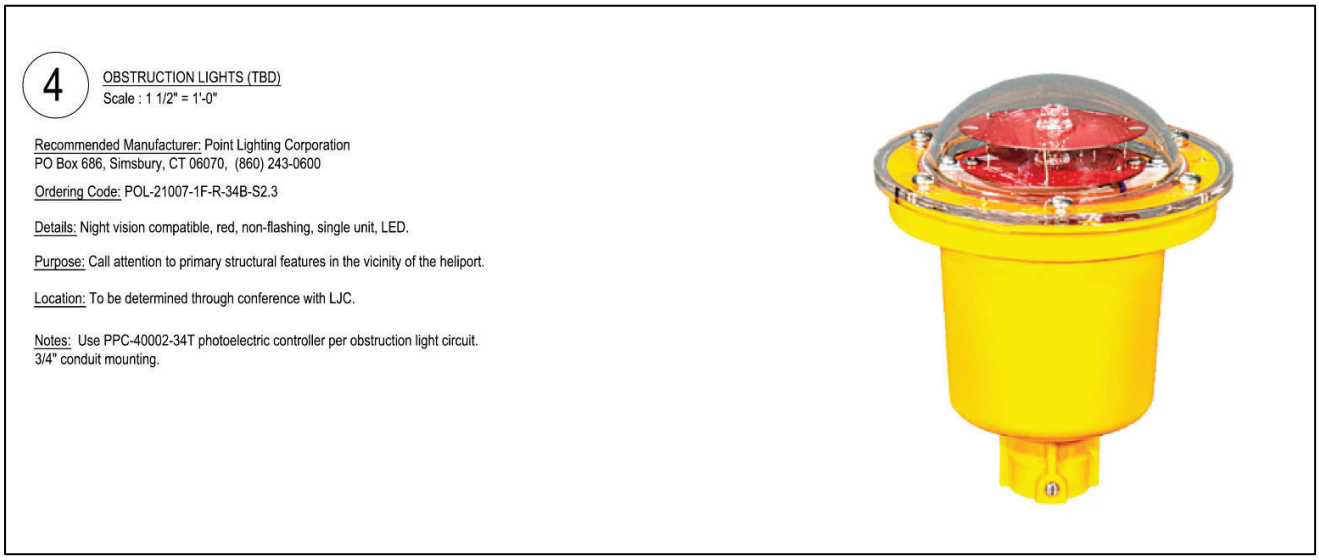



Figure 8 OBSTRUCTION LIGHTS

## Flood Lights

Low-wattage flood lights will be mounted on the heliport surface near the centers of the edges of the four sides of the heliport. These lights may be illuminated either along with the perimeter lights or only during patient transfers at the discretion of pilots and patient transport managers.

***Performance Criteria:*** No more than 2” above the heliport surface, ETL certified or UL-listed.

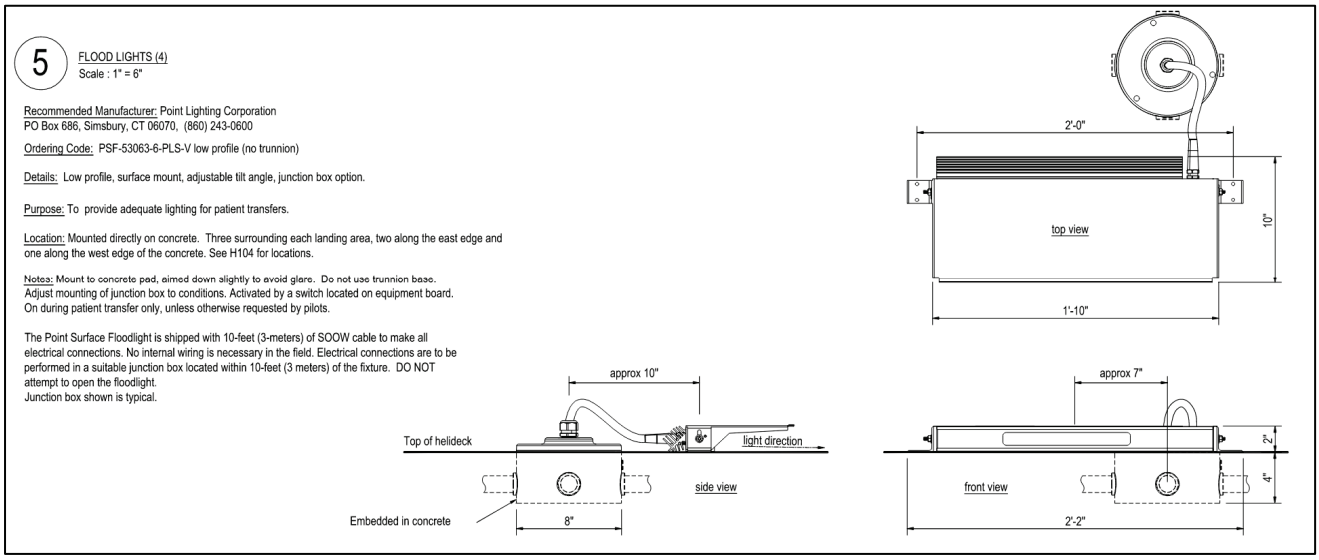



Figure 9 FLOODLIGHTS

**Very-High Frequency (“VHF”) Radio Controller**

A VHF radio controller will be used by pilots to activate the heliport’s perimeter lights and lighted wind indicator – together called “operational lights” in case those lights are not manually activated by hospital staff. It is unlikely that the radio controller will be used often by pilots, but it will be important to them if needed. The controller’s location will be determined during future planning.

***Performance Criteria:*** Conform to FAA L-854 design standard, ETL certified, adjustable time-out up to one hour.

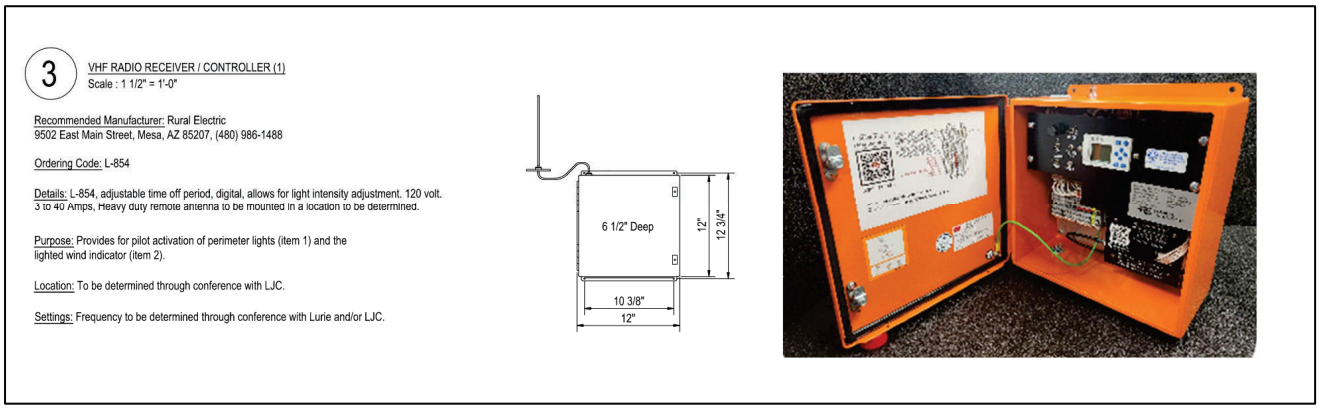



Figure 10 RADIO CONTROLLER

**No Smoking/Caution Signs**

A Code-required ‘NO SMOKING’ sign will be in the ambulance entry vestibule. The sign used will state “NO SMOKING WITHIN 50’ OF THE EDGE OF THE HELIPORT.” A second no smoking sign will be installed at a yet to be determined location.

***Performance Criteria:*** Minimum 8” high, 6” wide, aluminum, or hard plastic, retroreflective.

Figure 11 NO SMOKING SIGN




**Fire Extinguisher**

A code-required hand-held fire extinguisher meeting UL rating 80:BC will be located near the no smoking/caution sign in the ambulance entry vestibule.

***Performance Criteria:*** 80B:C rating, UL-Listed

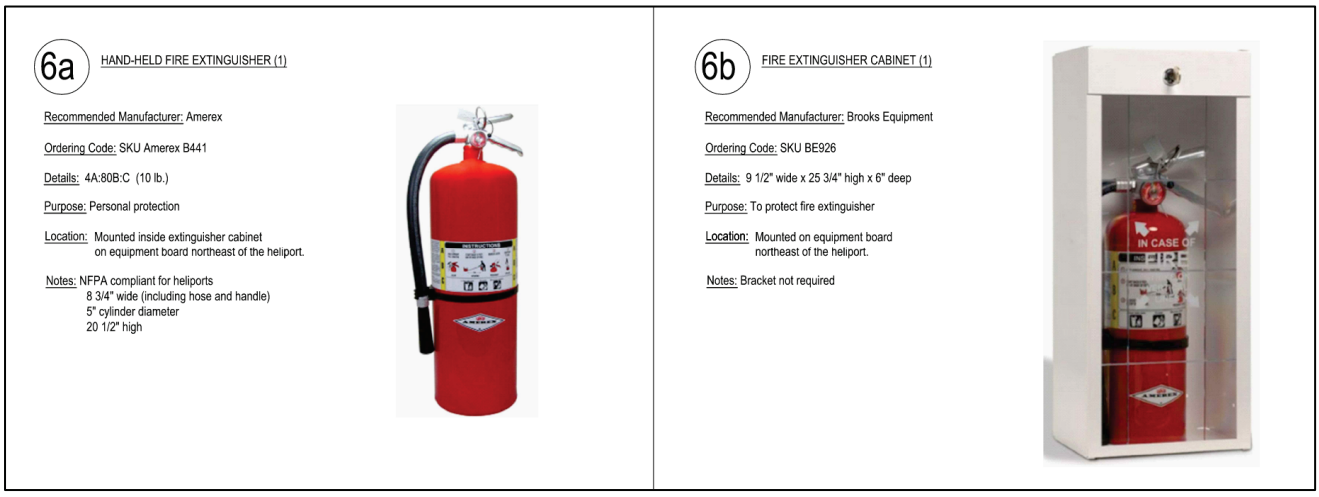



Figure 52 FIRE EXTINGUISHER

## CCTV

A CCTV system to provide continuous monitoring and recording of heliport activity will be installed at a yet to be determined location. This information will be linked to the building's security system and uploaded to the internet for use by helicopter dispatch offices.
***Performance Criteria:*** Capable of 24—hour continuous loop operation. Pan and zoom remote control.

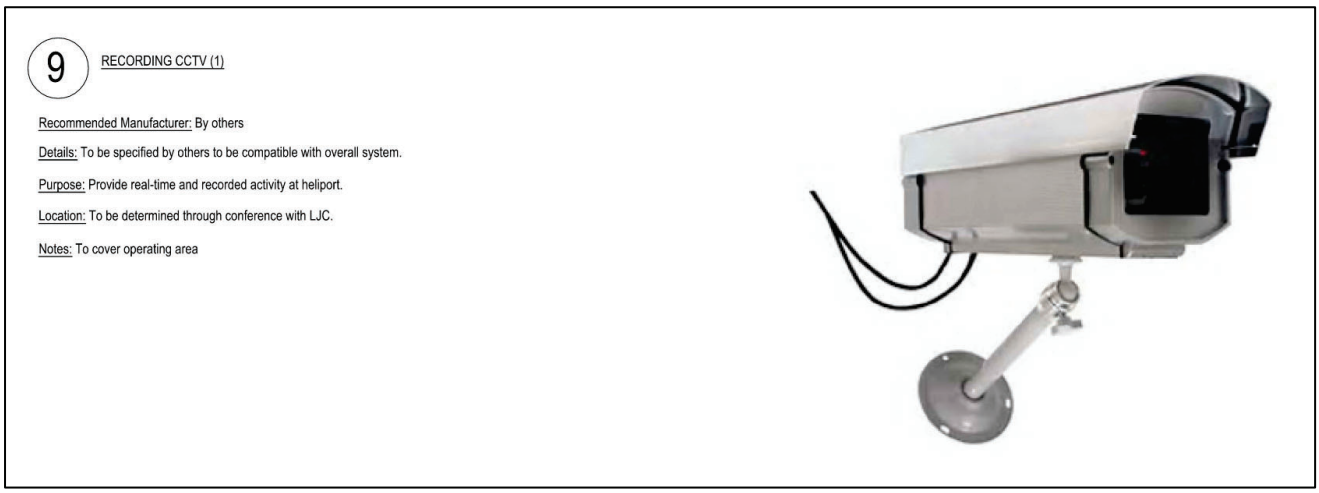



Figure 13 RECORDING VIDEO CAMERA

**Weather Reporting System**

A weather-reporting system will provide real-time weather information including wind direction, wind velocity, temperature and dew point. The primary sensing unit will be mounted on a tripod on the roof of the new hospital structure. The system will require manufacturer-supplied internet software, a data port and an AC power source in the ED or at a security station. Neither AC power nor a data port are required at the roof mounted sensing unit. Weather information will be uploaded to helicopter dispatch offices.

***Performance Criteria:*** Capable of providing wind direction, wind velocity, temperature and dew point. Updates automatically at least once every two seconds. Records data of all four elements for future retrieval. Software for upload to internet for use by security and helicopter dispatch offices.




Figure 14 WEATHER RECORDING SYSTEM

**Policies and Procedures Sign**

A policies and procedures sign is recommended as a way to remind staff members who transfer patients or who provide security or maintenance services at and near a heliport to be constantly aware of safety and to report situations and conditions that are or could be unsafe. It will be located on a wall in the ambulance vestibule. Performance Criteria: Airsafe designed narrative; large enough to easily read from any location in the vestibule.

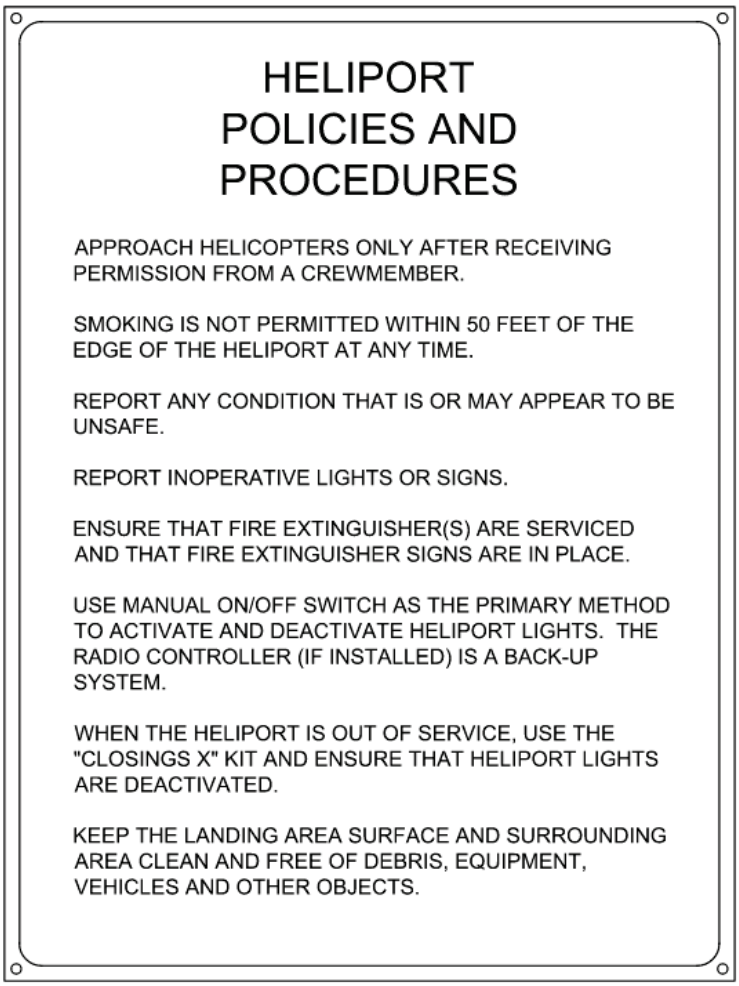



Figure 15 POLICIES AND PROCEDURES SIGN

## EQUIPMENT INFORMATION/CERTIFICATION

Heliport electrical equipment is often ETL-certified rather than UL-listed. This is the case with items 1, 2, 4 and 5 on the heliport equipment list. ETL is an OSHA-recognized national testing laboratory. ETL-certifications should be requested prior to or during equipment purchase.

## OPERATING PROCEDURES

To provide for safe and coordinated air medical operations for employees and staff members of Lurie Children's, Lurie Children's intends to implement DG Heliport Access and Security consistent with Attachment A, Downer's Grove Heliport Evacuation Policy, consistent with Attachment B, and DG Heliport Operating Procedure, consistent with Attachment C.

## ABOUT AIRSAFE AND THIS REPORT'S AUTHOR

Since 1980 Airsafe has provided heliport planning and consultation services to over 300 hospitals, large and small, throughout the United States. In addition to Lurie Children's Hospital of Chicago, clients include Children's Hospital of Philadelphia, Cincinnati Children's Hospital, Seattle Children's Hospital, and Seattle's Harborview Medical Center.

Airsafe is currently engaged to provide heliport planning and aviation consultation services for a new children's hospital in Las Vegas, Nevada.

David Ketchum, founder of Airsafe, its primary planner and author of this report, is a commercially rated pilot with extensive heliport planning and helicopter patient transport experience.

Airsafe's goal is to improve the efficiency and safety of patient transports by rotary wing aircraft.

AIRSAFE
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Oro Valley, Arizona
(360) 320-2131
WWW.AirsafeHeliports.com

###

# **DRAFT**: Downers Grove Heliport Access and Security

Ann & Robert H. Lurie Children's Hospital of Chicago®

**Owner: Jannie White**

**Approver: Michelle Douglas**

**Site: Center for Transport Medicine**

*Last Reviewed: --*

**OVERVIEW:**

To provide safe access and operations for employees and Medical and Dental Staff Members (collectively "staff") of Ann & Robert H. Lurie Children's Hospital of Chicago ("Lurie Children's") at Lurie Children's – Downers Grove Hospital & Outpatient Center ("Lurie Children's – Downers Grove").

**DEFINITIONS:**

- **Automated Weather Observation System (AWOS)** - provides site-specific up-to-the-minute weather data to pilots via a ground-to-air radio link and staff via interactive displays. Pilots must utilize this data in their flight planning prior to arrival at Lurie Children's – Downers Grove heliport
- **Drone** - remotely controlled manned aerial vehicle
- **Flight Operations Area (FOA)** – The observation area overlooking the PMU Heliport which serves as the central location for observing the AWOS, controlling the lights for the PMU Heliport and observation of any PMU Heliport activity
- **Helicopter Air Ambulance (HAA) Operation** - A flight or sequence of flights, with a patient, donor organ or human tissue, or medical personnel are on board for the purpose of medical transportation, conducted by a part 135 certificate holder as authorized by the Administrator
- **Pilot in Command (PIC)** - Directly responsible for and is the final authority as to the operation of that aircraft.
- **Private Medical Use (PMU) Heliport** - The landing zone for incoming rotor wing aircraft whose program has a signed landing agreement and is compliant with annual heliport training. This area is closed to hospital staff without PMU Heliport responsibilities or any external individuals that do not meet the training requirements.
- **Prior Permission Required (PPR)**- A PMU Heliport developed for exclusive use of the owner and persons authorized by the owner and about which the owner and operator ensure all authorized pilots are thoroughly knowledgeable. These features include but are not limited to approach/departure path characteristics, preferred heading, facility limitations, lighting, obstacles in the areas, and size and weight capacity of the facility.
- **Transfer Center** - A specialized group of medical professionals that manage incoming and outgoing requests for patient transfer.
- **Transport Team:** A specialized group of medical professionals dedicated to safely and efficiently transferring critically ill or injured patients between healthcare facilities.

**POLICY STATEMENTS:**

- The PMU Heliport may only be used by HAA operators with a signed landing agreement.
- Helicopter transport is restricted to patients or organs transferring to/from Lurie Children's facilities.
- Only Transport Team, Transfer Center and Security may respond to an incoming or outgoing flight.
- The heliport is restricted to authorized staff (Transport Team, Transfer Center, Security, Facilities or Environmental Health Services Director or designee).

DRAFT

- Security is responsible for safekeeping during all flight operations, remaining present in the Flight Operations Area maintaining visual surveillance during takeoff and landing.
- Transfer Center, Security, and Transport Team (if available) will remotely monitor heliport operations.
- Helicopter operational limits:
    - Maximum rotor diameter: 46 feet
    - Maximum gross weight: 10,000 lbs
- Lurie Children's – Downers Grove PMU Heliport Wind Restrictions. Per landing agreements no aircraft may land on the Lurie Children's – Downers Grove PMU Heliport when these conditions exist:
    - The maximum sustained winds are greater than 40 knots **AND/OR**
    - The maximum recorded peak gust in the preceding 30 minutes is greater than 40 knots **AND/OR**
    - The reported max gust spread during the preceding 30 minutes is greater than 20 knots

**PROCEDURES:**

**General Access and Safety**

- Access granted only to those who are currently compliant with completion of the Lurie Children's Heliport training or those who are escorted by trained personnel
- Flood lights remain off during flight operations unless requested by pilot or in emergencies
- Once the heliport is cleared for landing, no one is permitted on the heliport or in the vicinity until the aircraft has landed and the blades have stopped spinning
- Only approach the aircraft with pilot's permission
- Always approach from the front, in pilot's view, never near tail
- Only flight crew may operate aircraft doors
- No equipment taller than stretcher height permitted on helipad

**Security Roles & Responsibilities**

- Conduct routine PMU Heliport inspections per PMU Heliport checklist
- Restrict access to Security, Facilities, Transport Team, Transfer Center, and Environmental Health Services (EHS) Director/designee or those accompanied by approved individuals
- Notify Transfer Center:
    - Heliport clearance of every incoming/outgoing flight (pre-landing and post take-off)
    - Prior to accessing heliport in the event of an incoming flight
    - Any approved heliport access requests
- Respond for all flight operations; prepare heliport for landings
    - Complete prelanding walk around of heliport observing for any foreign object debris
    - Provide notification to Transfer Center once landing zone is cleared or if foreign object debris is observed
    - Ensure PMU heliport lights are turned on for all night landings
    - Ensure floodlights are NOT on
        - Flood lights are only to be used by the pilot, upon pilot request or during emergency operations
    - Observe all landings and take offs from the flight operations area
    - Ensure positive control of the driveway road access.
- Escort flight team to/from receiving units; remain until departure
- After aircraft departure:
    - Inspect heliport for hazards (debris, spills or bodily fluids) post-departure
        - Contact environmental services for any hazard found. Refer to the Safety Data Sheet as needed.
    - Turn off lights and notify Facilities and Transfer Center when "all clear"
- Monitor for drone activity
    - Complete drone information intake forms and send to Transfer Center
    - Provide follow up for all drone violations

**Transport Team / Transfer Center Roles & Responsibilities**

- Transport Team Safety Checks:
  - Complete daily heliport check and checklist
  - Report issues via Facilities work order
- Flight Requests (See Heliport Operating Procedure)
- Incoming Flights (Transfer Center):
  - Notify Security & Facilities at least 15 minutes prior to arrival with estimated time of arrival. Also communicate vendor, number of souls on board and destination unit to Security.
  - Ensure Transfer Center is staffed with trained personnel during flight operations
  - Monitor wind parameters, if conditions exceed limits (see policy statement):
    - Notify vendor dispatch
    - Request an alternate landing zone be utilized (vendor dispatch team is responsible for coordination of alternate landing zone)
    - Assist in coordinating ground transportation from alternate landing site
  - After heliport is confirmed to be clear for landing by security, provide verbal clearance to pilot via radio after heliport is confirmed to be clear for landing
    - If the pilot is unable to communicate with the Transfer Center via radio, clearance for landing will be relayed via the vendor dispatch center
  - Notify receiving unit of estimated time of aircraft/patient arrival
  - After Landing/Before Takeoff
    - Pilot may not depart until conditions meet wind parameters (see policy statement)
      - If conditions are not within parameters the aircraft must remain at Lurie Children's – Downers Grove and may not depart until 30 minutes after wind conditions are within parameter
      - This information may be communicated to the pilot by the transfer center, transport team or security.

**Facilities Roles & Responsibilities**

- Inspect PMU heliport every shift per Heliport Maintenance Checklist
  - Report issues via Facilities work order
- Notify Transfer Center (7-3700)
  - Prior to accessing heliport in the event of an incoming flight
  - Prior to any related maintenance or construction
- Notify Security of vendor related work for heliport access authorization and completion date.
- Serve as resource for AWOS and heliport maintenance
- Coordinate preventative maintenance and ensure proper functioning of the following heliport systems:
  - Lights throughout the heliport
  - Windsocks
  - AWOS system and structures
  - Antennas

**REFERENCES/RELATED POLICIES:**

- Administrative Policy: Heliport Operating Procedure
- Administrative Policy: Heliport Evacuation Policy

**EDUCATION PLAN:**

- Education regarding this policy will be provided to staff at the time of hire, during routine competency reviews, and whenever significant revisions are made to ensure continued compliance and understanding.

# **DRAFT:** Downers Grove Heliport Evacuation Policy

Ann & Robert H. Lurie Children's Hospital of Chicago®

**Owner: Jannie White**

**Approver: Michelle Douglas**

**Site: Center for Transport Medicine**

*Last Reviewed: DRAFT*

**OVERVIEW:**
This policy provides notification, response, and evacuation procedures for Ann & Robert H. Lurie Children's Hospital of Chicago ("Lurie Children's") Downers Grove Hospital & Outpatient Center ("Lurie Children's – Downers Grove" or the "Hospital") Private-Medical-Use (PMU) Heliport during rapidly developing incidents where the safety of individuals is immediately threatened.

Scenarios requiring evacuation may include:

- Visible smoke or fire on or near an aircraft
- Crash or explosion
- Significant structural damage to an aircraft or the Hospital

The goal of this policy is to ensure the safe, coordinated, and timely evacuation of patients, staff, and visitors from the heliport and associated areas.

**DEFINITIONS:**

- **House Supervisor (HS):** The designated leadership representative is accountable and responsible for coordinating provision of efficient patient care operations
- **Administrator on Call (AOC):** The Administrator on Call provides one point of contact for the organization to provide references, resources and communication to allow expedited resolution to organizational issues identified. Their role is to review each incident, identify necessary resources and decide whether to activate Incident Command.
- **Authorized and Trained Staff:** Individual's employed by Lurie Children's (Transport Team, Transfer Center, Transplant Team, Security, Facilities and Environmental Safety) or approved rotor wing vendor's flight crew who have completed the annual Lurie Children's Heliport training requirement
- **Flight Operations Area (FOA)** – The observation area overlooking the PMU Heliport which serves as the central location for observing the AWOS, controlling the lights for the PMU Heliport and observation of any PMU Heliport activity
- **Private-Medical-Use (PMU) Heliport** - The landing zone for incoming rotor wing aircraft whose program has a signed landing agreement and is in compliance with annual heliport training. This area is closed to Hospital staff without PMU Heliport responsibilities or any external individuals that do not meet the training requirements
- **Oscillating Foam Fire Suppression System (OFFSS):** Fire protection oscillating monitor/nozzle that generates foam and applies it to the PMU Heliport landing pad in accordance with NFPA 418 Standard for Heliports
- **Post-Accident Incident Plan (PAIP):** A comprehensive process that encompasses an immediate response to an accident/incident
- **Pilot in Command (PIC)** - Directly responsible for and is the final authority as to the operation of that aircraft
- **Transfer Center -** A specialized group of medical professionals that manage incoming and outgoing requests for patient transfer

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- **Transport Team -** Designated staff who transport patients in and out of the Hospital via ambulance, helicopter, and fixed wing aircraft

**POLICY STATEMENTS:**

- This plan will be activated by an authorized and trained staff member when an immediately life-threatening incident affecting the heliport is identified.
- Depending on the nature of the incident, the PIC will determine if the aircraft should be or could be safely relocated.
- Any individuals whose care and safety may be compromised because of the incident will be prioritized for safe removal from areas of immediate danger.
- Evacuation procedures will follow defined notification, response, and coordination steps until the "All Clear" is issued.

**PROCEDURE:**

**Notifications and Immediate Response Procedures (with heavy smoke and/or active flames)**

- **Responding PMU Heliport Security Officer**
  - Activate PMU Security PAIP I Action Sheet
  - Activate the **red fire pull station** (triggering the Lurie Children's – Downers Grove fire alarm system)
  - Call or radio the Security Services Dispatcher and provide the following information:
    - A brief description of the incident
    - The number of impacted individuals and location
  - Maintain a visual surveillance on the PMU Heliport if safe to do so from the inside of the building to monitor the incident and update the Security Services Dispatch with changes and/or concerns
  - Provide update to Security Services Dispatch of real time feedback of status of evacuation
  - Notify the Security Services Dispatcher when the staff and patients have been safely evacuated from the PMU Heliport
- **Flight Team/Transport Team Member Evacuation/Rescue**
  - Evacuate the heliport to the safest location at least 100 feet away from the aircraft
  - If evacuating into the building contact security with telephone in the building just beyond the fire door with number of individuals, intended evacuation location and if there are any injuries
    - If able evacuate to the ED
    - If safe to do so, Burn Paks may be used to evacuate impacted individual(s) off the heliport to the ambulance bay or the Emergency Department
  - Any injured, impacted individuals should be transported to the Hospital's Emergency Department for appropriate medical evaluation and care
- **Security Services Dispatch**
  - Activate the Security Dispatch PAIP I Action Sheet
  - Notify the Transfer Center of the incident. Be specific on the number of individuals on board and incident.
  - Notify 9-1-1 to report fire on the PMU Heliport
  - Communicate any updates, changes, or concerns with the Transfer Center
  - Provide update to Transfer Center of real time feedback and status of evacuation
  - Notify the Transfer Center when the impacted individuals have been safely evacuated
- **Transfer Center**
  - Activate the Transfer Center PAIP I Action Sheet (notifying the Administrator on Call, Center for Transport Medicine Director and House Supervisor)
    - Include a description of the incident, number of & location of impacted individuals
  - Notify the Emergency Department (ED) Attending and ED Charge RN of incident and number of impacted individuals that may require evaluation

- Notify the HS when all impacted individuals have been safely evacuated from the PMU Heliport, with their exact location

- **House Supervisor**
  - Activate the House Supervisor PAIP I Action Sheet
  - If activation of Incident Command is requested by the Administrator on Call (AOC), send an Everbridge notification to the Incident Command Group utilizing the following scripting (a TEAMS conference call-in line may be set up in lieu of an in-person meeting):
    - *Title:* Incident Command Activated
    - *Message Body Text:* Incident Command has been activated due to an incident on Private-Medical-Use Heliport. Please report to the Emergency Operations Center in (enter room number) at (enter time). The conference call-in line is (enter conference call-in line and code).
  - Notify the AOC/Incident Commander when the impacted individuals have been safely evacuated from the PMU Heliport.
  - Assign helper (Access Coordinator) to Transfer Center
- **Security coordination with Downers Grove Fire Department (DGFD)**
  - Once DGFD arrives on the scene, they will direct the incident response
  - If DGFD informs Security Officer that they do not need assistance by Lurie Children's staff, the Security Officer will continue to stay available for further instructions
  - When all clear is received, Security Officer must create an Incident Report and document all pertinent information to the event
- **Incident All Clear**
  - The DGFD will notify the Hospital Liaison Officer once the incident has been resolved.
  - The Hospital Liaison Officer will then notify the AOC or Incident Command.
  - In consultation with the Liaison Officer, the DGFD, the AOC (or Incident Command if activated) will determine when the incident "all clear" may be announced.
  - Once normal operations have resumed, if Incident Command has been activated the HS will send an Everbridge notification to the Incident Command Group utilizing the following scripting:
    - *Title:* Incident Command All Clear
    - *Message Body Text:* Incident Command all clear. Private-Medical-Use Heliport Closed until further notice.
  - If the PMU Heliport or other areas of the Hospital have been damaged by the incident, Environmental Health and Safety, Facility Services, and the Center for Transport Medicine will advise the AOC or Incident Command of any unsafe conditions to the Hospital and their corrective recommendations.
  - Interim Life Safety Measures (ILSM) will be in place in any area impacted by the incident before resumption of normal operations in those areas.
  - The Center for Transport Medicine Director or their designee will be responsible for conducting a debrief with all applicable stakeholders.
  - The Center for Transport Medicine Director or their designee will complete and submit an After-Action Report to Emergency Management following a PMU heliport evacuation incident.

**REFERENCES:**

- Organizational: Unplanned Hospital Evacuation Policy
- Organizational: Code Red, Fire Response Plan
- Departmental: Transport Team - Post Accident Incident Plan
- Departmental: Heliport Operating Procedures
- Departmental: Heliport Access and Security

**EDUCATION PLAN:**

- Education regarding this policy will be provided to staff at the time of hire, during routine competency reviews, and whenever significant revisions are made to ensure continued compliance and understanding.

# **DRAFT**: Downers Grove Heliport Operating Procedure

Ann & Robert H. Lurie Children's Hospital of Chicago®

**Owner: Jannie White**

**Approver: Michelle Douglas**

**Site: Center for Transport Medicine**

*Last Uploaded: DRAFT*

**OVERVIEW:**

To provide safe and coordinated air medical operations for employees and Medical and Dental Staff Members (collectively "staff") of Ann & Robert H. Lurie Children's Hospital of Chicago ("Lurie Children's"). Lurie Children's – Downers Grove Hospital & Outpatient Center ("Lurie Children's – Downers Grove") heliport operations occur in accordance with this standard operating procedure to ensure safe and efficient operations.

**DEFINITIONS:**

- **Automated Weather Observation System (AWOS)** - provides site-specific up-to-the-minute weather data to pilots via a ground-to-air radio link and staff via interactive displays. Pilots must utilize this data in their flight planning prior to arrival at Lurie Children's heliport.
- **Drone** - remotely controlled manned aerial vehicle.
- **Flight Operations Area (FOA) –** The observation area overlooking the PMU Heliport which serves as the central location for observing the AWOS, controlling the lights for the PMU Heliport and observation of any PMU Heliport activity
- **Helicopter Air Ambulance (HAA) Operation -** A flight or sequence of flights, with a patient, donor organ or human tissue, or medical personnel are on board for the purpose of medical transportation, conducted by a part 135 certificate holder as authorized by the Administrator
- **Pilot in Command (PIC)** - Directly responsible for and is the final authority as to the operation of that aircraft.
- **Private Medical Use (PMU) Heliport** - The landing zone for incoming rotor wing aircraft whose program has a signed landing agreement and is compliant with annual heliport training. This area is closed to staff without PMU Heliport responsibilities or any external individuals that do not meet the training requirements.
- **Prior Permission Required (PPR)**- A PMU Heliport developed for exclusive use of the owner and persons authorized by the owner and about which the owner and operator ensure all authorized pilots are thoroughly knowledgeable. These features include but are not limited to approach/departure path characteristic, preferred heading, facility limitations, lighting, obstacles in the areas, and size and weight capacity of the facility
- **Transfer Center -** A specialized group of medical professionals that manage incoming and outgoing requests for patient transfer
- **Transport Team -** Designated Medical Center staff who transport patients in and out of Lurie Children's – Downers Grove via ambulance, helicopter, and fixed wing aircraft

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**POLICY STATEMENTS:**
Lurie Children's - Downers Grove heliport is a Private Medical Use Heliport. Heliports such as this are known as "Prior Permission Required" or "PPR". The PMU Heliport is used for helicopter transport of critically ill or injured patients and lifesaving organs and is essential to our mission of caring for children.

- The PMU Heliport may only be used by HAA operators with a signed landing agreement
- Lurie Children's Transport Team may only complete transports with programs that have an agreement with provisions for the Transport Team to fly with that specific HAA vendor
- Helicopter operational limits:
    - Maximum rotor diameter: 46 feet
    - Maximum gross weight: 10,000 lbs
- Lurie Children's - Downers Grove PMU Heliport Wind Restrictions. Per landing agreements no aircraft may land on the PMU Heliport when these conditions exist:
    - The maximum sustained winds are greater than 40 knots **AND/OR**
    - The maximum recorded peak gust in the preceding 30 minutes is greater than 40 knots **AND/OR**
    - The reported max gust spread during the preceding 30 minutes is greater than 20 knots
- A PIC's decision to decline, cancel, divert, or terminate a flight overrides any decision by any and all other parties to accept or continue a flight.
- Security is responsible for safekeeping during all flight operations, remaining present in the Flight Operations Area maintaining visual surveillance during takeoff and landing
- Transfer Center, Security, and Transport Team (if available) will remotely monitor heliport operations
- The heliport is restricted to authorized staff (Transport Team, Transfer Center, Security, Facilities and Environmental Health Services Director or designee)
- All landings must be reported to the Transfer Center and will be tracked and reviewed
- Any requests for filming and/or photography of the PMU Heliport will be coordinated by the Center for Transport Medicine Director or designee and Public Affairs; and will occur with an escort from the Transport Team or Security.
- The Center for Transport Medicine, Security and Facility Services will notify each other when the PMU Heliport is unavailable due to unfavorable weather conditions, mechanical matters, or maintenance on the PMU Heliport.
- Lurie Children's will have Landing Agreements with organizations that provide helicopter emergency medical transport services, including helicopters, pilots, flight crews, and training for the pilots and flight crews ("HAA provider").

**PROCEDURE:**

**General Criteria for all HAA Patient Transport and Heliport Utilization**

- All flights must be conducted under the Federal Aviation Administration (FAA) Part 135 HAA rules
- Helicopter transport may only be utilized for patients or organs transferring to or from Lurie Children's – Downers Grove
    - All other requests for utilization of heliport must be approved by Center for Transport Medicine Director or Chief Nurse Executive
- The PMU Heliport can accommodate one aircraft at a time. In the event of multiple helicopters arriving at the Lurie Children's - Downers Grove heliport:
    - The Transfer Center will communicate with respective HAA dispatch centers to inform HAA programs of multiple aircraft inbound
    - The pilots in command must communicate with other inbound helicopters and establish takeoff and landing plan or land at an alternate landing zone
- Pilots must utilize the Lurie Children's – Downers Grove AWOS to obtain weather information prior to arrival and monitor weather during approach and departure
- Flight operations may NOT be conducted if any of the follow conditions:

- The maximum sustained winds are greater than 40 knots
- The maximum recorded peak gust during the preceding 30 minutes is greater than 40 knots
- The reported max gust spread during the preceding 30 minutes is greater than 20 knots
- The FAA Part 135 HAA weather minimums are not met
- The Lurie Children's - Downers Grove Heliport is closed (this will be communicated to HAA programs' leadership teams)

**Lurie Children's - Downers Grove PMU Heliport Requirements**

- The PMU Heliport shall be equipped and maintained as follows:
  - A 40' x 40' touch down and lift off area (TLOF)
  - A 100'x 100' final approach and take off area (FATO)
  - AWOS installation and reporting with information accessible via:
    - Radio
    - Internet
    - Telephone
    - National Airspace Data Interchange Network (NADIN)
  - Multiple fire extinguishers
  - Pilot-controlled lighting, including windsock and ambient lighting
  - Hospital PMU Heliport Identification beacon (pilot-controlled)
  - Ambient lighting (pilot-controlled)
  - One to two illuminated windsocks (pilot-controlled lighting)
  - Obstruction marking
  - Non-slip surface
  - Perimeter markings
  - Landing pad markings
  - Use of reflective materials
  - Security cameras and recording
  - Recording of all HAA communications
  - On-site telephone

**Lurie Children's Flight Request Process for HAA Transport**

- Transfer Center will utilize acuity to determine need for flight and, as needed, conference with Transport Team and Medical Control Physician about clinical indication for air transport
- Review AWOS before flight request
  - No flights may be accepted to the Lurie Children's – Downers Grove heliport when winds are above parameters. (see general flight criteria)
- Transfer Center will contact HAA provider's communication center to check helicopter availability and request flight
  - Lurie Children's Transport Team members may only fly with HAA provider with which an extended landing agreement is executed
  - **The Transfer Center will not provide any information regarding the patient's condition or acuity at the time of flight request**. Requests should be submitted to a vendor dispatch center stating "We have a request to [INSERT facility name]. The current Lurie Children's – Downers Grove AWOS shows [INSERT current wind speed]." If applicable, include number of Lurie Children's transport team members, current weights and whether the aircraft will meet the team at Lurie Children's (or alternate landing zone). If requested, patient weight may be provided, but no additional clinical information or patient status should be shared prior to flight acceptance or denial.
    - If the flight is accepted:
      - The Lurie Children's Transfer Center will provide the HAA communication center with the following information:
        - Patient demographics (including weight)

        - Lurie Children's destination unit (and bed number if available)
        - Lurie Children's Transport Team members names and weights (If Lurie Children's Transport Team is completing the transport)
    - The HAA provider's communication center will provide the following information:
        - Estimated Time of Arrival to pick up
        - If a stretcher is required for patient unloading
- If the flight is not accepted:
    - If the reason for the flight being declined is weather or safety reasons, no other flight programs may be contacted by the Lurie Children's Transfer Center.
        - If the weather has dissipated or changed the original and/or one other flight program may be contacted
    - If the flight is declined for non-weather or non-safety reasons, other flight programs may be contacted to complete the transport.

- Transports with Lurie Children's Transport Team
    - Helicopter may pick up the Lurie Children's Transport Team at PMU Heliport or alternate landing zone
        - Transfer Center and the HAA communication center will coordinate landing zone
        - Lurie Children's PMU Heliport
            - If the Transport Team is being picked up at the PMU Heliport, Lurie Children's Transfer Center will notify security of the incoming flight at least 15 minutes prior to arrival with the HAA program name and number of souls on board.
            - Once the aircraft's engine is off and the rotor blades are not spinning and the team is cleared to approach the aircraft, the transport team will receive a HAA provider safety briefing
            - The Transport Team members and equipment will be secured in the helicopter as required by the aviation vendor
            - Security will remain in the flight operations area until the aircraft has departed
        - Alternate Landing Zone
            - Lurie Children's Transport Team will travel to alternate landing zone site via ground ambulance provider
            - Transfer Center will notify ground ambulance dispatch center for the use and dispatch of Lurie Children's Ambulance
            - Lurie Children's Transport Team will remain in the ambulance until aircraft has been shut down and rotor blades are no longer rotating
            - Once cleared to approach the aircraft the transport team will receive a HAA provider safety briefing
            - The Transport Team members and equipment will be secured in the helicopter as required by the aviation vendor
    - Patient loaded leg of transport to Lurie Children's – Downers Grove (Lurie Children's Transport Team or HAA provider only)
        - Lurie Children's - Downers Grove PMU Heliport
            - If additional assistance is required on the heliport, the pilot may communicate via radio to Lurie Children's Transfer Center or the HAA provider's communication center will call Lurie Children's Transfer Center with the request for assistance
            - Security will remain the Flight Operations Area until the aircraft has landed, is shut down and cleared to approach the aircraft
            - Once the aircraft is shut down and rotor blades are no longer spinning and after disembarking from the aircraft, the patient and patient care equipment is off loaded from the aircraft or transferred to the stretcher (as applicable).
            - Security will accompany the transport team to the receiving unit and will accompany the flight crew back to the PMU heliport when patient handoff is completed

        - Security will remain in the flight operations area until the aircraft has departed
    - Alternate Landing Zone
        - Transfer Center will coordinate ground ambulance pick up of the Lurie Children's Transport Team with the Lurie Children's ground ambulance
        - Lurie Children's Ambulance will not be utilized for non-Lurie Children's Transport Team transports from the alternate landing zone to Lurie Children's – Downers Grove without approval from Center for Transport Medicine leadership/Leader on Call
- Transport of Organs
    - If organ transplant is time-critical, such as heart transplants, and, if the general criteria for HAA patient transport are satisfied, the Transplant Team will arrange with an HAA provider to transport the organ.
        - The Transplant Team will determine the appropriate mode of transport
        - The Organ Procurement Coordinator will contact a HAA provider to arrange transportation.
        - The Transplant Team will retrieve the organ at a specified location. After procurement of the organ, the HAA provider will arrange for helicopter pick up of the Transplant Team from a specified location and transport them back to Lurie Children's
        - The Organ Procurement Coordinator will communicate the transport plan with the Transfer Center
        - Lurie Children's Transfer Center will notify security of the incoming flight at least 15 minutes prior to arrival with the HAA program name, number of souls on board and destination unit.
        - Security will remain the Flight Operations Area until the aircraft has landed, is shut down and cleared to approach the aircraft
        - Security will accompany the organ procurement team to the destination unit and will accompany the team back to the PMU heliport when handoff is completed
        - Security will remain in the flight operations area until the aircraft has departed

**Stakeholder Training and Safety Requirements**

- Transport Team and Transfer Center
    - Complete annual helicopter and PMU Heliport safety training
    - Maintain PMU Heliport safety and emergency supplies
    - Complete PMU Heliport inspection checklist
    - Review the Lurie Children's PMU Heliport Evacuation Plan annually
    - Assist non-Lurie Children's HAA transports as available/able including meeting the HAA provider on the heliport
    - Collaborate with Security, Facility Services and Environmental Health and Safety Directors or designees to ensure safe PMU Heliport Operations
- Transplant Team
    - Complete annual helicopter and PMU Heliport safety training
- Security Services
    - Complete annual helicopter and PMU Heliport safety training
    - Complete and document routine inspections of the PMU Heliport including:
        - Three times/ day inspection of the heliport
        - Monthly PMU Heliport Inspection (PMU Heliport checklist)
    - Maintain positive traffic control for all aircraft take offs and landings
    - Monitor all helicopter arrivals and departures from the Flight Operations Area
    - Escort Transport Team, Transplant Team and visiting HAA flight teams to and from the PMU Heliport
    - Remain the Flight Operations Area on approach until the aircraft has landed, is shut down and cleared to approach the aircraft and on departure until the aircraft is clear of the heliport area
    - In the case of an emergency (smoke or fire related to helicopter incident) activate the Lurie Children's - Downers Grove Heliport Evacuation Plan
    - Collaborate with Center for Transport Medicine, Facility Services and Environmental Health and Safety Directors or designees to ensure safe PMU Heliport Operations

    - Monitor for drone activity
        - Notify Transfer Center of any drone usage or activity in the area
        - Complete drone information intake form and send to the Transfer Center
- Facility Services
    - Complete annual helicopter and PMU Heliport safety training
    - Complete and document routine inspections of the PMU Heliport
    - Manage snow and ice on the PMU Heliport and ramp
    - Collaborate with Center for Transport Medicine, Security Services and Environmental Health and Safety Directors or designees to ensure safe PMU Heliport Operations
- Environmental Health Services (Director or Designee)
    - Complete annual helicopter and PMU Heliport safety training
    - Collaborate with Center for Transport Medicine, Security Services and Security Services Directors or designees to ensure safe PMU Heliport Operations
- HAA Provider Teams
    - HAA Pilots will complete annual pilot helicopter and PMU Heliport safety training and review education at least every 180 days
    - HAA Flight Crew will complete annual helicopter and PMU Heliport safety training
    - HAA provider leadership teams will notify Lurie Children's Safety Officer or designee of changes to team members
    - Initial and recurrent training will be completed within 30 days of assignment
        - Exceptions will be reviewed by the Lurie Children's Center for Transport Medicine on a case by case basis
    - Requests for non-patient landing (e.g. new pilot training) will be coordinated with the Lurie Children's Director or Safety Officer

**PMU Heliport Committees**

- PMU Heliport Operations Committee
    - Membership will include the Center for Transport Medicine's Medical Director, Director, Safety Officer & one Transport/Transfer Center team member and Senior Leadership, Security, Facilities, Emergency Preparedness, Risk, Lurie Children's Legal, Transplant and Chief of Community Health.
    - The Committee will meet at least quarterly each year and may meet more frequently, if circumstances require. At each meeting, among other things, the Committee will review operational and safety concerns including updates on heliport operations and maintenance, HAA vendor programs and safety concerns.

**REFERENCES:**

- Administrative Policy: Heliport Access and Security
- Administrative Policy: Heliport Operating Procedures

**EDUCATION PLAN:**

- Education regarding this policy will be provided to staff at the time of hire, during routine competency reviews, and whenever significant revisions are made to ensure continued compliance and understanding.

PIVOTAL lighting design
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21 July 2026

**RE: LCH Downer's Grove – Exterior Lighting DarkSky Considerations, Follow-up**

Pivotal Lighting Design/Affiliated Engineers, Inc. (Pivotal/AEI) has received and reviewed the IDNR consultation letter dated February 17, 2026. The letter included the following recommendations related to uplight and light trespass. Pivotal/AEI responses are included below each excerpt.

***Morton Arboretum INAI***
*Impacts to this INAI site should be avoided or minimized as much as possible. However, if impacts are necessary, the Department recommends:*
*• Any required night lighting should follow International Dark-Sky Association's (IDA) Five Principles for Responsible Outdoor Lighting to minimize the effect of light pollution on wildlife: Five Principles for Responsible Outdoor Lighting | DarkSky International.*



**Pivotal/AEI RESPONSE:** The Five Principles for Responsible Outdoor Lighting are intentionally directional and non-technical in nature. The principles are insufficiently precise to be used as a pass/fail standard to evaluate a lighting design. Commentary on each principle is provided below.

1. Useful – The design team has carefully selected lighting solutions to minimize light pollution and light trespass from the project site, and all lighting specified has a clear purpose. The design team is sensitive to the negative impacts of stray light on local habitats and wildlife.
2. Targeted – All exterior lighting has been selected to minimize light spill, and all lighting is directed downward, with the exception of required flagpole lighting and signage lighting. Lighting is only provided where it serves a clear purpose.
3. Low Level – Exterior light level targets have been set at the minimum recommended threshold per Illuminating Engineering Society (IES) recommendations and code requirements. Care has been taken to limit light spill and over-lighting.
4. Controlled – Exterior lighting will be controlled via an astronomical timeclock system, allowing it to be dimmed or turned off when not needed.
5. Warm-colored – Exterior lighting is specified as warm white (2700K) to minimize short wavelength light emission from the site.

*The Department also offers the following conservation measures be considered to help protect native wildlife and enhance natural areas in the project area: If temporary or permanent lighting is required, the Department recommends the following lighting recommendation to minimize adverse effects to wildlife:*
*• All lighting should be fully shielded fixtures that emit no light upward.*
**Pivotal/AEI RESPONSE:** The design does not comply with this recommendation. Flagpole lighting and helipad marker lighting (specified by others) are examples of luminaires which are required on this project and will have an uplight component by necessity of their respective uses. Internally illuminated building signage (specified by others) will also have an uplight component.
All other exterior lighting is either DarkSky Approved with U1 BUG uplight rating or better (L1-series, L2-series, L4, W1, W2) or will emit zero uplight by virtue of being fully recessed on the underside of a horizontal surface (C10, C11, L5).

*• Only "warm-white" or filtered LEDs (CCT < 3,000 K; S/P ratio < 1.2) should be used to minimize blue emission.*
**Pivotal/AEI RESPONSE:** All new exterior lighting on the project will be < 3000K CCT and < 1.2 S/P ratio as recommended, with the exception of existing village roadway lighting along Lacey Rd and Woodcreek Dr., which will be replaced (if necessary due to construction activities) with an exact match for consistency of lighting conditions along these roadways.

*• Only light the exact space with the amount (lumens) needed to meet facility safety requirement.*
**Pivotal/AEI RESPONSE:** Target light levels for exterior lighting have been established based on Illuminating Engineering Society (IES) recommendations and applicable code requirements, and care will be taken to avoid over-lighting exterior spaces beyond the established target illuminance, as recommended.

*• If LEDs are to be used, avoid the temptation to over-light based on the higher luminous efficiency of LEDs*
**Pivotal/AEI RESPONSE**: This project will exclusively utilize LED light sources, as is typical for nearly all new commercial/institutional projects. Pivotal/AEI evaluate luminaire selections based on photometric calculations and extensive experience with LEDs, so there is no tendency or temptation to over-light due to the use of LED sources.

PIVOTAL lighting design
10 S. La Salle Street
Suite 2700
Chicago, IL 60603
312.977.2800

**Clarifications and Definitions:**

1. "DarkSky Compliant"
    a. This term has no precise definition. It is sometimes used informally to refer to luminaires that emit minimal or no light upward into the sky. Since there is no technical definition, it is not possible to evaluate compliance.
    b. Neither the IDNR letter nor the village zoning code requires or recommends the use of "DarkSky Compliant" luminaires.
2. "DarkSky Approved"
    a. Lighting manufacturers are invited to submit luminaires to DarkSky International along with a fee and supporting documentation, and DarkSky will verify that the luminaires are compliant with their criteria focused on reducing light pollution.
    b. Upon approval, the luminaires are considered "DarkSky Approved" and may be listed in DarkSky's product database. The DarkSky Approved logo can be used on product literature. The technical criteria for this program are available online on DarkSky's website. DarkSky Approved luminaires are permitted to have a small percentage of light output upward.
    c. Neither the IDNR letter nor the village zoning code requires or recommends the use of "DarkSky Approved" luminaires.
3. "Fully Shielded"
    a. This term is equivalent to a BUG uplight rating of U0, i.e. no light emitted above 90° from nadir.
4. BUG Rating
    a. The industry standard luminaire classification system for outdoor luminaires developed by the Illuminating Engineering Society in collaboration with DarkSky International. Luminaires are evaluated for Backlight, Uplight, and Glare. Ratings range from zero to five. For example, a luminaire with zero uplight will have a U0 rating. A luminaire with between zero and ten lumens directed above the horizontal will have a U1 rating. BUG ratings for each specified luminaire on the project are listed in the luminaire schedule.

Sincerely,

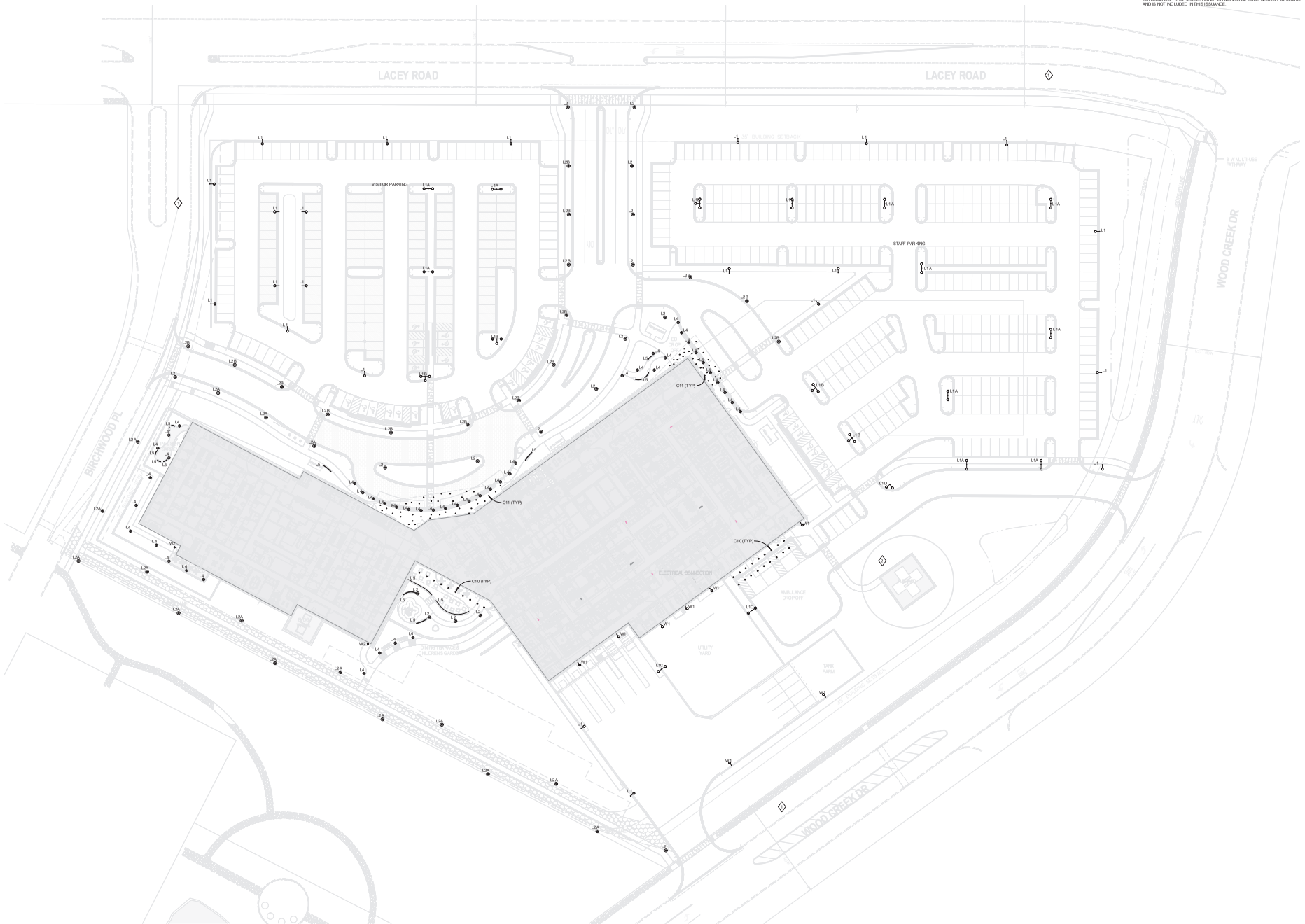
**Grant Kightlinger IALD, CLD, IES**
Senior Lighting Designer

Pivotal Lighting Design | Affiliated Engineers, Inc.
gkightlinger@pivotal-aei.com | (312) 977-2852

## SHEET KEYNOTES

1 EXISTING PUBLIC STREET LIGHTING TO BE MAINTAINED AND SELECT LUMINAIRES TO BE RELOCATED AS NEEDED TO ACCOMMODATE SITE PLAN. PUBLIC STREET LIGHTING, LIGHTING FOR GOVERNMENT FLAGS, AND LANDSCAPE ACCENT LIGHTING ARE EXEMPT FROM OUTDOOR LIGHTING REGULATIONS PER MUNICIPAL CODE SECTION 28.10.030-3 AND ARE NOT INCLUDED IN THIS ISSUANCE.

2 HELIPAD MARKER LIGHTING AND FLOODLIGHTING WILL BE PROVIDED BY OTHERS TO SATISFY FAA REGULATIONS AND TO PROVIDE ADDITIONAL ILLUMINATION FOR EMERGENCY PATIENT TRANSPORT. FLOODLIGHTING IS NORMALLY OFF, AND WILL ONLY BE ACTIVATED DURING HELIPAD OPERATIONS. LIGHTING FOR EMERGENCY USE BY MEDICAL PERSONNEL IS EXEMPT FROM OUTDOOR LIGHTING REGULATIONS PER MUNICIPAL CODE SECTION 28.10.030-3 AND IS NOT INCLUDED IN THIS ISSUANCE.




1 ELECTRICAL SITE LIGHTING PLAN
1" = 30'-0"

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Skender
LJC
DESIGN & ENGINEERING
ZGF
ZIMMER GUNSUL FRASCA ARCHITECTS LP
Affiliated Engineers
Affiliated Engineers, Inc.
5602 Research Park Boulevard
Madison, WI 53719
Tel 608.238.2616

# LURIE CHILDREN'S HOSPITAL - DOWNERS GROVE

NOT FOR CONSTRUCTION

ANN & ROBERT H. LURIE CHILDREN'S HOSPITAL OF CHICAGO
3300 Lacey Rd, Downers Grove, IL 60515

DRAWING ISSUE

| # | DESCRIPTION | DATE |
|---|---|---|
| | ISSUE FOR PUD | 6/29/2020 |

BUILDING KEY PLAN

BUILDING 2 BUILDING 1

SCALE: 1" = 30'-0"
0 15 30 60

DRAWING TITLE
ELECTRICAL SITE LIGHTING PLAN

DRAWING NO.
E0.302

Job # 25.009982

6/29/2020 3:19:23 PM




ELECTRICAL SITE LIGHTING PHOTOMETRIC PLAN
1" = 30'-0"

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# LURIE CHILDREN'S HOSPITAL - DOWNERS GROVE

NOT FOR CONSTRUCTION

ANN & ROBERT H. LURIE CHILDREN'S HOSPITAL OF CHICAGO
3300 Lacey Rd, Downers Grove, IL 60515

DRAWING ISSUE

| # | DESCRIPTION | DATE |
|---|---|---|
| 1 | ISSUE FOR PUD | 6/29/2016 |

BUILDING KEY PLAN

BUILDING 2 BUILDING 1

DRAWING TITLE
ELECTRICAL SITE LIGHTING PHOTOMETRIC PLAN

DRAWING NO.
E0.303

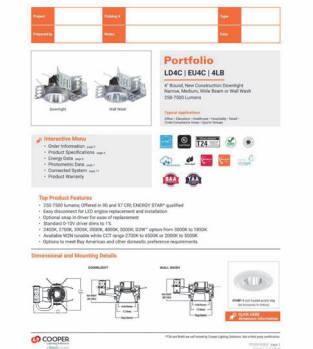
Job # 25.009982

| TYPE | DESCRIPTION | MANUFACTURER | CATALOG NO. | SOURCE | DRIVER | WATTAGE | VOLTAGE | LOCATION | NOTES | BUG RATING (2) |
|---|---|---|---|---|---|---|---|---|---|---|
| C10 | RECESSED ROUND DOWNLIGHT WITH NOMINAL 4 IN. APERTURE, 0 VERTICAL TRIM, AND MEDIUM BEAM ANGLE. WET-RATED. | PORTFOLIO | LD4C-S-E0-27-D10-XX-XX-XX-XX | 2,700 K 90+ CRI 1800 LUMENS | INTEGRAL 0-10V DIMMING TO 1% | 16 | UNV | AMBULANCE CANOPY | PROVIDE WITH QUICK DISCONNECT DRIVER OR LINE VOLTAGE SUDE FOR EASE OF MAINTENANCE. | B1-U0-G0 |
| | | ORE PRE-APPROVED EQUAL | | | | | | | | |
| C11 | RECESSED ROUND DOWN LIGHT WITH NOMINAL 2 IN. APERTURE, TRIMLESS, AND MEDIUM BEAM ANGLE. WET RATED. | LIGHTHEADED | T3RF-XX-XX-XX-27-B1-11-XX | 2,700 K 90+ CRI 870 LUMENS | INTEGRAL 0-10V DIMMING TO 1% | 10 | UNV | ENTRY CANOPY | PROVIDE WITH QUICK DISCONNECT DRIVER OR LINE VOLTAGE SUDE FOR EASE OF MAINTENANCE. | B1-U0-G0 |
| | | ORE PRE-APPROVED EQUAL | | | | | | | | |
| L1 | LED POLE MOUNTED LUMINAIRE W/ TYPE IV WIDE OPTIC, MOUNTED ON 30 FT. TALL ROUND ALUMINUM POLE. SINGLE HEAD. | KIM LIGHTING | LRD 52-6...25-27-XX-4 IB UNV-XX-XX-XX | 2,700 K 80+ CRI 300 LUMENS | INTEGRAL 0-10V DIMMING TO 10% | 2.5 | UNV | SITE / PARKING | | B1-U0-G1 |
| | | ORE PRE-APPROVED EQUAL | | | | | | | | |
| L1A | LED POLE MOUNTED LUMINAIRE W/ TYPE IV WIDE OPTIC, MOUNTED ON 30 FT. TALL ROUND ALUMINUM POLE. DOUBLE HEAD (*). | KIM LIGHTING | (2) LRD 5-36...0 52 7K5-4IB U NV-XX-XX-XX | 2,700 K 80+ CRI 3,000 LUMENS / HEAD | INTEGRAL 0-10V DIMMING TO 10% | 25 / HEAD | UNV | SITE / PARKING | | B1-U0-G1 |
| | | ORE PRE-APPROVED EQUAL | | | | | | | | |
| L1B | LED POLE MOUNTED LUMINAIRE W/ TYPE IV WIDE OPTIC, MOUNTED ON 30 FT. TALL ROUND ALUMINUM POLE. TRIPLE HEAD. | KIM LIGHTING | (3) LRD 5-36...0 52 7K5-4IB U NV-XX-XX-XX | 2,700 K 80+ CRI 3,000 LUMENS / HEAD | INTEGRAL 0-10V DIMMING TO 10% | 25 / HEAD | UNV | SITE / PARKING | | B1-U0-G1 |
| | | ORE PRE-APPROVED EQUAL | | | | | | | | |
| L1C | LED POLE MOUNTED LUMINAIRE W/ TYPE IV WIDE OPTIC, MOUNTED ON 30 FT. TALL ROUND ALUMINUM POLE. DOUBLE HEAD (*). HIGH OUTPUT. | KIM LIGHTING | (2) LRD 5-36...0 52 7K5-4IB U NV-XX-XX-XX | 2,700 K 80+ CRI 6,700 LUMENS / HEAD | INTEGRAL 0-10V DIMMING TO 10% | 65 / HEAD | UNV | SITE / LOADING AREA | | B1-U0-G2 |
| | | ORE PRE-APPROVED EQUAL | | | | | | | | |
| L1D | LED POLE MOUNTED LUMINAIRE W/ TYPE IV WIDE OPTIC, MOUNTED ON 30 FT. TALL ROUND ALUMINUM POLE. DOUBLE HEAD (*). | KIM LIGHTING | (2) LRD 5-36...0 52 7K5-4IB U NV-XX-XX-XX | 2,700 K 80+ CRI 6,700 LUMENS / HEAD | INTEGRAL 0-10V DIMMING TO 10% | 65 / HEAD | UNV | SITE / LOADING AREA | | B1-U0-G2 |
| | | ORE PRE-APPROVED EQUAL | | | | | | | | |
| L1F | LED POLE MOUNTED LUMINAIRE W/ TYPE IV WIDE OPTIC, MOUNTED ON 20 FT. TALL ROUND ALUMINUM POLE. SINGLE HEAD. | KIM LIGHTING | LRD 52-6...20-27-XX-4 IB UNV-XX-XX-XX | 2,700 K 80+ CRI 3,000 LUMENS / HEAD | INTEGRAL 0-10V DIMMING TO 10% | 25 / HEAD | UNV | SITE / PARKING | | B1-U0-G1 |
| | | ORE PRE-APPROVED EQUAL | | | | | | | | |
| L1G | LED POLE MOUNTED LUMINAIRE W/ TYPE IV WIDE OPTIC, MOUNTED ON 20 FT. TALL ROUND ALUMINUM POLE. DOUBLE HEAD (*). | KIM LIGHTING | (2) LRD 5-36...0 52 7K5-4IB U NV-XX-XX-XX | 2,700 K 80+ CRI 3,000 LUMENS / HEAD | INTEGRAL 0-10V DIMMING TO 10% | 25 / HEAD | UNV | SITE / PARKING | | B1-U0-G1 |
| | | ORE PRE-APPROVED EQUAL | | | | | | | | |
| L2 | LED POST-TOP LUMINAIRE WITH TYPE V WIDE OPTIC, MOUNTED ON 10FT. TALL ROUND ALUMINUM POLE. | KIM LIGHTING | LRD 52-6...20-27-XX-4 IB UNV-XX-XX-XX | 2,700 K 80+ CRI 2,000 LUMENS / HEAD | INTEGRAL 0-10V DIMMING TO 10% | 25 / HEAD | UNV | SITE / ENTRY ROAD | | B2-U0-G0 |
| | | ORE PRE-APPROVED EQUAL | | | | | | | | |
| L2A | LED POST-TOP LUMINAIRE WITH TYPE I OPTIC AND BACKLIGHT CONTROL, MOUNTED ON 12FT. TALL ROUND ALUMINUM POLE. | KIM LIGHTING | LR 20-36...0 52 7K5-3 UNV-XX-XX-XX-BC | 2,700 K 80+ CRI 2,000 LUMENS / HEAD | INTEGRAL 0-10V DIMMING TO 10% | 20 / HEAD | UNV | SITE / FIRE LANE | | B1-U0-G1 |
| | | ORE PRE-APPROVED EQUAL | | | | | | | | |
| L2B | LED POST-TOP LUMINAIRE WITH TYPE IV OPTIC, MOUNTED ON 12 FT. TALL RO UND ALUMINUM POLE. | KIM LIGHTING | LRD 52-6...20-27-XX-4 UNV-XX-XX-XX | 2,700 K 80+ CRI 2,000 LUMENS / HEAD | INTEGRAL 0-10V DIMMING TO 10% | 20 / HEAD | UNV | SITE / SIDEWALKS | | B1-U0-G1 |
| | | ORE PRE-APPROVED EQUAL | | | | | | | | |
| L4 | LED BOLLARD WITH 40 IN. H BIGHT AND 360 DEGREE OPTIC | FORMS&SURFACES | LBHL-D4 (S) MOD 360 K | 2,700 K 80+ CRI 700 LU MENS | INTEGRAL 0-10V DIMMING TO 10% | 16 | UNV | SITE | | B0-U1-G0 |
| | | ORE PRE-APPROVED EQUAL | | | | | | | | |
| L5 | LED, FLEXIBLE SIDE-BEND, LOW-VOL TAGE IN ENCAPSULATED TAPE. WET-RATED. | G7L | KURV-S9-XX-WET-2.7-3.-S-ENCT-L-XX | 270 DK 2.0E LUMENS / FT | REMO TE, 0-10V DIMMING TO 10% | 3 / FT | 24V / UNV | SITE | | B0-U1-G0 |
| | | ORE PRE-APPROVED EQUAL | | | | | | | | |
| W1 | LED WALL-MOUNTED AREA LIGHT WITH TYPE IV WIDE OPTIC | KIM LIGHTING | LRD 52-6...45-27-XX-4 UNV-XX-XX-XX | 2,700 K 70+ CRI 870 LUMENS | INTEGRAL 0-10V DIMMING TO 10% | 8.5 | UNV | SITE / LOADING DOCK | MOUNTING HEIGHT SH ALL BE 2.0 4" ABOVE FINISHED GR ADE OR AS REPRESENTED ON ARCHITECTURAL ELEVATION DRAWINGS | B1-U0-G2 |
| | | ORE PRE-APPROVED EQUAL | | | | | | | | |
| W2 | LED WALL PACK W/ TH TYPE IV OPTIC | LIGMAN | ULEW-300 11-14 W-LED-T4-40 27-XX-120 277-V | 270 DK 9.0+ CRI 1 428 LUMENS / FT | INTEGRAL 0-10V DIMMING TO 10% | 14 | UNV | SITE / SOUTH EXPRESS | MOUNTING HEIGHT SH ALL BE 12'-0" ABOVE FINISHED GR ADE OR AS REPRESENTED ON ARCHITECTURAL ELEVATION DRAWINGS | B0-U0-G0 |
| | | ORE PRE-APPROVED EQUAL | | | | | | | | |

NO TES:

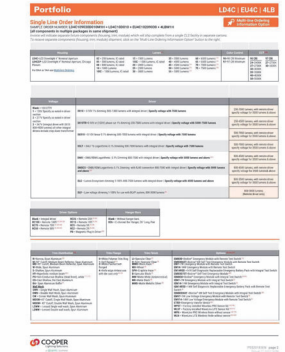
1. ALL OUTDOOR LIGHTING HAS BEEN SELECTED TO ALIGN WITH DARKSKY INTERNATIONAL'S FIVE PRINCIPLES OF RESPONSIBLE OUTDOOR LIGHTING. ALL LIGHT FIXTURES EMITTING OVER 180 0 LUMENS O UTPUT ARE SPECIFIED AS FULL CUTOFF LUM.
2. BUG RATING IS A STANDARDIZED CLASSIFICATION SYSTEM DEVELOPED BY THE ILLUMINATING ENGINEERING SOCIETY (IES) AND DARKSKY INTERNATIONAL WHICH PROVIDES RATINGS FOR LUMINAIRES BASED ON LIGHT O UTPUT WITHIN BACKLIGHT (B), UPLIGH T (U), AN D GLARE (G) ZONES






Refer to Luminaire Schedule for manufacturer's catalog ordering code, required lamping, finishes, modifications, and/or required accessories.





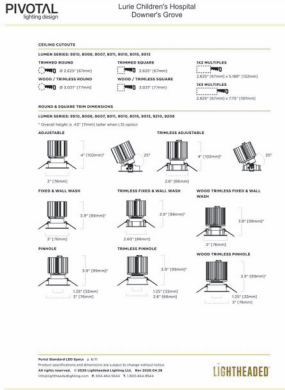

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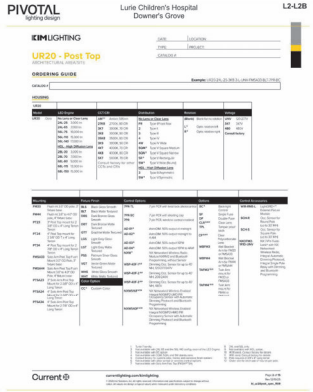

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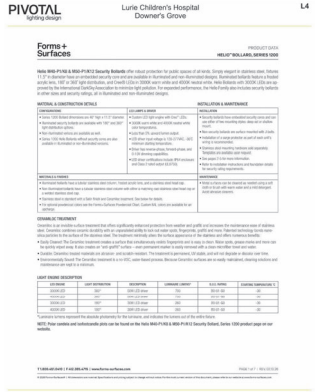

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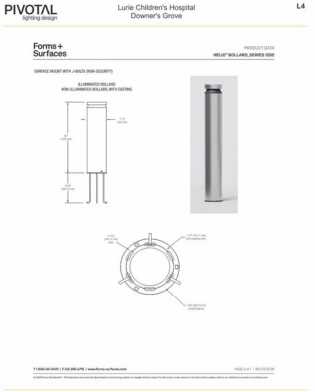

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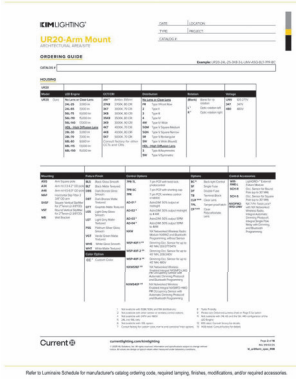

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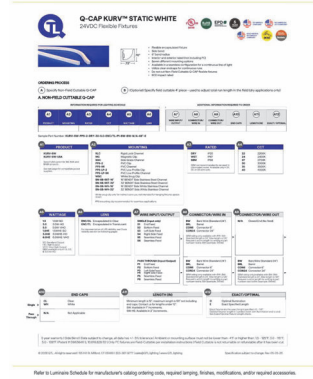

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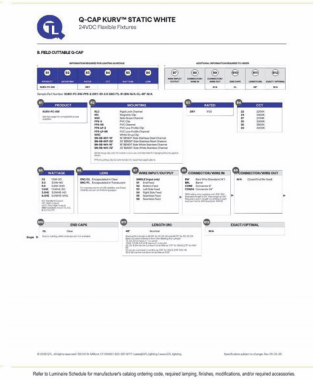

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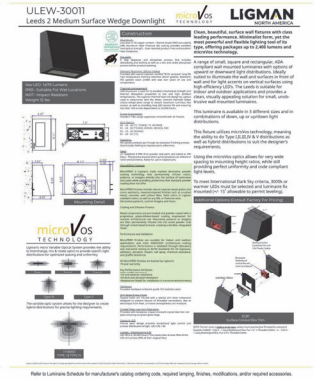

Refer to Luminaire Schedule for manufacturer's catalog ordering code, required lamping, finishes, modifications, and/or required accessories.





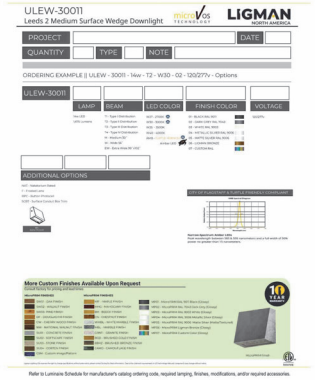

Refer to Luminaire Schedule for manufacturer's catalog ordering code, required lamping, finishes, modifications, and/or required accessories.






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