VILLAGE OF DOWNERS GROVE
PLANNING AND ZONING COMMISSION

VILLAGE OF DOWNERS GROVE CIVIC CENTER
850 CURTISS AVENUE

January 5, 2026

7:00 p.m.

AGENDA

1. **Call to Order**
    a. Pledge of Allegiance
2. **Roll Call**
3. **Approval of Minutes**
    a. November 17, 2025
4. **Public Hearings**
    a. 25-PZC-0034: a petition seeking a map amendment from B-3, General Services and Highway Business, to B-3/P.U.D, General Services and Highway Business/Planned Unit Development, a Planned Unit Development and a Special Use for a Drive-Through. The property is located at the northeast corner of the intersection of Butterfield Road and Downers Drive, commonly known as 1434 Butterfield Road (PINs 06-304-04-010 and 06-304-04-011). Petitioner, Sarah Wilkerson; Owner, Alpine Income Property Op.
    b. 25-PZC-0039: The petitioner is requesting the consideration of a petition seeking a rezoning from R-2, Residential Detached House 2, to R-4, Residential Detached House 4. The property is northeast of the intersection of Grand Avenue and Hill Street, commonly known as 424 Hill Street, Downers Grove, IL (PIN: 09-08-411-046). Kile Kapral, Petitioner and Owner, KAMU 25, LLC
5. **Public Comment**
6. **Adjournment**

<u>THIS TENTATIVE REGULAR AGENDA MAY BE SUBJECT TO CHANGE</u>

VILLAGE OF DOWNERS GROVE
PLANNING AND ZONING COMMISSION MEETING

November 17, 2025, 7:00 P.M.

Chairman Rickard called the November 17, 2025 meeting of the Downers Grove Planning and Zoning Commission to order at 7:00 p.m. and led the Planning and Zoning Commissioners and public in the recital of the Pledge of Allegiance.

ROLL CALL:

PRESENT: Chairman Rickard, Commissioners Frankovic, Toth, Patel, Lincoln, Eberhardt

STAFF: Planning Manager Jason Zawila; Flora Leon, Senior Planner; Carter Moran, Staff Planner

OTHERS PRESENT: Vick Mehta, Laurance Lilja, Scott Richards, Amy Tiberi, Catherine Benavente, Alexis Pratt, Casey Weishaar, Jean Bates, Jack Rogers, Diana Doyle, Betsey Finnan, Ashley Bellus, Kevin Barto, James Gunner, Brian Doyle, Joseph Pfeiffer, Bill Nalley, Laura Nalley, John LeDonne, Jessica Jung, Christopher Jackson, Cindy Shaffer, Timothy Robertson, Kristen Doyle, Jeff Weishaar, Donna Chapin, Scott Richards,

APPROVAL OF MINUTES

A. OCTOBER 6, 2025 MEETING

Commissioner Lincoln mentioned a description of the location of the property on Ogden should be edited, but said they had to leave it as is, because that is what was presented at the previous meeting.

Motion to approve the minutes by Commissioner Lincoln, seconded by Commissioner Toth as amended.

PUBLIC HEARING

FILE 25-PZC-0032: A PETITION TO CONSIDER A SPECIAL USE FOR A DRIVE-THROUGH AT 535 OGDEN AVENUE. THE PROPERTY IS CURRENTLY ZONED B-3, GENERAL SERVICES AND HIGHWAY BUSINESS. THE PROPERTY IS LOCATED IMMEDIATELY SOUTHEAST OF THE INTERSECTION OF STERLING ROAD AND OGDEN AVENUE, WITH THE ADDRESS OF 535 OGDEN AVENUE (PINS 09-05-403-018, 09-05-403-001). PETITIONER AND OWNER, VICK MEHTA.

Vick Mehta, Owner of Indvestia Capital, presented for a development at 535 Ogden Avenue, which was formerly a bank building that included a drive-through. He explained they are looking to

redevelop the property by reusing the same building, taking down the drive-through canopy, and adding a drive-through coffee shop on the east end and another tenant on the west end.

Chris Jackson, architect, explained the location and showed images of the property and the existing site plan. He went over the proposal and site plan. He noted that the canopy would be removed, but the drive-through window portion would stay. He expressed they will repave the parking lot, do restriping, add pedestrian access from Ogden and Sterling, relocate the main entrances to the front of the building, and add a new sidewalk and extension for outdoor seating. He talked about the landscape plan and landscape buffer above the retaining wall on the south end of the property, with fencing that would provide a screen from the residential neighborhood behind it. Mr. Jackson displayed the floor plan and new signage. He discussed the special use standards, B-3 zoning, and said it was consistent with the Comprehensive Plan.

Chairman Rickard asked for any questions for the petitioner.

Commissioner Toth commented that he did not see anything about the voice box for ordering. Mr. Jackson said it would be in the space in front of the crosswalk from Sterling, facing west.

Commissioner Lincoln asked about the southern end of the property and if there was already a fence there. He inquired about the sound from the voice box being an issue for the residential area. Mr. Jackson responded yes, but it was not complete and hard to see. He added that both the fence and hedge row will be replaced with a solid 8-foot fence and hedgerow, and the voice box will be projecting in the opposite direction.

Commissioner Eberhardt asked whose fence was there right now. Mr. Jackson answered it is theirs.

Commissioner Eberhardt inquired about the height of the existing fence. Mr. Jackson stated that he had not measured it, but he guessed 6 to 8 feet.

Commissioner Frankovic asked if any exterior lighting would be added to the lot. Mr. Jackson responded that when they take the canopy out there will be a dark spot, so they are going to add a pole light in the middle righthand side.

Commissioner Lincoln inquired if they have any perspective tenants. Mr. Mehta answered that they are 95% sure on the tenants on the east side with the drive-through being a coffee shop, and they have some leads for the west side as well, mostly retail tenants.

Chairman Rickard asked if there would be pavement markings or signage to warn people about the stacking drive-through being directly in front of the entrance into the western space. Mr. Mehta responded it is up to the user if they want to use the entrance on the west side or not, because they are going to install a new entrance on the north side as well. Mr. Jackson added that the idea would be to use the main entrance. Mr. Mehta also pointed out that they are not asking for any changes to the right in and right out on Ogden, as they do not want people driving into the neighborhood.

Commissioner Frankovic asked where the potential outdoor seating would be. Mr. Jackson answered the top right of the building that will have a blended curb there as well.

Chairman Rickard asked for public comment.

Donna Chapin, resident, requested that the entrance/exit on Sterling be only a right out and a left in, as the residents there already have so much cut-through traffic from Ogden Avenue. She stated that there are new houses with young kids up and down the street now, so she is concerned about them being run over.

Chairman Rickard expressed that the only thing they are really reviewing with this request is the drive-through window.

Another resident (name inaudible), voiced concerns about having the drive-through in this area.

Chairman Rickard asked for the staff report.

Carter Moran, Staff Planner, gave the staff report for the special use request. He stated that the property is located southeast of the intersection of Ogden Avenue and Sterling Road and is zoned B-3. He said all noticing requirements were met and they received three comments from the public, two were general in nature and one wanting to ensure vehicles could not take the left exit onto Sterling. He explained that the petition is for a special use to establish a drive-through, and the proposal includes the conversion of the existing drive-through financial building into a two-unit building with an accessory drive-through for restaurant use. He displayed the 50-foot drive-through setback from the adjoining residential district, the outline of the proposed drive-through lane, menu board, ordering speaker, and pickup window, which are located outside of the setback. He noted that an 8-foot privacy fence will be installed along the south lot line, a new fence as part of the renovation for the existing trash enclosure, a required pedestrian connection from Sterling Rd and Ogden Ave, new landscaping, and the existing curb cuts and ingress/egress patterns onto Ogden Avenue and Sterling Road will be retained, but lefts onto Sterling Road would be prohibited. He added that the drive-through provides queuing for 12 vehicles. Mr. Moran voiced that the renovation signals reinvestment in existing commercial buildings to adapt to consumer habits and Staff founds that the criteria for the approval of special use was met.

Chairman Rickard asked if there were any questions for staff.

Commissioner Lincoln asked if the Village has plans for if the business becomes so popular that there are more than 12 cars in the drive-through and backs up into Ogden or how they typically handle that type of situation. Jason Zawila, Planning Manager, responded that they have had cases in the past where they work with the property owner and business to control that traffic.

Commissioner Eberhardt asked for clarification on what was non-conforming. Mr. Moran answered that the nonconformity being continued and not increased is the drive-through lane in the required setback. He added that the drive-through lanes go along the south side of the building that lead to the canopy, so they are not increasing the southern encroachment of the drive-through lane. Mr. Zawila added that when it was approved in 2004, they did not have a setback for drive-throughs in the code, but it is allowed to remain, as they are not expanding anything.

Commissioner Eberhardt inquired if the drive-through lane would have to be backed up if they had torn down the building and rebuilt. Mr. Zawila answered yes.

Chairman Rickard asked the petitioner if they would like to come back up and respond to any comments or questions and/or add any closing comments.

Mr. Mehta expressed that the coffee shop will not be a 7 Brew, and they do not expect it to be an issue for the drive-through stacking. He voiced that traffic coming onto Sterling is already restricted physically and people have to turn right onto Sterling, so it should not affect the neighborhood.

Commissioner Eberhardt asked about the traffic study that was done. Mr. Jackson answered that they had more of a narrative or memo than a full blown traffic study, but the conclusion was that nothing was out of the ordinary.

Commissioner Eberhardt commented that she read that traffic would be about twice as much as before when it was a bank. Mr. Jackson stated there probably will be an increase in traffic, but nothing Ogden cannot handle. Mr. Zawila added that Staff did review the traffic impact report on this and there were no concerns.

Chairman Rickard asked the commissioners for discussion or comments.

Commissioner Lincoln expressed that their main purview for drive-throughs are how they affect the neighborhood and traffic, but it seems like they are taking the steps to mitigate any issues with that. He was excited to see them taking a building that exists and finding a way to make it usable for today's business demands instead of tearing it down and rebuilding. He said it sounds like the Village knows what to do with traffic or if the drive-through is overcrowded and how to handle it.

Commissioner Frankovic felt all the conditions were met, concerns were addressed, and all steps were taken to improve the property versus tearing it down and starting from scratch.

Commissioner Patel was also in support and liked the approach, design, restrictions on Sterling, and agreed that the standards were met. He thanked the petitioner for investing in Downers Grove again.

Chairman Rickard agreed with the other commissioners, that the standards were met and any negative impacts from a drive-through window were mitigated through a heavy barrier on the south property for noise, headlights, and anything else that may be directed southbound. He noted that they have the benefit of knowing there was a drive-through there before without major incident.

WITH RESPECT TO FILE 25-PZC-0032 BASED ON THE PETITIONER'S SUBMITTAL, THE STAFF REPORT AND THE TESTIMONY PRESENTED, IT IS FOUNDED THAT THE PETITIONER HAS MET THE STANDARDS OF APPROVAL FOR SPECIAL USE AS REQUIRED BY THE VILLAGE OF DOWNERS GROVE ZONING ORDINANCE AND IS IN THE PUBLIC INTEREST, AND THEREFORE, COMMISSIONER TOTH MADE A MOTION THAT THE PLANNING AND ZONING COMMISSION RECOMMEND THE VILLAGE COUNCIL APPROVAL OF FILE 25-PZC-0032, SUBJECT TO THE FOLLOWING CONDITIONS:

1. **THE SPECIAL USE SHALL SUBSTANTIALLY CONFORM TO THE STAFF REPORT; AND DRAWINGS PREPARED BY CJ ARCHITECTS, INC. SUBMITTED ON 10/16/25, EXCEPT AS SUCH PLANS MAY BE MODIFIED TO CONFORM TO THE VILLAGE CODES AND ORDINANCES.**

2. **THE LOTS COMMONLY KNOWN AS 535 OGDEN AVENUE SHALL BE CONSOLIDATED INTO ONE LOT OF RECORD BY THE PETITION, WITH PUBLIC SIDEWALK EASEMENTS FOR THE PROPOSED SIDEWALK ALONG OGDEN AVENUE.**
3. **LEFT TURNS FROM THE PROPERTY ONTO STERLING ROAD SHALL BE PUBLISHED AND THE EXISTING CHANNELIZED TRAVEL ISLAND MUST REMAIN IN PLACE.**

SECOND BY COMMISSIONER LINCOLN

ROLL CALL:

AYE: TOTH, LINCOLN, FRANKOVIC, PATEL, EBERHARDT, CHAIRMAN RICKARD

MOTION APPROVED. VOTE: 6-0

FILE 25-PZC-0033: A PETITIONER IS REQUESTING THE CONSIDERATION OF TEXT AMENDMENTS TO VARIOUS ARTICLES WITHIN CHAPTER 28 (ZONING ORDINANCE) OF THE MUNICIPAL CODE, REGARDING HOME DAY CARE USES. LAURANCE LILJA, PETITIONER.

Laurance Lilja, petitioner, requested approval of Text Amendment to the Zoning Ordinance's Day Care use regulations for affordable local, small group childcare available for Downers Grove families. She felt that the proposed Text Amendment is conformity with the policy and intent of the Comprehensive Plan. She noted that in the Comprehensive Plan, there is a strong interest in approving retail spaces and retaining existing buildings, especially those that result in new jobs, and family childcare is business, mixed use, and would improve vitality and walkability for families. In regard to land use, the quality of the community and residential neighborhoods is improved when there is quality childcare in the neighborhood, and small group childcare is a different choice for parents than a center. She said that family childcare in the neighborhood is convenient for families, and being able to have your children nearby and with local families is something important to some residents when they have young children. She stated they want to maintain and expand the idea that Downers Grove is a reputable and attractive place for families to live, as many families prefer a family childcare home instead of centers.

Ms. Lilja displayed images of the front of their house and stated that they do not really bother anybody with traffic and she encourages her families to not turn around in people's driveways and be considerate when dropping off and picking up. She discussed the three proposed zoning text amendments, including increasing the maximum number of children permitted from 8 to 12, including all children of the residents of the dwelling unit for day care homes, adding a new use category and definition to Day Care use lists in Article 5 and updating the Supplemental Use Regulations in Article 6 of the Zoning Ordinance to allow a maximum of 16 children in the group day care homes, and allowing for existing chain link fences between 5 and 6 feet to install privacy slats to meet screening requirements.

Ms. Lilja gave her background in childcare to the Commission. She noted that the hours the kids are actually out in the backyard is a small percentage. She expressed that this ordinance has probably

not been changed since it was originally written, and they now have a chance to correct and update it to make it possible for her and others to have their childcare spaces. She voiced that family childcare is a different quality of childcare and is much more affordable than centers.

Commissioner Patel asked if the fence was there when the operation began in February 2023. Ms. Lilja answered yes. Commissioner Patel the followed up about the hours of operation. Ms. Lilja responded 7 a.m. to 5:30 p.m.

Commissioner Eberhardt inquired how long she has been in business. Ms. Lilja responded 26 years since she started and around 20 years for group daycare. Commissioner Eberhardt asked if she complied with the fence requirements at the other locations she was at previously. Ms. Lilja answered no to the unincorporated location she lived, as it was a 325 feet foot deep lot, but she has put up her own fencing in other locations.

Commissioner Frankovic inquired about the reasons for the vacation of the other properties and if she has always had this number of children. Ms. Lilja responded mostly because she leased them. She said that she has had this number of children for about 20 years.

Commissioner Lincoln asked if she was wanting to change the code to match something she has always done, if she was thinking of expanding, or why they are having the conversation about the ordinance. Ms. Lilja answered because it is outdated and not up to the standards of the DCFS licensing, as they do not allow what the state allows for home daycares.

Chairman Rickard commented that it seems like this attempt is to make the Downers Grove Zoning Ordinance come in line with the Illinois State Statutes regarding these types of daycares, as well as the numbers, quantities, and some of the rules.

Commissioner Lincoln asked if the code is not allowing her to do something she has always done or if she wants the code to change so she can do more than currently. Ms. Lilja responded that somebody complained to her about the ordinance, stating that she will have to terminate 8 of her children after she had been doing it for 20 years. Commission Lincoln followed up and asked if she has always had a wait list or if that was relatively new. Ms. Lilja commented that the waitlist varies, because she really only has openings when someone goes up to kindergarten normally, except for the occasional move or transfer. She noted that right now she has a waiting list of three children, and she has had a waiting list 100% of the time over the last few years.

Commissioner Frankovic inquired if her neighbors have ever expressed concerns with her business. Ms. Lilja answered just one next door neighbor.

Commissioner Lincoln asked if it was concerns that could be mitigated. Ms. Lilja responded that they try to keep cars away from her driveway, as they have had a previous problem with that. She voiced that it is very difficult to talk to the neighbor, so she does not.

Commissioner Eberhardt commented that they have a stack of support letters. She asked if any of them are adjacent to her yard. Ms. Lilja responded not that she is aware of.

Chairman Rickard asked for public comment.

Matthew Clark addressed the traffic concern. He said that right now the way they do drop off and pick up is to put the personal cars on the street and the kids and parents use the driveway to help mitigate traffic.

Ashley Bellus spoke in favor of the proposal as a previous neighbor and a consumer of childcare services in the community. She stated that she works in healthcare and her husband works in critical infrastructure, so they need the ability to maintain affordable childcare. She noted that Senator John Curran and two other Illinois senators built their legislative plans to make childcare more affordable. She said Capital News Illinois highlighted that the state of Illinois has lost over 4,000 licensed childcare providers in the past decade, and this proposal is simply looking to update an outdated ordinance to be aligned with what is already permitted under DCFS. She added that all 20 surroundings cities from Downers Grove are aligned with DCFS capacity and 6 are aligned with DCFS local ordinances. She voiced that the Comprehensive Plan speaks to the importance of supporting new entrepreneurs and existing small businesses, and this is a local entrepreneur. Mrs. Bellus voiced that there was no traffic impact in her three years living as their neighbor, no disruptive noise, and they had a well-maintained home. She strongly recommended moving the proposal forward.

Kevin Barto expressed that they have the opportunity to review Village and State regulations, and the amendment request to match Village policy to DCFS and state policy makes total sense. He supported the petitioner's efforts in working with the Village to propose the amendments and find a solution. He stated that the state is strict in the rules and enforcement regarding capacities and criteria of this topic, and they are asking the Village to update their ordinances to be in line with them. He pointed out that in-home daycares do not operate on weekends, very early mornings, or evenings that could cause disruption to a neighborhood. He shared that while the Village memo stated that the proposed request was not consistent with the Village Comprehensive Plan, he pointed out a key statement within the plan that says the Village should consider updating current zoning ordinance and related ordinances to ensure that they reflect Village policy and the community's desires. He voiced that home daycares have many benefits and the capacities needs to increase to accomplish this.

Amy Tiberi expressed the Comprehensive Plan's purpose is to guide growth and development in ways that reflect shared values, advanced diversity, equity, inclusion by expanding opportunities for all residents, which is central to this discussion. She said childcare services are essential to family friendly neighborhoods and accessible options within residential areas help maintain neighborhood quality while meeting individual family in home needs. She added that home daycares promote equity and diversity by ensuring affordable high-quality care in ranges of age groups within the families and critical for livability and economic vitality. She added that without a local daycare option, her or her husband might have to reconsider their careers, which could ultimately mean leaving their home in Downers Grove. She asked the Commission to consider the text amendment to align with state regulated licensure, while making the options feasible and attractive for all residents.

Betsey Finnan discussed who Ms. Lilja and their family are and how important they are for the community. She explained that when her 5-year-old went to kindergarten, they did not qualify for after school care at school, and normal daycare centers do not usually accept a child for after school care only, so they found Ms. Lilja, who made an exception to have space for their child to come after school for a couple hours. She expressed her gratitude for Ms. Lilja and her family, and the

wonderful services they provided to them. She added there were never any issues with cars coming and going when she was picking their child up.

Diana Doyle was concerned with hearing that they are the only community in this area that does not have this sort of zoning. She expressed that amending this would say that Downers Grove appreciates working families, need to childcare, and supports the community, and not amending it would not look very good.

Laura Nalley expressed that Mr. and Mrs. Lilja do this out of love, and she hopes that other settings like theirs could exist as long as it possibly can.

Katie Bruby (ph) had a child that went to Ms. Lilja's and she opened up early for her so she could get to work. She said that they maintain a very peaceful, orderly, and loving home, which meant so much to her and her family. She felt that Downers Grove should be in line with other communities and with the state. She said anything they can do to help this family continue their business would be a great benefit to the community.

Chairman Rickard asked for the staff report.

Flore Leon, Senior Planner, voiced that the petition is a request for a Text Amendment. She gave some background for the request and location map. She voiced that in June 2025, the Village received two complaints associated with the number of children in the house and traffic, and a site visit revealed that the petitioner was operating under a daycare center with 16 kids and the outdoor area was not properly screened. A daycare center is not a permitted use in the R-3 zoning district, so the Village issued a notice of violation and required the petitioner come into compliance no later than September 30, 2025, which was for the petitioner to reduce the number of children to no more than 8 children and install a 6-foot solid fence. She said that the petitioner requested to amend to existing zoning ordinance daycare regulations on September 29th.

Ms. Leon stated that they placed a notice in the newspaper and did not receive any calls, but did receive 15 letters of support. She discussed the proposed Text Amendments and provided the existing zoning regulations. She highlighted that the screened outdoor play area is a requirement and staff application has excluded chain linked fences with privacy slats. Ms. Leon stated that a special use would be proposed for the group daycare home, and zoning districts at R5-A and R6. She discussed the types of categories in the Village of Downers Grove versus those of the state on these issues and talked about how the regulations would affect this particular property. She said that if the amendments were approved by Village Council, the petitioner would be classified as a group daycare home and would be in compliance with those use regulations, but they would still need to install the privacy slats within the chain linked fencing to meet the screening requirement. She shared that if the proposal is denied, the petitioner would be required to comply with the existing regulations, meaning the children would have to be reduced to 8 and they would have to install a 6-foot solid fence. Staff believes that the proposed request is not consistent with the Guiding DG Comprehensive Plan, especially in the section on Land Use and Development. She said Staff believed that standards for granting a text amendment had not been met and recommended denial of the requested text amendments.

Commissioner Toth asked about the comment that Downers Grove is the only Village that does not follow the Illinois Childcare Act and if that is accurate. Ms. Leon responded that they found that in

regard to the daycare home regulations, that Woodridge does allow a maximum of 12 within that use, but in Glen Ellyn has a maximum of 8 for that use category. She noted that they did not find a municipality that had this third use category, the group daycare home, allowing a maximum of 16 children.

Commission Eberhardt inquired why Downers Grove did not adopt the state ordinance as it was written. Mr. Zawila answered that the Illinois State Statute has evolved over the years and the number has changed, but Downers Grove are a home rule community, so they have a right to vary from the Illinois State Regulations and License Requirements. He said the Village made the decision to keep it at 8 children due to potential neighborhood impact, traffic, and noise.

Commission Eberhardt asked if the daycare home and proposed group daycare home means that the primary use is a residence. Mr. Zawila responded that a single-family residence is the primary use. Commissioner Eberhardt further inquired if the 6-foot privacy fence was already for the daycare home or only for the upgrade. Ms. Leon answered that the 6-foot solid fence is the current requirement.

Commissioner Lincoln asked how long the current code has been in effect that talks about the numbers of children in the different daycares. Mr. Zawila stated since at least 2014, when the Comprehensive Zoning Ordinance was updated.

Commissioner Frankovic inquired if landscaping was considered privacy screening in this situation. Ms. Leon answered no, the code is not currently written that way.

Commissioner Lincoln asked if there was something about a daycare that changes the appeal of an establishment neighborhood or its longstanding character. Ms. Leon responded that it is not about if the daycare should be in the neighborhood, but more Staff's analysis when it comes to the maximum number of children either going from 8 to 12 in a home daycare or creating a new use category that now allows a maximum of 16 children.

Commissioner Lincoln inquired if increasing the number of children and having a higher capacity would impact the high-quality housing in neighborhoods, character, and appeal. Ms. Leon answered yes.

Chairman Rickard commented the question of this whole thing is the appropriate number for them to be on a residential property under these circumstances and the impacts that come along with it.

Commissioner Toth inquired if the two complaints received were by the same person. Ms. Leon answered it was two separate complaints.

Commissioner Eberhardt asked if they had specifics involved with their complaints. Mr. Zawila responded they complained of noise coming from the backyard and traffic concerns related to pick-up and drop-off periods, as well as the number of children at the house.

Commissioner Patel inquired if there is a procedural process for people who start a business like this out of their home to the Village or if Illinois State licensing covers that. Ms. Leon expressed that state licensing allows them to open the daycare, but the local ordinances still apply.

Chairman Rickard gave the petitioner the opportunity to come back up and address any comments or questions or add a closing statement.

Ms. Lilja expressed that the current ordinance does not say 6-foot wood fence. She said that DCFS has done the research and has had years of practice of operating and feel those are the two types of home daycares that work and are acceptable. She added that they also have had 25 years of safe and loving daycares. She spoke to the character of one of the complainants, who verbally abused her and one of her clients, so she did not know if the complaint was really about how many kids were there, but maybe some personal issues she has. She noted have had no complaints from any other locations of her daycares previously. She hoped the Commission could see how this will benefit the Village in the long run.

Chairman Rickard asked the commissioners for discussion.

Commissioner Toth thanked the petitioner for having the courage to bring this forward for review. He said it seems clear from the testimony presented that there is a definite demand and not enough supply, and he said he would be agreeable to a modified version of what has been proposed. He noted that he did not feel very comfortable going from 8 to 16, as that is a pretty drastic change, but 8 to 12 seems like a logical step in the right direction.

Commissioner Frankovic agreed that 8 to 16 is a very large jump, even though there is a need, so she agreed with the amended version to include 12, that would not allow the group day care home, and to take into consideration privacy and respect to the surrounding neighbors by including the privacy fence installed and taking every measure possible to prevent any noise or disruptions.

Commissioner Toth agreed with staying consistent with the Village's stance on the 6-foot privacy fence. He noted that he would also include children residing in the home to be part of the 12.

Commissioner Eberhardt voiced that she would also support that instead of having a new category.

Commissioner Lincoln expressed that he had a soft spot for this, as his mom ran an at-home daycare, and almost all the people that attended would not have been able to afford daycare at a traditional facility. He said they get so many complaints about the cost of living and childcare and hearing people say maybe they should stop working because they are using half of their salary just to pay for childcare. He pointed out that every time they make these rules that are more restrictive, they all add up and then we wonder why things become so expensive. He stated that it is so important that they make sure there are these opportunities available for a wide range of people, but he also wanted to make sure the rules are the same for everybody. He commented that he was not 100% opposed to group care homes, but his biggest issue is that they are changing so much and felt it may need a little bit more debate and discussion.

Commissioner Eberhardt shared concern for the proposed use table saying that the group daycare home is permitted in all the residential levels. She felt that whole line of residential should be special use and reviewed on a case-by-case basis.

Commissioner Lincoln felt there could be a compromise in there somewhere.

Commissioner Frankovic stated that there also should be some consideration for the existing people in that neighborhood if they are going to start downsizing the business.

Commissioner Lincoln expressed that it is crazy that people have to think about not working to pay for a daycare center, and them not allowing that contributes to that and makes it harder for them.

Commissioner Eberhardt voiced that she felt they could help mitigate the noise with having a 6-foot solid fence and having signage to help with traffic.

Commissioner Patel was very hesitant. He said the concept of the need is definitely there; however, if they are increasing it at any number, they are increasing activity within residential areas. He said they have to look at if a decision like this would impact the Village positively or negatively. He noted it is a significant decision and he did not feel comfortable moving forward with any type of change without a larger discussion.

Chairman Rickard voiced that it was a big leap to have it permitted in most all the zoning districts. He agreed that there are some properties where it might be fine and appropriate if they have more space, driveway, screening, or might be more conducive to having that many kids, but there might be something in the same zoning class that is not ideal and might negatively impact neighbors.

Commissioner Lincoln leaned toward agreeing with some of the proposal, but also felt there was a chance of negatives. He noted that it is just so often that they hear the complaints about affordability, and he does not want to become a town where there are only people who can afford live-in nannies. He wondered about changing the number of daycare and potentially group daycare but making it all special use and case by case across the board. He was hard pressed to want to make the fence issue different, because they do have to mitigate the sound.

Commissioner Toth expressed that the Village has long stood by excluding chain-link fences. He stated that he would not support the group daycare amendment.

Mr. Zawila recommended doing a straw poll and asking the Planning and Zoning Commission if they want to increase the number of children for daycare homes, and then have someone make one motion and recommend the proposed text amendments with amendments that the Planning and Zoning Commission could make agreement.

Chairman Rickard voiced that what he heard the most concern over was adding the group daycare home. He asked the commissioners thoughts on the group daycare home category.

Commissioner Lincoln was in support of increasing the number to 12 for daycare homes. He suggested doing a straw poll of each proposed zoning text amendment separately. He was in support of the first one, but only would be in favor of the second one if it was special use for every single district and agreed increasing the number to 14 or 16. He added they would need to come before the Village Council and Planning and Zoning Commission to make sure people have taken steps to mitigate the impacts if they are in this zoning district, just like they do for drive-throughs. He added that if they agree to leave the fence requirement the way it is, they should make a recommendation to Council to change the code to specifically spell out the type of fencing required for screening.

Commissioner Eberhardt inquired where all of that would put the petitioner. Mr. Zawila clarified that if the recommendation was made a special use, the petitioner would have to come back in for a special use.

Commissioner Frankovic agreed with Commissioner Lincoln, and that it should be on an individual basis to be reviewed depending on the surroundings and neighborhood. She also agreed with increasing the number of children permitted in a group day care home to 12 and keeping the 6-foot solid, wood, or plastic fence requirement to respect privacy for everyone in the neighborhood.

Commissioner Patel voiced that he would feel comfortable with them all being special use.

Chairman Rickard stated that they all seem to be in consensus with that. He asked the commissioners thoughts on the fence requirement.

Commissioner Frankovic commented that the neighborhood would be happier to not have as much of a view.

Chairman Rickard felt a solid wood or PPC fence would go a long way with mitigating visual and sound impact.

Commissioner Toth shared that they should leave it the way it is with the solid 6-foot fence requirement.

Chairman Rickard expressed that they now have consensus on two of the three. He said the numbers would still be as proposed, as they are only suggesting to make a special use if they wanted to increase numbers.

Commissioner Toth voiced that he would like to stay consistent with the surrounding communities and the state code. He noted that he was not a fan of having 16 with the group home, as that is a drastic change, but he could possibly be in agreeance if everyone else wanted to be in favor of that.

Chairman Rickard suggested maybe continuing and looking further into what the surrounding communities feel about that. Mr. Zawila stated that they could provide research from adjoining communities and provide that to Council with this proposal.

Commissioner Eberhardt noted that it would make Downers Grove more attractive if they had the possibility to have more with the home daycares.

WITH RESPECT TO FILE 25-PZC-0033 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 TEXT AMENDMENT AS REQUIRED BY THE VILLAGE OF DOWNERS GROVE ZONING AND SUBDIVISION ORDINANCES AND IS IN THE PUBLIC INTEREST. THEREFORE, COMMISSIONER LINCOLN MADE A MOTION THAT THE PLANNING AND ZONING COMMISSION RECOMMEND THE VILLAGE COUNCIL APPROVAL OF FILE 25-PZC-0033, REGARDING THE PROPOSED AMENDMENTS TO SECTION 5 AND 6 OF THE ZONING ORDINANCE AS AMENDED BY THE PLANNING AND ZONING COMMISSION AS FOLLOWS:

1. **DAYCARE HOME. A DWELLING UNIT LICENSED BY THE STATE OF ILLINOIS IN WHICH DAY CARE IS PROVIDED FOR A MAXIMUM OF TWELVE (12) CHILDREN, INCLUDING ALL NATURAL, ADOPTED AND FOSTER CHILDREN OF THE RESIDENTS OF THE DWELLING UNIT, INCLUDING A NEW SUBSECTION 28.05.050(F), A NEW GROUP DAY CARE HOME, A DWELLING UNIT LICENSED BY THE STATE OF ILLINOIS IN WHICH DAY CARE IS PROVIDED FOR A MAXIMUM OF SIXTEEN (16) CHILDREN, INCLUDING ALL NATURAL, ADOPTED AND FOSTER CHILDREN OF THE RESIDENTS OF THE DWELLING UNIT, WITH THE STIPULATION THAT THE SUBJECT USE MUST BE SPECIAL USE IN ALL RESIDENTIAL ZONING DISTRICTS IN THE REPORT.**
2. **DAY CARE CENTERS, GROUP DAY CARE HOMES, AND DAY CARE HOMES MUST BE LICENSED BY THE STATE OF ILLINOIS UNDER THE ILLINOIS CHILD CARE ACT (225 ILCS 10/2.09), (225 ILCS 10/2.18, (225 ILCS 10/2.20) OR OTHER APPLICABLE STATUTUES.**
3. **DAY CARE HOMES, GROUP DAY CARE HOMES, AND DAY CARE CENTERS FOR CHILDREN IN R DISTRICTS MUST INCLUDE AN OUTDOOR PLAY AREA, FENCED AT SIX (6) FEET HIGH AND SCREENED FROM VIEW FROM ADJOINING PROPERTIES USING A PRIVACY FENCE, CONSTRUCTED OF WOOD OR VINYL, WITH A MINIMUM OF 250 SQUARE FEET OF OUTDOOR PLAY FOR EACH CHILD AT THE FACILITY, BASED ON MAXIMUM ENROLLMENT OF THE DAY CARE FACILITY.**

SECOND BY COMMISSIONER EBERHARDT

ROLL CALL:

AYE: LINCOLN, EBERHARDT, FRANKOVIC, TOTH, CHAIRMAN RICKARD

NAY: PATEL

MOTION APPROVED. VOTE: 5-1

Mr. Zawila announced they will not have a December meeting.

THE MEETING WAS ADJOURNED. UPON MOTION BY COMMISSIONER LINCOLN, SECOND BY COMMISSIONER TOTH. A VOICE VOTE FOLLOWED AND THE MOTION PASSED UNANIMOUSLY.

/s/ Celeste K. Weilandt
Recording Secretary

(As transcribed by Ditto Transcripts)

VILLAGE OF DOWNERS GROVE
REPORT FOR THE PLANNING & ZONING COMMISSION
JANUARY 5, 2026 AGENDA

SUBJECT:	TYPE:	SUBMITTED BY:
25-PZC-0034 1434 Butterfield Road	Planned Unit Development, Zoning Map Amendment and Special Use	Carter Moran, Planner

REQUEST
The petitioner is requesting approval for a Planned Unit Development, a Zoning Map Amendment from B-3, General Services and Highway Business to B-3/PUD, General Services and Highway Business/Planned Unit Development, and a Special Use to construct and operate a drive-through at 1434 Butterfield Road.

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

GENERAL INFORMATION

OWNERS: Alpine Income Property Op
1140 N Williamson Blvd, Ste 14
Daytona Beach, FL 32114

PETITIONER: Sarah Wilkerson
Toth & Associates
1550 E. Republic Road
Springfield, MO 65804

PROPERTY INFORMATION

EXISTING ZONING: B-3, General Services and Highway Business
EXISTING LAND USE: Shopping Center
PROPERTY SIZE: 321,378 sq. ft. (7.38 acres)
PINS: 06-30-404-010, -011

SURROUNDING ZONING AND LAND USES

	ZONING	FUTURE LAND USE
NORTH:	M-2, Restricted Manufacturing	Light Industrial/Business Park
SOUTH:	B-3, General Services and Highway Business	Regional Commercial
EAST:	B-3, General Services and Highway Business	Regional Commercial
WEST:	B-3, General Services and Highway Business	Regional Commercial

ANALYSIS

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

1. Project Narrative
2. Entitlement Criteria
3. Plat of Survey
4. Architectural Plans
5. Engineering Plans
6. Landscape Plan
7. Traffic Impact Study
8. Stormwater Report
9. Sign Plan
10. Photometric Plan

PROJECT DESCRIPTION

The petitioner is proposing to construct a drive-through coffee shop and related parking lot improvements. The 7.38-acre property is located at the northeast corner of the intersection of Butterfield Road and Downers Drive and is zoned B-3, General Services Highway Business.

The petitioner is requesting the following approvals:

- Final Planned Unit Development (PUD) Approval
- Zoning Map Amendment from B-3 to B-3/PUD
- Special Use for a Drive-Through

The petitioner is proposing to improve the subject property by constructing a new 1,172 square foot drive-through coffee shop. The PUD request is necessary in order to place two buildings on the subject property and to grant the associated deviations as discussed below. The proposed coffee shop has no seating inside or outside. Additional improvements include a canopy extending from north to south from the employee entrance to the drive-through pick-up area, as well as a trash enclosure to serve the coffee shop. Parking for employees exists on the subject property to the north and east of the proposed building. The building façade will be composed of brick in light grey and dark grey colors, as well as blue, black, and grey metal paneling across the canopy and roofline.

The petitioner is proposing new landscape islands at the end of each existing parking row for the overall shopping center. Landscaping will also be provided in and around the island created by the installation of the drive-through lane and building. The creation of parking lot islands requires the petitioner to restripe accessible parking spaces at the north side of the parking lot closest to the existing tenant buildings. With the proposed improvements the petitioner will increase the open space percentage on the shopping center, which will increase from 10.8% of the subject property to 13.6%.

Parking lot and site lighting is provided around the proposed development. A photometric plan has been submitted identifying that the proposed lighting complies with the Village requirements. The proposed building will be served by the existing parking lot access from a signalized intersection with Downers Drive. Additional access is provided via a connection to the shopping center to the east which has right-in/right-out access onto Butterfield Road. Once the building, drive-through lane, and parking lot improvements are constructed, the shared parking lot will contain 320 spaces, a reduction from the existing 379 spaces currently provided on the subject property.

COMPLIANCE WITH THE COMPREHENSIVE PLAN

The Guiding DG Comprehensive Plan's Future Land Use Map designates the subject property as Regional Commercial. Regional Commercial uses are defined as commercial uses that provide goods and services that draw patrons from within, and beyond Downers Grove. Retail businesses in this area benefit from

visibility and access without significantly contributing to traffic along the corridor or impact on nearby residential areas. The petitioner is proposing to improve the site with a drive-through coffee establishment. The coffee shop is projected to have regional draw and attract commuters moving to, from, and throughout Downers Grove.

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.
- Promote in-line or outlot developments along the Butterfield Road Corridor.
- Promote shared parking arrangements between neighboring commercial developments to maximize space and efficiency.
- Re-evaluate parking needs and regulations for commercial and office properties to allow for creative placemaking and reuse of underutilized surface parking lots.
- Repurpose parts of parking lots for outlot development to better leverage land for sales tax-generating uses.
- 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.

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.

The proposed request is not consistent with the Guiding DG Comprehensive Plan.

COMPLIANCE WITH ZONING ORDINANCE

The property is currently zoned B-3, General Services and Highway Business. The proposal calls for a rezoning to a B-3/PUD, General Services and Highway Business/Planned Unit Development zoning district. The bulk requirements of the proposed development in the B-3 zoning district are summarized in the following table:

Table 1: 1434 Butterfield Road – Drive-through Lot Bulk Regulations

Building	**Requirement**	**Proposed**
Butterfield Road Setback (South)	25 ft.	97.27 ft.
Downers Drive Setback (West)	25 ft.	168 ft.
Parking		
Butterfield Road Setback (South)	25 ft.	**23.75 ft.^**
Downers Drive Setback (West)	25 ft.	**10 ft.^**
Other		
Floor Area Ratio (Proposed Building)	0.75 (max)	0.003
Building Height (Proposed Building)	60 ft. (max)	20.5 ft.
Drive-Through Stacking Spaces (Proposed Building)	8 spaces	39 spaces (18 additional overflow stacking spaces)
Open Space (Entire Shopping Center)	10%	13.6%
Parking Spaces (Shopping Center)	382 spaces	**320 spaces***

^ Existing Nonconformity
**** Deviation from Zoning Ordinance***

The following improvements require relief from the Zoning Ordinance regulations:

Table 2: Deviation Requests and Petitioner' Rationale

Improvement	Relief Request	Petitioner's Rationale
Trash Enclosure	Requirement: May not be located within street yard *Proposed: Located between Downers Drive and the proposed building*	The proposed development will result in public benefits greater than development under conventional zoning regulations. It is infeasible to move this enclosure any further north.
Parking Stalls	Requirement: PUD total parking stalls: 382 *Proposed PUD total parking stalls: 320*	The PUD promotes flexibility in development that would not be possible under standard zoning. Converting the outlot from existing parking stalls will require a PUD.
Two structures on one lot	Requirement: Only one primary structure per lot *Proposed: Two structures on one lot of record*	The redevelopment of the outlot with two (2) buildings will require a PUD.

Planned Unit Development Request
A Planned Unit Development is intended to accommodate development that may be difficult to carry out under applicable zoning standards and results in public benefits that are at least commensurate with the degree of flexibility provided. Examples of development types that are appropriate for PUD approval, per Section 28.4.030.A.1 of the Zoning Ordinance include:

- Developments that are consistent with the goals and policies of the Comprehensive Plan.

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

- Implementation of and consistency with the comprehensive plan and other relevant plans and policies;
- High-quality buildings and improvements that are compatible with surrounding areas, as determined by their arrangement, massing, form, character and landscaping;
- Flexibility and creativity in responding to changing social, economic and market conditions allowing greater public benefits than could be achieved using conventional zoning and development regulations

Signage
Signage is not part of this petition, and any signage proposed for the development shall comply with the Zoning Ordinance requirements through a separate sign permit application. The petitioner is permitted up to 70.5 square feet of total wall and ground signage and is not requesting any additional sign rea for the development. The proposed building includes wall signs on only the south and west facades which is compliant with the Zoning Ordinance.

ENGINEERING/PUBLIC IMPROVEMENTS

The petitioner's proposal complies with the Village's Stormwater and Floodplain Ordinance. The existing stormwater detention and topography throughout the parking lot are adequate to serve the proposed development. The eastern portion of the subject property is designed to hold water in cases of storm events and the proposed development will be able to convey stormwater through the basin through an overflow route. The developer proposes stormwater inlets cut into the curb along the drive-through lane. The current proposal will be reviewed for compliance with the Stormwater Ordinance during the building permit

review.

TRAFFIC AND PARKING

A traffic impact study for the proposed development was completed by the petitioner. The study examined the existing traffic conditions along Butterfield Road and Downers Drive and the future conditions based on the proposed coffee drive-through. As it exists, access to the site, including the existing tenants, is provided by a right-in/right-out point along Butterfield Road and a signaled intersection along Downers Drive, north of the proposed development. Cross access is also provided to the shopping center lot to the east. The study found that the proposed stacking for 39 vehicles within the drive-thru lanes and overflow stacking within the retail center parking lot will provide more than adequate stacking to accommodate the peak queue projected for the proposed development.

As mentioned in the petitioner's PUD request, the proposed development would reduce the quantity of provided parking spaces below the required 382 shared spaces for this shared shopping center as required by the Zoning Ordinance. The addition of landscaped parking islands at the end of all parking rows throughout the site will also benefit traffic circulation throughout the PUD. The resulting 320 parking spaces serving Golf Galaxy and Best Buy will be adequate in accommodating the estimated peak parking demands for the stores based on information published in the ITE Parking Generation Manual, 6th Edition.

PUBLIC SAFETY REQUIREMENTS

The Fire Prevention Division has reviewed the proposed development and determined that sufficient access to and around the site is provided for emergency vehicles. The site layout permits Fire Department apparatus the opportunity to access the shopping center from the Butterfield Road curb cut (located east of the subject property) or from the Downers Drive intersection.

NEIGHBORHOOD COMMENT

Notice was provided to all property owners 250 feet or less from the property in addition to posting public hearing notice signs and publishing the legal notice in the *Daily Herald*. There have been no public comments received by Staff.

STANDARDS OF APPROVAL

The petitioner is requesting a Planned Unit Development, Zoning Map Amendment, a Special Use to construct and operate a drive-through at 1434 Butterfield Road. The review and approval criteria for each request are listed below.

Planned Unit Development Request

Section 28.12.040(c)(5) Review and Approval Criteria

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

a. *The zoning map amendment review and approval criteria of Sec. 12.030.I.*
b. *Whether the proposed PUD development plan and map amendment would be consistent with the comprehensive plan and any other adopted plans for the subject area.*
c. *Whether PUD development plan complies with the PUD overlay district provisions of Sec. 4.030.*
d. *Whether the proposed development will result in public benefits that are greater than or at least equal to those that would have resulted from development under conventional zoning regulations.*
e. *Whether appropriate terms and conditions have been imposed on the approval to protect the interests of surrounding property owners and residents, existing and future residents of the PUD and the general public.*

Zoning Map Amendment Request

Section 28.12.030(i) Review and Approval Criteria for Zoning Map Amendments

The decision to amend the zoning map is a matter of legislative discretion that is not controlled by any single standard. In making recommendations and decisions about zoning map amendments, review and decision making bodies must consider at least the following factors:

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

Special Use Request

Section 28.12.050(h) Special Uses –Approval Criteria

No Special Use may be recommended for approval or approved unless the respective review or decision-making body determines that the proposed special use is consistent with and in substantial compliance with all Village Council policies and plans, including, but not limited to, the Comprehensive Plan and the Downtown Design Guidelines and that the applicant has presented evidence to support each of the following conclusions:

(1) that the proposed use is expressly authorized as a special use in the district in which it is to be located;
(2) that the proposed use will not, in the particular case, be detrimental to the health, safety, or general welfare of the community;
(3) that the proposed use will not be injurious to the use and enjoyment of other property in the immediate area for the purposes already permitted, nor substantially diminish or impair property values within the neighborhood;
(4) that the establishment of the special use will not impede the normal and orderly development and improvement of adjacent property for uses permitted in the district.

DRAFT MOTION

Staff recommends approval of the proposed Special Use, Zoning Map Amendment, and Planned Unit Development. Should the Planning & Zoning Commission find that the request is consistent with the Comprehensive Plan and meets the requirements of the Zoning Ordinance, staff has prepared a draft motion that the Planning & Zoning Commission may make for the recommendation approval of 25-PZC-0034:

Based on the petitioner's submittal, the staff report, and the testimony presented, I find that the petitioner has met the standards of approval a Planned Unit Development, a Map Amendment from B-3, General Services and Highway Business to B-3/PUD, General Services and Highway Business/Planned Unit Development, and a Special Use to construct and operate a drive-through restaurant as required by the Village of Downers Grove Zoning Ordinance and is in the public interest and therefore, I move that the Planning & Zoning Commission recommend to the Village Council approval of 25-PZC-0034, subject to the following conditions:

1. The Planned Unit Development, Rezoning and Special Use shall substantially conform to the staff report; architectural drawings prepared by Veritas Architecture & Design last revised on November 11, 2025; engineering drawings prepared by Toth & Associates dated December 9, 2025, and photometric drawings prepared by Red Leonard Associates dated September 19, 2025 except as such plans may be modified to conform to the Village codes and ordinances.
2. A plat of easement shall be provided by the developer to establish the proposed utility easements shown on the engineering drawings prepared by Toth & Associates dated December 9, 2025.

Staff Report Approved By:

Stanley J. Popovich, AICP
Director of Community Development

- SP; cm

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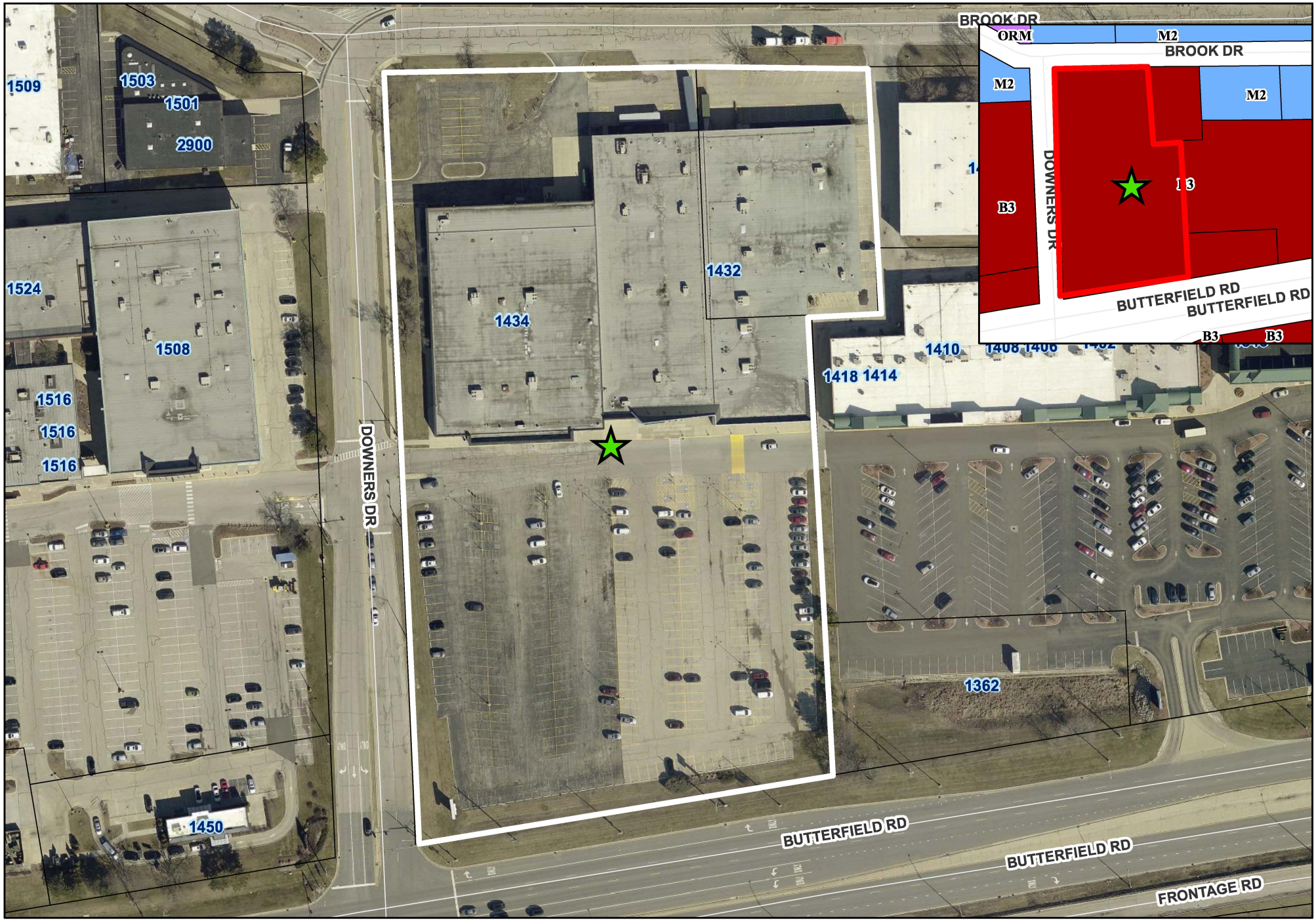

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0 62.5 125 Feet

1434 Butterfield Road Location Map

Subject Property

Site Location

Village of Downers Grove – Planning Department
Jason Zawila, Planning Manager
850 Curtiss Street
Downers Grove, IL 60515

RE: Request for Special Use Permit, Planned Use Development, and Zoning Map Amendment- Drive-Through Facility at 1434 Butterfield Road, Downers Grove, IL

Dear Mr. Zawila,

On behalf of Who Brew LLC, I am submitting this letter to formally request a **Special Use Permit, Planned Use Development (PUD), and Zoning Map Amendment** for the property located at 1434 Butterfield Road, in the Village of Downers Grove. The property is currently zoned B-3 General Services and Highway Business, and the proposed development includes a **drive-through facility**, which requires a **Special Use Permit** per the Village's Zoning Ordinance. Furthermore, the redevelopment of the outlot with two (2) buildings, converting it from existing parking stalls, will require a **PUD**. This PUD proposal seeks relief from the Village Code parking requirements. A Parking Analysis has been provided that shows the number of stalls before and after the proposed development. This PUD proposal seeks relief for the location of a trash enclosure in the street yard along Downers Drive. Because a PUD is requested, a **Zoning Map Amendment** is being requested as well.

7 Brew Drive-Through Coffee ("7 Brew"), founded in Rogers, AR in 2017 has 494 stands nationwide. Specializing in serving premium espresso-based coffee, chillers, teas, infused energy drinks, sodas and smoothies, there are over 20,000 unique drink options that can be created from 7 Brew's menu. 7 Brew is a drive-thru concept with a dual drive-thru configuration. Team members take orders on tablets instead of a traditional drive-thru speaker box, which allows 7 Brew to create personal relationships with their customers and serve them in a fast-paced and friendly environment. 7 Brew's focus to their customer is speed and a friendly, welcoming environment, which resonates amongst its team members and customers. The goal is to make the customers experience at 7 Brew the happiest part of their day, which drives business and keeps customers coming back. The concept opens at 5:30 AM and closes at 10:00 PM on weekdays and 11:00 PM on weekends. Each 7 Brew location operates with 5 employees at the stand during peak times. There are 750 orders a day which equates to ~1,125 estimated customers per day.

To assist in your review, we are providing the following materials:

- Application fee for **PUD** ($2,205), **PUD Site Plan** ($290), and **Special use** ($1,290) = $3,785.00.
- Completed petitions for **Special Use**, **PUD**, and **Zoning Map Amendment**

- Petitioner's Submittal Checklist: Planning & Zoning Commission
- Proof of Ownership
- Plat of Survey
- Civil plan package
- Traffic Memo
- Architectural package (including color renderings)
- Sign package
- Photometric Plan
- Downers Grove Sanitary District Review – Plans have been submitted for review and, once received, a conceptual approval letter will be provided to supplement this submittal.

We believe this project aligns with the Village's goals and would be a positive addition to the local business community. We appreciate the opportunity to work with the Village on this request.

Chris George
Who Brew LLC

Planned Unit Development

Form #PC01

Review and Approval Criteria

Address of Project Site: 1434 Butterfield Rd Downers Grove, IL 60515

A detailed response to all of the standards shall be provided, specifying how each standard is or is not met.

Section 28.12.040.C.6. Review and Approval Criteria (Planned Unit Development)
The decision to amend the zoning map to approve a PUD plan and to establish a PUD overlay district are matters of legislative discretion that are not controlled by any single standard. In making recommendations and decisions regarding approval of planned unit developments, review and decision making bodies must consider at least the following factors:

1. The zoning map amendment review and approval criteria of Sec. 12.030.I.
   See the analysis of zoning map amendment review and approval criteria in separate document.

   See attached document

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.

   See attached document

3. Whether PUD plan complies with the PUD overlay district provisions of Sec. 4.030.

   See attached document

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.

   See attached document

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.

   See attached document

Planned Unit Development: Responses to Standards

1. An application responding to the approval criteria for a zoning map amendment has been included with this submittal.
2. Outlot development is promoted as a feature of the Village's Comprehensive Plan.
3. The proposed plan complies with the requirements of the PUD overlay district as outlined in Section 4.030. The PUD promotes flexibility in development that would not be possible under standard zoning (multiple structures on one lot) while meeting the goals of the Comprehensive Plan.
4. The proposed development will result in public benefits greater than development under conventional zoning regulations. The proposed use allows operation of an additional business on the same lot. This proposal seeks relief to Village Code parking requirements. According to VoDG 28.7.030, 3.5 spaces are required per 1,000 square feet of the shopping center. A Parking Analysis has been provided that shows the number of stalls before and after the proposed development. In addition, this proposal seeks relief for placement of the trash enclosure in the street yard along Downers Drive. It is infeasible to move this enclosure any further north.
5. Yes, appropriate terms and conditions have been imposed to ensure interests of surrounding property owners, existing and future residents of the PUD and the general public. These conditions address key concerns such as meeting all applicable building code requirements and providing appropriate traffic circulation.

Special Uses

Review and Approval Criteria

Form #PZC2

Address of Project Site: 1434 Butterfield Rd Downers Grove, IL 60515

A detailed response to all of the standards shall be provided, specifying how each standard is or is not met.

Section 28.12.050.H. Approval Criteria (Special Uses)
No special use may be recommended for approval or approved unless the respective review or decision-making body determines that the proposed special use is consistent with and in substantial compliance with all Village Council policies and plans, including, but not limited to, the Comprehensive Plan and the Downtown Design Guidelines and that the applicant has presented evidence to support each of the following conclusions:

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

   The property is located in the B-3, General Services and Highway Business zoning district. A drive-through is an allowable special use within the B-3 zoning district.

2. That the proposed use will not, in the particular case, be detrimental to the health, safety, or general welfare of the community.

   The proposed use will not be detrimental to the health, safety, or general welfare of the community. The layout promotes safe vehicular circulation, incorporates lighting, fire access, and security measures. The project will fully comply with all relevant city standards for new construction.

3. That the proposed use will not be injurious to the use and enjoyment of other property in the immediate area for the purposes already permitted, nor substantially diminish or impair property values within the neighborhood.

   The proposed development will not be injurious to the enjoyment and use of other properties in the area. This project is activating an area of the shopping center which is currently being utilized for parking. The area is in the furthest location of the parking lot from commercial businesses, and historical imagery on Google Earth shows very little use of this space for parking. There appears to be an abundance of parking for commercial uses in the immediate area.

4. That the establishment of the special use will not impede the normal and orderly development and improvement of adjacent property for uses permitted in the district.

   The establishment of the special use will not impede the normal and orderly development and improvement of adjacent properties for uses permitted in the district. The design will ensure safe traffic flow, appropriate access and buffering to minimize impacts to surrounding uses.

Zoning Map Amendments

Form #PC03

Review and Approval Criteria

Address of Project Site: 1434 Butterfield Rd Downers Grove, IL 60515

A detailed response to all of the standards shall be provided, specifying how each standard is or is not met.

Section 28.12.030.I. Review and Approval Criteria (Zoning Map Amendments - Rezonings)
The decision to amend the zoning map is a matter of legislative discretion that is not controlled by any single standard. In making recommendations and decisions about zoning map amendments, review and decision making bodies must consider at least the following factors:

1. The existing uses and zoning of nearby property.

   See attached document

2. The extent to which the particular zoning restrictions affect property values.

   See attached document

3. The extent to which any diminution in property value is offset by an increase in the public health, safety and welfare.

   See attached document

4. The suitability of the subject property for the zoned purposes.

   See attached document

5. The length of time that the subject property has been vacant as zoned, considering the context of land development in the vicinity.

   See attached document

6. The value to the community of the proposed use.

   See attached document

7. The Comprehensive Plan.

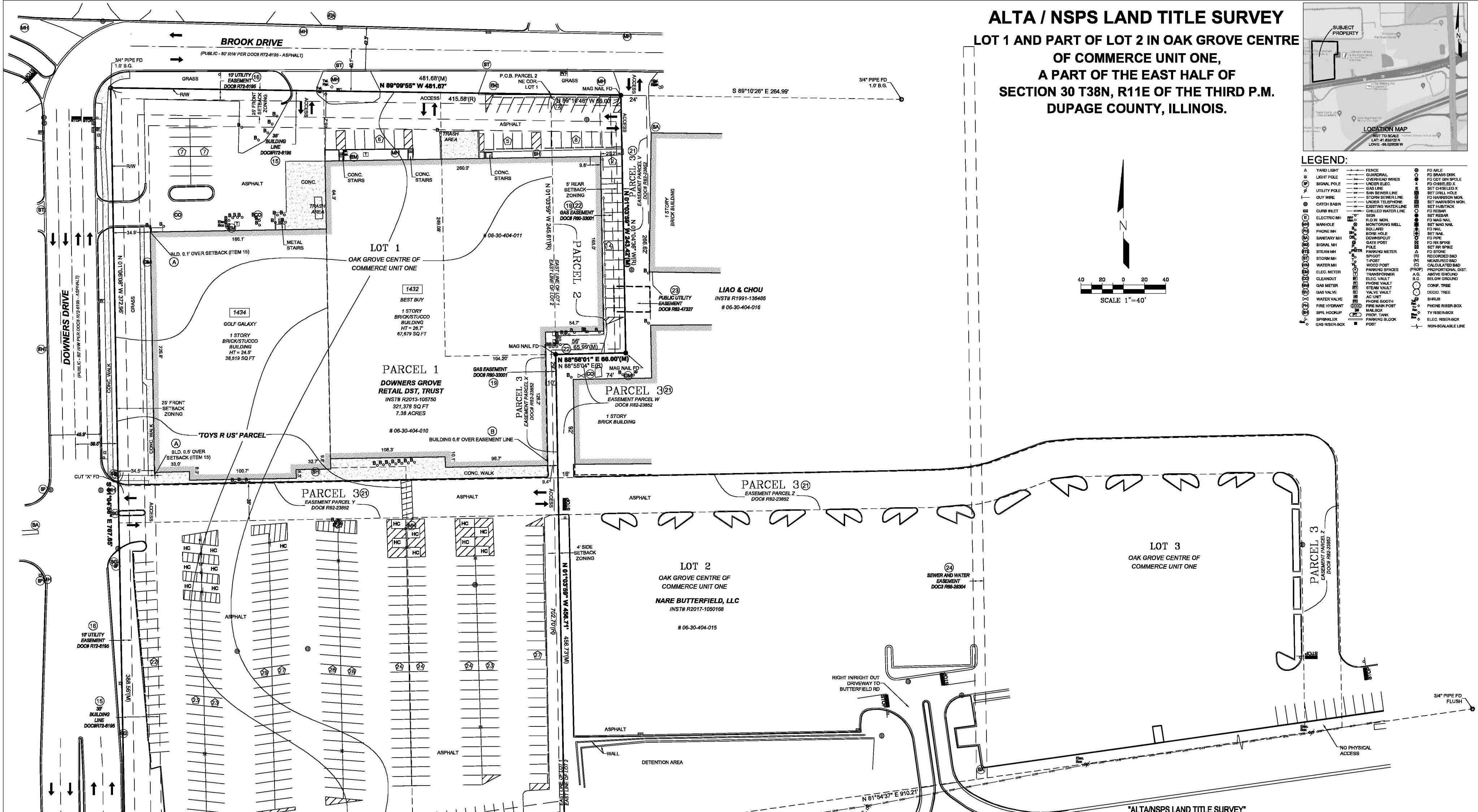
   See attached document

Zoning Map Amendment: Responses to Standards

1. The property is located in the B-3, General Services and Highway Business zoning district. Surrounding properties are also zoned B3 and are utilized for retail establishments and restaurants.
2. The current restrictions would prevent the use of the lot for the proposed 7 Brew Drive-Through, diminishing its potential for redevelopment and impacts to property values.
3. The proposed variation will not impair air, increase fire risk, endanger public safety, or diminish property values. Additionally, it will not negatively impact traffic flows as there is appropriate queuing provided based on similar projects in neighboring communities.
4. The property is located in the B-3, General Services and Highway Business zoning district. A drive-through is an allowable special use within the B-3 zoning district.
5. Historic imagery on Google Earth show that this area has been used as an underutilized parking lot as far back as 1993.
6. The proposed drive-through coffee shop will offer a complementary service to the retail in this area. It will also provide a source of sales tax and highly sought-after entry level jobs within the community.
7. Outlot development is promoted as a feature of the Village's Comprehensive Plan. It is not possible to develop the outlot for the proposed business without development of a PUD and Zoning Map Amendment.

ALTA / NSPS LAND TITLE SURVEY

LOT 1 AND PART OF LOT 2 IN OAK GROVE CENTRE OF COMMERCE UNIT ONE, A PART OF THE EAST HALF OF SECTION 30 T38N, R11E OF THE THIRD P.M. DUPAGE COUNTY, ILLINOIS.



MARK	DATE	REVISION	BY	APV'D
	6-4-24	REVISED PER COMMENTS	GSK	MJJ
	6-3-24	REVISED PER COMMENTS	GSK	MJJ

"ALTA/NSPS LAND TITLE SURVEY"
PREPARED FOR:

THE MATTHEWS COMPANY Inc.

17220 Newhope Street, Suites 108-110, Fountain Valley, CA 92708
Tel: (714)-979-7181 Fax: (714)-641-2840
www.thematthewscompany.com

Bledsoe Riggert Cooper James
BRCJ
LAND SURVEYING • CIVIL ENGINEERING • GIS

1351 West Tapp Road Bloomington, Indiana 47403
Phone: 812-336-8277 Email: mjames@brcjcivil.com

BRCJ Project No. 11654

This Survey has been prepared solely for the benefit of the parties set forth in this Surveyor's Certification and may not be quoted or relied upon by, nor may copies be delivered to, any other party or used for any other purpose including, without limitation, the preparation of zoning reports or any other third party reports, without The Matthews Company, Inc. and Bledsoe Riggert Cooper & James, Inc.'s prior written consent. The Matthews Company, Inc. and Bledsoe Riggert Cooper & James, Inc. expressly disclaims any duty or obligation towards any party that is not identified in this Surveyor's Certification.

Please be advised that The Matthews Company, Inc. and Bledsoe Riggert Cooper & James, Inc. will not include the providers of any third party reports in the Surveyor's Certification.

JLL Value and Risk Advisory

1432 & 1434 Butterfield Road
Downers Grove, IL

SCALE: 1"= 40'	CHKD./APV'D:
DATE: MAY 30, 2024	APPROVED:
DWN. BY: VS	
CHKD.BY: MJJ/JCT	SHEET 2 OF 2

J.N.: 24-05-01-09002

ALTA / NSPS LAND TITLE SURVEY

LOT 1 AND PART OF LOT 2 IN OAK GROVE CENTRE OF COMMERCE UNIT ONE, A PART OF THE EAST HALF OF SECTION 30 T38N, R11E OF THE THIRD P.M. DUPAGE COUNTY, ILLINOIS.

DESCRIPTION

PARCEL 1:
LOT 1 IN OAK GROVE CENTRE OF COMMERCE UNIT ONE, BEING A SUBDIVISION OF PART OF THE EAST 1/2 OF SECTION 30, TOWNSHIP 39 NORTH, RANGE 11, EAST OF THE THIRD PRINCIPAL MERIDIAN, ACCORDING TO THE PLAT THEREOF RECORDED FEBRUARY 7, 1972 AS DOCUMENT NO. R72-6195, IN DUPAGE COUNTY, ILLINOIS.

PARCEL 2:
THAT PART OF LOT 2 DESCRIBED AS BEGINNING AT THE NORTHWEST CORNER OF SAID LOT 2; THENCE SOUTH 01 DEGREE 04 MINUTES 56 SECONDS EAST ALONG THE WESTERLY LINE OF SAID LOT 2 A DISTANCE OF 245.61 FEET TO A POINT; THENCE NORTH 88 DEGREES 55 MINUTES 04 SECONDS EAST ALONG A LINE PERPENDICULAR TO THE WESTERLY LINE OF SAID LOT 2 A DISTANCE OF 66 FEET TO A POINT; THENCE NORTH 01 DEGREE 04 MINUTES 56 SECONDS WEST ON A LINE PARALLEL TO THE WEST LINE OF LOT 2, A DISTANCE OF 243.42 FEET TO THE NORTH LINE OF SAID LOT 2; THENCE NORTH 89 DEGREES 10 MINUTES 46 SECONDS WEST ALONG THE NORTH LINE OF SAID LOT 2, A DISTANCE OF 66.04 FEET TO THE POINT OF BEGINNING, ALL IN OAK GROVE CENTRE OF COMMERCE, UNIT 1 BEING A SUBDIVISION OF PART OF THE EAST 1/2 OF SECTION 30, TOWNSHIP 39 NORTH, RANGE 11, EAST OF THE THIRD PRINCIPAL MERIDIAN, ACCORDING TO THE PLAT THEREOF RECORDED FEBRUARY 7, 1972 AS DOCUMENT NO. R72-6195, IN DUPAGE COUNTY, ILLINOIS.

PARCEL 3:
PERPETUAL, NON-EXCLUSIVE EASEMENTS FOR THE BENEFIT OF PARCELS 1 AND 2 AS CREATED BY CONSTRUCTION, OPERATION, MAINTENANCE AND RECIPROCAL EASEMENT AGREEMENT BY AND BETWEEN NATIONAL BOULEVARD BANK OF CHICAGO, AS TRUSTEE UNDER TRUST AGREEMENT DATED DECEMBER 22, 1970 AND KNOWN AS TRUST NUMBER 3632, DROVER'S BANK OF CHICAGO, AS TRUSTEE UNDER TRUST AGREEMENT DATED JANUARY 22, 1980 KNOWN AS TRUST NUMBER 80012 AND NATIONAL BOULEVARD BANK OF CHICAGO, AS TRUSTEE UNDER TRUST AGREEMENT DATED MARCH 24, 1978 KNOWN AS TRUST NUMBER 5994, DATED NOVEMBER 27, 1982 AND RECORDED JUNE 10, 1982 AS DOCUMENT NO. R82-23852 FOR THE PEDESTRIAN AND VEHICULAR TRAFFIC OVER THE FOLLOWING DESCRIBED FIVE (5) EASEMENTS:

EASEMENT PARCEL "V":
THE NORTHERLY 180 FEET OF THE FOLLOWING DESCRIBED PARCEL:

THAT PART OF LOT 2 IN OAK GROVE CENTRE OF COMMERCE, UNIT 1, DESCRIBED AS FOLLOWS:

COMMENCING AT THE NORTHWEST CORNER OF SAID LOT 2; THENCE SOUTH 01 DEGREE 04 MINUTES 56 SECONDS EAST, ALONG THE WEST LINE OF SAID LOT, A DISTANCE OF 245.61 FEET TO THE POINT OF BEGINNING; THENCE CONTINUING SOUTH 01 DEGREE 04 MINUTES 56 SECONDS EAST ALONG SAID WEST LINE A DISTANCE OF 116.0 FEET; THENCE NORTH 88 DEGREES 55 MINUTES 04 SECONDS EAST, A DISTANCE OF 16 FEET; THENCE NORTH 01 DEGREE 04 MINUTES 56 SECONDS WEST, A DISTANCE OF 92.0 FEET; THENCE NORTH 88 DEGREES 55 MINUTES 04 SECONDS EAST, A DISTANCE OF 74 FEET; THENCE NORTH 01 DEGREE 04 MINUTES 56 SECONDS WEST, A DISTANCE OF 266.62 FEET TO A POINT ON THE NORTHERLY LINE OF SAID LOT 2; THENCE NORTH 89 DEGREES 10 MINUTES 46 SECONDS WEST ALONG THE NORTHERLY LINE OF SAID LOT 2, A DISTANCE OF 24.01 FEET; THENCE SOUTH 01 DEGREE 04 MINUTES 56 SECONDS EAST A DISTANCE OF 243.42 FEET; THENCE SOUTH 88 DEGREES 55 MINUTES 04 SECONDS WEST A DISTANCE OF 66 FEET TO THE POINT OF BEGINNING, ALL IN OAK GROVE CENTRE OF COMMERCE, UNIT 1, BEING A SUBDIVISION OF PART OF THE EAST 1/2 OF SECTION 30, TOWNSHIP 39 NORTH, RANGE 11, EAST OF THE THIRD PRINCIPAL MERIDIAN, IN DUPAGE COUNTY, ILLINOIS.

EASEMENT PARCEL "W":
THE FOLLOWING DESCRIBED PARCEL, EXCEPT THE NORTH 180 FEET THEREOF:

THAT PART OF LOT 2 IN OAK GROVE CENTRE OF COMMERCE, UNIT 1, DESCRIBED AS FOLLOWS:

COMMENCING AT THE NORTHWEST CORNER OF SAID LOT 2; THENCE SOUTH 1 DEGREE 04 MINUTES 56 SECONDS EAST ALONG THE WEST LINE OF SAID LOT, A DISTANCE OF 245.61 FEET TO THE POINT OF BEGINNING; THENCE CONTINUING SOUTH 1 DEGREE 04 MINUTES 56 SECONDS EAST ALONG SAID WEST LINE A DISTANCE OF 116.0 FEET; THENCE NORTH 88 DEGREES 55 MINUTES 04 SECONDS EAST, A DISTANCE OF 16 FEET; THENCE NORTH 1 DEGREE 04 MINUTES 56 SECONDS WEST, A DISTANCE OF 92.0 FEET; THENCE NORTH 88 DEGREES 55 MINUTES 04 SECONDS EAST, A DISTANCE OF 74 FEET; THENCE NORTH 1 DEGREE 04 MINUTES 56 SECONDS WEST, A DISTANCE OF 266.62 FEET TO A POINT ON THE NORTHERLY LINE OF SAID LOT 2; THENCE NORTH 89 DEGREES 10 MINUTES 46 SECONDS WEST ALONG THE NORTHERLY LINE OF SAID LOT 2, A DISTANCE OF 24.01 FEET; THENCE SOUTH 1 DEGREE 04 MINUTES 56 SECONDS EAST A DISTANCE OF 243.42 FEET; THENCE SOUTH 88 DEGREES 55 MINUTES 04 SECONDS WEST A DISTANCE OF 66 FEET TO THE POINT OF BEGINNING, ALL IN OAK GROVE CENTRE OF COMMERCE, UNIT 1, BEING A SUBDIVISION OF PART OF THE EAST 1/2 OF SECTION 30, TOWNSHIP 39 NORTH, RANGE 11, EAST OF THE THIRD PRINCIPAL MERIDIAN, IN DUPAGE COUNTY, ILLINOIS.

EASEMENT PARCEL "X": INTENTIONALLY DELETED.

EASEMENT PARCEL "Y": INTENTIONALLY DELETED.

EASEMENT PARCEL "Z":
THAT PART OF LOTS 2 AND 3 IN OAK GROVE CENTRE OF COMMERCE, UNIT 1, DESCRIBED AS FOLLOWS:

COMMENCING AT THE NORTHWEST CORNER OF LOT 2; THENCE SOUTH 1 DEGREE 04 MINUTES 56 SECONDS EAST ALONG THE WEST LINE OF SAID LOT 2, 361.61 FEET TO THE POINT OF BEGINNING; THENCE NORTH 88 DEGREES 55 MINUTES 04 SECONDS EAST, 359.78 FEET TO THE POINT OF CURVE; THENCE 69.77 FEET EASTERLY ALONG A CURVE CONCAVE NORTHERLY, HAVING A RADIUS OF 178.01 FEET (CHORD BEARING NORTH 77 DEGREES 41 MINUTES 20 SECONDS EAST AND A DISTANCE OF 69.33 FEET) TO A POINT OF REVERSE CURVE; THENCE EASTERLY 69.77 FEET ALONG A CURVE CONCAVE SOUTHERLY, HAVING A RADIUS OF 178.01 FEET (CHORD BEARING NORTH 77 DEGREES 41 MINUTES 20 SECONDS EAST AND A DISTANCE OF 69.33 FEET) TO POINT OF TANGENT; THENCE NORTH 88 DEGREES 55 MINUTES 04 SECONDS EAST, 207.75 FEET TO POINT OF CURVE; THENCE SOUTHERLY 47.12 FEET ALONG A CURVE CONCAVE SOUTHWESTERLY, HAVING A RADIUS OF 30 FEET (CHORD BEARING SOUTH 46 DEGREES 04 MINUTES 56 SECONDS EAST AND A DISTANCE OF 42.43 FEET) TO POINT OF TANGENT, SAID POINT BEING ON A LINE 170 FEET WEST OF AND PARALLEL TO THE EAST LINE OF LOT 3; THENCE SOUTH 1 DEGREE 04 MINUTES 56 SECONDS EAST ALONG THE AFORESAID PARALLEL LINE 247.90 FEET TO A POINT ON THE SOUTHERLY LINE OF LOT 3; THENCE SOUTH 81 DEGREES 54 MINUTES 34 SECONDS WEST ALONG THE SOUTHERLY LINE OF LOT 3, 35.26 FEET; THENCE NORTH 1 DEGREE 04 MINUTES 56 SECONDS WEST, 227.21 FEET TO POINT OF CURVE; THENCE NORTHERLY 31.42 FEET ALONG A CURVE CONCAVE SOUTHWESTERLY, HAVING A RADIUS OF 20 FEET (CHORD BEARING NORTH 46 DEGREES 04 MINUTES 56 SECONDS WEST AND A DISTANCE OF 28.28 FEET), TO POINT OF TANGENT; THENCE SOUTH 88 DEGREES 55 MINUTES 04 SECONDS WEST, 182.75 FEET TO POINT OF CURVE; THENCE WESTERLY 56.06 FEET ALONG A CURVE CONVEX NORTHERLY HAVING A RADIUS OF 143.01 FEET (CHORD BEARING SOUTH 77 DEGREES 41 MINUTES 20 SECONDS WEST AND A DISTANCE OF 55.70 FEET) TO POINT OF REVERSE CURVE; THENCE WESTERLY 83.49 FEET ALONG A CURVE CONVEX SOUTHERLY HAVING A RADIUS OF 213.01 FEET (CHORD BEARING SOUTH 77 DEGREES 41 MINUTES 20 SECONDS WEST AND A DISTANCE OF 82.96 FEET) TO POINT OF TANGENT; THENCE SOUTH 88 DEGREES 55 MINUTES 04 SECONDS WEST, 359.78 FEET TO A POINT ON THE WEST LINE OF LOT 2; THENCE NORTH 1 DEGREE 04 MINUTES 56 SECONDS WEST ALONG THE WEST LINE OF LOT 2, 35 FEET TO THE POINT OF BEGINNING, ALL IN OAK GROVE CENTRE OF COMMERCE, UNIT 1, BEING A SUBDIVISION OF PART OF THE EAST 1/2 OF SECTION 30, TOWNSHIP 39 NORTH, RANGE 11, EAST OF THE THIRD PRINCIPAL MERIDIAN, IN DUPAGE COUNTY, ILLINOIS.

CERTIFICATION

To: Pine24 Downers Grove LLC, Alpine Income Property OP, LP, Alpine Income Property GP, LLC, Alpine Income Property Trust, Inc., JLL Value and Risk Advisory, LLC, Chicago Title Insurance Company, The Matthews Company, Inc.

This is to certify that this map or plat and the survey on which it is based were made in accordance with the 2021 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, 6a, 6b, 7a, 7b1, 7c, 8, 9, 10, 13, 14, 16, 17, 18 and 19 of Table A thereof. The field work for this survey was performed on May 16, 2024 .

Date of Plat or Map: May 30, 2024

James C. Tibbett 035.003652 PROFESSIONAL LAND SURVEYOR STATE OF ILLINOIS

By:
Name: James C. Tibbett
Professional Surveyor No. 035.003652
State of Illinois
EXPIRES 11/30/2024

This professional service conforms to the current Illinois minimum standards for a boundary survey.

The property described and shown hereon is the same property described in Chicago Title Insurance Company Title Commitment No. CCHI2306262LD dated April 19, 2024.

EASEMENT NOTES

Per Chicago Title Insurance Company Title Commitment No. CCHI2306262LD dated April 19, 2024.

J 15. Building line 35 feet North of the South Lot line of the Lot, South of the North Lot line of the Lot and East of the West Lot Line of the Lot, as shown on the Plat of Oak Grove Centre of Commerce Unit One. THIS EASEMENT CROSSES THE SURVEYED PROPERTY AND AFFECTS AS SHOWN HEREON.

K 16. Utility easement as shown on the Plat and contained in the certificate appended to the Plat of Oak Grove Centre of Commerce Unit One. (affects the North and West 10 feet) THIS EASEMENT CROSSES THE SURVEYED PROPERTY AND AFFECTS AS SHOWN HEREON.

L 17. Certificate appended to the Plat Oak Grove Centre of Commerce Unit One, aforesaid. Right of Access to All Easements is Also Granted to the Village of Downers Grove and to the Downers Grove Sanitary District for the Purpose of Construction and Maintenance. THE SURVEYED PROPERTY IS INCLUDED WITHIN THIS DOCUMENT. BLANKET IN NATURE, NOT SHOWN.

M 18. Order recorded January 2, 1969 as document no. R69-87 by the State of Illinois, Department of Public Works and buildings, division of highways, establishing federal aid route 131 as a freeway and providing that access between said freeway and abutting Lands is to be permitted only at entrances provided for that purpose under permits from said department. THIS EASEMENT TOUCHES THE SURVEYED PROPERTY AND AFFECTS AS SHOWN HEREON.

N 19. Easement created by a grant dated February 7, 1980 and recorded June 9, 1980 as document no. R80-033001, from Commerce Centre II, and others to Northern Illinois Gas, its successors and assigns, for the purpose of laying, maintaining, operating, removing, renewing and replacing gas mains and appurtenant equipment in, upon, under, along and across the following described Land an easement over parts of Lots 1 and 2 in Oak Grove Centre of Commerce Unit One described as follows:

commencing at the Northeast Corner of Said Lot 1; Thence South 1 degree 04 minutes 56 seconds East along the East Line of Said Lot, a distance of 245.61 feet to the point of beginning; thence continuing South 1 degree 04 minutes 56 seconds East along said East Line, a distance of 29 feet; thence South 88 degrees 55 minutes 04 seconds West along a line perpendicular to the East Line of said Lot 1, a distance of 10 feet; thence North 1 degree 04 minutes 56 seconds West on a line parallel to the East Line of said Lot 1, a distance of 39 feet; thence North 88 degrees 55 minutes 04 seconds East along a line perpendicular to the East Line of said Lot 1, a distance of 56 feet; thence North 1 degree 04 minutes 56 seconds West on a line parallel to the West Line of Lot 2 a distance of 234.08 feet to the Northerly North of Said Lot 2; thence South 89 degree 10 minutes 56 seconds East along the Northerly line of Said Lot 2, a distance of 10.005 feet; thence South 1 degrees 04 minutes 56 seconds East on a North parallel to the West Line of Said Lot 2, a distance of 243.75 feet; thence South 88 degrees 55 minutes 04 seconds West along a line perpendicular to the West Line of Lot 2, a distance of 56 feet to the point of beginning, all in Oak Grove Centre of Commerce Unit 1, being a Subdivision of part of the East 1/2 of Section 30, Township 39 North, Range 11, East of the Third Principal Meridian, in DuPage county, Illinois. (affects the East and South 10 feet of parcel 2 and a 39 foot by 10 foot strip along the East Lot line of Lot 1) THIS EASEMENT CROSSES THE SURVEYED PROPERTY AND AFFECTS AS SHOWN HEREON.

F 20. Terms, provisions, and conditions relating to the easement described as Parcel 3 contained in the instrument creating said easement. Rights of the adjoining owner or owners to the concurrent use of said easement. THE SURVEYED PROPERTY IS INCLUDED WITHIN THIS DOCUMENT. BLANKET IN NATURE, NOT SHOWN.

O 21. Easements, terms, conditions and provisions contained in the access road construction, operation, maintenance and reciprocal easement agreement recorded under document, recorded June 10, 1982, as document no. R82-23852.
Rights of the adjoining owner or owners to the concurrent use of said easements. (affects Parcels 1 and 3) THIS EASEMENT CROSSES THE SURVEYED PROPERTY AND AFFECTS AS SHOWN HEREON.

P 22. Easement created by a grant dated April 4, 1980 and recorded April 14, 1980 as document no. R80-21771 from Drovers Bank of Chicago, as trustee under trust agreement dated January 22, 1980 and known as trust number 80012 to the Commonwealth Edison Company, its successors and assigns, to construct and maintain utility service affecting the following described Land:

An easement over parts of Lots 1 and 2 in Oak Grove Centre of Commerce Unit 1, Described as Follows:
Commencing at the Northeast Corner of Said Lot 1; Thence South 01 degree 04 minutes 56 seconds East, along the East Line of Said Lot, a distance of 245.61 feet to the point of beginning; thence South 88 degrees 55 minutes 04 seconds West, along a line perpendicular to East line of said Lot 1, a distance of 10 feet; thence North 01 degree 04 minutes 56 seconds West, on a line parallel to the East Line of said Lot 1 a distance of 10 feet; thence North 88 degrees 55 minutes 04 seconds East, along a line perpendicular to the East Line of said Lot 1, a distance of 56 feet; thence North 01 degree 04 minutes 56 seconds West on a line parallel to the West Line of Lot 2, a distance of 234.08 feet to the Northerly line of Said Lot 2; thence South 89 degrees 10 minutes 46 seconds East, along the Northerly line of Said Lot 2, a distance of 10.005 feet; thence South 01 degree 04 minutes 56 seconds East, on a line parallel to the West Line of Said Lot 2, a distance of 243.75 feet; thence South 88 degrees 55 minutes 04 seconds West, along a line perpendicular to the West Line of Lot 2, a distance of 56 feet to the point of beginning;
all in Oak Grove Centre of Commerce, Unit 1, aforesaid (Affects a 10-foot by 10-foot portion of Parcel 1; and the North 10 feet, the West 10 feet of the East 20 feet, and the North 10 feet of the South 20 feet of Parcel 2) THIS EASEMENT CROSSES THE SURVEYED PROPERTY AND AFFECTS AS SHOWN HEREON.

Q 23. Grant of easement dated October 15, 1982 and recorded October 15, 1982 as document no. R82-47337 made by Drovers Bank of Chicago, as trustee under trust agreement dated January 22, 1980 and known as trust number 80012, granting a public utility easement over the East 10 feet of the West 86 feet (as measured at right angles to the West Line thereof) of the Southerly 24 feet of the Northerly 204 feet (as measured at right angles to the North Line Thereof) of Lot 2 in Oak Grove Centre of Commerce Unit 1, being a Subdivision of part of the East 1/2 of Section 30, Township 39 North, Range 11, East of the Third Principal Meridian, in DuPage county, Illinois (Affects a portion of parcel 2) THIS EASEMENT CROSSES THE SURVEYED PROPERTY AND AFFECTS AS SHOWN HEREON.

R 24. Grant made by Joseph Johnson and Catherine M. Johnson, his wife, to Village of Downers Grove, an Illinois Municipal Corporation, its successors and assigns, Dated June 6, 1968 and recorded July 2, 1968 as document no. R68-28304, of the 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 combined waterworks and sewage system or any part thereof on, over, under and across a strip of Land 10 feet wide in the South East 1/4 of Section 30, Township 39 North, Range 11, East of the Third Principal Meridian, as described therein and as shown on the Plat attached thereto and marked "Exhibit a", together with the provisions and conditions therein contained, and as shown on the Plat of Oak Grove Centre of Commerce Unit One, Aforesaid. (Affects Part of Easement Parcel Z in Parcel 3) THIS EASEMENT CROSSES THE SURVEYED PROPERTY AND AFFECTS AS SHOWN HEREON.

ENCROACHMENT NOTES

A. BUILDING OVER SETBACK (EASEMENT ITEM 15).
B. BUILDING OVER EASEMENT LINE.

NOTES:

1. PROPERTY IS LOCATED IN FLOOD ZONE "X" PER FEMA FLOOD INSURANCE RATE MAP NUMBER 17043C0156J, DATED 08/01/2019 (IF PLOTTED, SUBJECT TO MAP SCALE INACCURACIES)

2. ZONING NOTES:
ZONING CLASSIFICATION: PROPERTY IS ZONED GENERAL SERVICES AND HIGHWAY BUSINESS (B-3), CURRENT USE AS A RETAIL SALES IS ALLOWED.
BUILDING SETBACKS:
FRONT = 25'
SIDE = 4'
REAR = 0' (NONRESIDENTIAL); 30' (RESIDENTIAL)
HEIGHT RESTRICTIONS: MAXIMUM BUILDING HEIGHT = 80'
OFF-STREET PARKING REQUIREMENTS: 3.5 SPACES PER 1,000 SQ.FT.

THE ZONING INFORMATION ABOVE WAS PROCURED FROM THE VILLAGE OF DOWNERS GROVE, IL ZONING ORDINANCE DATED 09/15/2014 AND PER A PHONE CALL TO JASON ZAWILA (PLANNING MANAGER), PHONE NUMBER (630) 434-5526 (AS INTERPRETED BY THE SURVEYOR).

3. PARKING: THERE ARE 414 TOTAL PARKING SPACES ON SITE, 16 OF WHICH ARE DESIGNATED HANDICAP.

4. FIELD WORK PERFORMED MAY 16, 2024.

5. ALL IRP/REBAR SET ARE MARKED WITH GREEN CAP ENGRAVED "TIBBETT-IL PS035003652" AND ARE FLUSH WITH GROUND UNLESS NOTED OTHERWISE.

6. THERE IS NO OBSERVABLE EVIDENCE OF EARTH MOVING WORK, BUILDING CONSTRUCTION OR BUILDING ADDITIONS WITHIN RECENT MONTHS.

7. THERE IS NO VISIBLE EVIDENCE OF PROPOSED STREET RIGHT OF WAY CHANGES. R.O.W. IS SHOWN PER CURRENT DEED AND TITLE INFORMATION.

8. THERE IS NO OBSERVABLE EVIDENCE OF RECENT STREET OR SIDEWALK CONSTRUCTION OR REPAIRS.

9. THERE IS NO OBSERVABLE EVIDENCE OF SITE USE AS A SOLID WASTE DUMP, SUMP, SANITARY LANDFILL, CEMETERY, GRAVESITE OR BURIAL GROUNDS.

10. ACCESS IS PROVIDED DIRECTLY BY DOWNERS DRIVE AND BROOK DRIVE, PUBLIC STREETS.

11. THIS SURVEY MAP CORRECTLY REPRESENTS THE FACTS FOUND AT THE TIME OF SURVEY.

12. THERE ARE NO DISCREPANCIES BETWEEN THE BOUNDARY LINES OF THE PROPERTY AS SHOWN ON THIS SURVEY MAP AND AS DESCRIBED IN THE LEGAL DESCRIPTION PRESENTED IN THE TITLE COMMITMENT.

13. THE BOUNDARY LINE DIMENSIONS AS SHOWN ON THIS SURVEY MAP FORM A MATHEMATICALLY CLOSED FIGURE WITHIN +/-0.1 FOOT.

14. THE BOUNDARY LINES OF THE PROPERTY ARE CONTIGUOUS WITH THE BOUNDARY LINES OF ALL ADJOINING STREETS, HIGHWAYS, RIGHTS OF WAY AND EASEMENTS, PUBLIC OR PRIVATE, AS DESCRIBED IN THE MOST RECENT RESPECTIVE LEGAL DESCRIPTIONS OF RECORD.

15. EXCEPT AS OTHERWISE NOTED BELOW, IF THE PROPERTY CONSISTS OF TWO OR MORE PARCELS, THERE ARE NO GAPS OR GORES BETWEEN SAID PARCELS.

"ALTA/NSPS LAND TITLE SURVEY"
PREPARED FOR:

THE MATTHEWS COMPANY Inc.®

17220 Newhope Street, Suites 108-110, Fountain Valley, CA 92708
Tel: (714)979-7181 Fax: (714)641-2840
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Phone: 812-336-6277 Email: mjames@brcjcivil.com

BRCJ Project No. 11654

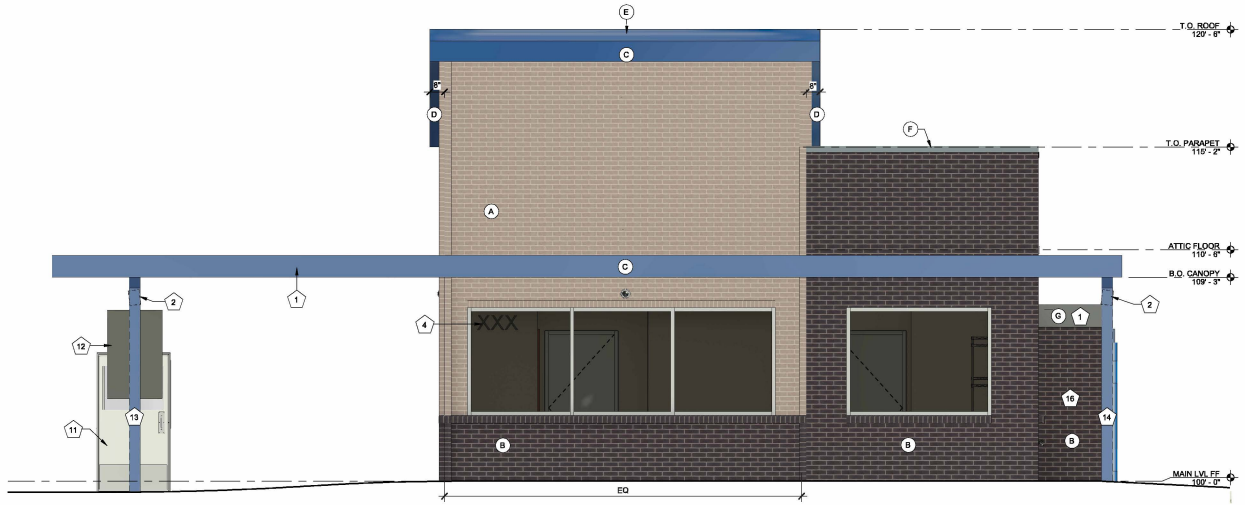
MARK	DATE	REVISION	BY	APVD
	6-4-24	REVISED PER COMMENTS	GSK	MJJ
	6-3-24	REVISED PER COMMENTS	GSK	MJJ

JLL Value and Risk Advisory

1432 & 1434 Butterfield Road
Downers Grove, IL

	CHKD./APV'D:
DATE: MAY 30, 2024	APPROVED:
DWN. BY: VS	
CHKD.BY: MJJ/JCT	SHEET 1 OF 2

J.N.: 24-05-01-09002



1 EXTERIOR ELEVATION - FRONT
3/8" = 1'-0"

EXTERIOR ELEVATION MATERIALS LEGEND

MARK	DESCRIPTION
A	FULL-DEPTH MODULAR BRICK (BRK-2)
B	FULL-DEPTH MODULAR BRICK(BRK-1)
C	BRAKE METAL FASCIA (MP-2)
D	SOFFIT PANELS (MP-2)
E	STANDING SEAM ROOF PANELS (MP-2)
F	METAL BRAKE CAP (MP-3)
G	BRAKE METAL FASCIA (MP-1)
H	MASONRY CAP ON TOP OF CMU WALL; COLOR TO MP-3
J	VERTICAL METAL SIDING (MP-4)
K	GUTTER AND DOWNSPOUT; PAINT TO MATCH MP-2

EXTERIOR ELEVATION KEYNOTES

MARK	DESCRIPTION
1	PRE-ENGINEERED ALUMINUM CANOPY BY OTHERS; REF STRUCTURAL
2	MOUNTED SPEAKER SYSTEM; REF SYSTEMS PLAN
3	THROUGH-WALL ROOF SCUPPER; TYP
4	ADDRESS NUMBERS TO BE 8" TALL x 2" BRUSH STROKE
5	ELECTRICAL EQUIPMENT, PAINTED TO MATCH BUILDING; REF ELECTRICAL
6	FROST-PROOF FLUSH HOSE BIB
7	EXTERIOR WEATHER-PROOF OUTLET; REF ELECTRICAL
8	PARAPET WALL EXTENSIONS AS MECH SCREENING & AS GUARDRAIL PER IBC SECTION 1015
9	KNOX BOX
10	OUTLINE OF MECHANICAL UNIT BEYOND
11	CANVAS CRAFT WARMING HUT; CONSTRUCTED W/ FIRE-RETARDANT FABRIC
12	SAMSUNG DIGITAL DISPLAYS; INSTALLED IN FIELD BY IT PROVIDER; CHASE FOR DATA CABLE INSTALLED AT BUILDING MANUFACTURING FACILITY
13	PAINTED STRUCTURAL CANOPY COLUMN; RAINWATER DOWNSPOUT WITHIN; CONNECT BASE OF CANOPY COLUMN DOWNSPOUT TO STORMWATER MANAGEMENT SYSTEM; REF CIVIL
14	PAINTED STRUCTURAL CANOPY COLUMN; RAINWATER DOWNSPOUT WITHIN; SCUPPER BASE OF DOWNSPOUT TO GRADE; REF CIVIL
15	PAINTED STRUCTURAL CANOPY COLUMN; REF CIVIL
16	TRASH ENCLOSURE RE; A5.4
17	OSHA-COMPLIANT FIXED LADDER W/ SECTURITY DOOR

veritas
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7 BREW DRIVE THRU - DOWNERS GROVE IL - BUTTERFIELD
WHOBREW, LLC
BUTTERFIELD ROAD & DOWNERS DRIVE, DOWNERS GROVE, ILLINOIS 60515

REVISIONS
No. Description Date

sheet issue date: 11/11/25
project no.: 23.43.34
sheet contents: EXTERIOR ELEVATIONS
sheet no.: A2.0

EXTERIOR ELEVATION MATERIALS LEGEND

MARK	DESCRIPTION
A	FULL-DEPTH MODULAR BRICK (BRK-2)
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F	METAL BRAKE CAP (MP-3)
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K	GUTTER AND DOWNSPOUT; PAINT TO MATCH MP-2

EXTERIOR ELEVATION KEYNOTES

MARK	DESCRIPTION
1	PRE-ENGINEERED ALUMINUM CANOPY BY OTHERS; REF STRUCTURAL
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7	EXTERIOR WEATHER-PROOF OUTLET; REF ELECTRICAL
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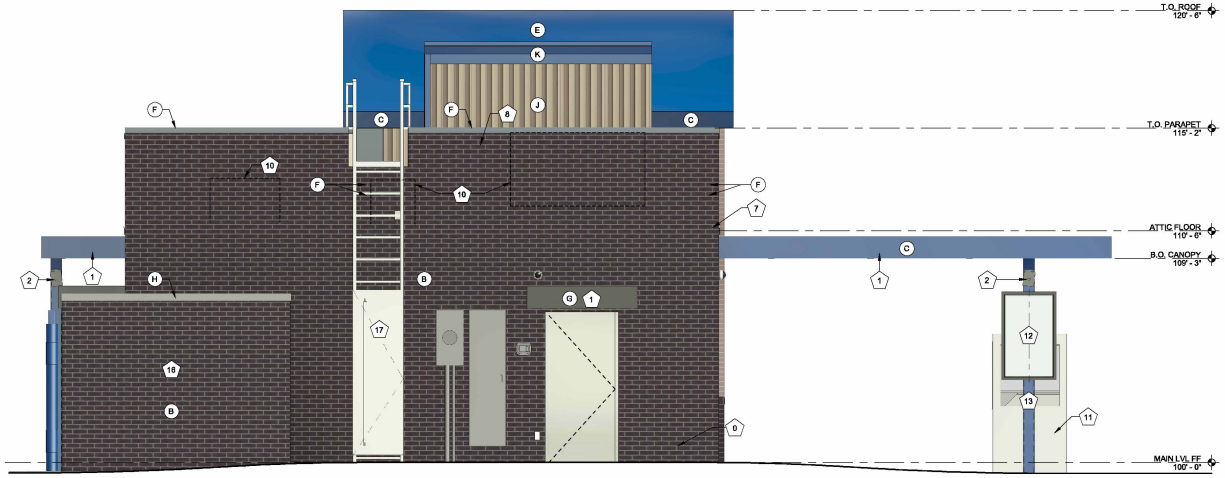
9	KNOX BOX
10	OUTLINE OF MECHANICAL UNIT BEYOND
11	CANVAS CRAFT WARMING HUT; CONSTRUCTED W/ FIRE-RETARDANT FABRIC
12	SAMSUNG DIGITAL DISPLAYS; INSTALLED IN FIELD BY IT PROVIDER; CHASE FOR DATA CABLE INSTALLED AT BUILDING MANUFACTURING FACILITY
13	PAINTED STRUCTURAL CANOPY COLUMN; RAINWATER DOWNSPOUT WITHIN; CONNECT BASE OF CANOPY COLUMN DOWNSPOUT TO STORMWATER MANAGEMENT SYSTEM; REF CIVIL
14	PAINTED STRUCTURAL CANOPY COLUMN; RAINWATER DOWNSPOUT WITHIN; SCUPPER BASE OF DOWNSPOUT TO GRADE; REF CIVIL
15	PAINTED STRUCTURAL CANOPY COLUMN; REF CIVIL
16	TRASH ENCLOSURE RE; A5.4
17	OSHA-COMPLIANT FIXED LADDER W/ SECTURITY DOOR



1 EXTERIOR ELEVATION - REAR
3/8" = 1'-0"

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BUTTERFIELD ROAD & DOWNERS DRIVE, DOWNERS GROVE, ILLINOIS 60515

REVISIONS
No. Description Date

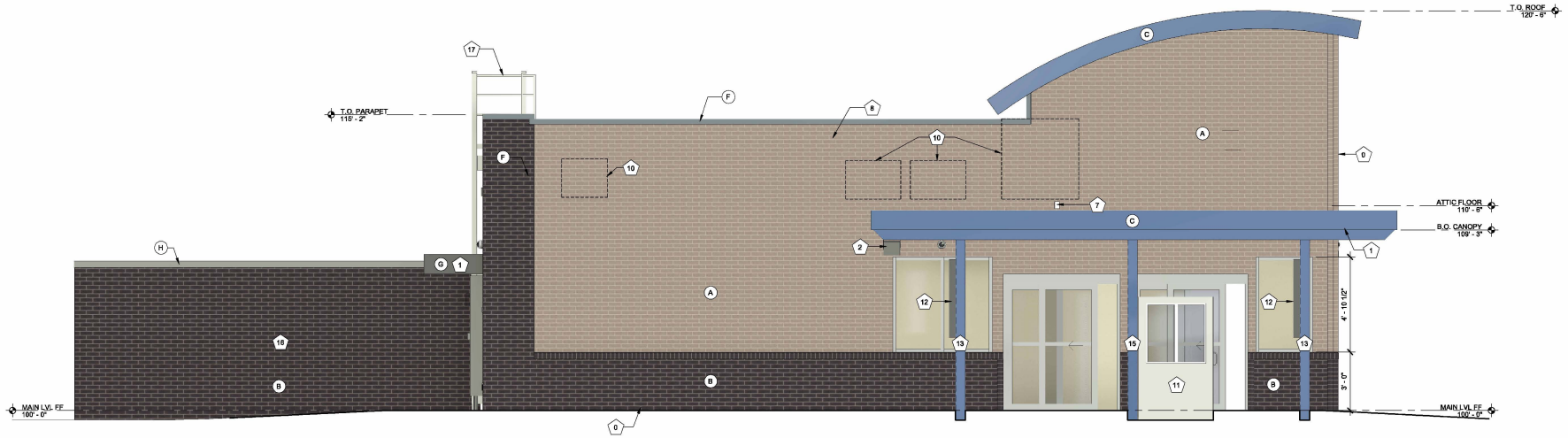
sheet issue date: 11/11/25
project no.: 23.43.34
sheet contents: EXTERIOR ELEVATIONS
sheet no.: A2.1

EXTERIOR ELEVATION MATERIALS LEGEND

MARK	DESCRIPTION
A	FULL-DEPTH MODULAR BRICK (BRK-2)
B	FULL-DEPTH MODULAR BRICK(BRK-1)
C	BRAKE METAL FASCIA (MP-2)
D	SOFFIT PANELS (MP-2)
E	STANDING SEAM ROOF PANELS (MP-2)
F	METAL BRAKE CAP (MP-3)
G	BRAKE METAL FASCIA (MP-1)
H	MASONRY CAP ON TOP OF CMU WALL; COLOR TO MP-3
J	VERTICAL METAL SIDING (MP-4)
K	GUTTER AND DOWNSPOUT; PAINT TO MATCH MP-2

EXTERIOR ELEVATION KEYNOTES

MARK	DESCRIPTION
1	PRE-ENGINEERED ALUMINUM CANOPY BY OTHERS; REF STRUCTURAL
2	MOUNTED SPEAKER SYSTEM; REF SYSTEMS PLAN
3	THROUGH-WALL ROOF SCUPPER; TYP
4	ADDRESS NUMBERS TO BE 8" TALL x 2" BRUSH STROKE
5	ELECTRICAL EQUIPMENT, PAINTED TO MATCH BUILDING; REF ELECTRICAL
6	FROST-PROOF FLUSH HOSE BIB
7	EXTERIOR WEATHER-PROOF OUTLET; REF ELECTRICAL
8	PARAPET WALL EXTENSIONS AS MECH SCREENING & AS GUARDRAIL PER IBC SECTION 1015
9	KNOX BOX
10	OUTLINE OF MECHANICAL UNIT BEYOND
11	CANVAS CRAFT WARMING HUT; CONSTRUCTED W/ FIRE-RETARDANT FABRIC
12	SAMSUNG DIGITAL DISPLAYS; INSTALLED IN FIELD BY IT PROVIDER; CHASE FOR DATA CABLE INSTALLED AT BUILDING MANUFACTURING FACILITY
13	PAINTED STRUCTURAL CANOPY COLUMN; RAINWATER DOWNSPOUT WITHIN; CONNECT BASE OF CANOPY COLUMN DOWNSPOUT TO STORMWATER MANAGEMENT SYSTEM; REF CIVIL
14	PAINTED STRUCTURAL CANOPY COLUMN; RAINWATER DOWNSPOUT WITHIN; SCUPPER BASE OF DOWNSPOUT TO GRADE; REF CIVIL
15	PAINTED STRUCTURAL CANOPY COLUMN; REF CIVIL
16	TRASH ENCLOSURE RE; A5.4
17	OSHA-COMPLIANT FIXED LADDER W/ SECTURITY DOOR



1 EXTERIOR ELEVATION - RIGHT
3/8" = 1'-0"

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REVISIONS
No. Description Date

sheet issue date: 11/11/25
project no.: 23.43.34
sheet contents: EXTERIOR ELEVATIONS
sheet no.: A2.2

EXTERIOR ELEVATION MATERIALS LEGEND

MARK	DESCRIPTION
A	FULL-DEPTH MODULAR BRICK (BRK-2)
B	FULL-DEPTH MODULAR BRICK(BRK-1)
C	BRAKE METAL FASCIA (MP-2)
D	SOFFIT PANELS (MP-2)
E	STANDING SEAM ROOF PANELS (MP-2)
F	METAL BRAKE CAP (MP-3)
G	BRAKE METAL FASCIA (MP-1)
H	MASONRY CAP ON TOP OF CMU WALL; COLOR TO MP-3
J	VERTICAL METAL SIDING (MP-4)
K	GUTTER AND DOWNSPOUT; PAINT TO MATCH MP-2

EXTERIOR ELEVATION KEYNOTES

MARK	DESCRIPTION
1	PRE-ENGINEERED ALUMINUM CANOPY BY OTHERS; REF STRUCTURAL
2	MOUNTED SPEAKER SYSTEM; REF SYSTEMS PLAN
3	THROUGH-WALL ROOF SCUPPER; TYP
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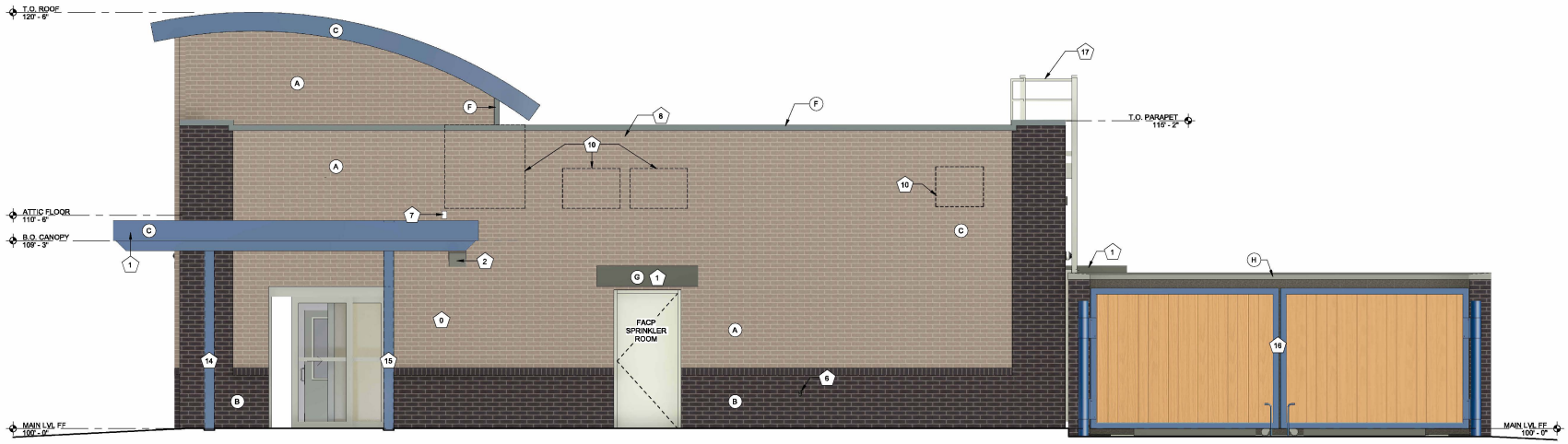
12	SAMSUNG DIGITAL DISPLAYS; INSTALLED IN FIELD BY IT PROVIDER; CHASE FOR DATA CABLE INSTALLED AT BUILDING MANUFACTURING FACILITY
13	PAINTED STRUCTURAL CANOPY COLUMN; RAINWATER DOWNSPOUT WITHIN; CONNECT BASE OF CANOPY COLUMN DOWNSPOUT TO STORMWATER MANAGEMENT SYSTEM; REF CIVIL
14	PAINTED STRUCTURAL CANOPY COLUMN; RAINWATER DOWNSPOUT WITHIN; SCUPPER BASE OF DOWNSPOUT TO GRADE; REF CIVIL
15	PAINTED STRUCTURAL CANOPY COLUMN; REF CIVIL
16	TRASH ENCLOSURE RE; A5.4
17	OSHA-COMPLIANT FIXED LADDER W/ SECTURITY DOOR



1 EXTERIOR ELEVATION - LEFT
3/8" = 1'-0"

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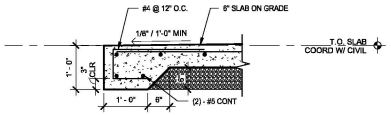
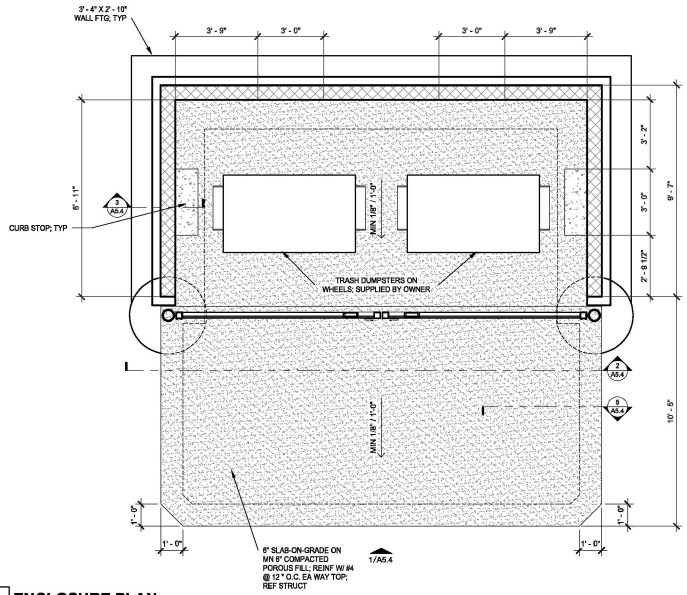
REVISIONS
No. Description Date

sheet issue date: 11/11/25
project no.: 23.43.34
sheet contents: EXTERIOR ELEVATIONS
sheet no.: A2.3



5 ENCLOSURE DETAIL - APRON
3/4" = 1'-0"

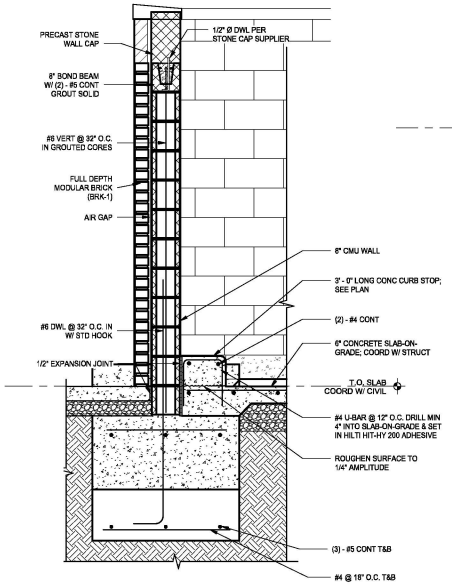


T.O. ROOD DECK
110' - 2 3/4"

4 ENCLOSURE PLAN
3/8" = 1'-0"

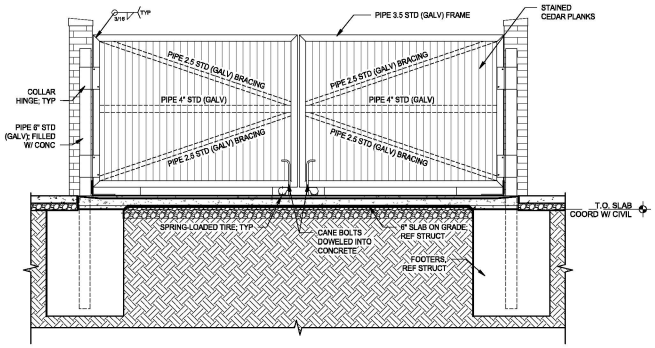
ENCLOSURE KEYNOTES

Note Number	Note Text
1	MASONRY CAP ON TOP OF CMU WALL; COLOR TO MATCH ZINC GREY MP-3
2	1X6 VERTICAL CLEAR SEALED CEDAR PLANKS
3	ALL METAL FRAMING, POST AND HARDWARE 1 COAT POR-15 PRIMER AND 2 COATS FINISH. PAINT TO BE OIL BASED; COLOR TO MATCH ROYAL BLUE MP-2
4	BRK-1 OVER CMU

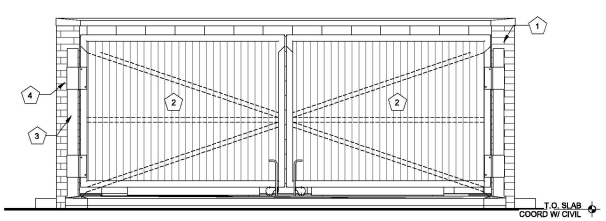


3 ENCLOSURE SECTION - WALL
3/4" = 1'-0"

T.O. ROOD DECK
110' - 2 3/4"



2 ENCLOSURE SECTION - FRONT
3/8" = 1'-0"



1 ENCLOSURE ELEVATION - FRONT
3/8" = 1'-0"

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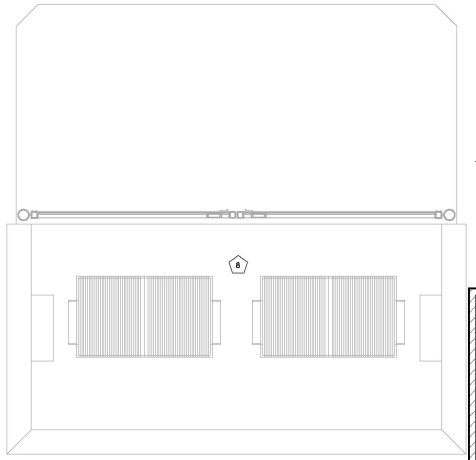
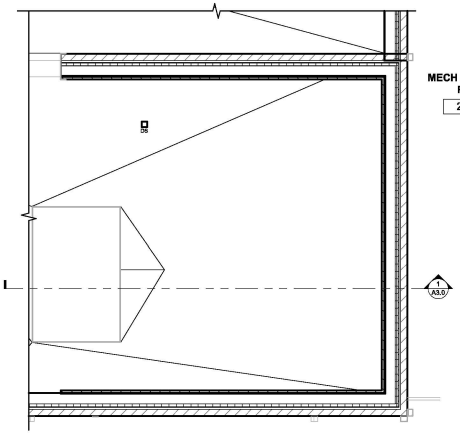
REVISIONS

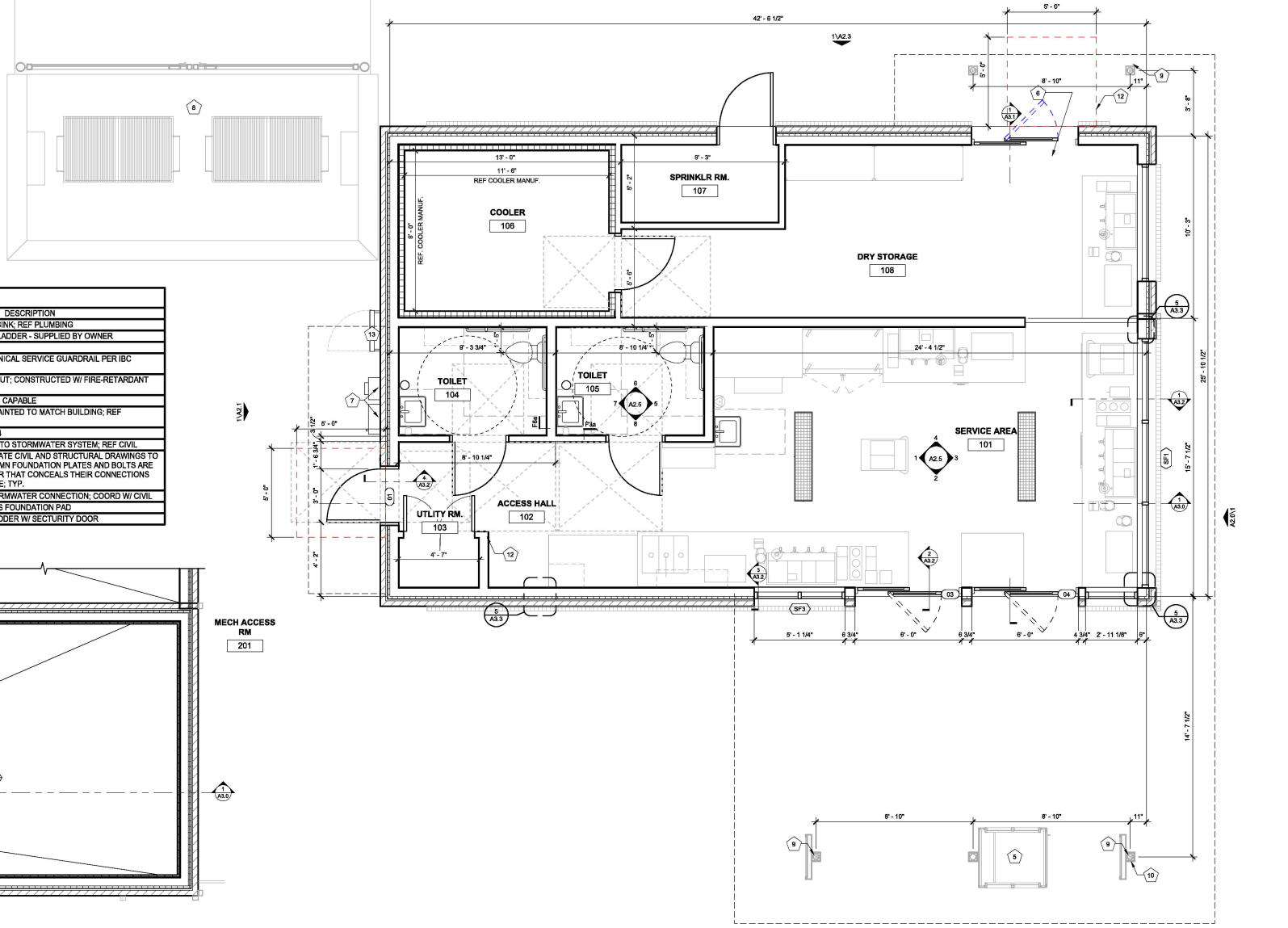
No.	Description	Date

sheet issue date: 11/11/25
project no.: 23.43.34
sheet contents: TRASH ENCLOSURE
sheet no.: A5.4



FLOOR PLAN KEYNOTES	
MARK	DESCRIPTION
1	18" x 24" CHAMFERED MOP SINK; REF PLUMBING
2	MECH. ACCESS DOOR AND LADDER - SUPPLIED BY OWNER
3	STEP, CENTER ON DOOR
4	FABRICATED STEEL MECHANICAL SERVICE GUARDRAIL PER IBC SECTION 1015 - EACH SIDE
5	CANVAS CRAFT WARMING HUT; CONSTRUCTED W/ FIRE-RETARDANT FABRIC
6	ADA AUTO/MANUAL EGRESS CAPABLE
7	ELECTRICAL EQUIPMENT, PAINTED TO MATCH BUILDING; REF ELECTRICAL
8	TRASH ENCLOSURE RE; A5.4
9	DOWNSPOUT CONNECTION TO STORMWATER SYSTEM; REF CIVIL
10	CONTRACTOR TO COORDINATE CIVIL AND STRUCTURAL DRAWINGS TO ENSURE ALL CANOPY COLUMN FOUNDATION PLATES AND BOLTS ARE CONSTRUCTED IN A MANNER THAT CONCEALS THEIR CONNECTIONS COMPLETELY BELOW GRADE; TYP.
11	DOWNSPOUT OUTLET - STORMWATER CONNECTION; COORD W/ CIVIL
12	FROST-PROTECTED EGRESS FOUNDATION PAD
13	OSHA COMPLIANT FIXED LADDER W/ SECTURITY DOOR





2 MECH ACCESS RM
3/8" = 1'-0"

1 FLOOR PLAN
3/8" = 1'-0"

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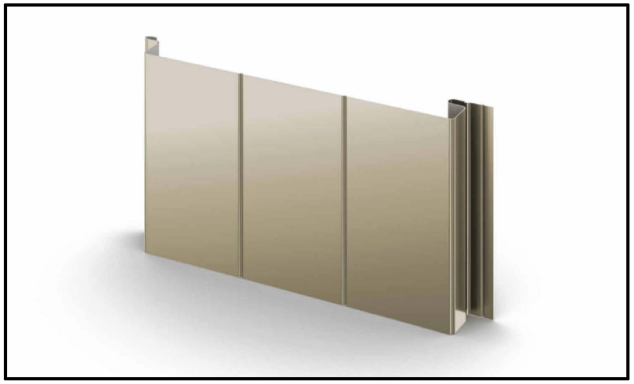
REVISIONS
No. Description Date

sheet issue date: 11/11/25
project no.: 23.43.34
sheet contents: FLOOR PLAN
sheet no.: A1.2

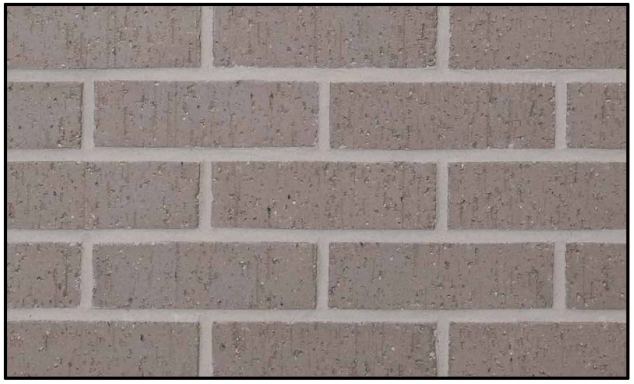


METAL SIDING MP-4
BRAND: BERRIDGE
COLOR: SIERRA TAN
STYLE: FW-12

COPING TRIM METAL MP-3
BRAND: BERRIDGE
COLOR: ZINC GREY
FINISH: LOW SHEEN SMOOTH - REFLECTIVITY .39

BLUE METAL PANEL MP-2
BRAND: BERRIDGE
COLOR: ROYAL BLUE
FINISH: LOW SHEEN SMOOTH - REFLECTIVITY .26

BLACK METAL PANEL MP-1
BRAND: BERRIDGE
COLOR: BLACK
FINISH: LOW SHEEN SMOOTH - REFLECTIVITY .26



FULL DEPTH BRICK - BRK-2
BRAND: HEBRON
COLOR: SILVERADO
FINISH: VELOUR

FULL DEPTH BRICK - BRK-1
BRAND: HEBRON
COLOR: ONYX IRONSPOT
FINISH: RUSTIC

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7 BREW DRIVE THRU - DOWNERS GROVE IL - BUTTERFIELD
11/11/25

MATERIAL COLOR BOARD

23.43.34
7 BREW DRIVE THRU - DOWNERS GROVE IL - BUTTERFIELD
11/11/25

RENDERINGS

HATCH LEGEND:

= 36,384 S.F. ASPHALT AREA TO BE REMOVED.

KEY NOTES:

1. SAW CUT CLEAN EDGE FOR PAVEMENT REMOVAL. PROTECT EDGE OF PAVEMENT DURING CONSTRUCTION.
2. REMOVE 93 L.F. ± OF CONCRETE CURB.
3. REMOVE POST BASE.
4. EXISTING STORM AREA INLET, DO NOT DISTURB.
5. EXISTING MONUMENT SIGN, DO NOT DISTURB.
6. EXISTING ELECTRIC BOX, DO NOT DISTURB.
7. REMOVE LIGHT POLE WITH CONCRETE BASE.
8. EXISTING 12" RCP STORM LINE, DO NOT DISTURB.
9. FIRE HYDRANT TO REMAIN.
10. EXISTING STORM AREA INLET. MODIFY PER SHEET C4.1.
11. HYDROBLAST EXISTING ADA STRIPING.

SEVEN BREW COFFEE DRIVE THRU

MATTHEW STEVEN MILLER 062.065164 LICENSED PROFESSIONAL ENGINEER STATE OF ILLINOIS 12/9/2025

ENGINEER OF RECORD:
NAME: MATTHEW STEVEN MILLER
LICENSE NO. IL #PE 062 065164
EXP. 11/30/2027

PROJECT NUMBER:
104 068

REVISION:

7 BREW COFFEE
DOWNERS GROVE, IL 02
1434 BUTTERFIELD RD
DOWNERS GROVE, IL 60515

N
0 10 20
H. SCALE: 1" = 20'

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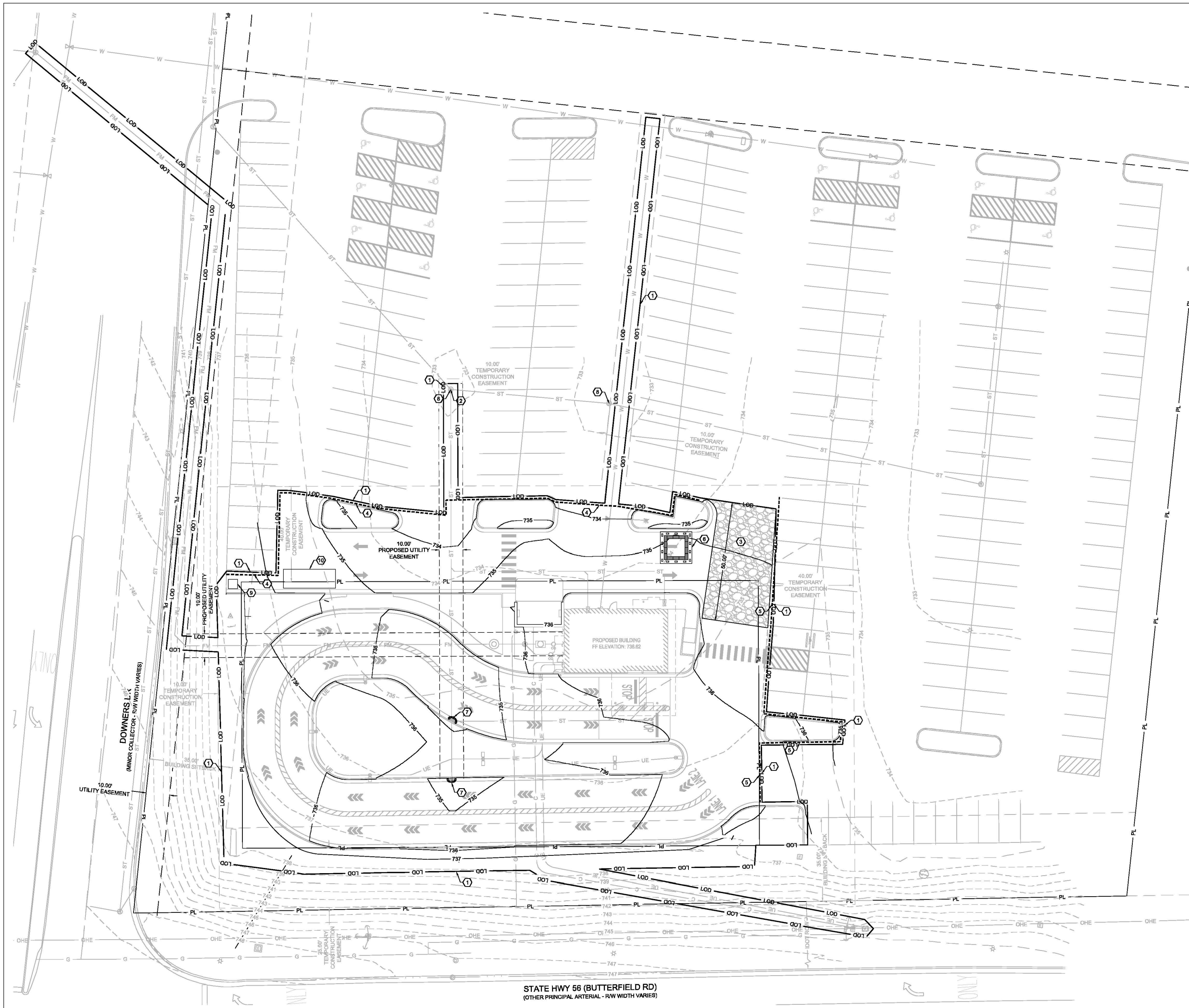
IL# 63620661

C1.1

DEMOLITION PLAN

DATE: DECEMBER 9TH, 2025



KEY NOTES:

1. LIMITS OF DISTURBANCE ≈ 0.92 ACRES.
2. PROPOSED OUTFALL.
3. TEMPORARY CONSTRUCTION ENTRANCE PER DETAIL 1.01, SHEET C7.1.
4. 249 L.F. ± OF COMPOST FILTER SOCK PER DETAIL IUM-514, SHEET C7.5.
5. 192 L.F. ± OF COMPOST FILTER SOCK PER DETAIL IUM-514, SHEET C7.5.
6. CONCRETE WASHOUT PER DETAIL 1.03, SHEET C7.1. SHOWN LOCATION IS APPROXIMATE.
7. CURB INLET PROTECTION PER DETAIL IUM-561C, SHEET C7.5.
8. AREA INLET PROTECTION, PER DETAIL IUM-561D, SHEET C7.5.
9. PORTABLE RESTROOM. SHOWN LOCATION IS APPROXIMATE.
10. DUMPSTER. SHOWN LOCATION IS APPROXIMATE.

PHASING TABLE:

PHASE	CONSTRUCTION ACTIVITIES	BEST MANAGEMENT PRACTICES INSTALLED
PHASE 1 (PRE - CONSTRUCTION)	INSTALLATION OF PRE-CON BMP'S	~ TREE PROTECTION ~ CONSTRUCTION ENTRANCE ~ PERIMETER CONTROL (SILT SOCK)
PHASE 2	CLEARING	~ RETAIN TOPSOIL ~ STOCK PILE PROTECTION ~ DUST CONTROL
PHASE 3	CONSTRUCTION	~ CONCRETE WASHOUT PIT ~ CONSTRUCTION ENTRANCE ~ TEMPORARY SEEDING
PHASE 4 (FINAL STABILIZATION)	FINAL STABILIZATION OF ALL DISTURBED AREAS	~ HYDROSEED ~ SEED / STRAW

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H. SCALE: 1" = 20'

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SEVEN BREW COFFEE DRIVE THRU

MATTHEW STEVEN MILLER
062.065164
LICENSED PROFESSIONAL ENGINEER
STATE OF ILLINOIS
12/9/2025

ENGINEER OF RECORD:
NAME: MATTHEW STEVEN MILLER
LICENSE NO. IL #PE 062 065164
EXP. 11/30/2027

PROJECT NUMBER:
104 068

REVISION:

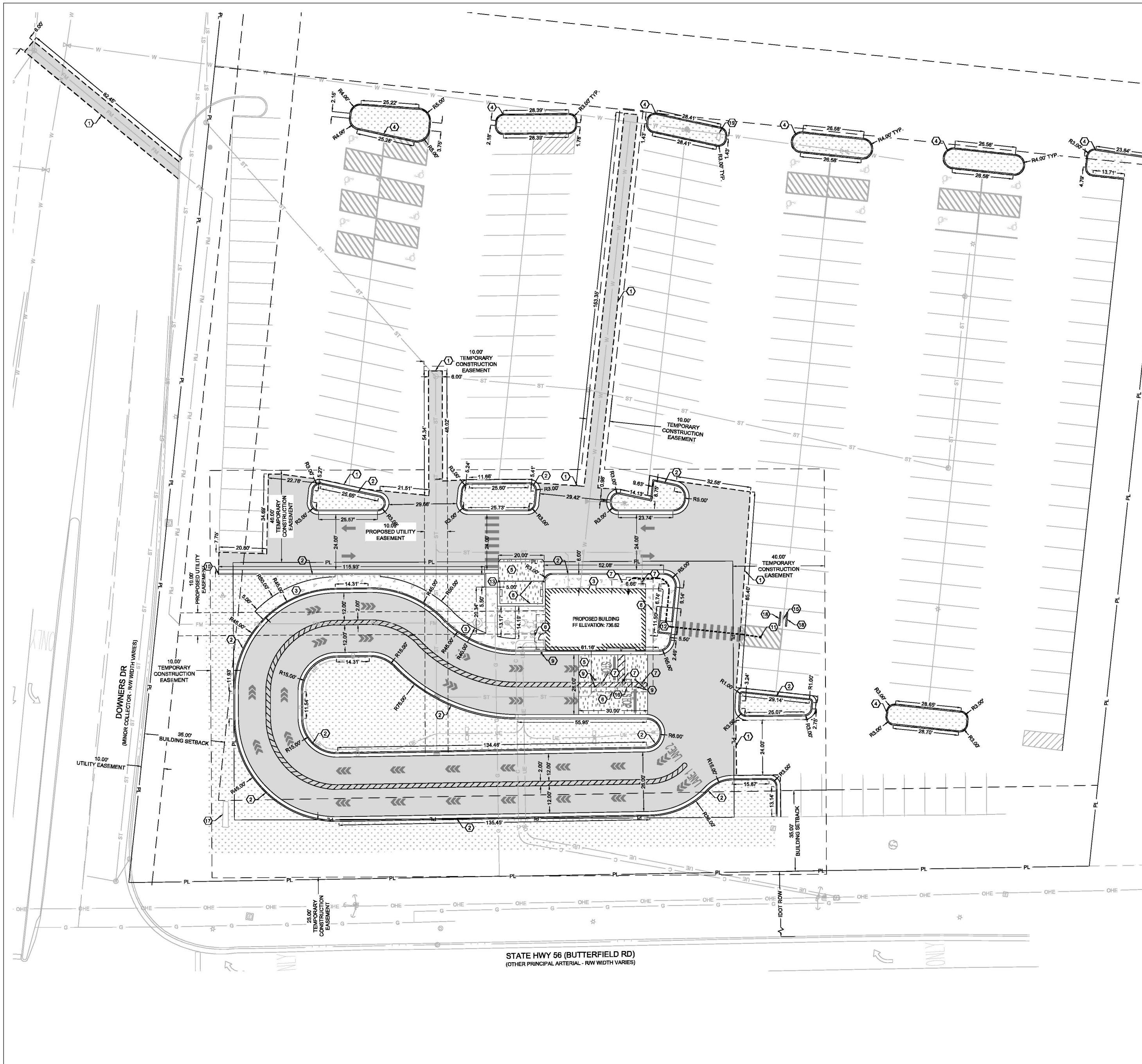
7 BREW COFFEE
DOWNERS GROVE, IL 02

1434 BUTTERFIELD RD
DOWNERS GROVE, IL 60515

C1.2

EROSION CONTROL PLAN

DATE: DECEMBER 9TH, 2025



HATCH LEGEND:

- = ASPHALT PAVEMENT PER DETAIL 2.06, SHEET C7.1.
- = CONCRETE SIDEWALK PER SIDEWALK DETAIL 2.02, SHEET C7.1.
- = CONCRETE PAVEMENT PER CONCRETE PAVEMENT DETAIL 2.03 AND 2.05, SHEET C7.1.
- = LANDSCAPE AREA REFER TO LANDSCAPE PLAN.

KEY NOTES:

1. MATCH EXISTING PAVEMENT.
2. CONCRETE CURB & GUTTER PER CITY DETAIL, SHEET C7.4.
3. SIDEWALK PER DETAIL 2.02, SHEET C7.1.
4. 6" CONCRETE CURB WITH NO GUTTER.
5. CONCRETE PAVEMENT PER CONCRETE PAVEMENT DETAILS 2.03 & 2.05, SHEET C7.1.
6. BUILDING CANOPY OUTLINE.
7. CANOPY COLUMNS LOCATIONS, TYPICAL.
8. TRASH ENCLOSURE AND GATE, PER ARCHITECTURAL PLANS.
9. 3' PIPE BOLLARD, TYPICAL PER DETAIL 2.09, SHEET C7.1.
10. CURB TRANSITION PER DETAIL 2.15, SHEET C7.1.
11. ACCESSIBLE PATH FROM PARKING TO BUILDING.
12. MODIFIED TYPE 2 ADA CURB RAMP PER CITY DETAIL, SHEET C7.4.
13. TYPE 4 ADA CURB RAMP PER CITY DETAIL, SHEET C7.4.
15. SIGN, SEE SHEET C6.1.
16. CANVAS CRAFT WARMING HUT,PER ARCHITECTURAL PLANS.
17. EXISTING MONUMENT SIGN.
18. CONCRETE WHEEL STOP.
19. DIRECTIONAL SIGN.

PROPOSED USE:

RESTAURANT WITH DRIVE THRU.

ZONING:

ZONING DISTRICT: B3, GENERAL SERVICE & HIGHWAY BUSINESS

PARKING REQUIREMENTS: 7 BREW

REQUIRED: 1 SPACE PER EMPLOYEES DURING LARGEST SHIFT = 6 STALLS.

PROVIDED: 7 STALLS, 6 STANDARD AND 1 ADA.

PARKING REQUIREMENTS: PUD DEVELOPMENT

REQUIRED: 108,221 S.F. @ 3.5 PARKING SPACE / 1000 S.F. OF BUILDING AREA = 382

PROVIDED POST 7 BREW DEVELOPEMENT: 320 STALLS.

DRIVE-TRHU QUEUE STACKING REQUIREMENTS:

REQUIRED: 8 SPACES.

PROVIDED: 39 SPACES.

STORMWATER NOTES:

PRE-PROJECT IMPERVIOUS AREA	= ±	33,775 S.F.
PRE-PROJECT PERVIOUS AREA	= ±	5,613 S.F.
TOTAL	= ±	39,388 S.F.
POST-PROJECT IMPERVIOUS AREA	= ±	26,984 S.F.
POST-PROJECT PERVIOUS AREA	= ±	12,404 S.F.
TOTAL	= ±	39,388 S.F.

NOTES:

IMPERVIOUS AND PERVIOUS SURFACE CALCULATIONS ARE BOUNDED BY SAWCUT LINES TO THE NORTH AND EAST, AND LIMIT OF DISTURBANCE TO THE SOUTH AND WEST.

BUILDING AND LOT DATA:

PROJECT FOOTPRINT	33,252 S.F.	≈	0.76 ACRES
PROPOSED BUILDING (1 STORY) - RETAIL		=	1,172 S.F.

CONSTRUCTION TYPE: V-B

QUANTITIES:

CURB & GUTTER	= ±	1,380	L.F.
ASPHALT PAVEMENT	= ±	20,772	S.F.
8-INCH CONCRETE PAVEMENT	= ±	1,179	S.F.
4-INCH CONCRETE SIDEWALK	= ±	1,652	S.F.
LANDSCAPING	= ±	13,171	S.F.

NOTES:

ANY CHANGES MADE TO THE SITE PLAN OR IN THE FIELD DURING CONSTRUCTION MUST BE SUBMITTED IN WRITING TO THE VILLAGE OD DOWNER'S GROVE.

N

0 10 20

H. SCALE: 1" = 20'

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SEVEN BREW COFFEE DRIVE THRU

MATTHEW STEVEN MILLER 062.065164 (seal: LICENSED PROFESSIONAL ENGINEER, STATE OF ILLINOIS) 12/9/2025

ENGINEER OF RECORD:

NAME: MATTHEW STEVEN MILLER

LICENSE NO. IL #PE 062 065164

EXP. 11/30/2027

PROJECT NUMBER: 104 068

REVISION:

7 BREW COFFEE

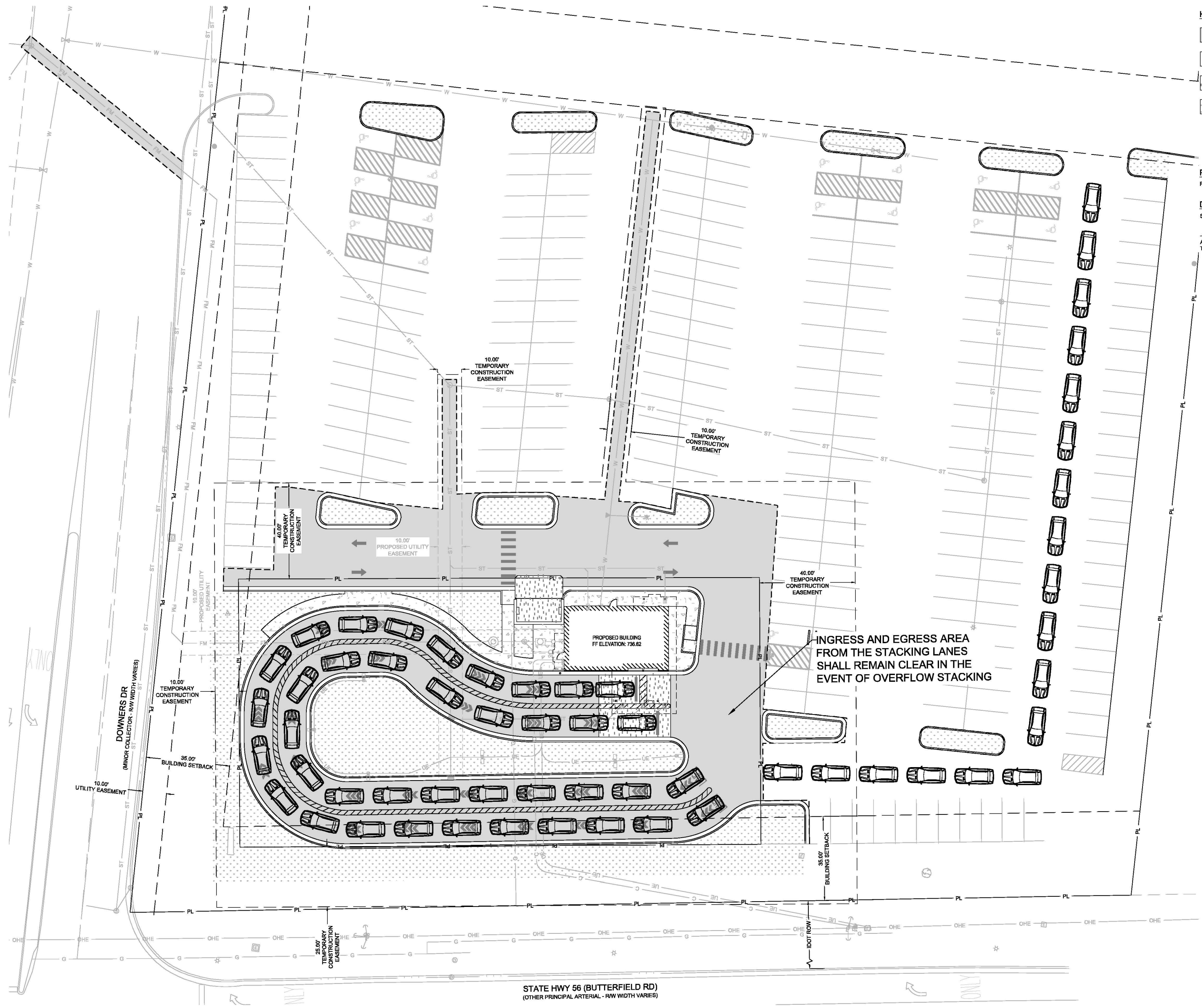
DOWNERS GROVE, IL 02

1434 BUTTERFIELD RD
DOWNERS GROVE, IL 60515

C2.1

SITE PLAN

DATE: DECEMBER 9TH, 2025



HATCH LEGEND:

- = ASPHALT PAVEMENT
- = CONCRETE SIDEWALK
- = CONCRETE PAVEMENT
- = LANDSCAPE AREA

PARKING:

PROVIDED: 7 STALLS, 6 STANDARD AND 1 ADA.

DRIVE-THRU QUEUE STACKING:

STACKING PROVIDED IN LANE 1 AND 2 = 39 VEHICLES

-OFF SITE STACKING SHALL BEGIN EAST OF THE LANE ENTRANCE AND RUN ALONG THE NORTHEAST DRIVE PARKING LANE. STACKING SHALL NOT IMPEDE THE INGRESS AND EGRESS AREA FROM THE STACKING LANES.

0 10 20

H. SCALE: 1" = 20'

Call Before You Dig
JULIE ILLINOIS ONE-CALL SYSTEM
Simply Call 811
www.illinois1call.com

SEVEN BREW COFFEE DRIVE THRU

MATTHEW STEVEN MILLER 062.065164 STATE OF ILLINOIS

ENGINEER OF RECORD:
NAME: MATTHEW STEVEN MILLER
LICENSE NO. IL #PE 062 065164
EXP. 11/30/2027

PROJECT NUMBER:
104 068

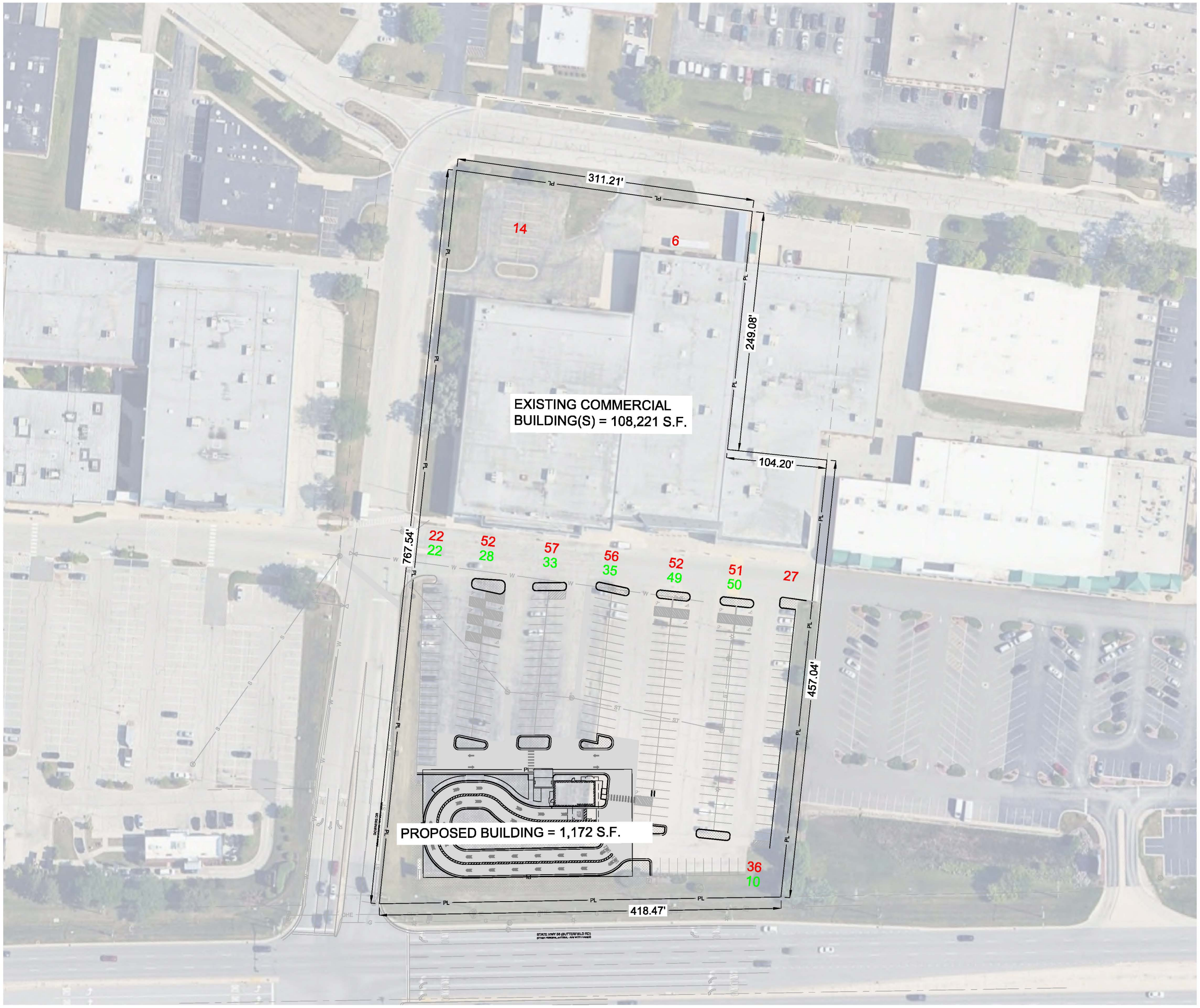
REVISION:

7 BREW COFFEE
DOWNERS GROVE, IL 02
1434 BUTTERFIELD RD
DOWNERS GROVE, IL 60515

TOTH & ASSOCIATES
1550 E. REPUBLIC ROAD
SPRINGFIELD, MO 65804
Ph: 417-888-0645 Fax: 417-888-0657
www.tothassociates.com
IL# 63620661

C2.2
STACKING PLAN

DATE: DECEMBER 9TH, 2025



HATCH LEGEND:

= ASPHALT PAVEMENT

= LANDSCAPE AREA

LEGEND:
EXISTING PARKING IN RED
PROPOSED PARKING IN GREEN

SEVEN BREW COFFEE DRIVE THRU

MATTHEW STEVEN MILLER 062.065164

ENGINEER OF RECORD:
NAME: MATTHEW STEVEN MILLER
LICENSE NO. IL #PE 062 065164
EXP. 11/30/2027

PROJECT NUMBER:
104 068

REVISION:

7 BREW COFFEE
DOWNERS GROVE, IL 02
1434 BUTTERFIELD RD
DOWNERS GROVE, IL 60515

N
0 25 50
H. SCALE: 1" = 50'

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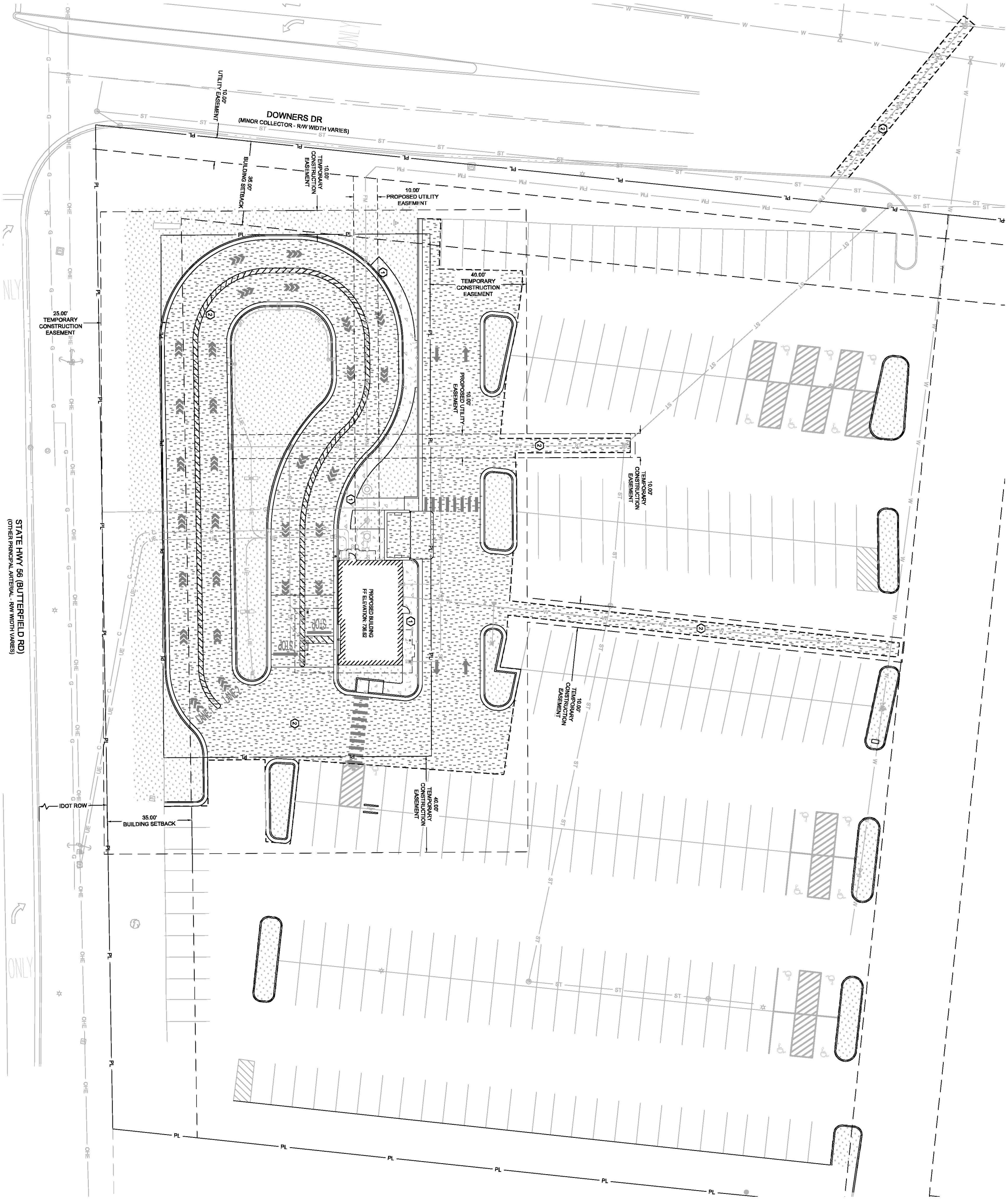
IL# 63620661

C2.3
PARKING LOT EXHIBIT

DATE: DECEMBER 9TH, 2025



HATCH LEGEND:

= CONCRETE SIDEWALK 162 SY

= CONCRETE PAVEMENT 2,438 SY

= LANDSCAPE AREA REFER TO LANDSCAPE PLAN.

KEY NOTES:

1. SIDEWALK PER DETAIL 2.02, SHEET C7.1.
2. CONCRETE PAVEMENT PER CONCRETE PAVEMENT DETAILS 2.03 & 2.05, SHEET C7.1.

H. SCALE: 1" = 20'

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ONE-CALL SYSTEM
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TOTH & ASSOCIATES

SEVEN 7B BREW
DRIVE THRU COFFEE

ENGINEER OF RECORD:
NAME: MATHEW STEVEN MILLER
LICENSE NO.: IL #PE 062.065164
EXP. 11/30/2027

PROJECT NUMBER:
104-068

REVISION:

7 BREW COFFEE

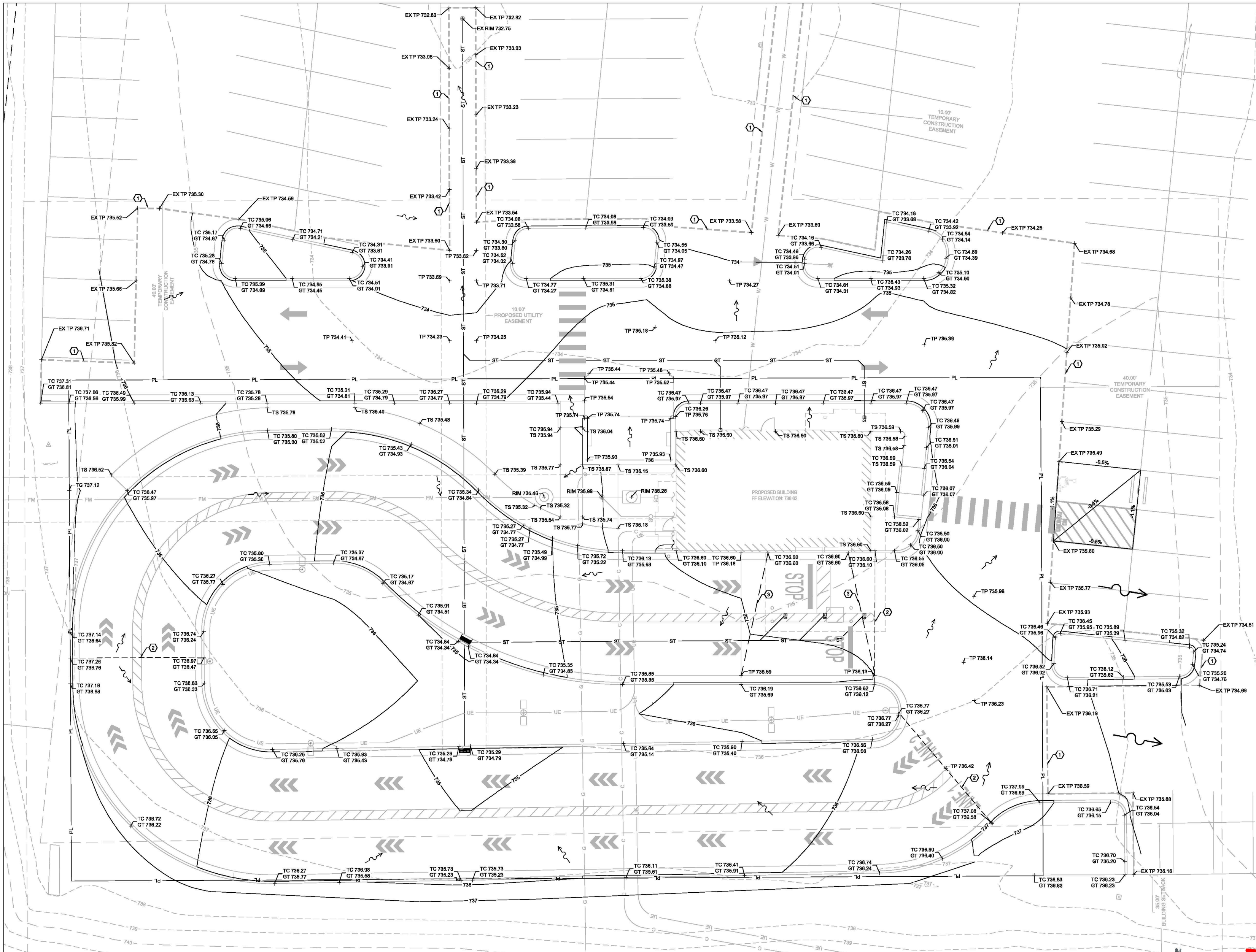
DOWNERS GROVE, IL 02

1434 BUTTERFIELD RD
DOWNERS GROVE, IL 60515

C2.4

CONCRETE ALTERNATE PLAN

DATE: DECEMBER 9TH, 2025



ABBREVIATIONS:

FES	FLARED END SECTION
FL	FLOW LINE
GT	GUTTER
INV	INVERT
R/W	RIGHT-OF-WAY
SC	SPILL CURB
TC	TOP OF CURB
TG	TOP OF GROUND
TP	TOP OF PAVEMENT
TS	TOP OF SIDEWALK
TW	TOP OF WALL
BW	BOTTOM OF WALL
EX TC	EXISTING TOP OF CURB
EX TP	EXISTING TOP OF PAVEMENT
EX TS	EXISTING TOP OF SIDEWALK
~→	DIRECTION OF SHEET FLOW

NOTES:

AREAS TO BE GRADED AND PREPARED FOR SEEDING OR SOD SHALL INDICATE A MINIMUM OF FOUR (4) INCHES OF TOPSOIL.

KEY NOTES:

1. MATCH EXISTING ELEVATION.
2. HIGH POINT IN PAVEMENT.
3. CENTERLINE OF GRADE BREAK IN PAVEMENT.

H. SCALE: 1" = 10'

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IL# 63620661

SEVEN BREW DRIVE THRU COFFEE

MATTHEW STEVEN MILLER 062.065164

ENGINEER OF RECORD:
NAME: MATTHEW STEVEN MILLER
LICENSE NO. IL #PE 062 065164
EXP. 11/30/2027

PROJECT NUMBER: 104 068

REVISION:

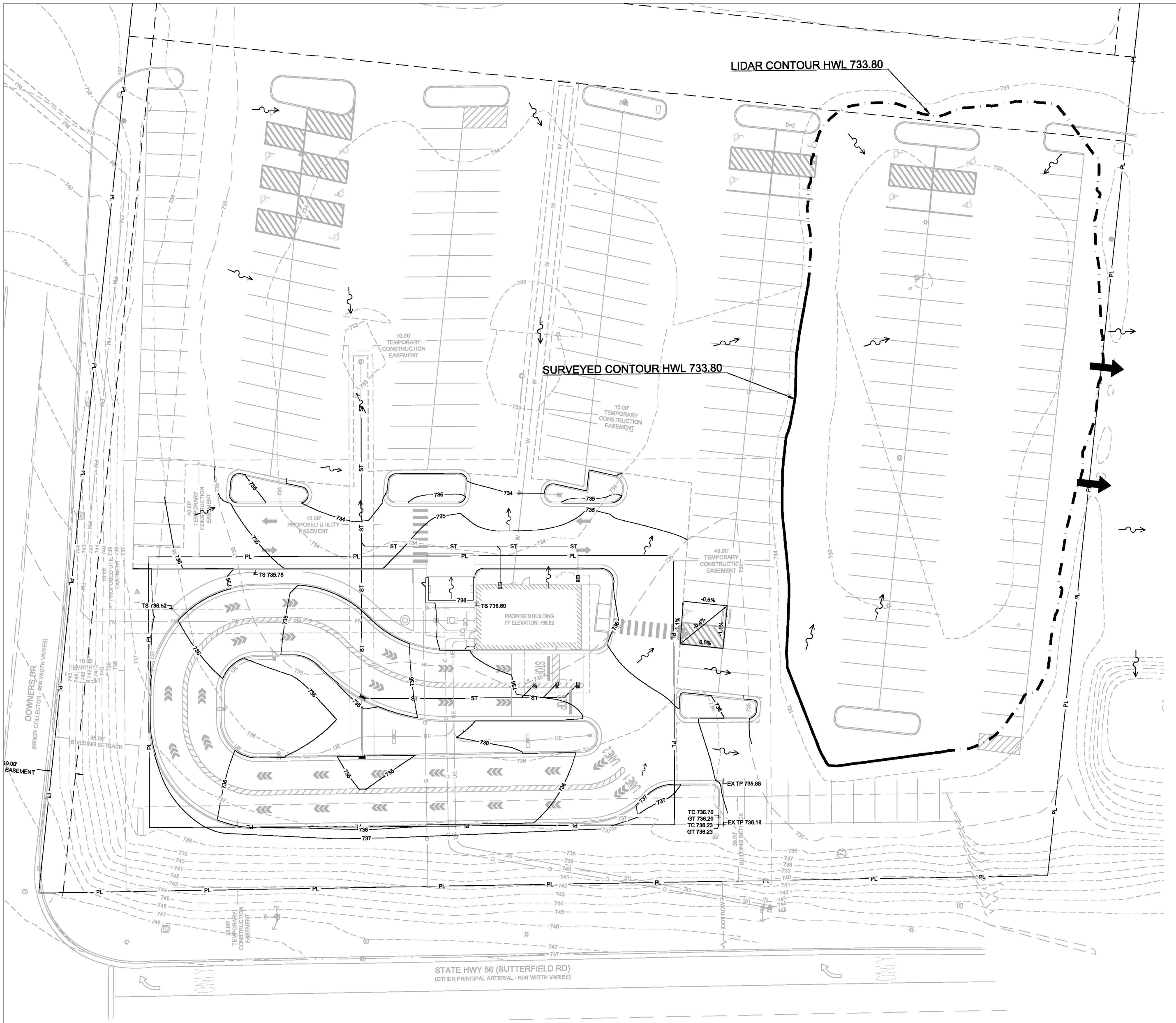
7 BREW COFFEE
DOWNERS GROVE, IL 02

1434 BUTTERFIELD RD
DOWNERS GROVE, IL 60515

C3.1

GRADING PLAN

DATE: DECEMBER 9TH, 2025



ABBREVIATIONS:

FES	FLARED END SECTION
FL	FLOW LINE
GT	GUTTER
INV	INVERT
R/W	RIGHT-OF-WAY
SC	SPILL CURB
TC	TOP OF CURB
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TP	TOP OF PAVEMENT
TS	TOP OF SIDEWALK
TW	TOP OF WALL
BW	BOTTOM OF WALL
EX TC	EXISTING TOP OF CURB
EX TP	EXISTING TOP OF PAVEMENT
EX TS	EXISTING TOP OF SIDEWALK
(sheet flow symbol)	DIRECTION OF SHEET FLOW
(arrow symbol)	100-YEAR OVERFLOW ARROW

NOTES:

AREAS TO BE GRADED AND PREPARED FOR SEEDING OR SOD SHALL INDICATE A MINIMUM OF FOUR (4) INCHES OF TOPSOIL.

SEVEN BREW COFFEE DRIVE THRU

MATTHEW STEVEN MILLER 062.065164
12/9/2025

ENGINEER OF RECORD:
NAME: MATTHEW STEVEN MILLER
LICENSE NO. IL #PE 062 065164
EXP. 11/30/2027

PROJECT NUMBER:
104 068

REVISION:

7 BREW COFFEE
DOWNERS GROVE, IL 02
1434 BUTTERFIELD RD
DOWNERS GROVE, IL 60515

N
0 10 20
H. SCALE: 1" = 20'

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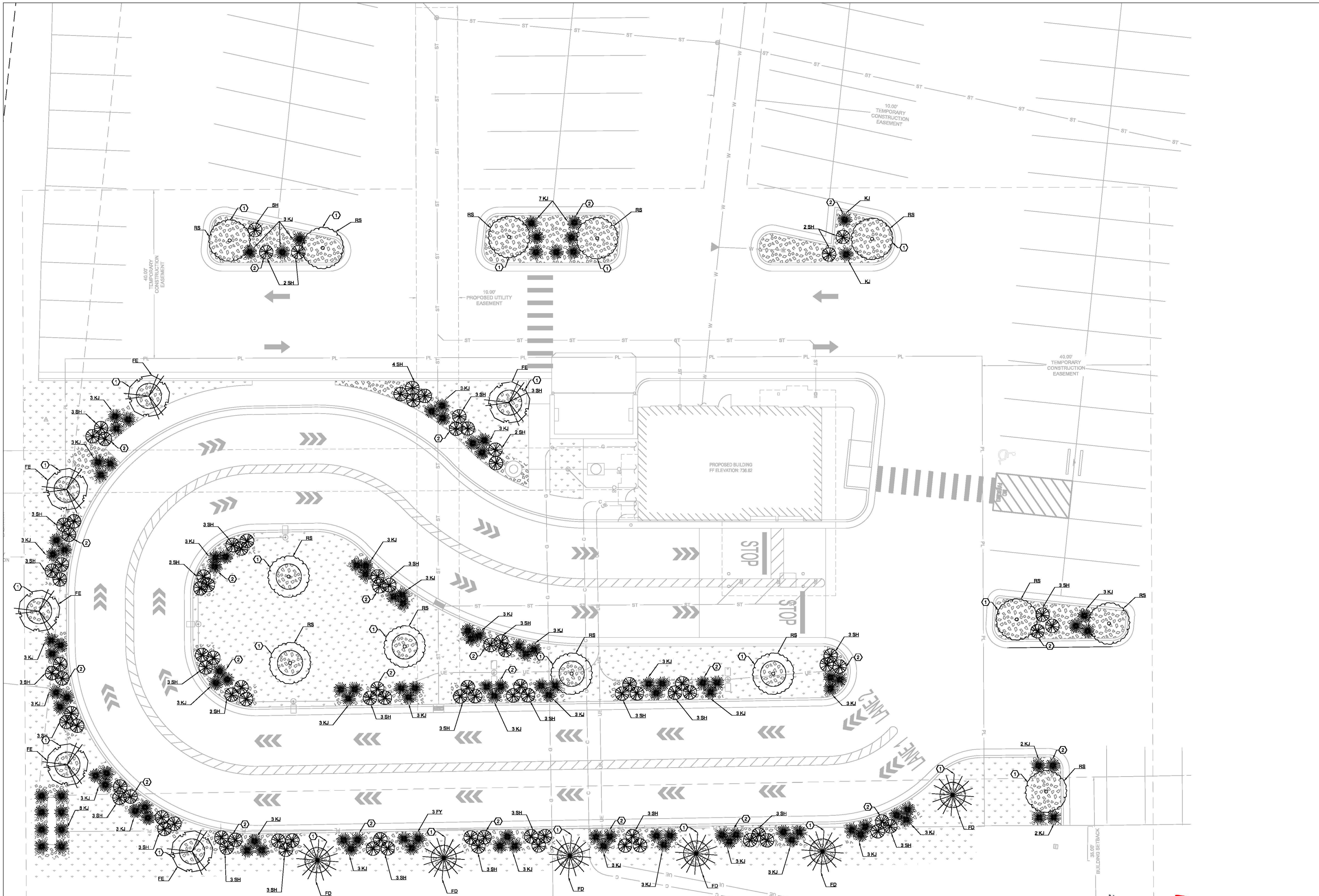
IL# 63620661

C3.2

EMERGENCY OVERFLOW ROUTE

DATE: DECEMBER 9TH, 2025



HATCH LEGEND:

= TURF GRASS SOD = 6,141 S.F. PER DETAIL PVT-19, SHEET C7.5. INSTALL PER SUPPLIER'S INSTALLATION INSTRUCTIONS.

= LANDSCAPE MULCH = 3,967 S.F. SMOOTH SOIL SHALL BE COVERED BY WEED FABRIC AND TOPPED WITH 3 TO 4-INCH LAYER OF SHREDDED HARDWOOD MULCH.

KEY NOTES:

1. TREES TO BE PLANTED ACCORDING TO TREE PLANTING DETAIL 5.01, SHEET C7.2.
2. SHRUBS TO BE PLANTED ACCORDING TO TREE PLANTING DETAIL 5.02, SHEET C7.2.

NOTES:

AREAS TO BE GRADED AND PREPARED FOR SEEDING OR SOD SHALL INDICATE A MINIMUM OF FOUR (4) INCHES OF TOPSOIL.

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Ph: 417-888-0645 Fax: 417-888-0657
www.tothassociates.com
IL# 63620661

SEVEN 7B BREW DRIVE THRU COFFEE

ENGINEER OF RECORD:
NAME: MATTHEW STEVEN MILLER
LICENSE NO. IL #PE 062 065164
EXP. 11/30/2027

PROJECT NUMBER: 104 068

REVISION:

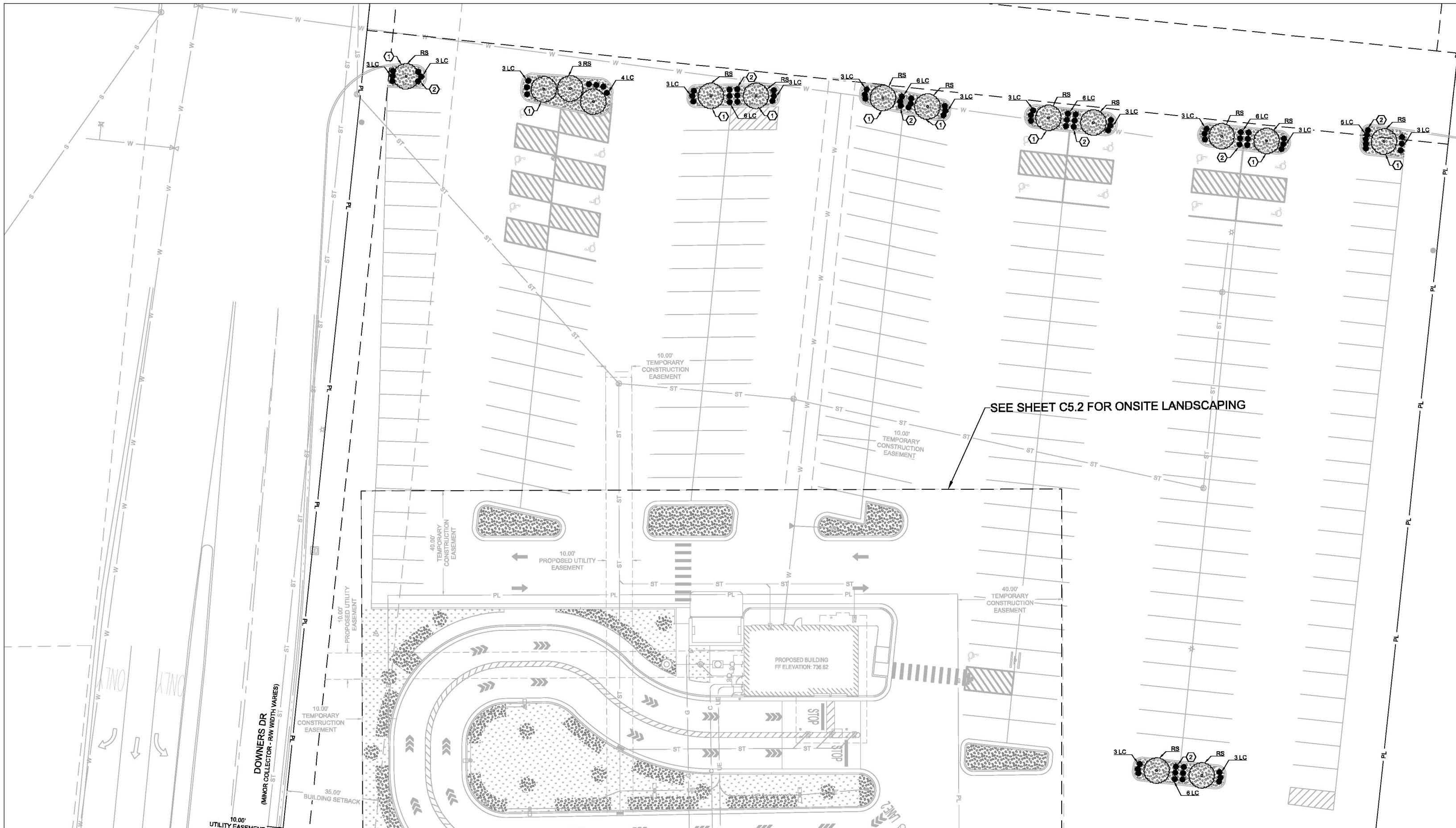
7 BREW COFFEE
DOWNERS GROVE, IL 02

1434 BUTTERFIELD RD
DOWNERS GROVE, IL 60515

C5.2

ONSITE LANDSCAPE PLAN

DATE: DECEMBER 9TH, 2025



HATCH LEGEND:

LANDSCAPE MULCH = 1,986 S.F.
= SMOOTH SOIL SHALL BE COVERED BY WEED FABRIC AND TOPPED WITH 3 TO 4-INCH LAYER OF SHREDDED HARDWOOD MULCH.

KEY NOTES:

(1) TREES TO BE PLANTED ACCORDING TO TREE PLANTING DETAIL 5.01, SHEET C7.2.

(2) SHRUBS TO BE PLANTED ACCORDING TO TREE PLANTING DETAIL 5.02, SHEET C7.2.

LANDSCAPE ISLANDS (SEC 28.8.020):

1 SHADE TREE EVERY 150 S.F OF LANDSCAPE ISLAND ROUNDED TO THE NEAREST WHOLE.

104 S.F. / 150 S.F. = 1 SHADE TREES
394 S.F. / 150 S.F. = 3 SHADE TREES
259 S.F. / 150 S.F. = 2 SHADE TREES
247 S.F. / 150 S.F. = 2 SHADE TREES
265 S.F. / 150 S.F. = 2 SHADE TREES
265 S.F. / 150 S.F. = 2 SHADE TREES
174 S.F. / 150 S.F. = 1 SHADE TREES
275 S.F. / 150 S.F. = 2 SHADE TREES

50% MUST BE LANDSCAPED WITH LIVE MATERIAL

PROVIDED SHRUBS = 81

PLANTING LIST

TYPE	COMMON NAME (SCIENTIFIC NAME)	QUANTITY REQUIRED	QUANTITY PROVIDED	CONDITION AND SIZE	APPROXIMATE MATURE SIZE
	SHADE TREES	15			(HT x SP)
RS	RED SUNSET MAPLE (ACER RUBRUM)		15	2.5" CAL. B&B	40'x30'
	SHRUBS	81			
LC	LOW SCAPE MOUND CHOKEBERRY (ARONIA M. 'UCONNAM165')		81	18" MIN.	2'X2'

N
0 10 20
H. SCALE: 1" = 20'

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Simply Call 811
www.illinois1call.com

SEVEN BREW COFFEE DRIVE THRU

MATTHEW STEVEN MILLER
062.065164

ENGINEER OF RECORD:
NAME: MATTHEW STEVEN MILLER
LICENSE NO. IL #PE 062 065164
EXP. 11/30/2027

PROJECT NUMBER:
104 068

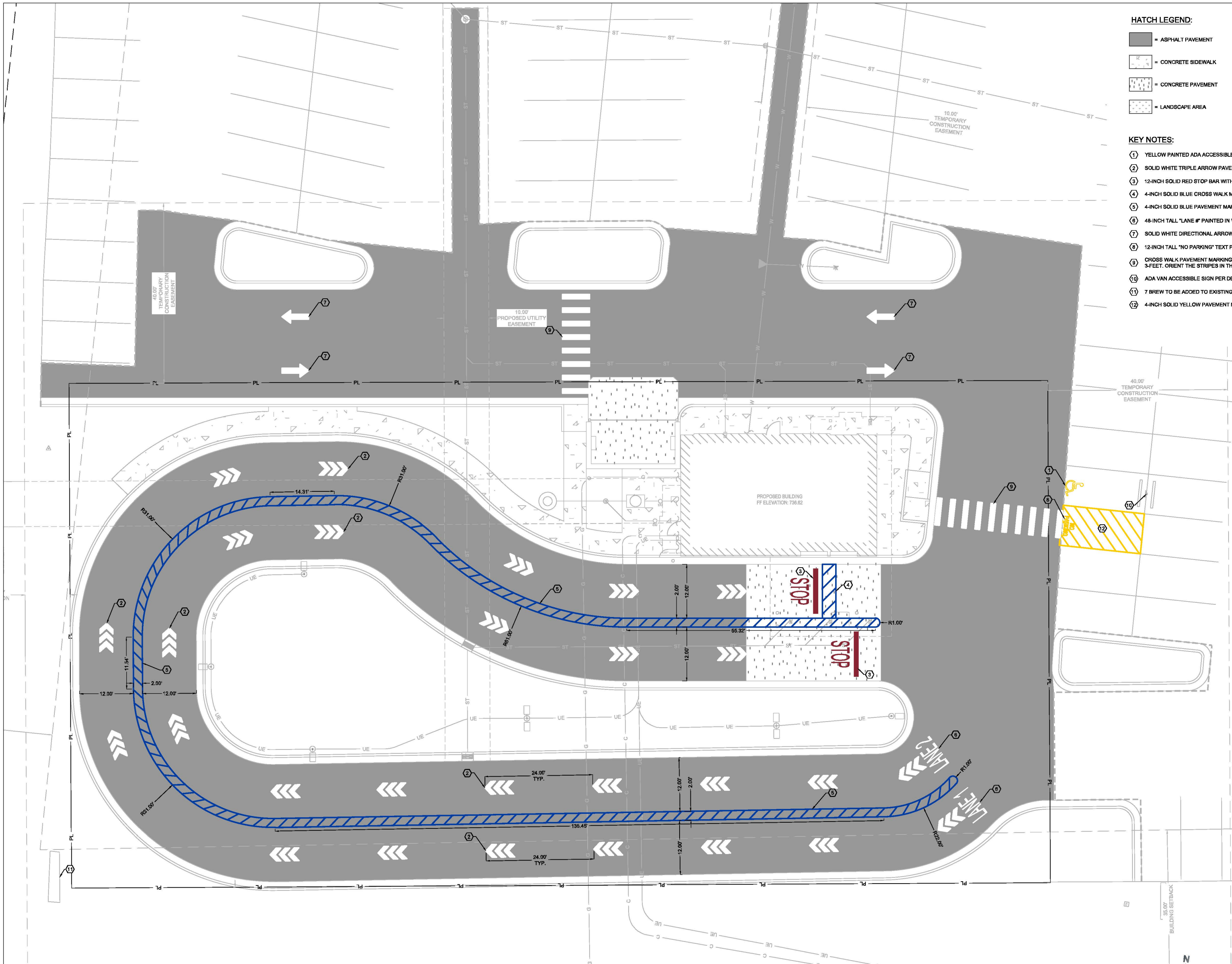
REVISION:

7 BREW COFFEE
DOWNERS GROVE, IL 02
1434 BUTTERFIELD RD
DOWNERS GROVE, IL 60515

TOTH & ASSOCIATES
1550 E. REPUBLIC ROAD
SPRINGFIELD, MO 65804
Ph: 417-888-0645 Fax: 417-888-0657
www.tothassociates.com
IL# 63620661

C5.3
OFFSITE LANDSCAPE PLAN

DATE: DECEMBER 9TH, 2025



HATCH LEGEND:

- = ASPHALT PAVEMENT
- = CONCRETE SIDEWALK
- = CONCRETE PAVEMENT
- = LANDSCAPE AREA

KEY NOTES:

1. YELLOW PAINTED ADA ACCESSIBLE PARKING SYMBOL PER DETAIL 6.01, SHEET C7.2.
2. SOLID WHITE TRIPLE ARROW PAVEMENT MARKER, PER DETAIL 6.02, SHEET C7.2.
3. 12-INCH SOLID RED STOP BAR WITH 48-INCH TALL "STOP" TEXT PAINTED IN RED.
4. 4-INCH SOLID BLUE CROSS WALK MARKER ALIGNED WITH SLIDING DOOR PANEL AT FRONT OPENING.
5. 4-INCH SOLID BLUE PAVEMENT MARKER, TYPICAL. MIDLINES SPACE AT 24" O.C.
6. 48-INCH TALL "LANE #" PAINTED IN WHITE.
7. SOLID WHITE DIRECTIONAL ARROW PAVEMENT MARKING PER IDOT DETAILS, SHEET C7.6.
8. 12-INCH TALL "NO PARKING" TEXT PAINTED IN YELLOW WITH 2-INCH STROKE.
9. CROSS WALK PAVEMENT MARKING, 12-INCH WIDE BY 6-FEET LONG SOLID WHITE PAINT SPACED EVERY 3-FEET. ORIENT THE STRIPES IN THE DIRECTION SHOWN PARALLEL TO THE DIRECTION OF TRAFFIC.
10. ADA VAN ACCESSIBLE SIGN PER DETAIL 6.03, SHEET C7.2.
11. 7 BREW TO BE ADDED TO EXISTING PYLON SIGN.
12. 4-INCH SOLID YELLOW PAVEMENT MARKER, TYPICAL. MIDLINES SPACE AT 24" O.C.

SEVEN 7B BREW
DRIVE THRU COFFEE

MATTHEW STEVEN MILLER
062.065164
LICENSED PROFESSIONAL ENGINEER
STATE OF ILLINOIS
12/9/2025

ENGINEER OF RECORD:

NAME: MATTHEW STEVEN MILLER

LICENSE NO. IL #PE 062 065164

EXP. 11/30/2027

PROJECT NUMBER:
104 068

REVISION:

7 BREW COFFEE
DOWNERS GROVE, IL 02

1434 BUTTERFIELD RD
DOWNERS GROVE, IL 60515

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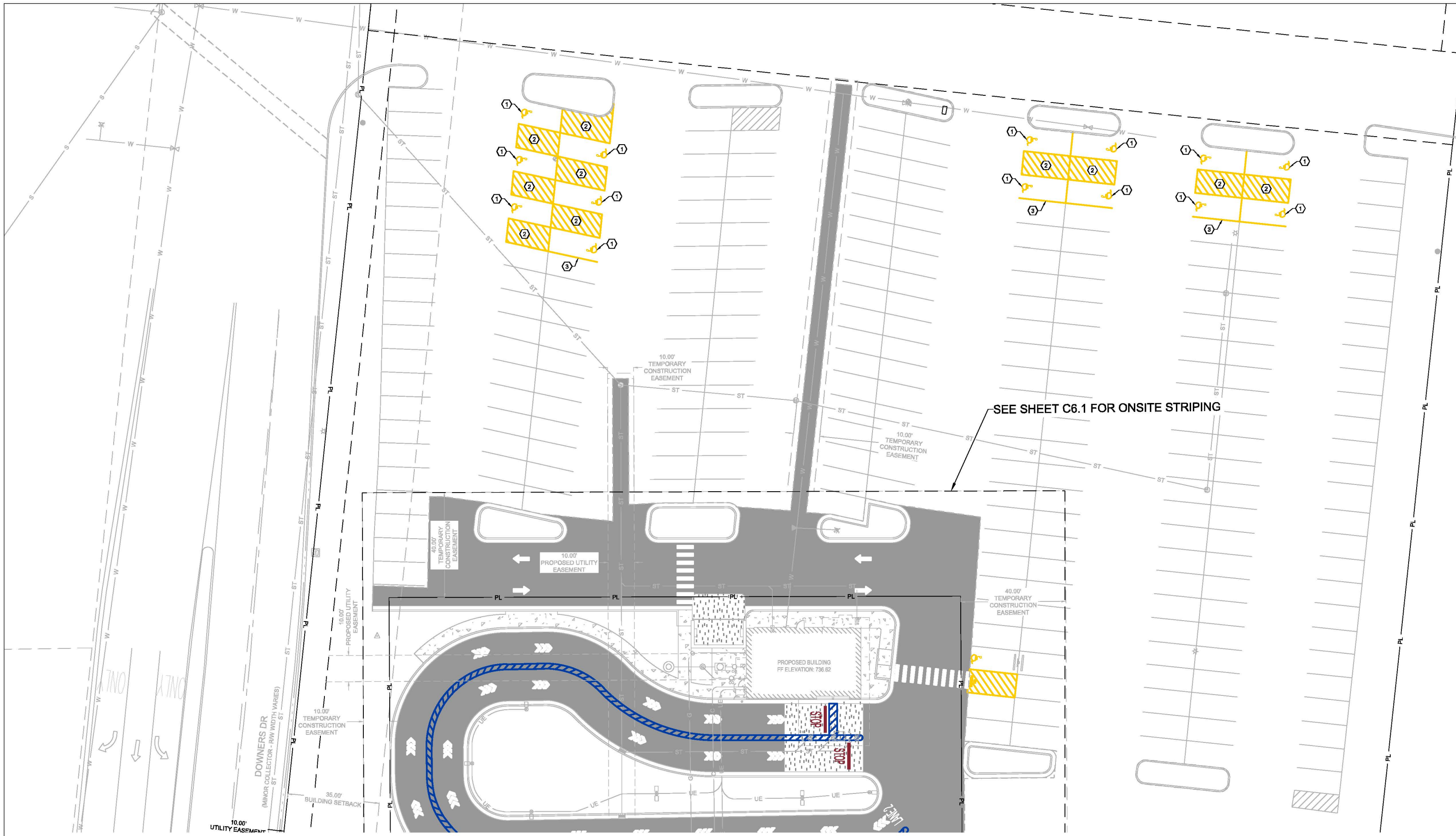
Ph: 417-888-0645 Fax: 417-888-0657
www.tothassociates.com
IL# 63820661

C6.1

ONSITE STRIPING PLAN

DATE: DECEMBER 9TH, 2025



HATCH LEGEND:

- = ASPHALT PAVEMENT
- = CONCRETE SIDEWALK
- = CONCRETE PAVEMENT

KEY NOTES:

1. YELLOW PAINTED ADA ACCESSIBLE PARKING SYMBOL PER DETAIL 6.01, SHEET C7.2.
2. 4-INCH SOLID YELLOW PAVEMENT MARKER, TYPICAL. MIDLINES SPACE AT 24" O.C.
3. 4-INCH SOLID YELLOW PAVEMENT MARKER FOR PARKING, TYPICAL.

SEVEN BREW DRIVE THRU COFFEE

ENGINEER OF RECORD:
NAME: MATTHEW STEVEN MILLER
LICENSE NO. IL #PE 062.065164
EXP. 11/30/2027

PROJECT NUMBER:
104 068

REVISION:

7 BREW COFFEE
DOWNERS GROVE, IL 02
1434 BUTTERFIELD RD
DOWNERS GROVE, IL 60515

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IL# 63820661

C6.2
OFFSITE STRIPING PLAN

DATE: DECEMBER 9TH, 2025

LUMINAIRE LOCATION SUMMARY		
LUM NO.	LABEL	MTG. HT.
1	B2	20
2	B2	20
3-6	B3	20
7-32	D	8.5
33	SB	15.76
34	SB	15.9
35	SB	16.055
36	SB	16.197
37	SB	16.336
38	SB	16.46
39	SB	16.584
40	SB	16.709
41	SB	16.831
42	SB	16.958
43	SB	17.083
44	SB	17.197
45	SB	17.297
46	SB	17.408
47	SB	17.504
48	SB	17.606
49	SB	17.7
50	SB	17.781
51	SB	17.87
52	SB	17.932
53	SB	18.01
54	SB	18.096
55	SB	18.149
56	SB	18.2
57	SB	18.297
58	SB	18.346
59	SB	18.397
60	SB	18.459
61	SB	18.506
62	SB	18.522
63	SB	18.553
64	SB	18.568
65	SB	18.599
66	SB	18.6
67	SB	18.614
68	SB	18.63
69	SB	18.646
70	SB	18.646
71	SB	18.646
72	SB	18.665
73	SB	18.645
74	SB	18.627
75	SB	18.607
76	SB	18.584
77	SB	18.552

LUMINAIRE LOCATION SUMMARY		
LUM NO.	LABEL	MTG. HT.
78	SB	18.537
79	SB	18.49
80	SB	18.444
81	SB	18.397
82	SB	18.351
83	SB	18.32
84	SB	18.273
85	SB	14.512
86	SB	14.341
87	SB	14.69
88	SB	14.882
89	SB	15.76
90	SB	15.9
91	SB	15.024
92	SB	15.17
93	SB	15.313
94	SB	15.462
95	SB	15.618
96	SB	16.055
97	SB	16.197
98	SB	16.336
99	SB	16.46
100	SB	16.584
101	SB	16.709
102	SB	16.831
103	SB	16.958
104	SB	17.083
105	SB	17.197
106	SB	17.297
107	SB	17.408
108	SB	17.504
109	SB	17.606
110	SB	17.7
111	SB	17.781
112	SB	17.87
113	SB	17.932
114	SB	18.01
115	SB	18.149
116	SB	18.096
117	SB	18.2
118	SB	18.297
119	SB	18.346
120	SB	18.397
121	SB	14.341
122	SB	18.459
123	SB	18.506
124	SB	18.522
125	SB	18.553
126	SB	18.599

LUMINAIRE LOCATION SUMMARY		
LUM NO.	LABEL	MTG. HT.
127	SB	18.568
128	SB	18.6
129	SB	18.614
130	SB	18.63
131	SB	18.646
132	SB	18.646
133	SB	18.646
134	SB	18.665
135	SB	18.645
136	SB	18.627
137	SB	18.607
138	SB	18.584
139	SB	18.552
140	SB	18.537
141	SB	18.49
142	SB	18.444
143	SB	18.397
144	SB	18.351
145	SB	18.32
146	SB	18.273
147	SB	14.512
148	SB	14.69
149	SB	14.882
150	SB	15.024
151	SB	15.17
152	SB	15.313
153	SB	15.462
154	SB	15.618
155	SB04	18.2
156	SB04	14.23
157	SB12	18.2
158	SB12	14.23
159-165	SF	9.5
166	SF02	9.5
167	SF02	9.5
168	SF02	9.5
169	SF04	9.5
170	SF04	9.5
171-178	SF12	9.5
179	WP	8.5

NOTES:
- POLE MOUNTED FIXTURES ARE MOUNTED ON A 20FT POLE ON CONCRETE BASE AT GRADE

THIS SITE IS LOCATED IN A REGION WHERE LIGHTING IS REGULATED BY LOCAL ORDINANCE

FOOTCANDLES LEVELS CALCULATED AT GRADE USING INITIAL LUMEN VALUES					
LABEL	AVG	MAX	MIN	AVG/MIN	MAX/MIN
PAVED AREA	2.32	5.6	0.3	11.60	28.00
PROPERTY LINE	0.36	1.1	0.0	N.A.	N.A.
UNDEFINED	0.99	11.2	0.0	N.A.	N.A.
UNDERCANOPY	22.36	35	12	1.86	2.92

LUMINAIRE SCHEDULE										
SYMBOL	QTY	LABEL	ARRANGEMENT	LUMENS	LLF	BUG Rating	ARR. WATTS	TOTAL WATTS	MANUFACTURE	DESCRIPTION
	2	B2	Back-Back	7189	1.030	B1-U0-G2	102.68	205.36	Lithonia Lighting	RSX1 LED P1 40K R4
	4	B3	Single	7189	1.030	B1-U0-G2	51.34	205.36	Lithonia Lighting	RSX1 LED P1 40K R4
	26	D	Single	986	1.000	N.A.	13.1	340.6	Juno Lighting	WF6 SWW5 90CRI MW
	122	SB	Single	133	1.000	N.A.	3.65	445.3	PLED	M-SV024-BL
	2	SB04	SF 4FT	133	1.000	N.A.	51.1	102.2	PLED	M-SV024-BL
	2	SB12	SF 12FT	133	1.000	N.A.	160.6	321.2	PLED	M-SV024-BL
	7	SF	Single	205	1.000	N.A.	3.79	26.53	P-LED	M-SX024-BL
	3	SF02	SF 2FT	205	1.000	N.A.	30.32	90.96	P-LED	M-SX024-BL
	2	SF04	SF 4FT	205	1.000	N.A.	53.06	106.12	P-LED	M-SX024-BL
	8	SF12	SF 12FT	205	1.000	N.A.	166.76	1334.08	P-LED	M-SX024-BL
	1	WP	Single	2913	1.030	B1-U0-G1	24.42	24.42	Lithonia Lighting	WPX1 LED 40K MVOLT EXXX DBLXD

REDLEONARD ASSOCIATES
1340 Kemper Meadow Dr, Forest Park, OH 45240
513-574-9500 | redleonard.com

REV.	BY	DATE	DESCRIPTION
.	.	.	.
.	.	.	.
.	.	.	.
.	.	.	.

SCALE: 1" =20'
LAYOUT BY: JRB
DWG SIZE: D
DATE: 09/29/25

PROJECT NAME:
7- BREW
DOWNERS GROVE, IL
DRAWING NUMBER:
RL-10667-S1

SEVEN BREW DRIVE THRU COFFEE

AREA		QTY	LABEL	DESCRIPTION
		2	B2	RSX1 LED P1 40K R4
		4	B3	RSX1 LED P1 40K R4

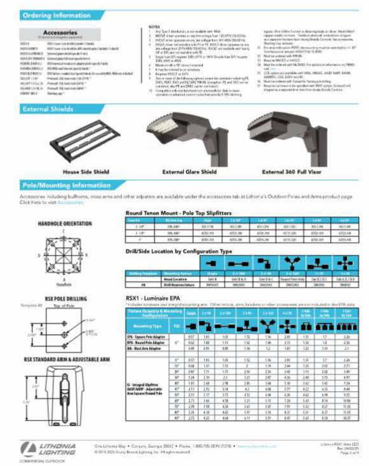
DOWNLIGHT		QTY	LABEL	DESCRIPTION
		26	D	WF6 SWW5 90CRI MW

FLEX POD		QTY	LABEL	DESCRIPTION
		122	SB	M-SV024-BL
		2	SB04	M-SV024-BL
		2	SB12	M-SV024-BL

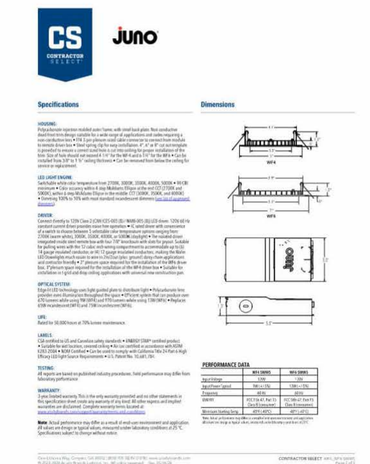
FLEX BACK-BEND		QTY	LABEL	DESCRIPTION
		7	SF	M-SX024-BL
		3	SF02	M-SX024-BL
		2	SF04	M-SX024-BL
		8	SF12	M-SX024-BL

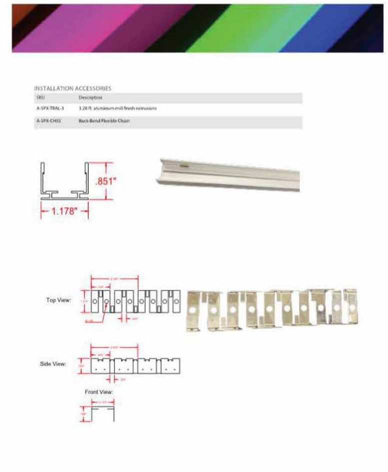
WALL MOUNTED		QTY	LABEL	DESCRIPTION
		1	WP	WPX1 LED 40K MVOLT EXXX DBLXD

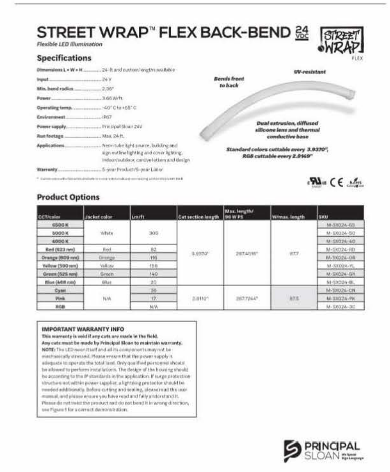
ADDITIONAL FIXTURE INFO

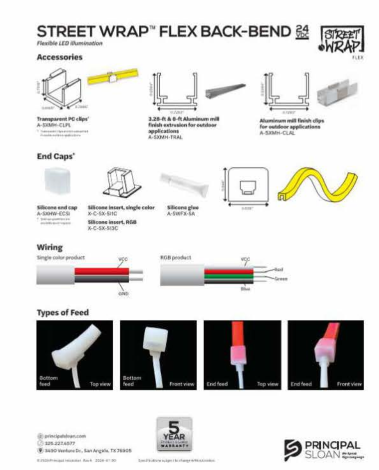


ADDITIONAL FIXTURE INFO









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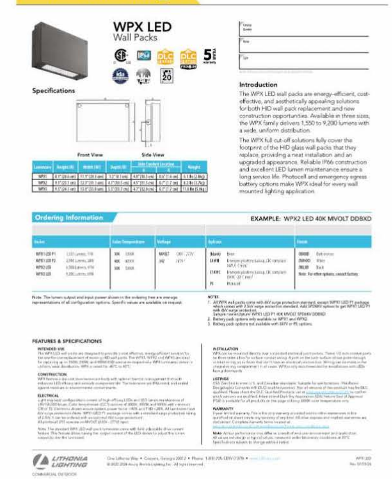


REDLEONARD ASSOCIATES

1340 Kemper Meadow Dr, Forest Park, OH 45240
513-574-9500 | redleonard.com

PROJECT NAME:
7-BREW
DOWNERS GROVE, IL
DRAWING NUMBER:
RL-10667-S1

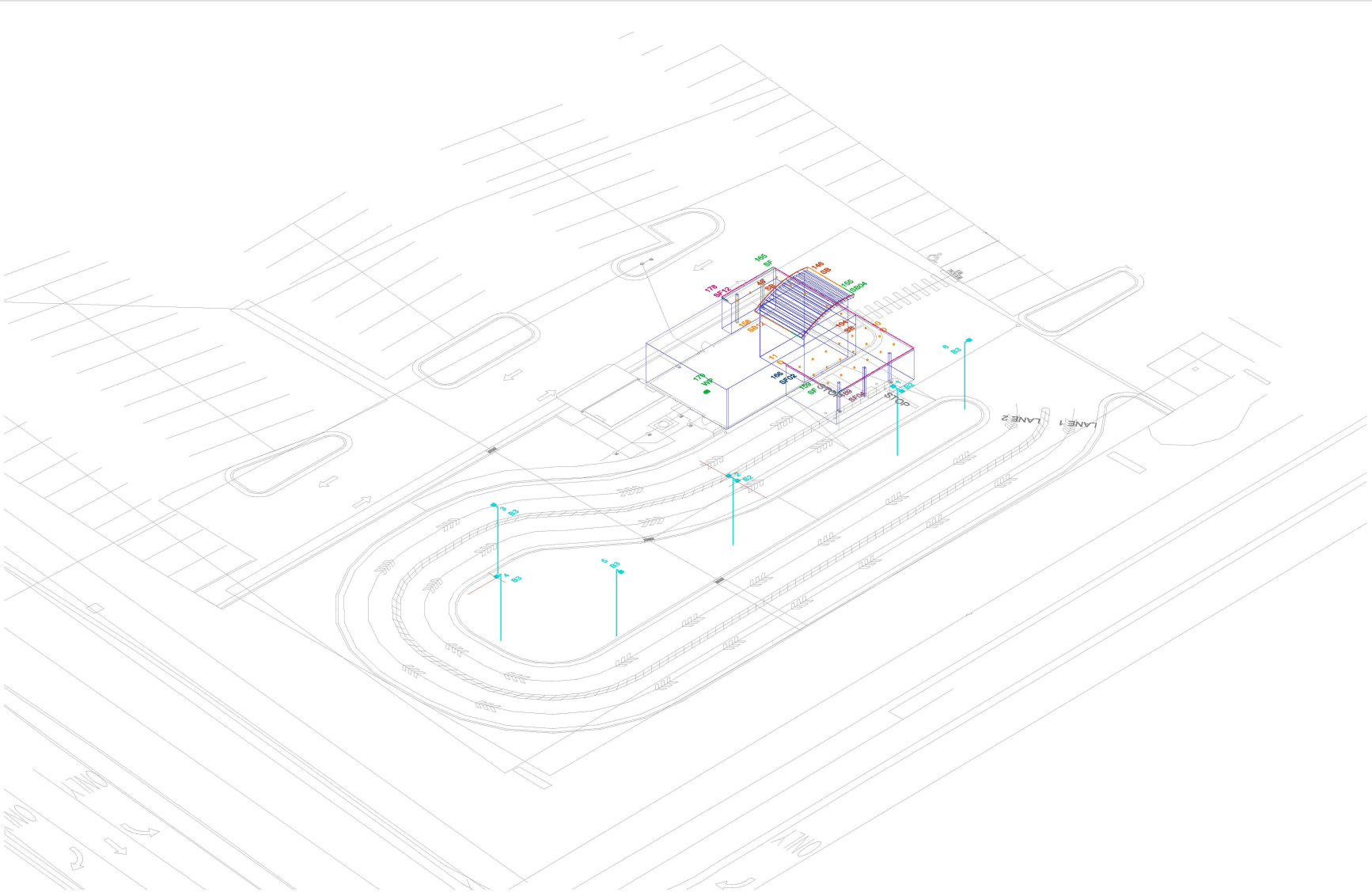
AREA

DOWNLIGHT

FLEX POD

FLEX BACK-BEND

WALL MOUNTED



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DOWNERS GROVE, IL
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SEVEN BREW DRIVE THRU COFFEE

Traffic Impact Study
Proposed 7 Brew Coffee Shop

Downers Grove, Illinois

Prepared For:

SEVEN BREW DRIVE THRU COFFEE

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

December 18, 2025

1. Introduction

This report summarizes the methodologies, results, and findings of a traffic impact study conducted by Kenig, Lindgren, O'Hara, Aboona, Inc. (KLOA, Inc.) for a proposed 7 Brew coffee shop in Downers Grove, Illinois.

The site is located at 1432 Butterfield Road and is an outlot parcel within the Golf Galaxy and Best Buy shopping center. As proposed, the site will be developed to provide an approximately 515 square-foot 7 Brew coffee shop with dual drive-through lanes. 7 Brew locations do not provide indoor seating and all orders are facilitated through the drive-through. Access to the site will be provided via the existing access system serving the retail center.

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

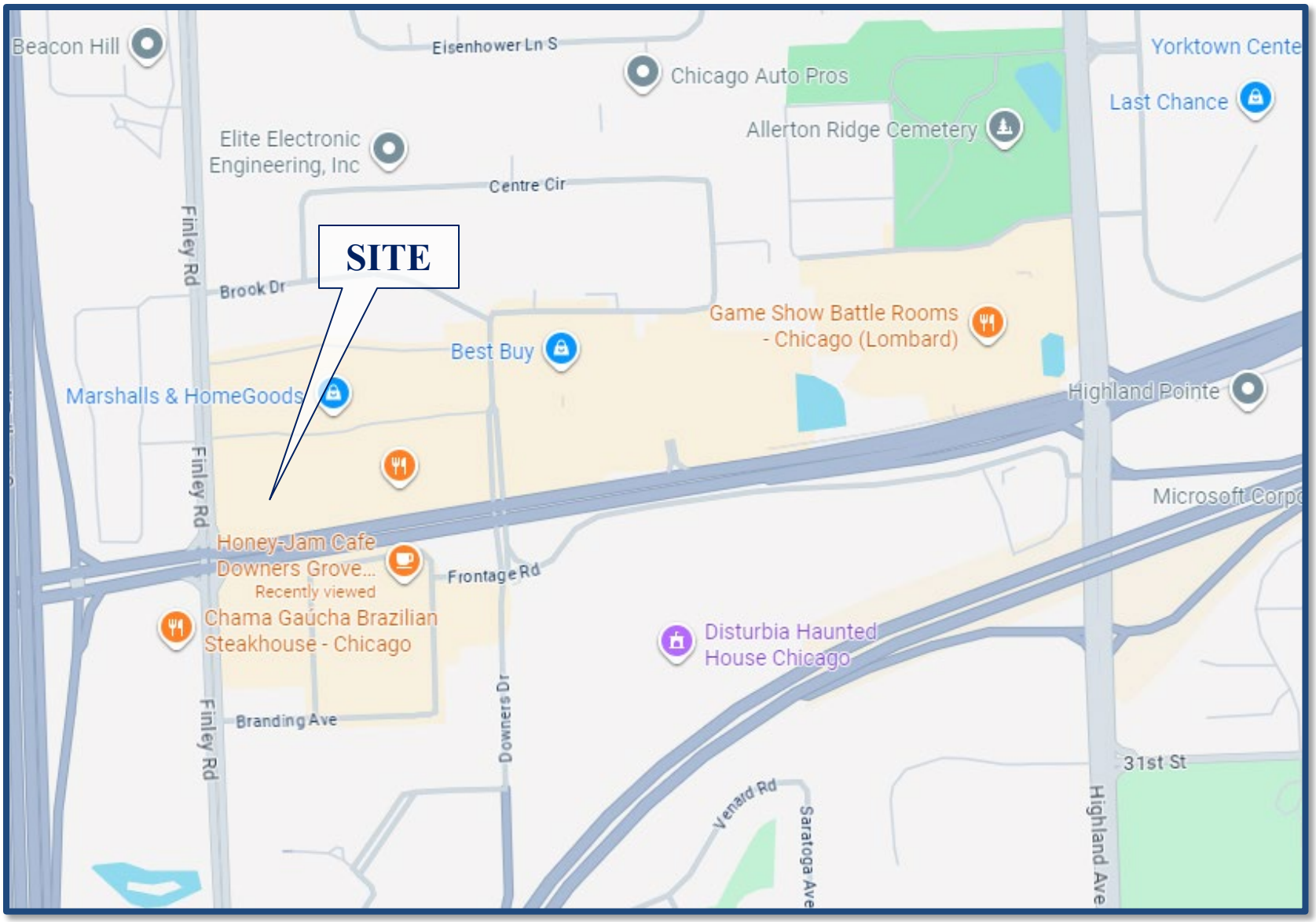
- Existing roadway conditions
- A description of the proposed development
- Directional distribution of the development traffic
- Vehicle trip generation for the proposed development
- Future traffic conditions including access to the development
- Traffic analyses for the weekday morning, weekday evening,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

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

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

2. Year 2031 No-Build Conditions – Analyzes the capacity of the existing roadway system using the ambient area growth not attributable to any particular development and any additional developments not associated with the development.

3. Year 2031 Projected Conditions – Analyzes the capacity of the future roadway system using the projected traffic volumes that include the existing traffic volumes, ambient traffic growth, and the traffic estimated to be generated by the full buildout of the proposed development.



Site Location **Figure 1**

Aerial View of Site **Figure 2**

2. Existing Conditions

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

Site Location

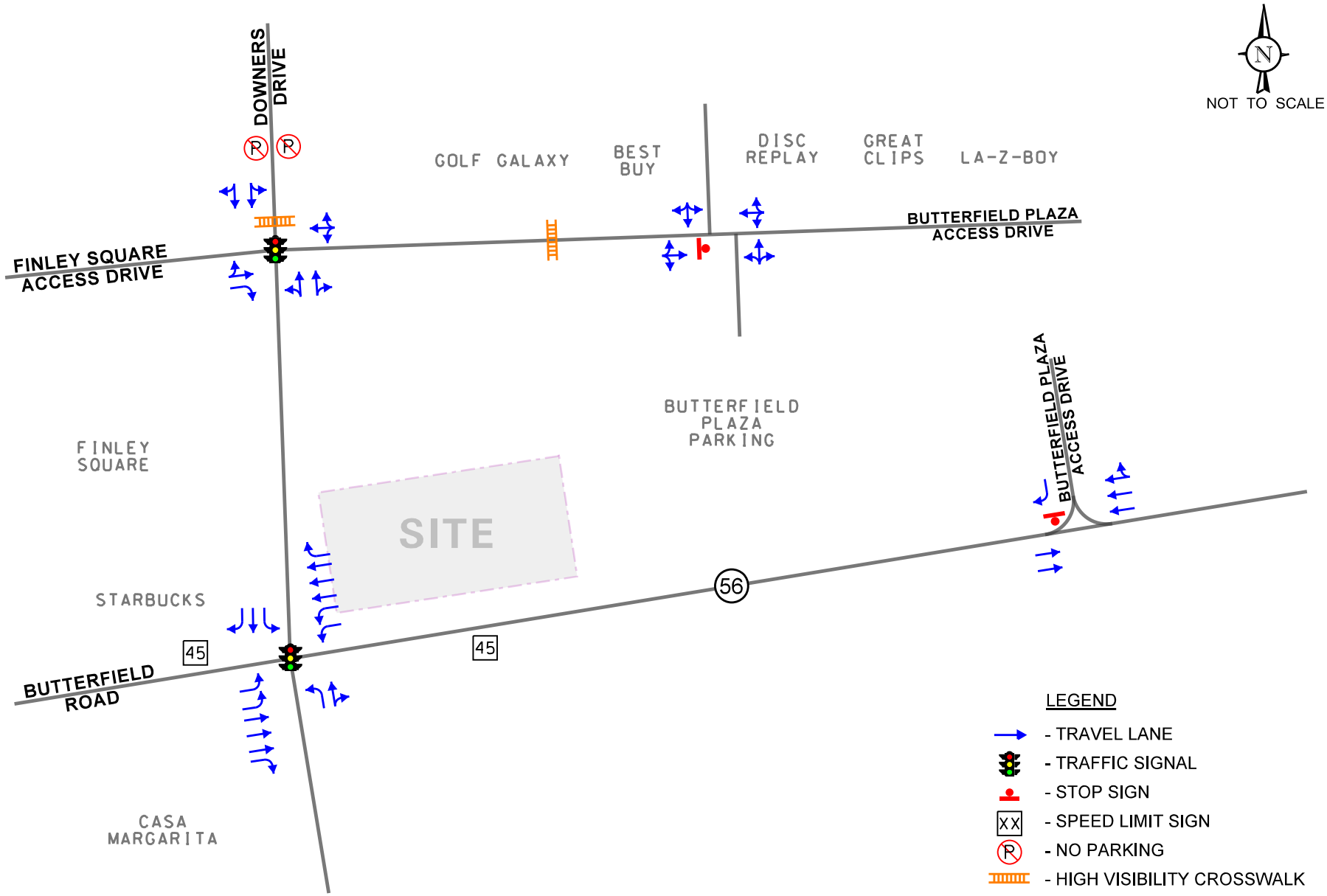
The site, which is an outlot parcel within the Golf Galaxy shopping center parking lot, is located at 1432 Butterfield Road and is bounded by the retail center parking lot to the north and east, Butterfield Road to the south, and Downers Drive to the west. Access to the retail center is currently provided via a signalized access drive off Downers Drive and a right-in/right-out access drive off Butterfield Road. Land uses within the plaza are commercial and include Golf Galaxy, Best Buy, a Disc Replay music store, a Great Clips barber shop, and Town Eye Care.

Existing Roadway System Characteristics

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

IL 56 (Butterfield Road) is an east-west other principal arterial roadway that in the vicinity of the site provides two travel lanes in each direction east of Downers Drive and three travel lanes in each direction west of Downers Drive. At its signalized intersection with Downers Drive, Butterfield Road provides two exclusive left-turn lanes, three through lanes, and an exclusive right-turn lane on the eastbound and westbound approaches. At its unsignalized intersection with the right-in/right-out retail center access drive, Butterfield Road provides two through lanes and a shared through/right-turn lane on the westbound approach. Butterfield Road is designated as a Strategic Regional Arterial (SRA), is under the jurisdiction of the Illinois Department of Transportation (IDOT) and carries an Annual Average Daily Traffic (AADT) volume of 40,800 vehicles (IDOT 2023). Butterfield Road has a posted speed limit of 45 miles per hour.

Downers Drive is a north-south minor collector roadway that in the vicinity of the site provides two travel lanes in each direction. At its signalized intersection with Butterfield Road, Downers Drive provides an exclusive left-turn lane and a shared through/right-turn lane on the northbound approach and an exclusive left-turn lane, a through lane, and an exclusive right-turn lane on the southbound approach. At its signalized intersection with the retail center access road, Downers Drive provides a shared left-turn/through lane and a shared through/right-turn lane on the northbound and southbound approaches. Both approaches are under stop sign control and the southbound approach provides a high-visibility crosswalk. Downers Drive is under the jurisdiction of the Village of Downers Grove, carries an AADT volume of 1,450 vehicles (IDOT 2024), and has a posted speed limit of 25 miles per hour.



7-Brew
Downers Grove, Illinois

Existing Roadway Characteristics

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Figure: 3

Traffic Signal Interconnect

The intersection of Butterfield Road with Downers Drive is part of a seven-signal traffic signal interconnect system that spans approximately 3,700 feet and includes the intersections of Butterfield Road with Lacey Road/Lloyd Avenue, Esplanade Road, the east and west I-355 ramps, and Finley Road and Woodcreek Drive with Lacey Road.

Existing Traffic Volumes

In order to determine current traffic conditions in the vicinity of the site, KLOA, Inc. conducted peak period traffic counts on Thursday, August 7, 2025 during the weekday morning (7:00 to 9:00 A.M.) and weekday evening (4:00 to 6:00 P.M.) peak periods and on Saturday, August 9, 2025 during the midday (12:00 to 2:00 P.M.) at the following intersections:

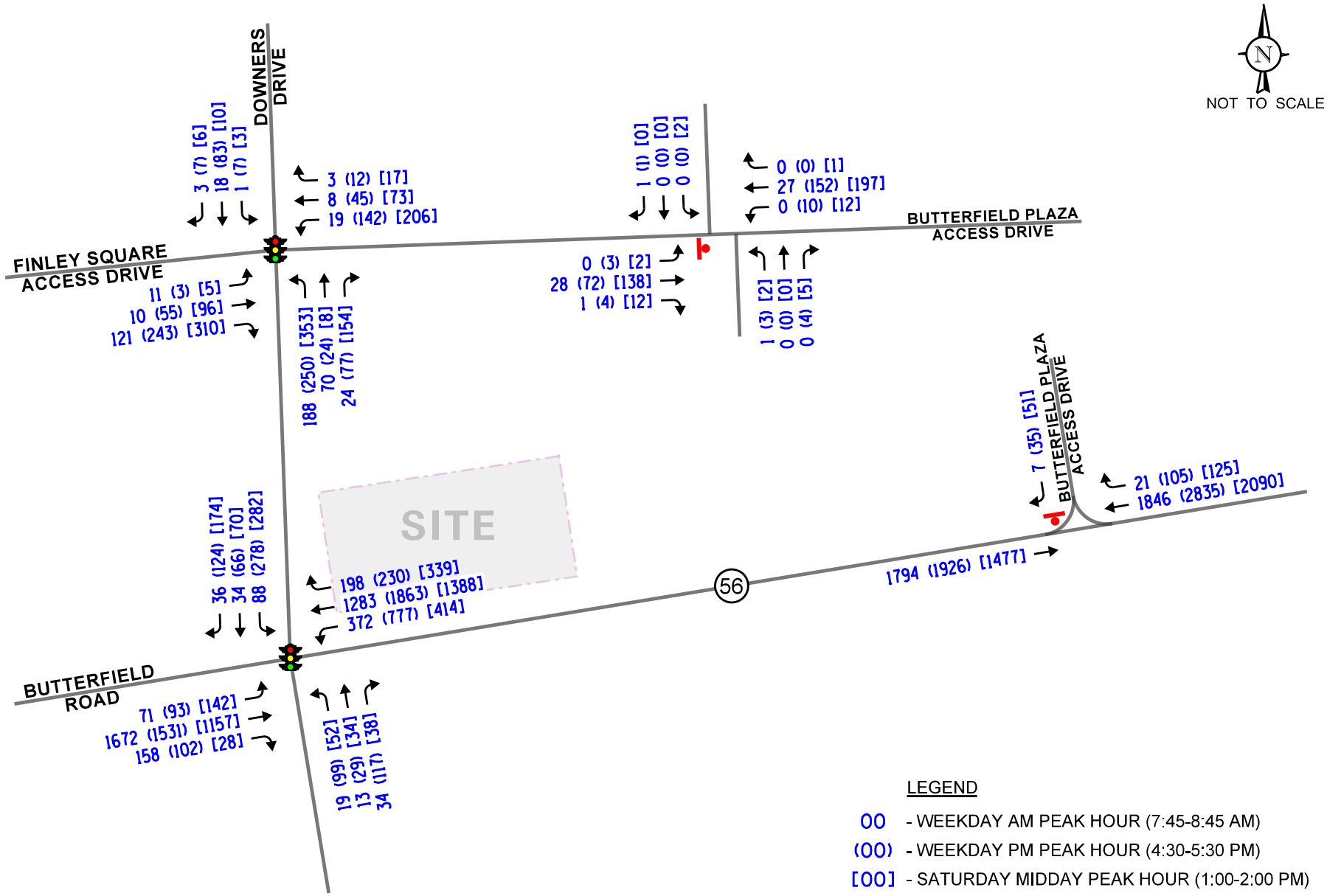
- Downers Drive with Butterfield Road
- Downers Drive with the signalized retail center access drive
- Butterfield Road with right-in/right-out retail center access drive
- An internal intersection with the retail center

The results of the traffic counts indicate that the weekday morning peak hour of traffic occurs from 7:45 A.M. to 8:45 A.M., the weekday evening peak hour of traffic occurs from 4:30 P.M. to 5:30 P.M., and the Saturday midday peak hour of traffic occurs from 1:00 P.M. to 2:00 P.M. **Figure 4** illustrates the existing peak hour traffic volumes. Copies of the traffic count summary sheets are included in the Appendix.

Crash Summary

KLOA, Inc. obtained crash data for the past five years (2020 to 2024) for the intersections of Butterfield Road with Downers Drive and Downers Drive with the retail center access road. It should be noted that the intersection of Downers Drive with the retail center access road experienced an average of less than one crash per year. **Table 1** provides a summary of the crash data at the intersection of Butterfield Road and Downers Drive. A review of the crash data showed that no fatalities were reported during the study period.[1]

[1] IDOT DISCLAIMER: The motor vehicle crash data referenced herein was provided by the Illinois Department of Transportation. Any conclusions drawn from analysis of the aforementioned data are the sole responsibility of the data recipient(s).



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Existing Traffic Volumes

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Table 1
GOLF ROAD WITH SOUTH ACCESS DRIVE – CRASH SUMMARY

Year	Type of Crash								Severity		
	A	HO	O	RE	S	T	Other	Total	PD	I	F
2020	1	0	0	6	0	0	0	7	4	3	0
2021	2	0	0	0	0	4	0	6	3	3	0
2022	1	0	0	5	0	3	0	9	6	3	0
2023	1	0	0	3	0	6	1	11	5	6	0
2024	0	0	0	2	1	3	1	7	3	4	0
Total	**5**	**0**	**0**	**16**	**1**	**16**	**2**	**40**	**21**	**19**	**0**
Avg	**1.0**	**--**	**--**	**3.2**	**<1.0**	**3.2**	**<1.0**	**8.0**	**4.2**	**3.8**	**--**

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 Development

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

Proposed Site and Development Plan

As proposed, the site will be developed to provide an approximately 515 square-foot 7 Brew coffee shop with dual drive-through lanes. 7 Brew locations do not provide indoor seating and all orders are facilitated through the drive-through. Access to the site will provided via the internal access system serving the retail center which consists of the following main access drives:

- A signalized, full-movement access road off Downers Drive located approximately 450 feet north of the intersection of Downers Drive with Butterfield Road. The access drive provides one inbound lane and a outbound lane that is wide enough to accommodate an exclusive left-turn lane and a shared through/right-turn lane.

- A right-in/right-out access drive on the north side of Butterfield Road located approximately 820 feet west of the intersection of Downers Drive with Butterfield Road. The access drive provides one inbound lane and one outbound lane with outbound movements under stop sign control.

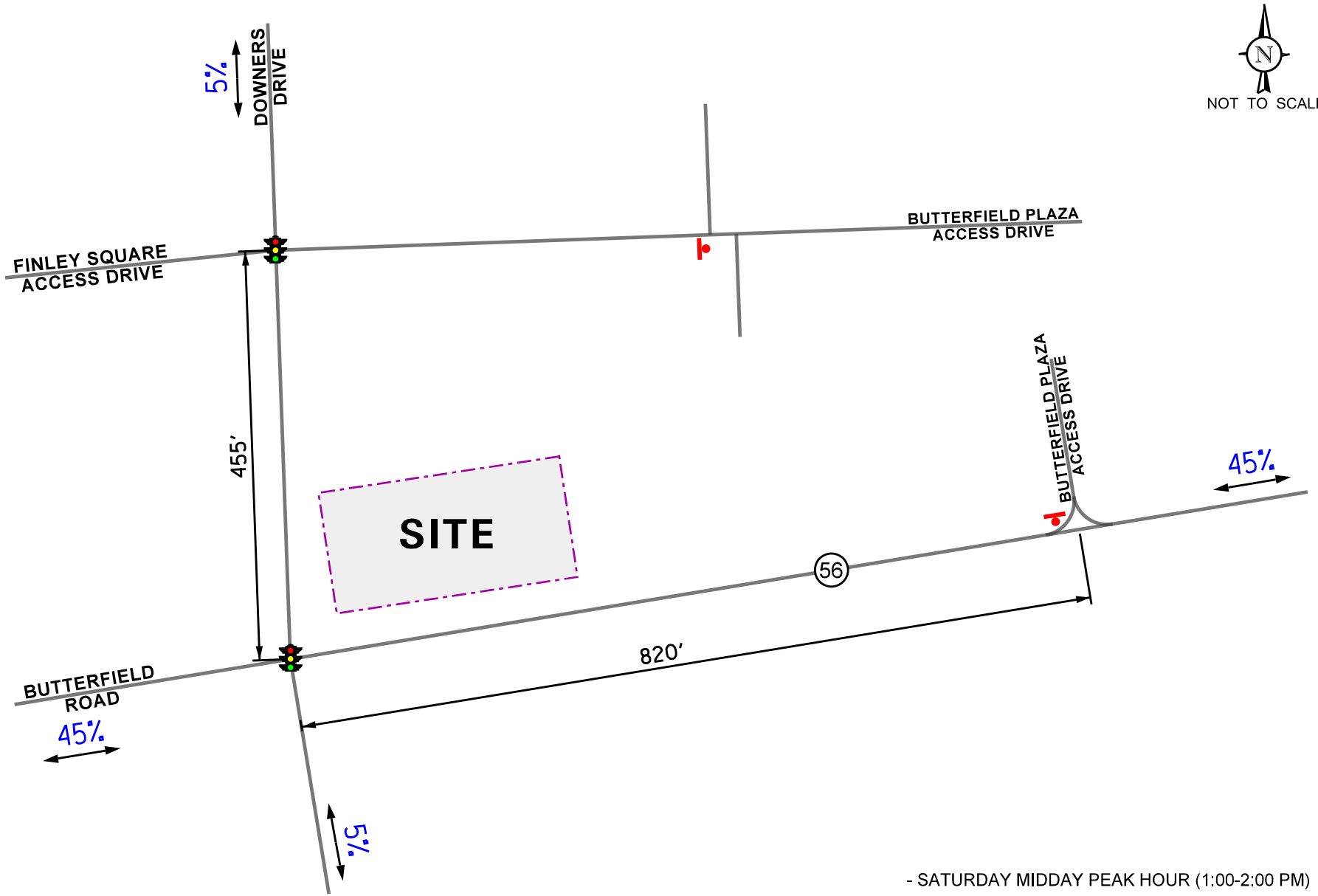
As previously indicated, the proposed 7 Brew coffee shop is a drive-through coffee shop with no indoor seating and customers are served only via the drive-through. To accommodate the anticipated peak queue of the 7 Brew, the site has been sized and designed to accommodates stacking for approximately 39 vehicles. A thorough discussion of the drive through design, operations, available and estimated stacking is included later in this report.

Upon buildout of the restaurant, the balance of the planned unit development will provide 320 parking spaces and parking for 7 Brew employees will be accommodated via seven spaces.

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

Directional Distribution

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



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Directional Distribution

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Job No: 25-209 Figure: 5

Trip Generation Estimates

The number of peak hour trips estimated to be generated by the proposed coffee shop was based on the following:

- Vehicle trip generation rates contained in *Trip Generation Manual*, 12th Edition, published by the Institute of Transportation Engineers (ITE). The "Coffee/Donut Shop with Drive-Through Window and No Indoor Seating" (Land-Use Code 938) trip rates were utilized.

- Trip generation surveys conducted at the existing 7 Brew coffee locations at 1203 Iroquois Avenue in Naperville, 880 S. Rand Road in Lake Zurich, and 12980 IL Route 47 in Huntley.

Table 2 summarizes the trips projected to be generated by the proposed development based on each methodology during the peak hours and daily, respectively. As can be seen from Table 2, the trips generation surveys yield the highest trip generation and as such, the average trips based on the trip generation surveys were utilized as the base trip generation for the purposes of this evaluation.

It should be noted that based on information provided by ITE, approximately 70 percent of trips made to drive-through coffee shops are diverted from the existing traffic on the area roadway system according to ITE surveys. This is particularly true during the weekday morning and weekday evening peak hours when traffic is diverted from home-to-work and work-to-home trips. Such diverted trips are referred to as pass-by traffic.

Furthermore, given that the subject site is an outlot parcel within a larger shopping center, it is anticipated that trips generated by 7 Brew will be multi-purpose trips to other land uses within the shopping center. However, no interaction reduction was applied to the estimated trip generation to provide a conservative (worst-case) scenario.

Lastly, it should be noted that this trip generation is conservatively high as the 7 Brew coffee chain is new to the Chicagoland area which results in attracting customers from a larger trade area than established stores in other markets in the United States. As such, the trip generation for the four existing stores is higher-than-average trip generation for a typical 7 Brew coffee shop. As more 7 Brew locations open within the Chicagoland area, it is anticipated that the trip generation rates will decrease and stabilize. However, for the purposes of this evaluation, no reduction was applied to the trip generation to account for this in order to provide a conservative (worst-case) scenario.

Table 2
PROJECTED SITE-GENERATED TRAFFIC VOLUMES – PEAK HOURS

Methodology	Weekday Morning Peak Hour[1]			Weekday Evening Peak Hour[1]			Saturday Midday Peak Hour[1]		
	In	Out	Total	In	Out	Total	In	Out	Total
ITE Land-Use Code 938 (2 Drive Through Lanes)	44	45	89	15	15	30	--	--	--
Trip Generation Surveys (Naperville 7 Brew)	93	89	182	94	98	192	108	110	218
Trip Generation Surveys (Lake Zurich 7 Brew)	79	82	161	64	68	132	79	81	160
Trip Generation Surveys (Huntley 7 Brew)	103	97	200	86	95	181	94	92	186
Trip Generation Surveys (Average)	**92**	**89**	**181**	**81**	**87**	**168**	**94**	**94**	**188**
Pass-By Reduction (70%)	*-64*	*-64*	*-128*	*-61*	*-61*	*-121*	*-66*	*-66*	*-132*
Total New Trips	**28**	**25**	**53**	**20**	**26**	**47**	**28**	**28**	**56**

1 – Peak hour of adjacent roadway traffic

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 development.

Site Traffic Assignment

The estimated peak hour traffic volumes that will be generated by the proposed development were assigned to the roadway system in accordance with the previously described directional distribution (Figure 5). The new site traffic assignment is illustrated in **Figure 6**. The pass-by trip assignment is illustrated in **Figure 7**.

Background (No-Build) Traffic Conditions

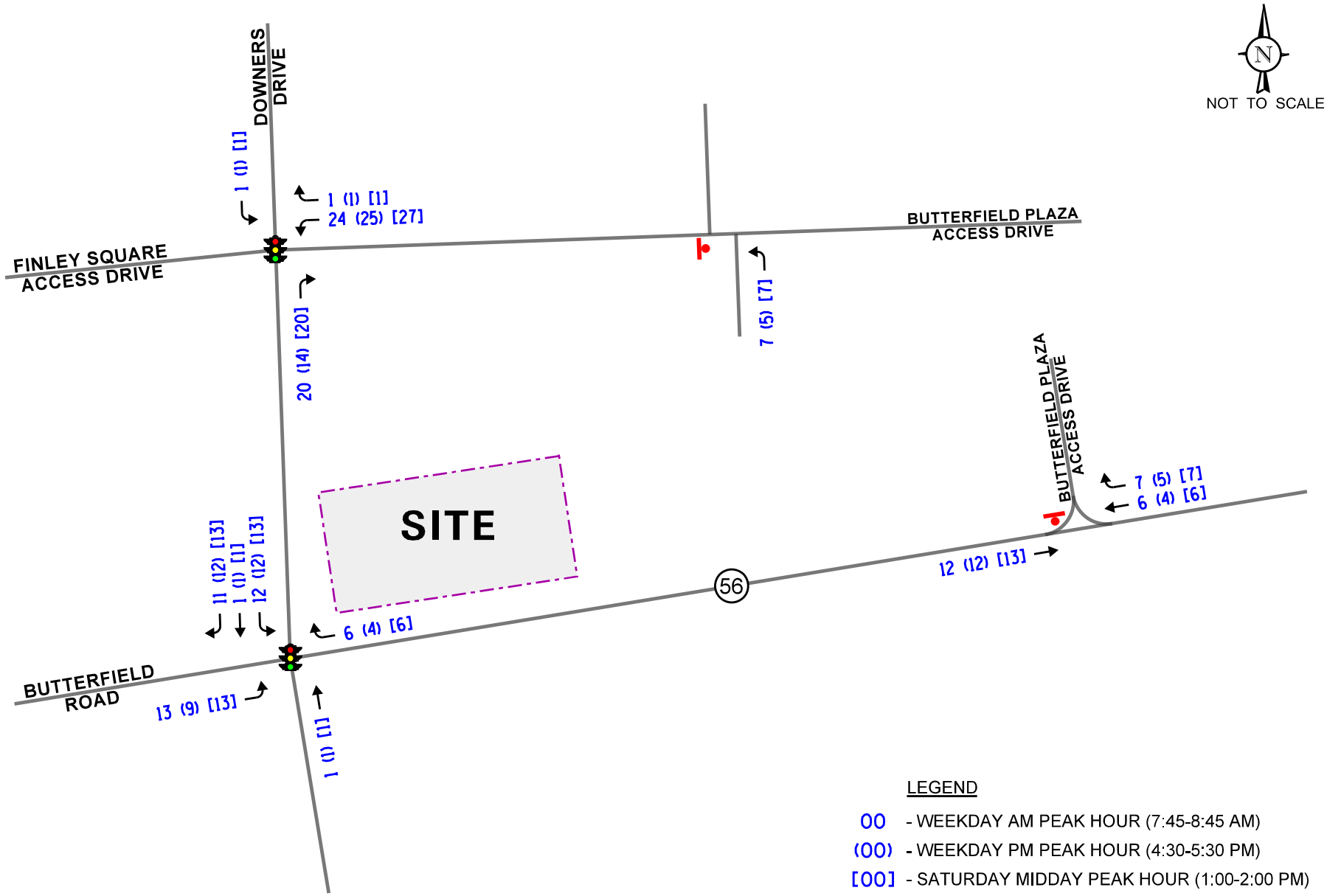
The existing traffic volumes (Figure 4) were increased by a regional growth factor to account for the increase in existing traffic related to regional growth in the area (i.e., not attributable to any particular planned development). Based on Average Daily Traffic (ADT) projections provided by the Chicago Metropolitan Agency for Planning (CMAP), the existing traffic volumes were increased by an annually compounded growth rate of 0.25 percent per year for six years (buildout year plus five years) for a total of approximately 1.5 percent to project Year 2031 background conditions. A copy of the CMAP 2050 projections letter is included in the Appendix.

The no-build traffic volumes also take into consideration the traffic estimated to be generated by the recently opened Wendy's restaurant located at 1362 Butterfield Road, which will share the same access system serving the retail center and proposed 7 Brew.

Figure 8 illustrates the Year 2031 no-build conditions.

Total Projected Traffic Volumes

The site-generated traffic (Figures 6) was added to the existing traffic volumes increased by the regional growth factor (Figure 8) to determine the Year 2031 total projected traffic volumes, shown in **Figure 9**.



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New Site Traffic Volumes

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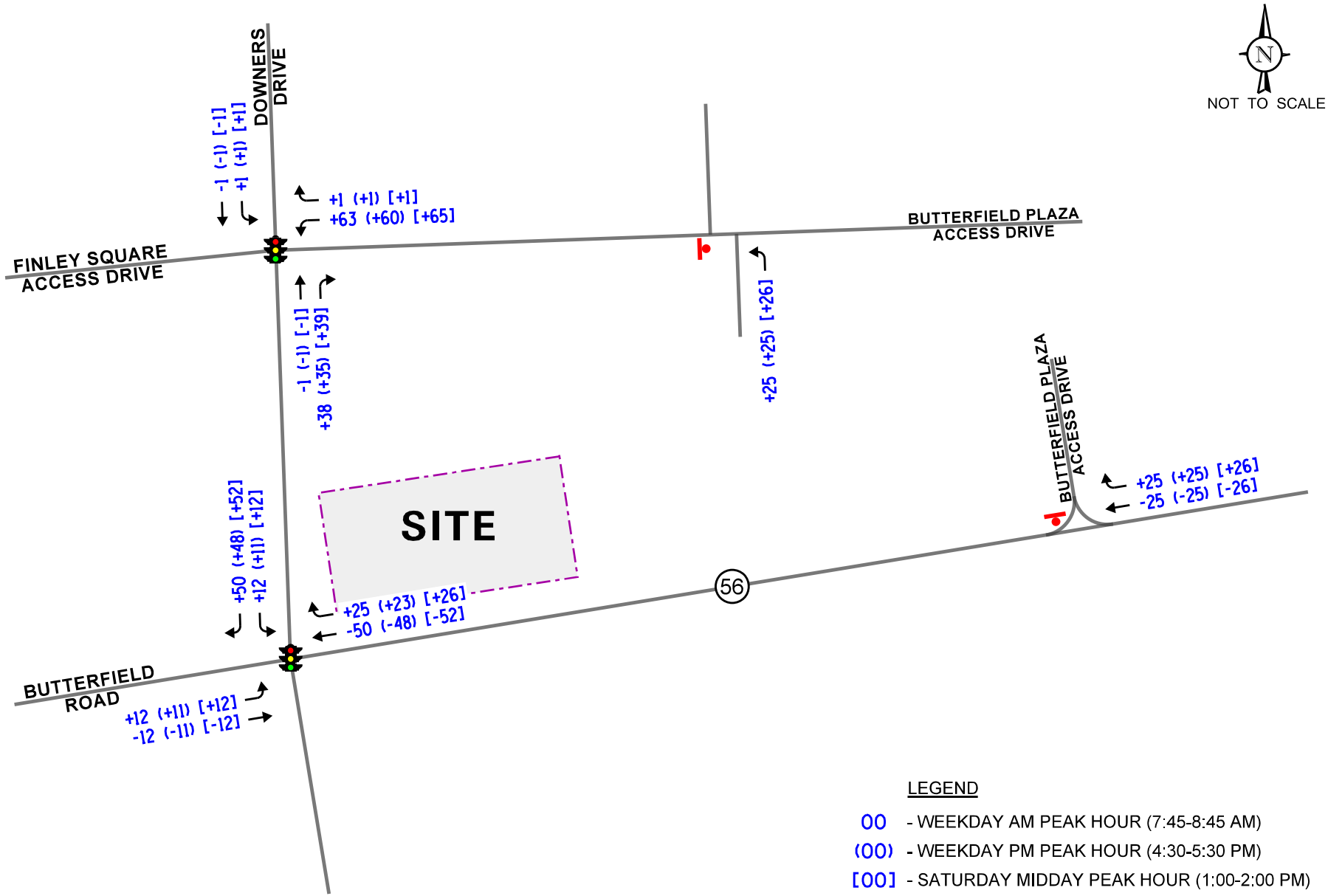

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Pass-By Traffic Volumes

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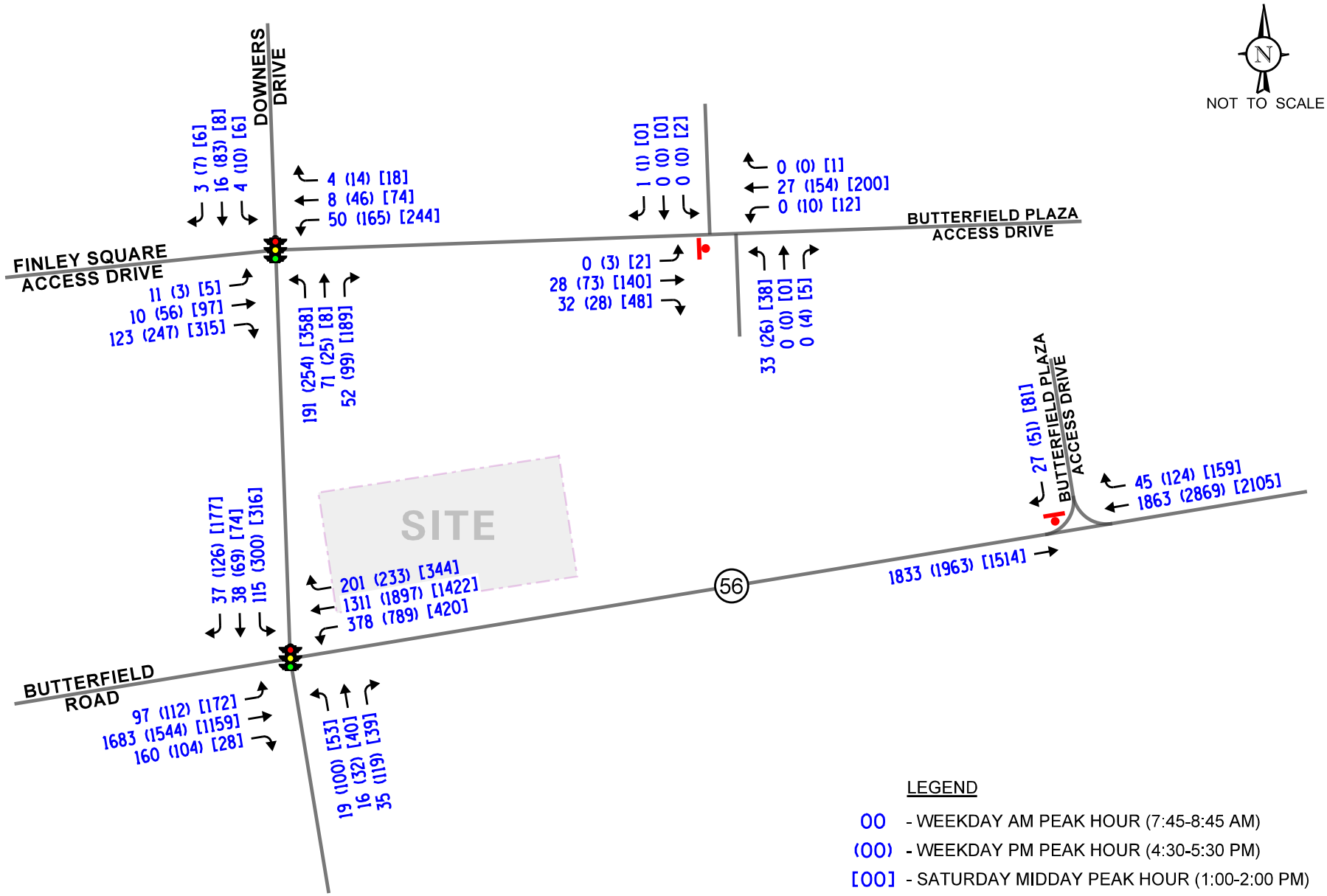
Job No: 25-209 Figure: 7



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Year 2031 No-Build Traffic Volumes

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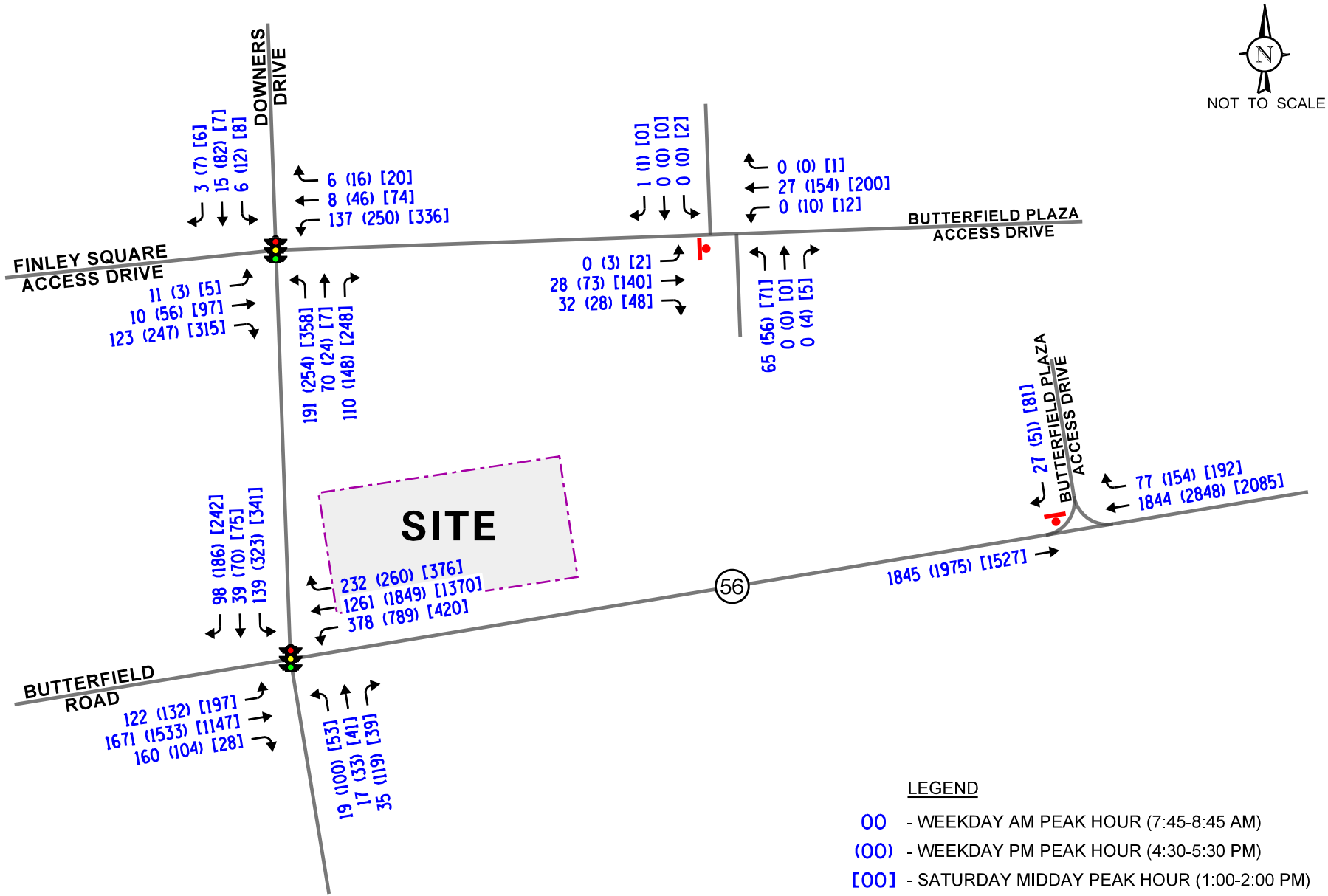

7-Brew
Downers Grove, Illinois

Year 2031 Total Traffic Volumes

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Job No: 25-209 Figure: 9

5. Traffic Analysis and Recommendations

The following provides an evaluation conducted for the weekday morning, weekday evening, and Saturday midday 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, weekday evening, and Saturday midday peak hours for the existing (Year 2025), no-build, and future projected (Year 2031) traffic volumes.

The traffic analyses were performed using the methodologies outlined in the Transportation Research Board's *Highway Capacity Manual (HCM), 7*th Edition and analyzed using Synchro/SimTraffic 12 software. The analyses for the signalized intersection of Butterfield Road with Downers Drive was accomplished utilizing actual cycle lengths, phasings, and offsets. The analyses for the signalized intersection of Downers Drive with the retail center access drive were accomplished utilizing field measured cycle lengths.

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 2031 no-build, and Year 2031 total projected conditions are presented in **Tables 3** through **7**. A discussion of the intersections follows. Summary sheets for the capacity analyses are included in the Appendix.

Table 3
CAPACITY ANALYSIS RESULTS – BUTTERFIELD ROAD WITH DOWNERS DRIVE – SIGNALIZED

	Peak Hour	Eastbound			Westbound			Northbound		Southbound			Overall
		L	T	R	L	T	R	L	T/R	L	T	R	
Existing Conditions	Weekday Morning	E 59.6	B 19.6	A 2.8	E 59.2	B 10.6	A 1.7	D 42.5	C 30.2	D 51.8	D 53.1	A 0.4	C 20.6
		B – 19.7			B – 19.4			C – 33.7		D – 40.4			
	Weekday Evening	E 67.6	D 43.1	A 1.7	E 58.1	C 20.7	A 2.3	D 42.7	C 30.5	F 85.1	E 55.3	B 16.1	D 36.7
		D – 42.0			C – 29.3			D – 35.4		E – 62.7			
	Saturday Midday	D 49.1	C 26.7	A 0.1	D 49.6	C 22.1	A 3.4	C 23.6	C 25.5	C 34.4	C 33.8	A 4.4	C 25.8
		C – 28.5			C – 24.5			C – 24.7		C – 24.4			
No-Build Conditions	Weekday Morning	E 60.0	B 19.8	A 2.8	E 59.7	B 11.8	A 1.9	D 42.2	C 31.1	E 57.7	D 53.1	A 0.4	C 21.8
		C – 20.4			C – 20.3			C – 34.1		D - 45.6			
	Weekday Evening	E 70.1	D 44.5	A 1.9	E 58.4	C 21.4	A 2.3	D 42.2	D 36.2	F 99+	D 55.0	B 16.3	D 38.7
		D – 43.6			C – 29.9			D – 38.6		E – 73.7			
	Saturday Midday	D 51.1	C 27.2	A 0.1	D 50.2	C 23.0	A 3.5	C 23.4	C 26.6	D 36.7	C 33.6	A 4.4	C 26.7
		C – 29.7			C – 25.1			C – 25.3		C – 26.2			
Projected Conditions	Weekday Morning	E 61.0	B 19.7	A 2.8	E 59.7	B 11.9	A 1.9	D 42.2	C 31.4	E 66.1	D 53.1	A 8.7	C 22.4
		C – 20.9			C – 20.3			C – 34.4		D – 43.8			
	Weekday Evening	E 72.6	D 44.4	A 1.9	E 58.6	C 21.4	A 2.3	D 42.1	D 37.8	F 99+	D 54.9	C 25.6	D 39.3
		D – 44.0			C – 29.8			D – 39.5		E – 72.8			
	Saturday Midday	D 52.7	C 27.2	A 0.1	D 50.2	C 23.0	A 3.5	C 23.4	C 26.8	D 39.4	C 33.6	A 6.3	C 26.9
		C – 30.3			C – 24.9			C – 25.4		C – 26.6			

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

Table 4
CAPACITY ANALYSIS RESULTS – DOWNERS DRIVE WITH RETAIL CENTER ACCESS ROAD – SIGNALIZED

	Peak Hour	Eastbound		Westbound		Northbound			Southbound			Overall
		L/T	R	L	T/R	L	T	R	L	T	R	
Existing Conditions	Weekday Morning	B 13.6	A 5.9	B 13.6	B 12.0	A 5.5			A 4.9			A 6.4
		A – 7.0		B – 13.0								
	Weekday Evening	B 15.2	A 5.5	C 20.4	B 13.0	A 6.4			A 6.2			A 9.1
		A – 7.3		B – 18.2								
	Saturday Midday	B 13.4	A 4.7	C 20.9	B 11.4	A 7.4			A 6.1			A 9.8
		A – 6.9		B – 18.0								
No-Build Conditions	Weekday Morning	B 14.4	A 6.1	B 15.6	B 12.4	A 5.0			A 4.7			A 6.8
		A – 7.3		B – 15.0								
	Weekday Evening	B 15.8	A 5.5	C 22.4	B 13.3	A 6.1			A 6.3			A 9.6
		A – 7.5		B – 20.0								
	Saturday Midday	B 14.1	A 4.8	C 25.3	B 11.9	A 7.2			A 5.9			B 10.8
		A – 7.0		C – 21.6								
Projected Conditions	Weekday Morning	B 16.0	A 6.7	C 27.0	B 12.9	A 4.4			A 4.4			A 9.8
		A – 8.1		C – 25.6								
	Weekday Evening	B 16.3	A 5.3	C 31.9	B 13.5	A 5.8			A 6.4			B 12.4
		A – 7.4		C – 28.2								
	Saturday Midday	B 15.3	A 4.9	D 41.0	B 12.9	A 6.6			A 5.7			B 15.0
		A – 7.4		C – 34.9								

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

Table 5
CAPACITY ANALYSIS RESULTS – EXISTING CONDITIONS – UNSIGNALIZED

Intersection	Weekday Morning Peak Hour		Weekday Evening Peak Hour		Saturday Midday Peak Hour	
	LOS	Delay	LOS	Delay	LOS	Delay
Butterfield Road with Right-in/Right-Out Retail Center Access Drive[1]						
• Southbound Approach	C	23.7	F	62.2	D	30.3
Retail Center Internal Intersection[2]						
• Intersection Capacity Utilization (ICU)	A	13.3%	A	22.0%	A	27.6%

LOS = Level of Service
Delay is measured in seconds.
1 – Two-way stop control
2 – One-way stop control

Table 6
CAPACITY ANALYSIS RESULTS – NO-BUILD CONDITIONS – UNSIGNALIZED

Intersection	Weekday Morning Peak Hour		Weekday Evening Peak Hour		Saturday Midday Peak Hour	
	LOS	Delay	LOS	Delay	LOS	Delay
Butterfield Road with Right-in/Right-Out Retail Center Access Drive[1]						
• Southbound Approach	D	26.3	F	83.0	E	37.3
Retail Center Internal Intersection[2]						
• Intersection Capacity Utilization (ICU)	A	18.6%	A	27.7%	A	28.5%

LOS = Level of Service
Delay is measured in seconds.
1 – Two-way stop control
2 – One-way stop control

Table 7
CAPACITY ANALYSIS RESULTS – PROJECTED CONDITIONS – UNSIGNALIZED

Intersection	Weekday Morning Peak Hour		Weekday Evening Peak Hour		Saturday Midday Peak Hour	
	LOS	Delay	LOS	Delay	LOS	Delay
Butterfield Road with Right-in/Right-Out Retail Center Access Drive[1]						
• Southbound Approach	D	26.0	F	80.5	E	36.5
Retail Center Internal Intersection[2]						
• Intersection Capacity Utilization (ICU)	A	20.4%	A	29.3%	A	28.8%

LOS = Level of Service
Delay is measured in seconds.

1 – Two-way stop control
2 – One-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 site-generated traffic. It should be noted that the results of the capacity analyses are reflective of a worst-case evaluation given that no interaction reduction was applied to the estimated vehicle trip generation, and the trip generation was not reduced to account for a stabilized Chicagoland market in which more 7 Brew locations are constructed and operational.

Butterfield Road with Downers Drive

The results of the capacity analysis indicate the following:

- The intersection overall currently operates at Level of Service (LOS) D or better during the weekday morning, weekday evening, and Saturday midday peak hours.

- Through movements on the eastbound and westbound approaches currently operate at LOS D or better and through movements on the northbound and southbound approaches currently operate at LOS E or better. However, this is due to the limited green time given to the northbound and southbound approaches.

- Left-turn movements on all approaches currently operate at LOS E or better during the peak hours except the southbound left turn during the weekday evening peak hour which operates at LOS F.

    - The high delay for eastbound and westbound movements is to be expected as they operate under a protected phase.

    - 95th percentile queues for the southbound left-turn movement extend to but not past the intersection of Downers Drive with the retail access road. Additionally, the v/c ratio is less than one.

- Under no-build and total projected conditions, the intersection overall is projected to continue operating at existing levels of service during the peak hours. All approaches are projected to continue operating at existing LOS except the eastbound and westbound approaches which are projected to operate at LOS C during the weekday morning peak hour.

    - 95th percentile queues for the southbound left-turn movement are projected to extend past the intersection of Downers Drive with the retail center access road. However, the traffic projected to be generated by the coffee shop is only increasing the volume for this movement by approximately seven percent.

    - A review of the simulation indicates that the queue will extend into the shopping centers and take two cycles to clear.

As previously indicated, the trip generation surveys conducted at the existing 7 Brew locations were utilized as is, without taking any reduction in trip generation to account for additional 7 Brew locations to be constructed in the Chicagoland area, as discussed in the following section. Therefore, the results of the capacity analysis represent a conservative (worst-case) analysis.

Downers Drive with Retail Center Access Road

It should be noted that the westbound approach of this intersection is not striped to provide an exclusive lane. However, for the purposes of the analyses (given the approach is wide enough to accommodate two travel lanes), it was assumed that the westbound approach functions as a left-turn lane and a shared through/right-turn lane. The results of the capacity analysis indicate the following:

- The westbound approach currently operates at LOS B during the peak hours and all movements operate at LOS A during the peak hours.

- Under no-build conditions the intersection and all movements are projected to continue to operate at existing LOS except the westbound approach during the Saturday midday peak hour which is projected to operate at LOS C.

- Under total projected conditions, all approaches are projected to continue to operate at existing LOS during the peak hours except the westbound approach which is projected to operate at LOS C during all three peak hours.

Overall, this access drive will be adequate in accommodating the traffic estimated to be generated by the proposed 7 Brew and no roadway or traffic control improvements are required.

As previously indicated, the 95th percentile queue of the southbound left-turn movement at the intersection of Butterfield Road with Downers Drive is projected to extend past this intersection. A review of the simulation shows that these queues will impede the ability of vehicles to leave the shopping center.

Butterfield Road with right-in/right-out retail center access drive

The results of the capacity analysis indicate that the southbound approach currently operates at LOS C, F, and D during the weekday morning, weekday evening, and Saturday midday peak hours. The delays experienced during the weekday evening peak hour are expected due to the high volume of through traffic on Butterfield Road which is a principal arterial roadway and an IDOT SRA route. Further, the 95th percentile queue is only one to two vehicles.

Under no-build and projected conditions, the southbound approach is projected to continue to operate at LOS D, F, and E during the peak hours. The 95th percentile queue is projected to be two to three vehicles. As such, this intersection will be adequate in accommodating the traffic estimated to be generated by the proposed 7 Brew and will ensure efficient and flexible access is provided to the site. No roadway or traffic control improvements will be required.

Retail Center Internal Intersection

Because of the traffic control configuration of this intersection where the eastbound traffic is under stop sign control and the other three approaches are free, the intersection could not be analyzed using HCM procedures. Given this traffic control configuration and the limitations of the HCM procedures, the intersection was analyzed using the intersection capacity utilization (ICU) level of service. The ICU indicates how much reserve capacity is available or how much an intersection is over capacity.

Based on the ICU analysis, the intersection currently utilizes approximately 13 percent of the capacity of the intersection during the weekday morning peak hour, approximately 22 percent of its capacity during the weekday evening peak hour, and approximately 28 percent of its capacity during the Saturday midday peak hour. Under future conditions it is projected that the intersection will utilize approximately 20 percent of its capacity during the weekday morning peak hour and 29 percent of its capacity during the weekday evening and Saturday midday peak hours. As a result, the intersection will continue to operate efficiently and with minimal delays.

Drive-Through Evaluation

As previously indicated, the site will provide dual drive-through lanes. Typical of all 7 Brew sites, there is no ordering board or ordering speakers and all orders are taken by team members via iPads within the drive-through lanes. Payment is taken at the time of ordering. Vehicles circulate the site and pick up their orders at the front of the drive-through queue where team members walk orders to the vehicles. At the proposed site, access will be provided via the lanes serving the existing retail center parking lot. The order pick-up area is located on the north side of the site and vehicles will circulate the site in a counterclockwise direction with queues extending along the north, west, and south sides of the site.

In order to determine the projected peak stacking of vehicles, observations were conducted at two existing 7 Brew locations in Naperville in March 2025 and Lake Zurich in May 2025 during the hours of operation on Thursday, Friday, Saturday, and Sunday. The results of the observations indicated that the peak observed queuing at the Naperville location was 71 vehicles, which occurred Sunday at 4:30 P.M., and the peak queue observed at the Lake Zurich location was 45 vehicles, which occurred on Saturday at 3:15 P.M.

However, it should be noted that the current queues resulting at the Naperville and Lake Zurich locations (as well as other Chicagoland locations) are a result of 7 Brew coffee shops being new to the Chicagoland region with only four locations open as of July 2025 and the popularity of the product in this market. Therefore, as more 7 Brew locations are constructed, the trips generated and on-site queueing by the Chicagoland locations will reduce and stabilize. As of July 2025, there are 13 other approved or under construction 7 Brew locations with the closest locations in Joliet, Lockport, Bolingbrook, and Bloomingdale with numerous other locations planned.

As such, to determine what the queue of the proposed 7 Brew location will be in the future when additional locations are constructed and the Chicagoland market has stabilized, KLOA Inc. reviewed the following:

- A 7 Brew operations memorandum prepared by Stonefield Engineering and Design, LLC, dated October 15, 2024, for an established 7 Brew location in Sinking Spring, Pennsylvania.

- Sales and zip code data for the Naperville and Lake Zurich locations and three other national average established 7 Brew locations.

7 Brew Observation Technical Memorandum

In this memorandum, Stonefield Engineering and Design, LLC conducted operational observations at the existing 7 Brew location at 3582 Penn Avenue in Sinking Spring, Pennsylvania during peak activities of the store on a Friday and Saturday in April 2024. It should be noted that there are only two 7 Brew locations within this area with the other store located approximately six miles from the study location. The following summarizes the key findings of the observations:

- The average transaction time during the review period ranged from three minutes and 44 seconds to four minutes and 36 seconds, with a maximum transaction time of 15 minutes and 23 seconds.

- The maximum queue observed during the review period was 15 vehicles, with an average queue of 10 vehicles.

Sales and Zip Code Data for 7 Brew Locations

The existing sales volume of the Naperville and Lake Zurich 7 Brew locations were compared to the following three established 7 Brew locations nationally:

- 217 N. Thompson Lane in Murfreesboro, Tennessee 37129
- 1815 N. Main Street in Shelbyville, Tennessee 37160
- 552 Island Ford Road in Madisonville, Kentucky 42431

The sales and transaction data for the four locations over a two-week period was reviewed. The review of the data indicates the following:

- Weekly sales at the national average locations were approximately 53 to 58 percent less than the Naperville location.

- While the Monday through Thursday sales at the national average locations are consistent with the Lake Zurich location, on Friday through Sunday the sales at the national average locations are 13 to 22 percent less than the Lake Zurich location.

- On a weekly basis, the national average locations have approximately 56 percent less sales than the Naperville location and ten percent less sales than the Lake Zurich location.

In addition to the transaction data, the zip code origins of Naperville and Lake Zurich customers over a two-week period were compared to the three national average locations. The following summarizes the comparison of the data:

- At the Naperville location, one percent of customers originate within one mile, four percent originate between one and two miles, 15 percent originate within two and five miles, 25 percent originate within five to ten miles, and 55 percent originate over 10 miles from the location (80 percent over five miles).

- At the Lake Zurich location, five percent of customers originate within one mile, three percent originate between one and two miles, 16 percent originate within two and five miles, 40 percent originate within five to ten miles, and 36 percent originate over 10 miles from the location (76 percent over five miles).

- At the three established locations on average, five percent of customers originate within one mile, 13 percent originate between one and two miles, 30 percent originate within two and five miles, 16 percent originate within five to ten miles, and 36 percent originate over 10 miles from the location (52 percent over five miles).

- As previously indicated, there are currently 13 other approved or under construction 7 Brew locations in the Chicagoland area.

    - Four of the approved locations are expected to result in at least 13 to 16 percent reduction in sales at the Naperville location.

    - Three approved 7 Brew locations are expected to result in an approximately 14 to 18 percent reduction in sales at the Lake Zurich location.

Estimated Peak Queue Reductions

As can be seen from the above, the Naperville and Lake Zurich locations are pulling a higher percentage of customers from a wider trade area than the other three national average locations which are resulting in higher trip generation, vehicle queueing, and sales compared to national average locations.

Therefore, it is anticipated that with the opening of the Downers Grove location and the previously identified and soon to be constructed locations (13 total) and when sales at the existing locations become more reflective of a national average location, the peak queues are projected to be reduced as follows:

- The Naperville peak queue is anticipated to be reduced by at least 53 percent. As such, the peak queue for the Naperville location in a stabilized market is estimated to be 33 vehicles.

- The Lake Zurich peak queue is anticipated to be reduced by 25 to 30 percent. As such, the peak queue for the Lake Zurich location in a stabilized market is estimated to be 31 to 34 vehicles.

As previously indicated, approximately 55 percent and 36 percent of sales at the Naperville and Lake Zurich locations, respectively, have zip codes greater than ten miles from each location. Of which, approximately 49 percent and 31 percent are within a radius of 10 to 30 miles, respectively. When the percentages for this radius are compared to the sale of the national average locations, an average of 25 percent of sales occur within this radius. Therefore, it is anticipated that the peak queues are anticipated to be further reduced.

Therefore, to mitigate the peak queues estimated for the proposed 7 Brew location, the site has been designed to provide stacking for 39 vehicles within the drive-thru lanes. In the event that peak queues extend beyond the proposed 39 vehicle stacking, additional vehicles can stack within the retail center parking lot without impacting the access system serving the retail center or the proximate parking spaces to the Golf Galaxy and Best Buy main entrances. As such, the proposed stacking will be able to accommodate the estimated peak queue of 33 to 34 vehicles based on surveys conducted at existing 7 Brew locations and a review of sales data available for the existing two locations and three national average locations.

Parking Evaluation

As previously indicated, the proposed 7 Brew will be an outlot parcel for the Golf Galaxy and Best Buy shopping center. The Best Buy is approximately 69,000 square feet and the Golf Galaxy space is approximately 39,000 square feet. Upon buildout of the 7 Brew, the shopping center will provide 320 parking spaces. In order to determine the adequacy of the proposed parking supply, parking rates published in the Institute of Transportation Engineers' (ITE) *Parking Generation Manual*, 6th Edition were reviewed.

- Electronic Superstores (Land-Use Code 863) experience an average peak parking demand of 1.65 spaces per 1,000 square feet. As such, the Best Buy has an estimated peak parking demand of 114 spaces

- Sporting Good Superstores (Land-Use Code 861) experience an average peak parking demand 2.18 spaces per 1,000 square feet. As such, the Golf Galaxy has an estimated peak parking demand of 85 parking spaces.

As such, the two stores combined have an estimated peak parking demand of 199 spaces, which can be accommodated by the 320 parking spaces provided.

6. Conclusion

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

- The volume of traffic estimated to be generated by 7 Brew, based on surveys conducted at the Lake Zurich location, will have a limited impact on the available capacity of the access system serving the shopping center.

- It is anticipated that with additional 7 Brew locations built in the Chicagoland region, the existing trip generation and queueing as surveyed at the Naperville and Lake Zurich locations will be reduced.

- Access to the site will be provided via the existing access system serving the retail center which primarily consists of a full movement access road off Downers Drive and a right-in/right-out access drive off Butterfield Road.

- Based on a review of queueing surveys conducted at the Naperville and Lake Zurich 7 Brew locations, and sales/zip code information for the Naperville and Lake Zurich locations and three national average locations, it is anticipated that the peak queue for the subject 7 Brew site will be up to 34 vehicles.

- The proposed stacking for 39 vehicles within the drive-thru lanes and emergency stacking within the retail center parking lot will provide more than adequate stacking to accommodate the peak queue projected for the subject 7 Brew location.

- The resulting 320 parking spaces serving Golf Galaxy and Best Buy will be adequate in accommodating the estimated peak parking demands for the stores based on information published in the ITE *Parking Generation Manual*, 6th Edition.

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

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Count Name: Butterfield Road with Downers Drive TMC
Site Code:
Start Date: 08/07/2025

Turning Movement Data

Start Time	Butterfield Road Eastbound						Butterfield Road Westbound						Downers Drive Northbound						Downers Drive Southbound						Int. Total
	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	
7:00 AM	0	20	284	12	0	316	1	47	202	33	0	283	0	5	1	1	0	7	0	11	3	10	0	24	630
7:15 AM	0	9	348	14	0	371	1	70	259	28	0	358	0	4	6	0	0	10	0	18	11	8	0	37	776
7:30 AM	0	24	369	28	0	421	0	79	270	38	0	387	0	3	2	6	0	11	0	17	9	8	0	34	853
7:45 AM	0	26	416	37	0	479	0	91	335	58	1	484	0	2	2	13	0	17	0	13	11	4	0	28	1008
Hourly Total	0	79	1417	91	0	1587	2	287	1066	157	1	1512	0	14	11	20	0	45	0	59	34	30	0	123	3267
8:00 AM	1	16	397	40	0	454	0	77	303	62	0	442	0	4	2	7	0	13	0	21	9	8	0	38	947
8:15 AM	0	16	408	47	0	471	0	104	271	36	2	411	0	5	3	4	0	12	0	15	8	10	0	33	927
8:30 AM	0	13	406	34	0	453	0	80	304	34	0	418	0	8	6	9	0	23	0	37	4	12	0	53	947
8:45 AM	2	25	363	30	0	420	2	99	287	38	0	426	0	11	4	6	0	21	0	31	6	14	0	51	918
Hourly Total	3	70	1574	151	0	1798	2	360	1165	170	2	1697	0	28	15	26	0	69	0	104	27	44	0	175	3739
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4:00 PM	4	27	360	29	0	420	2	210	429	52	0	693	0	17	6	18	0	41	0	64	28	45	0	137	1291
4:15 PM	0	24	354	24	0	402	1	179	482	56	0	718	0	21	10	15	0	46	0	67	24	29	1	120	1286
4:30 PM	2	25	315	29	0	371	0	177	442	60	0	679	0	18	5	31	0	54	0	89	23	40	0	152	1256
4:45 PM	0	12	385	34	0	431	1	168	487	67	0	723	0	23	11	30	0	64	0	70	17	31	0	118	1336
Hourly Total	6	88	1414	116	0	1624	4	734	1840	235	0	2813	0	79	32	94	0	205	0	290	92	145	1	527	5169
5:00 PM	3	21	427	12	0	463	3	214	484	39	0	740	0	36	5	29	0	70	0	58	9	30	0	97	1370
5:15 PM	1	35	370	27	0	433	2	218	450	64	0	734	0	22	8	24	0	54	0	61	17	23	0	101	1322
5:30 PM	2	18	400	11	2	431	1	131	385	50	0	567	0	12	6	12	0	30	0	71	13	28	0	112	1140
5:45 PM	2	31	431	25	0	489	2	145	417	52	0	616	0	16	2	14	0	32	0	71	3	30	0	104	1241
Hourly Total	8	105	1628	75	2	1816	8	708	1736	205	0	2657	0	86	21	79	0	186	0	261	42	111	0	414	5073
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
12:00 PM	0	34	272	21	0	327	6	93	299	99	0	497	0	9	7	11	0	27	0	78	13	25	0	116	967
12:15 PM	1	28	250	16	0	295	4	112	351	77	0	544	0	14	7	10	0	31	0	84	16	28	0	128	998
12:30 PM	0	35	282	13	0	330	6	109	278	65	0	458	0	8	3	15	0	26	0	62	12	31	0	105	919
12:45 PM	0	26	237	13	0	276	7	127	270	96	0	500	0	19	7	7	0	33	0	92	16	34	0	142	951
Hourly Total	1	123	1041	63	0	1228	23	441	1198	337	0	1999	0	50	24	43	0	117	0	316	57	118	0	491	3835
1:00 PM	0	41	304	8	0	353	6	95	336	85	1	522	0	8	8	7	0	23	0	64	17	34	0	115	1013
1:15 PM	0	38	274	11	0	323	3	107	345	88	0	543	0	14	7	9	0	30	0	70	17	40	0	127	1023
1:30 PM	2	25	280	4	0	311	5	97	331	89	0	522	0	12	11	6	0	29	1	72	16	48	0	137	999
1:45 PM	0	38	299	5	0	342	4	93	335	77	0	509	0	18	8	16	0	42	0	76	15	39	0	130	1023
Hourly Total	2	142	1157	28	0	1329	18	392	1347	339	1	2096	0	52	34	38	0	124	1	282	65	161	0	509	4058
Grand Total	20	607	8231	524	2	9382	57	2922	8352	1443	4	12774	0	309	137	300	0	746	1	1312	317	609	1	2239	25141
Approach %	0.2	6.5	87.7	5.6	-	-	0.4	22.9	65.4	11.3	-	-	0.0	41.4	18.4	40.2	-	-	0.0	58.6	14.2	27.2	-	-	-
Total %	0.1	2.4	32.7	2.1	-	37.3	0.2	11.6	33.2	5.7	-	50.8	0.0	1.2	0.5	1.2	-	3.0	0.0	5.2	1.3	2.4	-	8.9	-

Lights	20	597	8095	521	-	9233	55	2858	8228	1436	-	12577	0	309	136	298	-	743	1	1299	313	600	-	2213	24766
% Lights	100.0	98.4	98.3	99.4	-	98.4	96.5	97.8	98.5	99.5	-	98.5	-	100.0	99.3	99.3	-	99.6	100.0	99.0	98.7	98.5	-	98.8	98.5
Buses	0	0	31	0	-	31	0	29	7	1	-	37	0	0	0	0	-	0	0	0	0	0	-	0	68
% Buses	0.0	0.0	0.4	0.0	-	0.3	0.0	1.0	0.1	0.1	-	0.3	-	0.0	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	-	0.0	0.3
Single-Unit Trucks	0	6	78	1	-	85	1	24	88	4	-	117	0	0	1	1	-	2	0	9	1	2	-	12	216
% Single-Unit Trucks	0.0	1.0	0.9	0.2	-	0.9	1.8	0.8	1.1	0.3	-	0.9	-	0.0	0.7	0.3	-	0.3	0.0	0.7	0.3	0.3	-	0.5	0.9
Articulated Trucks	0	4	27	2	-	33	1	11	29	2	-	43	0	0	0	1	-	1	0	4	3	6	-	13	90
% Articulated Trucks	0.0	0.7	0.3	0.4	-	0.4	1.8	0.4	0.3	0.1	-	0.3	-	0.0	0.0	0.3	-	0.1	0.0	0.3	0.9	1.0	-	0.6	0.4
Bicycles on Road	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	1	-	1	1
% Bicycles on Road	0.0	0.0	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	0.0	0.0	0.0	0.2	-	0.0	0.0
Pedestrians	-	-	-	-	2	-	-	-	-	-	4	-	-	-	-	-	0	-	-	-	-	-	1	-	-
% Pedestrians	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	-	-	-	-	-	-	100.0	-	-

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Count Name: Butterfield Road with Downers Drive TMC
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Turning Movement Peak Hour Data (7:45 AM)

Start Time	Butterfield Road Eastbound						Butterfield Road Westbound						Downers Drive Northbound						Downers Drive Southbound						Int. Total
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7:45 AM	0	26	416	37	0	479	0	91	335	58	1	484	0	2	2	13	0	17	0	13	11	4	0	28	1008
8:00 AM	1	16	397	40	0	454	0	77	303	62	0	442	0	4	2	7	0	13	0	21	9	8	0	38	947
8:15 AM	0	16	408	47	0	471	0	104	271	36	2	411	0	5	3	4	0	12	0	15	8	10	0	33	927
8:30 AM	0	13	406	34	0	453	0	80	304	34	0	418	0	8	6	9	0	23	0	37	4	12	0	53	947
Total	1	71	1627	158	0	1857	0	352	1213	190	3	1755	0	19	13	33	0	65	0	86	32	34	0	152	3829
Approach %	0.1	3.8	87.6	8.5	-	-	0.0	20.1	69.1	10.8	-	-	0.0	29.2	20.0	50.8	-	-	0.0	56.6	21.1	22.4	-	-	-
Total %	0.0	1.9	42.5	4.1	-	48.5	0.0	9.2	31.7	5.0	-	45.8	0.0	0.5	0.3	0.9	-	1.7	0.0	2.2	0.8	0.9	-	4.0	-
PHF	0.250	0.683	0.978	0.840	-	0.969	0.000	0.846	0.905	0.766	-	0.907	0.000	0.594	0.542	0.635	-	0.707	0.000	0.581	0.727	0.708	-	0.717	0.950
Lights	1	69	1595	157	-	1822	0	340	1175	186	-	1701	0	19	12	32	-	63	0	83	31	31	-	145	3731
% Lights	100.0	97.2	98.0	99.4	-	98.1	-	96.6	96.9	97.9	-	96.9	-	100.0	92.3	97.0	-	96.9	-	96.5	96.9	91.2	-	95.4	97.4
Buses	0	0	6	0	-	6	0	8	0	0	-	8	0	0	0	0	-	0	0	0	0	0	-	0	14
% Buses	0.0	0.0	0.4	0.0	-	0.3	-	2.3	0.0	0.0	-	0.5	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	0.4
Single-Unit Trucks	0	1	19	0	-	20	0	3	29	3	-	35	0	0	1	0	-	1	0	3	0	1	-	4	60
% Single-Unit Trucks	0.0	1.4	1.2	0.0	-	1.1	-	0.9	2.4	1.6	-	2.0	-	0.0	7.7	0.0	-	1.5	-	3.5	0.0	2.9	-	2.6	1.6
Articulated Trucks	0	1	7	1	-	9	0	1	9	1	-	11	0	0	0	1	-	1	0	0	1	2	-	3	24
% Articulated Trucks	0.0	1.4	0.4	0.6	-	0.5	-	0.3	0.7	0.5	-	0.6	-	0.0	0.0	3.0	-	1.5	-	0.0	3.1	5.9	-	2.0	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	0.0	0.0	-	0.0	0.0
Pedestrians	-	-	-	-	0	-	-	-	-	-	3	-	-	-	-	-	0	-	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	100.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-

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

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

Count Name: Butterfield Road with Downers Drive TMC
Site Code:
Start Date: 08/07/2025

Turning Movement Peak Hour Data (4:30 PM)

Start Time	Butterfield Road Eastbound						Butterfield Road Westbound						Downers Drive Northbound						Downers Drive Southbound						
	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	Int. Total
4:30 PM	2	25	315	29	0	371	0	177	442	60	0	679	0	18	5	31	0	54	0	89	23	40	0	152	1256
4:45 PM	0	12	385	34	0	431	1	168	487	67	0	723	0	23	11	30	0	64	0	70	17	31	0	118	1336
5:00 PM	3	21	427	12	0	463	3	214	484	39	0	740	0	36	5	29	0	70	0	58	9	30	0	97	1370
5:15 PM	1	35	370	27	0	433	2	218	450	64	0	734	0	22	8	24	0	54	0	61	17	23	0	101	1322
Total	6	93	1497	102	0	1698	6	777	1863	230	0	2876	0	99	29	114	0	242	0	278	66	124	0	468	5284
Approach %	0.4	5.5	88.2	6.0	-	-	0.2	27.0	64.8	8.0	-	-	0.0	40.9	12.0	47.1	-	-	0.0	59.4	14.1	26.5	-	-	-
Total %	0.1	1.8	28.3	1.9	-	32.1	0.1	14.7	35.3	4.4	-	54.4	0.0	1.9	0.5	2.2	-	4.6	0.0	5.3	1.2	2.3	-	8.9	-
PHF	0.500	0.664	0.876	0.750	-	0.917	0.500	0.891	0.956	0.858	-	0.972	0.000	0.688	0.659	0.919	-	0.864	0.000	0.781	0.717	0.775	-	0.770	0.964
Lights	6	90	1466	101	-	1663	6	762	1845	230	-	2843	0	99	29	114	-	242	0	276	64	123	-	463	5211
% Lights	100.0	96.8	97.9	99.0	-	97.9	100.0	98.1	99.0	100.0	-	98.9	-	100.0	100.0	100.0	-	100.0	-	99.3	97.0	99.2	-	98.9	98.6
Buses	0	0	7	0	-	7	0	9	0	0	-	9	0	0	0	0	-	0	0	0	0	0	-	0	16
% Buses	0.0	0.0	0.5	0.0	-	0.4	0.0	1.2	0.0	0.0	-	0.3	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	0.3
Single-Unit Trucks	0	3	19	0	-	22	0	4	12	0	-	16	0	0	0	0	-	0	0	1	1	0	-	2	40
% Single-Unit Trucks	0.0	3.2	1.3	0.0	-	1.3	0.0	0.5	0.6	0.0	-	0.6	-	0.0	0.0	0.0	-	0.0	-	0.4	1.5	0.0	-	0.4	0.8
Articulated Trucks	0	0	5	1	-	6	0	2	6	0	-	8	0	0	0	0	-	0	0	1	1	1	-	3	17
% Articulated Trucks	0.0	0.0	0.3	1.0	-	0.4	0.0	0.3	0.3	0.0	-	0.3	-	0.0	0.0	0.0	-	0.0	-	0.4	1.5	0.8	-	0.6	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	-	0.0	0.0
Pedestrians	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

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9575 W. Higgins Rd., Suite 400

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

Count Name: Butterfield Road with Downers Drive TMC
Site Code:
Start Date: 08/07/2025

Turning Movement Peak Hour Data (1:00 PM)

Start Time	Butterfield Road Eastbound						Butterfield Road Westbound						Downers Drive Northbound						Downers Drive Southbound						
	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	Int. Total
1:00 PM	0	41	304	8	0	353	6	95	336	85	1	522	0	8	8	7	0	23	0	64	17	34	0	115	1013
1:15 PM	0	38	274	11	0	323	3	107	345	88	0	543	0	14	7	9	0	30	0	70	17	40	0	127	1023
1:30 PM	2	25	280	4	0	311	5	97	331	89	0	522	0	12	11	6	0	29	1	72	16	48	0	137	999
1:45 PM	0	38	299	5	0	342	4	93	335	77	0	509	0	18	8	16	0	42	0	76	15	39	0	130	1023
Total	2	142	1157	28	0	1329	18	392	1347	339	1	2096	0	52	34	38	0	124	1	282	65	161	0	509	4058
Approach %	0.2	10.7	87.1	2.1	-	-	0.9	18.7	64.3	16.2	-	-	0.0	41.9	27.4	30.6	-	-	0.2	55.4	12.8	31.6	-	-	-
Total %	0.0	3.5	28.5	0.7	-	32.8	0.4	9.7	33.2	8.4	-	51.7	0.0	1.3	0.8	0.9	-	3.1	0.0	6.9	1.6	4.0	-	12.5	-
PHF	0.250	0.866	0.951	0.636	-	0.941	0.750	0.916	0.976	0.952	-	0.965	0.000	0.722	0.773	0.594	-	0.738	0.250	0.928	0.956	0.839	-	0.929	0.992
Lights	2	141	1150	28	-	1321	18	387	1331	338	-	2074	0	52	34	37	-	123	1	279	64	160	-	504	4022
% Lights	100.0	99.3	99.4	100.0	-	99.4	100.0	98.7	98.8	99.7	-	99.0	-	100.0	100.0	97.4	-	99.2	100.0	98.9	98.5	99.4	-	99.0	99.1
Buses	0	0	4	0	-	4	0	2	3	0	-	5	0	0	0	0	-	0	0	0	0	0	-	0	9
% Buses	0.0	0.0	0.3	0.0	-	0.3	0.0	0.5	0.2	0.0	-	0.2	-	0.0	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	-	0.0	0.2
Single-Unit Trucks	0	0	1	0	-	1	0	3	12	0	-	15	0	0	0	1	-	1	0	1	0	0	-	1	18
% Single-Unit Trucks	0.0	0.0	0.1	0.0	-	0.1	0.0	0.8	0.9	0.0	-	0.7	-	0.0	0.0	2.6	-	0.8	0.0	0.4	0.0	0.0	-	0.2	0.4
Articulated Trucks	0	1	2	0	-	3	0	0	1	1	-	2	0	0	0	0	-	0	0	2	1	0	-	3	8
% Articulated Trucks	0.0	0.7	0.2	0.0	-	0.2	0.0	0.0	0.1	0.3	-	0.1	-	0.0	0.0	0.0	-	0.0	0.0	0.7	1.5	0.0	-	0.6	0.2
Bicycles on Road	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	1	-	1	1
% Bicycles on Road	0.0	0.0	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	0.0	0.0	0.0	0.6	-	0.2	0.0
Pedestrians	-	-	-	-	0	-	-	-	-	-	1	-	-	-	-	-	0	-	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	100.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-

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9575 W. Higgins Rd., Suite 400

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

Count Name: Downers Drive with Access Drive
TMC
Site Code:
Start Date: 08/07/2025

Turning Movement Data

Start Time	Access Drive Eastbound						Access Drive Westbound						Downers Drive Northbound						Downers Drive Southbound						
	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	Int. Total
7:00 AM	0	1	1	16	0	18	0	4	2	2	0	8	0	29	18	7	0	54	0	0	11	0	0	11	91
7:15 AM	0	2	2	25	0	29	0	2	1	1	0	4	0	31	12	0	0	43	0	0	5	0	0	5	81
7:30 AM	0	2	3	27	0	32	0	7	0	1	0	8	1	42	12	9	0	64	0	0	5	0	0	5	109
7:45 AM	0	5	2	25	0	32	0	6	2	0	0	8	0	61	21	6	1	88	0	0	3	0	0	3	131
Hourly Total	0	10	8	93	0	111	0	19	5	4	0	28	1	163	63	22	1	249	0	0	24	0	0	24	412
8:00 AM	0	2	3	29	0	34	0	3	3	0	0	6	0	61	20	3	0	84	0	0	5	0	0	5	129
8:15 AM	0	3	1	30	0	34	0	3	3	0	0	6	0	34	15	5	0	54	0	0	5	1	0	6	100
8:30 AM	0	1	4	37	0	42	0	7	0	3	0	10	0	32	14	10	0	56	0	1	5	2	0	8	116
8:45 AM	0	2	8	46	0	56	0	10	3	1	0	14	0	41	10	9	0	60	0	0	5	3	0	8	138
Hourly Total	0	8	16	142	0	166	0	23	9	4	0	36	0	168	59	27	0	254	0	1	20	6	0	27	483
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4:00 PM	0	2	15	53	0	70	0	45	21	3	0	69	0	64	2	18	0	84	0	2	34	0	2	36	259
4:15 PM	0	0	14	68	0	82	0	38	18	4	0	60	0	62	7	20	0	89	0	1	18	1	1	20	251
4:30 PM	0	1	14	70	0	85	0	41	10	4	0	55	1	61	9	13	0	84	0	1	26	4	2	31	255
4:45 PM	0	0	11	61	0	72	0	40	12	1	0	53	0	69	2	21	0	92	0	2	18	0	2	20	237
Hourly Total	0	3	54	252	0	309	0	164	61	12	0	237	1	256	20	72	0	349	0	6	96	5	7	107	1002
5:00 PM	0	1	13	58	0	72	0	33	15	5	0	53	0	41	6	10	1	57	0	2	22	0	0	24	206
5:15 PM	0	1	17	52	1	70	0	27	8	2	0	37	1	70	7	31	0	109	0	2	17	3	1	22	238
5:30 PM	0	0	12	68	0	80	0	37	19	2	0	58	0	60	5	20	0	85	0	0	14	1	1	15	238
5:45 PM	0	0	10	60	0	70	0	39	18	1	0	58	0	45	1	27	0	73	0	1	6	0	0	7	208
Hourly Total	0	2	52	238	1	292	0	136	60	10	0	206	1	216	19	88	1	324	0	5	59	4	2	68	890
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
12:00 PM	0	1	21	62	0	84	0	55	14	1	0	70	0	91	3	36	0	130	0	0	4	0	1	4	288
12:15 PM	0	0	19	71	0	90	0	48	12	4	0	64	0	80	1	25	0	106	0	0	1	1	2	2	262
12:30 PM	0	0	24	63	0	87	0	46	16	4	0	66	0	65	1	33	0	99	0	1	4	1	1	6	258
12:45 PM	0	1	19	81	0	101	0	56	12	2	0	70	0	94	3	32	0	129	0	2	3	1	3	6	306
Hourly Total	0	2	83	277	0	362	0	205	54	11	0	270	0	330	8	126	0	464	0	3	12	3	7	18	1114
1:00 PM	0	2	30	74	0	106	0	48	19	4	0	71	0	74	2	37	0	113	0	1	1	3	3	5	295
1:15 PM	0	1	18	82	0	101	0	45	20	4	0	69	1	91	3	42	0	137	0	2	3	1	0	6	313
1:30 PM	0	1	32	76	0	109	0	60	17	3	0	80	0	88	3	36	0	127	0	0	4	0	3	4	320
1:45 PM	0	1	16	78	0	95	0	53	17	6	0	76	0	87	0	33	0	120	0	0	2	2	2	4	295
Hourly Total	0	5	96	310	0	411	0	206	73	17	0	296	1	340	8	148	0	497	0	3	10	6	8	19	1223
Grand Total	0	30	309	1312	1	1651	0	753	262	58	0	1073	4	1473	177	483	2	2137	0	18	221	24	24	263	5124
Approach %	0.0	1.8	18.7	79.5	-	-	0.0	70.2	24.4	5.4	-	-	0.2	68.9	8.3	22.6	-	-	0.0	6.8	84.0	9.1	-	-	-
Total %	0.0	0.6	6.0	25.6	-	32.2	0.0	14.7	5.1	1.1	-	20.9	0.1	28.7	3.5	9.4	-	41.7	0.0	0.4	4.3	0.5	-	5.1	-

Lights	0	30	309	1309	-	1648	0	750	262	58	-	1070	4	1468	164	481	-	2117	0	18	200	24	-	242	5077
% Lights	-	100.0	100.0	99.8	-	99.8	-	99.6	100.0	100.0	-	99.7	100.0	99.7	92.7	99.6	-	99.1	-	100.0	90.5	100.0	-	92.0	99.1
Buses	0	0	0	0	-	0	0	0	0	0	-	0	0	1	0	0	-	1	0	0	0	0	-	0	1
% Buses	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	0.0	0.1	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	0.0
Single-Unit Trucks	0	0	0	3	-	3	0	2	0	0	-	2	0	4	4	2	-	10	0	0	14	0	-	14	29
% Single-Unit Trucks	-	0.0	0.0	0.2	-	0.2	-	0.3	0.0	0.0	-	0.2	0.0	0.3	2.3	0.4	-	0.5	-	0.0	6.3	0.0	-	5.3	0.6
Articulated Trucks	0	0	0	0	-	0	0	1	0	0	-	1	0	0	9	0	-	9	0	0	7	0	-	7	17
% Articulated Trucks	-	0.0	0.0	0.0	-	0.0	-	0.1	0.0	0.0	-	0.1	0.0	0.0	5.1	0.0	-	0.4	-	0.0	3.2	0.0	-	2.7	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	0.0
Pedestrians	-	-	-	-	1	-	-	-	-	-	0	-	-	-	-	-	2	-	-	-	-	-	24	-	-
% Pedestrians	-	-	-	-	100.0	-	-	-	-	-	-	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-

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

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

Count Name: Downers Drive with Access Drive
TMC
Site Code:
Start Date: 08/07/2025

Turning Movement Peak Hour Data (7:45 AM)

Start Time	Access Drive Eastbound						Access Drive Westbound						Downers Drive Northbound						Downers Drive Southbound						
	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	Int. Total
7:45 AM	0	5	2	25	0	32	0	6	2	0	0	8	0	61	21	6	1	88	0	0	3	0	0	3	131
8:00 AM	0	2	3	29	0	34	0	3	3	0	0	6	0	61	20	3	0	84	0	0	5	0	0	5	129
8:15 AM	0	3	1	30	0	34	0	3	3	0	0	6	0	34	15	5	0	54	0	0	5	1	0	6	100
8:30 AM	0	1	4	37	0	42	0	7	0	3	0	10	0	32	14	10	0	56	0	1	5	2	0	8	116
Total	0	11	10	121	0	142	0	19	8	3	0	30	0	188	70	24	1	282	0	1	18	3	0	22	476
Approach %	0.0	7.7	7.0	85.2	-	-	0.0	63.3	26.7	10.0	-	-	0.0	66.7	24.8	8.5	-	-	0.0	4.5	81.8	13.6	-	-	-
Total %	0.0	2.3	2.1	25.4	-	29.8	0.0	4.0	1.7	0.6	-	6.3	0.0	39.5	14.7	5.0	-	59.2	0.0	0.2	3.8	0.6	-	4.6	-
PHF	0.000	0.550	0.625	0.818	-	0.845	0.000	0.679	0.667	0.250	-	0.750	0.000	0.770	0.833	0.600	-	0.801	0.000	0.250	0.900	0.375	-	0.688	0.908
Lights	0	11	10	120	-	141	0	19	8	3	-	30	0	185	64	24	-	273	0	1	12	3	-	16	460
% Lights	-	100.0	100.0	99.2	-	99.3	-	100.0	100.0	100.0	-	100.0	-	98.4	91.4	100.0	-	96.8	-	100.0	66.7	100.0	-	72.7	96.6
Buses	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0
% Buses	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	0.0
Single-Unit Trucks	0	0	0	1	-	1	0	0	0	0	-	0	0	3	1	0	-	4	0	0	3	0	-	3	8
% Single-Unit Trucks	-	0.0	0.0	0.8	-	0.7	-	0.0	0.0	0.0	-	0.0	-	1.6	1.4	0.0	-	1.4	-	0.0	16.7	0.0	-	13.6	1.7
Articulated Trucks	0	0	0	0	-	0	0	0	0	0	-	0	0	0	5	0	-	5	0	0	3	0	-	3	8
% Articulated Trucks	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	-	0.0	7.1	0.0	-	1.8	-	0.0	16.7	0.0	-	13.6	1.7
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	-	0.0	-	0.0	0.0	0.0	-	0.0	0.0
Pedestrians	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	1	-	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	100.0	-	-	-	-	-	-	-	-

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9575 W. Higgins Rd., Suite 400

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

Count Name: Downers Drive with Access Drive
TMC
Site Code:
Start Date: 08/07/2025

Turning Movement Peak Hour Data (4:30 PM)

Start Time	Access Drive Eastbound						Access Drive Westbound						Downers Drive Northbound						Downers Drive Southbound						
	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	Int. Total
4:30 PM	0	1	14	70	0	85	0	41	10	4	0	55	1	61	9	13	0	84	0	1	26	4	2	31	255
4:45 PM	0	0	11	61	0	72	0	40	12	1	0	53	0	69	2	21	0	92	0	2	18	0	2	20	237
5:00 PM	0	1	13	58	0	72	0	33	15	5	0	53	0	41	6	10	1	57	0	2	22	0	0	24	206
5:15 PM	0	1	17	52	1	70	0	27	8	2	0	37	1	70	7	31	0	109	0	2	17	3	1	22	238
Total	0	3	55	241	1	299	0	141	45	12	0	198	2	241	24	75	1	342	0	7	83	7	5	97	936
Approach %	0.0	1.0	18.4	80.6	-	-	0.0	71.2	22.7	6.1	-	-	0.6	70.5	7.0	21.9	-	-	0.0	7.2	85.6	7.2	-	-	-
Total %	0.0	0.3	5.9	25.7	-	31.9	0.0	15.1	4.8	1.3	-	21.2	0.2	25.7	2.6	8.0	-	36.5	0.0	0.7	8.9	0.7	-	10.4	-
PHF	0.000	0.750	0.809	0.861	-	0.879	0.000	0.860	0.750	0.600	-	0.900	0.500	0.861	0.667	0.605	-	0.784	0.000	0.875	0.798	0.438	-	0.782	0.918
Lights	0	3	55	241	-	299	0	140	45	12	-	197	2	241	22	74	-	339	0	7	78	7	-	92	927
% Lights	-	100.0	100.0	100.0	-	100.0	-	99.3	100.0	100.0	-	99.5	100.0	100.0	91.7	98.7	-	99.1	-	100.0	94.0	100.0	-	94.8	99.0
Buses	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0
% Buses	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	0.0
Single-Unit Trucks	0	0	0	0	-	0	0	1	0	0	-	1	0	0	2	1	-	3	0	0	3	0	-	3	7
% Single-Unit Trucks	-	0.0	0.0	0.0	-	0.0	-	0.7	0.0	0.0	-	0.5	0.0	0.0	8.3	1.3	-	0.9	-	0.0	3.6	0.0	-	3.1	0.7
Articulated Trucks	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	2	0	-	2	2
% Articulated Trucks	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	-	0.0	-	0.0	2.4	0.0	-	2.1	0.2
Bicycles on Road	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0
% Bicycles on Road	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	0.0
Pedestrians	-	-	-	-	1	-	-	-	-	-	0	-	-	-	-	-	1	-	-	-	-	-	5	-	-
% Pedestrians	-	-	-	-	100.0	-	-	-	-	-	-	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-

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Rosemont, Illinois, United States 60018
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Count Name: Downers Drive with Access Drive
TMC
Site Code:
Start Date: 08/07/2025

Turning Movement Peak Hour Data (1:00 PM)

Start Time	Access Drive Eastbound						Access Drive Westbound						Downers Drive Northbound						Downers Drive Southbound						
	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	Int. Total
1:00 PM	0	2	30	74	0	106	0	48	19	4	0	71	0	74	2	37	0	113	0	1	1	3	3	5	295
1:15 PM	0	1	18	82	0	101	0	45	20	4	0	69	1	91	3	42	0	137	0	2	3	1	0	6	313
1:30 PM	0	1	32	76	0	109	0	60	17	3	0	80	0	88	3	36	0	127	0	0	4	0	3	4	320
1:45 PM	0	1	16	78	0	95	0	53	17	6	0	76	0	87	0	33	0	120	0	0	2	2	2	4	295
Total	0	5	96	310	0	411	0	206	73	17	0	296	1	340	8	148	0	497	0	3	10	6	8	19	1223
Approach %	0.0	1.2	23.4	75.4	-	-	0.0	69.6	24.7	5.7	-	-	0.2	68.4	1.6	29.8	-	-	0.0	15.8	52.6	31.6	-	-	-
Total %	0.0	0.4	7.8	25.3	-	33.6	0.0	16.8	6.0	1.4	-	24.2	0.1	27.8	0.7	12.1	-	40.6	0.0	0.2	0.8	0.5	-	1.6	-
PHF	0.000	0.625	0.750	0.945	-	0.943	0.000	0.858	0.913	0.708	-	0.925	0.250	0.934	0.667	0.881	-	0.907	0.000	0.375	0.625	0.500	-	0.792	0.955
Lights	0	5	96	310	-	411	0	206	73	17	-	296	1	340	6	148	-	495	0	3	7	6	-	16	1218
% Lights	-	100.0	100.0	100.0	-	100.0	-	100.0	100.0	100.0	-	100.0	100.0	100.0	75.0	100.0	-	99.6	-	100.0	70.0	100.0	-	84.2	99.6
Buses	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0
% Buses	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	0.0
Single-Unit Trucks	0	0	0	0	-	0	0	0	0	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	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	-	0.0	-	0.0	20.0	0.0	-	10.5	0.2
Articulated Trucks	0	0	0	0	-	0	0	0	0	0	-	0	0	0	2	0	-	2	0	0	1	0	-	1	3
% Articulated Trucks	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	0.0	0.0	25.0	0.0	-	0.4	-	0.0	10.0	0.0	-	5.3	0.2
Bicycles on Road	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0
% Bicycles on Road	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	0.0
Pedestrians	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	8	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	100.0	-	-

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

Count Name: Internal Access Drive east of Downers Drive TMC
Site Code:
Start Date: 08/07/2025

Turning Movement Data

Start Time	Downers Drive Access Drive Eastbound						Great Clips Access Drive Westbound						Parking Lot Access Drive Northbound						Alley Access Drive Southbound						Int. Total
	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	
7:00 AM	0	0	7	0	0	7	0	0	7	0	0	7	0	0	0	0	0	0	0	0	0	0	1	0	14
7:15 AM	0	0	2	0	0	2	0	0	5	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	7
7:30 AM	0	0	9	0	0	9	0	0	5	0	0	5	0	1	0	0	0	1	0	0	0	0	0	0	15
7:45 AM	0	0	6	1	2	7	0	0	7	0	0	7	0	0	0	0	0	0	0	0	0	1	0	1	15
Hourly Total	0	0	24	1	2	25	0	0	24	0	0	24	0	1	0	0	0	1	0	0	0	1	1	1	51
8:00 AM	0	0	3	0	0	3	0	0	6	0	0	6	0	0	0	0	0	0	0	0	0	0	0	0	9
8:15 AM	0	0	8	0	0	8	0	0	6	0	0	6	0	0	0	0	0	0	0	0	0	0	0	0	14
8:30 AM	0	0	11	0	0	11	0	0	8	0	0	8	0	1	0	0	0	1	0	0	0	0	0	0	20
8:45 AM	0	0	10	0	2	10	0	0	11	0	0	11	0	0	0	0	0	0	0	0	0	0	0	0	21
Hourly Total	0	0	32	0	2	32	0	0	31	0	0	31	0	1	0	0	0	1	0	0	0	0	0	0	64
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4:00 PM	0	0	21	3	15	24	0	1	44	0	10	45	0	0	0	0	0	0	0	0	0	1	3	1	70
4:15 PM	0	0	23	1	7	24	0	1	48	1	5	50	0	1	0	0	0	1	0	0	0	0	6	0	75
4:30 PM	0	0	18	1	9	19	1	2	35	0	11	38	0	1	0	0	0	1	0	0	0	0	6	0	58
4:45 PM	0	0	16	0	11	16	0	3	46	0	12	49	0	1	0	1	0	2	0	0	0	1	5	1	68
Hourly Total	0	0	78	5	42	83	1	7	173	1	38	182	0	3	0	1	0	4	0	0	0	2	20	2	271
5:00 PM	0	2	14	2	9	18	0	3	38	0	18	41	0	0	0	3	0	3	0	0	0	0	5	0	62
5:15 PM	1	1	24	1	10	27	0	2	33	0	18	35	0	1	0	0	1	1	0	0	0	0	7	0	63
5:30 PM	0	0	19	1	15	20	0	1	37	0	15	38	0	2	0	0	0	2	0	0	0	0	0	0	60
5:45 PM	0	0	26	1	9	27	0	3	42	0	13	45	0	0	0	1	0	1	0	0	0	0	3	0	73
Hourly Total	1	3	83	5	43	92	0	9	150	0	64	159	0	3	0	4	1	7	0	0	0	0	15	0	258
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
12:00 PM	1	0	33	3	34	37	0	4	53	2	13	59	0	1	0	3	0	4	0	1	0	0	9	1	101
12:15 PM	0	0	27	0	38	27	0	5	38	0	24	43	0	2	0	4	2	6	0	0	0	0	21	0	76
12:30 PM	0	0	36	3	45	39	0	1	51	1	28	53	0	2	0	1	0	3	0	0	0	1	14	1	96
12:45 PM	1	1	27	3	62	32	0	2	47	1	11	50	0	0	0	3	0	3	0	0	0	0	7	0	85
Hourly Total	2	1	123	9	179	135	0	12	189	4	76	205	0	5	0	11	2	16	0	1	0	1	51	2	358
1:00 PM	0	1	36	4	10	41	0	4	35	1	22	40	0	0	0	3	0	3	0	0	0	0	6	0	84
1:15 PM	0	0	29	3	3	32	0	2	44	0	19	46	0	1	0	0	0	1	0	2	0	0	4	2	81
1:30 PM	0	1	35	4	11	40	0	3	59	0	20	62	0	1	0	1	0	2	0	0	0	0	9	0	104
1:45 PM	0	0	38	1	6	39	0	3	59	0	15	62	0	0	0	1	0	1	0	0	0	0	6	0	102
Hourly Total	0	2	138	12	30	152	0	12	197	1	76	210	0	2	0	5	0	7	0	2	0	0	25	2	371
Grand Total	3	6	478	32	298	519	1	40	764	6	254	811	0	15	0	21	3	36	0	3	0	4	112	7	1373
Approach %	0.6	1.2	92.1	6.2	-	-	0.1	4.9	94.2	0.7	-	-	0.0	41.7	0.0	58.3	-	-	0.0	42.9	0.0	57.1	-	-	-
Total %	0.2	0.4	34.8	2.3	-	37.8	0.1	2.9	55.6	0.4	-	59.1	0.0	1.1	0.0	1.5	-	2.6	0.0	0.2	0.0	0.3	-	0.5	-

Lights	3	6	476	32	-	517	1	40	764	6	-	811	0	15	0	21	-	36	0	3	0	4	-	7	1371
% Lights	100.0	100.0	99.6	100.0	-	99.6	100.0	100.0	100.0	100.0	-	100.0	-	100.0	-	100.0	-	100.0	-	100.0	-	100.0	-	100.0	99.9
Buses	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0
% Buses	0.0	0.0	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	-	0.0	-	0.0	-	0.0	-	0.0	-	0.0	-	0.0	-	0.0	0.0
Single-Unit Trucks	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0
% Single-Unit Trucks	0.0	0.0	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	-	0.0	-	0.0	-	0.0	-	0.0	-	0.0	-	0.0	-	0.0	0.0
Articulated Trucks	0	0	1	0	-	1	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	1
% Articulated Trucks	0.0	0.0	0.2	0.0	-	0.2	0.0	0.0	0.0	0.0	-	0.0	-	0.0	-	0.0	-	0.0	-	0.0	-	0.0	-	0.0	0.1
Bicycles on Road	0	0	1	0	-	1	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	1
% Bicycles on Road	0.0	0.0	0.2	0.0	-	0.2	0.0	0.0	0.0	0.0	-	0.0	-	0.0	-	0.0	-	0.0	-	0.0	-	0.0	-	0.0	0.1
Pedestrians	-	-	-	-	298	-	-	-	-	-	254	-	-	-	-	-	3	-	-	-	-	-	112	-	-
% Pedestrians	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-

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

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

Count Name: Internal Access Drive east of Downers Drive TMC
Site Code:
Start Date: 08/07/2025

Turning Movement Peak Hour Data (7:45 AM)

Start Time	Downers Drive Access Drive Eastbound						Great Clips Access Drive Westbound						Parking Lot Access Drive Northbound						Alley Access Drive Southbound						
	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	Int. Total
7:45 AM	0	0	6	1	2	7	0	0	7	0	0	7	0	0	0	0	0	0	0	0	0	1	0	1	15
8:00 AM	0	0	3	0	0	3	0	0	6	0	0	6	0	0	0	0	0	0	0	0	0	0	0	0	9
8:15 AM	0	0	8	0	0	8	0	0	6	0	0	6	0	0	0	0	0	0	0	0	0	0	0	0	14
8:30 AM	0	0	11	0	0	11	0	0	8	0	0	8	0	1	0	0	0	1	0	0	0	0	0	0	20
Total	0	0	28	1	2	29	0	0	27	0	0	27	0	1	0	0	0	1	0	0	0	1	0	1	58
Approach %	0.0	0.0	96.6	3.4	-	-	0.0	0.0	100.0	0.0	-	-	0.0	100.0	0.0	0.0	-	-	0.0	0.0	0.0	100.0	-	-	-
Total %	0.0	0.0	48.3	1.7	-	50.0	0.0	0.0	46.6	0.0	-	46.6	0.0	1.7	0.0	0.0	-	1.7	0.0	0.0	0.0	1.7	-	1.7	-
PHF	0.000	0.000	0.636	0.250	-	0.659	0.000	0.000	0.844	0.000	-	0.844	0.000	0.250	0.000	0.000	-	0.250	0.000	0.000	0.000	0.250	-	0.250	0.725
Lights	0	0	28	1	-	29	0	0	27	0	-	27	0	1	0	0	-	1	0	0	0	1	-	1	58
% Lights	-	-	100.0	100.0	-	100.0	-	-	100.0	-	-	100.0	-	100.0	-	-	-	100.0	-	-	-	100.0	-	100.0	100.0
Buses	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0
% Buses	-	-	0.0	0.0	-	0.0	-	-	0.0	-	-	0.0	-	0.0	-	-	-	0.0	-	-	-	0.0	-	0.0	0.0
Single-Unit Trucks	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0
% Single-Unit Trucks	-	-	0.0	0.0	-	0.0	-	-	0.0	-	-	0.0	-	0.0	-	-	-	0.0	-	-	-	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
% 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	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	-	-	-	-	2	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	100.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

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9575 W. Higgins Rd., Suite 400

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

Count Name: Internal Access Drive east of Downers Drive TMC
Site Code:
Start Date: 08/07/2025

Turning Movement Peak Hour Data (4:30 PM)

Start Time	Downers Drive Access Drive Eastbound						Great Clips Access Drive Westbound						Parking Lot Access Drive Northbound						Alley Access Drive Southbound						Int. Total
	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	
4:30 PM	0	0	18	1	9	19	1	2	35	0	11	38	0	1	0	0	0	1	0	0	0	0	6	0	58
4:45 PM	0	0	16	0	11	16	0	3	46	0	12	49	0	1	0	1	0	2	0	0	0	1	5	1	68
5:00 PM	0	2	14	2	9	18	0	3	38	0	18	41	0	0	0	3	0	3	0	0	0	0	5	0	62
5:15 PM	1	1	24	1	10	27	0	2	33	0	18	35	0	1	0	0	1	1	0	0	0	0	7	0	63
Total	1	3	72	4	39	80	1	10	152	0	59	163	0	3	0	4	1	7	0	0	0	1	23	1	251
Approach %	1.3	3.8	90.0	5.0	-	-	0.6	6.1	93.3	0.0	-	-	0.0	42.9	0.0	57.1	-	-	0.0	0.0	0.0	100.0	-	-	-
Total %	0.4	1.2	28.7	1.6	-	31.9	0.4	4.0	60.6	0.0	-	64.9	0.0	1.2	0.0	1.6	-	2.8	0.0	0.0	0.0	0.4	-	0.4	-
PHF	0.250	0.375	0.750	0.500	-	0.741	0.250	0.833	0.826	0.000	-	0.832	0.000	0.750	0.000	0.333	-	0.583	0.000	0.000	0.000	0.250	-	0.250	0.923
Lights	1	3	71	4	-	79	1	10	152	0	-	163	0	3	0	4	-	7	0	0	0	1	-	1	250
% Lights	100.0	100.0	98.6	100.0	-	98.8	100.0	100.0	100.0	-	-	100.0	-	100.0	-	100.0	-	100.0	-	-	-	100.0	-	100.0	99.6
Buses	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0
% Buses	0.0	0.0	0.0	0.0	-	0.0	0.0	0.0	0.0	-	-	0.0	-	0.0	-	0.0	-	0.0	-	-	-	0.0	-	0.0	0.0
Single-Unit Trucks	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0
% Single-Unit Trucks	0.0	0.0	0.0	0.0	-	0.0	0.0	0.0	0.0	-	-	0.0	-	0.0	-	0.0	-	0.0	-	-	-	0.0	-	0.0	0.0
Articulated Trucks	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0
% Articulated Trucks	0.0	0.0	0.0	0.0	-	0.0	0.0	0.0	0.0	-	-	0.0	-	0.0	-	0.0	-	0.0	-	-	-	0.0	-	0.0	0.0
Bicycles on Road	0	0	1	0	-	1	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	1
% Bicycles on Road	0.0	0.0	1.4	0.0	-	1.3	0.0	0.0	0.0	-	-	0.0	-	0.0	-	0.0	-	0.0	-	-	-	0.0	-	0.0	0.4
Pedestrians	-	-	-	-	39	-	-	-	-	-	59	-	-	-	-	-	1	-	-	-	-	-	23	-	-
% Pedestrians	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-

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9575 W. Higgins Rd., Suite 400

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

Count Name: Internal Access Drive east of Downers Drive TMC
Site Code:
Start Date: 08/07/2025

Turning Movement Peak Hour Data (1:00 PM)

Start Time	Downers Drive Access Drive Eastbound						Great Clips Access Drive Westbound						Parking Lot Access Drive Northbound						Alley Access Drive Southbound						
	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	Int. Total
1:00 PM	0	1	36	4	10	41	0	4	35	1	22	40	0	0	0	3	0	3	0	0	0	0	6	0	84
1:15 PM	0	0	29	3	3	32	0	2	44	0	19	46	0	1	0	0	0	1	0	2	0	0	4	2	81
1:30 PM	0	1	35	4	11	40	0	3	59	0	20	62	0	1	0	1	0	2	0	0	0	0	9	0	104
1:45 PM	0	0	38	1	6	39	0	3	59	0	15	62	0	0	0	1	0	1	0	0	0	0	6	0	102
Total	0	2	138	12	30	152	0	12	197	1	76	210	0	2	0	5	0	7	0	2	0	0	25	2	371
Approach %	0.0	1.3	90.8	7.9	-	-	0.0	5.7	93.8	0.5	-	-	0.0	28.6	0.0	71.4	-	-	0.0	100.0	0.0	0.0	-	-	-
Total %	0.0	0.5	37.2	3.2	-	41.0	0.0	3.2	53.1	0.3	-	56.6	0.0	0.5	0.0	1.3	-	1.9	0.0	0.5	0.0	0.0	-	0.5	-
PHF	0.000	0.500	0.908	0.750	-	0.927	0.000	0.750	0.835	0.250	-	0.847	0.000	0.500	0.000	0.417	-	0.583	0.000	0.250	0.000	0.000	-	0.250	0.892
Lights	0	2	138	12	-	152	0	12	197	1	-	210	0	2	0	5	-	7	0	2	0	0	-	2	371
% Lights	-	100.0	100.0	100.0	-	100.0	-	100.0	100.0	100.0	-	100.0	-	100.0	-	100.0	-	100.0	-	100.0	-	-	-	100.0	100.0
Buses	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0
% Buses	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	-	0.0	-	0.0	-	0.0	-	0.0	-	-	-	0.0	0.0
Single-Unit Trucks	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0
% Single-Unit Trucks	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	-	0.0	-	0.0	-	0.0	-	0.0	-	-	-	0.0	0.0
Articulated Trucks	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0
% Articulated Trucks	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	-	0.0	-	0.0	-	0.0	-	0.0	-	-	-	0.0	0.0
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	-	-	-	-	30	-	-	-	-	-	76	-	-	-	-	-	0	-	-	-	-	-	25	-	-
% Pedestrians	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	-	-	-	-	-	-	100.0	-	-

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9575 W. Higgins Rd., Suite 400

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

Count Name: I Access Drive north of Butterfield Road TMC
Site Code:
Start Date: 08/07/2025

Turning Movement Data

Start Time	butterfield rd Eastbound					butterfield rd Westbound					access Southbound					
	U-Turn	Left	Thru	Peds	App. Total	U-Turn	Thru	Right	Peds	App. Total	U-Turn	Left	Right	Peds	App. Total	Int. Total
7:00 AM	0	0	309	0	309	0	272	4	0	276	0	0	2	0	2	587
7:15 AM	0	0	356	0	356	0	391	5	0	396	0	0	2	0	2	754
7:30 AM	0	0	392	0	392	0	395	5	0	400	0	0	2	0	2	794
7:45 AM	0	0	440	0	440	0	523	5	0	528	0	0	2	0	2	970
Hourly Total	0	0	1497	0	1497	0	1581	19	0	1600	0	0	8	0	8	3105
8:00 AM	0	0	474	0	474	0	450	7	0	457	0	0	2	0	2	933
8:15 AM	0	0	458	0	458	0	424	4	0	428	0	0	2	0	2	888
8:30 AM	0	0	422	0	422	0	449	5	0	454	0	0	1	0	1	877
8:45 AM	0	0	433	0	433	0	416	8	0	424	0	0	4	0	4	861
Hourly Total	0	0	1787	0	1787	0	1739	24	0	1763	0	0	9	0	9	3559
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4:00 PM	0	0	453	0	453	0	683	26	0	709	0	0	12	0	12	1174
4:15 PM	0	0	497	0	497	0	607	27	0	634	0	0	11	1	11	1142
4:30 PM	0	0	448	0	448	0	650	21	0	671	0	0	8	0	8	1127
4:45 PM	0	0	506	0	506	0	655	32	0	687	0	0	10	0	10	1203
Hourly Total	0	0	1904	0	1904	0	2595	106	0	2701	0	0	41	1	41	4646
5:00 PM	0	0	496	0	496	0	762	25	0	787	0	0	10	0	10	1293
5:15 PM	0	0	476	0	476	0	765	27	0	792	0	0	7	0	7	1275
5:30 PM	0	0	488	0	488	0	601	24	0	625	0	0	9	0	9	1122
5:45 PM	0	0	509	0	509	0	603	24	0	627	0	0	12	0	12	1148
Hourly Total	0	0	1969	0	1969	0	2731	100	0	2831	0	0	38	0	38	4838
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
12:00 PM	0	0	378	0	378	0	477	35	0	512	0	0	16	0	16	906
12:15 PM	0	0	335	0	335	0	503	25	0	528	0	0	10	0	10	873
12:30 PM	0	0	342	0	342	0	478	37	0	515	0	0	10	0	10	867
12:45 PM	0	0	334	0	334	0	496	36	0	532	0	0	21	0	21	887
Hourly Total	0	0	1389	0	1389	0	1954	133	0	2087	0	0	57	0	57	3533
1:00 PM	0	0	355	0	355	0	540	28	0	568	0	0	9	0	9	932
1:15 PM	0	0	348	0	348	0	524	25	0	549	0	0	14	0	14	911
1:30 PM	0	0	355	0	355	0	513	36	0	549	0	0	18	0	18	922
1:45 PM	0	0	362	0	362	0	513	36	0	549	0	0	10	0	10	921
Hourly Total	0	0	1420	0	1420	0	2090	125	0	2215	0	0	51	0	51	3686
Grand Total	0	0	9966	0	9966	0	12690	507	0	13197	0	0	204	1	204	23367
Approach %	0.0	0.0	100.0	-	-	0.0	96.2	3.8	-	-	0.0	0.0	100.0	-	-	-
Total %	0.0	0.0	42.6	-	42.6	0.0	54.3	2.2	-	56.5	0.0	0.0	0.9	-	0.9	-
Lights	0	0	9805	-	9805	0	12499	504	-	13003	0	0	201	-	201	23009

% Lights	-	-	98.4	-	98.4	-	98.5	99.4	-	98.5	-	-	98.5	-	98.5	98.5
Buses	0	0	25	-	25	0	34	0	-	34	0	0	0	-	0	59
% Buses	-	-	0.3	-	0.3	-	0.3	0.0	-	0.3	-	-	0.0	-	0.0	0.3
Single-Unit Trucks	0	0	100	-	100	0	117	2	-	119	0	0	2	-	2	221
% Single-Unit Trucks	-	-	1.0	-	1.0	-	0.9	0.4	-	0.9	-	-	1.0	-	1.0	0.9
Articulated Trucks	0	0	36	-	36	0	40	1	-	41	0	0	1	-	1	78
% Articulated Trucks	-	-	0.4	-	0.4	-	0.3	0.2	-	0.3	-	-	0.5	-	0.5	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
Pedestrians	-	-	-	0	-	-	-	-	0	-	-	-	-	1	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	100.0	-	-

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9575 W. Higgins Rd., Suite 400

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

Count Name: l Access Drive north of Butterfield Road TMC
Site Code:
Start Date: 08/07/2025

Turning Movement Peak Hour Data (7:45 AM)

Start Time	butterfield rd Eastbound					butterfield rd Westbound					access Southbound					
	U-Turn	Left	Thru	Peds	App. Total	U-Turn	Thru	Right	Peds	App. Total	U-Turn	Left	Right	Peds	App. Total	Int. Total
7:45 AM	0	0	440	0	440	0	523	5	0	528	0	0	2	0	2	970
8:00 AM	0	0	474	0	474	0	450	7	0	457	0	0	2	0	2	933
8:15 AM	0	0	458	0	458	0	424	4	0	428	0	0	2	0	2	888
8:30 AM	0	0	422	0	422	0	449	5	0	454	0	0	1	0	1	877
Total	0	0	1794	0	1794	0	1846	21	0	1867	0	0	7	0	7	3668
Approach %	0.0	0.0	100.0	-	-	0.0	98.9	1.1	-	-	0.0	0.0	100.0	-	-	-
Total %	0.0	0.0	48.9	-	48.9	0.0	50.3	0.6	-	50.9	0.0	0.0	0.2	-	0.2	-
PHF	0.000	0.000	0.946	-	0.946	0.000	0.882	0.750	-	0.884	0.000	0.000	0.875	-	0.875	0.945
Lights	0	0	1759	-	1759	0	1795	21	-	1816	0	0	6	-	6	3581
% Lights	-	-	98.0	-	98.0	-	97.2	100.0	-	97.3	-	-	85.7	-	85.7	97.6
Buses	0	0	4	-	4	0	8	0	-	8	0	0	0	-	0	12
% Buses	-	-	0.2	-	0.2	-	0.4	0.0	-	0.4	-	-	0.0	-	0.0	0.3
Single-Unit Trucks	0	0	24	-	24	0	33	0	-	33	0	0	0	-	0	57
% Single-Unit Trucks	-	-	1.3	-	1.3	-	1.8	0.0	-	1.8	-	-	0.0	-	0.0	1.6
Articulated Trucks	0	0	7	-	7	0	10	0	-	10	0	0	1	-	1	18
% Articulated Trucks	-	-	0.4	-	0.4	-	0.5	0.0	-	0.5	-	-	14.3	-	14.3	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
Pedestrians	-	-	-	0	-	-	-	-	0	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

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Rosemont, Illinois, United States 60018
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Count Name: l Access Drive north of Butterfield Road TMC
Site Code:
Start Date: 08/07/2025

Turning Movement Peak Hour Data (4:30 PM)

Start Time	butterfield rd Eastbound					butterfield rd Westbound					access Southbound					
	U-Turn	Left	Thru	Peds	App. Total	U-Turn	Thru	Right	Peds	App. Total	U-Turn	Left	Right	Peds	App. Total	Int. Total
4:30 PM	0	0	448	0	448	0	650	21	0	671	0	0	8	0	8	1127
4:45 PM	0	0	506	0	506	0	655	32	0	687	0	0	10	0	10	1203
5:00 PM	0	0	496	0	496	0	762	25	0	787	0	0	10	0	10	1293
5:15 PM	0	0	476	0	476	0	765	27	0	792	0	0	7	0	7	1275
Total	0	0	1926	0	1926	0	2832	105	0	2937	0	0	35	0	35	4898
Approach %	0.0	0.0	100.0	-	-	0.0	96.4	3.6	-	-	0.0	0.0	100.0	-	-	-
Total %	0.0	0.0	39.3	-	39.3	0.0	57.8	2.1	-	60.0	0.0	0.0	0.7	-	0.7	-
PHF	0.000	0.000	0.952	-	0.952	0.000	0.925	0.820	-	0.927	0.000	0.000	0.875	-	0.875	0.947
Lights	0	0	1898	-	1898	0	2803	105	-	2908	0	0	35	-	35	4841
% Lights	-	-	98.5	-	98.5	-	99.0	100.0	-	99.0	-	-	100.0	-	100.0	98.8
Buses	0	0	7	-	7	0	8	0	-	8	0	0	0	-	0	15
% Buses	-	-	0.4	-	0.4	-	0.3	0.0	-	0.3	-	-	0.0	-	0.0	0.3
Single-Unit Trucks	0	0	12	-	12	0	14	0	-	14	0	0	0	-	0	26
% Single-Unit Trucks	-	-	0.6	-	0.6	-	0.5	0.0	-	0.5	-	-	0.0	-	0.0	0.5
Articulated Trucks	0	0	9	-	9	0	7	0	-	7	0	0	0	-	0	16
% Articulated Trucks	-	-	0.5	-	0.5	-	0.2	0.0	-	0.2	-	-	0.0	-	0.0	0.3
Bicycles on Road	0	0	0	-	0	0	0	0	-	0	0	0	0	-	0	0
% Bicycles on Road	-	-	0.0	-	0.0	-	0.0	0.0	-	0.0	-	-	0.0	-	0.0	0.0
Pedestrians	-	-	-	0	-	-	-	-	0	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

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

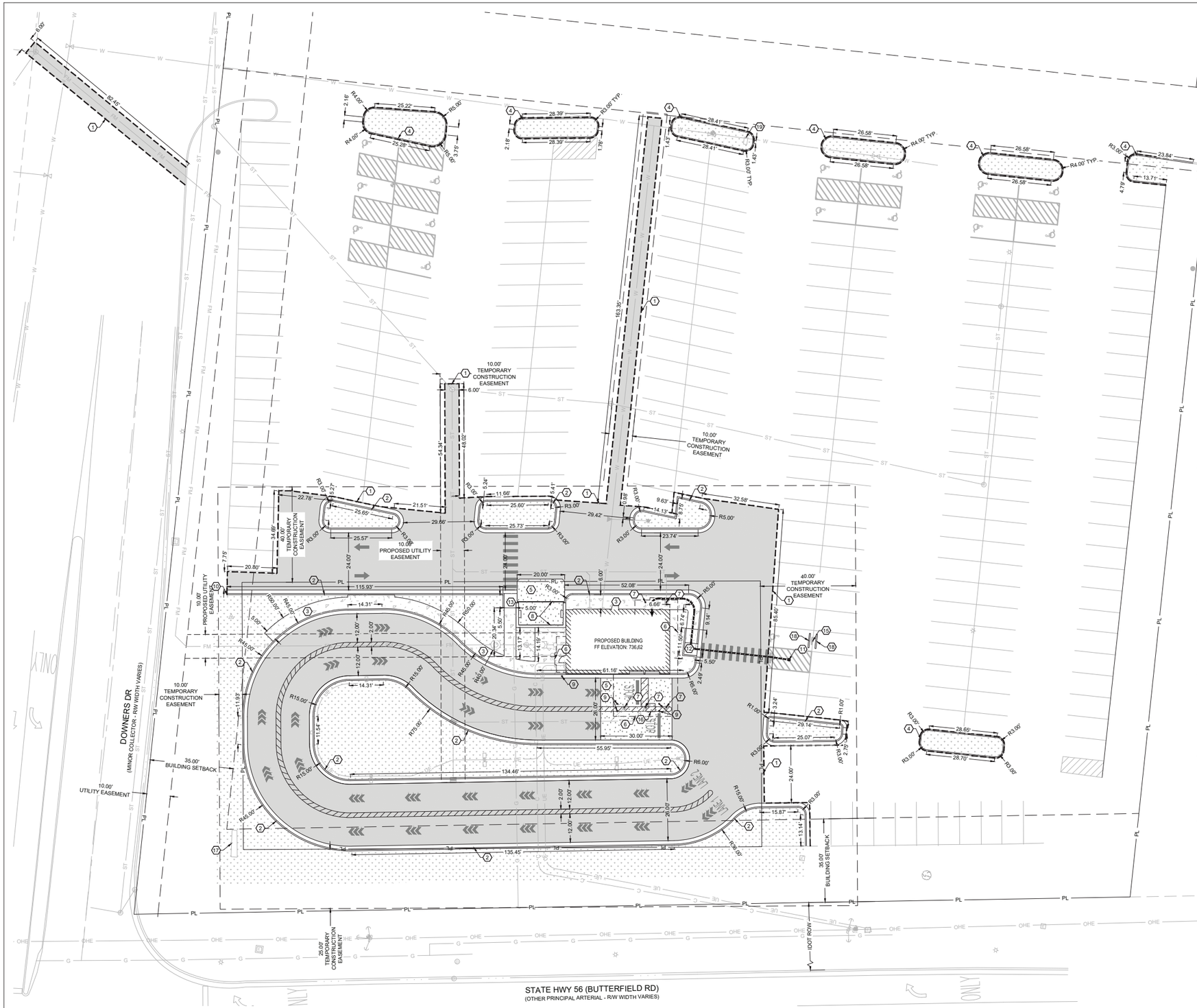
Rosemont, Illinois, United States 60018
(847)518-9990 dfreeman@kloainc.com

Count Name: l Access Drive north of Butterfield Road TMC
Site Code:
Start Date: 08/07/2025

Turning Movement Peak Hour Data (1:00 PM)

Start Time	butterfield rd Eastbound					butterfield rd Westbound					access Southbound					
	U-Turn	Left	Thru	Peds	App. Total	U-Turn	Thru	Right	Peds	App. Total	U-Turn	Left	Right	Peds	App. Total	Int. Total
1:00 PM	0	0	355	0	355	0	540	28	0	568	0	0	9	0	9	932
1:15 PM	0	0	348	0	348	0	524	25	0	549	0	0	14	0	14	911
1:30 PM	0	0	355	0	355	0	513	36	0	549	0	0	18	0	18	922
1:45 PM	0	0	362	0	362	0	513	36	0	549	0	0	10	0	10	921
Total	0	0	1420	0	1420	0	2090	125	0	2215	0	0	51	0	51	3686
Approach %	0.0	0.0	100.0	-	-	0.0	94.4	5.6	-	-	0.0	0.0	100.0	-	-	-
Total %	0.0	0.0	38.5	-	38.5	0.0	56.7	3.4	-	60.1	0.0	0.0	1.4	-	1.4	-
PHF	0.000	0.000	0.981	-	0.981	0.000	0.968	0.868	-	0.975	0.000	0.000	0.708	-	0.708	0.989
Lights	0	0	1409	-	1409	0	2067	124	-	2191	0	0	51	-	51	3651
% Lights	-	-	99.2	-	99.2	-	98.9	99.2	-	98.9	-	-	100.0	-	100.0	99.1
Buses	0	0	1	-	1	0	3	0	-	3	0	0	0	-	0	4
% Buses	-	-	0.1	-	0.1	-	0.1	0.0	-	0.1	-	-	0.0	-	0.0	0.1
Single-Unit Trucks	0	0	7	-	7	0	15	0	-	15	0	0	0	-	0	22
% Single-Unit Trucks	-	-	0.5	-	0.5	-	0.7	0.0	-	0.7	-	-	0.0	-	0.0	0.6
Articulated Trucks	0	0	3	-	3	0	5	1	-	6	0	0	0	-	0	9
% Articulated Trucks	-	-	0.2	-	0.2	-	0.2	0.8	-	0.3	-	-	0.0	-	0.0	0.2
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
Pedestrians	-	-	-	0	-	-	-	-	0	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Site Plan



HATCH LEGEND:

- = ASPHALT PAVEMENT PER DETAIL 2.06, SHEET C7.1.
- = CONCRETE SIDEWALK PER SIDEWALK DETAIL 2.02, SHEET C7.1.
- = CONCRETE PAVEMENT PER CONCRETE PAVEMENT DETAIL 2.03 AND 2.05, SHEET C7.1.
- = LANDSCAPE AREA REFER TO LANDSCAPE PLAN.

KEY NOTES:

1. MATCH EXISTING PAVEMENT.
2. CONCRETE CURB & GUTTER PER CITY DETAIL, SHEET C7.4.
3. SIDEWALK PER DETAIL 2.02, SHEET C7.1.
4. 6" CONCRETE CURB WITH NO GUTTER.
5. CONCRETE PAVEMENT PER CONCRETE PAVEMENT DETAILS 2.03 & 2.05, SHEET C7.1.
6. BUILDING CANOPY OUTLINE.
7. CANOPY COLUMNS LOCATIONS, TYPICAL.
8. TRASH ENCLOSURE AND GATE, PER ARCHITECTURAL PLANS.
9. 3' PIPE BOLLARD, TYPICAL PER DETAIL 2.09, SHEET C7.1.
10. CURB TRANSITION PER DETAIL 2.15, SHEET C7.1.
11. ACCESSIBLE PATH FROM PARKING TO BUILDING.
12. MODIFIED TYPE 2 ADA CURB RAMP PER CITY DETAIL, SHEET C7.4.
13. TYPE 4 ADA CURB RAMP PER CITY DETAIL, SHEET C7.4.
15. SIGN, SEE SHEET C6.1.
16. CANVAS CRAFT WARMING HUT,PER ARCHITECTURAL PLANS.
17. EXISTING MONUMENT SIGN.
18. CONCRETE WHEEL STOP.
19. DIRECTIONAL SIGN.

PROPOSED USE:

RESTAURANT WITH DRIVE THRU.

ZONING:

ZONING DISTRICT: B3, GENERAL SERVICE & HIGHWAY BUSINESS

PARKING REQUIREMENTS: 7 BREW

REQUIRED: 1 SPACE PER EMPLOYEES DURING LARGEST SHIFT = 6 STALLS.
PROVIDED: 7 STALLS, 6 STANDARD AND 1 ADA.

PARKING REQUIREMENTS: PUD DEVELOPMENT

REQUIRED: 108,221 S.F. @ 3.5 PARKING SPACE / 1000 S.F. OF BUILDING AREA = 382
PROVIDED POST 7 BREW DEVELOPEMENT: 320 STALLS.

DRIVE-TRHU QUEUE STACKING REQUIREMENTS:

REQUIRED: 8 SPACES.
PROVIDED: 39 SPACES.

STORMWATER NOTES:

PRE-PROJECT IMPERVIOUS AREA	= ±	33,775 S.F.
PRE-PROJECT PERVIOUS AREA	= ±	5,613 S.F.
TOTAL	= ±	39,388 S.F.
POST-PROJECT IMPERVIOUS AREA	= ±	26,984 S.F.
POST-PROJECT PERVIOUS AREA	= ±	12,404 S.F.
TOTAL	= ±	39,388 S.F.

NOTES:

IMPERVIOUS AND PERVIOUS SURFACE CALCULATIONS ARE BOUNDED BY SAWCUT LINES TO THE NORTH AND EAST, AND LIMIT OF DISTURBANCE TO THE SOUTH AND WEST.

BUILDING AND LOT DATA:

PROJECT FOOTPRINT	33,252 S.F.	≈	0.76 ACRES
PROPOSED BUILDING (1 STORY) - RETAIL		=	1,172 S.F.

CONSTRUCTION TYPE: V-B

QUANTITIES:

CURB & GUTTER	= ±	1,380 L.F.
ASPHALT PAVEMENT	= ±	20,772 S.F.
8-INCH CONCRETE PAVEMENT	= ±	1,179 S.F.
4-INCH CONCRETE SIDEWALK	= ±	1,652 S.F.
LANDSCAPING	= ±	13,171 S.F.

NOTES:

ANY CHANGES MADE TO THE SITE PLAN OR IN THE FIELD DURING CONSTRUCTION MUST BE SUBMITTED IN WRITING TO THE VILLAGE OD DOWNER'S GROVE.

N

0 10 20

H. SCALE: 1" = 20'

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7 BREW COFFEE
SEVEN BREW COFFEE DRIVE THRU

MATTHEW STEVEN MILLER
062.065164
Illinois

ENGINEER OF RECORD:
NAME: MATTHEW STEVEN MILLER
LICENSE NO. IL #PE 062 065164
EXP. 11/30/2027

PROJECT NUMBER:
104 068

REVISION:

7 BREW COFFEE
DOWNERS GROVE, IL 60

1434 BUTTERFIELD RD
DOWNERS GROVE, IL 60515

TOTH & ASSOCIATES
1550 E. REPUBLIC ROAD
SPRINGFIELD, MO 65804
Ph: 417-888-0645 Fax: 417-888-0657
www.tothassociates.com
IL# 63620661

C2.1

SITE PLAN

DATE: DECEMBER 9TH, 2025

ITE Trip Generation Sheets

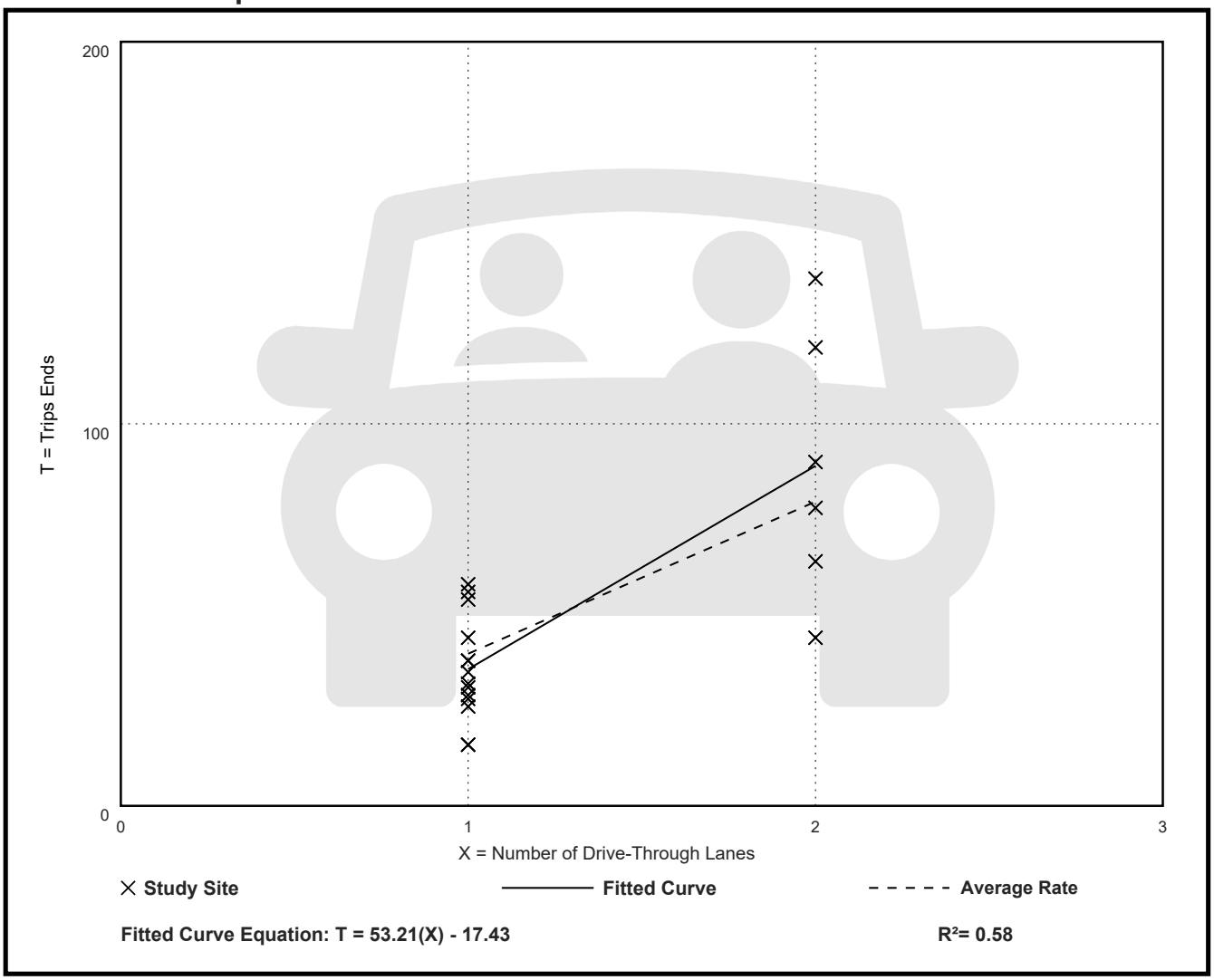
Coffee/Donut Shop with Drive-Through Window and No Indoor Seating (938)

Vehicle Trip Ends vs:	**Drive-Through Lanes**
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. Num. of Drive-Through Lanes:	1
Directional Distribution:	50% entering, 50% exiting

Vehicle Trip Generation per Drive-Through Lane

Average Rate	Range of Rates	Standard Deviation
39.81	16.00 - 69.00	15.44

Data Plot and Equation



Fitted Curve Equation: T = 53.21(X) - 17.43

R^2= 0.58

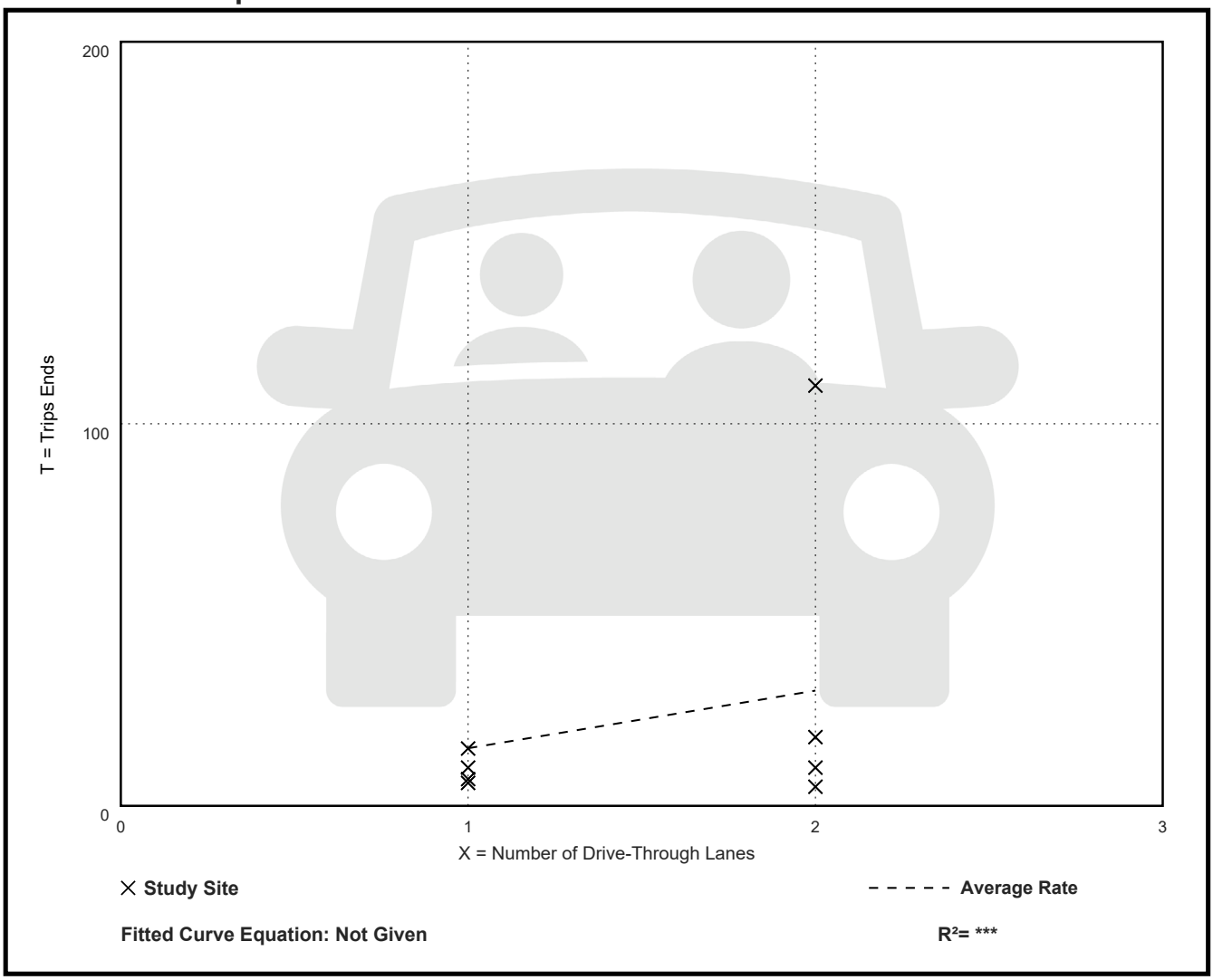
Coffee/Donut Shop with Drive-Through Window and No Indoor Seating (938)

Vehicle Trip Ends vs:	**Drive-Through Lanes**
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:	8
Avg. Num. of Drive-Through Lanes:	2
Directional Distribution:	50% entering, 50% exiting

Vehicle Trip Generation per Drive-Through Lane

Average Rate	Range of Rates	Standard Deviation
15.08	2.50 - 55.00	19.41

Data Plot and Equation



CMAP 2050 Projections Letter

Chicago Metropolitan Agency for Planning

433 West Van Buren Street, Suite 450
Chicago, IL 60607

cmap.illinois.gov | 312-454-0400

July 24, 2025

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

Subject: Downers Drive with Butterfield Road
IDOT

Dear Mr. May:

In response to a request made on your behalf and dated July 23, 2025, we have developed year 2050 average daily traffic (ADT) projections for the subject location.

ROAD SEGMENT	Current ADT	Year 2050 ADT
Downers Drive at Butterfield Road	1,450	1,550
Butterfield Road at Downers Drive	40,800	43,600

Traffic projections are developed using existing ADT data provided in the request letter and the results from the June 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)
S:\AdminGroups\ResearchAnalysis\2025_trafficForecasts\DownersGrove\du-42-25\du-42-25.docx

TRAFFIC FORECAST RECORD

Record Number: du-42-25
Type of Report: Projection
Year Sought: 2050
Analyst: JAR
Organization Requestion Forecast: KLOA
Contact: Ryan May
Email or Phone: rmay@kloainc.com
Sponsor: IDOT
Date request was received: 7/23/2025
Date that response was emailed: 7/24/2025
Facility Location: Downers Drive with Butterfield Road
Municipality: Downers Grove

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

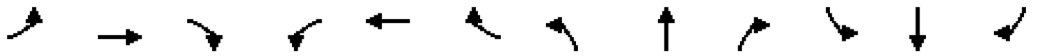
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	28	1	0	27	0	1	0	0	0	0	1
Pedestrians												
Ped Button												
Pedestrian Timing (s)												
Free Right			No			No			No			No
Ideal Flow	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Green (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Refr Cycle Length (s)	120	120	120	120	120	120	120	120	120	120	120	120
Volume Combined (vph)	0	29	0	0	27	0	0	1	0	0	1	0
Lane Utilization Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Factor (vph)	0.95	0.99	0.85	0.95	1.00	0.85	0.95	0.95	0.85	0.95	0.85	0.85
Saturated Flow (vph)	0	1890	0	0	1900	0	0	1805	0	0	1615	0
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)		0.00			0.00			0.00			0.00	
Protected Option Allowed		No			No			No			No	
Reference Time (s)			0.0			0.0			0.0			0.0
Adj Reference Time (s)			0.0			0.0			0.0			0.0
Permitted Option												
Adj Saturation A (vph)	0	1890		0	1900		0	120		0	1615	
Reference Time A (s)	0.0	1.8		0.0	1.7		0.0	1.0		0.0	0.1	
Adj Saturation B (vph	0	1890		0	1900		0	0		0	1615	
Reference Time B (s)	0.0	1.8		0.0	1.7		8.1	8.1		0.0	0.1	
Reference Time (s)		1.8			1.7			1.0			0.1	
Adj Reference Time (s)		8.0			8.0			8.0			8.0	
Split Option												
Ref Time Combined (s)	0.0	1.8		0.0	1.7		0.0	0.1		0.0	0.1	
Ref Time Seperate (s)	0.0	1.8		0.0	1.7		0.1	0.0		0.0	0.0	
Reference Time (s)	1.8	1.8		1.7	1.7		0.1	0.1		0.1	0.1	
Adj Reference Time (s)	8.0	8.0		8.0	8.0		8.0	8.0		8.0	8.0	

Summary	EB WB	NB SB	Combined
Protected Option (s)	NA	NA	
Permitted Option (s)	8.0	8.0	
Split Option (s)	16.0	16.0	
Minimum (s)	8.0	8.0	16.0

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

Intersection Summary			
Intersection Capacity Utilization	13.3%	ICU Level of Service	A

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

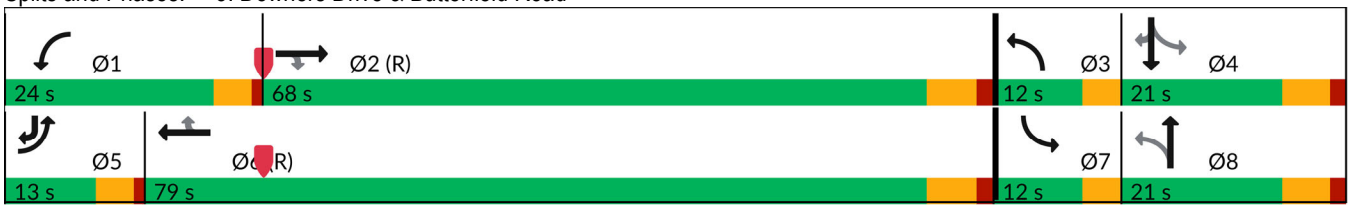


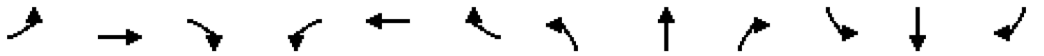
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	71	1672	158	372	1283	198	19	13	34	88	34	36
Future Volume (vph)	71	1672	158	372	1283	198	19	13	34	88	34	36
Ideal Flow (vphpl)	1900	2000	1900	1900	2000	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	230		280	350		335	0		0	0		150
Storage Lanes	2		1	2		1	1		0	1		1
Taper Length (ft)	300			300			25			0		
Lane Util. Factor	0.97	0.91	1.00	0.97	0.91	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.850			0.850		0.892				0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	3400	5353	1599	3467	5301	1583	1805	1623	0	1736	1845	1482
Flt Permitted	0.950			0.950			0.734			0.506		
Satd. Flow (perm)	3400	5353	1599	3467	5301	1583	1395	1623	0	924	1845	1482
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			166			208		36				96
Link Speed (mph)		45			45			25			25	
Link Distance (ft)		967			826			734			471	
Travel Time (s)		14.7			12.5			20.0			12.8	
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 (%)	3%	2%	1%	1%	3%	2%	0%	8%	3%	4%	3%	9%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	75	1760	166	392	1351	208	20	50	0	93	36	38
Turn Type	Prot	NA	Perm	Prot	NA	Perm	pm+pt	NA		pm+pt	NA	pm+ov
Protected Phases	5	2		1	6		3	8		7	4	5
Permitted Phases			2			6	8			4		4
Detector Phase	5	2	2	1	6	6	3	8		7	4	5
Switch Phase												
Minimum Initial (s)	3.0	15.0	15.0	3.0	15.0	15.0	3.0	8.0		3.0	8.0	3.0
Minimum Split (s)	7.5	21.0	21.0	7.5	21.0	21.0	6.5	14.0		6.5	14.0	7.5
Total Split (s)	13.0	68.0	68.0	24.0	79.0	79.0	12.0	21.0		12.0	21.0	13.0
Total Split (%)	10.4%	54.4%	54.4%	19.2%	63.2%	63.2%	9.6%	16.8%		9.6%	16.8%	10.4%
Yellow Time (s)	3.5	4.5	4.5	3.5	4.5	4.5	3.5	4.5		3.5	4.5	3.5
All-Red Time (s)	1.0	1.5	1.5	1.0	1.5	1.5	0.0	1.5		0.0	1.5	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Lost Time (s)	4.5	6.0	6.0	4.5	6.0	6.0	3.5	6.0		3.5	6.0	4.5
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag		Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		Yes	Yes	Yes
Recall Mode	None	C-Min	C-Min	None	C-Min	C-Min	None	None		None	None	None
Act Effct Green (s)	8.1	70.9	70.9	19.1	84.0	84.0	16.0	8.9		19.8	13.9	28.1
Actuated g/C Ratio	0.06	0.57	0.57	0.15	0.67	0.67	0.13	0.07		0.16	0.11	0.22
v/c Ratio	0.34	0.58	0.17	0.74	0.38	0.18	0.10	0.34		0.46	0.18	0.09
Control Delay (s/veh)	59.6	19.6	2.8	59.2	10.6	1.7	42.5	30.2		51.8	53.1	0.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Delay (s/veh)	59.6	19.6	2.8	59.2	10.6	1.7	42.5	30.2		51.8	53.1	0.4
LOS	E	B	A	E	B	A	D	C		D	D	A
Approach Delay (s/veh)		19.7			19.4			33.7			40.4	
Approach LOS		B			B			C			D	
Queue Length 50th (ft)	31	337	0	159	182	0	14	12		68	26	0
Queue Length 95th (ft)	56	440	36	206	242	31	35	54		118	64	0

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (ft)		887			746			654			391	
Turn Bay Length (ft)	230		280	350		335						150
Base Capacity (vph)	243	3038	979	570	3562	1132	225	226		204	251	416
Starvation Cap Reductn	0	0	0	0	0	0	0	0		0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0		0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0		0	0	0
Reduced v/c Ratio	0.31	0.58	0.17	0.69	0.38	0.18	0.09	0.22		0.46	0.14	0.09

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: 60			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.74			
Intersection Signal Delay (s/veh): 20.6		Intersection LOS: C	
Intersection Capacity Utilization 66.6%		ICU Level of Service C	
Analysis Period (min) 15			

Splits and Phases: 3: Downers Drive & Butterfield Road



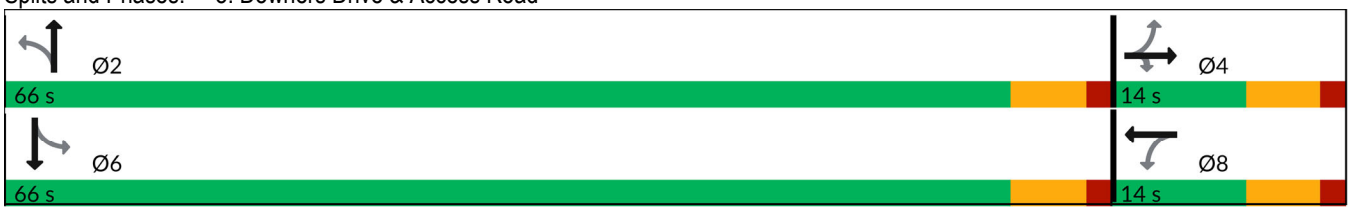


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	11	10	121	19	8	3	188	70	24	1	18	3
Future Volume (vph)	11	10	121	19	8	3	188	70	24	1	18	3
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		40	0		0	0		0	0		0
Storage Lanes	0		1	1		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95	0.95	0.95	0.95
Frt			0.850		0.962			0.987			0.981	
Flt Protected		0.975		0.950				0.968			0.998	
Satd. Flow (prot)	0	1852	1599	1805	1828	0	0	3330	0	0	2772	0
Flt Permitted		0.830		0.742				0.772			0.943	
Satd. Flow (perm)	0	1577	1599	1410	1828	0	0	2656	0	0	2619	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			133		3			26			3	
Link Speed (mph)		20			20			25			25	
Link Distance (ft)		252			487			471			398	
Travel Time (s)		8.6			16.6			12.8			10.9	
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles (%)	0%	0%	1%	0%	0%	0%	2%	9%	0%	0%	33%	0%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	23	133	21	12	0	0	310	0	0	24	0
Turn Type	Perm	NA	Perm	Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4		4	8			2			6		
Detector Phase	4	4	4	8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	8.0	8.0	8.0	8.0	8.0		15.0	15.0		15.0	15.0	
Minimum Split (s)	14.0	14.0	14.0	14.0	14.0		24.0	24.0		24.0	24.0	
Total Split (s)	14.0	14.0	14.0	14.0	14.0		66.0	66.0		66.0	66.0	
Total Split (%)	17.5%	17.5%	17.5%	17.5%	17.5%		82.5%	82.5%		82.5%	82.5%	
Yellow Time (s)	4.5	4.5	4.5	4.5	4.5		4.5	4.5		4.5	4.5	
All-Red Time (s)	1.5	1.5	1.5	1.5	1.5		1.5	1.5		1.5	1.5	
Lost Time Adjust (s)		0.0	0.0	0.0	0.0			0.0			0.0	
Total Lost Time (s)		6.0	6.0	6.0	6.0			6.0			6.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None	None	None	None		Min	Min		Min	Min	
Act Effct Green (s)		8.0	8.0	8.0	8.0			21.7			21.7	
Actuated g/C Ratio		0.21	0.21	0.21	0.21			0.58			0.58	
v/c Ratio		0.07	0.30	0.07	0.03			0.20			0.02	
Control Delay (s/veh)		13.6	5.9	13.6	12.0			5.5			4.9	
Queue Delay		0.0	0.0	0.0	0.0			0.0			0.0	
Total Delay (s/veh)		13.6	5.9	13.6	12.0			5.5			4.9	
LOS		B	A	B	B			A			A	
Approach Delay (s/veh)		7.0			13.0			5.5			4.9	
Approach LOS		A			B			A			A	
Queue Length 50th (ft)		4	0	3	1			17			1	
Queue Length 95th (ft)		18	31	17	11			33			5	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (ft)		172			407			391			318	
Turn Bay Length (ft)			40									
Base Capacity (vph)		336	446	301	392			2656			2619	
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		0.07	0.30	0.07	0.03			0.12			0.01	

Intersection Summary			
Area Type:	Other		
Cycle Length: 80			
Actuated Cycle Length: 37.6			
Natural Cycle: 40			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.30			
Intersection Signal Delay (s/veh): 6.4		Intersection LOS: A	
Intersection Capacity Utilization 41.7%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 8: Downers Drive & Access Road



Intersection	
Int Delay, s/veh	0

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	0	1794	1846	21	0	7
Future Vol, veh/h	0	1794	1846	21	0	7
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	Free	-	Stop
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	0	2	2	0	0	14
Mvmt Flow	0	1888	1943	22	0	7

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	-	0	-	0	-	972
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	7.38
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	4.04
Pot Cap-1 Maneuver	0	-	-	0	0	200
Stage 1	0	-	-	0	0	-
Stage 2	0	-	-	0	0	-
Platoon blocked, %		-	-			
Mov Cap-1 Maneuver	-	-	-	-	-	200
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	SB
HCM Ctrl Dly, s/v	0	0	23.72
HCM LOS			C

Minor Lane/Major Mvmt	EBT	WBT	SBLn1
Capacity (veh/h)	-	-	200
HCM Lane V/C Ratio	-	-	0.037
HCM Ctrl Dly (s/v)	-	-	23.7
HCM Lane LOS	-	-	C
HCM 95th %tile Q(veh)	-	-	0.1

Capacity Analysis Summary Sheets

Existing Weekday Evening Peak Hour

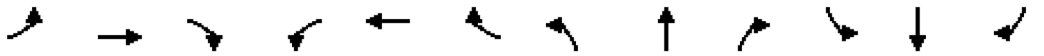
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		✣			✣			✣			✣	
Volume (vph)	3	72	4	10	152	0	3	0	4	0	0	1
Pedestrians												
Ped Button												
Pedestrian Timing (s)												
Free Right			No			No			No			No
Ideal Flow	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Green (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Refr Cycle Length (s)	120	120	120	120	120	120	120	120	120	120	120	120
Volume Combined (vph)	0	79	0	0	162	0	0	7	0	0	1	0
Lane Utilization Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Factor (vph)	0.95	0.99	0.85	0.95	1.00	0.85	0.95	0.89	0.85	0.95	0.85	0.85
Saturated Flow (vph)	0	1882	0	0	1894	0	0	1700	0	0	1615	0
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)		0.00			0.00			0.00			0.00	
Protected Option Allowed		No			No			No			No	
Reference Time (s)			0.0			0.0			0.0			0.0
Adj Reference Time (s)			0.0			0.0			0.0			0.0
Permitted Option												
Adj Saturation A (vph)	0	1607		0	1353		0	222		0	1615	
Reference Time A (s)	0.0	5.9		0.0	14.4		0.0	3.8		0.0	0.1	
Adj Saturation B (vph	NA	NA		0	0		0	0		0	1615	
Reference Time B (s)	NA	NA		8.7	18.3		8.2	8.5		0.0	0.1	
Reference Time (s)		5.9			14.4			3.8			0.1	
Adj Reference Time (s)		9.9			18.4			8.0			8.0	
Split Option												
Ref Time Combined (s)	0.0	5.0		0.0	10.3		0.0	0.5		0.0	0.1	
Ref Time Seperate (s)	0.2	4.6		0.7	9.6		0.2	0.0		0.0	0.0	
Reference Time (s)	5.0	5.0		10.3	10.3		0.5	0.5		0.1	0.1	
Adj Reference Time (s)	9.0	9.0		14.3	14.3		8.0	8.0		8.0	8.0	

Summary	EB WB	NB SB	Combined
Protected Option (s)	NA	NA	
Permitted Option (s)	18.4	8.0	
Split Option (s)	23.3	16.0	
Minimum (s)	18.4	8.0	26.4

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

Intersection Summary			
Intersection Capacity Utilization	22.0%	ICU Level of Service	A

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

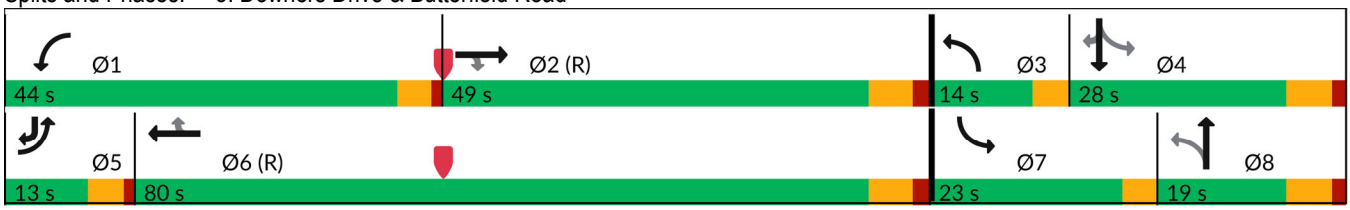


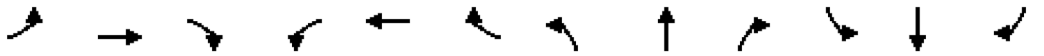
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	93	1531	102	777	1863	230	99	29	117	278	66	124
Future Volume (vph)	93	1531	102	777	1863	230	99	29	117	278	66	124
Ideal Flow (vphpl)	1900	2000	1900	1900	2000	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	230		280	350		335	0		0	0		150
Storage Lanes	2		1	2		1	1		0	1		1
Taper Length (ft)	300			300			25			0		
Lane Util. Factor	0.97	0.91	1.00	0.97	0.91	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.850			0.850		0.880				0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	3400	5353	1599	3467	5406	1615	1805	1672	0	1787	1845	1599
Flt Permitted	0.950			0.950			0.712			0.278		
Satd. Flow (perm)	3400	5353	1599	3467	5406	1615	1353	1672	0	523	1845	1599
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			154			240		120				89
Link Speed (mph)		45			45			25			25	
Link Distance (ft)		967			826			734			471	
Travel Time (s)		14.7			12.5			20.0			12.8	
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles (%)	3%	2%	1%	1%	1%	0%	0%	0%	0%	1%	3%	1%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	97	1595	106	809	1941	240	103	152	0	290	69	129
Turn Type	Prot	NA	Perm	Prot	NA	Perm	pm+pt	NA		pm+pt	NA	pm+ov
Protected Phases	5	2		1	6		3	8		7	4	5
Permitted Phases			2			6	8			4		4
Detector Phase	5	2	2	1	6	6	3	8		7	4	5
Switch Phase												
Minimum Initial (s)	3.0	15.0	15.0	3.0	15.0	15.0	3.0	8.0		3.0	8.0	3.0
Minimum Split (s)	7.5	21.0	21.0	7.5	21.0	21.0	6.5	14.0		6.5	14.0	7.5
Total Split (s)	13.0	49.0	49.0	44.0	80.0	80.0	14.0	19.0		23.0	28.0	13.0
Total Split (%)	9.6%	36.3%	36.3%	32.6%	59.3%	59.3%	10.4%	14.1%		17.0%	20.7%	9.6%
Yellow Time (s)	3.5	4.5	4.5	3.5	4.5	4.5	3.5	4.5		3.5	4.5	3.5
All-Red Time (s)	1.0	1.5	1.5	1.0	1.5	1.5	0.0	1.5		0.0	1.5	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Lost Time (s)	4.5	6.0	6.0	4.5	6.0	6.0	3.5	6.0		3.5	6.0	4.5
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag		Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		Yes	Yes	Yes
Recall Mode	None	C-Min	C-Min	None	C-Min	C-Min	None	None		None	None	None
Act Effct Green (s)	8.6	49.7	49.7	36.2	77.3	77.3	25.0	9.6		32.3	17.0	28.7
Actuated g/C Ratio	0.06	0.37	0.37	0.27	0.57	0.57	0.19	0.07		0.24	0.13	0.21
v/c Ratio	0.45	0.81	0.15	0.87	0.63	0.23	0.34	0.66		0.94	0.30	0.31
Control Delay (s/veh)	67.6	43.1	1.7	58.1	20.7	2.3	42.7	30.5		85.1	55.3	16.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Delay (s/veh)	67.6	43.1	1.7	58.1	20.7	2.3	42.7	30.5		85.1	55.3	16.1
LOS	E	D	A	E	C	A	D	C		F	E	B
Approach Delay (s/veh)		42.0			29.3			35.4			62.7	
Approach LOS		D			C			D			E	
Queue Length 50th (ft)	43	464	0	349	395	0	72	27		231	57	28
Queue Length 95th (ft)	75	#601	12	420	478	39	118	98		#346	103	80

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (ft)		887			746			654			391	
Turn Bay Length (ft)	230		280	350		335						150
Base Capacity (vph)	226	1970	686	1016	3094	1026	302	269		307	300	415
Starvation Cap Reductn	0	0	0	0	0	0	0	0		0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0		0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0		0	0	0
Reduced v/c Ratio	0.43	0.81	0.15	0.80	0.63	0.23	0.34	0.57		0.94	0.23	0.31

Intersection Summary			
Area Type:	Other		
Cycle Length: 135			
Actuated Cycle Length: 135			
Offset: 63 (47%), Referenced to phase 2:EBT and 6:WBT, Start of Green			
Natural Cycle: 90			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.94			
Intersection Signal Delay (s/veh): 36.7		Intersection LOS: D	
Intersection Capacity Utilization 91.5%		ICU Level of Service F	
Analysis Period (min) 15			
# 95th percentile volume exceeds capacity, queue may be longer.			
Queue shown is maximum after two cycles.			

Splits and Phases: 3: Downers Drive & Butterfield Road



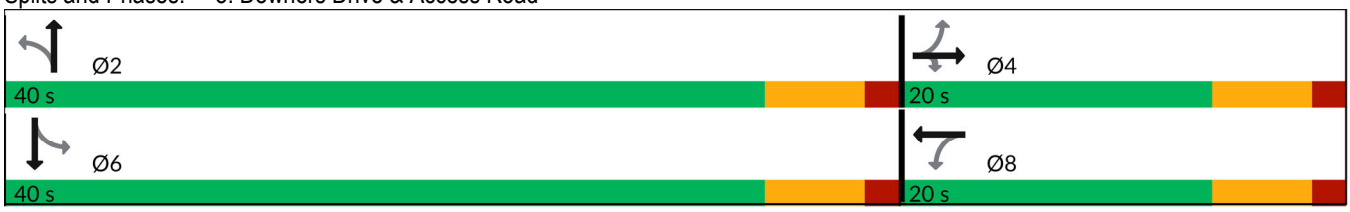


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	3	55	243	142	45	12	250	25	77	7	83	7
Future Volume (vph)	3	55	243	142	45	12	250	25	77	7	83	7
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		40	0		0	0		0	0		0
Storage Lanes	0		1	1		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95	0.95	0.95	0.95
Frt			0.850		0.969			0.967			0.989	
Flt Protected		0.998		0.950				0.966			0.996	
Satd. Flow (prot)	0	1896	1615	1787	1841	0	0	3346	0	0	3384	0
Flt Permitted		0.986		0.716				0.726			0.923	
Satd. Flow (perm)	0	1873	1615	1347	1841	0	0	2515	0	0	3136	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			264		13			84			8	
Link Speed (mph)		20			20			25			25	
Link Distance (ft)		252			487			471			398	
Travel Time (s)		8.6			16.6			12.8			10.9	
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
Heavy Vehicles (%)	0%	0%	0%	1%	0%	0%	0%	8%	1%	0%	6%	0%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	63	264	154	62	0	0	383	0	0	106	0
Turn Type	Perm	NA	Perm	Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4		4	8			2			6		
Detector Phase	4	4	4	8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	8.0	8.0	8.0	8.0	8.0		8.0	8.0		8.0	8.0	
Minimum Split (s)	14.0	14.0	14.0	14.0	14.0		14.0	14.0		14.0	14.0	
Total Split (s)	20.0	20.0	20.0	20.0	20.0		40.0	40.0		40.0	40.0	
Total Split (%)	33.3%	33.3%	33.3%	33.3%	33.3%		66.7%	66.7%		66.7%	66.7%	
Yellow Time (s)	4.5	4.5	4.5	4.5	4.5		4.5	4.5		4.5	4.5	
All-Red Time (s)	1.5	1.5	1.5	1.5	1.5		1.5	1.5		1.5	1.5	
Lost Time Adjust (s)		0.0	0.0	0.0	0.0			0.0			0.0	
Total Lost Time (s)		6.0	6.0	6.0	6.0			6.0			6.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None	None	None	None		Min	Min		Min	Min	
Act Effct Green (s)		10.9	10.9	10.9	10.9			20.0			20.0	
Actuated g/C Ratio		0.25	0.25	0.25	0.25			0.46			0.46	
v/c Ratio		0.13	0.44	0.46	0.13			0.32			0.07	
Control Delay (s/veh)		15.2	5.5	20.4	13.0			6.4			6.2	
Queue Delay		0.0	0.0	0.0	0.0			0.0			0.0	
Total Delay (s/veh)		15.2	5.5	20.4	13.0			6.4			6.2	
LOS		B	A	C	B			A			A	
Approach Delay (s/veh)		7.3			18.2			6.4			6.2	
Approach LOS		A			B			A			A	
Queue Length 50th (ft)		11	0	30	8			22			6	
Queue Length 95th (ft)		42	47	93	38			47			17	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (ft)		172			407			391			318	
Turn Bay Length (ft)			40									
Base Capacity (vph)		626	715	450	624			2057			2547	
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		0.10	0.37	0.34	0.10			0.19			0.04	

Intersection Summary			
Area Type:	Other		
Cycle Length: 60			
Actuated Cycle Length: 43.3			
Natural Cycle: 40			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.46			
Intersection Signal Delay (s/veh): 9.1		Intersection LOS: A	
Intersection Capacity Utilization 45.1%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 8: Downers Drive & Access Road



Intersection	
Int Delay, s/veh	0.5

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	0	1926	2835	105	0	35
Future Vol, veh/h	0	1926	2835	105	0	35
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	Free	-	Stop
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	0	1	1	0	0	0
Mvmt Flow	0	2027	2984	111	0	37

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	-	0	-	0	-	1492
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	7.1
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.9
Pot Cap-1 Maneuver	0	-	-	0	0	98
Stage 1	0	-	-	0	0	-
Stage 2	0	-	-	0	0	-
Platoon blocked, %		-	-			
Mov Cap-1 Maneuver	-	-	-	-	-	98
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	SB
HCM Ctrl Dly, s/v	0	0	62.21
HCM LOS			F

Minor Lane/Major Mvmt	EBT	WBT	SBLn1
Capacity (veh/h)	-	-	98
HCM Lane V/C Ratio	-	-	0.375
HCM Ctrl Dly (s/v)	-	-	62.2
HCM Lane LOS	-	-	F
HCM 95th %tile Q(veh)	-	-	1.5

Capacity Analysis Summary Sheets

Existing Saturday Midday Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Volume (vph)	2	138	12	12	197	1	2	0	5	2	0	0
Pedestrians												
Ped Button												
Pedestrian Timing (s)												
Free Right			No			No			No			No
Ideal Flow	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Green (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Refr Cycle Length (s)	120	120	120	120	120	120	120	120	120	120	120	120
Volume Combined (vph)	0	152	0	0	210	0	0	7	0	0	2	0
Lane Utilization Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Factor (vph)	0.95	0.99	0.85	0.95	1.00	0.85	0.95	0.88	0.85	0.95	0.95	0.85
Saturated Flow (vph)	0	1876	0	0	1893	0	0	1672	0	0	1805	0
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)		0.00			0.00			0.00			0.00	
Protected Option Allowed		No			No			No			No	
Reference Time (s)			0.0			0.0			0.0			0.0
Adj Reference Time (s)			0.0			0.0			0.0			0.0
Permitted Option												
Adj Saturation A (vph)	0	1769		0	1194		0	1843		0	636	
Reference Time A (s)	0.0	10.3		0.0	21.1		0.0	0.5		0.0	0.4	
Adj Saturation B (vph	NA	NA		NA	NA		0	0		0	0	
Reference Time B (s)	NA	NA		NA	NA		8.1	8.5		8.1	8.1	
Reference Time (s)		10.3			21.1			0.5			0.4	
Adj Reference Time (s)		14.3			25.1			8.0			8.0	
Split Option												
Ref Time Combined (s)	0.0	9.7		0.0	13.3		0.0	0.5		0.0	0.1	
Ref Time Seperate (s)	0.1	8.8		0.8	12.5		0.1	0.0		0.1	0.0	
Reference Time (s)	9.7	9.7		13.3	13.3		0.5	0.5		0.1	0.1	
Adj Reference Time (s)	13.7	13.7		17.3	17.3		8.0	8.0		8.0	8.0	

Summary	EB WB	NB SB	Combined
Protected Option (s)	NA	NA	
Permitted Option (s)	25.1	8.0	
Split Option (s)	31.0	16.0	
Minimum (s)	25.1	8.0	33.1

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

Intersection Summary			
Intersection Capacity Utilization	27.6%	ICU Level of Service	A

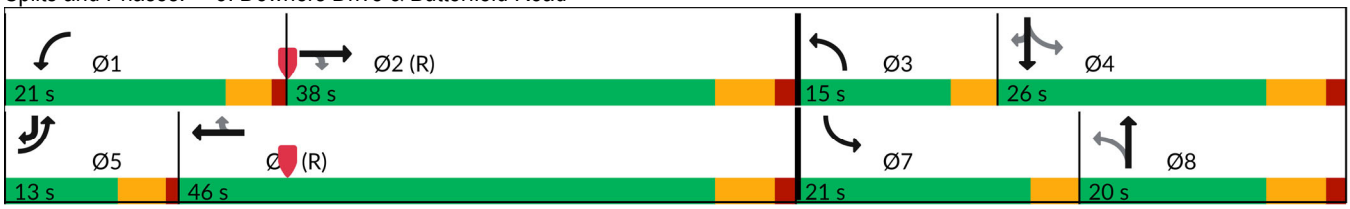
Reference Times and Phasing Options do not represent an optimized timing plan.

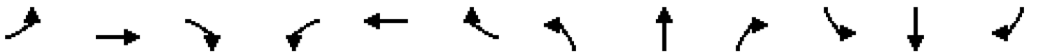
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	142	1157	28	414	1388	339	52	34	38	282	70	174
Future Volume (vph)	142	1157	28	414	1388	339	52	34	38	282	70	174
Ideal Flow (vphpl)	1900	2000	1900	1900	2000	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	230		280	350		335	0		0	0		150
Storage Lanes	2		1	2		1	1		0	1		1
Taper Length (ft)	300			300			25			0		
Lane Util. Factor	0.97	0.91	1.00	0.97	0.91	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.850			0.850		0.921				0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	3467	5460	1615	3467	5406	1615	1805	1723	0	1787	1863	1615
Flt Permitted	0.950			0.950			0.711			0.520		
Satd. Flow (perm)	3467	5460	1615	3467	5406	1615	1351	1723	0	978	1863	1615
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			207			342		38				176
Link Speed (mph)		45			45			25			25	
Link Distance (ft)		967			826			734			471	
Travel Time (s)		14.7			12.5			20.0			12.8	
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Heavy Vehicles (%)	1%	0%	0%	1%	1%	0%	0%	0%	3%	1%	2%	0%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	143	1169	28	418	1402	342	53	72	0	285	71	176
Turn Type	Prot	NA	Perm	Prot	NA	Perm	pm+pt	NA		pm+pt	NA	pm+ov
Protected Phases	5	2		1	6		3	8		7	4	5
Permitted Phases			2			6	8			4		4
Detector Phase	5	2	2	1	6	6	3	8		7	4	5
Switch Phase												
Minimum Initial (s)	3.0	15.0	15.0	3.0	15.0	15.0	3.0	8.0		3.0	8.0	3.0
Minimum Split (s)	7.5	21.0	21.0	7.5	21.0	21.0	6.5	14.0		6.5	14.0	7.5
Total Split (s)	13.0	38.0	38.0	21.0	46.0	46.0	15.0	20.0		21.0	26.0	13.0
Total Split (%)	13.0%	38.0%	38.0%	21.0%	46.0%	46.0%	15.0%	20.0%		21.0%	26.0%	13.0%
Yellow Time (s)	3.5	4.5	4.5	3.5	4.5	4.5	3.5	4.5		3.5	4.5	3.5
All-Red Time (s)	1.0	1.5	1.5	1.0	1.5	1.5	0.0	1.5		0.0	1.5	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Lost Time (s)	4.5	6.0	6.0	4.5	6.0	6.0	3.5	6.0		3.5	6.0	4.5
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag		Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		Yes	Yes	Yes
Recall Mode	None	C-Min	C-Min	None	C-Min	C-Min	None	None		None	None	None
Act Effct Green (s)	8.6	39.0	39.0	15.9	46.4	46.4	19.0	11.5		31.0	19.4	34.0
Actuated g/C Ratio	0.09	0.39	0.39	0.16	0.46	0.46	0.19	0.12		0.31	0.19	0.34
v/c Ratio	0.48	0.55	0.04	0.76	0.56	0.37	0.18	0.31		0.65	0.20	0.26
Control Delay (s/veh)	49.1	26.7	0.1	49.6	22.1	3.4	23.6	25.5		34.4	33.8	4.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Delay (s/veh)	49.1	26.7	0.1	49.6	22.1	3.4	23.6	25.5		34.4	33.8	4.4
LOS	D	C	A	D	C	A	C	C		C	C	A
Approach Delay (s/veh)		28.5			24.5			24.7			24.4	
Approach LOS		C			C			C			C	
Queue Length 50th (ft)	45	227	0	131	253	0	22	20		141	38	0
Queue Length 95th (ft)	77	284	0	186	313	54	47	60		209	76	43

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (ft)		887			746			654			391	
Turn Bay Length (ft)	230		280	350		335						150
Base Capacity (vph)	309	2131	756	585	2506	932	364	273		451	392	669
Starvation Cap Reductn	0	0	0	0	0	0	0	0		0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0		0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0		0	0	0
Reduced v/c Ratio	0.46	0.55	0.04	0.71	0.56	0.37	0.15	0.26		0.63	0.18	0.26

Intersection Summary			
Area Type:	Other		
Cycle Length: 100			
Actuated Cycle Length: 100			
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Green			
Natural Cycle: 60			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.76			
Intersection Signal Delay (s/veh): 25.8		Intersection LOS: C	
Intersection Capacity Utilization 69.1%		ICU Level of Service C	
Analysis Period (min) 15			

Splits and Phases: 3: Downers Drive & Butterfield Road



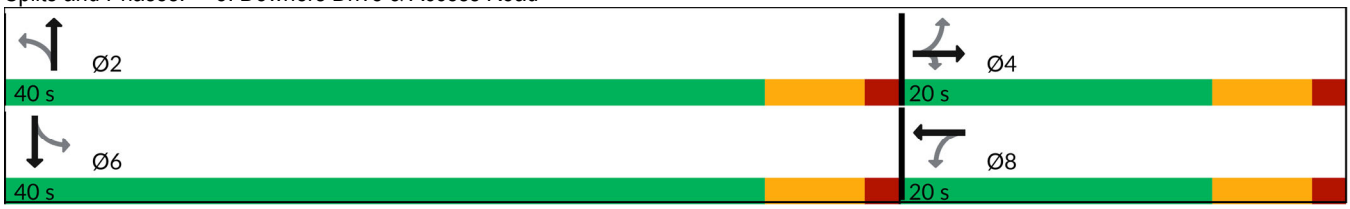


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	5	96	310	206	73	17	353	8	154	3	10	6
Future Volume (vph)	5	96	310	206	73	17	353	8	154	3	10	6
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		40	0		0	0		0	0		0
Storage Lanes	0		1	1		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95	0.95	0.95	0.95
Frt			0.850		0.971			0.955			0.953	
Flt Protected		0.998		0.950				0.967			0.992	
Satd. Flow (prot)	0	1896	1615	1805	1845	0	0	3321	0	0	2947	0
Flt Permitted		0.984		0.689				0.775			0.883	
Satd. Flow (perm)	0	1870	1615	1309	1845	0	0	2662	0	0	2624	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			323		18			160			6	
Link Speed (mph)		20			20			25			25	
Link Distance (ft)		252			487			471			398	
Travel Time (s)		8.6			16.6			12.8			10.9	
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	0%	25%	0%	0%	30%	0%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	105	323	215	94	0	0	536	0	0	19	0
Turn Type	Perm	NA	Perm	Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4		4	8			2			6		
Detector Phase	4	4	4	8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	8.0	8.0	8.0	5.0	5.0		8.0	8.0		8.0	8.0	
Minimum Split (s)	14.0	14.0	14.0	14.0	14.0		14.0	14.0		14.0	14.0	
Total Split (s)	20.0	20.0	20.0	20.0	20.0		40.0	40.0		40.0	40.0	
Total Split (%)	33.3%	33.3%	33.3%	33.3%	33.3%		66.7%	66.7%		66.7%	66.7%	
Yellow Time (s)	4.5	4.5	4.5	4.5	4.5		4.5	4.5		4.5	4.5	
All-Red Time (s)	1.5	1.5	1.5	1.5	1.5		1.5	1.5		1.5	1.5	
Lost Time Adjust (s)		0.0	0.0	0.0	0.0			0.0			0.0	
Total Lost Time (s)		6.0	6.0	6.0	6.0			6.0			6.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None	None	None	None		Min	Min		Min	Min	
Act Effct Green (s)		11.6	11.6	11.6	11.6			15.5			15.5	
Actuated g/C Ratio		0.29	0.29	0.29	0.29			0.39			0.39	
v/c Ratio		0.19	0.46	0.56	0.17			0.47			0.02	
Control Delay (s/veh)		13.4	4.7	20.9	11.4			7.4			6.1	
Queue Delay		0.0	0.0	0.0	0.0			0.0			0.0	
Total Delay (s/veh)		13.4	4.7	20.9	11.4			7.4			6.1	
LOS		B	A	C	B			A			A	
Approach Delay (s/veh)		6.9			18.0			7.4			6.1	
Approach LOS		A			B			A			A	
Queue Length 50th (ft)		17	0	39	12			34			1	
Queue Length 95th (ft)		55	47	#131	46			69			6	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (ft)		172			407			391			318	
Turn Bay Length (ft)			40									
Base Capacity (vph)		691	800	483	692			2295			2240	
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		0.15	0.40	0.45	0.14			0.23			0.01	

Intersection Summary			
Area Type:	Other		
Cycle Length: 60			
Actuated Cycle Length: 39.7			
Natural Cycle: 40			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.56			
Intersection Signal Delay (s/veh): 9.8		Intersection LOS: A	
Intersection Capacity Utilization 54.3%		ICU Level of Service A	
Analysis Period (min) 15			
# 95th percentile volume exceeds capacity, queue may be longer.			
Queue shown is maximum after two cycles.			

Splits and Phases: 8: Downers Drive & Access Road



Intersection	
Int Delay, s/veh	0.4

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	0	1477	2090	125	0	51
Future Vol, veh/h	0	1477	2090	125	0	51
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	Free	-	Stop
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	99	99	99	99	99	99
Heavy Vehicles, %	0	1	1	1	0	0
Mvmt Flow	0	1492	2111	126	0	52

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	-	0	-	0	-	1056
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	7.1
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.9
Pot Cap-1 Maneuver	0	-	-	0	0	193
Stage 1	0	-	-	0	0	-
Stage 2	0	-	-	0	0	-
Platoon blocked, %		-	-			
Mov Cap-1 Maneuver	-	-	-	-	-	193
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	SB
HCM Ctrl Dly, s/v	0	0	30.27
HCM LOS			D

Minor Lane/Major Mvmt	EBT	WBT	SBLn1
Capacity (veh/h)	-	-	193
HCM Lane V/C Ratio	-	-	0.267
HCM Ctrl Dly (s/v)	-	-	30.3
HCM Lane LOS	-	-	D
HCM 95th %tile Q(veh)	-	-	1

Capacity Analysis Summary Sheets

Year 2031 No-Build Weekday Morning Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		✣			✣			✣			✣	
Volume (vph)	0	28	32	0	27	0	33	0	0	0	0	1
Pedestrians												
Ped Button												
Pedestrian Timing (s)												
Free Right			No			No			No			No
Ideal Flow	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Green (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Refr Cycle Length (s)	120	120	120	120	120	120	120	120	120	120	120	120
Volume Combined (vph)	0	60	0	0	27	0	0	33	0	0	1	0
Lane Utilization Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Factor (vph)	0.95	0.92	0.85	0.95	1.00	0.85	0.95	0.95	0.85	0.95	0.85	0.85
Saturated Flow (vph)	0	1748	0	0	1900	0	0	1805	0	0	1615	0
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)		0.00			0.00			0.00			0.00	
Protected Option Allowed		No			No			No			No	
Reference Time (s)			0.0			0.0			0.0			0.0
Adj Reference Time (s)			0.0			0.0			0.0			0.0
Permitted Option												
Adj Saturation A (vph)	0	1748		0	1900		0	120		0	1615	
Reference Time A (s)	0.0	4.1		0.0	1.7		0.0	32.9		0.0	0.1	
Adj Saturation B (vph	0	1748		0	1900		0	0		0	1615	
Reference Time B (s)	0.0	4.1		0.0	1.7		10.2	10.2		0.0	0.1	
Reference Time (s)		4.1			1.7			10.2			0.1	
Adj Reference Time (s)		8.1			8.0			14.2			8.0	
Split Option												
Ref Time Combined (s)	0.0	4.1		0.0	1.7		0.0	2.2		0.0	0.1	
Ref Time Seperate (s)	0.0	1.9		0.0	1.7		2.2	0.0		0.0	0.0	
Reference Time (s)	4.1	4.1		1.7	1.7		2.2	2.2		0.1	0.1	
Adj Reference Time (s)	8.1	8.1		8.0	8.0		8.0	8.0		8.0	8.0	

Summary	EB WB	NB SB	Combined
Protected Option (s)	NA	NA	
Permitted Option (s)	8.1	14.2	
Split Option (s)	16.1	16.0	
Minimum (s)	8.1	14.2	22.3

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

Intersection Summary			
Intersection Capacity Utilization	18.6%	ICU Level of Service	A

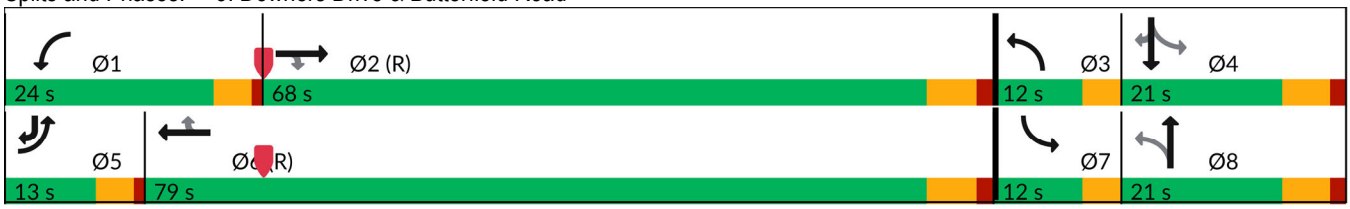
Reference Times and Phasing Options do not represent an optimized timing plan.

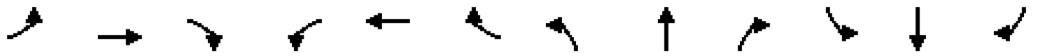
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	97	1683	160	378	1311	201	19	16	35	115	38	37
Future Volume (vph)	97	1683	160	378	1311	201	19	16	35	115	38	37
Ideal Flow (vphpl)	1900	2000	1900	1900	2000	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	230		280	350		335	0		0	0		150
Storage Lanes	2		1	2		1	1		0	1		1
Taper Length (ft)	300			300			25			0		
Lane Util. Factor	0.97	0.91	1.00	0.97	0.91	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.850			0.850		0.897				0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	3400	5353	1599	3467	5301	1583	1805	1630	0	1736	1845	1482
Flt Permitted	0.950			0.950			0.731			0.508		
Satd. Flow (perm)	3400	5353	1599	3467	5301	1583	1389	1630	0	928	1845	1482
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			168			212		37				96
Link Speed (mph)		45			45			25			25	
Link Distance (ft)		967			826			734			471	
Travel Time (s)		14.7			12.5			20.0			12.8	
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 (%)	3%	2%	1%	1%	3%	2%	0%	8%	3%	4%	3%	9%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	102	1772	168	398	1380	212	20	54	0	121	40	39
Turn Type	Prot	NA	Perm	Prot	NA	Perm	pm+pt	NA		pm+pt	NA	pm+ov
Protected Phases	5	2		1	6		3	8		7	4	5
Permitted Phases			2			6	8			4		4
Detector Phase	5	2	2	1	6	6	3	8		7	4	5
Switch Phase												
Minimum Initial (s)	3.0	15.0	15.0	3.0	15.0	15.0	3.0	8.0		3.0	8.0	3.0
Minimum Split (s)	7.5	21.0	21.0	7.5	21.0	21.0	6.5	14.0		6.5	14.0	7.5
Total Split (s)	13.0	68.0	68.0	24.0	79.0	79.0	12.0	21.0		12.0	21.0	13.0
Total Split (%)	10.4%	54.4%	54.4%	19.2%	63.2%	63.2%	9.6%	16.8%		9.6%	16.8%	10.4%
Yellow Time (s)	3.5	4.5	4.5	3.5	4.5	4.5	3.5	4.5		3.5	4.5	3.5
All-Red Time (s)	1.0	1.5	1.5	1.0	1.5	1.5	0.0	1.5		0.0	1.5	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Lost Time (s)	4.5	6.0	6.0	4.5	6.0	6.0	3.5	6.0		3.5	6.0	4.5
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag		Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		Yes	Yes	Yes
Recall Mode	None	C-Min	C-Min	None	C-Min	C-Min	None	None		None	None	None
Act Effct Green (s)	9.1	70.7	70.7	19.2	80.8	80.8	16.1	9.0		20.0	14.1	29.2
Actuated g/C Ratio	0.07	0.57	0.57	0.15	0.65	0.65	0.13	0.07		0.16	0.11	0.23
v/c Ratio	0.41	0.59	0.17	0.75	0.40	0.19	0.10	0.36		0.59	0.19	0.09
Control Delay (s/veh)	60.0	19.8	2.8	59.7	11.8	1.9	42.2	31.1		57.7	53.1	0.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Delay (s/veh)	60.0	19.8	2.8	59.7	11.8	1.9	42.2	31.1		57.7	53.1	0.4
LOS	E	B	A	E	B	A	D	C		E	D	A
Approach Delay (s/veh)		20.4			20.3			34.1			45.6	
Approach LOS		C			C			C			D	
Queue Length 50th (ft)	42	342	0	161	192	0	14	14		90	29	0
Queue Length 95th (ft)	71	444	36	211	258	33	35	58		147	69	0

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (ft)		887			746			654			391	
Turn Bay Length (ft)	230		280	350		335						150
Base Capacity (vph)	260	3028	977	568	3425	1097	227	228		205	251	424
Starvation Cap Reductn	0	0	0	0	0	0	0	0		0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0		0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0		0	0	0
Reduced v/c Ratio	0.39	0.59	0.17	0.70	0.40	0.19	0.09	0.24		0.59	0.16	0.09

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: 65			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.75			
Intersection Signal Delay (s/veh): 21.8		Intersection LOS: C	
Intersection Capacity Utilization 68.5%		ICU Level of Service C	
Analysis Period (min) 15			

Splits and Phases: 3: Downers Drive & Butterfield Road



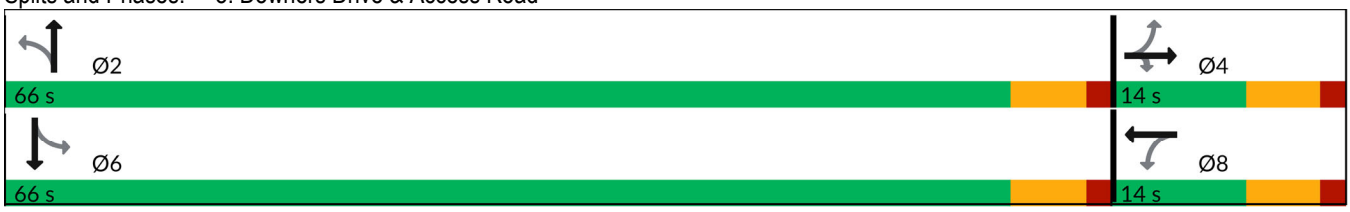


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	11	10	123	50	8	4	191	71	52	4	16	3
Future Volume (vph)	11	10	123	50	8	4	191	71	52	4	16	3
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		40	0		0	0		0	0		0
Storage Lanes	0		1	1		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95	0.95	0.95	0.95
Frt			0.850		0.954			0.975			0.982	
Flt Protected		0.975		0.950				0.970			0.992	
Satd. Flow (prot)	0	1852	1599	1805	1813	0	0	3307	0	0	2842	0
Flt Permitted		0.829		0.742				0.782			0.909	
Satd. Flow (perm)	0	1575	1599	1410	1813	0	0	2666	0	0	2604	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			135		4			57			3	
Link Speed (mph)		20			20			25			25	
Link Distance (ft)		252			487			471			398	
Travel Time (s)		8.6			16.6			12.8			10.9	
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles (%)	0%	0%	1%	0%	0%	0%	2%	9%	0%	0%	33%	0%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	23	135	55	13	0	0	345	0	0	25	0
Turn Type	Perm	NA	Perm	Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4		4	8			2			6		
Detector Phase	4	4	4	8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	8.0	8.0	8.0	8.0	8.0		15.0	15.0		15.0	15.0	
Minimum Split (s)	14.0	14.0	14.0	14.0	14.0		24.0	24.0		24.0	24.0	
Total Split (s)	14.0	14.0	14.0	14.0	14.0		66.0	66.0		66.0	66.0	
Total Split (%)	17.5%	17.5%	17.5%	17.5%	17.5%		82.5%	82.5%		82.5%	82.5%	
Yellow Time (s)	4.5	4.5	4.5	4.5	4.5		4.5	4.5		4.5	4.5	
All-Red Time (s)	1.5	1.5	1.5	1.5	1.5		1.5	1.5		1.5	1.5	
Lost Time Adjust (s)		0.0	0.0	0.0	0.0			0.0			0.0	
Total Lost Time (s)		6.0	6.0	6.0	6.0			6.0			6.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None	None	None	None		Min	Min		Min	Min	
Act Effct Green (s)		8.1	8.1	8.1	8.1			22.2			22.2	
Actuated g/C Ratio		0.21	0.21	0.21	0.21			0.58			0.58	
v/c Ratio		0.07	0.30	0.18	0.03			0.22			0.02	
Control Delay (s/veh)		14.4	6.1	15.6	12.4			5.0			4.7	
Queue Delay		0.0	0.0	0.0	0.0			0.0			0.0	
Total Delay (s/veh)		14.4	6.1	15.6	12.4			5.0			4.7	
LOS		B	A	B	B			A			A	
Approach Delay (s/veh)		7.3			15.0			5.0			4.7	
Approach LOS		A			B			A			A	
Queue Length 50th (ft)		4	0	9	1			17			1	
Queue Length 95th (ft)		19	33	35	12			34			5	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (ft)		172			407			391			318	
Turn Bay Length (ft)			40									
Base Capacity (vph)		333	444	298	386			2666			2604	
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		0.07	0.30	0.18	0.03			0.13			0.01	

Intersection Summary			
Area Type:	Other		
Cycle Length: 80			
Actuated Cycle Length: 38.1			
Natural Cycle: 40			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.30			
Intersection Signal Delay (s/veh): 6.8		Intersection LOS: A	
Intersection Capacity Utilization 41.8%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 8: Downers Drive & Access Road



Intersection	
Int Delay, s/veh	0.2

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	0	1833	1863	45	0	27
Future Vol, veh/h	0	1833	1863	45	0	27
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	Free	-	Stop
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	0	2	2	0	0	14
Mvmt Flow	0	1929	1961	47	0	28

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	-	0	-	0	-	981
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	7.38
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	4.04
Pot Cap-1 Maneuver	0	-	-	0	0	197
Stage 1	0	-	-	0	0	-
Stage 2	0	-	-	0	0	-
Platoon blocked, %		-	-			
Mov Cap-1 Maneuver	-	-	-	-	-	197
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	SB
HCM Ctrl Dly, s/v	0	0	26.35
HCM LOS			D

Minor Lane/Major Mvmt	EBT	WBT	SBLn1
Capacity (veh/h)	-	-	197
HCM Lane V/C Ratio	-	-	0.144
HCM Ctrl Dly (s/v)	-	-	26.3
HCM Lane LOS	-	-	D
HCM 95th %tile Q(veh)	-	-	0.5

Capacity Analysis Summary Sheets

Year 2031 No-Build Weekday Evening Peak Hour

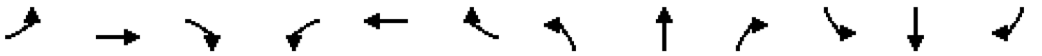
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		✣			✣			✣			✣	
Volume (vph)	3	73	28	10	154	0	26	0	4	0	0	1
Pedestrians												
Ped Button												
Pedestrian Timing (s)												
Free Right			No			No			No			No
Ideal Flow	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Green (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Refr Cycle Length (s)	120	120	120	120	120	120	120	120	120	120	120	120
Volume Combined (vph)	0	104	0	0	164	0	0	30	0	0	1	0
Lane Utilization Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Factor (vph)	0.95	0.96	0.85	0.95	1.00	0.85	0.95	0.94	0.85	0.95	0.85	0.85
Saturated Flow (vph)	0	1821	0	0	1894	0	0	1781	0	0	1615	0
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)		0.00			0.00			0.00			0.00	
Protected Option Allowed		No			No			No			No	
Reference Time (s)			0.0			0.0			0.0			0.0
Adj Reference Time (s)			0.0			0.0			0.0			0.0
Permitted Option												
Adj Saturation A (vph)	0	1612		0	1298		0	131		0	1615	
Reference Time A (s)	0.0	7.7		0.0	15.2		0.0	27.5		0.0	0.1	
Adj Saturation B (vph	NA	NA		0	0		0	0		0	1615	
Reference Time B (s)	NA	NA		8.7	18.4		9.7	10.0		0.0	0.1	
Reference Time (s)		7.7			15.2			10.0			0.1	
Adj Reference Time (s)		11.7			19.2			14.0			8.0	
Split Option												
Ref Time Combined (s)	0.0	6.9		0.0	10.4		0.0	2.0		0.0	0.1	
Ref Time Seperate (s)	0.2	4.8		0.7	9.7		1.7	0.0		0.0	0.0	
Reference Time (s)	6.9	6.9		10.4	10.4		2.0	2.0		0.1	0.1	
Adj Reference Time (s)	10.9	10.9		14.4	14.4		8.0	8.0		8.0	8.0	

Summary	EB WB	NB SB	Combined
Protected Option (s)	NA	NA	
Permitted Option (s)	19.2	14.0	
Split Option (s)	25.2	16.0	
Minimum (s)	19.2	14.0	33.2

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

Intersection Summary			
Intersection Capacity Utilization	27.7%	ICU Level of Service	A

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

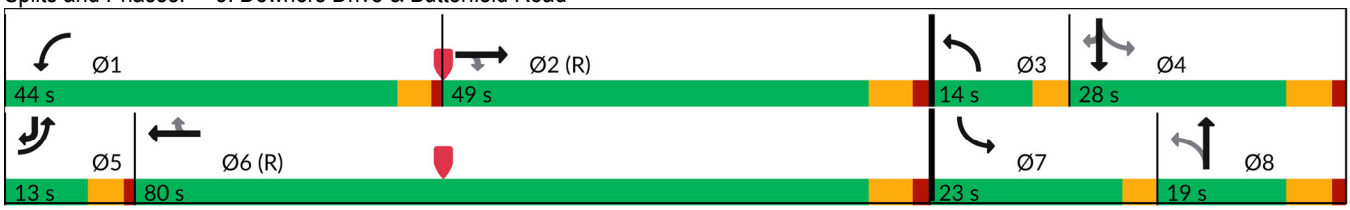


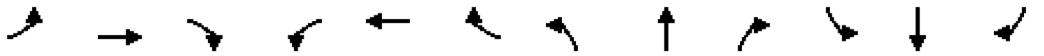
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	112	1544	104	789	1897	233	100	32	119	300	69	126
Future Volume (vph)	112	1544	104	789	1897	233	100	32	119	300	69	126
Ideal Flow (vphpl)	1900	2000	1900	1900	2000	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	230		280	350		335	0		0	0		150
Storage Lanes	2		1	2		1	1		0	1		1
Taper Length (ft)	300			300			25			0		
Lane Util. Factor	0.97	0.91	1.00	0.97	0.91	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.850			0.850		0.882				0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	3400	5353	1599	3467	5406	1615	1805	1676	0	1787	1845	1599
Flt Permitted	0.950			0.950			0.710			0.270		
Satd. Flow (perm)	3400	5353	1599	3467	5406	1615	1349	1676	0	508	1845	1599
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			154			243		111				89
Link Speed (mph)		45			45			25			25	
Link Distance (ft)		967			826			734			471	
Travel Time (s)		14.7			12.5			20.0			12.8	
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles (%)	3%	2%	1%	1%	1%	0%	0%	0%	0%	1%	3%	1%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	117	1608	108	822	1976	243	104	157	0	313	72	131
Turn Type	Prot	NA	Perm	Prot	NA	Perm	pm+pt	NA		pm+pt	NA	pm+ov
Protected Phases	5	2		1	6		3	8		7	4	5
Permitted Phases			2			6	8			4		4
Detector Phase	5	2	2	1	6	6	3	8		7	4	5
Switch Phase												
Minimum Initial (s)	3.0	15.0	15.0	3.0	15.0	15.0	3.0	8.0		3.0	8.0	3.0
Minimum Split (s)	7.5	21.0	21.0	7.5	21.0	21.0	6.5	14.0		6.5	14.0	7.5
Total Split (s)	13.0	49.0	49.0	44.0	80.0	80.0	14.0	19.0		23.0	28.0	13.0
Total Split (%)	9.6%	36.3%	36.3%	32.6%	59.3%	59.3%	10.4%	14.1%		17.0%	20.7%	9.6%
Yellow Time (s)	3.5	4.5	4.5	3.5	4.5	4.5	3.5	4.5		3.5	4.5	3.5
All-Red Time (s)	1.0	1.5	1.5	1.0	1.5	1.5	0.0	1.5		0.0	1.5	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Lost Time (s)	4.5	6.0	6.0	4.5	6.0	6.0	3.5	6.0		3.5	6.0	4.5
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag		Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		Yes	Yes	Yes
Recall Mode	None	C-Min	C-Min	None	C-Min	C-Min	None	None		None	None	None
Act Effct Green (s)	8.8	48.9	48.9	36.5	76.6	76.6	25.5	10.1		32.8	17.4	29.4
Actuated g/C Ratio	0.07	0.36	0.36	0.27	0.57	0.57	0.19	0.07		0.24	0.13	0.22
v/c Ratio	0.53	0.83	0.16	0.88	0.64	0.24	0.34	0.69		1.02	0.30	0.31
Control Delay (s/veh)	70.1	44.5	1.9	58.4	21.4	2.3	42.2	36.2		102.0	55.0	16.3
Queue Delay	0.0	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	44.5	1.9	58.4	21.4	2.3	42.2	36.2		102.0	55.0	16.3
LOS	E	D	A	E	C	A	D	D		F	D	B
Approach Delay (s/veh)		43.6			29.9			38.6			73.7	
Approach LOS		D			C			D			E	
Queue Length 50th (ft)	53	478	0	355	421	0	72	39		250	59	29
Queue Length 95th (ft)	88	#610	13	428	491	39	120	113		#395	106	82

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (ft)		887			746			654			391	
Turn Bay Length (ft)	230		280	350		335						150
Base Capacity (vph)	227	1939	677	1018	3068	1021	306	261		308	300	420
Starvation Cap Reductn	0	0	0	0	0	0	0	0		0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0		0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0		0	0	0
Reduced v/c Ratio	0.52	0.83	0.16	0.81	0.64	0.24	0.34	0.60		1.02	0.24	0.31

Intersection Summary			
Area Type:	Other		
Cycle Length: 135			
Actuated Cycle Length: 135			
Offset: 63 (47%), Referenced to phase 2:EBT and 6:WBT, Start of Green			
Natural Cycle: 90			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 1.02			
Intersection Signal Delay (s/veh): 38.7		Intersection LOS: D	
Intersection Capacity Utilization 93.6%		ICU Level of Service F	
Analysis Period (min) 15			
# 95th percentile volume exceeds capacity, queue may be longer.			
Queue shown is maximum after two cycles.			

Splits and Phases: 3: Downers Drive & Butterfield Road



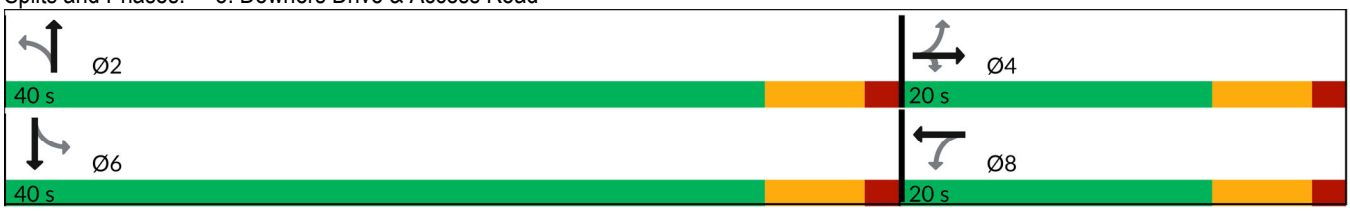


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	3	56	247	165	46	14	254	25	99	10	83	7
Future Volume (vph)	3	56	247	165	46	14	254	25	99	10	83	7
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		40	0		0	0		0	0		0
Storage Lanes	0		1	1		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95	0.95	0.95	0.95
Frt			0.850		0.965			0.961			0.989	
Flt Protected		0.998		0.950				0.968			0.995	
Satd. Flow (prot)	0	1896	1615	1787	1834	0	0	3332	0	0	3385	0
Flt Permitted		0.986		0.715				0.731			0.909	
Satd. Flow (perm)	0	1873	1615	1345	1834	0	0	2516	0	0	3092	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			268		15			108			8	
Link Speed (mph)		20			20			25			25	
Link Distance (ft)		252			487			471			398	
Travel Time (s)		8.6			16.6			12.8			10.9	
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
Heavy Vehicles (%)	0%	0%	0%	1%	0%	0%	0%	8%	1%	0%	6%	0%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	64	268	179	65	0	0	411	0	0	109	0
Turn Type	Perm	NA	Perm	Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4		4	8			2			6		
Detector Phase	4	4	4	8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	8.0	8.0	8.0	8.0	8.0		8.0	8.0		8.0	8.0	
Minimum Split (s)	14.0	14.0	14.0	14.0	14.0		14.0	14.0		14.0	14.0	
Total Split (s)	20.0	20.0	20.0	20.0	20.0		40.0	40.0		40.0	40.0	
Total Split (%)	33.3%	33.3%	33.3%	33.3%	33.3%		66.7%	66.7%		66.7%	66.7%	
Yellow Time (s)	4.5	4.5	4.5	4.5	4.5		4.5	4.5		4.5	4.5	
All-Red Time (s)	1.5	1.5	1.5	1.5	1.5		1.5	1.5		1.5	1.5	
Lost Time Adjust (s)		0.0	0.0	0.0	0.0			0.0			0.0	
Total Lost Time (s)		6.0	6.0	6.0	6.0			6.0			6.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None	None	None	None		Min	Min		Min	Min	
Act Effct Green (s)		11.5	11.5	11.5	11.5			20.6			20.6	
Actuated g/C Ratio		0.26	0.26	0.26	0.26			0.46			0.46	
v/c Ratio		0.13	0.44	0.52	0.13			0.34			0.08	
Control Delay (s/veh)		15.8	5.5	22.4	13.3			6.1			6.3	
Queue Delay		0.0	0.0	0.0	0.0			0.0			0.0	
Total Delay (s/veh)		15.8	5.5	22.4	13.3			6.1			6.3	
LOS		B	A	C	B			A			A	
Approach Delay (s/veh)		7.5			20.0			6.1			6.3	
Approach LOS		A			B			A			A	
Queue Length 50th (ft)		12	0	37	9			23			7	
Queue Length 95th (ft)		44	49	113	40			47			17	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (ft)		172			407			391			318	
Turn Bay Length (ft)			40									
Base Capacity (vph)		613	709	440	610			2007			2440	
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		0.10	0.38	0.41	0.11			0.20			0.04	

Intersection Summary			
Area Type:	Other		
Cycle Length: 60			
Actuated Cycle Length: 44.6			
Natural Cycle: 40			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.52			
Intersection Signal Delay (s/veh): 9.6		Intersection LOS: A	
Intersection Capacity Utilization 46.5%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 8: Downers Drive & Access Road



Intersection	
Int Delay, s/veh	0.9

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	0	1963	2869	124	0	51
Future Vol, veh/h	0	1963	2869	124	0	51
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	Free	-	Stop
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	0	1	1	0	0	0
Mvmt Flow	0	2066	3020	131	0	54

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	-	0	-	0	-	1510
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	7.1
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.9
Pot Cap-1 Maneuver	0	-	-	0	0	95
Stage 1	0	-	-	0	0	-
Stage 2	0	-	-	0	0	-
Platoon blocked, %		-	-			
Mov Cap-1 Maneuver	-	-	-	-	-	95
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	SB
HCM Ctrl Dly, s/v	0	0	82.99
HCM LOS			F

Minor Lane/Major Mvmt	EBT	WBT	SBLn1
Capacity (veh/h)	-	-	95
HCM Lane V/C Ratio	-	-	0.563
HCM Ctrl Dly (s/v)	-	-	83
HCM Lane LOS	-	-	F
HCM 95th %tile Q(veh)	-	-	2.6

Capacity Analysis Summary Sheets

Year 2031 No-Build Saturday Midday Peak Hour

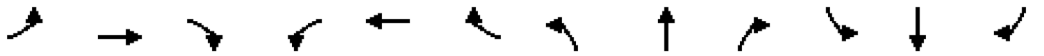
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		✣			✣			✣			✣	
Volume (vph)	2	140	48	12	200	1	65	0	5	2	0	0
Pedestrians												
Ped Button												
Pedestrian Timing (s)												
Free Right			No			No			No			No
Ideal Flow	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Green (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Refr Cycle Length (s)	120	120	120	120	120	120	120	120	120	120	120	120
Volume Combined (vph)	0	190	0	0	213	0	0	70	0	0	2	0
Lane Utilization Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Factor (vph)	0.95	0.96	0.85	0.95	1.00	0.85	0.95	0.94	0.85	0.95	0.95	0.85
Saturated Flow (vph)	0	1827	0	0	1893	0	0	1792	0	0	1805	0
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)		0.00			0.00			0.00			0.00	
Protected Option Allowed		No			No			No			No	
Reference Time (s)			0.0			0.0			0.0			0.0
Adj Reference Time (s)			0.0			0.0			0.0			0.0
Permitted Option												
Adj Saturation A (vph)	0	1742		0	1173		0	1927		0	1796	
Reference Time A (s)	0.0	13.1		0.0	21.8		0.0	4.4		0.0	0.1	
Adj Saturation B (vph	NA	NA		NA	NA		0	0		0	0	
Reference Time B (s)	NA	NA		NA	NA		12.3	12.7		8.1	8.1	
Reference Time (s)		13.1			21.8			4.4			0.1	
Adj Reference Time (s)		17.1			25.8			8.4			8.0	
Split Option												
Ref Time Combined (s)	0.0	12.5		0.0	13.5		0.0	4.7		0.0	0.1	
Ref Time Seperate (s)	0.1	9.2		0.8	12.6		4.3	0.0		0.1	0.0	
Reference Time (s)	12.5	12.5		13.5	13.5		4.7	4.7		0.1	0.1	
Adj Reference Time (s)	16.5	16.5		17.5	17.5		8.7	8.7		8.0	8.0	

Summary	EB WB	NB SB	Combined
Protected Option (s)	NA	NA	
Permitted Option (s)	25.8	8.4	
Split Option (s)	34.0	16.7	
Minimum (s)	25.8	8.4	34.1

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

Intersection Summary			
Intersection Capacity Utilization	28.5%	ICU Level of Service	A

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

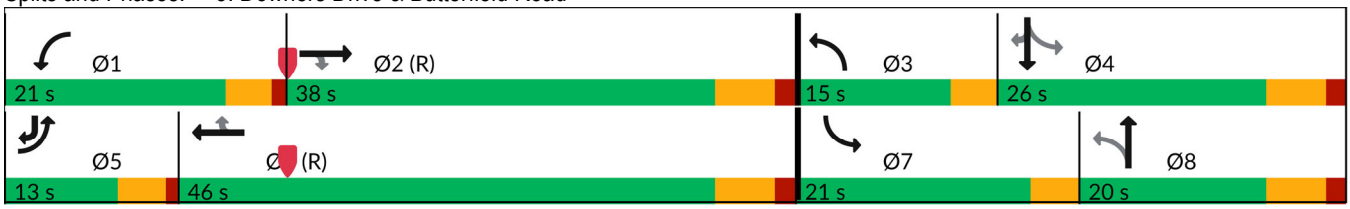


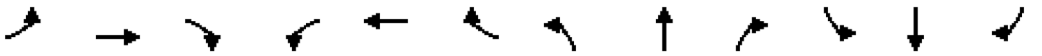
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	172	1159	28	420	1422	344	53	40	39	316	74	177
Future Volume (vph)	172	1159	28	420	1422	344	53	40	39	316	74	177
Ideal Flow (vphpl)	1900	2000	1900	1900	2000	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	230		280	350		335	0		0	0		150
Storage Lanes	2		1	2		1	1		0	1		1
Taper Length (ft)	300			300			25			0		
Lane Util. Factor	0.97	0.91	1.00	0.97	0.91	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.850			0.850		0.926				0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	3467	5460	1615	3467	5406	1615	1805	1734	0	1787	1863	1615
Flt Permitted	0.950			0.950			0.708			0.520		
Satd. Flow (perm)	3467	5460	1615	3467	5406	1615	1345	1734	0	978	1863	1615
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			207			347		39				179
Link Speed (mph)		45			45			25			25	
Link Distance (ft)		967			826			734			471	
Travel Time (s)		14.7			12.5			20.0			12.8	
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Heavy Vehicles (%)	1%	0%	0%	1%	1%	0%	0%	0%	3%	1%	2%	0%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	174	1171	28	424	1436	347	54	79	0	319	75	179
Turn Type	Prot	NA	Perm	Prot	NA	Perm	pm+pt	NA		pm+pt	NA	pm+ov
Protected Phases	5	2		1	6		3	8		7	4	5
Permitted Phases			2			6	8			4		4
Detector Phase	5	2	2	1	6	6	3	8		7	4	5
Switch Phase												
Minimum Initial (s)	3.0	15.0	15.0	3.0	15.0	15.0	3.0	8.0		3.0	8.0	3.0
Minimum Split (s)	7.5	21.0	21.0	7.5	21.0	21.0	6.5	14.0		6.5	14.0	7.5
Total Split (s)	13.0	38.0	38.0	21.0	46.0	46.0	15.0	20.0		21.0	26.0	13.0
Total Split (%)	13.0%	38.0%	38.0%	21.0%	46.0%	46.0%	15.0%	20.0%		21.0%	26.0%	13.0%
Yellow Time (s)	3.5	4.5	4.5	3.5	4.5	4.5	3.5	4.5		3.5	4.5	3.5
All-Red Time (s)	1.0	1.5	1.5	1.0	1.5	1.5	0.0	1.5		0.0	1.5	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Lost Time (s)	4.5	6.0	6.0	4.5	6.0	6.0	3.5	6.0		3.5	6.0	4.5
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag		Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		Yes	Yes	Yes
Recall Mode	None	C-Min	C-Min	None	C-Min	C-Min	None	None		None	None	None
Act Effct Green (s)	8.9	38.3	38.3	16.0	45.3	45.3	19.3	11.7		31.7	20.0	35.0
Actuated g/C Ratio	0.09	0.38	0.38	0.16	0.45	0.45	0.19	0.12		0.32	0.20	0.35
v/c Ratio	0.56	0.56	0.04	0.77	0.59	0.38	0.18	0.33		0.71	0.20	0.26
Control Delay (s/veh)	51.1	27.2	0.1	50.2	23.0	3.5	23.4	26.6		36.7	33.6	4.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Delay (s/veh)	51.1	27.2	0.1	50.2	23.0	3.5	23.4	26.6		36.7	33.6	4.4
LOS	D	C	A	D	C	A	C	C		D	C	A
Approach Delay (s/veh)		29.7			25.1			25.3			26.2	
Approach LOS		C			C			C			C	
Queue Length 50th (ft)	55	229	0	133	267	0	23	23		160	40	0
Queue Length 95th (ft)	91	285	0	188	323	54	48	66		235	79	43

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (ft)		887			746			654			391	
Turn Bay Length (ft)	230		280	350		335						150
Base Capacity (vph)	316	2092	746	584	2450	922	366	276		455	398	684
Starvation Cap Reductn	0	0	0	0	0	0	0	0		0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0		0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0		0	0	0
Reduced v/c Ratio	0.55	0.56	0.04	0.73	0.59	0.38	0.15	0.29		0.70	0.19	0.26

Intersection Summary			
Area Type:	Other		
Cycle Length: 100			
Actuated Cycle Length: 100			
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Green			
Natural Cycle: 60			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.77			
Intersection Signal Delay (s/veh): 26.7		Intersection LOS: C	
Intersection Capacity Utilization 71.2%		ICU Level of Service C	
Analysis Period (min) 15			

Splits and Phases: 3: Downers Drive & Butterfield Road



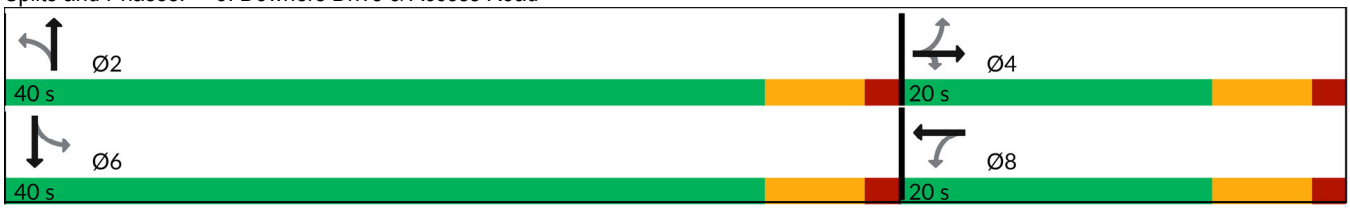


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	5	97	315	244	74	18	358	8	189	6	8	6
Future Volume (vph)	5	97	315	244	74	18	358	8	189	6	8	6
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		40	0		0	0		0	0		0
Storage Lanes	0		1	1		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95	0.95	0.95	0.95
Frt			0.850		0.970			0.949			0.955	
Flt Protected		0.998		0.950				0.969			0.985	
Satd. Flow (prot)	0	1896	1615	1805	1843	0	0	3308	0	0	3032	0
Flt Permitted		0.986		0.689				0.781			0.838	
Satd. Flow (perm)	0	1873	1615	1309	1843	0	0	2666	0	0	2580	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			328		19			197			6	
Link Speed (mph)		20			20			25			25	
Link Distance (ft)		252			487			471			398	
Travel Time (s)		8.6			16.6			12.8			10.9	
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	0%	25%	0%	0%	30%	0%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	106	328	254	96	0	0	578	0	0	20	0
Turn Type	Perm	NA	Perm	Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4		4	8			2			6		
Detector Phase	4	4	4	8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	8.0	8.0	8.0	5.0	5.0		8.0	8.0		8.0	8.0	
Minimum Split (s)	14.0	14.0	14.0	14.0	14.0		14.0	14.0		14.0	14.0	
Total Split (s)	20.0	20.0	20.0	20.0	20.0		40.0	40.0		40.0	40.0	
Total Split (%)	33.3%	33.3%	33.3%	33.3%	33.3%		66.7%	66.7%		66.7%	66.7%	
Yellow Time (s)	4.5	4.5	4.5	4.5	4.5		4.5	4.5		4.5	4.5	
All-Red Time (s)	1.5	1.5	1.5	1.5	1.5		1.5	1.5		1.5	1.5	
Lost Time Adjust (s)		0.0	0.0	0.0	0.0			0.0			0.0	
Total Lost Time (s)		6.0	6.0	6.0	6.0			6.0			6.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None	None	None	None		Min	Min		Min	Min	
Act Effct Green (s)		12.9	12.9	12.9	12.9			16.9			16.9	
Actuated g/C Ratio		0.31	0.31	0.31	0.31			0.40			0.40	
v/c Ratio		0.19	0.46	0.64	0.17			0.49			0.02	
Control Delay (s/veh)		14.1	4.8	25.3	11.9			7.2			5.9	
Queue Delay		0.0	0.0	0.0	0.0			0.0			0.0	
Total Delay (s/veh)		14.1	4.8	25.3	11.9			7.2			5.9	
LOS		B	A	C	B			A			A	
Approach Delay (s/veh)		7.0			21.6			7.2			5.9	
Approach LOS		A			C			A			A	
Queue Length 50th (ft)		18	0	50	13			38			1	
Queue Length 95th (ft)		59	50	#176	49			70			6	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (ft)		172			407			391			318	
Turn Bay Length (ft)			40									
Base Capacity (vph)		645	771	451	647			2203			2097	
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		0.16	0.43	0.56	0.15			0.26			0.01	

Intersection Summary			
Area Type:	Other		
Cycle Length: 60			
Actuated Cycle Length: 42.2			
Natural Cycle: 40			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.64			
Intersection Signal Delay (s/veh): 10.8		Intersection LOS: B	
Intersection Capacity Utilization 56.7%		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: 8: Downers Drive & Access Road



Intersection	
Int Delay, s/veh	0.8

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	0	1514	2105	159	0	81
Future Vol, veh/h	0	1514	2105	159	0	81
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	Free	-	Stop
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	99	99	99	99	99	99
Heavy Vehicles, %	0	1	1	1	0	0
Mvmt Flow	0	1529	2126	161	0	82

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	-	0	-	0	-	1063
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	7.1
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.9
Pot Cap-1 Maneuver	0	-	-	0	0	191
Stage 1	0	-	-	0	0	-
Stage 2	0	-	-	0	0	-
Platoon blocked, %		-	-			
Mov Cap-1 Maneuver	-	-	-	-	-	191
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	SB
HCM Ctrl Dly, s/v	0	0	37.28
HCM LOS			E

Minor Lane/Major Mvmt	EBT	WBT	SBLn1
Capacity (veh/h)	-	-	191
HCM Lane V/C Ratio	-	-	0.428
HCM Ctrl Dly (s/v)	-	-	37.3
HCM Lane LOS	-	-	E
HCM 95th %tile Q(veh)	-	-	2

Capacity Analysis Summary Sheets

Year 2031 Total Projected Weekday Morning Peak Hour

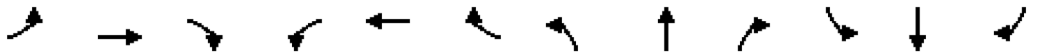
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	28	32	0	27	0	65	0	0	0	0	1
Pedestrians												
Ped Button												
Pedestrian Timing (s)												
Free Right			No			No			No			No
Ideal Flow	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Green (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Refr Cycle Length (s)	120	120	120	120	120	120	120	120	120	120	120	120
Volume Combined (vph)	0	60	0	0	27	0	0	65	0	0	1	0
Lane Utilization Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Factor (vph)	0.95	0.92	0.85	0.95	1.00	0.85	0.95	0.95	0.85	0.95	0.85	0.85
Saturated Flow (vph)	0	1748	0	0	1900	0	0	1805	0	0	1615	0
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)		0.00			0.00			0.00			0.00	
Protected Option Allowed		No			No			No			No	
Reference Time (s)			0.0			0.0			0.0			0.0
Adj Reference Time (s)			0.0			0.0			0.0			0.0
Permitted Option												
Adj Saturation A (vph)	0	1748		0	1900		0	120		0	1615	
Reference Time A (s)	0.0	4.1		0.0	1.7		0.0	64.8		0.0	0.1	
Adj Saturation B (vph	0	1748		0	1900		0	0		0	1615	
Reference Time B (s)	0.0	4.1		0.0	1.7		12.3	12.3		0.0	0.1	
Reference Time (s)		4.1			1.7			12.3			0.1	
Adj Reference Time (s)		8.1			8.0			16.3			8.0	
Split Option												
Ref Time Combined (s)	0.0	4.1		0.0	1.7		0.0	4.3		0.0	0.1	
Ref Time Seperate (s)	0.0	1.9		0.0	1.7		4.3	0.0		0.0	0.0	
Reference Time (s)	4.1	4.1		1.7	1.7		4.3	4.3		0.1	0.1	
Adj Reference Time (s)	8.1	8.1		8.0	8.0		8.3	8.3		8.0	8.0	

Summary	EB WB	NB SB	Combined
Protected Option (s)	NA	NA	
Permitted Option (s)	8.1	16.3	
Split Option (s)	16.1	16.3	
Minimum (s)	8.1	16.3	24.4

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

Intersection Summary			
Intersection Capacity Utilization	20.4%	ICU Level of Service	A

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

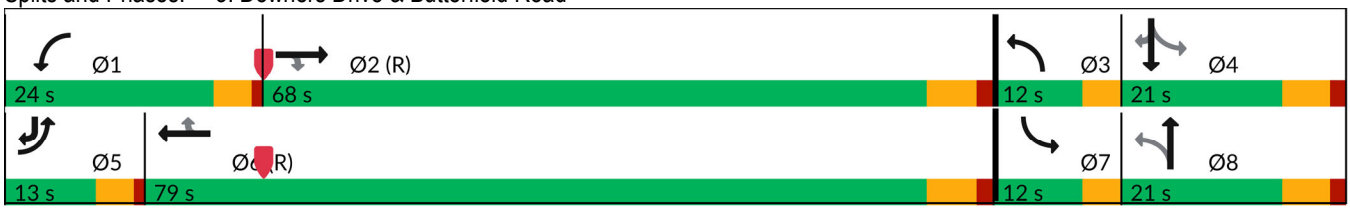


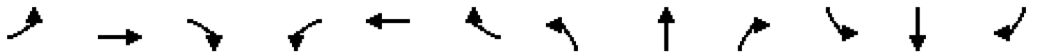
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	122	1671	160	378	1261	232	19	17	35	139	39	98
Future Volume (vph)	122	1671	160	378	1261	232	19	17	35	139	39	98
Ideal Flow (vphpl)	1900	2000	1900	1900	2000	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	230		280	350		335	0		0	0		150
Storage Lanes	2		1	2		1	1		0	1		1
Taper Length (ft)	300			300			25			0		
Lane Util. Factor	0.97	0.91	1.00	0.97	0.91	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.850			0.850		0.899				0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	3400	5353	1599	3467	5301	1583	1805	1632	0	1736	1845	1482
Flt Permitted	0.950			0.950			0.730			0.507		
Satd. Flow (perm)	3400	5353	1599	3467	5301	1583	1387	1632	0	926	1845	1482
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			168			244		37				103
Link Speed (mph)		45			45			25			25	
Link Distance (ft)		967			826			734			471	
Travel Time (s)		14.7			12.5			20.0			12.8	
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 (%)	3%	2%	1%	1%	3%	2%	0%	8%	3%	4%	3%	9%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	128	1759	168	398	1327	244	20	55	0	146	41	103
Turn Type	Prot	NA	Perm	Prot	NA	Perm	pm+pt	NA		pm+pt	NA	pm+ov
Protected Phases	5	2		1	6		3	8		7	4	5
Permitted Phases			2			6	8			4		4
Detector Phase	5	2	2	1	6	6	3	8		7	4	5
Switch Phase												
Minimum Initial (s)	3.0	15.0	15.0	3.0	15.0	15.0	3.0	8.0		3.0	8.0	3.0
Minimum Split (s)	7.5	21.0	21.0	7.5	21.0	21.0	6.5	14.0		6.5	14.0	7.5
Total Split (s)	13.0	68.0	68.0	24.0	79.0	79.0	12.0	21.0		12.0	21.0	13.0
Total Split (%)	10.4%	54.4%	54.4%	19.2%	63.2%	63.2%	9.6%	16.8%		9.6%	16.8%	10.4%
Yellow Time (s)	3.5	4.5	4.5	3.5	4.5	4.5	3.5	4.5		3.5	4.5	3.5
All-Red Time (s)	1.0	1.5	1.5	1.0	1.5	1.5	0.0	1.5		0.0	1.5	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Lost Time (s)	4.5	6.0	6.0	4.5	6.0	6.0	3.5	6.0		3.5	6.0	4.5
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag		Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		Yes	Yes	Yes
Recall Mode	None	C-Min	C-Min	None	C-Min	C-Min	None	None		None	None	None
Act Effct Green (s)	9.8	70.7	70.7	19.2	80.1	80.1	16.1	9.0		20.0	14.1	29.9
Actuated g/C Ratio	0.08	0.57	0.57	0.15	0.64	0.64	0.13	0.07		0.16	0.11	0.24
v/c Ratio	0.48	0.58	0.17	0.75	0.39	0.22	0.10	0.36		0.71	0.20	0.24
Control Delay (s/veh)	61.0	19.7	2.8	59.7	11.9	1.9	42.2	31.4		66.1	53.1	8.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Delay (s/veh)	61.0	19.7	2.8	59.7	11.9	1.9	42.2	31.4		66.1	53.1	8.7
LOS	E	B	A	E	B	A	D	C		E	D	A
Approach Delay (s/veh)		20.9			20.3			34.3			43.8	
Approach LOS		C			C			C			D	
Queue Length 50th (ft)	53	338	0	161	186	0	14	15		110	30	0
Queue Length 95th (ft)	85	439	36	211	247	35	35	59		#177	70	50

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (ft)		887			746			654			391	
Turn Bay Length (ft)	230		280	350		335						150
Base Capacity (vph)	273	3027	977	568	3395	1101	227	228		205	251	436
Starvation Cap Reductn	0	0	0	0	0	0	0	0		0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0		0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0		0	0	0
Reduced v/c Ratio	0.47	0.58	0.17	0.70	0.39	0.22	0.09	0.24		0.71	0.16	0.24

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: 65			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.75			
Intersection Signal Delay (s/veh): 22.4		Intersection LOS: C	
Intersection Capacity Utilization 69.6%		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: Downers Drive & Butterfield Road



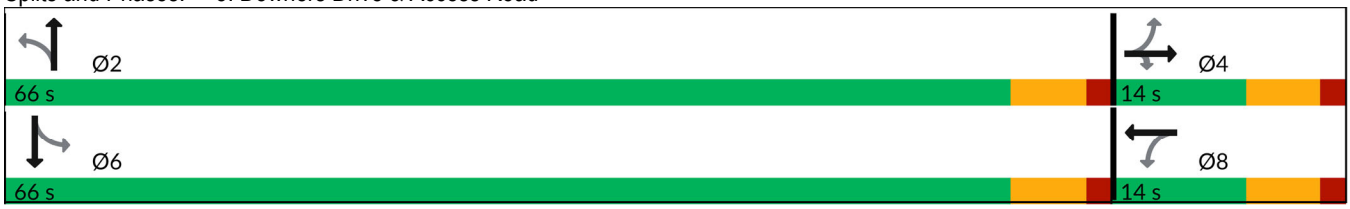


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	11	10	123	137	8	6	191	70	110	6	15	3
Future Volume (vph)	11	10	123	137	8	6	191	70	110	6	15	3
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		40	0		0	0		0	0		0
Storage Lanes	0		1	1		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95	0.95	0.95	0.95
Frt			0.850		0.934			0.956			0.983	
Flt Protected		0.975		0.950				0.975			0.987	
Satd. Flow (prot)	0	1852	1599	1805	1775	0	0	3276	0	0	2911	0
Flt Permitted		0.835		0.742				0.800			0.875	
Satd. Flow (perm)	0	1586	1599	1410	1775	0	0	2688	0	0	2581	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			135		7			121			3	
Link Speed (mph)		20			20			25			25	
Link Distance (ft)		252			487			471			398	
Travel Time (s)		8.6			16.6			12.8			10.9	
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles (%)	0%	0%	1%	0%	0%	0%	2%	9%	0%	0%	33%	0%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	23	135	151	16	0	0	408	0	0	26	0
Turn Type	Perm	NA	Perm	Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4		4	8			2			6		
Detector Phase	4	4	4	8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	8.0	8.0	8.0	8.0	8.0		15.0	15.0		15.0	15.0	
Minimum Split (s)	14.0	14.0	14.0	14.0	14.0		24.0	24.0		24.0	24.0	
Total Split (s)	14.0	14.0	14.0	14.0	14.0		66.0	66.0		66.0	66.0	
Total Split (%)	17.5%	17.5%	17.5%	17.5%	17.5%		82.5%	82.5%		82.5%	82.5%	
Yellow Time (s)	4.5	4.5	4.5	4.5	4.5		4.5	4.5		4.5	4.5	
All-Red Time (s)	1.5	1.5	1.5	1.5	1.5		1.5	1.5		1.5	1.5	
Lost Time Adjust (s)		0.0	0.0	0.0	0.0			0.0			0.0	
Total Lost Time (s)		6.0	6.0	6.0	6.0			6.0			6.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None	None	None	None		Min	Min		Min	Min	
Act Effct Green (s)		8.1	8.1	8.1	8.1			21.3			21.3	
Actuated g/C Ratio		0.20	0.20	0.20	0.20			0.51			0.51	
v/c Ratio		0.07	0.32	0.55	0.05			0.28			0.02	
Control Delay (s/veh)		16.0	6.7	27.0	12.9			4.4			4.4	
Queue Delay		0.0	0.0	0.0	0.0			0.0			0.0	
Total Delay (s/veh)		16.0	6.7	27.0	12.9			4.4			4.4	
LOS		B	A	C	B			A			A	
Approach Delay (s/veh)		8.1			25.6			4.4			4.4	
Approach LOS		A			C			A			A	
Queue Length 50th (ft)		4	0	29	2			17			1	
Queue Length 95th (ft)		21	36	#109	15			34			5	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (ft)		172			407			391			318	
Turn Bay Length (ft)			40									
Base Capacity (vph)		309	420	275	352			2688			2581	
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		0.07	0.32	0.55	0.05			0.15			0.01	

Intersection Summary			
Area Type:	Other		
Cycle Length: 80			
Actuated Cycle Length: 41.5			
Natural Cycle: 40			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.55			
Intersection Signal Delay (s/veh): 9.8		Intersection LOS: A	
Intersection Capacity Utilization 42.7%		ICU Level of Service A	
Analysis Period (min) 15			
# 95th percentile volume exceeds capacity, queue may be longer.			
Queue shown is maximum after two cycles.			

Splits and Phases: 8: Downers Drive & Access Road



Intersection	
Int Delay, s/veh	0.2

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	0	1845	1844	77	0	27
Future Vol, veh/h	0	1845	1844	77	0	27
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	Free	-	Stop
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	0	2	2	0	0	14
Mvmt Flow	0	1942	1941	81	0	28

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	-	0	-	0	-	971
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	7.38
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	4.04
Pot Cap-1 Maneuver	0	-	-	0	0	200
Stage 1	0	-	-	0	0	-
Stage 2	0	-	-	0	0	-
Platoon blocked, %		-	-			
Mov Cap-1 Maneuver	-	-	-	-	-	200
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	SB
HCM Ctrl Dly, s/v	0	0	25.95
HCM LOS			D

Minor Lane/Major Mvmt	EBT	WBT	SBLn1
Capacity (veh/h)	-	-	200
HCM Lane V/C Ratio	-	-	0.142
HCM Ctrl Dly (s/v)	-	-	26
HCM Lane LOS	-	-	D
HCM 95th %tile Q(veh)	-	-	0.5

Capacity Analysis Summary Sheets

Year 2031 Total Projected Weekday Evening Peak Hour

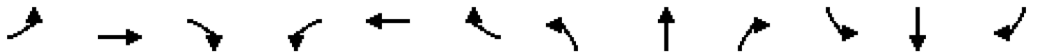
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		✣			✣			✣			✣	
Volume (vph)	3	73	28	10	154	0	56	0	4	0	0	1
Pedestrians												
Ped Button												
Pedestrian Timing (s)												
Free Right			No			No			No			No
Ideal Flow	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Green (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Refr Cycle Length (s)	120	120	120	120	120	120	120	120	120	120	120	120
Volume Combined (vph)	0	104	0	0	164	0	0	60	0	0	1	0
Lane Utilization Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Factor (vph)	0.95	0.96	0.85	0.95	1.00	0.85	0.95	0.94	0.85	0.95	0.85	0.85
Saturated Flow (vph)	0	1821	0	0	1894	0	0	1793	0	0	1615	0
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)		0.00			0.00			0.00			0.00	
Protected Option Allowed		No			No			No			No	
Reference Time (s)			0.0			0.0			0.0			0.0
Adj Reference Time (s)			0.0			0.0			0.0			0.0
Permitted Option												
Adj Saturation A (vph)	0	1612		0	1298		0	125		0	1615	
Reference Time A (s)	0.0	7.7		0.0	15.2		0.0	57.6		0.0	0.1	
Adj Saturation B (vph	NA	NA		0	0		0	0		0	1615	
Reference Time B (s)	NA	NA		8.7	18.4		11.7	12.0		0.0	0.1	
Reference Time (s)		7.7			15.2			12.0			0.1	
Adj Reference Time (s)		11.7			19.2			16.0			8.0	
Split Option												
Ref Time Combined (s)	0.0	6.9		0.0	10.4		0.0	4.0		0.0	0.1	
Ref Time Seperate (s)	0.2	4.8		0.7	9.7		3.7	0.0		0.0	0.0	
Reference Time (s)	6.9	6.9		10.4	10.4		4.0	4.0		0.1	0.1	
Adj Reference Time (s)	10.9	10.9		14.4	14.4		8.0	8.0		8.0	8.0	

Summary	EB WB	NB SB	Combined
Protected Option (s)	NA	NA	
Permitted Option (s)	19.2	16.0	
Split Option (s)	25.2	16.0	
Minimum (s)	19.2	16.0	35.2

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

Intersection Summary			
Intersection Capacity Utilization	29.3%	ICU Level of Service	A

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

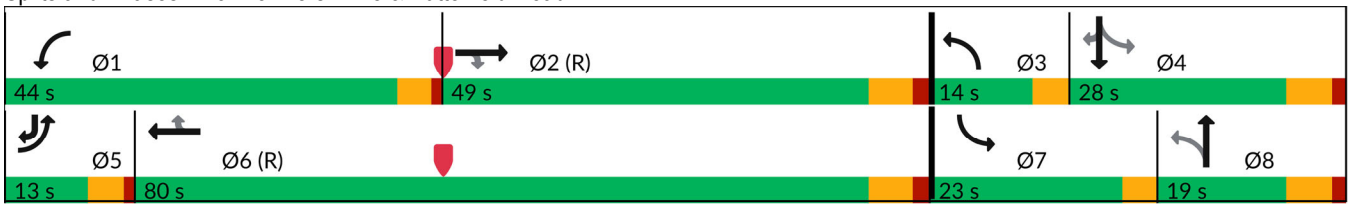


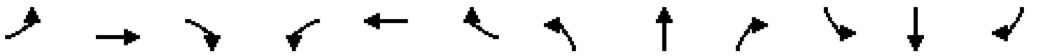
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	132	1533	104	789	1849	260	100	33	119	323	70	186
Future Volume (vph)	132	1533	104	789	1849	260	100	33	119	323	70	186
Ideal Flow (vphpl)	1900	2000	1900	1900	2000	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	230		280	350		335	0		0	0		150
Storage Lanes	2		1	2		1	1		0	1		1
Taper Length (ft)	300			300			25			0		
Lane Util. Factor	0.97	0.91	1.00	0.97	0.91	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.850			0.850		0.882				0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	3400	5353	1599	3467	5406	1615	1805	1676	0	1787	1845	1599
Flt Permitted	0.950			0.950			0.709			0.290		
Satd. Flow (perm)	3400	5353	1599	3467	5406	1615	1347	1676	0	546	1845	1599
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			154			271		108				89
Link Speed (mph)		45			45			25			25	
Link Distance (ft)		967			826			734			471	
Travel Time (s)		14.7			12.5			20.0			12.8	
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles (%)	3%	2%	1%	1%	1%	0%	0%	0%	0%	1%	3%	1%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	138	1597	108	822	1926	271	104	158	0	336	73	194
Turn Type	Prot	NA	Perm	Prot	NA	Perm	pm+pt	NA		pm+pt	NA	pm+ov
Protected Phases	5	2		1	6		3	8		7	4	5
Permitted Phases			2			6	8			4		4
Detector Phase	5	2	2	1	6	6	3	8		7	4	5
Switch Phase												
Minimum Initial (s)	3.0	15.0	15.0	3.0	15.0	15.0	3.0	8.0		3.0	8.0	3.0
Minimum Split (s)	7.5	21.0	21.0	7.5	21.0	21.0	6.5	14.0		6.5	14.0	7.5
Total Split (s)	13.0	49.0	49.0	44.0	80.0	80.0	14.0	19.0		23.0	28.0	13.0
Total Split (%)	9.6%	36.3%	36.3%	32.6%	59.3%	59.3%	10.4%	14.1%		17.0%	20.7%	9.6%
Yellow Time (s)	3.5	4.5	4.5	3.5	4.5	4.5	3.5	4.5		3.5	4.5	3.5
All-Red Time (s)	1.0	1.5	1.5	1.0	1.5	1.5	0.0	1.5		0.0	1.5	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		-1.0	0.0	0.0
Total Lost Time (s)	4.5	6.0	6.0	4.5	6.0	6.0	3.5	6.0		2.5	6.0	4.5
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag		Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		Yes	Yes	Yes
Recall Mode	None	C-Min	C-Min	None	C-Min	C-Min	None	None		None	None	None
Act Effct Green (s)	9.1	48.8	48.8	36.4	76.1	76.1	25.6	10.2		33.9	17.6	29.9
Actuated g/C Ratio	0.07	0.36	0.36	0.27	0.56	0.56	0.19	0.08		0.25	0.13	0.22
v/c Ratio	0.60	0.82	0.16	0.88	0.63	0.26	0.34	0.70		1.03	0.31	0.46
Control Delay (s/veh)	72.6	44.4	1.9	58.6	21.4	2.3	42.1	37.8		103.9	54.9	25.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Delay (s/veh)	72.6	44.4	1.9	58.6	21.4	2.3	42.1	37.8		103.9	54.9	25.6
LOS	E	D	A	E	C	A	D	D		F	D	C
Approach Delay (s/veh)		44.0			29.8			39.5			72.8	
Approach LOS		D			C			D			E	
Queue Length 50th (ft)	62	476	0	355	414	0	72	43		~270	60	74
Queue Length 95th (ft)	101	#602	13	428	472	40	120	118		#421	107	146

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (ft)		887			746			654			391	
Turn Bay Length (ft)	230		280	350		335						150
Base Capacity (vph)	233	1936	676	1017	3048	1028	308	258		325	300	425
Starvation Cap Reductn	0	0	0	0	0	0	0	0		0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0		0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0		0	0	0
Reduced v/c Ratio	0.59	0.82	0.16	0.81	0.63	0.26	0.34	0.61		1.03	0.24	0.46

Intersection Summary			
Area Type:	Other		
Cycle Length: 135			
Actuated Cycle Length: 135			
Offset: 63 (47%), Referenced to phase 2:EBT and 6:WBT, Start of Green			
Natural Cycle: 90			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 1.03			
Intersection Signal Delay (s/veh): 39.3		Intersection LOS: D	
Intersection Capacity Utilization 94.7%		ICU Level of Service F	
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: 3: Downers Drive & Butterfield Road



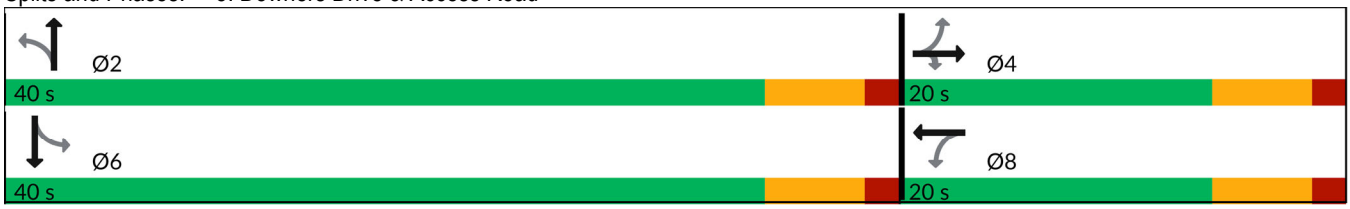


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	3	56	247	250	46	16	254	24	148	12	82	7
Future Volume (vph)	3	56	247	250	46	16	254	24	148	12	82	7
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		40	0		0	0		0	0		0
Storage Lanes	0		1	1		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95	0.95	0.95	0.95
Frt			0.850		0.962			0.948			0.989	
Flt Protected		0.998		0.950				0.971			0.994	
Satd. Flow (prot)	0	1896	1615	1787	1828	0	0	3297	0	0	3385	0
Flt Permitted		0.988		0.715				0.745			0.896	
Satd. Flow (perm)	0	1877	1615	1345	1828	0	0	2529	0	0	3051	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			268		17			161			8	
Link Speed (mph)		20			20			25			25	
Link Distance (ft)		252			487			471			398	
Travel Time (s)		8.6			16.6			12.8			10.9	
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
Heavy Vehicles (%)	0%	0%	0%	1%	0%	0%	0%	8%	1%	0%	6%	0%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	64	268	272	67	0	0	463	0	0	110	0
Turn Type	Perm	NA	Perm	Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4		4	8			2			6		
Detector Phase	4	4	4	8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	8.0	8.0	8.0	8.0	8.0		8.0	8.0		8.0	8.0	
Minimum Split (s)	14.0	14.0	14.0	14.0	14.0		14.0	14.0		14.0	14.0	
Total Split (s)	20.0	20.0	20.0	20.0	20.0		40.0	40.0		40.0	40.0	
Total Split (%)	33.3%	33.3%	33.3%	33.3%	33.3%		66.7%	66.7%		66.7%	66.7%	
Yellow Time (s)	4.5	4.5	4.5	4.5	4.5		4.5	4.5		4.5	4.5	
All-Red Time (s)	1.5	1.5	1.5	1.5	1.5		1.5	1.5		1.5	1.5	
Lost Time Adjust (s)		0.0	0.0	0.0	0.0			0.0			0.0	
Total Lost Time (s)		6.0	6.0	6.0	6.0			6.0			6.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None	None	None	None		Min	Min		Min	Min	
Act Effct Green (s)		13.7	13.7	13.7	13.7			21.9			21.9	
Actuated g/C Ratio		0.29	0.29	0.29	0.29			0.46			0.46	
v/c Ratio		0.12	0.41	0.71	0.13			0.37			0.08	
Control Delay (s/veh)		16.3	5.3	31.9	13.5			5.8			6.4	
Queue Delay		0.0	0.0	0.0	0.0			0.0			0.0	
Total Delay (s/veh)		16.3	5.3	31.9	13.5			5.8			6.4	
LOS		B	A	C	B			A			A	
Approach Delay (s/veh)		7.4			28.2			5.8			6.4	
Approach LOS		A			C			A			A	
Queue Length 50th (ft)		13	0	66	10			26			7	
Queue Length 95th (ft)		45	50	#217	41			48			17	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (ft)		172			407			391			318	
Turn Bay Length (ft)			40									
Base Capacity (vph)		564	673	404	561			1890			2230	
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		0.11	0.40	0.67	0.12			0.24			0.05	

Intersection Summary			
Area Type:	Other		
Cycle Length: 60			
Actuated Cycle Length: 48			
Natural Cycle: 40			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.71			
Intersection Signal Delay (s/veh): 12.4		Intersection LOS: B	
Intersection Capacity Utilization 51.3%		ICU Level of Service A	
Analysis Period (min) 15			
# 95th percentile volume exceeds capacity, queue may be longer.			
Queue shown is maximum after two cycles.			

Splits and Phases: 8: Downers Drive & Access Road



Intersection	
Int Delay, s/veh	0.8

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	0	1975	2848	154	0	51
Future Vol, veh/h	0	1975	2848	154	0	51
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	Free	-	Stop
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	0	1	1	0	0	0
Mvmt Flow	0	2079	2998	162	0	54

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	-	0	-	0	-	1499
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	7.1
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.9
Pot Cap-1 Maneuver	0	-	-	0	0	97
Stage 1	0	-	-	0	0	-
Stage 2	0	-	-	0	0	-
Platoon blocked, %		-	-			
Mov Cap-1 Maneuver	-	-	-	-	-	97
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	SB
HCM Ctrl Dly, s/v	0	0	80.55
HCM LOS			F

Minor Lane/Major Mvmt	EBT	WBT	SBLn1
Capacity (veh/h)	-	-	97
HCM Lane V/C Ratio	-	-	0.553
HCM Ctrl Dly (s/v)	-	-	80.5
HCM Lane LOS	-	-	F
HCM 95th %tile Q(veh)	-	-	2.5

Capacity Analysis Summary Sheets

Year 2031 Total Projected Weekday Evening Peak Hour

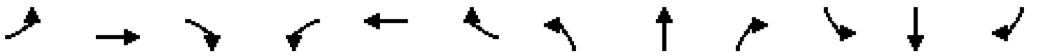
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Volume (vph)	2	140	48	12	200	1	71	0	5	2	0	0
Pedestrians												
Ped Button												
Pedestrian Timing (s)												
Free Right			No			No			No			No
Ideal Flow	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Green (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Refr Cycle Length (s)	120	120	120	120	120	120	120	120	120	120	120	120
Volume Combined (vph)	0	190	0	0	213	0	0	76	0	0	2	0
Lane Utilization Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Factor (vph)	0.95	0.96	0.85	0.95	1.00	0.85	0.95	0.94	0.85	0.95	0.95	0.85
Saturated Flow (vph)	0	1827	0	0	1893	0	0	1793	0	0	1805	0
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)		0.00			0.00			0.00			0.00	
Protected Option Allowed		No			No			No			No	
Reference Time (s)			0.0			0.0			0.0			0.0
Adj Reference Time (s)			0.0			0.0			0.0			0.0
Permitted Option												
Adj Saturation A (vph)	0	1742		0	1173		0	1927		0	1807	
Reference Time A (s)	0.0	13.1		0.0	21.8		0.0	4.7		0.0	0.1	
Adj Saturation B (vph	NA	NA		NA	NA		0	0		0	0	
Reference Time B (s)	NA	NA		NA	NA		12.7	13.1		8.1	8.1	
Reference Time (s)		13.1			21.8			4.7			0.1	
Adj Reference Time (s)		17.1			25.8			8.7			8.0	
Split Option												
Ref Time Combined (s)	0.0	12.5		0.0	13.5		0.0	5.1		0.0	0.1	
Ref Time Seperate (s)	0.1	9.2		0.8	12.6		4.7	0.0		0.1	0.0	
Reference Time (s)	12.5	12.5		13.5	13.5		5.1	5.1		0.1	0.1	
Adj Reference Time (s)	16.5	16.5		17.5	17.5		9.1	9.1		8.0	8.0	

Summary	EB WB	NB SB	Combined
Protected Option (s)	NA	NA	
Permitted Option (s)	25.8	8.7	
Split Option (s)	34.0	17.1	
Minimum (s)	25.8	8.7	34.5

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

Intersection Summary			
Intersection Capacity Utilization	28.8%	ICU Level of Service	A

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

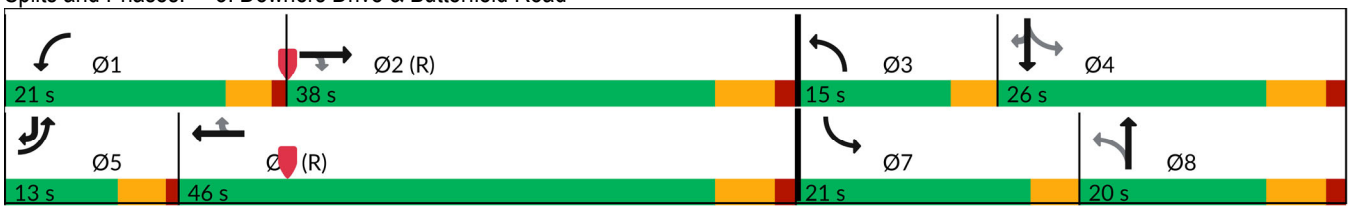


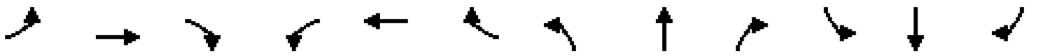
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	197	1147	28	420	1370	376	53	41	39	341	75	242
Future Volume (vph)	197	1147	28	420	1370	376	53	41	39	341	75	242
Ideal Flow (vphpl)	1900	2000	1900	1900	2000	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	230		280	350		335	0		0	0		150
Storage Lanes	2		1	2		1	1		0	1		1
Taper Length (ft)	300			300			25			0		
Lane Util. Factor	0.97	0.91	1.00	0.97	0.91	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.850			0.850		0.927				0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	3467	5460	1615	3467	5406	1615	1805	1736	0	1787	1863	1615
Flt Permitted	0.950			0.950			0.708			0.519		
Satd. Flow (perm)	3467	5460	1615	3467	5406	1615	1345	1736	0	976	1863	1615
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			207			380		39				207
Link Speed (mph)		45			45			25			25	
Link Distance (ft)		967			826			734			471	
Travel Time (s)		14.7			12.5			20.0			12.8	
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Heavy Vehicles (%)	1%	0%	0%	1%	1%	0%	0%	0%	3%	1%	2%	0%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	199	1159	28	424	1384	380	54	80	0	344	76	244
Turn Type	Prot	NA	Perm	Prot	NA	Perm	pm+pt	NA		pm+pt	NA	pm+ov
Protected Phases	5	2		1	6		3	8		7	4	5
Permitted Phases			2			6	8			4		4
Detector Phase	5	2	2	1	6	6	3	8		7	4	5
Switch Phase												
Minimum Initial (s)	3.0	15.0	15.0	3.0	15.0	15.0	3.0	8.0		3.0	8.0	3.0
Minimum Split (s)	7.5	21.0	21.0	7.5	21.0	21.0	6.5	14.0		6.5	14.0	7.5
Total Split (s)	13.0	38.0	38.0	21.0	46.0	46.0	15.0	20.0		21.0	26.0	13.0
Total Split (%)	13.0%	38.0%	38.0%	21.0%	46.0%	46.0%	15.0%	20.0%		21.0%	26.0%	13.0%
Yellow Time (s)	3.5	4.5	4.5	3.5	4.5	4.5	3.5	4.5		3.5	4.5	3.5
All-Red Time (s)	1.0	1.5	1.5	1.0	1.5	1.5	0.0	1.5		0.0	1.5	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Lost Time (s)	4.5	6.0	6.0	4.5	6.0	6.0	3.5	6.0		3.5	6.0	4.5
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag		Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		Yes	Yes	Yes
Recall Mode	None	C-Min	C-Min	None	C-Min	C-Min	None	None		None	None	None
Act Effct Green (s)	9.3	38.1	38.1	16.0	44.7	44.7	19.3	11.7		32.0	20.3	35.6
Actuated g/C Ratio	0.09	0.38	0.38	0.16	0.45	0.45	0.19	0.12		0.32	0.20	0.36
v/c Ratio	0.62	0.56	0.04	0.77	0.57	0.41	0.18	0.34		0.76	0.20	0.34
Control Delay (s/veh)	52.7	27.2	0.1	50.2	23.0	3.5	23.4	26.8		39.4	33.6	6.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Delay (s/veh)	52.7	27.2	0.1	50.2	23.0	3.5	23.4	26.8		39.4	33.6	6.3
LOS	D	C	A	D	C	A	C	C		D	C	A
Approach Delay (s/veh)		30.3			24.9			25.4			26.6	
Approach LOS		C			C			C			C	
Queue Length 50th (ft)	63	226	0	133	257	0	23	24		175	40	15
Queue Length 95th (ft)	#108	282	0	188	308	55	48	67		255	81	67

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (ft)		887			746			654			391	
Turn Bay Length (ft)	230		280	350		335						150
Base Capacity (vph)	325	2079	743	584	2417	932	366	276		455	399	709
Starvation Cap Reductn	0	0	0	0	0	0	0	0		0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0		0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0		0	0	0
Reduced v/c Ratio	0.61	0.56	0.04	0.73	0.57	0.41	0.15	0.29		0.76	0.19	0.34

Intersection Summary			
Area Type:	Other		
Cycle Length: 100			
Actuated Cycle Length: 100			
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Green			
Natural Cycle: 60			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.77			
Intersection Signal Delay (s/veh): 26.9		Intersection LOS: C	
Intersection Capacity Utilization 72.3%		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: Downers Drive & Butterfield Road



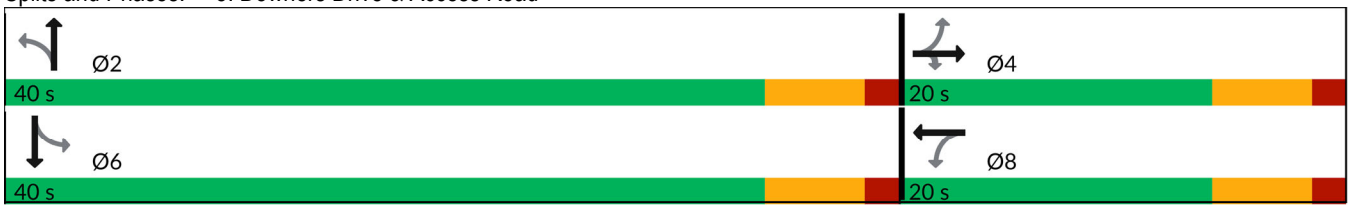


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	5	97	315	336	74	20	358	7	248	8	7	6
Future Volume (vph)	5	97	315	336	74	20	358	7	248	8	7	6
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		40	0		0	0		0	0		0
Storage Lanes	0		1	1		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95	0.95	0.95	0.95
Frt			0.850		0.968			0.939			0.957	
Flt Protected		0.998		0.950				0.972			0.981	
Satd. Flow (prot)	0	1896	1615	1805	1839	0	0	3286	0	0	3081	0
Flt Permitted		0.987		0.689				0.790			0.817	
Satd. Flow (perm)	0	1875	1615	1309	1839	0	0	2671	0	0	2566	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			328		21			258			6	
Link Speed (mph)		20			20			25			25	
Link Distance (ft)		252			487			471			398	
Travel Time (s)		8.6			16.6			12.8			10.9	
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	0%	25%	0%	0%	30%	0%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	106	328	350	98	0	0	638	0	0	21	0
Turn Type	Perm	NA	Perm	Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4		4	8			2			6		
Detector Phase	4	4	4	8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	8.0	8.0	8.0	5.0	5.0		8.0	8.0		8.0	8.0	
Minimum Split (s)	14.0	14.0	14.0	14.0	14.0		14.0	14.0		14.0	14.0	
Total Split (s)	20.0	20.0	20.0	20.0	20.0		40.0	40.0		40.0	40.0	
Total Split (%)	33.3%	33.3%	33.3%	33.3%	33.3%		66.7%	66.7%		66.7%	66.7%	
Yellow Time (s)	4.5	4.5	4.5	4.5	4.5		4.5	4.5		4.5	4.5	
All-Red Time (s)	1.5	1.5	1.5	1.5	1.5		1.5	1.5		1.5	1.5	
Lost Time Adjust (s)		0.0	0.0	0.0	0.0			0.0			0.0	
Total Lost Time (s)		6.0	6.0	6.0	6.0			6.0			6.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None	None	None	None		Min	Min		Min	Min	
Act Effct Green (s)		14.4	14.4	14.4	14.4			18.5			18.5	
Actuated g/C Ratio		0.32	0.32	0.32	0.32			0.41			0.41	
v/c Ratio		0.18	0.45	0.84	0.16			0.51			0.02	
Control Delay (s/veh)		15.3	4.9	41.0	12.9			6.6			5.7	
Queue Delay		0.0	0.0	0.0	0.0			0.0			0.0	
Total Delay (s/veh)		15.3	4.9	41.0	12.9			6.6			5.7	
LOS		B	A	D	B			A			A	
Approach Delay (s/veh)		7.4			34.9			6.6			5.7	
Approach LOS		A			C			A			A	
Queue Length 50th (ft)		19	0	79	13			38			1	
Queue Length 95th (ft)		65	54	#286	54			69			6	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (ft)		172			407			391			318	
Turn Bay Length (ft)			40									
Base Capacity (vph)		597	737	417	600			2124			1986	
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	0.45	0.84	0.16			0.30			0.01	

Intersection Summary			
Area Type:	Other		
Cycle Length: 60			
Actuated Cycle Length: 45.3			
Natural Cycle: 40			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.84			
Intersection Signal Delay (s/veh): 15.0		Intersection LOS: B	
Intersection Capacity Utilization 61.8%		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: 8: Downers Drive & Access Road



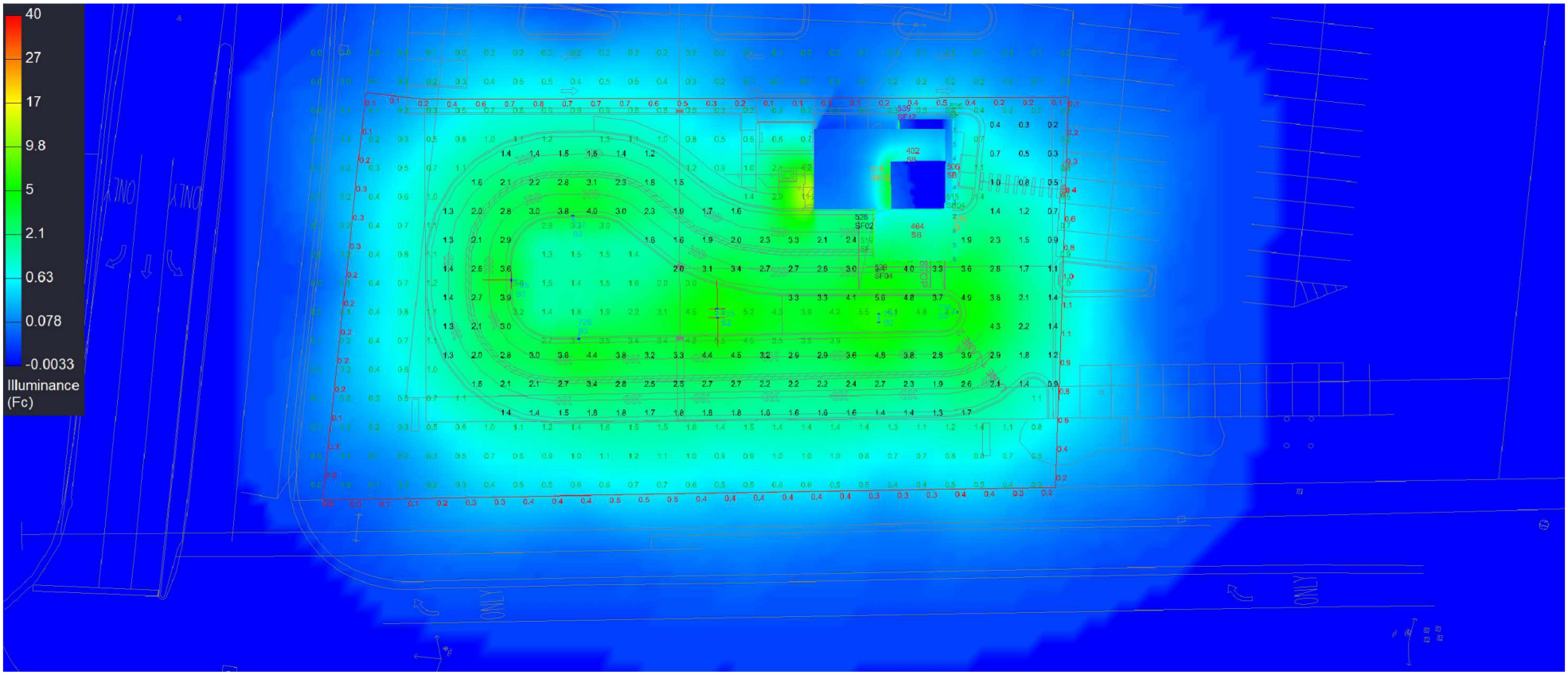
Intersection	
Int Delay, s/veh	0.8

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	0	1527	2085	192	0	81
Future Vol, veh/h	0	1527	2085	192	0	81
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	Free	-	Stop
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	99	99	99	99	99	99
Heavy Vehicles, %	0	1	1	1	0	0
Mvmt Flow	0	1542	2106	194	0	82

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	-	0	-	0	-	1053
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	7.1
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.9
Pot Cap-1 Maneuver	0	-	-	0	0	194
Stage 1	0	-	-	0	0	-
Stage 2	0	-	-	0	0	-
Platoon blocked, %		-	-			
Mov Cap-1 Maneuver	-	-	-	-	-	194
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	SB
HCM Ctrl Dly, s/v	0	0	36.46
HCM LOS			E

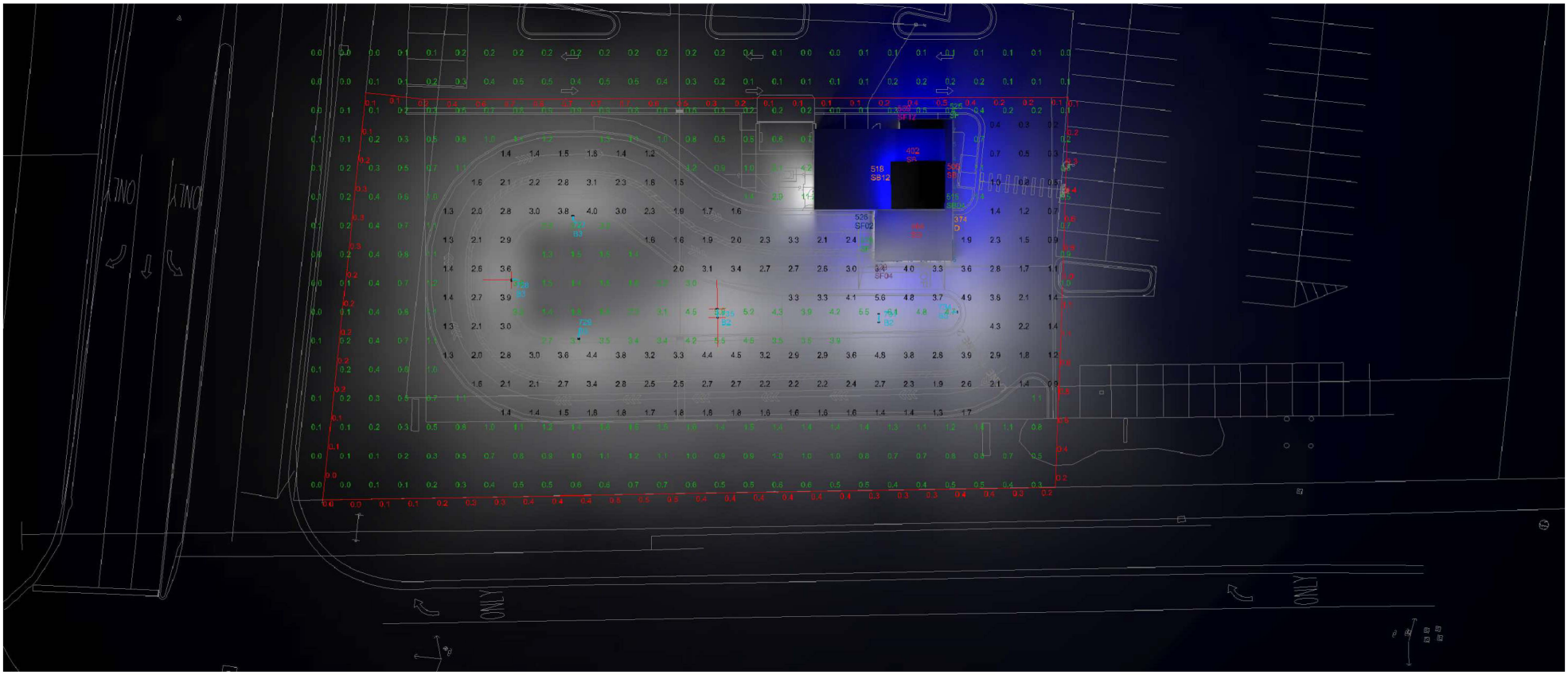
Minor Lane/Major Mvmt	EBT	WBT	SBLn1
Capacity (veh/h)	-	-	194
HCM Lane V/C Ratio	-	-	0.422
HCM Ctrl Dly (s/v)	-	-	36.5
HCM Lane LOS	-	-	E
HCM 95th %tile Q(veh)	-	-	1.9



REDLEONARD ASSOCIATES
1340 Kemper Meadow Dr, Forest Park, OH 45240
513-574-9600 | redleonard.com

PROJECT NAME:
7-BREW
DOWNERS GROVE, IL
DRAWING NUMBER:
RL-10667-S1

SEVEN BREW DRIVE THRU COFFEE



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PROJECT NAME:
7-BREW
DOWNERS GROVE, IL
DRAWING NUMBER:
RL-10667-S1

SEVEN BREW DRIVE THRU COFFEE

VILLAGE OF DOWNERS GROVE
REPORT FOR THE PLANNING AND ZONING COMMISSION
JANUARY 5TH, 2026 AGENDA

SUBJECT:	TYPE:	SUBMITTED BY:
25-PZC-0039 424 Hill Street	Zoning Map Amendment	Flora León, AICP Senior Planner

REQUEST
The petitioner is requesting a Zoning Map Amendment to rezone the northern lot of record associated with the subject property from R-2, Residential Detached House 2, to R-4, Residential Detached House 4 to permit the construction of a new single-family home.

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

GENERAL INFORMATION

OWNER/PETITIONER: Kamu 25 LLC
732 Bittersweet Lane
Hinsdale, IL 60521

PROPERTY INFORMATION

EXISTING ZONING: R-2, Residential Detached House 2 & R-4, Residential Detached House 4
EXISTING LAND USE: Single Family Residential
PROPERTY SIZE: 15,800 (.15 acres)
PIN: 09-08-411-046

SURROUNDING ZONING AND LAND USES

	ZONING	FUTURE LAND USE
NORTH:	R-2, Residential Detached House 2 R-3, Residential Detached House 3	Single Family Detached
SOUTH:	R-4, Residential Detached House 4	Single Family Detached
EAST:	R-4, Residential Detached House 4	Single Family Detached
WEST:	R-4, Residential Detached House 4 R-2, Residential Detached House 4	Single Family Detached

ANALYSIS

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

1. Application/Petition for Public Hearing
2. Project Narrative
3. Plat of Survey

PROJECT DESCRIPTION

The 100-foot wide by 158-foot-deep property, commonly known as 424 Hill Street, is located approximately 200 feet northeast of the intersection of Grand Avenue and Hill Street and contains two lots of record. The northern lot of record (Part of Lot 38) is zoned R-2, Single Family Detached House 2, while the southern lot of record (Part of Lot 37) is zoned R-4, Single Detached House 4. The petitioner is requesting to rezone the northern lot of record (Part of Lot 38) to R-4, Residential Detached House 4, to match the existing zoning for the southern lot of record (Part of Lot 37). The petitioner desires to consolidate the two lots of record to construct a new single-family home on the property.

Historical zoning maps indicate that the northern lot of record (Part of Lot 38) and the southern lot of record (Part of Lot 37) have been zoned R-2 and R-4 respectively since 1965. It appears that the northern lot of record was previously part of 5229 Grand Avenue. There are no records of a formal subdivision, which leads staff to believe the northern lot of record (Part of Lot 38) was deeded over from 5229 Grand Avenue to 424 Hill Street. The adjacent properties immediately east and west of the subject property are zoned R-4, Residential Detached House 4.

COMPLIANCE WITH THE COMPREHENSIVE PLAN

The Guiding DG Comprehensive Plan includes chapters on Land Use and Development and Housing and Neighborhoods. The goals associated with each chapter are:

Land Use and Development:

- Single-family detached residential areas should consist of a detached single household per lot.

Housing and Neighborhoods:

- Encourage residential new construction, additions, and renovations complement the established character and scale of the Village's established neighborhoods
- As infill occurs over time, residential development or redevelopment should align with the scale, setbacks, height, bulk, and orientation of surrounding homes to ensure compatibility.

COMPLIANCE WITH THE SUBDIVISION AND DEVELOPMENT ORDINANCE

Section 28.11.020 of the Zoning Ordinance requires the construction of a principal structure to occur on a single lot of record. Should the proposed zoning map amendment be approved, the petitioner will be required to administratively consolidate the two lots pursuant to Section 20.507 of the Subdivision Ordinance prior to occupancy permit issuance.

COMPLIANCE WITH ZONING ORDINANCE

The northern part of the property is zoned R-2, Residential Detached House 2. A single-family home and associated accessory structures are permitted uses in this district. The petitioner is proposing to rezone the property to match the southern part of the property's existing zoning classification R-4, Residential Detached House 4, consistent with the southern part of the property.

NEIGHBORHOOD COMMENT

Notice was provided to all property owners 250 feet or less from the property line in addition to posting the public hearing sign and publishing the legal notice in the *Daily Herald Life*. Staff received one inquiry which was general in nature.

STANDARDS OF APPROVAL

The petitioner is requesting approval to a rezone part of 424 Hill Street from R-2 (Residential Detached House 2) to R-4 (Residential Detached House 4) to permit the construction of a new single-family home. The review and approval criterion for each 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.

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

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

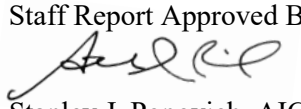
DRAFT MOTION

Staff will provide a recommendation at the January 5th, 2026 meeting. Should the Planning and Zoning Commission find that the request is consistent with the Comprehensive Plan and meets the requirements of the Zoning Ordinance, staff has prepared a draft motion that the Planning and Zoning Commission may make for the recommendation approval of 25-PZC-0039:

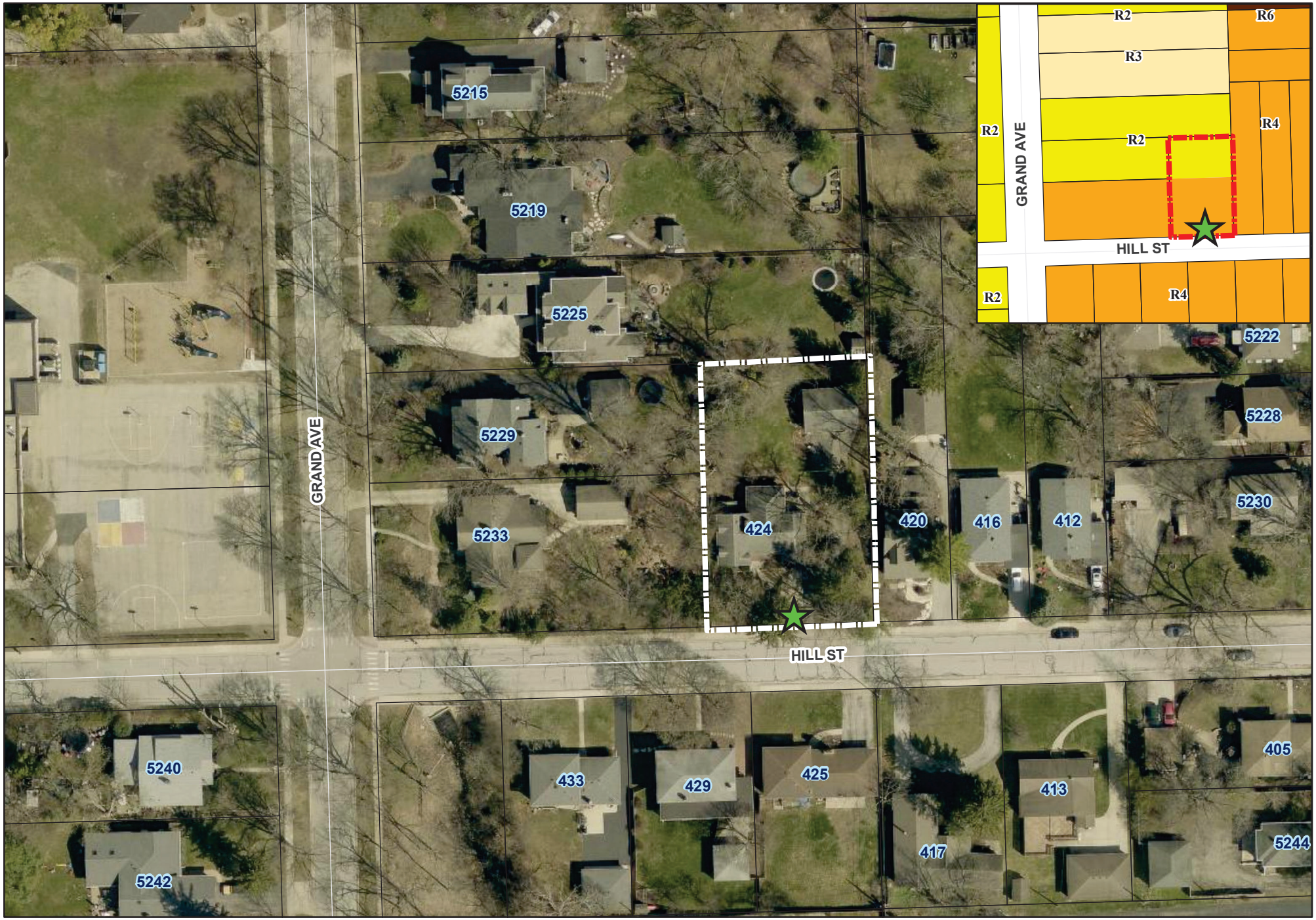
Based on the petitioner's submittal, the staff report, and the testimony presented, I find that the petitioner has met the standards of approval for a Rezoning as required by the Village of Downers Grove Zoning Ordinance and is in the public interest and therefore, I move that the Planning and Zoning Commission recommend to the Village Council approval of 25-PZC-0039, subject to the following conditions:

1. The Zoning Map Amendment shall substantially conform to the staff report dated January 5th, 2026.
2. The petitioner shall consolidate the two lots into a single lot of record pursuant to Section 20.507 of the Subdivision Ordinance prior to the issuance of an occupancy permit.

Staff Report Approved By:



Stanley J. Popovich, AICP
Director of Community Development



N

0 50 100 Feet

424 Hill Street - Location Map

Subject Property

Site Location

PLAT OF SURVEY

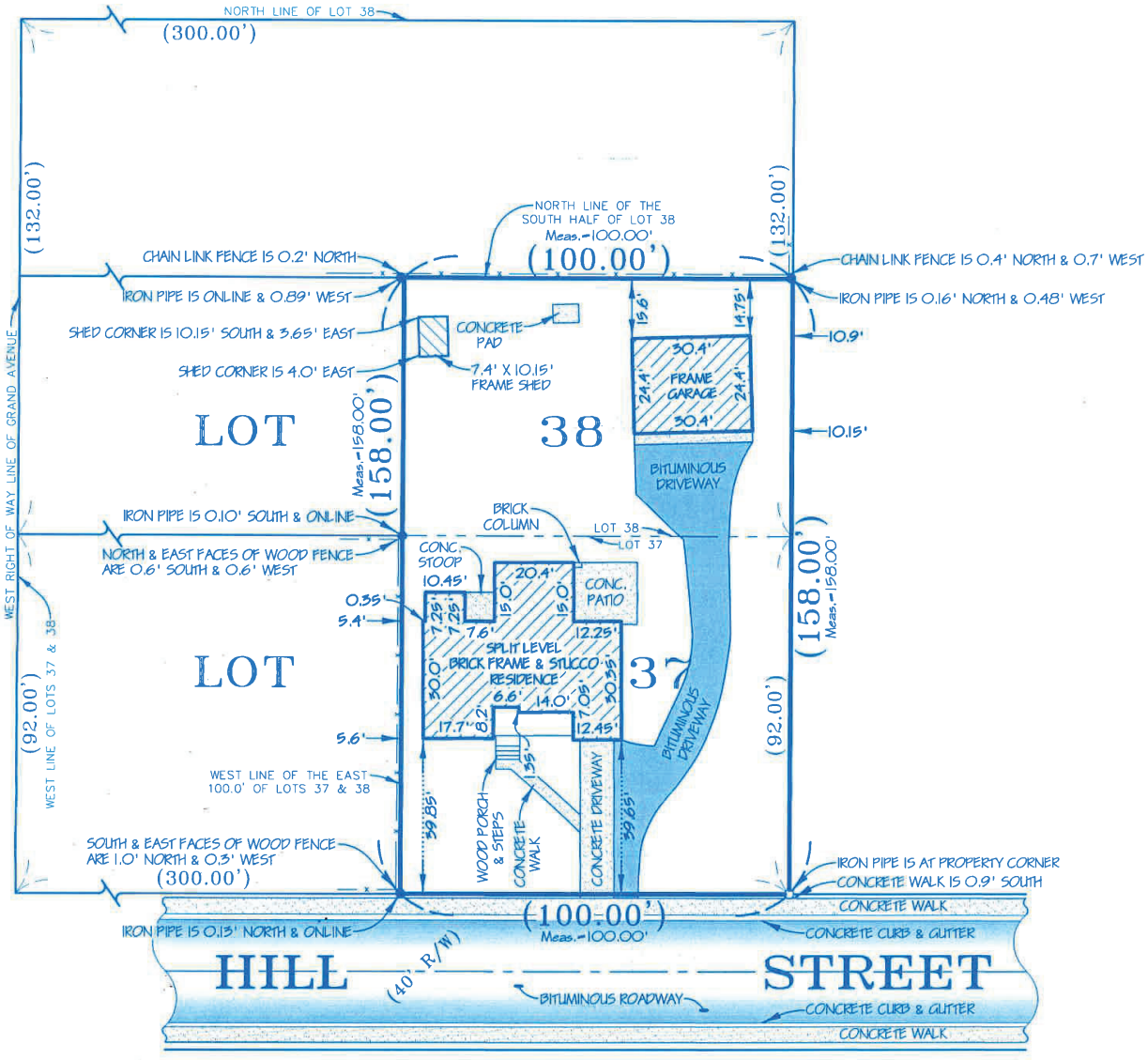
LEGEND
- ● Monumentation Found
- ○ Monumentation Set (IRLS 35-2551)
- (50') Record Dimension
- —x— Fence Line

PARCEL 1:
THE EAST 100 FEET OF THE SOUTH HALF OF LOT 38 IN HIGHLAND ACRES, BEING A SUBDIVISION OF THE EAST HALF OF THE SOUTHEAST HALF AND THAT PART OF THE EAST HALF OF THE NORTHEAST QUARTER OF SECTION 8, TOWNSHIP 38 NORTH, RANGE 11, EAST OF THE THIRD PRINCIPAL MERIDIAN, LYING SOUTH OF THE CENTER LINE OF MAPLE AVENUE (EXCEPT RAILROAD) ACCORDING TO THE PLAT THEREOF RECORDED JULY 22, 1912 AS DOCUMENT 108797, IN DUPAGE COUNTY, ILLINOIS.

PARCEL 2:
THE EAST 100 FEET OF LOT 37 IN RESUBDIVISION OF LOTS 14, 15, 16, 35, 36, 37, 54, 55, 56, 75, 76 AND 77 AND HILL STREET IN HIGHLAND ACRES, IN THE EAST HALF OF SECTION 8, TOWNSHIP 38 NORTH, RANGE 11, EAST OF THE THIRD PRINCIPAL MERIDIAN, ACCORDING TO THE PLAT THEREOF RECORDED APRIL 21, 1914 AS DOCUMENT 116192, IN DUPAGE COUNTY, ILLINOIS.

AREA OF SITE = 15,800 SQ.FT.

CARRADUS



ANGLE ON THE SOUTHWEST CORNER OF THE SITE IS 89°44'09"

COMMON ADDRESS OF SITE
424 HILL STREET
DOWNERS GROVE, ILLINOIS

ALLEN D. CARRADUS
35-2551
PROFESSIONAL LAND SURVEYOR
STATE OF ILLINOIS
WHEATON, ILLINOIS

NOTES
1. All distances shown hereon are in feet and decimal parts thereof corrected to 68° f. Distances shown along curved lines are Arc Measurements unless otherwise noted.
2. Compare the Legal Description, Building Lines, and Easements as shown hereon with your Deed, Title Insurance Policy or Title Commitment.
3. Consult local authorities for additional setbacks and restrictions not shown hereon.
4. Compare all survey points and report any discrepancies immediately.
5. Consult utility companies and municipalities prior to the start of any construction.
6. Dimensions to and along buildings are exterior foundation measurements.
7. Do Not Assume distances from scaled measurements made hereon.

STATE OF ILLINOIS } SS
COUNTY OF DU PAGE }

THIS IS TO CERTIFY THAT I, ALLEN D. CARRADUS, A PROFESSIONAL LAND SURVEYOR, LICENSED IN THE STATE OF ILLINOIS, HAVE SURVEYED THE PROPERTY AS DESCRIBED HEREON AND THAT THE ANNEXED PLAT IS A CORRECT AND TRUE REPRESENTATION THEREOF, AND THAT THIS PROFESSIONAL SERVICE CONFORMS TO THE CURRENT ILLINOIS MINIMUM STANDARDS FOR A BOUNDARY SURVEY.

SIGNED AND SEALED AT CAROL STREAM, ILLINOIS THIS 10th DAY OF June A.D. 2025

BY Allen D. Carradus ILLINOIS PROFESSIONAL LAND SURVEYOR NO. 35-2551. MY LICENSE EXPIRES NOVEMBER 30, 2026.

CARRADUS LAND SURVEY, INC.
Residential & Commercial Land Surveying Services
191 S. Gary Ave. Suite 180, Carol Stream, Illinois 60188
(630) 588-0416 (Fax) 653-7682 carradus_survey@yahoo.com

PREPARED FOR:					
CONNOLLY LAW OFFICE					
DRAWN BY: CMG	DATE OF FIELD WORK: 06/10/25	SCALE: 1" = 30'	FLD BK - PAGE: 466-43	PROJECT NO: 41906	

KAMU 25 LLC
Cellphone No: 708-580-5201
30409 Village Green Blvd
Warrenville IL 60555

December 03, 2025

Village of Downers Grove
ATTENTION: Flora Leon

Dear Flora,

Subject: Rezoning and Lot Consolidation Request for 424 Hill St, Downers Grove, IL 60515

I am submitting this letter to formally request the rezoning and lot consolidation necessary for the development of a new single-family residence at **424 Hill Street, Downers Grove, IL 60515**.

During the review process of the permit application for the proposed new home, it was brought to my attention that although the property appears as a single parcel, it is legally composed of **two lots of records—Lot 37 and Lot 38—as shown on the plat of survey**. Additionally, the Village's zoning map indicates that these two lots carry **different zoning classifications**:

- **Lot 37 (front portion)** is zoned **R-4**,
- **Lot 38 (rear portion)** is zoned **R-2**.

Because the property contains split zoning, the current zoning configuration does not allow for consistent application of R-4 standards to the entire parcel. As a result, the Village is unable to complete the zoning review or issue the permit for the new single-family residence until zoning is made fully consistent.

To address this, I respectfully request the following:

1. **Rezoning of Lot 38 from R-2 to R-4** so that the full property carries a uniform R-4 zoning designation; and
2. **Consolidation of Lots 37 and 38** into a single zoning lot following the rezoning.

This action will bring the property into full alignment with current zoning requirements and allow the proposed single-family home to move forward appropriately under the applicable R-4 standards.

I appreciate the Village's attention to this matter and respectfully request consideration of this rezoning and lot consolidation application. Please let me know if any additional documents, forms, or materials are needed to complete the review.

Thank you for your time and assistance

Sincerely,

Kile Kapral
KAMU 25 LLC
Owner

Zoning Map Amendments

Form #PZC3

Review and Approval Criteria

Address of Project Site: 424 Hill St, Downers Grove, IL, 60515

A detailed response to all of the standards shall be provided, specifying how each standard is or is not met.

Section 28.12.030.I. Review and Approval Criteria (Zoning Map Amendments - Rezonings)
The decision to amend the zoning map is a matter of legislative discretion that is not controlled by any single standard. In making recommendations and decisions about zoning map amendments, review and decision making bodies must consider at least the following factors:

1. The existing uses and zoning of nearby property.

   The subject property is composed of two lots of record: Lot 37 (front) and Lot 38 (rear). Lot 37 is zoned R-4 and Lot 38 is zoned R-2.

2. The extent to which the particular zoning restrictions affect property values.

   The split R-2/R-4 zoning lowers the property's value by limiting permitting and use as a single residential lot, and rezoning Lot 38 to R-4 removes this restriction and restores full marketability.

3. The extent to which any diminution in property value is offset by an increase in the public health, safety and welfare.

   The rezoning creates no loss in property value and instead improves public safety and planning clarity by applying one consistent R-4 standard to the entire parcel, ensuring proper zoning compliance and orderly development.

4. The suitability of the subject property for the zoned purposes.

   Lot 38 is unsuitable as R-2 since it functions with Lot 37 as a single homesite, and rezoning both lots to R-4 aligns zoning with the property's intended single-family use.

5. The length of time that the subject property has been vacant as zoned, considering the context of land development in the vicinity.

   The property has long been an occupied single parcel with split zoning, and rezoning Lot 38 to R-4 aligns zoning with its existing use, enabling the new single-family home permit.

6. The value to the community of the proposed use.

   The rezoning enables a single-family home consistent with the neighborhood's existing development pattern. It also ensures zoning accuracy and makes future property records clear and consistent for the Village and community.

7. The Comprehensive Plan.

   The proposed rezoning aligns with the Village's Comprehensive Plan, which supports stable residential neighborhoods and reinvestment in existing housing areas. Consolidating the zoning classification to R-4 on both lots allows the property to be used efficiently and consistently as a single residential site. The request supports the Plan's goals of orderly development, updated property records, and compatible residential use.