

Planning Commission - Special Meeting Agenda

Tuesday, July 26, 2022 at 7:00 PM
27400 Southfield Road, Lathrup Village, Michigan 48076

HYBRID REMOTE MEETING INFORMATION

Meeting ID: 880 9140 2475

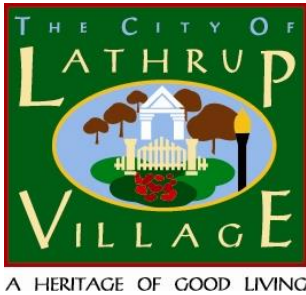
Password: LathrupPC

CLICK HERE: [Online Link](#)

Telephone: 646.558.8656 or 312.626.6799

CLICK HERE: [Public Comment Form Link](#)

1. **Call to Order**
2. **Roll Call**
3. **Approval of Agenda**
4. **Approval of Meeting Minutes**
 - [A.](#) PC Minutes 2022 05 17
5. **Public Comment**
6. **Old Business and Tabled Items**
7. **New Business**
 - [A.](#) Final Site Plan Approval - 27777 Southfield Road (Panera Bread)
 - B. Discussion - Generator placement
 - [C.](#) Discussion - Impervious Surface Coverage
 - [D.](#) Schedule of Amendments
8. **Other Matters for Discussion**
9. **General Communication**
10. **Adjourn**



Planning Commission

Draft Minutes

Tuesday, May 17, 2022, at 7:00 PM
27400 Southfield Road, Lathrup Village, Michigan 48076

1. **Call to Order by Chair Piotrowski at 7:05 p.m.**
2. **Pledge of Allegiance**
3. **Roll Call**

Commissioners Present: Mark Piotrowski, Chair
Jason Hammond, Vice Chair
Les Stansbery, Secretary
Wilbert Fobbs III
Bruce Kantor
Robert Tamarelli

Absent: Terrence Hicks

Staff Present: Jill Bahm, Giffels Webster Engineering, Kelda London Government Operations Assistant.
Susie Stec, Community, and Economic Development Manager and
Scott Baker, City Attorney, attended the meeting remotely

Commissioner Kantor motioned to excuse Commissioner Hicks; the motion was seconded by Vice-Chair Hammond

Motion carried.

4. **Approval of Agenda**

Commissioner Kantor moved to approve the agenda; the motion was seconded by Vice Chair Hammond.
Motion carried.

5. **Approval of Meeting Minutes**

A. Regular Meeting - 2022 04 19

Motion by Vice-Chair Hammond to approve the meeting minutes of the April 19, 2022, minutes as modified. Motion seconded by Secretary Stansbery.

Motion carried.

6. **Public Comment** (speakers are limited to 3 minutes)

None

7. **New Business**

A. Public Hearing - Planned Unit Development - 27777 Southfield Road (Panera Bread)

Open Public

Jill Bahm, Giffels Webster shared a presentation of the purposed project at 27777 Southfield Rd. This project is located at the southwest corner of Southfield and Sunset. The applicants have proposed to demolish that building and construct a new Panera Bread restaurant with a drive-thru. Currently, that use is not permitted in that district.

Public Comment

Oscar Dixon 27711 Eldorado- Comments in opposition to the project.

Lisa Bryant 27721 Eldorado – Expressed concerns regarding parking and additional noise.

Vice-Chair Hammond read into the record comments from Annette Kingsbury – Concerns regarding the drive-thru.

Public Hearing Closed

B. Planned Unit Development - 27777 Southfield Road (Panera Bread) discussion & action

Todd Bundrind, Dan Cook, and Patrick Bennett representing Panera Bread attending the meeting and available for questions.

Vice-Chair Hammond motioned to recommend approval of the Planned Unit Development for 27777 Southfield Road to be presented to the City Council with the following conditions for the development agreement;

- 1.) Landscaping around the dumpster and screening should be the same material
- 2.) Enhanced screening and no parking along Eldorado frontage.
- 3.) Traffic/Parking study for exits and entrances from Southfield and Sunset as well as pedestrian circulation to and from the public sidewalk and the property to the south
- 4.) Specification on the drive-thru speakers and evidence that noise will not intrude onto Eldorado
- 5.) Work with DDA to incorporate public art

- 6.) Bike racks that are consistent with other racks in the area, ensure that multiple bikes can park safely and securely
- 7.) All drive-thru queuing shall occur on-site
- 8.) Building material should be consistent with the high-quality materials presented with the initial concept
- 9.) Mechanical equipment should be screened from view

Motion was seconded by Commissioner Kantor.

Motion carried.

C. 2022 - 2027 Capital Improvement Plan

Jill Bahm of Giffels Webster reviewed the updates of the Capital Improvement Plan, explaining the additions and revisions.

Vice-Chair Hammond made a recommendation for the Planning Commission to approve the Capital Improvement Plan for 2022-2027. Motion seconded by Secretary Stansbery.

Motion carried.

8. Old Business and Tabled Items

A. Front yard & Impervious Surface Coverage discussion

Discussion regarding permeable coverage as it relates to other goals of the Planning Commission. Is it appropriate to have more than one driveway of a certain width and or regulate impervious surface coverage which is not currently regulated but does tie into other goals of the Commission? Giffels Webster will research what other communities are doing and report back.

9. Other Matters for Discussion

Jill Bahm will be a presenter at The Michigan Association of Planning and will be highlighting the House in the Woods site as it relates to housing and the Master Plan.

10. General Communication

None

11. Adjourn

Meeting adjourned at 9:39 p.m.

July 22, 2022

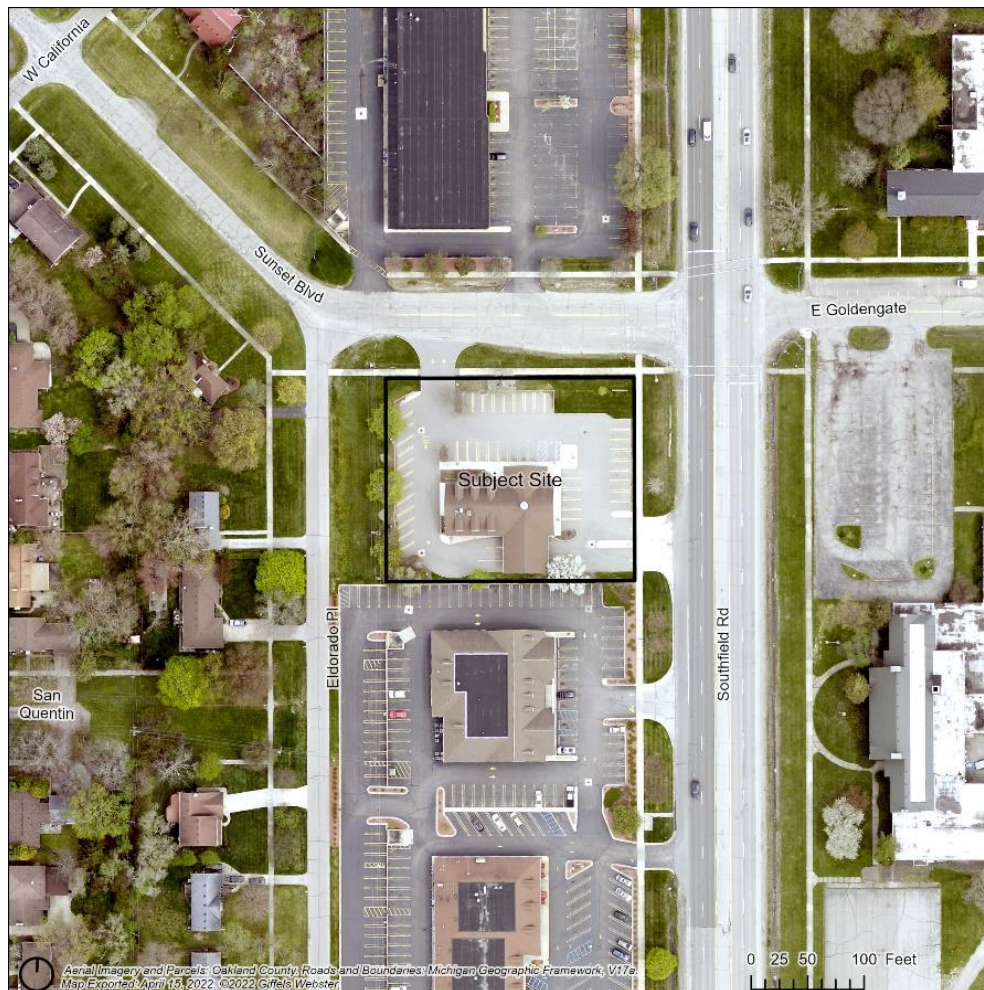
Planning Commission
City of Lathrup Village
27400 Southfield Road
Lathrup Village, MI 48076

Planned Unit Development – Panera

Site: 27777 Southfield Road
Applicant: The Lawrence Group
Plan Date: June 14, 2022, July 5, 2022 (site plan only)
Zoning: VC – Village Center District
Parcel ID: 24-14-432-006
Proposal: Planned Unit Development – Restaurant with drive-through

Dear Planning Commissioners,

We have completed a review of the Planned Unit Development application and a summary of our findings is provided below. Comments are provided in **bold**.



OVERALL PROJECT SUMMARY

The approximately 1-acre site is zoned VC Village Center District and is located at the southwest corner of Southfield Road and Sunset Boulevard. The existing, vacant, one-story building is approximately 5,000 square feet with a drive-through service area that served a former bank. The site is currently accessible from both Southfield Road and Sunset Boulevard. The applicant is proposing to remove the existing building and build a new one-story, 3,483 square foot structure with vehicular drive-through lanes for the purpose of a restaurant. Drive-through facilities are not permitted in the VC District, as this district is intended to be pedestrian-oriented and prioritize walkability over vehicular traffic. Additionally, the proposed placement of the new building on the lot would not be in compliance with standards of the VC District, which are intended to direct compact, urban-type development. The applicant is pursuing review as a Planned Unit Development.

The PUD was recommended for approval by the Planning Commission and was approved by City Council in June 2022. Consistent with the ordinance, City Council directed the city attorney to prepare a development agreement, which is the legally binding document that ensures the development will be built as approved and affirms that the development is not subject to specified requirements of the Zoning Ordinance. The Planning Commission shall review the final site plan for consistency with this development agreement, which is still in draft form until approved by City Council.

SUMMARY OF REVIEW

1. Building Composition and Elements.

- The applicant shall confirm that there is no rooftop mechanical equipment and/or that it will be screened.

2. Off-street Parking.

- The parking setbacks must be identified along each property line.
- Based on gross floor area of the indoor space, 50 spaces are required; the GFA of the outdoor area shall be provided. Only 40 spaces proposed on site. A parking agreement with the property on the north side of Sunset Boulevard is provided to satisfy the remaining parking spaces required.

3. Loading.

The loading space provided is within the one-way drive aisle circulation of the parking lot. When occupied, this space will obstruct the drive aisle.

4. Functional Elements.

The Planning Commission should discuss with the applicant whether the dumpster screening is adequate. The applicant may wish to provide additional renderings to illustrate this.

5. Landscaping.

Information pertaining to the amount of landscaping and plan for irrigation is required.

6. Street Furnishings.

The Planning Commission may wish to discuss whether there are opportunities to add street furnishings to the project.

DETAILED REVIEW

1. Height, bulk, density, and area standards.

The standards as to height, bulk, density, and setbacks of each district shall be applicable within each district area designated on the plan except as specifically modified and noted on the PUD plan. **The proposed restaurant and drive-through facility is a departure from the standards of the Village Center District, outlined in the table below.**

Zoning Development Standards			
Standard	Permitted / Required in VC	Proposed PUD	Comments
Lot size			
Min lot area	5,000 sf.	Existing (39,639 sf.)	Complies
Min lot width	20 ft.	Existing (180 ft.)	
Setbacks (building placement)			
Min front yard	0 ft.	71 ft. Southfield 99.9 ft. Sunset 80.31 ft. Eldorado	Complies
Min rear yard	5 ft.	N/A	
Min side yard	5 ft.	Approx. 27' (south)	
Build-to-line coverage - primary	90%	No build-to zones proposed.	
Build-to-line coverage - all others	75%		
Max height of structures			
Primary roads	60 ft. or 5-stories	19'-1"; 1-story	Complies
All other roads	40 ft. or 3-stories	19'-1"; 1-story	
Min floor height			
First/ground floor	14 ft.	19'-1"	Complies
Upper floors	10 ft.	N/A	Not applicable
Parking setbacks			
	5 ft.	Approx. 5 ft. Southfield Approx. 15 ft. Sunset Approx. 9 ft. Eldorado	Plans shall include the parking setbacks from each property line.
	0 ft. interior lot line	Approx. 1 ft. (south)	

2. Building elements.

The requirements listed in this subsection shall apply to all front-facing and exterior-side facing facades as well as facades that directly face a park or plaza. Walls shall not be blank. Walls shall include windows and architectural features customarily found on the front of a building in a traditional downtown setting such as awnings, edge detailing, cornice work, decorative materials, and decorative lighting. The following additional requirements shall apply:

A. Building Composition:

- 1) Base: The base of a building shall be designed to clearly define where the building begins. It shall enhance the pedestrian experience by providing quality durable materials as well as ample windows that encourage views into a ground floor space. The applicant proposes brick on all four sides that will be "enhanced with alternating vertical and horizontal soldiers, adding interest and texture." In addition, the elevations show large windows along the street frontages.
- 2) The building compares with the "storefront" building frontage, except for the setback, which the ordinance requires to be set at the build-to line being at or near the edge of the right-of-way (within the build-to-zone).
- 3) Top: The top of the building should include a cornice or noticeable roof edge. Flat roofs shall be enclosed with parapets. **The application should demonstrate compliance of**

the top of the building standards particularly with respect to any rooftop equipment as noted below.

- a. Equipment: Rooftop mechanical and other equipment shall be positioned and screened to minimize views from adjacent properties and obscure views from the public rights-of-way. **The applicant has stated the design of the building is prototypical but has not yet confirmed if roof screening will be required based on parapet and roof framing heights for this particular structure.**
- b. Accessibility: Roofs may be accessible and may be used as balconies or terraces. Vegetated roofs are encouraged to cool buildings and limit stormwater runoff. **N/A**



B. Windows and Doors.

- 1) Transparency: Each storefront shall have transparent or lightly tinted areas, equal to at least 70 percent, but not more than 90 percent, of its portion of the façade, between two (2) and eight (8) feet from the ground. These required window areas shall be either windows that allow views into retail space, dining areas, office work areas, lobbies, pedestrian entrances, merchandise display windows, or other windows consistent with encouraging an active pedestrian environment along the storefront. **This standard is met.**
- 2) Entry: At least one functioning doorway shall be provided for every street-facing storefront, with the primary entrance on the street. As applicable for a single ground floor use, one doorway shall be provided for every 75 feet in horizontal building length. Three sides of the building face a street, and each have a functioning doorway with the primary access doors along the east (Southfield Road) and north (Sunset Boulevard - outdoor patio area). **The doorway facing west, toward Eldorado Place, is confirmed to service the dumpster enclosure (kitchen door) and will not be used as one of the café's primary entrances.**

C. Building Materials

- 1) Facing street, park, or plaza. At least 90% of all exterior building façades facing a street, park, or plaza shall be finished with a combination of two or more of the following: Glass, brick, cut or cast stone, wood, cementitious board (e.g., Hardie Plank), integrally colored concrete units with brick proportions (e.g., half-high "C" brick), and textured stucco. **This standard is met along Southfield Road and Sunset Boulevard; and the applicant has**

confirmed 100% of the rear of the building (west façade) is comprised of vertical and horizontal brick, painted metal door, and wood-look metal banding (for longevity & durability while also providing visual interest).

- 2) Facing other buildings: at least 70% of the exterior façade shall consist of the materials specified above and may also include split-faced, scored, or fluted block. **The south side of the building contains the drive through window. The applicant has confirmed 90% of the drive-thru side of the building (south façade) is comprised of vertical and horizontal brick, glass, and wood-look metal banding (for longevity & durability while also providing visual interest).**
- 3) Variation: There shall be a change in the vertical or horizontal building plane when there is a change in color or material. Street facing facades shall be divided vertically into segments no greater than sixty (60) feet wide. It appears that this standard is met.

D. Corner Buildings. Buildings located at a street corner shall have appropriate architectural features and details that accentuate its prominent corner location through additional building height and /or adding a building peak or tower element at the corner. Other creative techniques may be used, subject to the acceptance of the Planning Commission. While substantially setback from the build-to zone, the northeast corner of the building at Southfield Road and Sunset Boulevard is accentuated with a distinguished architectural tower. Prominent windows on the east side and the outdoor seating area on the north further address the intent of corner building standards.

E. Canopies and Awnings. Facades may be supplemented with awnings that do not serve as signage but meet the following:

- 1) Style & Height: Straight sheds shall be used. Awnings shall be at least 8 feet above sidewalk grade at the lower drip edge. **This standard is met.**
- 2) Encroachment: Awnings may encroach beyond the front or street-side Build-to-Zone and into the street right-of-way or easement but must avoid the canopy area of street trees (based on tree maturity); and be set back a minimum of five (5) feet from the face of the road curb. Awnings shall be positioned immediately above the ground floor window, in scale with the window and overall building façade. The proposed building is not near the build-to-zone, so this standard does not apply. The scale of the awnings over the main entrance and drive-through window appear to comply with this standard.
- 3) Colors: Awnings shall be complementary to the building façade. The awnings tie in with the Panera color scheme and this standard is met.
- 4) Materials: Awnings shall be constructed of a durable material such as canvas or other material approved by the Building Official that will not fade or tear easily. Plastic and vinyl awnings are not permitted. **This standard is met.**
- 5) Signage: There is no signage shown to be located on the awnings.

F. Floodlights or directional lights: Lighting is discussed below.

3. Off-street parking.

- A. Number of spaces: Parking for this use is one space per 70 sf of GFA or one space per two employees plus one per two maximum customers plus 10-vehicle stacking spaces per drive-thru lane. **Based on the GFA, the required number of parking spaces is 50. 40 spaces are shown on the site, resulting in a shortage of 10 spaces. The applicant has provided a parking lease agreement for 20 parking spaces on the property to the north.**

- B. Location: **The parking setbacks should be determined on the site plan.**
- C. Driveways and Access: Driveway access shall not be permitted off a Primary Road, but this existing condition may be allowed to be maintained. The traffic study indicated adequate circulation with this egress.
- D. Screening and Landscaping: Parking lots adjacent to public or private streets shall be screened by a combination of landscaping (e.g., hedge row), brick walls, and ornamental metal fencing, with the design intent of screening an area 2.5 feet (30 inches) high adjacent to parking lots. **This standard complies.**
- E. Shared Parking: see section 5.13.5.
- F. Bicycle Parking: Secure, visible, and accessible parking for bicycles shall be provided. **A bicycle rack is shown on the north side of the building, adjacent to the outdoor seating area. A bicycle rack cut sheet confirms space for locking 3 bicycles.**
- G. Loading docks, truck parking, utility meters, HVAC equipment, trash dumpsters, trash compaction and other service functions shall be incorporated into the overall design of buildings and landscaping.
 - 1) **The site plan shows the one (1) required 10' x 40' loading space to be obstructing the one-way drive aisle adjacent to the drive-through lanes. This location would restrict traffic circulation when the loading space is in use.**
 - 2) As shown in the conceptual PUD plan, the dumpster enclosure is located at the northwest corner of the site, at the front yard intersection of Sunset Boulevard and Eldorado Place. This location is in close proximity to adjacent single-family residential lots to the west. **The landscape plan shows a variety of trees and shrubs screening the dumpster enclosure and the site plan states the height of the enclosure will exceed the ordinance standard of 6 feet.**

4. Landscaping.

In general, sites should include landscaping as an integral part of site design and should give consideration as to the use of landscaping for stormwater management. Overall, the plan appears to meet the standards of the ordinance; **and the applicant has provided additional landscaping along the east outdoor seating area to further buffer from Southfield Road.**

A. Street Trees & Plantings – Village Center District Standards

- 1) Spacing: Trees must be provided along the Primary Road streetscape, with a typical spacing of fifty (50) feet on center. This equates to three trees. Spacing for the trees shall be noted on the landscape plan.
- 2) Tree wells: Tree wells in sidewalks must be 5 ft. by 5 feet with a 3.5 ft. minimum depth. This does not apply, but the **landscape plan should show the dimension of the space in which the trees are to be planted.**
- 3) Clear vision: Trees shall not be placed closer than thirty feet (30') from intersections, nor be placed in the clear vision triangle. This is met.
- 4) Irrigation: Irrigation systems must be installed at the time of development and **should be noted on the landscape plan.**

- 5) Maintenance of public realm: The owner shall maintain the portion of the street between the lot line and back-of-curb and, if applicable, the portion of the alley between the lot line and the edge of pavement. N/A
- 6) Plant Selections: Plants should be chosen for specific locations based on size and mass at maturation as well as ease of maintenance.

B. Additional Landscape Standards – Parking Facilities

- 1) A minimum of 15 sf of landscaping is required for each parking space provided, or 600 sf for the 40 spaces shown. **This standard is met.**
- 2) One tree per 400 sf of landscaping shall be provided. The landscape plan shows two trees on the El Dorado frontage.

5. Street Lighting.

Pedestrian-scaled lighting is noted on the site plan but is inconsistent with the photometric plan, which only shows one such lamp on the Southfield Road frontage. Such lights shall provide a minimum of one foot candle of warm light between the building face and the curb. **The photometric plan has been updated and this standard appears to be met. Spec sheets for all types of lighting are provided.**

6. Street Furniture.

In the VC district, street furnishings must be placed within the Amenity Zone, which is defined as the five (5) feet between the curb face and the pedestrian zone. Because there is no build-to zone for any of the adjacent streets proposed for this development, these standards are not met. **The Planning Commission may wish to discuss whether there are opportunities to add street furnishings to the project.**

7. Open Space Standards.

The VC district requires that public open spaces be practically located so that the public is aware of their location. The open space provided by the applicant is located at the intersection of Southfield Road and Sunset Boulevard at the northeast corner of the property.

- A. Function: All open spaces should be functional and purposeful, yet flexible to provide for a variety of uses. **The Planning Commission may wish to discuss the functionality of the proposed plaza area. Earlier conversations with the applicant included a potential location for public art as well as the bike rack.**
- B. Amenities: Outdoor furniture (benches and tables), art or sculptures, landscaping, change in the type of pavement, semi-enclosure to define the space, drinking fountains, trash receptacles should be added to defined open spaces. **As noted, the proposed amenities for the development are benches for seating, a bicycle parking rack, and pedestrian lighting.**
- C. Awareness: Wayfinding signs should be used to direct the public to the location of open spaces, municipal parks, or trailheads.
- D. Security: Open spaces shall be well-lit, well-maintained and allow for clear views to create a safe environment.

8. Traffic.

Our traffic engineer reviewed the applicant's parking study and provided comments that have largely been addressed (see attached for initial review letter). One outstanding recommendation involves the egress queues at the site drive on Southfield as the area between the drive thru and the driveway is short. If there is an issue there in the future, the store operator should have someone or a sign sending exiting drive thru customers to Sunset Blvd. instead of blocking the area.

We will look forward to discussing the site plan with the Planning Commission on July 26, 2022.

Regards,
Giffels Webster



Jill Bahm, AICP
Partner



Eric Pietsch
Senior Planner

**PLANNED UNIT DEVELOPMENT AGREEMENT
PANERA BREAD - LATHRUP VILLAGE, MI
City of Lathrup Village, Oakland County, Michigan**

This Planned Unit Development Agreement ("Agreement") is made this ____ day of ____ 2022, by and between Golden Gate Plaza, LLC, 27777 Southfield Road, Lathrup Village, MI 48076 (the Developer") and the City of Lathrup Village (" the City"), a Michigan municipal corporation, whose address is 27400 Southfield Road, Lathrup Village, MI 48076. The Developer and City are sometimes referred to in this Agreement as "Parties" and individually as "Party."

WITNESSETH:

This Agreement is made based on the following underlying facts and circumstances:

- A. The Developer is the owner in fee simple title of 0.91 acres of real property in the Village Center in the City, located on the east side of Southfield Road, south of Sunset Boulevard West, more particularly described in Exhibit A attached to this Agreement.
- B. Prior to execution of this Agreement, the Property was zoned VC, Village Center. Upon execution of this Agreement the Property shall only be developed in accordance with this Agreement, pursuant to Section 3.12 of the City's Zoning Ordinance.
- C. The Developer proposes to develop the Property with a restaurant with a drive-thru component pursuant to a comprehensive development plan known as Panera Bread - Lathrup Village, MI Planned Unit Development (which may hereinafter be referred to as the "PUD" or "Planned Unit Development").
- D. Pursuant to requirements in the Zoning Ordinance, the Developer has submitted to the City, and the City has approved, site and development plans, an Application for Planned Unit Development, and supporting documentation (collectively the "Plans" - Exhibit B).
- E. Subject to execution and recording of this Agreement, Panera Bread Planned Development illustrated and described in this Agreement and in the Exhibits attached hereto, is hereby approved in accordance with the authority granted to and vested in the City pursuant to Michigan Public Act 110 of 2006, as amended (the Michigan Zoning Enabling Act); Michigan Public Act 33 of 2008, as amended (the Michigan Planning Enabling Act); and in accordance with the Zoning Ordinance of the City of Lathrup Village, as amended, except as modified herein and subject to the terms of this Agreement. The approval of the Panera Bread Planned Development does not relieve the Developer from compliance with applicable provisions of the City's Zoning Ordinance, except as modified herein, nor shall it be deemed to confer any approval other than required by law.
- F. The City and the Developer now desire to enter into this Agreement which, among other things, shall set forth the mutual and respective covenants, obligations and undertakings of the City and Developer with respect to the Planned Development.

NOW, THEREFORE, in consideration of the foregoing premises, which the City and the Developer represent to be true and accurate, and which shall become part of the Parties' obligations herein, and the mutual and respective covenants, obligations, and undertakings of the Parties set forth below, the Parties, intending to be legally bound by this Agreement, agree as follows:

1. **Permitted Use of the Property.** The "Planned Development" zoning classification shall permit the Developer to develop the Property, and the Developer agrees to develop the Property, in accordance with the approved Plans and terms of this Agreement for the following uses: The existing, vacant, one-story building is approximately 5,000 square feet with a drive-thru service area that served a former bank. The site is currently accessible from both Southfield Road and Sunset Boulevard. The applicant is proposing to remove the existing building and build a new one-story structure with vehicular drive-thru lanes for the purpose of a restaurant. (See Exhibit B).
2. **History of Review Procedures and Action Taken by the Planning Commission and City Council.** The following is a summary of the actions taken by the Planning Commission and City Council relative to this project:
 - a. Planned Development Conceptual Review. Review by the Planning Commission on April 19, 2022.
 - b. Planned Development Preliminary Review. Review and public hearing by the Planning Commission on May 17, 2022.
 - c. Planned Development Final Review. Approval by the City Council on June 1, 2022.
3. **Plans and Documents Submitted by the Applicant.** The approved Plans for the Planned Unit Development incorporate the material representations of the Developer made in the following plans and documents submitted in pursuit of Planned Unit Development approval to the extent that such representations are not inconsistent with the recitals and terms contained herein:
 - a. Applications for Amendment to the Zoning Ordinance to Create a Planned Development District, dated April 29, 2022, signed by Todd Bundren of the Lawrence Group on behalf of Panera Bread. (Exhibit C).
 - b. Traffic Impact Assessment, prepared by Stonefield, dated June 8, 2022. (Exhibit D).
 - c. Application for Site Plan Review prepared by Jenna Samples of Panera Bread, LLC, Dated June 9, 2022. (Exhibit E).
 - d. Site Development Plan, prepared by Civil & Environmental Consultants, Inc. on April 27, 2022 and submitted by The Lawrence Group June 9, 2022, consisting of the following:
 - i. Site Plan (Exhibit F)
 - ii. Photometric Plan (Exhibit G)
 - iii. Architectural Drawings (Exhibit H)

1. Floor Plans
2. Exterior Elevations
3. Renderings
- iv. Drive-Thru Sound Levels (Exhibit I)
- v. Drive-Thru Sound Pressure (Exhibit J)
- vi. Drive-Thru Hyperview Literature (Exhibit K)
- e. Landscape plans prepared by Evergreen Design Group, dated April 27, 2022 and submitted by The Lawrence Group, June 9, 2022. (Exhibit L)

The City enters into this Agreement on the assumption that all plans and supporting documentation submitted to the City are true and accurate. If any plans, documents or statements that are material to the project are materially untruthful or inaccurate, then such plans, documents or statements shall be deemed a violation of the Zoning Ordinance. The remedies for such a violation shall be such as are provided by law or equity for violation of a zoning ordinance. If there are discrepancies between the supporting documentation and this Agreement, including Exhibits, this Agreement shall apply.

4. Effect of Planned Development Approval.

- a. The Developer and the City acknowledge and agree that approval of the PUD constitutes approval of the Planned Unit Development Plans as the Plans for the general configuration, location and amount of land occupied by permitted uses, and setbacks, subject to final site plan review and approval.
- b. References in this Agreement to activities by the Developer in relation to this Planned Unit Development are intended to include the Developer's transferees, assigns, and any subsequent owner of the Property, unless the context dictates otherwise.
- c. To the extent that development of the Property in accordance with this Agreement and Plan deviate from Zoning Ordinance regulations, this Agreement and the Plan shall control. All improvements constructed in accordance with this Agreement and Plan shall be deemed conforming under the Zoning Ordinance. All references in this Agreement to the Zoning Ordinance shall be deemed to refer to the Zoning Ordinance in effect as of the date of this Agreement. The Project shall not be subject to any additional zoning requirements contained in any amendment or additions to the Zoning Ordinance that conflict with the provisions of this Agreement or the Plan, unless the Plan is materially altered at the request of the Developer and with the approval of the City.

5. **Permits from Review Authorities.** All permits or approvals from review authorities or agencies that have jurisdiction shall be submitted to the City of Lathrup Village prior to the start of construction, including but not necessarily limited to the Road Commission for Oakland County, Oakland County Water Resources Commissioner,

the Michigan Department of Environmental Quality, City Engineer, and City of Southfield Fire Inspector. It shall be the responsibility of the Developer to obtain all required permits and approvals.

6. Landscape and Streetscape Plans.

- a. The Planned Development shall be developed in accordance with the landscape plans, as prepared by Evergreen Design Group, dated April 27, 2022. Changes in the species and locations of plantings may be approved by the City Planner if consistent with the spirit of the landscape plans and provided that details regarding the proposed changes are submitted prior to installation of any plant material. The City shall not be responsible for unapproved plant material acquired by the Developer.
- b. The Developer shall be responsible for street tree plantings.
 - i. Spacing: Trees must be provided along the Primary Road streetscape, with a typical spacing of fifty (50) feet on center.
 - ii. Tree wells: Tree wells in sidewalks must be 5 ft. by 5 feet with a 3.5 ft. minimum depth. Perimeter fencing shall not be permitted.
 - iii. Clear vision: Trees shall not be placed closer than thirty feet (30') from intersections, nor be placed in the clear vision triangle.
 - iv. Irrigation: Irrigation systems must be installed at the time of development.
 - v. Maintenance of public realm: The owner shall maintain the portion of the street between the lot line and back-of-curb and, if applicable, the portion of the alley between the lot line and the edge of pavement.
 - vi. Plant Selections: Plants should be chosen for specific locations based on size and mass at maturation as well as ease of maintenance.
- c. Street Lighting.
 - i. Pedestrian-scaled lighting shall provide a minimum of one foot candle of warm light between the building face and the curb.
 - ii. Streetlights are required with any new development or redevelopment and must be of the type identified by The City.
- d. Street Furniture.
 - i. Street furnishings must be placed within the Amenity Zone, which is defined as the five (5) feet between the curb face and the pedestrian zone. The plans do not comply with this standard as there is no build-to zone for any of the adjacent streets proposed for this development.
 - ii. Street furnishings shall be placed at least 2.5 feet from the curb face where on-street parking occurs, and 5 feet where travel lanes adjoin the curb, subject to road commission approval, where required.

- iii. Planter walls, where proposed, shall be a minimum width of ten inches (10") and two and one-half feet (2.5') in height, and brick to match pavers. Planter walls shall be located at intersections and placed at evenly spaced intervals along the block.
 - iv. Street furnishings must be those identified by the City.
 - e. Open Space Standards.
 - i. Location: Public open spaces should be practically located so that the public is aware of their location.
 - ii. Function: All open spaces should be functional and purposeful, yet flexible to provide for a variety of uses.
 - iii. Amenities: Outdoor furniture (benches and tables), art or sculptures, landscaping, change in the type of pavement, semi-enclosure to define the space, drinking fountains, and trash receptacles should be added to defined open spaces. The proposed amenities for the development are benches for seating, a bicycle parking rack, and pedestrian lighting.
 - iv. Awareness: Wayfinding signs should be used to direct the public to the location of open spaces, municipal parks, or trailheads.
 - v. Security: Open spaces shall be well-lit, well-maintained and allow for clear views to create a safe environment.
 - vi. Maintenance. The site is to be continuously maintained free of trash and debris, which shall be collected daily.
 - f. The City shall not be required, by special assessment or otherwise, to pay for the upkeep or replacement of landscaping in the Planned Unit Development.
 - g. A landscaping bond shall be deposited with the City prior to scheduling of a pre-construction meeting to cover the full cost of all landscape plantings and landscape features, including street trees, within the Planned Unit Development as shown on the landscape plans. The amount of the bond shall be based on the City Planner's estimate. The bond shall be released after landscaping has been properly installed, as determined by inspection by the City Planner or his/her designee. If the landscaping is completed in stages, partial release of the bond may be approved after completion of each stage.
7. **Architectural and Site Design Guidelines.** The Planned Unit Development shall be developed in conformance with the following architectural and site design guidelines:
- a. **Zoning Development Requirements.** The required setbacks and other dimensional standards shall be in accordance with the approved Plans for the PUD, including but not limited to the Site Development Plan.
 - b. **Building Elements.** The requirements listed in this subsection shall apply to all front-facing and exterior-side facing facades as well as facades that directly face a park or plaza. Walls shall not be blank. Walls shall include windows and architectural features customarily found on the front of a

building in a traditional downtown setting such as awnings, edge detailing, cornice work, decorative materials, and decorative lighting. The following additional requirements shall apply:

- i. **Building Composition:** Building facades shall be comprised of two distinct components: a base or ground floor and a top.
 1. **Base:** The base of a building shall be designed to clearly define where the building begins. It shall enhance the pedestrian experience by providing quality durable materials as well as ample windows that encourage views into a ground floor space. The applicant states and the City approves:
 - a. A brick surface has been doubled as compared to the new building prototype, including brick on all four sides. Brick surfaces have been enhanced with alternating vertical and horizontal soldiers, adding interest and texture.
 - b. The use of large windows both brings a connection between the exterior and interior along with an abundance of comfortable, natural light for the interior dining experience. These same windows also provide a warm glow as you approach the café at dusk and throughout the evening hours.

Frontage base types shall be one of the following on Primary Roads (Southfield Road):

 - i. **Arcade:** A façade featuring a series of arches and columns. -N/A
 - ii. **Storefront:** The front façade build-to line is at or near the edge of the right-of-way (within the build-to-zone). The entrance to the building, which may be recessed, is at the grade of the sidewalk. While the plans indicate a number of pedestrian-focused improvements, the “Storefront” base type along primary roads shall require the front façade build-to line being at or near the edge of the right-of-way (within the build-to-zone). The entrance to the building, which may be recessed, is at the grade of the sidewalk. The proposed facility does not utilize a build-to zone as defined by the ordinance, and therefore only partially complies with this standard.
 2. **Top:** The top of the building will distinguish the building with a cornice or noticeable roof edge. Flat roofs shall be enclosed with parapets. Rooftop mechanical and other equipment shall

be positioned and screened to minimize views from adjacent properties and obscure views from the public rights-of-way.

ii. **Windows and Doors**

1. Generally

- a. **Materials:** Structural elements to support canopies or signage, along with mullion and frame systems for windows and doors shall be painted, powder-coated or stained (or the equivalent). Glass shall be clear or lightly tinted. Reflective glass is not permitted.
- b. **Shutters:** When shutters are used, whether operating or decorative, they shall be equal to the width of one half of the adjacent window opening.
- c. **Facade Openings:** All porches, doors, colonnades, and upper floor windows, shall be vertically proportioned.

2. Ground Floor windows and doors

- a. **Integral Design:** All storefronts shall have doorways, windows, and signage that are integrally designed.
- b. **Transparency:** Each storefront shall have transparent or lightly tinted areas, equal to at least 70 percent, but not more than 90 percent of its portion of the façade, between two (2) and eight (8) feet from the ground. These required window areas shall be either windows that allow views into retail space, dining areas, office work areas, lobbies, pedestrian entrances, merchandise display windows or other windows consistent with encouraging an active pedestrian environment along the storefront.
- c. **Entry:** At least one functioning doorway shall be provided for every street-facing storefront, with the primary entrance on the street. As applicable for a single ground floor use, one doorway shall be provided for every 75 feet in horizontal building length.

iii. **Building Materials**

- 1. **Facing street, park, or plaza.** At least 90% of all exterior building façades facing a street, park, or plaza shall be finished with a combination of two or more of the following: Glass, brick, cut or cast stone, wood, cementitious board (e.g., Hardie Plank), integrally colored concrete units with brick proportions (e.g., half-high "C" brick), and textured stucco.
- 2. **Facing other buildings:** at least 70% of the exterior facade shall consist of the materials specified in iii.1. above and may also

include split-faced, scored, or fluted block. The south side of the building contains the drive through window.

3. Variation: There shall be a change in the vertical or horizontal building plane when there is a change in color or material. Street facing facades shall be divided vertically into segments no greater than sixty (60) feet wide.
- iv. Corner Buildings. Buildings located at a street corner shall have appropriate architectural features and details that accentuate its prominent corner location through additional building height and /or adding a building peak or tower element at the corner. Other creative techniques may be used, subject to the acceptance of the Planning Commission. Special architectural corner features may be permitted to exceed the maximum building height by up to ten (10) feet if deemed appropriate by the Planning Commission. While substantially setback from the build-to zone, the northeast corner of the building at Southfield Road and Sunset Boulevard is accentuated with a distinguished architectural tower. Prominent windows on the east side and the outdoor seating area on the north further address the intent of corner building standards.
- v. Canopies and Awnings. Facades may be supplemented with awnings that do not serve as signage but meet the following:
 1. Style & Height: Straight sheds shall be used. Awnings shall be at least 8 feet above sidewalk grade at the lower drip edge.
 2. Encroachment: Awnings may encroach beyond the front or street-side Build-to-Zone and into the street right-of-way or easement but must avoid the canopy area of street trees (based on tree maturity); and be set back a minimum of five (5) feet from the face of the road curb. Awnings shall be positioned immediately above the ground floor window, in scale with the window and overall building facade. The proposed building is not near the build-to-zone, so this standard does not apply.
 3. Colors: Awnings shall be complementary to the building facade.
 4. Materials: Awnings shall be constructed of a durable material such as canvas or other material approved by the Building Official that will not fade or tear easily. Plastic and vinyl awnings are not permitted.
 5. Signage: The vertical drip of an awning may be stenciled with signage a maximum of 8 inches by a horizontal length not to exceed 80 percent of the awning width.
- vi. Balconies and Overhangs. Balconies and overhangs may be added to facades with the following conditions:

1. Balconies and overhangs shall not extend more than six feet from the building face.
 2. Materials shall be compatible with the building and be integrally designed.
- vii. **Building Lighting**
1. Height: For building fronts, exterior lights must be mounted between six and fourteen feet above adjacent grade.
 2. Alley lighting: Fixtures in alleys shall illuminate the alley, be between 9 and 14 feet in height, have a shield to prevent uplighting, and not cause glare onto adjacent lots.
 3. Floodlights or directional lights: Such lighting may be used to illuminate alleys or parking garages, but must be shielded to prevent light spills upward, or into adjacent lots, the street, or area outside of the district. Floodlights shall not be used for uplighting.
 4. Contained illumination: Site lighting shall be of a design and height and shall be located so as to illuminate only the lot. An exterior lighting plan must be submitted and approved with each site plan.
 5. Flashing, traveling, animated or intermittent lighting: Such lighting is not permitted, whether of a permanent or temporary nature.
- c. **Off-street parking.**
- i. Number of spaces: Parking for this use is one space per 70 sf of GFA or one space per two employees plus one per two maximum customers plus 10-vehicle stacking spaces per drive-thru lane.
 - ii. Location:
 1. Primary Roads: Surface parking lots shall have a minimum setback of 60 feet from the sidewalk and be located behind a building. Structured parking is permitted internally but must be located behind occupied uses on the ground floor.
 2. Other Roads: Surface parking lots are permitted in the rear or side of any lot and in structures and shall be setback a minimum of 5 feet from the sidewalk. Off-street parking is not permitted in front of a building.
 - iii. Driveways and Access: Driveway access shall not be permitted off a Primary Road. The existing vehicular access along Southfield Road is proposed to be maintained.
 - iv. Screening and Landscaping: Parking lots adjacent to public or private streets shall be screened by a combination of landscaping (e.g., hedge row), brick walls, and ornamental metal fencing, with the design intent of screening an area 2.5 feet high adjacent to parking lots. Unless otherwise specified here, other parking requirements found in Section 5.16.4 also apply.

- v. Shared Parking: see section 5.13.5
- vi. Bicycle Parking: Secure, visible, and accessible parking for bicycles shall be provided. Bicycle racks shall be consistent with other City bike racks.

d. **Functional Elements,**

- i. Loading docks, truck parking, utility meters, HVAC equipment, trash dumpsters, trash compaction and other service functions shall be incorporated into the overall design of buildings and landscaping.
 - 1. One (1) required 10' x 40' loading space for the proposed 3,000+ square foot building.
 - 2. A dumpster shall be permitted in the location depicted on the Site Development Plan subject to adequate screening as determined by the Planning Commission at the time of final site plan review.
 - 3. Areas for truck parking, trash collection and/or compaction, loading and other such uses shall be permitted in the location depicted on the Site Development Plan subject to adequate screening as determined by the Planning Commission at the time of final site plan review.
- ii. Public Art. The applicant will work with the Lathrup Village Downtown Development Authority (DDA) to incorporate public art on site.

8. **Utilities.**

- a. **Sanitary Sewer System.** Connection to the sanitary sewer system shall require payment of all applicable fees, charges, and assessments.
- b. **Water System.** Connection to the water system shall require payment of all applicable fees, charges, and assessments.

9. **Engineering Plans.** The Developer shall prepare and submit for review and approval detailed engineering plans for improvements. Such plans shall be reviewed by the Lathrup Village City Engineer, the Road Commission for Oakland County, and the Water Resources Commissioner, to ensure that they are substantially consistent with the Site Development Plan, including the Site Plan as finally approved, and other applicable requirements. The Developer shall make diligent and good faith efforts to obtain all approvals and permits on a timely basis, and the City will, in a timely manner, process all reviews and approvals required of it.

The Developer shall require that all contractors working on improvements submit such performance guarantees as required by the City Engineer, and any other governmental agency that has supervisory power over the work performed by such contractors and maintain such contractor insurance for protection from claims under workers' or workmen's compensation acts and other employee benefit acts

that are applicable, claims for damages because of bodily injury, including death, and claims for damages to property that may arise out of or result from the contractor's operations under the contract, whether such operations are by the contractor or by a sub-contractor or anyone directly or indirectly employed by any of them. The insurance shall be written for not less than limits of liability specified in the contract documents or required by law, whichever coverage is greater, and may specify that the contractor deliver to the Developer certificates of such insurance prior to the commencement of their work, showing the Developer and the City as additional insured.

- 10. Construction Activity- Hours of Operation and Penalties.** All construction activities within the Planned Development, including but not limited to operation of any tools, machinery or equipment, shall be prohibited between the hours of 8:00 p.m. and 7:00 a.m. on weekdays and Saturdays, and any time on Sundays and holidays. The following days shall be considered holidays: New Year's Day (January 1); Memorial Day (last Monday in May); Independence Day (July 4); Labor Day (first Monday in September); Thanksgiving Day (fourth Thursday in November); Christmas Eve (December 24); and Christmas Day (December 25). In addition to any other penalty provided in the City's Zoning Ordinance, any violation of this provision shall constitute a civil infraction and the Developer shall be subject to a fine of \$1,000 for each infraction. Each day such violation continues shall be deemed a separate offense.

11. Modification to Agreement and/or Plans.

a. Written Easements; ZBA Authority; Minor Modifications.

- i. This Agreement may not be modified, replaced, amended, or terminated, without the prior written consent of the City Council and the Developer or its successors in title to the Property as of the date of the modification, replacement, amendment, or termination.
- ii. The City of Lathrup Village Zoning Board of Appeals shall not have any authority to grant any variances for any of the subject matter contained within this PUD Agreement.
- iii. Amendments to the PUD Site Development Plan. Proposed amendments or changes to the approved PUD Site Development Plan shall be submitted to the planning commission. The planning commission shall determine whether the proposed modification is of such minor nature as not to violate the area and density requirements or to affect the overall character of the plan, and in such event may approve or deny the proposed amendment. If the planning commission determines the proposed amendment is material in nature, the amendment shall be reviewed by the planning commission and city council in accordance with the provisions and procedures of Section 3.12 of the City's Zoning

Ordinance related to final approval of the Planned Unit Development.

- b. **Amendments.** The Developer and the City agree to amend this Agreement and the Exhibits attached hereto as may be necessary or required to comply with the requirements of any federal, state or county statute, ordinance, rule, regulation, or requirement relating to the Planned Development, and that any such amendment shall be effective as if originally set forth herein. In addition, the Developer and the City agree to amend this Agreement and the Exhibits attached hereto as may be appropriate, necessary, or required in order to conform to any final surveys and engineering requirements and any final plats or plans that shall have been approved by the City of Lathrup Village from time to time.
12. **Performance Guarantee.** All required performance guarantees shall be submitted prior to scheduling of a pre-construction meeting, to assure timely and proper completion of proposed improvements, including site landscaping and other improvements, in accordance with the City's Zoning Ordinance.
13. **City Not Responsible for Damages.** The Developer agrees that, absent gross negligence or willful misconduct on the part of the City, its employees, agents, representatives or contractors, or by reason of the City's course of conduct resulting in a continuing or material default of its obligations under this Agreement, the City shall not be responsible to the Developer for damages arising out of a claimed breach of this Agreement. In such event, the Developer's sole remedy (except in the event of a material defect) shall be a claim for specific performance in the Oakland County Circuit Court. In the event of any litigation relating to this Agreement, the prevailing party (as determined by the trial Court) will be entitled to reimbursement of reasonable attorney fees and costs.
14. **Approval Runs with the Land.** The approval of the PUD described herein and the Exhibits attached hereto, and the terms, provision, and conditions of this Agreement run with and bind the land, and shall bind and inure to the benefit of the successors and assigns of the parties thereto. In the event the Developer assigns or conveys its interest in all or any part of the Property to the third party, the Developer shall have no further obligations or liability hereunder with regard to the property assigned or conveyed.
15. **Recording of Agreement.** The City Attorney shall record an executed copy of this Agreement with the Oakland County Register of Deeds prior to issuance of any permits to commence construction in accordance with the Plans.
16. **Governing Law.** This Agreement shall be construed under the laws of the State of Michigan.

17. Violations. In the event there is a failure to perform any obligation or undertaking required under or in accordance with this Agreement and the attachments thereto, the City shall have the power and authority, but not the obligation, to take any or all of the following actions, in addition to any actions authorized under City ordinances and/or state laws:

- a. Enter the Property, or cause its agents or contractors to enter the Property, and perform such obligations or take such corrective measures as reasonably found by the City to be appropriate. Except in emergency circumstances, the City shall first serve written notice on Owner (as used herein, "Owner" may be the Developer, successor Developer, a builder, or the end user of a unit) setting forth such deficiencies and a demand that the deficiencies be cured within a stated reasonable time period, and the date, time, and place for a hearing before the City Council, or such other body, or official delegated by the City Council, to allow Owner an opportunity to be heard as to why the City should not proceed with the correction of the deficiency or obligation that has not been undertaken or properly fulfilled. At any such hearing, the time for curing and the hearing itself may be extended and/or continued to a date certain. If the City Council or the other designated body determines that the obligation has not been fulfilled or failure corrected within the time specified in the notice, the City shall then have the power and authority, but not the obligation, to take corrective measures.
- b. Upon proper notice and opportunity to cure, issue a stop work order as to any or all aspects of the Planned Development, deny the issuance of any requested building permit or certificate of occupancy within any part or all of the Planned Development, regardless of whether Owner is the named applicant for such permit or certificate of occupancy, and suspend further inspections of any or all aspects of the Planned Development.
- c. Initiate legal action for the enforcement of any of the provisions, requirements, or obligations set forth in the PD Documents. In the event the City obtains any relief as a result of such litigation, Owner shall pay all court costs and attorney fees incurred by the City in connection with such suit.

The cost and expense of making and financing such actions by the City, including notices by the City and legal fees incurred by the City, plus an administrative fee in an amount equivalent to twenty-five (25%) percent of the total of all such costs and expenses incurred, shall be paid by Owner within thirty (30) days of a billing to Owner. The payment obligation under this Section shall be secured by a lien against the Property, as the case may be, which lien shall be deemed effective as of the date of the initial written notice of deficiency provided to Owner pursuant to this Section or, in emergency circumstances, the date at which the City incurred its first cost or expense in taking corrective action. Such security shall be realized by placing a billing that has been unpaid

by Owner for more than thirty (30) days on the delinquent tax rolls of the City relative to such portion of the Property, to accumulate interest and penalties, and to be deemed and collected, in the same manner as for collection of delinquent real property taxes. In the discretion of the City, such costs and expenses may be collected by suit initiated against Owner and, in such event, Owner shall pay all court costs and reasonable attorney fees incurred by the City in connection with such suit if the City prevails in collecting funds.

Any failure or delay by the City to enforce any provision contained in this Agreement shall in no event be deemed, construed, or relied on as a waiver or estoppel of the right to eventually do so in the future. Each provision and obligation contained in this Agreement shall be considered to be an independent and separate covenant and agreement and, in the event one or more of the provisions and/or obligations shall for any reason be held to be invalid or unenforceable by a court of competent jurisdiction, all remaining provisions and/or obligations shall nevertheless remain in full force and effect.

18. Entire Agreement: Termination. This Agreement constitutes the entire agreement between the parties relating to the subject matter herein and may not be modified, replaced or amended, without the prior written consent of the Developer and the City of Lathrup Village.

The City may terminate this Agreement upon thirty (30) days prior written notice to the Developer, if any of the following occur and are not remedied within such thirty (30) day period:

- a. The Developer fails to act in good faith or fails to make the submissions necessary in order to obtain governmental permits and approvals necessary to complete the construction of the Project.
- b. The Developer (i) fails to commence, continue or complete construction of the Project or any phase thereof in a reasonably diligent time period; (ii) commences construction but the same is interrupted for a continuous period of more than one hundred twenty (120) days, subject to force majeure, or (iii) constructs any substantial portion of the Project in a manner which is not in compliance with approved plans and this Agreement.

19. Authority. The signatories to this Agreement represent that they have been duly authorized to execute this Agreement on behalf of the parties hereto.

20. Governing Law. This Agreement shall be governed by the laws of the State of Michigan.

21. Remedies Cumulative. The remedies provided for herein are cumulative. The failure of a party to enforce its rights with respect to any breach hereof will not constitute a waiver by the party of its rights with respect to subsequent breaches.

22. **Notice.** Any notices required by the terms of this Agreement shall be in writing and mailed to the other party via the United States Postal Service addressed to such party at the address set forth at the beginning of this Agreement, or to such other address as one party may provide to the other by notice.

23. **Exercise of Performance.** Each party is excused from performance of any of the requirements of this Agreement when non-performance is the result of acts of God or other conditions, events, or occurrences beyond the control of such party.

24. **Best Efforts.** Each party will exercise its best efforts to perform its obligations hereunder within such times as are set forth herein.

IN WITNESS WHEREOF, the Parties have caused this Agreement to be executed as of the day and date set forth above.

WITNESES

**GOLDEN GATE PLAZA, LLC, a Michigan
Limited Liability Corporation**

By: _____

Its: _____

**CITY OF LATHRUP VILLAGE, a Michigan
Municipal Corporation**

By: _____
MyKale Garret

Its: Mayor

By: _____
Kelda London

Its: Acting Clerk



A HERITAGE OF GOOD LIVING

City of Lathrup Village
 27400 Southfield Road
 Lathrup Village, MI 48076
 Phone: (248) 557-2600
www.lathrupvillage.org

Office Use Only

Date Submitted: _____

Administrative Review Date: _____

Site Plan Review Date: _____

Application for Site Plan Review

Pursuant to Sec. 6.1 site plan review requirements are intended to provide a consistent and uniform method of review of proposed development plans, to ensure full compliance with the regulations of this article and other applicable ordinances and state and federal laws, to achieve efficient use of land, to protect natural resources, and to prevent adverse impact on adjoining or nearby properties. It is the intent of these provisions to encourage cooperation and consultation between the city and the applicant to facilitate development in accordance with the city's land use objectives.

Project Location

Subject Property Address: 27777 Southfield Road, Lathrup Village, MI 48076

Subject Property Parcel Number: 2414432006

Project Name: Panera Bread

Applicant Information

Name: Dan Cook (Panera Bread)

Address: 3630 Geyer Rd., St. Louis State: MO Zip Code: 63127

Phone Number: 314-984-2606 Cell: 314-229-1606

Email Address: dan.cook@panerabread.com

Interest in Property: Lessee

*If the applicant is a corporate or a partnership, please attach certificate from the state in which it is organized.

Property Owner Information

Name: Golden Gate Plaza, LLC

Address: 320 Martin Street, Suite 100, Birmingham State: MI Zip Code: 48009

Phone Number: 248-865-3000 Cell: 248-817-0686

Email Address: sblum@surnow.com

Proposed Building/Alteration Information

Proposed Use: Panera Bread Restaurant

Existing Zoning: VC

Does the project require Special Land Use approval?
If yes, additional application required.
☐

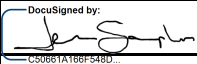
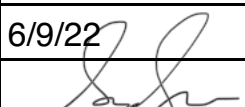
Yes

☒

No

Square Footage of New/Altered Building: 3483 sq.ft.

Number of existing jobs: 0 New jobs created: 25 FT 16 PT

Project Architect					
Name:	The Lawrence Group				
Address:	319 Fourth, St. STE 1000, St. Louis			State:	MO
	Zip Code:	63102			
Phone Number:	314-242-1329		Cell:		
Email Address:	todd.bundren@thelawrencegroup.com				
Project Engineer					
Name:	Civil & Environmental Consultants, Inc.				
Address:	3000 Little Hills Expressway, Suite 102, St. Charles			State:	MO
	Zip Code:	63301			
Phone Number:	314-656-4566		Cell:		
Email Address:	pbennett@cecinc.com				
Project Attorney					
Name:	Barry Barth, Vice President / Development Counsel				
Address:	Panera LLC 3630 South Geyer Road Sunset Hills			State:	MO
	Zip Code:	63127			
Phone Number:	781-801-3085		Cell:	781-801-3085	
Email Address:	barry.barth@panerabread.com Robin Mancini robin.mancini@panerabread.com				
Required Submittal Information					
Pursuant to Sec. 6.1.4 (C) Submission of site plan for final review: the applicant is required to submit the following materials to the City Hall 21 days prior to the targeted date of the formal Site Plan review. Failure to supply all required information will result in the rejection of the application by the Administration or the Planning Commission. Incomplete applications will not be accepted.					
☒	One (1) completed and signed copy of the application for site plan review				
☒	PDF of complete site plan review application materials				
☒	One (1) full-sized (24x36) set of site plans, for each required review				
☐	Proof that the plan has been submitted for review to governmental agencies that have jurisdiction over any aspect of the project, including, but not limited to Road Commission for Oakland County (RCOC), Water Resource Commission (WRC), county health division, Michigan Department of Transportation, Michigan Department of Environmental Quality, and other agencies deemed appropriate by the planning commission or city council				
☐	Review Fee: Commercial \$1,330 / Multi-Family \$1,225 + \$1/unit				
Signatures					
Application MUST be signed by both the applicant and legal property owner. The undersigned deposes that the foregoing and any attached information is true & correct.					
Applicant's Signature:					
Applicant's Printed Name:	Panera Bread, LLC. Attn: Jenna Samples				
Date:	6/9/22				
Owner's Signature:					
Owner's Printed Name:	Sam Surnow				
Date:	6/9/2022				

Site Plan Review Checklist

Pursuant Lathrup Village Zoning Ordinance Sec. 6.1.4 Required information on all site plans, the following items are required to complete an application for Site Plan Review. It is the responsibility of the applicant to ensure that the application is complete, factual and complies with the city's ordinances.

Site plans shall consist of an overall plan for the entire development, drawn to a scale of not less than one inch = 20 feet for property less than one acre, one inch = 30 feet for property larger than one acre but less than three acres, and one inch = 50 feet for property larger than three acres. Sheet size shall be at least 24 inches by 36 inches.

Sec. 6.1.4 (B) Descriptive and Identification Data

Y N N/A

✓		Applicant's name and address, and telephone number.
✓		Title block indicating the name of the development.
✓		Scale.
✓		Northpoint.
✓		Dates of submission and revisions (month, day, and year).
✓		Location map drawn to scale without northpoint.
✓		Legal and common description of property.
✓		The dimensions of all lots and property lines, showing the relationship of the site to abutting properties. If the site is a part of a larger parcel, the plan should indicate the boundaries of total land holding.
✓		A schedule of completing the project, including the phasing or timing of all proposed developments.
✓		Identification and seal of architect, engineer, land surveyor, or landscape architect who prepared plan.
✓		Written description of proposed land use.
✓		Zoning classification of applicant's parcel and all abutting parcels.
✓		Proximity to driveways serving adjacent parcels.
✓		Proximity to section corner and major thoroughfares.
	✓	Notation of any variances which have or must be secured.
✓		Net acreage (minus right-of-way) and total acreage, to the nearest one-tenth acre.

Sec. 6.1.4 (C) Site Data

Y N N/A

✓		Existing lot lines, building lines, structures, parking areas, and other improvements on the site and within 100 feet of the site.
✓		Front, side, and rear setback dimensions.
✓		Topography on the site and within 100 feet of the site at two-foot contour intervals, referenced to a U.S.G.S. benchmark.
✓		Proposed site plan features, including buildings, roadway widths and names, and parking areas.
✓		Dimensions and centerlines of existing and proposed roads and road rights-of-way.
	✓	Acceleration, deceleration, and passing lanes, where required.
✓		Proposed location of driveway entrances and on-site driveways.
	✓	Typical cross-section of proposed roads and driveways.
	✓	Location of existing drainage courses, floodplains, lakes and streams, with elevations.
	✓	Location and dimensions of wetland areas. If deemed necessary because of site or soil conditions or because of the scope of the project, a detailed hydrology study may be required.
✓		Location of sidewalks within the site and within the right-of-way.
✓		Exterior lighting locations and method of shielding lights from shining off the site.
✓		Trash receptacle locations and method of screening, if applicable.
✓		Transformer pad location and method of screening, if applicable.

Y N N/A

☒	☐	☐	Parking spaces, typical dimensions of spaces, indication of total number of spaces, drives, and method of surfacing.
☒	☐	☐	Parking Calculations in accordance with Zoning Ordinance Standards
☒	☐	☐	The location of lawns and landscaped areas, including required landscaped greenbelts.
☒	☐	☐	Landscape plan, including location, size, type and quantity of proposed shrubs, trees and other live plant material.
☒	☐	☐	Location, sizes, and types of existing trees five inches or greater in diameter, measured at one foot off the ground, before and after proposed development.
☐	☐	☒	Cross-section of proposed berms.
☒	☐	☐	Location and description of all easements for public right-of-way, utilities, access, shared access, and drainage.
☐	☐	☒	Designation of fire lanes.
☐	☐	☒	Loading/unloading area.
☐	☐	☒	The location of any outdoor storage of materials and the manner by which it will be screened.

Sec. 6.1.4 (D) Building and Structure Details.

Y N N/A

☐	☐	☐	Location, height, and outside dimensions of all proposed buildings or structures.
☒	☐	☐	Indication of the number of stores and number of commercial or office units contained in the building.
☒	☐	☐	Building floor plans.
☒	☐	☐	Total floor area.
☐	☐	☒	Location, size, height, and lighting of all proposed signs.
☐	☐	☒	Proposed fences and walls, including typical cross-section and height above the ground on both sides.
☒	☐	☐	Building facade elevations, drawn to a scale of one inch equals = four feet, or another scale approved by the building official and adequate to determine compliance with the requirements of this article. Elevations of proposed buildings shall indicate type of building materials, roof design, projections, canopies, awnings and overhangs, screen walls and accessory building, and any outdoor or roof-located mechanical equipment, such as air conditioning units, heating units, and transformers, including the method of screening such equipment. Such equipment shall be screened from view of adjacent properties and public rights-of-way. Such screening shall be designed to be perceived as an integral part of the building design.

Sec. 6.1.4 (E) Information Concerning Utilities, Drainage, and Related Issues

Y N N/A

☒	☐	☐	Schematic layout of existing and proposed sanitary sewers and septic systems; water mains, well sites, and water service leads; hydrants that would be used by public safety personnel to service the site; and, the location of gas, electric, and telephone lines.
☒	☐	☐	Location of exterior drains, dry wells, catch basins, retention/detention areas, sumps and other facilities designed to collect, store, or transport stormwater or wastewater. The point of discharge for all drains and pipes should be specified on the site plan.
☒	☐	☐	Indication of site grading and drainage patterns.
☒	☐	☐	Types of soils and location of floodplains and wetlands, if applicable.
☐	☐	☒	Soil erosion and sedimentation control measures.
☒	☐	☐	Proposed finish grades on the site, including the finish grades of all buildings, driveways, walkways, and parking lots.

Y N N/A

☐	☐	☒	Listing of types and quantities of hazardous substances and polluting materials which will be used or stored on-site at the facility in quantities greater than 25 gallons per month.
☐	☐	☒	Areas to be used for the storage, use, loading/unloading, recycling, or disposal of hazardous substances and polluting materials, including interior and exterior areas.
☐	☐	☒	Underground storage tanks locations.
☐	☐	☒	Delineation of areas on the site which are known or suspected to be contaminated, together with a report on the status of site cleanup.

Sec. 6.1.4 (F) Information Concerning Residential Development.

Y N N/A

☐	☐	☒	The number, type and location of each type of residential unit (one-bedroom units, two-bedroom units, etc.).
☐	☐	☒	Density calculations by type of residential unit (dwelling units per acre).
☐	☐	☒	Lot coverage calculations.
☐	☐	☒	Floor plans of typical buildings with square feet or floor area.
☐	☐	☒	Garage and carport locations and details, if proposed.
☐	☐	☒	Pedestrian circulation system.
☐	☐	☒	Location and names of roads and internal drives with an indication of how the proposed circulation system will connect with the existing adjacent roads. The plan should indicate whether proposed roads are intended to be private or dedicated to the public.
☐	☐	☒	Community building location, dimensions, floor plans, and facade elevations, if applicable.
☐	☐	☒	Swimming pool fencing detail, including height and type of fence, if applicable.
☐	☐	☒	Location and size of recreation open areas.
☐	☐	☒	Indication of type of recreation facilities proposed for recreation area.

Please Note:

Other data which may be required. Other data may be required if deemed necessary by the city administrative officials, planning commission, or city council to determine compliance with the provisions in this article. Such information may include traffic studies, market analysis, environmental assessment and evaluation of the demand on public facilities and services.



SUNSET WEST INVESTMENTS, LLC

A SURNOW COMPANY

LICENSE AGREEMENT

THIS LICENSE AGREEMENT, made and entered into this 15TH day of July, 2022, by and between **Sunset West Investments, LLC**, a Michigan limited liability company (hereinafter referred to as "Licensor"), having an office at 320 Martin Street, Suite 100, Birmingham, Michigan 48009 and **Golden Gate Plaza, LLC**, a Michigan limited liability company having an address 320 Martin Street, Suite 100, Birmingham, Michigan 48009 (hereinafter referred to as "Licensee") hereby agrees as follows:

WHEREAS, Licensor owns the real property located at 27811-27881 Southfield Road, Lathrup Village MI 48076 (the "Property"); and

WHEREAS, Licensee desires to utilize 20 parking spaces at the Property in the parking lot depicted on Exhibit "A" hereto (the "Premises") owned by the Licensor for the sole purpose as shown in Item 1 below and

WHEREAS the parties wish to set out in writing their understanding regarding the use of the Premises, and agree as follows:

1. The Term of this License shall commence upon **the opening of a Panera restaurant at 27777 Southfield Road ("Restaurant")** and shall expire at the closing of such restaurant. Licensor grants Licensee a license to use 20 parking spaces solely for the use of customers, employees, or invitees of the Restaurant.
2. Should any part, term, or provision of this License be determined by the City of Lathrup Village to be illegal or in conflict with any ordinance or law, the validity of the remaining portions or provisions shall not be affected by such decision.
3. This License embodies the whole agreement between the parties, and there are no inducements, promises, terms, conditions, or obligations made or entered into by either the Licensee or the Licensor other than contained herein, and no further modification or amendment shall be binding unless reduced to writing and signed by the parties or their duly authorized representatives.
4. Licensee shall save Licensor harmless from any liability for damages to any person or property upon or about the Premises, including the adjacent sidewalks and all areas within the curtilage of the Premises, from any cause whatsoever.

[SIGNATURES APPEAR ON NEXT PAGE]



SUNSET WEST INVESTMENTS, LLC
A SURNOW COMPANY

IN WITNESS WHEREOF, the parties have executed this License Agreement as of the day and year first above written.

LICENSEE: GOLDEN GATE PLAZA, LLC

A handwritten signature in black ink, appearing to be 'S. Surnow', written over a horizontal line.

BY: Samuel Surnow

ITS: Member and Trustee

Date: 7/15/22

LICENSOR: SUNSET WEST INVESTMENTS, LLC

A handwritten signature in black ink, appearing to be 'S. Surnow', written over a horizontal line.

BY: Samuel Surnow

ITS: Member and Trustee

Date: 7/15/22



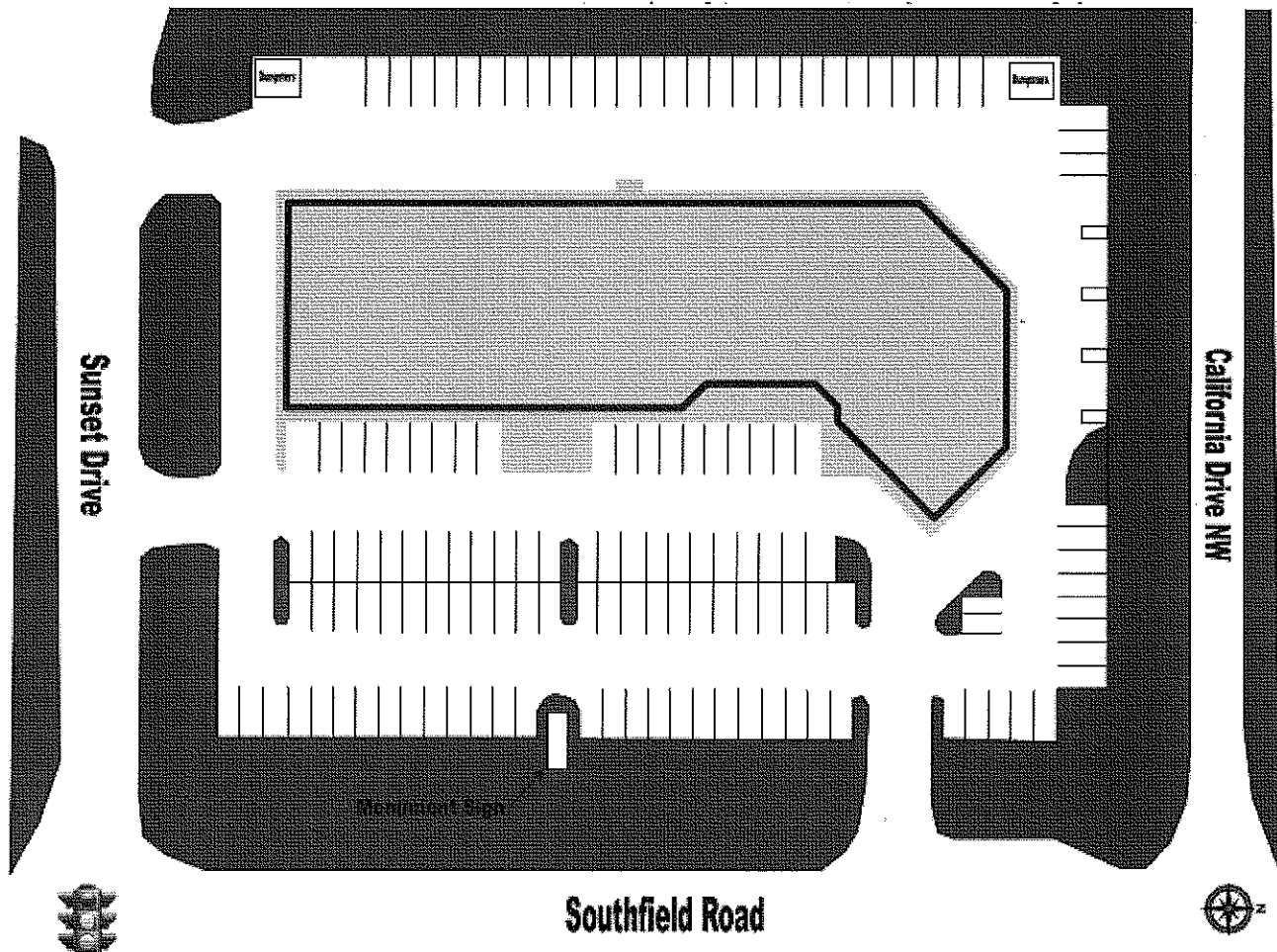
SUNSET WEST INVESTMENTS, LLC

A SURNOW COMPANY

EXHIBIT A

Sunset West Plaza – 27811-27881 Southfield Road
 Lathrup Village, MI 48076
 22,857 SF Gross (blue building outline below)

AVAILABLE: 145 Parking Spaces (1.268 spaces per 200 sf)
 REQUIRED: 115 Parking Spaces (1 spaces per 200 sf)*
 SURPLUS: 30 Parking Spaces



* This requirement applies to retail space. Some of this building may now or in the future be comprised of other uses such as storage space, which has a lower requirement. As such, this is a liberal estimate of the amount of parking required.

7/15/2022

1. Height, bulk, density, and area standards.

The standards as to height, bulk, density, and setbacks of each district shall be applicable within each district area designated on the plan except as specifically modified and noted on the PUD plan. **The proposed restaurant and drive-through facility is a departure from the standards of the Village Center District, outlined in the table below.**

Response: The site plan has been updated to include dimensions from property line to building as well as typical dimensions for parking spots. The building heights are located on the Exterior Elevations (A200 sheets) via dimensions.

2. Building elements.

The requirements listed in this subsection shall apply to all front-facing and exterior-side facing facades as well as facades that directly face a park or plaza. Walls shall not be blank. Walls shall include windows and architectural features customarily found on the front of a building in a traditional downtown setting such as awnings, edge detailing, cornice work, decorative materials, and decorative lighting. The following additional requirements shall apply:

A. Building Composition:

- i. Base: The base of a building shall be designed to clearly define where the building begins. It shall enhance the pedestrian experience by providing quality durable materials as well as ample windows that encourage views into a ground floor space. The applicant proposes brick on all four sides that will be “enhanced with alternating vertical and horizontal soldiers, adding interest and texture.” In addition, the elevations show large windows along the street frontages.
- ii. The building compares with the “storefront” building frontage, except for the setback, which the ordinance requires to be set at the build-to line being at or near the edge of the right-of-way (within the build-to-zone).
- iii. Top: The top of the building should include a cornice or noticeable roof edge. Flat roofs shall be enclosed with parapets. **The application should demonstrate compliance of the top of the building standards particularly with respect to any rooftop equipment as noted below.**

Response: Panera has established strong brand standards that are prototypical across the US. Our standard is a metal coping with a distinct change in color and texture that meets the requirement of a ‘noticeable roof edge’ as indicated in the renderings.

1. Equipment: Rooftop mechanical and other equipment shall be positioned and screened to minimize views from adjacent properties and obscure views from the public rights-of-way. **The applicant shall confirm this standard is met.**

Response: Our design is not far enough along to know for sure that roof screens will be / will not be needed based on parapet & roof framing heights. Should rooftop equipment screens be needed, we have included our prototypical equipment screen specification for reference. Specification options are highlighted in yellow on page 3 of 3. Custom color to match the façade.

2. Accessibility: Roofs may be accessible and may be used as balconies or terraces. Vegetated roofs are encouraged to cool buildings and limit stormwater runoff. **N/A**
Response: N/A

B. Windows and Doors.

- i. Transparency: Each storefront shall have transparent or lightly tinted areas, equal to at least 70 percent, but not more than 90 percent, of its portion of the façade, between two (2) and eight (8) feet from the ground. These required window areas shall be either windows that allow views into retail space, dining areas, office work areas, lobbies, pedestrian entrances, merchandise display windows, or other windows consistent with encouraging an active pedestrian environment along the storefront. **It appears that this standard will be met, but the applicant should provide the required data to determine that the transparency standards are met.**

Response: Panera has established strong brand standards that are prototypical across the US. Our standard prototype includes the following glazing percentages (also noted in the Exterior Elevations – A200 Sheets) for glazing between 2’ and 8’ from the ground: East Elevation: 51% glazing. North & South Elevations: 18% glazing. Bottom of windows are raised above finish floor such that exposed table edges are not visible from the building exterior, which provides a clean look.

- ii. Entry: At least one functioning doorway shall be provided for every street-facing storefront, with the primary entrance on the street. As applicable for a single ground floor use, one doorway shall be provided for every 75 feet in horizontal building length. Three sides of the building face a street, and each have a functioning doorway with the primary access doors. The doorway facing west, toward Eldorado Place appears to service the dumpster enclosure at the northwest corner of the site.

Response: The exterior doorway used to service the refuse enclosure (kitchen door) will not be utilized as one of the café’s primary entrances.

C. Building Materials

- i. Facing street, park, or plaza. At least 90% of all exterior building façades facing a street, park, or plaza shall be finished with a combination of two or more of the following: Glass, brick, cut or cast stone, wood, cementitious board (e.g., Hardie Plank), integrally colored concrete units with brick proportions (e.g., half-high “C” brick), and textured stucco. **This standard appears to be met along Southfield Road and Sunset Boulevard; however, the plans should demonstrate compliance along the west side of the building facing El Dorado Place.**

Response: 100% of the rear of the building (west façade) is comprised of the following materials: vertical and horizontal brick, painted metal door, and wood-look metal banding (for longevity & durability while also providing visual interest).

- ii. Facing other buildings: at least 70% of the exterior façade shall consist of the materials specified above and may also include split-faced, scored, or fluted block. The south side of the building contains the drive through window. **It appears that this standard is met, but the applicant should provide information that demonstrates compliance with this materials standard.**

Response: 90% of the Drive-Thru side of the building (south façade) is comprised of the following materials: vertical and horizontal brick, glass, and wood-look metal banding (for longevity & durability while also providing visual interest)

- iii. Variation: There shall be a change in the vertical or horizontal building plane when there is a change in color or material. Street facing facades shall be divided vertically into segments no greater than sixty (60) feet wide. **It appears that this standard is met.**
- D. Corner Buildings. Buildings located at a street corner shall have appropriate architectural features and details that accentuate its prominent corner location through additional building height and /or adding a building peak or tower element at the corner. Other creative techniques may be used, subject to the acceptance of the Planning Commission. While substantially setback from the build-to zone, the northeast corner of the building at Southfield Road and Sunset Boulevard is accentuated with a distinguished architectural tower. Prominent windows on the east side and the outdoor seating area on the north further address the intent of corner building standards.
- E. Canopies and Awnings. Facades may be supplemented with awnings that do not serve as signage but meet the following:
 - i. Style & Height: Straight sheds shall be used. Awnings shall be at least 8 feet above sidewalk grade at the lower drip edge. **The applicant shall provide dimensions on the building plans that demonstrate this standard is met.**
Response: Dimensions to underside of the awnings / canopies are now provided on the Exterior Elevations (A200s)
 - ii. Encroachment: Awnings may encroach beyond the front or street-side Build-to-Zone and into the street right-of-way or easement but must avoid the canopy area of street trees (based on tree maturity); and be set back a minimum of five (5) feet from the face of the road curb. Awnings shall be positioned immediately above the ground floor window, in scale with the window and overall building façade. The proposed building is not near the build-to-zone, so this standard does not apply. The scale of the awnings over the main entrance and drive-through window appear to comply with this standard.
Response: Understood
 - iii. Colors: Awnings shall be complementary to the building façade. The awnings tie in with the Panera color scheme and this standard is met.
Response: Understood
 - iv. Materials: Awnings shall be constructed of a durable material such as canvas or other material approved by the Building Official that will not fade or tear easily. Plastic and vinyl awnings are not permitted. The proposed awnings appear to be metal but should be verified by the applicant on the plans.
Response: Canopy material can be found on Exterior Elevations (A200s) via keyed note 3.26
 - v. Signage: There is no signage shown to be located on the awnings.
Response: Understood

- F. Floodlights or directional lights: Lighting is discussed below.

3. Off-street parking.

- A. Number of spaces: Parking for this use is one space per 70 sf of GFA or one space per two employees plus one per two maximum customers plus 10-vehicle stacking spaces per drive-thru lane. The applicant has not provided this information. Based on the GFA, the required number of parking spaces is 50 – the outdoor space shall also be included. Only 40 spaces are shown on the site. The Planning Commission discussed the potential to share parking with the site to the south. This information shall be provided.

Response: *Based on criteria noted above, 39 parking spaces dedicated to customers plus a busy shift maximum of 12 employees would require a total of 45 parking spaces on the site. Shared parking agreement also included in this document.*

- B. Location: While the standards associated with parking setbacks were modified with the conceptual PUD approval, the site plan should show the standard dimension for a parking space for each aisle of parking.

Response: *Typical parking space dimensions are provided on the site plan*

- C. Driveways and Access: Driveway access shall not be permitted off a Primary Road, but this existing condition may be allowed to be maintained. The traffic study indicated adequate circulation with this egress.

Response: *Understood*

- D. Screening and Landscaping: Parking lots adjacent to public or private streets shall be screened by a combination of landscaping (e.g., hedge row), brick walls, and ornamental metal fencing, with the design intent of screening an area 2.5 feet (30 inches) high adjacent to parking lots. **The Landscape Plan provided indicates shrub height along surface parking spaces to be 24". The applicant shall demonstrate how the parking will be screened from both El Dorado Place and Southfield Road.**

Response: *Reference the landscape plan for parking screening with landscape, included added information to the legend indicating mature heights of such plantings.*

- E. Shared Parking: see section 5.13.5

- F. Bicycle Parking: Secure, visible, and accessible parking for bicycles shall be provided. A bicycle rack is shown in the northeast corner of the site. **A location closer to the restaurant may enhance the security of the parked bicycles. Provide a specification for the bike rack and confirm the rack is capable of locking more than one bicycle.**

Response: *Proposed bicycle rack cut sheet included in this package, which includes quantity of bicycles supported. See also revised site plan for proposed location of bicycle rack.*

- G. Loading docks, truck parking, utility meters, HVAC equipment, trash dumpsters, trash compaction and other service functions shall be incorporated into the overall design of buildings and landscaping.

- i. **The plans should identify the one (1) required 10' x 40' loading space for the proposed 3,000+ square foot building.**

Response: Reference site plan for required loading space

- ii. As shown in the conceptual PUD plan, the dumpster enclosure is located at the northwest corner of the site, at the front yard intersection of Sunset Boulevard and Eldorado Place. This location is in close proximity to adjacent single-family residential lots to the west. The landscape plan shows a variety of trees and shrubs screening the dumpster enclosure, **but the plans shall include a detailed diagram that demonstrates to the Planning Commission that the ordinance standards of Section 5.3.3.E are met.**

Response: Reference Site Plan keyed note 5 for height of masonry enclosure. See also Landscape plan for additional landscape screening, with mature heights for landscape indicated in the legend.

4. Landscaping.

In general, sites should include landscaping as an integral part of site design and should give consideration as to the use of landscaping for stormwater management. Overall, the plan appears to meet the standards of the ordinance; **however, the Planning Commission discussed with the applicant the opportunity to enhance the landscaping as part of the PUD. The landscape area adjacent to the outdoor dining area is a nice enhancement and the applicant may wish to consider swapping these two elements to allow the landscape area to provide some buffer from Southfield Road for patrons in the outdoor dining area.**

Response: Reference the revised site plan for revisions to the landscape as requested

A. Street Trees & Plantings – Village Center District Standards

- i. Spacing: Trees must be provided along the Primary Road streetscape, with a typical spacing of fifty (50) feet on center. This equates to three trees. Spacing for the trees shall be noted on the landscape plan.
- ii. Tree wells: Tree wells in sidewalks must be 5 ft. by 5 feet with a 3.5 ft. minimum depth. This does not apply, but the **landscape plan should show the dimension of the space in which the trees are to be planted.**
Response: Reference the revised landscape plan
- iii. Clear vision: Trees shall not be placed closer than thirty feet (30') from intersections, nor be placed in the clear vision triangle. This is met.
- iv. Irrigation: Irrigation systems must be installed at the time of development and **should be noted on the landscape plan.**
Response: Reference the revised landscape plan
- v. Maintenance of public realm: The owner shall maintain the portion of the street between the lot line and back-of-curb and, if applicable, the portion of the alley between the lot line and the edge of pavement. N/A
- vi. Plant Selections: Plants should be chosen for specific locations based on size and mass at maturation as well as ease of maintenance.

B. Additional Landscape Standards – Parking Facilities

- i. A minimum of 15 sf of landscaping is required for each parking space provided, or 600 sf for the 40 spaces shown. The landscape plan notes this is “provided,” **but shall include the total area of landscaping provided.**

Response: Reference the revised landscape plan

- ii. One tree per 400 sf of landscaping shall be provided. The landscape plan shows two trees on the El Dorado frontage.

5. Street Lighting.

Pedestrian-scaled lighting is noted on the site plan but is inconsistent with the photometric plan, which only shows one such lamp on the Southfield Road frontage. Such lights shall provide a minimum of one foot candle of warm light between the building face and the curb. **The photometric plan should be updated to confirm whether this standard is met; spec sheets for all lighting shall be provided.**

Response: Updated photometric plan and accompanying light fixture specifications are included in this resubmittal.

6. Street Furniture.

In the VC district, street furnishings must be placed within the Amenity Zone, which is defined as the five (5) feet between the curb face and the pedestrian zone. Because there is no build-to zone for any of the adjacent streets proposed for this development, these standards are not met. **The Planning Commission may wish to discuss whether there are opportunities to add street furnishings to the project.**

Response: Understood this applies to a different type of project than our proposed.

7. Open Space Standards.

The VC district requires that public open spaces be practically located so that the public is aware of their location. The open space provided by the applicant is located at the intersection of Southfield Road and Sunset Boulevard at the northeast corner of the property.

- A. Function: All open spaces should be functional and purposeful, yet flexible to provide for a variety of uses. **The Planning Commission may wish to discuss the functionality of the proposed plaza area. Earlier conversations with the applicant included a potential location for public art as well as the bike rack.**
- B. Amenities: Outdoor furniture (benches and tables), art or sculptures, landscaping, change in the type of pavement, semi-enclosure to define the space, drinking fountains, trash receptacles should be added to defined open spaces. **As noted, the proposed amenities for the development are benches for seating, a bicycle parking rack, and pedestrian lighting.**
- C. Awareness: Wayfinding signs should be used to direct the public to the location of open spaces, municipal parks, or trailheads.

Response: Such required wayfinding signs shall not detract from the overall signage allowance for the site.

- D. Security: Open spaces shall be well-lit, well-maintained and allow for clear views to create a safe environment.

8. Traffic.

Our traffic engineer reviewed the applicant's parking study and provided comments that have been largely addressed (see initial review letter). One outstanding recommendation involves the egress queues at the site drive on Southfield as the area between the drive thru and the driveway is short. If there is an issue in the future, the store operator should have someone or a sign sending exiting drive thru customers to Sunset Blvd. instead of blocking the area.

FLO

Product Data Sheet



Flowing design secures 3 bicycles and accepts horseshoe style lock. An artful solution for bicycle storage and security that meets Association of Pedestrian and Bicycle and Professionals (APBP) recommendations.

Flo

- Capacity: 3 bikes
- Bike rack is made of 1.5" o.d., .120" wall stainless steel tubing, with a #4 satin electropolish finish on bare stainless steel.
- Flo is also available in powdercoated steel. Nylon glides cushion the two intermediate loops.
- Flo may be surface mounted or embedded.
- Flo can secure three bicycles parked parallel to the rack.
- The bicycles must alternate directions, so access is required from both ends.
- If access is limited to one direction, the capacity is reduced to two bicycles.
- The rack provides two-point contact to prevent the bicycles from tipping over.
- A standard D-shaped bike lock can secure both a wheel and the frame.

	DEPTH	WIDTH	HEIGHT	PRODUCT WEIGHT
	27.75"	25.5"	32.5"	38 lb

Finishes

- All metal parts are finished with Landscape Forms' proprietary Pangard II® polyester powdercoat, a hard yet flexible finish that resists rusting, chipping, peeling and fading.

To Specify

- Specify powdercoat color or stainless steel.

Designed by Brian Kane, IDSA

Flo design is protected by U.S. Patent no. D529,433

Visit our landscapeforms.com for more information. Specifications are subject to change without notice. Landscape Forms supports the Landscape Architecture Foundation at the Second Century level. ©2016 Landscape Forms, Inc. Printed in U.S.A.

Landscape Forms, Inc. | 800.521.2546 | F 269.381.3455 | 7800 E. Michigan Ave., Kalamazoo, MI 49048

7/15/2022 12:51:08 PM

PS 2021.03.11



Bakery-Cafe:

2021383

SYSTEM: G4 (ARIA)

Project Team:

Professional Seal:

Project Title:

PROTOTYPE - NEW CONSTRUCTION
Bakery Cafe #0662
Southfield Road
Lathrup Village, MI 48076



Consultant Copyright Placeholder

No.	Description	Date

FLOOR PLAN

Project Number:

2021383

Drawn By:

SSH

Issue Date:

7.15.2022

DPM:

DM

Sheet Number:

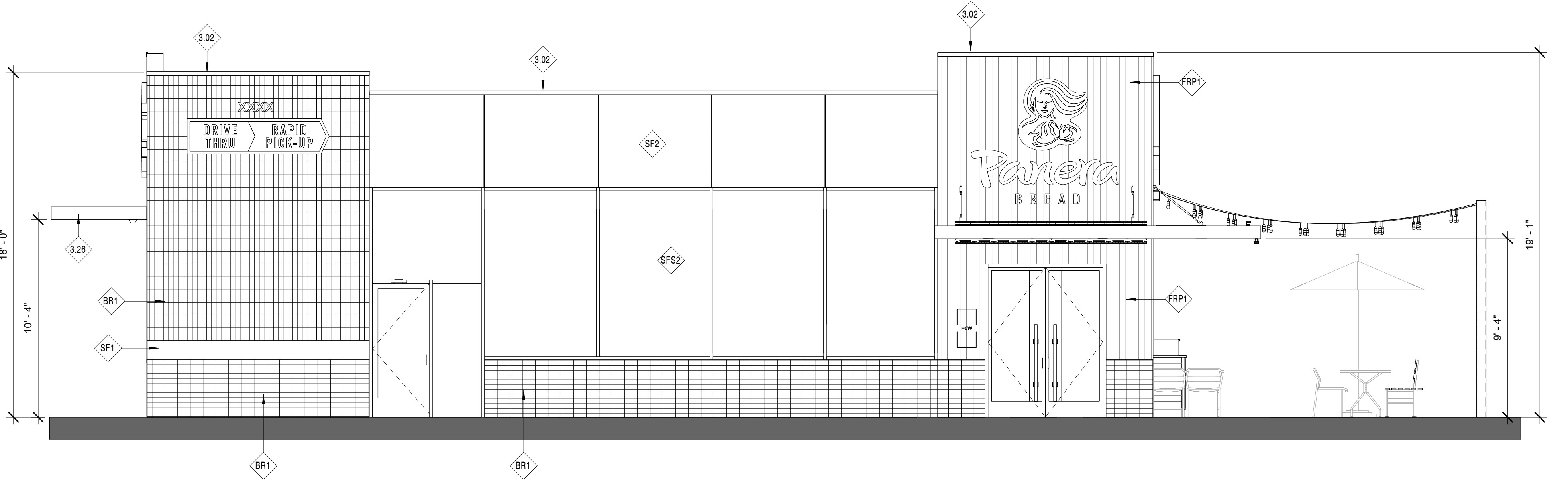
A101-P

CPM:

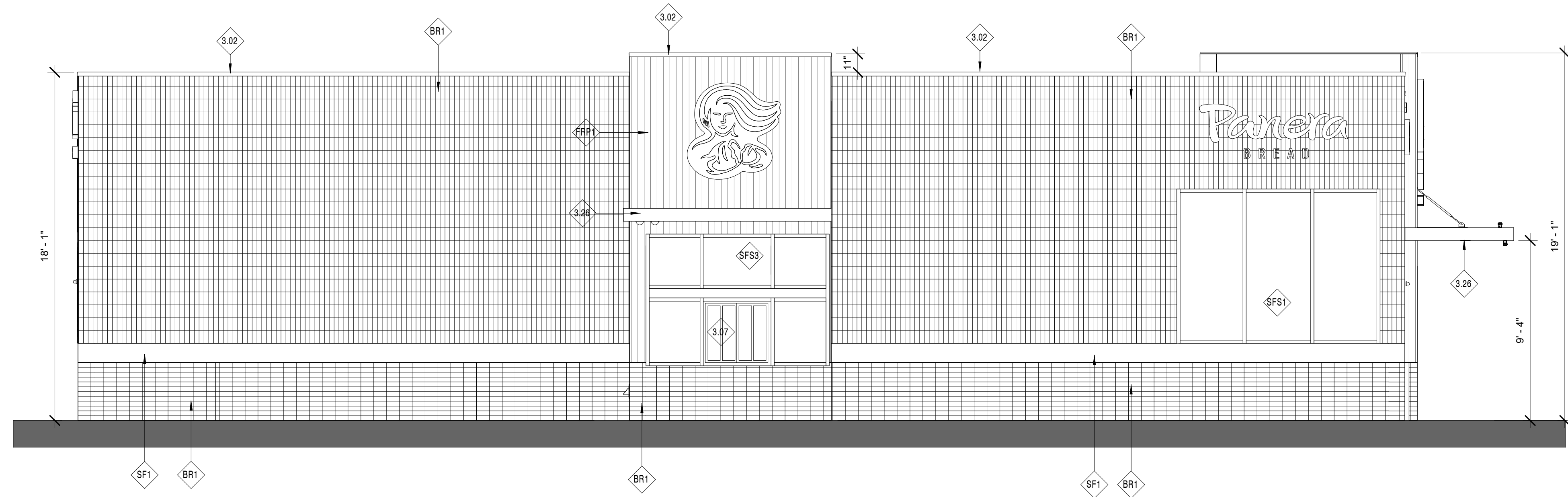
CPM

7/15/2022 9:50:56 AM

PS 2021.03.11



1 | EAST ELEVATION - PLANNING
1/4" = 1'-0"



2 | SOUTH ELEVATION - PLANNING
1/4" = 1'-0"

KEYED NOTES

- 3.02 PRE-FINISHED METAL COPING | FINISH: DARK BRONZE
3.07 DRIVE-THRU WINDOW | MFR: QUIKSERV | MODEL: FM42E | COLOR TO MATCH STOREFRONT. INSTALLED BY LL.
3.26 PRE-MANUFACTURED ALUMINUM CANOPY. INSTALLED BY G.C. SOLID PANEL OVER AREAS. 8" CHANNEL DEPTH. REFER TO WALL SECTIONS FOR ATTACHMENT METHODS. COLOR: CUSTOM COLOR TO MATCH PMS 2411C.
BR1 BRICK - THIN, SIZE 3 5/8"W X 3/4"TH X 11 5/8"L, COLOR: SANTIAGO CREATIVE MATERIALS BLEND
FRP1 FIBERGLASS REINFORCED PANEL; PRODUCT: FORMGLAS FRP; PATTERN: CUSTOM PATTERN; SURFACE: HANDCRAFTED FLUTE; PAINT TYPE: GEL COAT; PAINT COLOR: TO MATCH PMS 2307 C; PAINT FINISH: MATTE
SF1 SPECIAL FINISH - ALUMINUM WOOD LOOK, SELF MATING CLADDING SYSTEM, COLOR: WHITE ASH
SF2 SPECIAL FINISH - ALUMINUM WOOD LOOK, CLADDING SYSTEM, COLOR: WHITE ASH
SFS1 STOREFRONT SYSTEM, PRODUCT: TRIFAB VERSAGLAZE 451 FRAMING SYSTEM, FINISH: POWDERCOAT, COLOR: COLONIAL WHITE
SFS2 STOREFRONT SYSTEM, PRODUCT: TRIFAB VERSAGLAZE 601 FRAMING SYSTEM, FINISH: POWDERCOAT, COLOR: COLONIAL WHITE
SFS3 STOREFRONT SYSTEM, PRODUCT: TRIFAB VERSAGLAZE 451 FRAMING SYSTEM, FINISH: POWDERCOAT, COLOR: CUSTOM TO MATCH PMS 2307C

Bakery-Cafe:

2021383

SYSTEM: G4 (ARIA)

Project Team:

Professional Seal:

Project Title:

PROTOTYPE - NEW CONSTRUCTION

Bakery Cafe#0662
Southfield Road
Lathrup Village, MI 48076



Consultant Copyright Placeholder

No.	Description	Date

EXTERIOR ELEVATIONS

Project Number:

2021383

Drawn By:

SSH

Issue Date:

7.15.2022

DPM:

DPM

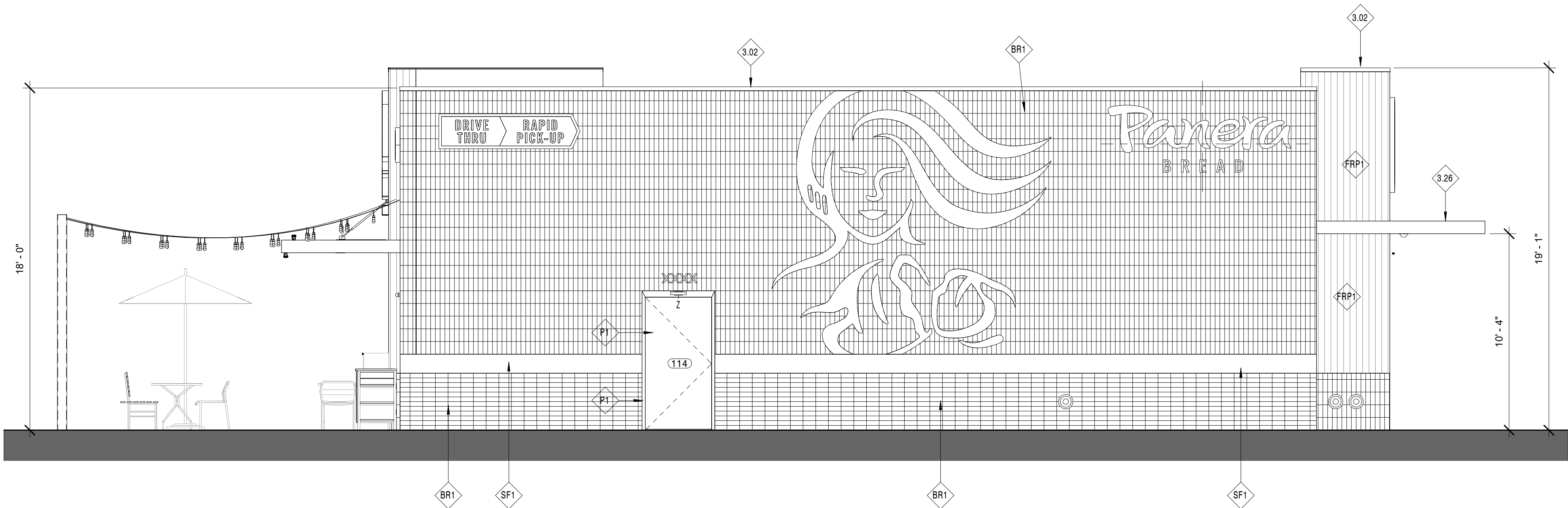
Sheet Number:

A200-P

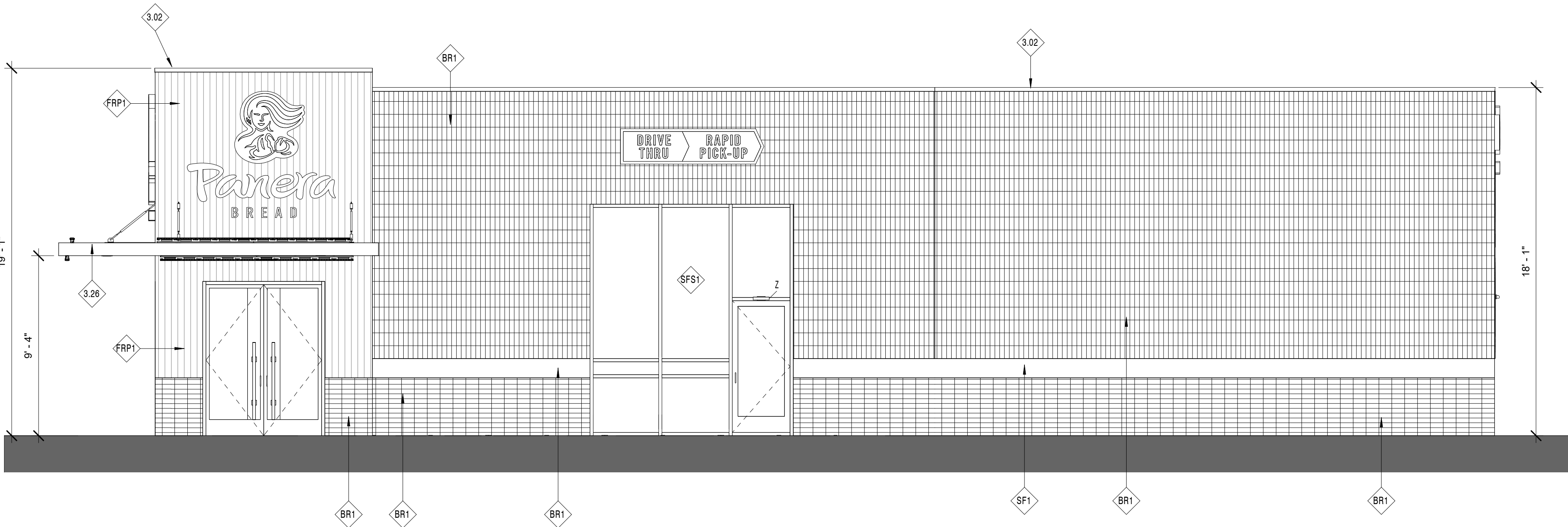
CPM:

CPM

7/15/2022 9:53:03 AM



1 WEST ELEVATION - PLANNING
1/4" = 1'-0"



2 NORTH ELEVATION - PLANNING
1/4" = 1'-0"

PS 2021.03.11

KEYED NOTES

- 3.02 PRE-FINISHED METAL COPING | FINISH: DARK BRONZE
- 3.26 PRE-MANUFACTURED ALUMINUM CANOPY. INSTALLED BY G.C. SOLID PANEL OVER AREAS. 8" CHANNEL DEPTH. REFER TO WALL SECTIONS FOR ATTACHMENT METHODS. COLOR: CUSTOM COLOR TO MATCH PMS 2411C.
- BR1 BRICK - THIN, SIZE 3 5/8"W X 3/4"TH X 11 5/8"L, COLOR: SANTIAGO CREATIVE MATERIALS BLEND
- FRP1 FIBERGLASS REINFORCED PANEL; PRODUCT: FORMGLAS FRP; PATTERN: CUSTOM PATTERN; SURFACE: HANDCRAFTED FLUTE; PAINT TYPE: GEL COAT; PAINT COLOR: TO MATCH PMS 2307 C; PAINT FINISH: MATTE
- P1 PAINT | EMERALD EXTERIOR ACRYLIC LATEX PAINT | MFR: SHERWIN WILLIAMS | COLOR: PISMO DUNES | FINISH: LOW LUSTRE
- SF1 SPECIAL FINISH - ALUMINUM WOOD LOOK, SELF MATING CLADDING SYSTEM, COLOR: WHITE ASH
- SFS1 STOREFRONT SYSTEM, PRODUCT: TRIFAB VERSAGLAZE 451 FRAMING SYSTEM, FINISH: POWDERCOAT, COLOR: COLONIAL WHITE

Bakery-Cafe:

2021383

SYSTEM: G4 (ARIA)

Project Team:

Professional Seal:

Project Title:

PROTOTYPE - NEW CONSTRUCTION

Bakery Cafe #0662
Southfield Road
Lathrup Village, MI 48076



Consultant Copyright Placeholder

No.	Description	Date

EXTERIOR ELEVATIONS

Project Number:

2021383

Drawn By:

SSH

Issue Date:

7.15.2022

DPM:

DM

Sheet Number:

A201-P

CPM:

CPM



Scale 1" = 20'

NOTE: PRINTED DRAWING SIZE
MAY HAVE CHANGED FROM
ORIGINAL. VERIFY SCALE USING
BAR SCALE ABOVE.

1. BY SUBMITTING A PROPOSAL FOR THE LANDSCAPE PLANTING SCOPE OF WORK, THE CONTRACTOR CONFIRMS THAT HE HAS READ AND WILL COMPLY WITH, THE ASSOCIATED NOTES, SPECIFICATIONS, AND DETAILS WITH THIS PROJECT.

2. THE GENERAL CONTRACTOR IS RESPONSIBLE FOR REMOVING ALL EXISTING VEGETATION (EXCEPT WHERE NOTED TO REMAIN).

3. IN THE CONTEXT OF THESE PLANS, NOTES, AND SPECIFICATIONS, "FINISH GRADE" REFERS TO THE FINAL ELEVATION OF THE SOIL SURFACE (NOT TOP OF MULCH) AS INDICATED ON THE GRADING PLANS.

4. a. BEFORE STARTING WORK, THE LANDSCAPE CONTRACTOR SHALL VERIFY THAT THE ROUGH GRADES OF ALL LANDSCAPE AREAS ARE WITHIN $\pm 0.1'$ OF FINISH GRADE. SEE SPECIFICATIONS FOR MORE DETAILED REQUIREMENTS FOR FINISH GRADE.

5. b. CONSTRUCT AND MAINTAIN FINISH GRADES AS SHOWN ON GRADING PLANS, AND CONSTRUCT AND MAINTAIN SLOPES AS RECOMMENDED BY THE GEOTECHNICAL REPORT. ALL LANDSCAPE AREAS SHALL HAVE POSITIVE DRAINAGE AWAY FROM STRUCTURES AT THE MINIMUM SLOPE SPECIFIED IN THE REPORT AND ON THE GRADING PLANS, AND AREAS OF POTENTIAL PONDING SHALL BE REGRADED TO BLEND IN WITH THE SURROUNDING GRADES.

6. c. THE LANDSCAPE CONTRACTOR SHALL DETERMINE WHETHER OR NOT THE EXPORT OF ANY SOIL WILL BE NEEDED, TAKING INTO ACCOUNT THE ROUGH GRADE PROVIDED, THE AMOUNT OF SOIL AMENDMENTS TO BE ADDED (BASED ON A SOIL TEST, PER SPECIFICATIONS), AND THE FINISH GRADES TO BE ESTABLISHED.

7. d. THERE SHALL BE FINISH GRADE ADJUSTMENTS ADJACENT TO WALKS AND OTHER WALKING SURFACES, AFTER INSTALLING SOIL AMENDMENTS, IS 3" BELOW THE ADJACENT FINISH SURFACE IN ORDER TO ALLOW FOR PROPER MULK DEPTH. TAPER THE SOIL SURFACE TO MEET FINISH GRADE, AS SPECIFIED ON THE GRADING PLANS, AT APPROXIMATELY 18" AWAY FROM THE WALKS.

8. e. ENSURE THAT THE FINISH GRADE IN TURF AREAS IMMEDIATELY ADJACENT TO WALKS AND OTHER WALKING SURFACES, AFTER INSTALLING SOIL AMENDMENTS, IS 1" BELOW THE FINISH SURFACE OF THE WALKS.

9. f. THE SOIL SURFACE SHALL BE ADJUSTED TO MEET FINISH GRADE, AS SPECIFIED ON THE GRADING PLANS, AT APPROXIMATELY 18" AWAY FROM THE WALKS.

10. g. SHOULD ANY CONFLICTS AND/OR DISCREPANCIES ARISE BETWEEN THE GRADING PLANS, GEOTECHNICAL REPORT, THESE NOTES AND PLANS, AND ACTUAL CONDITIONS, THE CONTRACTOR SHALL IMMEDIATELY BRING SUCH ITEMS TO THE ATTENTION OF THE LANDSCAPE ARCHITECT, GENERAL CONTRACTOR, AND OWNER.

11. ALL PLANTS AND MATERIALS SHALL BE APPROVED BY THE LANDSCAPE ARCHITECT OR DESIGNER PRIOR TO PLANTING. THE LANDSCAPE CONTRACTOR SHALL ENSURE THAT ALL REQUIREMENTS OF THE PERMITTING AUTHORITY ARE MET (E.G., MINIMUM PLANT QUANTITIES, PLANTING METHODS, TREE PROTECTION METHODS, ETC.).

12. a. THE LANDSCAPE CONTRACTOR IS RESPONSIBLE FOR DETERMINING PLANT QUANTITIES. PLANT QUANTITIES SHOWN ON LEGENDS AND CALCULATIONS ARE FOR GENERAL INFORMATION ONLY. IN THE EVENT OF A DISCREPANCY BETWEEN THE PLANT QUANTITIES SHOWN ON THE PLANS AND THE PLANT QUANTITIES SHOWN ON THE LEGENDS AND CALCULATIONS, THE PLANT QUANTITIES SHOWN ON THE PLANS SHALL TAKE PRECEDENCE.

13. b. NO SUBSTITUTIONS OF PLANT MATERIALS SHALL BE ALLOWED WITHOUT THE WRITTEN PERMISSION OF THE LANDSCAPE ARCHITECT. IF SOME OF THE PLANTS ARE NOT AVAILABLE, THE LANDSCAPE CONTRACTOR SHALL NOTIFY THE LANDSCAPE ARCHITECT IN WRITING VIA PROPER CHANNELS.

14. c. THE CONTRACTOR SHALL, AT MINIMUM, SUBMIT ALL PLANTS PROPOSED FOR THE PROJECT. THE CONTRACTOR SHALL ALLOW THE LANDSCAPE ARCHITECT AND THE OWNER/OWNER'S REPRESENTATIVE TO INSPECT, AND APPROVE OR REJECT, ALL PLANTS DELIVERED TO THE JOBSITE. REFER TO SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS FOR SUBMITTALS.

15. d. THE CONTRACTOR SHALL OBTAIN WRITTEN ACCEPTANCE BY THE OWNER. REFER TO SPECIFICATIONS FOR CONDITIONS OF ACCEPTANCE FOR THE START OF THE MAINTENANCE PERIOD, AND FOR FINAL ACCEPTANCE AT THE END OF THE MAINTENANCE PERIOD.

16. e. THE TURF BOUNDARY SHOWN ON THESE PLANS HAS BEEN ESTIMATED BASED ON THE CURRENT PROJECT INFORMATION. CONTRACTOR SHALL ADJUST THE LIMITS OF TURF TO COVER ALL DISTURBED AREAS DURING THE MAINTENANCE PERIOD.

17. f. SEE SPECIFICATIONS AND DETAILS FOR FURTHER REQUIREMENTS.

THE CONTRACTOR SHALL INSTALL ROOT BARRIERS NEAR ALL NEWLY-PLANTED TREES THAT ARE LOCATED WITHIN FIVE (5) FEET OF PAVING OR CURBS. ROOT BARRIERS SHALL BE "CENTURY" OR "DEEP-ROOT" 24" DEEP PANELS (OR EQUAL). BARRIERS SHALL BE LOCATED IMMEDIATELY ADJACENT TO HARDSCAPE. INSTALL PANELS PER MANUFACTURER'S RECOMMENDATIONS. UNDER NO CIRCUMSTANCES SHALL THE CONTRACTOR USE ROOT BARRIERS OF A TYPE THAT COMPLETELY ENCIRCLE THE ROOTBALL.

AFTER ALL PLANTING IS COMPLETE, CONTRACTOR SHALL INSTALL 3" THICK LAYER OF 1-1/2" SHREDDED WOOD MULCH, NATURAL (UNDYED), OVER LANDSCAPE FABRIC IN ALL PLANTING AREAS (EXCEPT FOR TURF AND SEEDED AREAS). CONTRACTOR SHALL SUBMIT SAMPLES OF ALL MULCHES TO LANDSCAPE ARCHITECT AND OWNER FOR APPROVAL PRIOR TO CONSTRUCTION. ABSOLUTELY NO EXPOSED GROUND SHALL BE LEFT SHOWING ANYWHERE ON THE PROJECT AFTER MULCH HAS BEEN INSTALLED (SUBJECT TO THE CONDITIONS AND REQUIREMENTS OF THE "GENERAL GRADING AND PLANTING NOTES" AND SPECIFICATIONS).

SYMBOL	CODE	BOTANICAL NAME	COMMON NAME	MIN. SIZE	QTY.	REMARKS
--------	------	----------------	-------------	-----------	------	---------

SHRUBS/GROUNDCOVER/PERENNIALS						
	IS	<i>Ilex glabra</i> 'Shamrock'	Shamrock Inkberry	2 gallon	78	Full, spaced 36" o.c., shear to 2.5'-3' ht.
	MM	<i>Miscanthus</i> s. 'Morning Light'	Variiegated Maiden Grass	2 gallon	50	Full heavy clumps, spaced 36" o.c., 4'-6' ht. at mat.
	NW	<i>Nepeta x faassenii</i> 'Walker's Low'	Walker's Low Catmint	1 gallon	101	Full heavy clumps, spaced 30" o.c., 1.5'-2' ht. at mat.
	PT	<i>Pachysandra terminalis</i>	Pachysandra	1 gallon	119	Full, spaced 18" o.c.
	SS	<i>Schizachyrium scoparium</i>	Little Blue Stem	1 gallon	24	Full, spaced 18" o.c.
	SL	<i>Spiraea</i> j. 'Little Princess'	Japanese Spirea	24" ht.	47	Full unshearthed specimens, spaced 36" o.c., 3' ht. at mat.
	TM	<i>Taxus cuspidata</i> 'Monloo'	Emerald Spreader Yew	24" spd.	22	Full, unshearthed specimens, spaced 36" o.c., 1'-2' ht. at mat.

TURF					
	Kentucky Bluegrass blend	Kentucky Blue Grass	Sod	--	Min. one year old, uniform color and texture

TOTAL SITE AREA: 39,600 SF

ZONING: VC (VILLAGE CENTER DISTRICT)

BUFFER (WEST PROPERTY LINE: 180 LF)
1 DECIDUOUS TREE PER 30LF / 1 EVERGREEN TREE PER 10 LF / 3 SHRUBS PER 10 LF

6 TREES REQUIRED	6 TREES PROVIDED* (2 EXISTING + 4 PROPOSED)
18 EVERGREEN TREES REQ'D	15 EVERGREEN TREES PROPOSED*
*UNABLE TO MEET REQUIREMENT DUE TO SIDEWALK PLACEMENT	
54 SHRUBS REQ'D	55 SHRUBS PROVIDED

PARKING (40 SPACES TOTAL)
15 SF LANDSCAPE PER SPACE / 1 TREE PER 400 SF OF REQ'D LANDSCAPE / SCREEN HEDGE

600 SF LANDSCAPE REQ'D	1,185 SF PROVIDED
2 TREES REQ'D	2 TREES PROVIDED (1 EXISTING AND 1 PROPOSED)
PARKING SCREEN REQ'D	EXISTING WALL AND SCREEN HEDGE PROVIDED

STREET TREES
1 TREE PER 50 LF

SOUTHFIELD (180 LF)

5.0 TREE RING

4.4 TREES REQ'D

4 TREES PROVIDED

5 TREES PROVIDED (1 EXISTING & 4 PROPOSED)

LANDSCAPE PLAN

DRAWING NO.

LP-1

SHEET 01 OF 01



Civil & Environmental Consultants, Inc.
 3000 Little Hills Expressway • Suite 102 • St. Charles, MO 63301
 314-656-4566 • 866-250-3679



PANERA BREAD
27777 SOUTHFIELD ROAD
LATHRUP VILLAGE, MI 48076



07/14/22

[illegible]

 **Civil & Environmental Consultants, Inc.**
3000 Little Hills Expressway · Suite 102 · St. Charles, MO 63301
314-656-4566 · 866-250-3679
www.eecinc.com

**PANERA BREAD
27777 SOUTHFIELD ROAD
LATHRUP VILLAGE, MI 48076**

DRAWING NO.: LP-1

SHEET 01 OF 01

LANDSCAPE PLAN

DATE:	APRIL 27, 2022	DRAWN BY:	SS
DWG SCALE:	1" = 20'	CHECKED BY:	RM
PROJECT NO:			317-543
APPROVED BY:			PTE

\\ms-a-fs-01\projects\10-000\375-541-0000\dwg\1001\37543-001-001-001.dwg (AR011) LS(7/15/2022 - jgmw) - LP: 7/15/2022 12:22 PM

KEY NOTES

- PROPOSED 6" VERTICAL CONCRETE CURB.
- PROPOSED TURN DOWN SIDEWALK.
- PROPOSED ASPHALT PAVEMENT.
- PROPOSED PAVEMENT STRIPING
- PROPOSED TRASH ENCLOSURE HEIGHT TO EXCEED REFUSE CONTAINER HEIGHT ARCHITECTURAL PLANS.
- PROPOSED ADA PAVEMENT MARKINGS.
- PROPOSED ADA ACCESSIBLE RAMP.
- PROPOSED ADA ACCESSIBLE PARKING SIGNAGE.
- EXISTING MONUMENT SIGN TO REMAIN.
- PROPOSED "RAPID PICK UP" SIGNAGE.
- PROPOSED LANDSCAPE AREA. REFER TO LANDSCAPE PLAN.
- PROPOSED PATIO AREA.
- PROPOSED POSTS.
- PROPOSED STRING LIGHTS.
- PROPOSED PEDESTRIAN LIGHTS.
- PROPOSED BENCH.
- PROPOSED BIKE RACK AREA WITH LANDSCAPE FORMS FLO MODEL (3 BIKE CAPACITY).
- PROPOSED WATER SERVICE PER UTILITY COMPANY STANDARDS.
- PROPOSED GAS SERVICE PER UTILITY COMPANY STANDARDS.
- PROPOSED GAS METER.
- PROPOSED SANITARY SEWER LATERAL.
- EXISTING TRANSFORMER AND PAD.
- PROPOSED SECONDARY SERVICE PER UTILITY COMPANY STANDARDS. ALL MATERIAL AND INSTALLATION BY CONTRACTOR.
- PROPOSED TELEPHONE SERVICE PER UTILITY COMPANY STANDARDS. COORDINATE WITH UTILITY COMPANY FOR PRECISE CONNECTION POINT.
- PROPOSED CONDUIT CAPPED FOR FUTURE USE.
- PROPOSED 'NO LEFT TURN' SIGN.
- PROPOSED 'DO NOT ENTER' SIGN.
- PROPOSED STOP SIGN.

LEGAL DESCRIPTION

LAND IN THE CITY OF LATHRUP VILLAGE, OAKLAND COUNTY, MI, DESCRIBED AS FOLLOWS:

THE NORTH 180 FEET OF LOT 660, LOUISE LATHRUP'S CALIFORNIA BUNGALOW SUBDIVISION NO. 1, ACCORDING TO THE RECORDED PLAT THEREOF, AS RECORDED IN LIBER 31 OF PLATS, PAGE 34, OAKLAND COUNTY RECORDS.



811 or 1-800-482-7171
<https://www.missdig.org>

REFERENCE

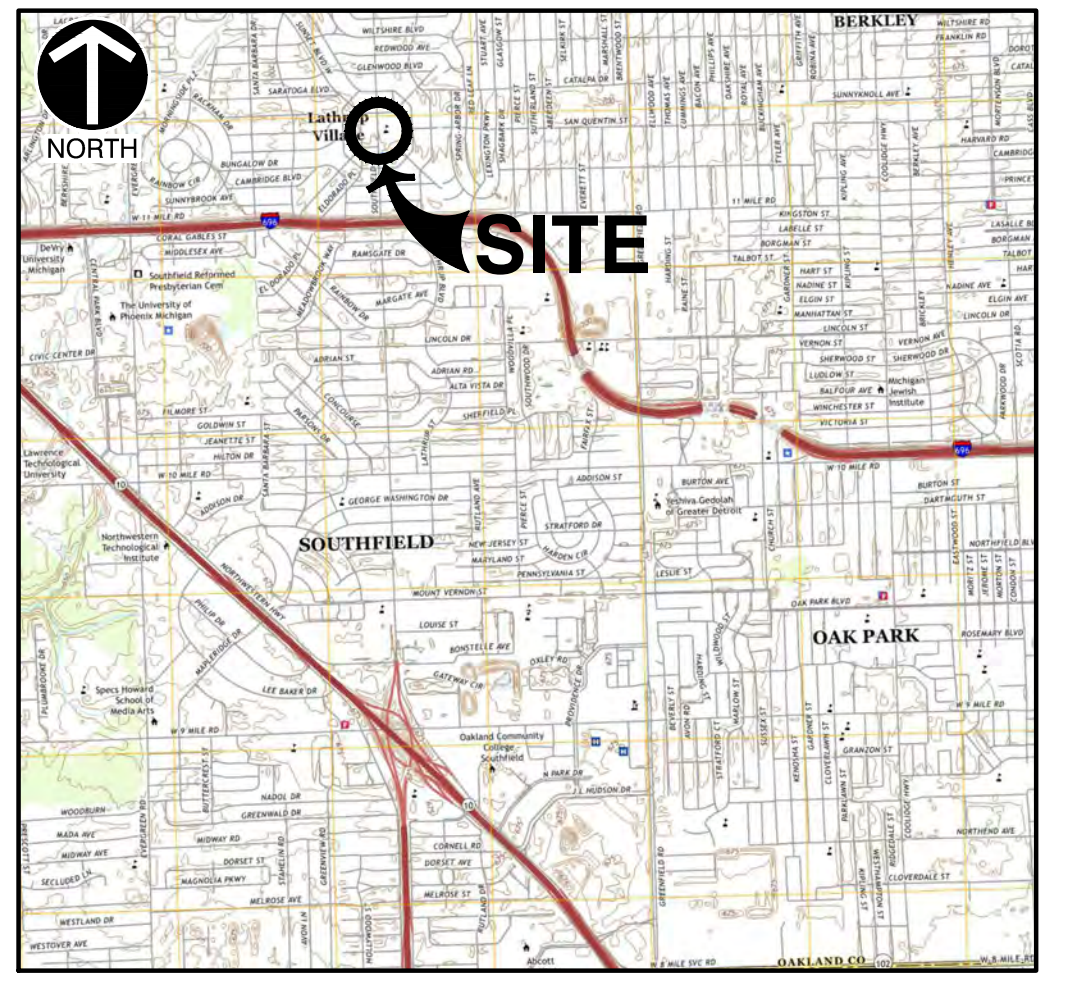
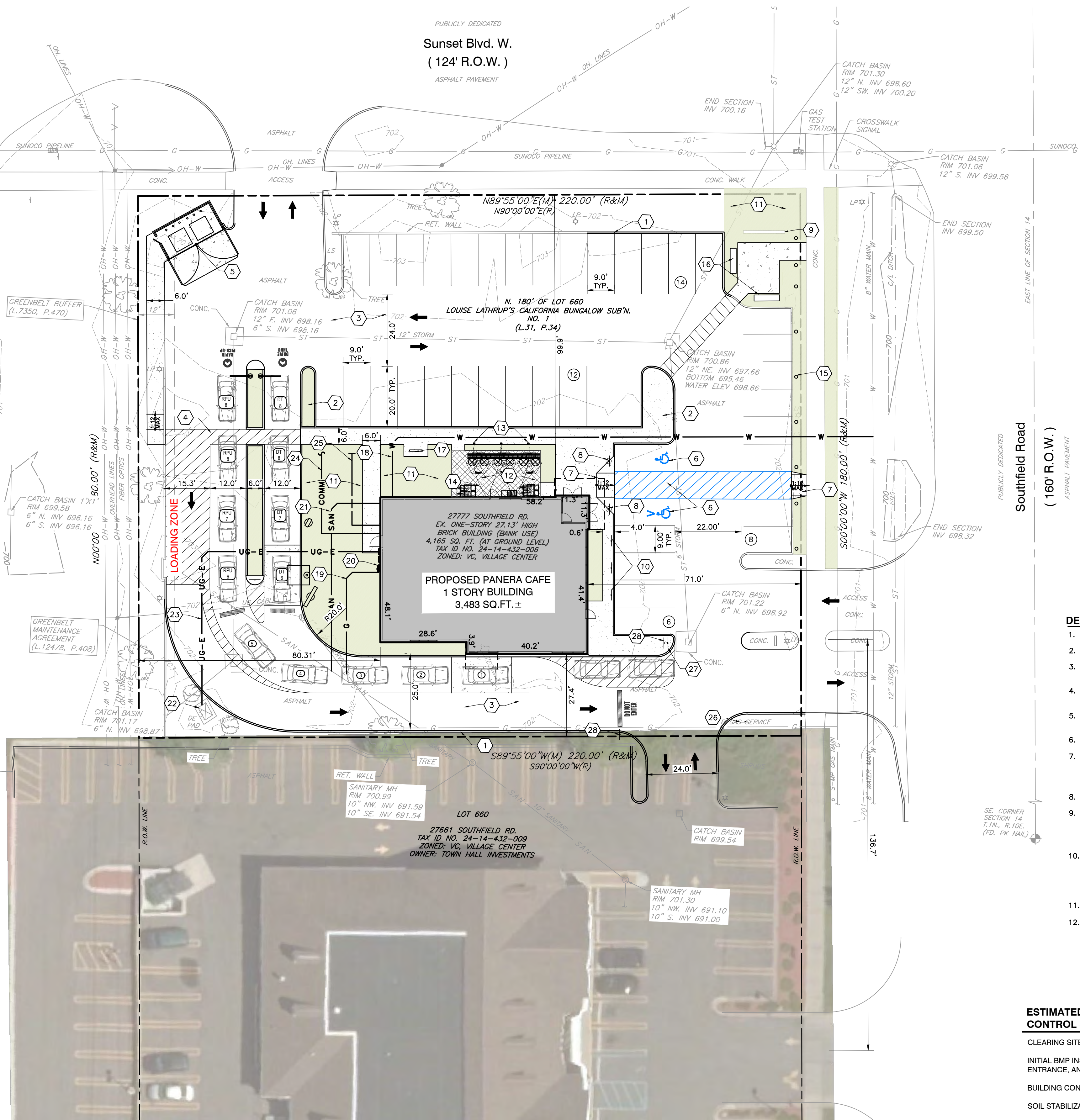
- EXISTING CONDITIONS BASED ON BOUNDARY / TOPOGRAPHIC SURVEY CONDUCTED BY NF ENGINEERS DATED DECEMBER 7, 2021.

NOTE TO CONTRACTOR: PRIOR TO ANY EXCAVATION FOR UNDERGROUND UTILITIES, CONTRACTOR SHALL EXPOSE AND VERIFY LOCATIONS (HORIZONTAL AND VERTICAL) OF ALL EXISTING UTILITIES INCLUDING BUT NOT LIMITED TO GAS, WATER, BROADBAND, PHONE, SANITARY AND STORM SEWERS. ANY CONFLICT SHALL BE REPORTED IMMEDIATELY TO THE ENGINEER AND APPROPRIATE AUTHORITIES



NORTH

Eldorado Place
(106' R.O.W.)



U.S.G.S. 7.5 TOPOGRAPHIC MAP, ROYAL OAK QUADRANGLE, MI, DATED 2019, SCALE 1" = 4000'

ARCHITECT

THE LAWRENCE GROUP
319 N FOURTH ST., STE 1000
ST. LOUIS, MO 63102
CONTACT: TODD BUNDREN
PH: (314) 242-1329
EMAIL: todd.bundren@thelawrencengroup.com

CIVIL ENGINEER

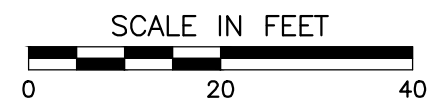
CIVIL & ENVIRONMENTAL CONSULTANTS, INC.
3000 LITTLE HILLS EXPRESSWAY, SUITE 102
ST. CHARLES, MO 63301
CONTACT: PATRICK T. BENNETT, PE
PH: (314) 656-4566
FX: (314) 656-4578
EMAIL: pbennett@cecinc.com

DEVELOPMENT NOTES:

- AREA OF TRACT: 0.91 ACRES
- ID NO: 2414432006
- SITE ADDRESS: 27777 SOUTHFIELD ROAD, LATHRUP VILLAGE MI, 48076
- ZONING: VC, VILLAGE CENTER (CITY OF LATHRUP VILLAGE)
- USE: EXISTING USE - BANK
PROPOSED USE - PANERA BREAD
- OWNER: GOLDEN GATE PLAZA, LLC.
- REQUIRED SETBACKS (PER SECTION 3.1.8):
MINIMUM FRONT YARD SETBACK: 0 FEET
MINIMUM REAR YARD SETBACK: 5 FEET
MINIMUM SIDE YARD SETBACK: 0 FEET
- MAXIMUM BUILDING HEIGHT: 3 STORIES OR 40 FEET, WHICHEVER IS LESS
- PARKING SPACES:
DIMENSIONS = 9'x20'
1 WAY MANEUVERING LANE = 15'
2 WAY MANEUVERING LANE = 22'
- FLOOD PLAIN NOTE:
ACCORDING TO THE FLOOD INSURANCE RATE MAP OF CITY OF LATHRUP VILLAGE, MICHIGAN OAKLAND COUNTY, MAP NUMBER 26125C0676F, WITH AN EFFECTIVE DATE SEPTEMBER 29, 2006, THIS PROPERTY LIES COMPLETELY WITHIN ZONE X UNSHADED. ZONE 'X' IS DEFINED AS AREAS OF MINIMAL FLOOD HAZARD
- SITE SOILS ARE COMPRISED OF HYDROLOGIC SOIL GROUP C/D.
- THE NATIONAL WETLANDS INVENTORY (NWI) DOES NOT SHOW WATERS WITHIN THE SITE.

ESTIMATED CONSTRUCTION AND SILTATION CONTROL SEQUENCE AND ESTIMATED SCHEDULE:

CLEARING SITE OF DEBRIS FOR GRADING AND BMP INSTALLATION _____ EARLY JULY - MID JULY
INITIAL BMP INSTALLATION OF SILT FENCING, CONSTRUCTION ENTRANCE, AND WASH DOWN STATION. _____ EARLY JULY - MID JULY
BUILDING CONSTRUCTION, CURBS, PAVEMENT, AND SIDEWALKS. _____ MID JULY - MID SEPTEMBER
SOIL STABILIZATION AND TEMPORARY BMP REMOVAL. _____ MID SEPTEMBER - EARLY OCTOBER



PATRICK T. BENNETT
(PE# 6201052209)
*HAND SIGNATURE ON FILE



SITE DEVELOPMENT PLAN

DRAWING NO.: **CP01**
SHEET 01 OF 01

DATE:	APRIL 26, 2022	DRAWN BY:	JGM
DWG SCALE:	1" = 20'	CHECKED BY:	PTB
PROJECT NO.:	317-843	APPROVED BY:	PTB

Civil & Environmental Consultants, Inc.
319 N FOURTH ST., STE 1000
ST. LOUIS, MO 63102
CONTACT: TODD BUNDREN
PH: (314) 242-1329
EMAIL: todd.bundren@thelawrencengroup.com

PANERA BREAD
27777 SOUTHFIELD ROAD
LATHRUP VILLAGE, MI 48076

SUBMITTAL RECORD

NO.	DATE	DESCRIPTION
1.	07/05/2022	PER CLIENT COMMENTS
2.	07/15/2022	PER COMMENTS

Standard Electric Luminaire Schedule										
Symbol	Qty	Label	Arrangement	[MANUFAC]	Description	Total Lumens	Total Wattage	LLF	BUG Rating	Mounting Height
	1	EXT18	Single	RAB LIGHTING INC. RC LIGHTING	SLIM26Y/PC	3580	30.6	0.900	B1-U2-G0	8
	3	EXT30 BLC	Single	Lithonia Lighting	DSX1 LED P7 40K BLC MVOLT SPA DDBXD	16997	183	0.960	B2-U0-G3	25
	3	EXT30-02-BLC	Single	Lithonia Lighting	DSX0 LED P1 40K BLC MVOLT SPA DDBXD	3862	38	0.960	B1-U0-G1	10
	4	EXT30-TFTM	Single	Lithonia Lighting	DSX1 LED P7 40K TFTM MVOLT HS SPA DDBXD	16188	183	0.960	B2-U0-G3	25
	7	N	Single	Lightolier	FD6R4CCT/FD6NCP	900	13	0.920	B1-U1-G0	10
	5	Z	Single	MULE LIGHTING, INC	EUE-BB-10-A-W-DG	494	10.7	1.000	B1-U0-G0	10

Calculation Summary					
Label	CalcType	Max	Min	Avg	Units
Drive Thru	Illuminance	8.1	5.9	7.04	Fc
Entire Site	Illuminance	17.7	0.0	2.23	Fc
Pathway	Illuminance	8.3	0.4	3.75	Fc
Trash Enclosure	Illuminance	24.5	3.7	11.24	Fc



Technical Specifications (continued)

Construction

Lens:

Tempered glass lens

Reflector:

Specular thermoplastic

Gaskets:

High-temperature silicone

Finish:

Formulated for high durability and long-lasting color

Green Technology:

Mercury and UV free. RoHS-compliant components.

LED Characteristics

LED:

Multi-chip, long-life LED

Color Consistency:

3-step MacAdam Ellipse binning to achieve consistent fixture-to-fixture color

Color Stability:

LED color temperature is warrantied to shift no more than 200K in color temperature over a 5-year period

Color Uniformity:

RAB's range of Correlated Color Temperature follows the guidelines for the American National Standard for Specifications for the Chromaticity of Solid State Lighting (SSL) Products, ANSI C78.377-2017.

Performance

Lifespan:

100,000-Hour LED lifespan based on IES LM-80 results and TM-21 calculations

Other

Equivalency:

Equivalent to 150W Metal Halide

Patents:

The design of the SLIM™ is protected by patents in U.S. Pat D681,864, and pending patents in Canada, China, Taiwan and Mexico.

HID Replacement Range:

Replaces 175W Metal Halide

Warranty:

RAB warrants that our LED products will be free from defects in materials and workmanship for a period of five (5) years from the date of delivery to the end user, including coverage of light output, color stability, driver performance and fixture finish. RAB's warranty is subject to all terms and conditions found at rablighting.com/warranty.

Trade Agreements Act Compliant:

This product is a product of Cambodia and a "designated country" end product that complies with the Trade Agreements Act

Buy American Act Compliance:

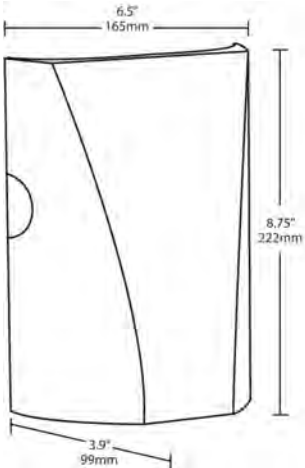
RAB values USA manufacturing! Upon request, RAB may be able to manufacture this product to be compliant with the Buy American Act (BAA). Please contact customer service to request a quote for the product to be made BAA compliant.

Optical

BUG Rating:

B1 U0 G0

Dimensions



Features

- Full cutoff, fully shielded LED wall pack
- Can be used as a downlight or uplight
- Contractor friendly features for easy installation
- 100,000-hour LED Life
- 5-Year, No-Compromise Warranty



SLIM26Y/PC



Ordering Matrix

Family	Wattage	Color Temp	Finish	Driver	Options
SLIM	26	Y			/PC
12 = 12W	Blank = 5000K Cool	Blank = Bronze	Blank = Standard (120-277V)	Blank = No Option	
18 = 18W	N = 4000K Neutral	W = White	/D10 = Dimmable	/PC = 120V Button	
26 = 26W	Y = 3000K Warm			/PC2 = 277V Button	
				/LC = Lightcloud® Controller	



D-Series Size 0 LED Area Luminaire

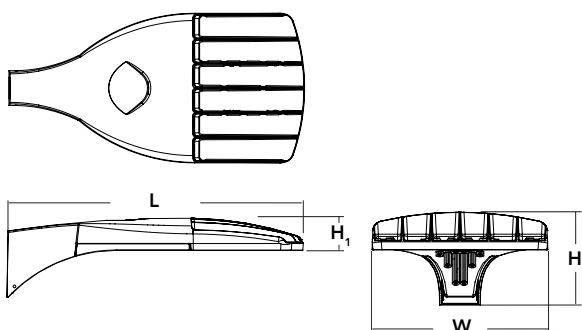


Catalog Number
Notes
Type

Hit the Tab key or mouse over the page to see all interactive elements.

Specifications

EPA:	0.95 ft ² (.09 m ²)
Length:	26" (66.0 cm)
Width:	13" (33.0 cm)
Height ₁ :	3" (7.62 cm)
Height ₂ :	7" (17.8 cm)
Weight (max):	16 lbs (7.25 kg)



Introduction

The modern styling of the D-Series is striking yet unobtrusive - making a bold, progressive statement even as it blends seamlessly with its environment. The D-Series distills the benefits of the latest in LED technology into a high performance, high efficacy, long-life luminaire.

The outstanding photometric performance results in sites with excellent uniformity, greater pole spacing and lower power density. It is ideal for replacing up to 400W metal halide with typical energy savings of 70% and expected service life of over 100,000 hours.

Ordering Information

EXAMPLE: DSX0 LED P6 40K T3M MVOLT SPA NLTAIR2 PIRHN DDBXD

DSX0 LED									
Series	LEDs	Color temperature		Distribution		Voltage		Mounting	
DSX0 LED	Forward optics		30K 3000 K	T1S Type I short (Automotive)	T5S Type V short ³	MVOLT (120V-277V) ^{5,6}		Shipped included	
	P1 P5	40K 4000 K	T2S Type II short	T5M Type V medium ³	XVOLT (277V-480V) ^{7,8,9}		SPA Square pole mounting		
	P2 P6	50K 5000 K	T2M Type II medium	T5W Type V wide ³	120 ⁶		RPA Round pole mounting ¹⁰		
	P3 P7 ¹		T3S Type III short	BLC Backlight control ⁴	208 ⁶		WBA Wall bracket ³		
	P4 ¹		T3M Type III medium	LCCO Left corner cutoff ⁴	240 ⁶		SPUMBA Square pole universal mounting adaptor ¹¹		
	Rotated optics		T4M Type IV medium	RCCO Right corner cutoff ⁴	277 ⁶		RPUMBA Round pole universal mounting adaptor ¹¹		
	P10 ² P12 ²		TFTM Forward throw medium		347 ⁶		Shipped separately		
	P11 ² P13 ^{1,2}		T5VS Type V very short ³		480 ⁶		KMA8 DDBXD U Mast arm mounting bracket adaptor (specify finish) ¹²		

Control options	Other options	Finish (required)
Shipped installed NLTAIR2 nLight AIR generation 2 enabled ^{13,14} PIRHN Network, high/low motion/ambient sensor ¹⁵ PER NEMA twist-lock receptacle only (control ordered separate) ¹⁶ PER5 Five-pin receptacle only (control ordered separate) ^{16,17} PER7 Seven-pin receptacle only (leads exit fixture) (control ordered separate) ^{16,17} DMG 0-10V dimming extend out back of housing for external control (control ordered separate) ¹⁸	Shipped installed HS House-side shield ²² SF Single fuse (120, 277, 347V) ⁶ DF Double fuse (208, 240, 480V) ⁶ L90 Left rotated optics ² R90 Right rotated optics ² DDL Diffused drop lens ²² HA 50°C ambient operations ¹ BAA Buy America(n) Act Compliant Shipped separately BS Bird spikes ²³ EGS External glare shield	DDBXD Dark bronze DBLXD Black DNAXD Natural aluminum DWHXD White DDBTXD Textured dark bronze DBLBXD Textured black DNATXD Textured natural aluminum DWHGXD Textured white



One Lithonia Way • Conyers, Georgia 30012 • Phone: 1-800-705-SERV (7378) • www.lithonia.com
© 2011-2021 Acuity Brands Lighting, Inc. All rights reserved.

DSX0-LED
Rev. 07/19/21
Page 1 of 8



Ordering Information

Accessories

Ordered and shipped separately.

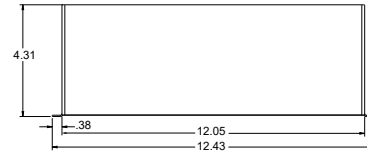
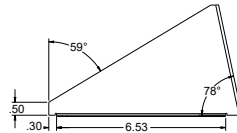
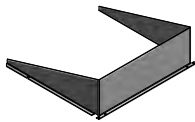
DLL127F 1.5 JU	Photocell - SSL twist-lock (120-277V) ²⁴
DLL347F 1.5 CUL JU	Photocell - SSL twist-lock (347V) ²⁴
DLL480F 1.5 CUL JU	Photocell - SSL twist-lock (480V) ²⁴
DSHORT SBK U	Shorting cap ²⁴
DSX0HS 20C U	House-side shield for P1,P2,P3 and P4 ²²
DSX0HS 30C U	House-side shield for P10,P11,P12 and P13 ²²
DSX0HS 40C U	House-side shield for P5,P6 and P7 ²²
DSX0DDL U	Diffused drop lens (polycarbonate) ²²
PUMBA DDBXD U*	Square and round pole universal mounting bracket adaptor (specify finish) ²⁵
KMA8 DDBXD U	Master arm mounting bracket adaptor (specify finish) ²⁵
DSX0EGS (FINISH) U	External glare shield

For more control options, visit [DTL](#) and [ROAM](#) online.
Link to [nLight Air 2](#)

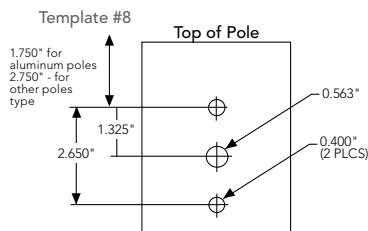
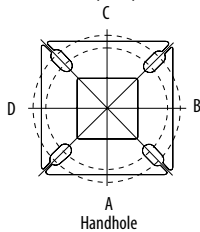
NOTES

- HA not available with P4, P7, and P13.
- P10, P11, P12 and P13 and rotated options (L90 or R90) only available together.
- Any Type 5 distribution with photocell, is not available with WBA.
- Not available with HS or DDL.
- MVOLT driver operates on any line voltage from 120-277V (50/60 Hz).
- Single fuse (SF) requires 120V, 277V or 347V. Double fuse (DF) requires 208V, 240V or 480V. XVOLT not available with fusing (SF or DF).
- XVOLT only suitable for use with P4, P7 and P13.
- XVOLT operates with any voltage between 277V and 480V.
- XVOLT not available with fusing (SF or DF) and not available with PIR, PIRH, PIR1FC3V, PIRH1FC3V.
- Suitable for mounting to round poles between 3.5" and 12" diameter.
- Universal mounting brackets intended for retrofit on existing pre-drilled poles only. 1.5 G vibration load rating per ANCI C136.31. Only usable when pole's drill pattern is NOT Lithonia template #8.
- Must order fixture with SPA mounting. Must be ordered as a separate accessory; see Accessories information. For use with 2-3/8" diameter mast arm (not included).
- Must be ordered with PIRHN.
- Sensor cover available only in dark bronze, black, white and natural aluminum colors.
- Must be ordered with NLTARZ. For more information on nLight Air 2 visit [this link](#).
- Photocell ordered and shipped as a separate line item from Acuity Brands Controls. See accessories. Shorting Cap included.
- If ROAM® node required, it must be ordered and shipped as a separate line item from Acuity Brands Controls. Shorting Cap included.
- DMG not available with PIRHN, PERS, PER7, PIR, PIRH, PIR1FC3V or PIRH1FC3V, FAO.
- Reference Controls Options table on page 4.
- Reference Motion Sensor Default Table on page 4 to see functionality.
- Not available with other dimming controls options.
- Not available with BLC, LCCO and RCCO distribution.
- Must be ordered with fixture for factory pre-drilling.
- Requires luminaire to be specified with PER, PER5 or PER7 option. See Controls Table on page 4.
- For retrofit use only. Only usable when pole's drill pattern is NOT Lithonia template #8

EGS – External Glare Shield



Drilling

HANDHOLE ORIENTATION
(from top of pole)

Tenon Mounting Slipfitter

Tenon O.D.	Mounting	Single Unit	2 @ 180	2 @ 90	3 @ 90	3 @ 120	4 @ 90
2-3/8"	RPA	AS3-5 190	AS3-5 280	AS3-5 290	AS3-5 390	AS3-5 320	AS3-5 490
2-7/8"	RPA	AST25-190	AST25-280	AST25-290	AST25-390	AST25-320	AST25-490
4"	RPA	AST35-190	AST35-280	AST35-290	AST35-390	AST35-320	AST35-490

Mounting Option	Drilling Template	Single	2 @ 180	2 @ 90	3 @ 90	3 @ 120	4 @ 90
Head Location		Side B	Side B & D	Side B & C	Side B, C & D	Round Pole Only	Side A, B, C & D
Drill Nomenclature	#8	DM19AS	DM28AS	DM29AS	DM39AS	DM32AS	DM49AS
Minimum Acceptable Outside Pole Dimension							
SPA	#8	2-7/8"	2-7/8"	3.5"	3.5"		3.5"
RPA	#8	2-7/8"	2-7/8"	3.5"	3.5"	3"	3.5"
SPUMBA	#5	2-7/8"	3"	4"	4"		4"
RPUMBA	#5	2-7/8"	3.5"	5"	5"	3.5"	5"

DSX0 Area Luminaire - EPA

*Includes luminaire and integral mounting arm. Other tenons, arms, brackets or other accessories are not included in this EPA data.

Fixture Quantity & Mounting Configuration	Single DM19	2 @ 180 DM28	2 @ 90 DM29	3 @ 90 DM39	3 @ 120 DM32	4 @ 90 DM49
Mounting Type						
DSX0 LED	0.950	1.900	1.830	2.850	2.850	3.544

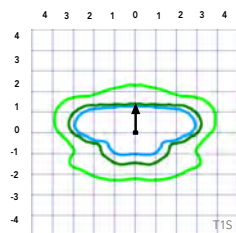


Photometric Diagrams

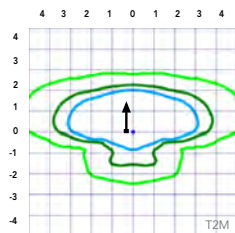
To see complete photometric reports or download .ies files for this product, visit Lithonia Lighting's [D-Series Area Size 0 homepage](#).

Isofootcandle plots for the DSX0 LED 40C 1000 40K. Distances are in units of mounting height (20').

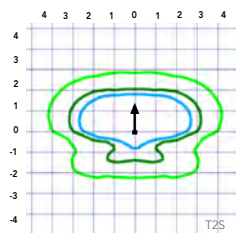
LEGEND



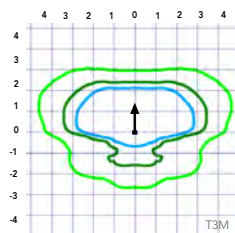
Test No.



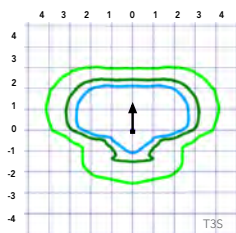
Test No.



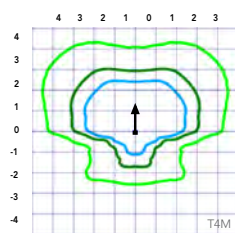
Test No. LT12345/P25 tested in accordance with IESNA LM-79-08.



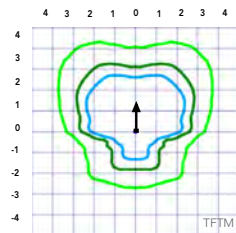
Test No. LT12345/P25 tested in accordance with IESNA LM-79-08.



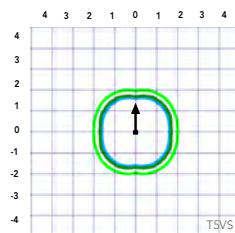
Test No. LT12345/P25 tested in accordance with IESNA LM-79-08.



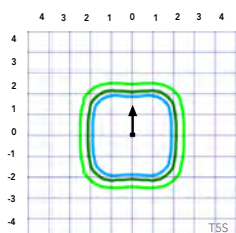
Test No.



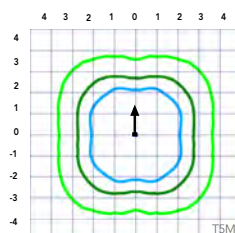
Test No.



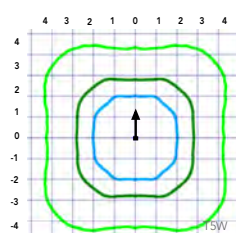
Test No.



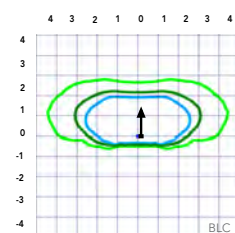
Test No.



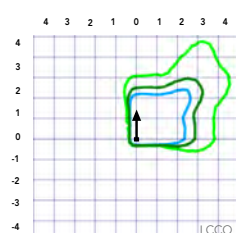
Test No.



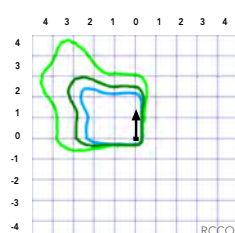
Test No. LT12345/P25 tested in accordance with IESNA LM-79-08.



Test No.



Test No.



Test No.



Performance Data

Lumen Ambient Temperature (LAT) Multipliers

Use these factors to determine relative lumen output for average ambient temperatures from 0-40°C (32-104°F).

Ambient		Lumen Multiplier
0°C	32°F	1.04
5°C	41°F	1.04
10°C	50°F	1.03
15°C	59°F	1.02
20°C	68°F	1.01
25°C	77°F	1.00
30°C	86°F	0.99
35°C	95°F	0.98
40°C	104°F	0.97

Projected LED Lumen Maintenance

Data references the extrapolated performance projections for the platforms noted in a **25°C ambient**, based on 10,000 hours of LED testing (tested per IESNA LM-80-08 and projected per IESNA TM-21-11).

To calculate LLF, use the lumen maintenance factor that corresponds to the desired number of operating hours below. For other lumen maintenance values, contact factory.

Operating Hours	Lumen Maintenance Factor
25,000	0.96
50,000	0.92
100,000	0.85

Motion Sensor Default Settings						
Option	Dimmed State	High Level (when triggered)	Photocell Operation	Dwell Time	Ramp-up Time	Ramp-down Time
PIR or PIRH	3V (37%) Output	10V (100%) Output	Enabled @ SFC	5 min	3 sec	5 min
*PIR1FC3V or PIRH1FC3V	3V (37%) Output	10V (100%) Output	Enabled @ 1FC	5 min	3 sec	5 min

*for use when motion sensor is used as dusk to dawn control.

Controls Options

Nomenclature	Description	Functionality	Primary control device	Notes
FAO	Field adjustable output device installed inside the luminaire; wired to the driver dimming leads.	Allows the luminaire to be manually dimmed, effectively trimming the light output.	FAO device	Cannot be used with other controls options that need the 0-10V leads
DS	Drivers wired independently for 50/50 luminaire operation	The luminaire is wired to two separate circuits, allowing for 50/50 operation.	Independently wired drivers	Requires two separately switched circuits. Consider nLight AIR as a more cost effective alternative.
PERS or PER7	Twist-lock photocell receptacle	Compatible with standard twist-lock photocells for dusk to dawn operation, or advanced control nodes that provide 0-10V dimming signals.	Twist-lock photocells such as DLL Elite or advanced control nodes such as ROAM.	Pins 4 & 5 to dimming leads on driver, Pins 6 & 7 are capped inside luminaire
PIR or PIRH	Motion sensors with integral photocell. PIR for 8-15' mounting; PIRH for 15-30' mounting	Luminaires dim when no occupancy is detected.	Acuity Controls SBGR	Also available with PIRH1FC3V when the sensor photocell is used for dusk-to-dawn operation.
NLTAIR2 PIRHN	nLight AIR enabled luminaire for motion sensing, photocell and wireless communication.	Motion and ambient light sensing with group response. Scheduled dimming with motion sensor over-ride when wirelessly connected to the nLight Eclipse.	nLight Air rSDGR	nLight AIR sensors can be programmed and commissioned from the ground using the CIAIRity Pro app.

Electrical Load

					Current (A)					
	Performance Package	LED Count	Drive Current	Wattage	120	208	240	277	347	480
Forward Optics (Non-Rotated)	P1	20	530	38	0.32	0.18	0.15	0.15	0.10	0.08
	P2	20	700	49	0.41	0.23	0.20	0.19	0.14	0.11
	P3	20	1050	71	0.60	0.37	0.32	0.27	0.21	0.15
	P4	20	1400	92	0.77	0.45	0.39	0.35	0.28	0.20
	P5	40	700	89	0.74	0.43	0.38	0.34	0.26	0.20
	P6	40	1050	134	1.13	0.65	0.55	0.48	0.39	0.29
	P7	40	1300	166	1.38	0.80	0.69	0.60	0.50	0.37
Rotated Optics (Requires L90 or R90)	P10	30	530	53	0.45	0.26	0.23	0.21	0.16	0.12
	P11	30	700	72	0.60	0.35	0.30	0.27	0.20	0.16
	P12	30	1050	104	0.88	0.50	0.44	0.39	0.31	0.23
	P13	30	1300	128	1.08	0.62	0.54	0.48	0.37	0.27





FEATURES & SPECIFICATIONS

INTENDED USE

The sleek design of the D-Series Size 0 reflects the embedded high performance LED technology. It is ideal for many commercial and municipal applications, such as parking lots, plazas, campuses, and pedestrian areas.

CONSTRUCTION

Single-piece die-cast aluminum housing has integral heat sink fins to optimize thermal management through conductive and convective cooling. Modular design allows for ease of maintenance and future light engine upgrades. The LED driver is mounted in direct contact with the casting to promote low operating temperature and long life. Housing is completely sealed against moisture and environmental contaminants (IP65). Low EPA (0.95 ft²) for optimized pole wind loading.

FINISH

Exterior parts are protected by a zinc-infused Super Durable TGIC thermoset powder coat finish that provides superior resistance to corrosion and weathering. A tightly controlled multi-stage process ensures a minimum 3 mils thickness for a finish that can withstand extreme climate changes without cracking or peeling. Available in both textured and non-textured finishes.

OPTICS

Precision-molded proprietary acrylic lenses are engineered for superior area lighting distribution, uniformity, and pole spacing. Light engines are available in 3000 K, 4000 K or 5000 K (70 CRI) configurations. The D-Series Size 0 has zero uplight and qualifies as a Nighttime Friendly™ product, meaning it is consistent with the LEED® and Green Globes™ criteria for eliminating wasteful uplight.

ELECTRICAL

Light engine(s) configurations consist of high-efficacy LEDs mounted to metal-core circuit boards to maximize heat dissipation and promote long life (up to L85/100,000 hours at 25°C). Class 1 electronic drivers are designed to have a power factor >90%, THD <20%, and an expected life of 100,000 hours with <1% failure rate. Easily serviceable 10kV surge protection device meets a minimum Category C Low operation (per ANSI/IEEE C62.41.2).

STANDARD CONTROLS

The DSX0 LED area luminaire has a number of control options. DSX Size 0, comes standard with 0-10V dimming driver. Dusk to dawn controls can be utilized via optional NEMA twist-lock photocell receptacles. Integrated motion sensors with on-board photocells feature field-adjustable programming and are suitable for mounting heights up to 30 feet.

nLIGHT AIR CONTROLS

The DSX0 LED area luminaire is also available with nLight® AIR for the ultimate in wireless control. This powerful controls platform provides out-of-the-box basic motion sensing and photocontrol functionality and is suitable for mounting heights up to 40 feet. Once commissioned using a smartphone and the easy-to-use CLAIRITY app, nLight AIR equipped luminaires can be grouped, resulting in motion sensor and photocell group response without the need for additional equipment. Scheduled dimming with motion sensor over-ride can be achieved when used with the nLight Eclipse. Additional information about nLight Air can be found [here](#).

INSTALLATION

Included mounting block and integral arm facilitate quick and easy installation. Stainless steel bolts fasten the mounting block securely to poles and walls, enabling the D-Series Size 0 to withstand up to a 3.0 G vibration load rating per ANSI C136.31. The D-Series Size 0 utilizes the AERIS™ series pole drilling pattern (template #8). Optional terminal block and NEMA photocontrol receptacle are also available.

LISTINGS

UL listed to meet U.S. and Canadian standards. UL Listed for wet locations. Light engines are IP66 rated; luminaire is IP65 rated. Rated for -40°C to 50°C ambient with HA option. U.S. Patent No. D672,492 S. International patent pending.

DesignLights Consortium® (DLC) Premium qualified product and DLC qualified product. Not all versions of this product may be DLC Premium qualified or DLC qualified. Please check the DLC Qualified Products List at www.designlights.org/QPL to confirm which versions are qualified.

International Dark-Sky Association (IDA) Fixture Seal of Approval (FSA) is available for all products on this page utilizing 3000K color temperature only.

BUY AMERICAN

Product with the BAA option is assembled in the USA and meets the Buy America(n) government procurement requirements under FAR, DFARS and DOT. Please refer to www.acuitybrands.com/buy-american for additional information.

WARRANTY

5-year limited warranty. Complete warranty terms located at: www.acuitybrands.com/support/customer-support/terms-and-conditions

Note: Actual performance may differ as a result of end-user environment and application. All values are design or typical values, measured under laboratory conditions at 25 °C. Specifications subject to change without notice.



COMMERCIAL OUTDOOR

One Lithonia Way • Conyers, Georgia 30012 • Phone: 1-800-705-SERV (7378) • www.lithonia.com
© 2011-2021 Acuity Brands Lighting, Inc. All rights reserved.

DSX0-LED
Rev. 07/19/21
Page 8 of 8



D-Series Size 1 LED Area Luminaire

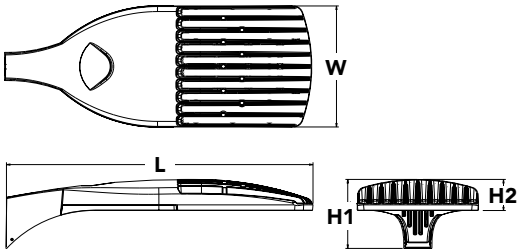


Catalog Number
Notes
Type

Hit the Tab key or mouse over the page to see all interactive elements.

Specifications

EPA:	1.01 ft ² (0.09 m ²)
Length:	33" (83.8 cm)
Width:	13" (33.0 cm)
Height H1:	7-1/2" (19.0 cm)
Height H2:	3-1/2"
Weight (max):	27 lbs (12.2 kg)



Introduction

The modern styling of the D-Series is striking yet unobtrusive - making a bold, progressive statement even as it blends seamlessly with its environment. The D-Series distills the benefits of the latest in LED technology into a high performance, high efficacy, long-life luminaire.

The outstanding photometric performance results in sites with excellent uniformity, greater pole spacing and lower power density. It is ideal for replacing up to 750W metal halide in pedestrian and area lighting applications with typical energy savings of 65% and expected service life of over 100,000 hours.

Ordering Information

EXAMPLE: DSX1 LED P7 40K T3M MVOLT SPA NLTAIR2 PIRHN DDBXD

DSX1 LED					
Series	LEDs	Color temperature	Distribution	Voltage	Mounting
DSX1 LED	Forward optics P1 P4 ¹ P7¹ P2 P5 ¹ P8 P3 P6 ¹ P9 ¹ Rotated optics P10 ² P12 ² P11 ² P13 ^{1,2}	30K 3000 K 40K 4000 K 50K 5000 K	T1S Type I short (Automotive) T2S Type II short T2M Type II medium T3S Type III short T3M Type III medium T4M Type IV medium TFTM Forward throw medium T5VS Type V very short ³ T5S Type V short ³ T5M Type V medium ³ T5W Type V wide ³ BLC Backlight control⁴ LCCO Left corner cutoff ⁴ RCCO Right corner cutoff ⁴	MVOLT⁵ XVOLT (277V-480V) ^{6,7,8} 120 ⁹ 208 ⁹ 240 ⁹ 277 ⁹ 347 ⁹ 480 ⁹	Shipped included SPA Square pole mounting RPA Round pole mounting ¹⁰ WBA Wall bracket ³ SPUMBA Square pole universal mounting adaptor ¹¹ RPUMBA Round pole universal mounting adaptor ⁹ Shipped separately KMA8 DDBXD U Mast arm mounting bracket adaptor (specify finish) ¹²

Control options		Other options	Finish (required)
Shipped installed NLTAIR2 nLight AIR generation 2 enabled ¹³ PIRHN Network, high/low motion/ambient sensor ¹⁴ PER NEMA twist-lock receptacle only (controls ordered separate) ¹⁵ PERS Five-pin receptacle only (controls ordered separate) ^{15,16} PER7 Seven-pin receptacle only (controls ordered separate) ^{15,16} DMG 0-10v dimming wires pulled outside fixture (for use with an external control, ordered separately) ¹⁷ DS Dual switching ^{18,19,20}	PIR High/low, motion/ambient sensor, 8-15' mounting height, ambient sensor enabled at 5fc ^{20,21} PIRH High/low, motion/ambient sensor, 15-30' mounting height, ambient sensor enabled at 5fc ^{20,21} PIR1FC3V High/low, motion/ambient sensor, 8-15' mounting height, ambient sensor enabled at 1fc ^{20,21} PIRH1FC3V Bi-level, motion/ambient sensor, 15-30' mounting height, ambient sensor enabled at 1fc ^{20,21} FAO Field adjustable output ^{20,21}	Shipped installed HS House-side shield ²³ SF Single fuse (120, 277, 347V) ⁹ DF Double fuse (208, 240, 480V) ⁹ L90 Left rotated optics ² R90 Right rotated optics ² HA 50°C ambient operations ¹ BAA Buy America(n) Act Compliant Shipped separately BS Bird spikes ²⁴ EGS External glare shield	DDBXD Dark bronze DBLXD Black DNAXD Natural aluminum DWHXD White DDBTXD Textured dark bronze DBLBXD Textured black DNATXD Textured natural aluminum DWHGXD Textured white



One Lithonia Way • Conyers, Georgia 30012 • Phone: 1-800-705-SERV (7378) • www.lithonia.com
© 2011-2021 Acuity Brands Lighting, Inc. All rights reserved.

DSX1-LED
Rev. 07/19/21
Page 1 of 8

Ordering Information

Accessories

Ordered and shipped separately.

DLL127F 1.5 JU	Photocell - SSL twist-lock (120-277V) ²⁵
DLL347F 1.5 CUL JU	Photocell - SSL twist-lock (347V) ²⁵
DLL480F 1.5 CUL JU	Photocell - SSL twist-lock (480V) ²⁵
DSHORT SBK U	Shorting cap ²⁵
DSX1HS 30C U	House-side shield for P1, P2, P3, P4 and P5 ²⁵
DSX1HS 40C U	House-side shield for P6 and P7 ²⁵
DSX1HS 60C U	House-side shield for P8, P9, P10, P11 and P12 ²⁵
PUMBA DDBXD U*	Square and round pole universal mounting bracket (specify finish) ²⁶
KMA8 DDBXD U	Max arm mounting bracket adaptor (specify finish) ¹²
DSX1EGS (FINISH) U	External glare shield

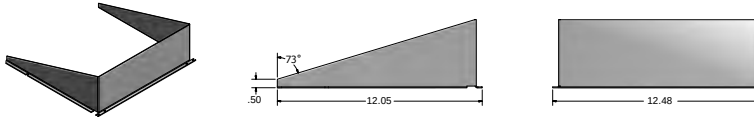
For more control options, visit [DTL](#) and [ROAM](#) online.

NOTES

- HA not available with P4, P5, P6, P7, P9 and P13.
- P10, P11, P12 or P13 and rotated optics (L90, R90) only available together.
- Any Type 5 distribution with photocell, is not available with WBA.
- Not available with HS.
- XVOLT driver operates on any line voltage from 120-277V (50/60 Hz).
- XVOLT only suitable for use with P3, P5, P6, P7, P9 and P13.
- XVOLT works with any voltage between 277V and 480V.
- XVOLT not available with fusing (SF or DF) and not available with PIR, PIRH, PIR1FC3V, PIRH1FC3V.
- Single fuse (SF) requires 120V, 277V or 347V. Double fuse (DF) requires 208V, 240V or 480V. XVOLT not available with fusing (SF or DF).
- Suitable for mounting to round poles between 3.5" and 12" diameter.
- Universal mounting brackets intended for retrofit on existing, pre-drilled poles only. 1.5 G vibration load rating per ANCI C136.31. Only usable when pole's drill pattern is NOT Lithonia template #8
- Must order fixture with SPA option. Must be ordered as a separate accessory; see Accessories information. For use with 2-3/8" diameter mast arm (not included).
- Must be ordered with PIRHN. Sensor cover available only in dark bronze, black, white and natural aluminum colors.
- Must be ordered with NLTAIR2. For more information on nLight Air 2 visit [this link](#).
- Photocell ordered and shipped as a separate line item from Acuity Brands Controls. See accessories. Shorting cap included.
- If ROAM® node required, it must be ordered and shipped as a separate line item from Acuity Brands Controls. Node with integral dimming.
- DMG not available with PIRHN, PER5, PER7, PIR, PIRH, PIR1FC3V or PIRH1FC3V, FAO.
- Provides 50/50 fixture operation via (2) independent drivers. Not available with PER, PER5, PER7, PIR or PIRH. Not available P1, P2, P3, P4 or P5.
- Requires (2) separately switched circuits with isolated neutral.
- Reference Controls Option Default settings table on page 4.
- Reference Motion Sensor table on page 4 to see functionality.
- Not available with other dimming controls options.
- Not available with BLC, LCCO and RCCO distribution. Also available as a separate accessory; see Accessories information.
- Must be ordered with fixture for factory pre-drilling.
- Requires luminaire to be specified with PER, PER5 or PER7 option. See Control Option Table on page 4.
- For retrofit use only. Only usable when pole's drill pattern is NOT Lithonia template #8.

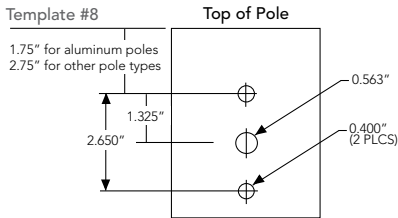
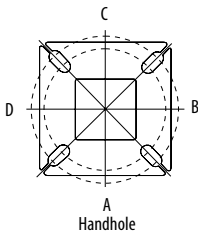
Options

EGS - External Glare Shield



Drilling

HANDHOLE ORIENTATION



Tenon Mounting Slipfitter

Tenon O.D.	Mounting	Single Unit	2 @ 180	2 @ 90	3 @ 90	3 @120	4 @ 90
2-3/8"	RPA	AS3-5 190	AS3-5 280	AS3-5 290	AS3-5 390	AS3-5 320	AS3-5 490
2-7/8"	RPA	AST25-190	AST25-280	AST25-290	AST25-390	AST25-320	AST25-490
4"	RPA	AST35-190	AST35-280	AST35-290	AST35-390	AST35-320	AST35-490

Mounting Option	Drilling Template	Single	2 @ 180	2 @ 90	3 @ 90	3 @ 120	4 @ 90
Head Location		Side B	Side B & D	Side B & C	Side B, C & D	Round Pole Only	Side A, B, C & D
Drill Nomenclature	#8	DM19AS	DM28AS	DM29AS	DM39AS	DM32AS	DM49AS

DSX1 Area Luminaire - EPA

*Includes luminaire and integral mounting arm. Other tenons, arms, brackets or other accessories are not included in this EPA data.

Fixture Quantity & Mounting Configuration	Single DM19	2 @ 180 DM28	2 @ 90 DM29	3 @ 90 DM39	3 @ 120 DM32	4 @ 90 DM49
Mounting Type						
DSX1 LED	1.013	2.025	1.945	3.038	2.850	3.749

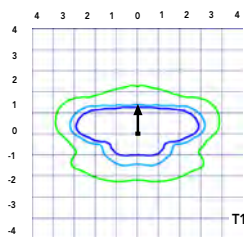
	Drilling Template	Minimum Acceptable Outside Pole Dimension					
SPA	#8	2-7/8"	2-7/8"	3.5"	3.5"	3"	3.5"
RPA	#8	2-7/8"	2-7/8"	3.5"	3.5"	3"	3.5"
SPUMBA	#5	2-7/8"	3"	4"	4"	3.5"	4"
RPUMBA	#5	2-7/8"	3.5"	5"	5"	3.5"	5"

Photometric Diagrams

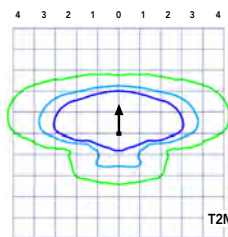
To see complete photometric reports or download .ies files for this product, visit Lithonia Lighting's [D-Series Area Size 1 homepage](#).

Isofootcandle plots for the DSX1 LED 60C 1000 40K. Distances are in units of mounting height (25').

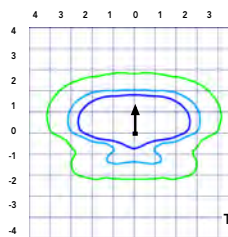
LEGEND



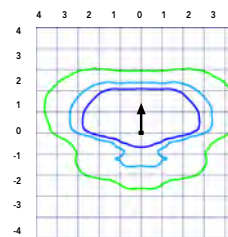
Test No. LTL23211 tested in accordance with IESNA LM-79-08.



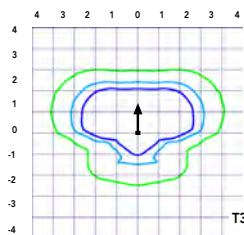
Test No. LTL23164B tested in accordance with IESNA LM-79-08.



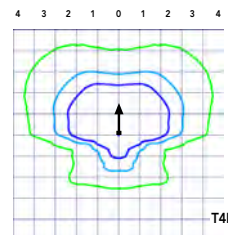
Test No. LTL23222 tested in accordance with IESNA LM-79-08.



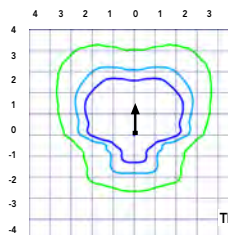
Test No. LTL23271 tested in accordance with IESNA LM-79-08.



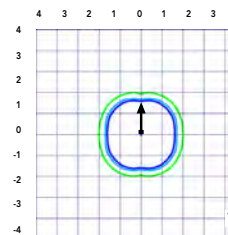
Test No. LTL23211 tested in accordance with IESNA LM-79-08.



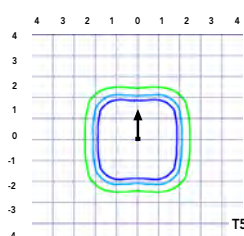
Test No. LTL23164B tested in accordance with IESNA LM-79-08.



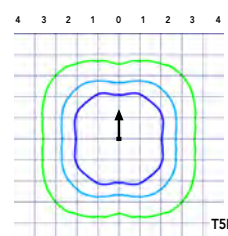
Test No. LTL23222 tested in accordance with IESNA LM-79-08.



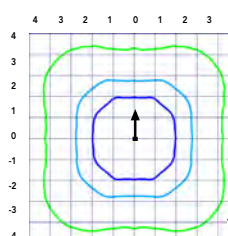
Test No. LTL23271 tested in accordance with IESNA LM-79-08.



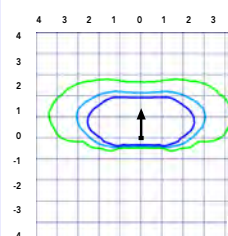
Test No. LTL23211 tested in accordance with IESNA LM-79-08.



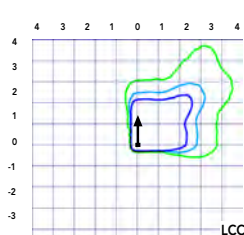
Test No. LTL23164B tested in accordance with IESNA LM-79-08.



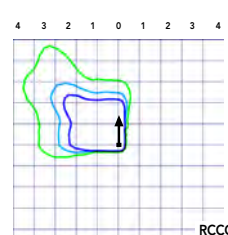
Test No. LTL23222 tested in accordance with IESNA LM-79-08.



Test No. LTL23271 tested in accordance with IESNA LM-79-08.



Test No. LTL23211 tested in accordance with IESNA LM-79-08.



Test No. LTL23164B tested in accordance with IESNA LM-79-08.

Performance Data

Lumen Ambient Temperature (LAT) Multipliers

Use these factors to determine relative lumen output for average ambient temperatures from 0-40°C (32-104°F).

Ambient		Lumen Multiplier
0°C	32°F	1.04
5°C	41°F	1.04
10°C	50°F	1.03
15°C	59°F	1.02
20°C	68°F	1.01
25°C	77°F	1.00
30°C	86°F	0.99
35°C	95°F	0.98
40°C	104°F	0.97

Projected LED Lumen Maintenance

Data references the extrapolated performance projections for the platforms noted in a **25°C ambient**, based on 10,000 hours of LED testing (tested per IESNA LM-80-08 and projected per IESNA TM-21-11).

To calculate LLF, use the lumen maintenance factor that corresponds to the desired number of operating hours below. For other lumen maintenance values, contact factory.

Operating Hours	Lumen Maintenance Factor
0	1.00
25,000	0.96
50,000	0.92
100,000	0.85

Motion Sensor Default Settings						
Option	Dimmed State	High Level (when triggered)	Photocell Operation	Dwell Time	Ramp-up Time	Ramp-down Time
PIR or PIRH	3V (37%) Output	10V (100%) Output	Enabled @ 5FC	5 min	3 sec	5 min
*PIR1FC3V or PIRH1FC3V	3V (37%) Output	10V (100%) Output	Enabled @ 1FC	5 min	3 sec	5 min

*for use when motion sensor is used as dusk to dawn control.

Electrical Load

	Performance Package	LED Count	Drive Current	Wattage	Current (A)					
					120	208	240	277	347	480
Forward Optics (Non-Rotated)	P1	30	530	54	0.45	0.26	0.23	0.19	0.10	0.12
	P2	30	700	70	0.59	0.34	0.30	0.25	0.20	0.16
	P3	30	1050	102	0.86	0.50	0.44	0.38	0.30	0.22
	P4	30	1250	125	1.06	0.60	0.52	0.46	0.37	0.27
	P5	30	1400	138	1.16	0.67	0.58	0.51	0.40	0.29
	P6	40	1250	163	1.36	0.78	0.68	0.59	0.47	0.34
	P7	40	1400	183	1.53	0.88	0.76	0.66	0.53	0.38
	P8	60	1050	207	1.74	0.98	0.87	0.76	0.64	0.49
	P9	60	1250	241	2.01	1.16	1.01	0.89	0.70	0.51
Rotated Optics (Requires L90 or R90)	P10	60	530	106	0.90	0.52	0.47	0.43	0.33	0.27
	P11	60	700	137	1.15	0.67	0.60	0.53	0.42	0.32
	P12	60	1050	207	1.74	0.99	0.87	0.76	0.60	0.46
	P13	60	1250	231	1.93	1.12	0.97	0.86	0.67	0.49

Controls Options				
Nomenclature	Description	Functionality	Primary control device	Notes
FA0	Field adjustable output device installed inside the luminaire; wired to the driver dimming leads.	Allows the luminaire to be manually dimmed, effectively trimming the light output.	FA0 device	Cannot be used with other controls options that need the 0-10V leads
DS	Drivers wired independently for 50/50 luminaire operation	The luminaire is wired to two separate circuits, allowing for 50/50 operation.	Independently wired drivers	Requires two separately switched circuits. Consider nLight AIR as a more cost effective alternative.
PERS or PER7	Twist-lock photocell receptacle	Compatible with standard twist-lock photocells for dusk to dawn operation, or advanced control nodes that provide 0-10V dimming signals.	Twist-lock photocells such as DLL Elite or advanced control nodes such as ROAM.	Pins 4 & 5 to dimming leads on driver, Pins 6 & 7 are capped inside luminaire
PIR or PIRH	Motion sensors with integral photocell. PIR for 8-15' mounting; PIRH for 15-30' mounting	Luminaires dim when no occupancy is detected.	Acuity Controls SBGR	Also available with PIRH1FC3V when the sensor photocell is used for dusk-to-dawn operation.
NLTAIR2 PIRHN	nLight AIR enabled luminaire for motion sensing, photocell and wireless communication.	Motion and ambient light sensing with group response. Scheduled dimming with motion sensor over-ride when wirelessly connected to the nLight Eclipse.	nLight Air rSDGR	nLight AIR sensors can be programmed and commissioned from the ground using the CIAIRity Pro app.

Performance Data

Lumen Output

Lumen values are from photometric tests performed in accordance with IESNA LM-79-08. Data is considered to be representative of the configurations shown, within the tolerances allowed by Lighting Facts. Contact factory for performance data on any configurations not shown here.

Forward Optics																			
LED Count	Drive Current	Power Package	System Watts	Dist. Type	30K (3000 K, 70 CRI)					40K (4000 K, 70 CRI)					50K (5000 K, 70 CRI)				
					Lumens	B	U	G	LPW	Lumens	B	U	G	LPW	Lumens	B	U	G	LPW
40	1250	P6	163W	T1S	17,654	3	0	3	108	19,018	3	0	3	117	19,259	3	0	3	118
				T2S	17,635	3	0	3	108	18,998	3	0	3	117	19,238	3	0	3	118
				T2M	17,726	3	0	3	109	19,096	3	0	3	117	19,337	3	0	3	119
				T3S	17,167	3	0	3	105	18,493	3	0	3	113	18,727	3	0	3	115
				T3M	17,683	3	0	3	108	19,049	3	0	3	117	19,290	3	0	3	118
				T4M	17,299	3	0	3	106	18,635	3	0	4	114	18,871	3	0	4	116
				TFTM	17,672	3	0	3	108	19,038	3	0	4	117	19,279	3	0	4	118
				TSVS	18,379	4	0	1	113	19,800	4	0	1	121	20,050	4	0	1	123
				TSS	18,394	4	0	2	113	19,816	4	0	2	122	20,066	4	0	2	123
				TSM	18,348	4	0	2	113	19,766	4	0	2	121	20,016	4	0	2	123
				TSW	18,228	5	0	3	112	19,636	5	0	3	120	19,885	5	0	3	122
				BLC	14,489	2	0	2	89	15,609	2	0	3	96	15,806	2	0	3	97
				LCCO	10,781	1	0	3	66	11,614	1	0	3	71	11,761	2	0	3	72
				RCCO	10,781	1	0	3	66	11,614	1	0	3	71	11,761	2	0	3	72
				T1S	19,227	3	0	3	105	20,712	3	0	3	113	20,975	3	0	3	115
40	1400	P7	183W	T2S	19,206	3	0	3	105	20,690	3	0	3	113	20,952	3	0	3	114
				T2M	19,305	3	0	3	105	20,797	3	0	3	114	21,060	3	0	3	115
				T3S	18,696	3	0	3	102	20,141	3	0	3	110	20,396	3	0	4	111
				T3M	19,258	3	0	3	105	20,746	3	0	3	113	21,009	3	0	3	115
				T4M	18,840	3	0	4	103	20,296	3	0	4	111	20,553	3	0	4	112
				TFTM	19,246	3	0	4	105	20,734	3	0	4	113	20,996	3	0	4	115
				TSVS	20,017	4	0	1	109	21,564	4	0	1	118	21,837	4	0	1	119
				TSS	20,033	4	0	2	109	21,581	4	0	2	118	21,854	4	0	2	119
				TSM	19,983	4	0	2	109	21,527	5	0	3	118	21,799	5	0	3	119
				TSW	19,852	5	0	3	108	21,386	5	0	3	117	21,656	5	0	3	118
				BLC	15,780	2	0	3	86	16,999	2	0	3	93	17,214	2	0	3	94
				LCCO	11,742	2	0	3	64	12,649	2	0	3	69	12,809	2	0	3	70
				RCCO	11,742	2	0	3	64	12,649	2	0	3	69	12,809	2	0	3	70
				T1S	22,490	3	0	3	109	24,228	3	0	3	117	24,535	3	0	3	119
				T2S	22,466	3	0	4	109	24,202	3	0	4	117	24,509	3	0	4	118
60	1050	P8	207W	T2M	22,582	3	0	3	109	24,327	3	0	3	118	24,635	3	0	3	119
				T3S	21,870	3	0	4	106	23,560	3	0	4	114	23,858	3	0	4	115
				T3M	22,527	3	0	4	109	24,268	3	0	4	117	24,575	3	0	4	119
				T4M	22,038	3	0	4	106	23,741	3	0	4	115	24,041	3	0	4	116
				TFTM	22,513	3	0	4	109	24,253	3	0	4	117	24,560	3	0	4	119
				TSVS	23,415	5	0	1	113	25,224	5	0	1	122	25,543	5	0	1	123
				TSS	23,434	4	0	2	113	25,244	4	0	2	122	25,564	4	0	2	123
				TSM	23,374	5	0	3	113	25,181	5	0	3	122	25,499	5	0	3	123
				TSW	23,221	5	0	4	112	25,016	5	0	4	121	25,332	5	0	4	122
				BLC	18,458	2	0	3	89	19,885	2	0	3	96	20,136	2	0	3	97
				LCCO	13,735	2	0	3	66	14,796	2	0	4	71	14,983	2	0	4	72
				RCCO	13,735	2	0	3	66	14,796	2	0	4	71	14,983	2	0	4	72
				T1S	25,575	3	0	3	106	27,551	3	0	3	114	27,900	3	0	3	116
				T2S	25,548	3	0	4	106	27,522	3	0	4	114	27,871	3	0	4	116
				T2M	25,680	3	0	3	107	27,664	3	0	3	115	28,014	3	0	3	116
60	1250	P9	241W	T3S	24,870	3	0	4	103	26,791	3	0	4	111	27,130	3	0	4	113
				T3M	25,617	3	0	4	106	27,597	3	0	4	115	27,946	3	0	4	116
				T4M	25,061	3	0	4	104	26,997	3	0	4	112	27,339	3	0	4	113
				TFTM	25,602	3	0	4	106	27,580	3	0	4	114	27,929	3	0	4	116
				TSVS	26,626	5	0	1	110	28,684	5	0	1	119	29,047	5	0	1	121
				TSS	26,648	4	0	2	111	28,707	5	0	2	119	29,070	5	0	2	121
				TSM	26,581	5	0	3	110	28,635	5	0	3	119	28,997	5	0	3	120
				TSW	26,406	5	0	4	110	28,447	5	0	4	118	28,807	5	0	4	120
				BLC	20,990	2	0	3	87	22,612	2	0	3	94	22,898	2	0	3	95
				LCCO	15,619	2	0	4	65	16,825	2	0	4	70	17,038	2	0	4	71
				RCCO	15,619	2	0	4	65	16,825	2	0	4	70	17,038	2	0	4	71



FEATURES & SPECIFICATIONS

INTENDED USE

The sleek design of the D-Series Size 1 reflects the embedded high performance LED technology. It is ideal for many commercial and municipal applications, such as parking lots, plazas, campuses, and streetscapes.

CONSTRUCTION

Single-piece die-cast aluminum housing has integral heat sink fins to optimize thermal management through conductive and convective cooling. Modular design allows for ease of maintenance and future light engine upgrades. The LED drivers are mounted in direct contact with the casting to promote low operating temperature and long life. Housing is completely sealed against moisture and environmental contaminants (IP65). Low EPA (1.01 ft²) for optimized pole wind loading.

FINISH

Exterior parts are protected by a zinc-infused Super Durable TGIC thermoset powder coat finish that provides superior resistance to corrosion and weathering. A tightly controlled multi-stage process ensures a minimum 3 mils thickness for a finish that can withstand extreme climate changes without cracking or peeling. Available in both textured and non-textured finishes.

OPTICS

Precision-molded proprietary acrylic lenses are engineered for superior area lighting distribution, uniformity, and pole spacing. Light engines are available in standard 3000 K, 4000 K and 5000 K (70 CRI) configurations. The D-Series Size 1 has zero uplight and qualifies as a Nighttime Friendly™ product, meaning it is consistent with the LEED® and Green Globes™ criteria for eliminating wasteful uplight.

ELECTRICAL

Light engine configurations consist of high-efficacy LEDs mounted to metal-core circuit boards to maximize heat dissipation and promote long life (up to L85/100,000 hours at 25°C). Class 1 electronic drivers are designed to have a power factor >90%, THD <20%, and an expected life of 100,000 hours with <1% failure rate. Easily serviceable 10kV surge protection device meets a minimum Category C Low operation (per ANSI/IEEE C62.41.2).

STANDARD CONTROLS

The DSX1 LED area luminaire has a number of control options. DSX Size 1, comes standard with 0-10V dimming drivers. Dusk to dawn controls can be utilized via optional NEMA twist-lock photocell receptacles. Integrated motion sensors with on-board photocells feature field-adjustable programming and are suitable for mounting heights up to 30 feet.

nLIGHT AIR CONTROLS

The DSX1 LED area luminaire is also available with nLight® AIR for the ultimate in wireless control. This powerful controls platform provides out-of-the-box basic motion sensing and photocontrol functionality and is suitable for mounting heights up to 40 feet. Once commissioned using a smartphone and the easy-to-use CLAIRITY app, nLight AIR equipped luminaires can be grouped, resulting in motion sensor and photocell group response without the need for additional equipment. Scheduled dimming with motion sensor over-ride can be achieved when used with the nLight Eclipse. Additional information about nLight Air can be found here.

INSTALLATION

Included mounting block and integral arm facilitate quick and easy installation. Stainless steel bolts fasten the mounting block securely to poles and walls, enabling the D-Series Size 1 to withstand up to a 3.0 G vibration load rating per ANSI C136.31. The D-Series Size 1 utilizes the AERIS™ series pole drilling pattern (template #8). NEMA photocontrol receptacle are also available.

LISTINGS

UL listed to meet U.S. and Canadian standards. UL Listed for wet locations. Light engines are IP66 rated; luminaire is IP65 rated. Rated for -40°C minimum ambient. U.S. Patent No. D672,492 S. International patent pending.

DesignLights Consortium® (DLC) Premium qualified product and DLC qualified product. Not all versions of this product may be DLC Premium qualified or DLC qualified. Please check the DLC Qualified Products List at www.designlights.org/QPL to confirm which versions are qualified.

International Dark-Sky Association (IDA) Fixture Seal of Approval (FSA) is available for all products on this page utilizing 3000K color temperature only.

BUY AMERICAN

Product with the BAA option is assembled in the USA and meets the Buy America(n) government procurement requirements under FAR, DFARS and DOT. Please refer to www.acuitybrands.com/buy-american for additional information.

WARRANTY

5-year limited warranty. Complete warranty terms located at: www.acuitybrands.com/support/customer-support/terms-and-conditions

Note: Actual performance may differ as a result of end-user environment and application.

All values are design or typical values, measured under laboratory conditions at 25 °C.

Specifications subject to change without notice.





D-Series Size 1 LED Area Luminaire

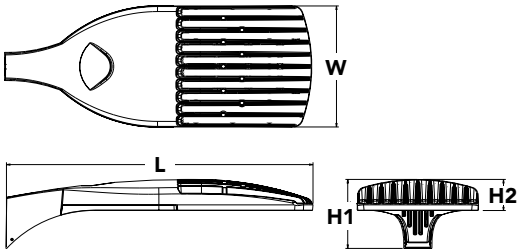


Catalog Number
Notes
Type

Hit the Tab key or mouse over the page to see all interactive elements.

Specifications

EPA:	1.01 ft ² (0.09 m ²)
Length:	33" (83.8 cm)
Width:	13" (33.0 cm)
Height H1:	7-1/2" (19.0 cm)
Height H2:	3-1/2"
Weight (max):	27 lbs (12.2 kg)



Introduction

The modern styling of the D-Series is striking yet unobtrusive - making a bold, progressive statement even as it blends seamlessly with its environment. The D-Series distills the benefits of the latest in LED technology into a high performance, high efficacy, long-life luminaire.

The outstanding photometric performance results in sites with excellent uniformity, greater pole spacing and lower power density. It is ideal for replacing up to 750W metal halide in pedestrian and area lighting applications with typical energy savings of 65% and expected service life of over 100,000 hours.

Ordering Information

EXAMPLE: DSX1 LED P7 40K T3M MVOLT SPA NLTAIR2 PIRHN DDBXD

DSX1 LED						
Series	LEDs	Color temperature	Distribution	Voltage	Mounting	
DSX1 LED	Forward optics P1 P4¹ P7¹ P2 P5¹ P8 P3 P6¹ P9¹ Rotated optics P10² P12² P11² P13^{1,2}	30K 3000 K 40K 4000 K 50K 5000 K	T1S Type I short (Automotive) T2S Type II short T2M Type II medium T3S Type III short T3M Type III medium T4M Type IV medium TFTM Forward throw medium	T5VS Type V very short³ T5S Type V short³ T5M Type V medium³ TSW Type V wide³ BLC Backlight control⁴ LCCO Left corner cutoff⁴ RCCO Right corner cutoff⁴	MVOLT⁵ XVOLT (277V-480V)^{6,7,8} 120⁹ 208⁹ 240⁹ 277⁹ 347⁹ 480⁹	Shipped included SPA Square pole mounting RPA Round pole mounting¹⁰ WBA Wall bracket³ SPUMBA Square pole universal mounting adaptor¹¹ RPUMBA Round pole universal mounting adaptor⁹ Shipped separately KMA8 DDBXD U Mast arm mounting bracket adaptor (specify finish)¹²

Control options		Other options	Finish (required)
Shipped installed NLTAIR2 nLight AIR generation 2 enabled ¹³ PIRHN Network, high/low motion/ambient sensor ¹⁴ PER NEMA twist-lock receptacle only (controls ordered separate) ¹⁵ PERS Five-pin receptacle only (controls ordered separate) ^{15,16} PER7 Seven-pin receptacle only (controls ordered separate) ^{15,16} DMG 0-10v dimming wires pulled outside fixture (for use with an external control, ordered separately) ¹⁷ DS Dual switching ^{18,19,20}	PIR High/low, motion/ambient sensor, 8-15' mounting height, ambient sensor enabled at 5fc ^{20,21} PIRH High/low, motion/ambient sensor, 15-30' mounting height, ambient sensor enabled at 5fc ^{20,21} PIR1FC3V High/low, motion/ambient sensor, 8-15' mounting height, ambient sensor enabled at 1fc ^{20,21} PIRH1FC3V Bi-level, motion/ambient sensor, 15-30' mounting height, ambient sensor enabled at 1fc ^{20,21} FAO Field adjustable output ^{20,21}	Shipped installed HS House-side shield ²³ SF Single fuse (120, 277, 347V) ⁹ DF Double fuse (208, 240, 480V) ⁹ L90 Left rotated optics ² R90 Right rotated optics ² HA 50°C ambient operations ¹ BAA Buy America(n) Act Compliant Shipped separately BS Bird spikes ²⁴ EGS External glare shield	DDBXD Dark bronze DBLXD Black DNAXD Natural aluminum DWHXD White DDBTXD Textured dark bronze DBLBXD Textured black DNATXD Textured natural aluminum DWHGXD Textured white

Ordering Information

Accessories

Ordered and shipped separately.

DLL127F 1.5 JU	Photocell - SSL twist-lock (120-277V) ²⁵
DLL347F 1.5 CUL JU	Photocell - SSL twist-lock (347V) ²⁵
DLL480F 1.5 CUL JU	Photocell - SSL twist-lock (480V) ²⁵
DSHORT SBK U	Shorting cap ²⁵
DSX1HS 30C U	House-side shield for P1, P2, P3, P4 and P5 ²⁵
DSX1HS 40C U	House-side shield for P6 and P7 ²⁵
DSX1HS 60C U	House-side shield for P8, P9, P10, P11 and P12 ²⁵
PUMBA DDBXD U*	Square and round pole universal mounting bracket (specify finish) ²⁶
KMA8 DDBXD U	Max arm mounting bracket adaptor (specify finish) ¹²
DSX1EGS (FINISH) U	External glare shield

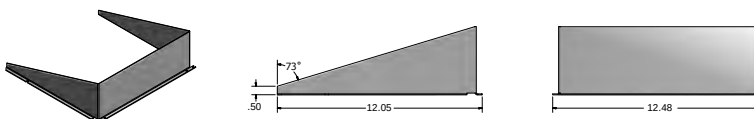
For more control options, visit [DTL](#) and [ROAM](#) online.

NOTES

- HA not available with P4, P5, P6, P7, P9 and P13.
- P10, P11, P12 or P13 and rotated optics (L90, R90) only available together.
- Any Type 5 distribution with photocell, is not available with WBA.
- Not available with HS.
- XVOLT driver operates on any line voltage from 120-277V (50/60 Hz).
- XVOLT only suitable for use with P3, P5, P6, P7, P9 and P13.
- XVOLT works with any voltage between 277V and 480V.
- XVOLT not available with fusing (SF or DF) and not available with PIR, PIRH, PIR1FC3V, PIRH1FC3V.
- Single fuse (SF) requires 120V, 277V or 347V. Double fuse (DF) requires 208V, 240V or 480V. XVOLT not available with fusing (SF or DF).
- Suitable for mounting to round poles between 3.5" and 12" diameter.
- Universal mounting brackets intended for retrofit on existing, pre-drilled poles only. 1.5 G vibration load rating per ANCI C136.31. Only usable when pole's drill pattern is NOT Lithonia template #8
- Must order fixture with SPA option. Must be ordered as a separate accessory; see Accessories information. For use with 2-3/8" diameter mast arm (not included).
- Must be ordered with PIRHN. Sensor cover available only in dark bronze, black, white and natural aluminum colors.
- Must be ordered with NLTAIR2. For more information on nLight Air 2 visit [this link](#).
- Photocell ordered and shipped as a separate line item from Acuity Brands Controls. See accessories. Shorting cap included.
- If ROAM® node required, it must be ordered and shipped as a separate line item from Acuity Brands Controls. Node with integral dimming.
- DMG not available with PIRHN, PER5, PER7, PIR, PIRH, PIR1FC3V or PIRH1FC3V, FAO.
- Provides 50/50 fixture operation via (2) independent drivers. Not available with PER, PER5, PER7, PIR or PIRH. Not available P1, P2, P3, P4 or P5.
- Requires (2) separately switched circuits with isolated neutral.
- Reference Controls Option Default settings table on page 4.
- Reference Motion Sensor table on page 4 to see functionality.
- Not available with other dimming controls options.
- Not available with BLC, LCCO and RCCO distribution. Also available as a separate accessory; see Accessories information.
- Must be ordered with fixture for factory pre-drilling.
- Requires luminaire to be specified with PER, PER5 or PER7 option. See Control Option Table on page 4.
- For retrofit use only. Only usable when pole's drill pattern is NOT Lithonia template #8.

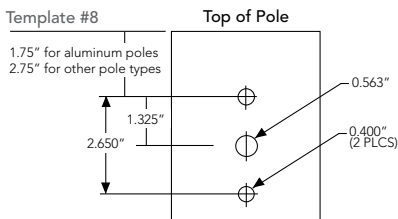
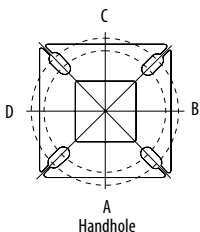
Options

EGS - External Glare Shield



Drilling

HANDHOLE ORIENTATION



Tenon Mounting Slipfitter

Tenon O.D.	Mounting	Single Unit	2 @ 180	2 @ 90	3 @ 90	3 @120	4 @ 90
2-3/8"	RPA	AS3-5 190	AS3-5 280	AS3-5 290	AS3-5 390	AS3-5 320	AS3-5 490
2-7/8"	RPA	AST25-190	AST25-280	AST25-290	AST25-390	AST25-320	AST25-490
4"	RPA	AST35-190	AST35-280	AST35-290	AST35-390	AST35-320	AST35-490

Mounting Option	Drilling Template	Single	2 @ 180	2 @ 90	3 @ 90	3 @ 120	4 @ 90
Head Location		Side B	Side B & D	Side B & C	Side B, C & D	Round Pole Only	Side A, B, C & D
Drill Nomenclature	#8	DM19AS	DM28AS	DM29AS	DM39AS	DM32AS	DM49AS

DSX1 Area Luminaire - EPA

*Includes luminaire and integral mounting arm. Other tenons, arms, brackets or other accessories are not included in this EPA data.

Fixture Quantity & Mounting Configuration	Single DM19	2 @ 180 DM28	2 @ 90 DM29	3 @ 90 DM39	3 @ 120 DM32	4 @ 90 DM49
Mounting Type						
DSX1 LED	1.013	2.025	1.945	3.038	2.850	3.749

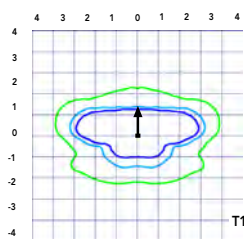
	Drilling Template	Minimum Acceptable Outside Pole Dimension					
SPA	#8	2-7/8"	2-7/8"	3.5"	3.5"	3"	3.5"
RPA	#8	2-7/8"	2-7/8"	3.5"	3.5"	3"	3.5"
SPUMBA	#5	2-7/8"	3"	4"	4"	3.5"	4"
RPUMBA	#5	2-7/8"	3.5"	5"	5"	3.5"	5"

Photometric Diagrams

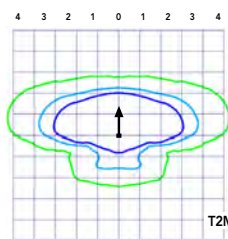
To see complete photometric reports or download .ies files for this product, visit Lithonia Lighting's [D-Series Area Size 1 homepage](#).

Isofootcandle plots for the DSX1 LED 60C 1000 40K. Distances are in units of mounting height (25').

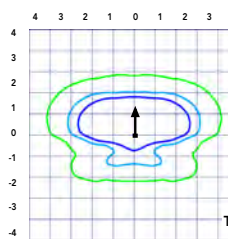
LEGEND



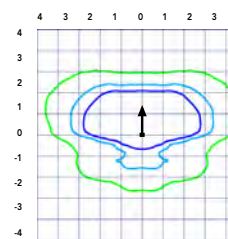
Test No. LTL23211 tested in accordance with IESNA LM-79-08.



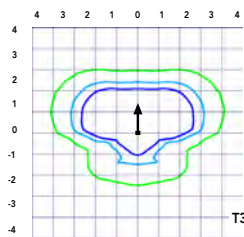
Test No. LTL23164B tested in accordance with IESNA LM-79-08.



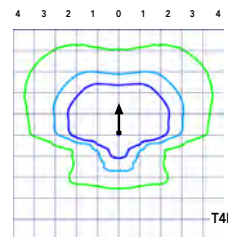
Test No. LTL23222 tested in accordance with IESNA LM-79-08.



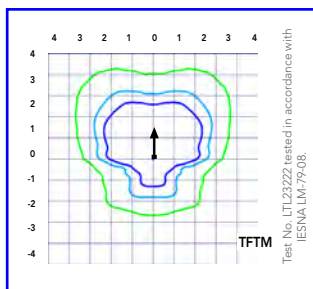
Test No. LTL23271 tested in accordance with IESNA LM-79-08.



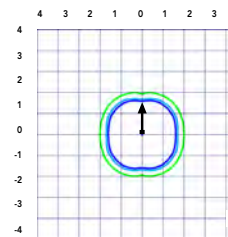
Test No. LTL23211 tested in accordance with IESNA LM-79-08.



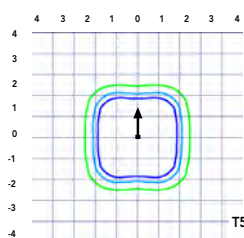
Test No. LTL23164B tested in accordance with IESNA LM-79-08.



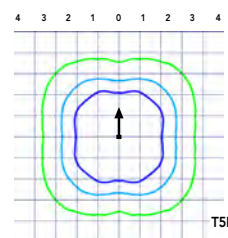
Test No. LTL23222 tested in accordance with IESNA LM-79-08.



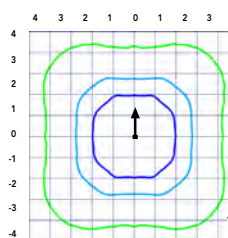
Test No. LTL23271 tested in accordance with IESNA LM-79-08.



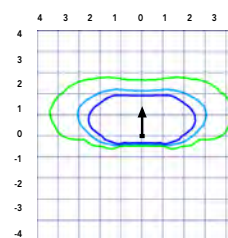
Test No. LTL23211 tested in accordance with IESNA LM-79-08.



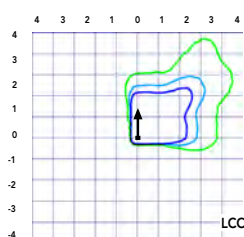
Test No. LTL23164B tested in accordance with IESNA LM-79-08.



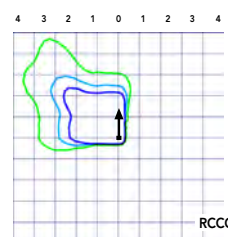
Test No. LTL23222 tested in accordance with IESNA LM-79-08.



Test No. LTL23271 tested in accordance with IESNA LM-79-08.



Test No. LTL23211 tested in accordance with IESNA LM-79-08.



Test No. LTL23164B tested in accordance with IESNA LM-79-08.

Performance Data

Lumen Ambient Temperature (LAT) Multipliers

Use these factors to determine relative lumen output for average ambient temperatures from 0-40°C (32-104°F).

Ambient		Lumen Multiplier
0°C	32°F	1.04
5°C	41°F	1.04
10°C	50°F	1.03
15°C	59°F	1.02
20°C	68°F	1.01
25°C	77°F	1.00
30°C	86°F	0.99
35°C	95°F	0.98
40°C	104°F	0.97

Projected LED Lumen Maintenance

Data references the extrapolated performance projections for the platforms noted in a **25°C ambient**, based on 10,000 hours of LED testing (tested per IESNA LM-80-08 and projected per IESNA TM-21-11).

To calculate LLF, use the lumen maintenance factor that corresponds to the desired number of operating hours below. For other lumen maintenance values, contact factory.

Operating Hours	Lumen Maintenance Factor
0	1.00
25,000	0.96
50,000	0.92
100,000	0.85

Motion Sensor Default Settings						
Option	Dimmed State	High Level (when triggered)	Photocell Operation	Dwell Time	Ramp-up Time	Ramp-down Time
PIR or PIRH	3V (37%) Output	10V (100%) Output	Enabled @ 5FC	5 min	3 sec	5 min
*PIR1FC3V or PIRH1FC3V	3V (37%) Output	10V (100%) Output	Enabled @ 1FC	5 min	3 sec	5 min

*for use when motion sensor is used as dusk to dawn control.

Electrical Load

	Performance Package	LED Count	Drive Current	Wattage	Current (A)					
					120	208	240	277	347	480
Forward Optics (Non-Rotated)	P1	30	530	54	0.45	0.26	0.23	0.19	0.10	0.12
	P2	30	700	70	0.59	0.34	0.30	0.25	0.20	0.16
	P3	30	1050	102	0.86	0.50	0.44	0.38	0.30	0.22
	P4	30	1250	125	1.06	0.60	0.52	0.46	0.37	0.27
	P5	30	1400	138	1.16	0.67	0.58	0.51	0.40	0.29
	P6	40	1250	163	1.36	0.78	0.68	0.59	0.47	0.34
	P7	40	1400	183	1.53	0.88	0.76	0.66	0.53	0.38
	P8	60	1050	207	1.74	0.98	0.87	0.76	0.64	0.49
	P9	60	1250	241	2.01	1.16	1.01	0.89	0.70	0.51
Rotated Optics (Requires L90 or R90)	P10	60	530	106	0.90	0.52	0.47	0.43	0.33	0.27
	P11	60	700	137	1.15	0.67	0.60	0.53	0.42	0.32
	P12	60	1050	207	1.74	0.99	0.87	0.76	0.60	0.46
	P13	60	1250	231	1.93	1.12	0.97	0.86	0.67	0.49

Controls Options				
Nomenclature	Description	Functionality	Primary control device	Notes
FA0	Field adjustable output device installed inside the luminaire; wired to the driver dimming leads.	Allows the luminaire to be manually dimmed, effectively trimming the light output.	FA0 device	Cannot be used with other controls options that need the 0-10V leads
DS	Drivers wired independently for 50/50 luminaire operation	The luminaire is wired to two separate circuits, allowing for 50/50 operation.	Independently wired drivers	Requires two separately switched circuits. Consider nLight AIR as a more cost effective alternative.
PERS or PER7	Twist-lock photocell receptacle	Compatible with standard twist-lock photocells for dusk to dawn operation, or advanced control nodes that provide 0-10V dimming signals.	Twist-lock photocells such as DLL Elite or advanced control nodes such as ROAM.	Pins 4 & 5 to dimming leads on driver, Pins 6 & 7 are capped inside luminaire
PIR or PIRH	Motion sensors with integral photocell. PIR for 8-15' mounting; PIRH for 15-30' mounting	Luminaires dim when no occupancy is detected.	Acuity Controls SBGR	Also available with PIRH1FC3V when the sensor photocell is used for dusk-to-dawn operation.
NLTAIR2 PIRHN	nLight AIR enabled luminaire for motion sensing, photocell and wireless communication.	Motion and ambient light sensing with group response. Scheduled dimming with motion sensor over-ride when wirelessly connected to the nLight Eclipse.	nLight Air rSDGR	nLight AIR sensors can be programmed and commissioned from the ground using the CIAIRity Pro app.

Performance Data

Lumen Output

Lumen values are from photometric tests performed in accordance with IESNA LM-79-08. Data is considered to be representative of the configurations shown, within the tolerances allowed by Lighting Facts. Contact factory for performance data on any configurations not shown here.

Forward Optics																			
LED Count	Drive Current	Power Package	System Watts	Dist. Type	30K (3000 K, 70 CRI)					40K (4000 K, 70 CRI)					50K (5000 K, 70 CRI)				
					Lumens	B	U	G	LPW	Lumens	B	U	G	LPW	Lumens	B	U	G	LPW
40	1250	P6	163W	T1S	17,654	3	0	3	108	19,018	3	0	3	117	19,259	3	0	3	118
				T2S	17,635	3	0	3	108	18,998	3	0	3	117	19,238	3	0	3	118
				T2M	17,726	3	0	3	109	19,096	3	0	3	117	19,337	3	0	3	119
				T3S	17,167	3	0	3	105	18,493	3	0	3	113	18,727	3	0	3	115
				T3M	17,683	3	0	3	108	19,049	3	0	3	117	19,290	3	0	3	118
				T4M	17,299	3	0	3	106	18,635	3	0	4	114	18,871	3	0	4	116
				TFTM	17,672	3	0	3	108	19,038	3	0	4	117	19,279	3	0	4	118
				TSVS	18,379	4	0	1	113	19,800	4	0	1	121	20,050	4	0	1	123
				TSS	18,394	4	0	2	113	19,816	4	0	2	122	20,066	4	0	2	123
				TSM	18,348	4	0	2	113	19,766	4	0	2	121	20,016	4	0	2	123
				TSW	18,228	5	0	3	112	19,636	5	0	3	120	19,885	5	0	3	122
				BLC	14,489	2	0	2	89	15,609	2	0	3	96	15,806	2	0	3	97
				LCCO	10,781	1	0	3	66	11,614	1	0	3	71	11,761	2	0	3	72
				RCCO	10,781	1	0	3	66	11,614	1	0	3	71	11,761	2	0	3	72
40	1400	P7	183W	T1S	19,227	3	0	3	105	20,712	3	0	3	113	20,975	3	0	3	115
				T2S	19,206	3	0	3	105	20,690	3	0	3	113	20,952	3	0	3	114
				T2M	19,305	3	0	3	105	20,797	3	0	3	114	21,060	3	0	3	115
				T3S	18,696	3	0	3	102	20,141	3	0	3	110	20,396	3	0	4	111
				T3M	19,258	3	0	3	105	20,746	3	0	3	113	21,009	3	0	3	115
				T4M	18,840	3	0	4	103	20,296	3	0	4	111	20,553	3	0	4	112
				TFTM	19,246	3	0	4	105	20,734	3	0	4	113	20,996	3	0	4	115
				TSVS	20,017	4	0	1	109	21,564	4	0	1	118	21,837	4	0	1	119
				TSS	20,033	4	0	2	109	21,581	4	0	2	118	21,854	4	0	2	119
				TSM	19,983	4	0	2	109	21,527	5	0	3	118	21,799	5	0	3	119
				TSW	19,852	5	0	3	108	21,386	5	0	3	117	21,656	5	0	3	118
				BLC	15,780	2	0	3	86	16,999	2	0	3	93	17,214	2	0	3	94
				LCCO	11,742	2	0	3	64	12,649	2	0	3	69	12,809	2	0	3	70
				RCCO	11,742	2	0	3	64	12,649	2	0	3	69	12,809	2	0	3	70
60	1050	P8	207W	T1S	22,490	3	0	3	109	24,228	3	0	3	117	24,535	3	0	3	119
				T2S	22,466	3	0	4	109	24,202	3	0	4	117	24,509	3	0	4	118
				T2M	22,582	3	0	3	109	24,327	3	0	3	118	24,635	3	0	3	119
				T3S	21,870	3	0	4	106	23,560	3	0	4	114	23,858	3	0	4	115
				T3M	22,527	3	0	4	109	24,268	3	0	4	117	24,575	3	0	4	119
				T4M	22,038	3	0	4	106	23,741	3	0	4	115	24,041	3	0	4	116
				TFTM	22,513	3	0	4	109	24,253	3	0	4	117	24,560	3	0	4	119
				TSVS	23,415	5	0	1	113	25,224	5	0	1	122	25,543	5	0	1	123
				TSS	23,434	4	0	2	113	25,244	4	0	2	122	25,564	4	0	2	123
				TSM	23,374	5	0	3	113	25,181	5	0	3	122	25,499	5	0	3	123
				TSW	23,221	5	0	4	112	25,016	5	0	4	121	25,332	5	0	4	122
				BLC	18,458	2	0	3	89	19,885	2	0	3	96	20,136	2	0	3	97
				LCCO	13,735	2	0	3	66	14,796	2	0	4	71	14,983	2	0	4	72
				RCCO	13,735	2	0	3	66	14,796	2	0	4	71	14,983	2	0	4	72
60	1250	P9	241W	T1S	25,575	3	0	3	106	27,551	3	0	3	114	27,900	3	0	3	116
				T2S	25,548	3	0	4	106	27,522	3	0	4	114	27,871	3	0	4	116
				T2M	25,680	3	0	3	107	27,664	3	0	3	115	28,014	3	0	3	116
				T3S	24,870	3	0	4	103	26,791	3	0	4	111	27,130	3	0	4	113
				T3M	25,617	3	0	4	106	27,597	3	0	4	115	27,946	3	0	4	116
				T4M	25,061	3	0	4	104	26,997	3	0	4	112	27,339	3	0	4	113
				TFTM	25,602	3	0	4	106	27,580	3	0	4	114	27,929	3	0	4	116
				TSVS	26,626	5	0	1	110	28,684	5	0	1	119	29,047	5	0	1	121
				TSS	26,648	4	0	2	111	28,707	5	0	2	119	29,070	5	0	2	121
				TSM	26,581	5	0	3	110	28,635	5	0	3	119	28,997	5	0	3	120
				TSW	26,406	5	0	4	110	28,447	5	0	4	118	28,807	5	0	4	120
				BLC	20,990	2	0	3	87	22,612	2	0	3	94	22,898	2	0	3	95
				LCCO	15,619	2	0	4	65	16,825	2	0	4	70	17,038	2	0	4	71
				RCCO	15,619	2	0	4	65	16,825	2	0	4	70	17,038	2	0	4	71



FEATURES & SPECIFICATIONS

INTENDED USE

The sleek design of the D-Series Size 1 reflects the embedded high performance LED technology. It is ideal for many commercial and municipal applications, such as parking lots, plazas, campuses, and streetscapes.

CONSTRUCTION

Single-piece die-cast aluminum housing has integral heat sink fins to optimize thermal management through conductive and convective cooling. Modular design allows for ease of maintenance and future light engine upgrades. The LED drivers are mounted in direct contact with the casting to promote low operating temperature and long life. Housing is completely sealed against moisture and environmental contaminants (IP65). Low EPA (1.01 ft²) for optimized pole wind loading.

FINISH

Exterior parts are protected by a zinc-infused Super Durable TGIC thermoset powder coat finish that provides superior resistance to corrosion and weathering. A tightly controlled multi-stage process ensures a minimum 3 mils thickness for a finish that can withstand extreme climate changes without cracking or peeling. Available in both textured and non-textured finishes.

OPTICS

Precision-molded proprietary acrylic lenses are engineered for superior area lighting distribution, uniformity, and pole spacing. Light engines are available in standard 3000 K, 4000 K and 5000 K (70 CRI) configurations. The D-Series Size 1 has zero uplight and qualifies as a Nighttime Friendly™ product, meaning it is consistent with the LEED® and Green Globes™ criteria for eliminating wasteful uplight.

ELECTRICAL

Light engine configurations consist of high-efficacy LEDs mounted to metal-core circuit boards to maximize heat dissipation and promote long life (up to L85/100,000 hours at 25°C). Class 1 electronic drivers are designed to have a power factor >90%, THD <20%, and an expected life of 100,000 hours with <1% failure rate. Easily serviceable 10kV surge protection device meets a minimum Category C Low operation (per ANSI/IEEE C62.41.2).

STANDARD CONTROLS

The DSX1 LED area luminaire has a number of control options. DSX Size 1, comes standard with 0-10V dimming drivers. Dusk to dawn controls can be utilized via optional NEMA twist-lock photocell receptacles. Integrated motion sensors with on-board photocells feature field-adjustable programming and are suitable for mounting heights up to 30 feet.

nLIGHT AIR CONTROLS

The DSX1 LED area luminaire is also available with nLight® AIR for the ultimate in wireless control. This powerful controls platform provides out-of-the-box basic motion sensing and photocontrol functionality and is suitable for mounting heights up to 40 feet. Once commissioned using a smartphone and the easy-to-use CLAIRITY app, nLight AIR equipped luminaires can be grouped, resulting in motion sensor and photocell group response without the need for additional equipment. Scheduled dimming with motion sensor over-ride can be achieved when used with the nLight Eclipse. Additional information about nLight Air can be found here.

INSTALLATION

Included mounting block and integral arm facilitate quick and easy installation. Stainless steel bolts fasten the mounting block securely to poles and walls, enabling the D-Series Size 1 to withstand up to a 3.0 G vibration load rating per ANSI C136.31. The D-Series Size 1 utilizes the AERIS™ series pole drilling pattern (template #8). NEMA photocontrol receptacle are also available.

LISTINGS

UL listed to meet U.S. and Canadian standards. UL Listed for wet locations. Light engines are IP66 rated; luminaire is IP65 rated. Rated for -40°C minimum ambient. U.S. Patent No. D672,492 S. International patent pending.

DesignLights Consortium® (DLC) Premium qualified product and DLC qualified product. Not all versions of this product may be DLC Premium qualified or DLC qualified. Please check the DLC Qualified Products List at www.designlights.org/QPL to confirm which versions are qualified.

International Dark-Sky Association (IDA) Fixture Seal of Approval (FSA) is available for all products on this page utilizing 3000K color temperature only.

BUY AMERICAN

Product with the BAA option is assembled in the USA and meets the Buy America(n) government procurement requirements under FAR, DFARS and DOT. Please refer to www.acuitybrands.com/buy-american for additional information.

WARRANTY

5-year limited warranty. Complete warranty terms located at: www.acuitybrands.com/support/customer-support/terms-and-conditions

Note: Actual performance may differ as a result of end-user environment and application.

All values are design or typical values, measured under laboratory conditions at 25 °C.

Specifications subject to change without notice.





LIGHTOLIER
by @signify

Downlighting

Flat Downlight Select

4" and 6" round



Lightolier LED Flat Downlight Select provides an easy and quick downlight solution without the traditional frame and reflector. Perfect for installation in low plenum and existing shallow space ceilings. The CCT selector feature makes it easy to choose CCT at the time of installation.

Project: _____
Location: _____
Cat.No: _____
Type: _____
Lamps: _____
Notes: _____

Fixture example: FD4R4CCT

Family	Size	CCT	
FD			
FD Flat Downlight	4R 4-inch Round	4CCT	2700K 3000K 4000K 5000K
	6R 6-inch Round		

Accessories example: FD4NCP

Family	Model
FD	
FD Flat Downlight	4NCP 4" NC Plate 6NCP 6" NC Plate 10EC 10 ft Extension Cable 4TBK 4" Black Trim fascia 6TBK 6" Black Trim fascia 4TBN 4" Brushed Nickel Trim fascia 6TBN 6" Brushed Nickel Trim fascia

Features

- Flange:** aluminum alloy, powder coating in white (RAL9003)
- Lens:** Diffuser is used for smooth and diffused light pattern.
- Junction Box:** steel, 4-1/8"x3-1/2"x1-2/9" (105mm*88mm*31mm). Clip attached on the side of the J-box to connect with fixture or new construction plate to meet NEC (National Electric Code). J-box also has key holes on the side for mounting on joist (see page 2).
- Connector:** locking power connection is used to connect J-box and fixture. Standard length of the connection is 11-4/5"(300mm).
- Ceiling cutout:** installation template on adhesive backed label is not provided.
4" round: 4 1/3" (110mm) diameter.
6" round: 6 2/9" (158mm) diameter.
- Gasket:** foam gasket supplied with fixture.

Electrical

Electronic power supply:
RoHS compliant.*
isolated driver, Grounding Class 2 Power Unit.
Remote power supply can only accommodate one LED module and cannot be shared with other LED module.
Fixture can be through wired.
Dimming: Compatible for ELV/TRIAC (120V) dimmers.
Philips SR150LED120 TRIAC (100%-1%)
Leviton IPI06 TRIAC (100%-1%)
Leviton 6615P ELV (100%-5%)
Lutron DVELV-300P ELV(100%-1%)
Lutron NLV1000 TRIAC (100%-1%)
Lutron PD-6WCL Wireless (100%-1%)

	Lumen output	Input voltage	Input freq	Max. input current	Max. input power	Max. THD	Power factor	CRI
4" Round	700lm	120V	60Hz	0.10A	11W	15%	0.9	90
6" Round	900lm	120V	60Hz	0.125A	13.5W	15%	0.9	90

* Restrictions on Hazardous Substances (RoHS) is a European directive (2002/95/EC) designed to limit the content of 6 substances (lead, mercury, cadmium, hexavalent chromium, polybrominated biphenyls (PBB), and polybrominated diphenyl ethers (PBDE)) in electrical and electronic products. For products used in North America compliance to RoHS is voluntary and self-certified.

Labels

cULus listed (UL 1598) for wet locations (covered ceiling only). IC rated for direct contact with thermal insulation.
AirSeal for minimal air leakage.
ENERGY STAR® certified.
Title 24 compliant (JA8).

Warranty

Lifetime: Expected lifetime 50,000 hours and backed by a 5-year warranty (visit signify.com/warranties for details).

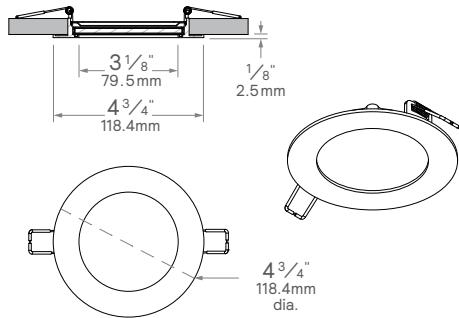


Flat Downlight Select LED

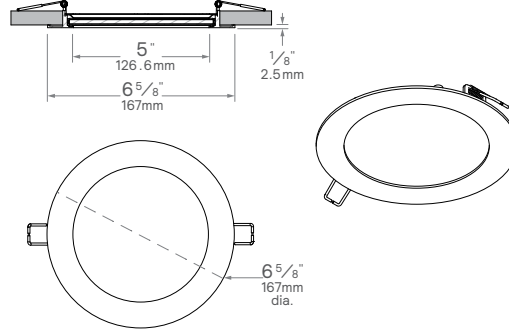
4" and 6" aperture recessed downlight

Dimensions:

Flat Downlight 4"

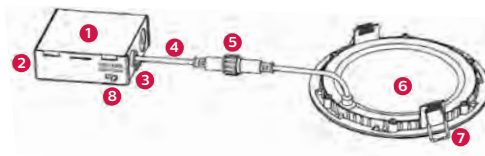


Flat Downlight 6"



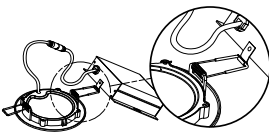
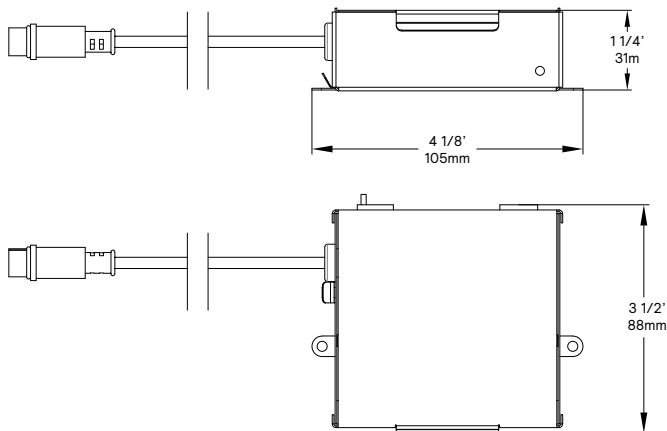
Components

1. Electrical Box with knockouts
2. Mounting keyhole
3. Remodel NEC* clip
4. 11.8" (0.3m) cord
5. Locking power connector
6. Integrated LED Luminaire
7. Spring clip for easy mounting
8. CCT selector



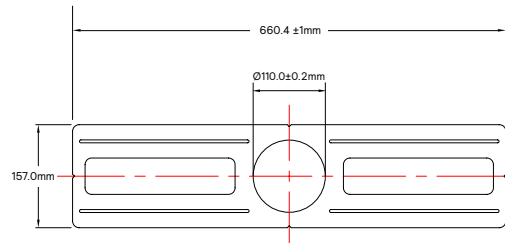
*NEC = National Electric Code

Junction box

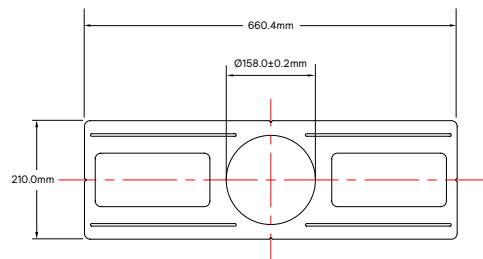


Remodeler applications:
attach junction box clip
to installation spring to
assure NEC compliance.

4-inch NC plate



6-inch NC plate

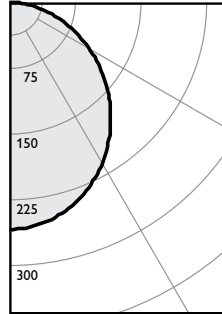


Flat Downlight Select LED

4" and 6" aperture recessed downlight

FDL 4" Round 700lm 90 2700K, 3000K, 4000K & 5000K 120V

Candela Curve



Fixture: FD4R4CCT

Output lumens: 700 lms
Input watts: 11 W
CRI: 90 CRI
CCT¹: 2700K
3000K
4000K
5000K
Spacing Crit.: 1.2

Zonal summary

Zone	Lumens	%Luminaire
0-30	198	28.3%
0-40	320	45.7%
0-60	555	79.3%
0-90	700	100.0%

Angle	Mean CP	Lumens
0	259	24
5	258	
10	254	
15	246	
20	237	
25	225	69
30	212	
35	196	
40	179	
45	161	
50	143	104
55	124	
60	104	
65	84	
70	65	
75	46	49
80	28	
85	11	
90	0	

Single unit data

Height to lighted plane	Initial center beam foot-candles	Beam diameter (ft)*
5'	10	6.0'
6'	7	7.2'
7'	5	8.4'
8'	4	9.6'
9'	3	10.8'

* Beam diameter is where foot-candles drop to 50% of maximum.

Multiple unit data - RCR 2

Spacing on center	Initial center beam foot-candles	Watts per sq. ft.
5'	28.0	0.49
6'	19.0	0.32
7'	13.0	0.23
8'	11.0	0.19
9'	9.0	0.15

38' x 38' x 10' Room, Workplane 2.5' above floor, 80/50/20% Reflectances

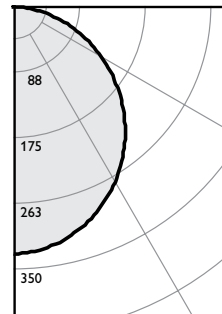
Efficacy: 63.6lm/w
Report²: 9290022700

Coefficients of utilization

Ceiling	80%				70%				50%				30%				0%
Wall	70	50	30	10	50	10	50	10	50	10	50	10	50	10	50	10	0
RCR	Zonal cavity method - Effective floor reflectance = 20%																
Room Cavity Ratio	0	119	119	119	119	116	116	111	111	106	106	100	106	106	100	100	100
1	109	104	99	95	101	94	97	91	93	88	83	83	93	88	83	83	83
2	99	90	83	77	88	76	85	75	81	73	69	69	81	73	69	69	69
3	90	79	71	64	77	63	74	62	72	61	58	58	72	61	58	58	58
4	82	70	61	54	69	54	66	53	64	52	49	49	64	52	49	49	49
5	75	62	53	47	61	46	59	46	57	45	43	43	57	45	43	43	43
6	70	56	47	41	55	40	53	40	52	40	37	37	52	40	37	37	37
7	65	51	42	36	50	36	48	35	47	35	33	33	47	35	33	33	33
8	60	46	38	32	46	32	44	32	43	31	29	29	43	31	29	29	29
9	56	43	34	29	42	29	41	28	40	28	26	26	40	28	26	26	26
10	53	39	31	26	39	26	38	26	37	26	24	24	37	26	24	24	24

FDL 6" Round 700lm 90 2700K, 3000K, 4000K & 5000K 120V

Candela Curve



Fixture: FD6R4CCT

Output lumens: 900 lms
Input watts: 13 W
CRI: 90 CRI
CCT¹: 2700K
3000K
4000K
5000K
Spacing Crit.: 1.2

Zonal summary

Zone	Lumens	%Luminaire
0-30	251	27.9%
0-40	408	45.3%
0-60	712	79.1%
0-90	900	100.0%

Angle	Mean CP	Lumens
0	330	28
5	327	
10	321	
15	313	
20	301	
25	287	80
30	270	
35	251	
40	230	
45	208	
50	185	122
55	160	
60	135	
65	110	
70	85	
75	60	23
80	36	
85	9	
90	0	

Single unit data

Height to lighted plane	Initial center beam foot-candles	Beam diameter (ft)*
5'	13	6.0'
6'	9	7.2'
7'	7	8.4'
8'	5	9.6'
9'	4	10.8'

* Beam diameter is where foot-candles drop to 50% of maximum.

Multiple unit data - RCR 2

Spacing on center	Initial center beam foot-candles	Watts per sq. ft.
5'	36.0	0.58
6'	24.0	0.38
7'	17.0	0.27
8'	14.0	0.23
9'	11.0	0.18

38' x 38' x 10' Room, Workplane 2.5' above floor, 80/50/20% Reflectances

Efficacy: 69.2lm/w
Report²: 9290022706

Coefficients of utilization

Ceiling	80%				70%				50%				30%				0%
Wall	70	50	30	10	50	10	50	10	50	10	50	10	50	10	50	10	0
RCR	Zonal cavity method - Effective floor reflectance = 20%																
Room Cavity Ratio	0	119	119	119	119	116	116	111	111	106	106	100	106	106	100	100	100
1	109	104	99	95	101	94	97	91	93	88	83	83	93	88	83	83	83
2	99	90	83	77	88	76	85	75	81	73	69	69	81	73	69	69	69
3	90	79	71	64	77	63	74	62	72	61	58	58	72	61	58	58	58
4	82	70	61	54	69	54	66	53	64	52	49	49	64	52	49	49	49
5	75	62	53	47	61	46	59	46	57	45	43	43	57	45	43	43	43
6	70	56	47	41	55	40	53	40	52	40	37	37	52	40	37	37	37
7	65	51	42	36	50	36	48	35	47	35	33	33	47	35	33	33	33
8	60	46	38	32	46	32	44	32	43	31	29	29	43	31	29	29	29
9	56	43	34	29	42	29	41	28	40	28	26	26	40	28	26	26	26
10	53	39	31	26	39	26	38	26	37	26	24	24	37	26	24	24	24

1. Correlated Color Temperature within specs as defined in ANSI_NEMA_ANSI C78.377-2008: Specifications for the Chromaticity of Solid State Lighting Products.
2. Tested using absolute photometry as specified in LM79: IESNA Approved Method for the Electrical and Photometric Measurements of Solid-State Lighting Products.



© 2020 Signify Holding. All rights reserved. The information provided herein is subject to change, without notice. Signify does not give any representation or warranty as to the accuracy or completeness of the information included herein and shall not be liable for any action in reliance thereon. The information presented in this document is not intended as any commercial offer and does not form part of any quotation or contract, unless otherwise agreed by Signify.

Signify North America Corporation
200 Franklin Square Drive,
Somerset, NJ 08873
Telephone 855-486-2216

Signify Canada Ltd.
281 Hillmount Road,
Markham, ON, Canada L6C 2S3
Telephone 800-668-9008

All trademarks are owned by Signify Holding or their respective owners.



FEATURES & SPECIFICATIONS

INTENDED USE — These specifications are for USA standards only. Square Straight Steel is a general purpose light pole for up to 39-foot mounting heights. This pole provides a robust yet cost effective option for mounting area lights and floodlights.

CONSTRUCTION —

Pole Shaft: The pole shaft is of uniform dimension and wall thickness and is made of a weldable-grade, hot-rolled, commercial-quality steel tubing with a minimum yield of 55 KSI (11-gauge, 0.120"), or 50 KSI (7-gauge, 0.179"). Shaft is one-piece with a full-length longitudinal high-frequency electric resistance weld. Uniformly square in cross-section with flat sides, small corner radii and excellent torsional qualities. Available shaft widths are 4", 5" and 6".

Pole Top: Options include tenon top, drilled for side mount fixture, tenon with drilling (includes extra handhole) and open top. Side drilled and open top poles include a removable top cap.

Handhole: A reinforced handhole with grounding provision is provided at 18" from the base on side A. Positioning the handhole lower may not be possible and requires engineering review; consult Tech Support-Outdoor for further information. Every handhole includes a cover and cover attachment hardware. The handhole has a nominal dimension of 2.5" x 5".

Base Cover: A durable ABS plastic two-piece full base cover, finished to match the pole, is provided with each pole assembly. Additional base cover options are available upon request.

Anchor Base/Bolts: Anchor base is fabricated from steel that meets ASTM A36 standards and can be altered to match existing foundations; consult factory for modifications. Anchor bolts are manufactured to ASTM F1554 Standards grade 55, (55 KSI minimum yield strength and tensile strength of 75-95 KSI). Top threaded portion (nominal 12") is hot-dipped galvanized per ASTM A-153.

HARDWARE — All structural fasteners are high-strength galvanized carbon steel. All non-structural fasteners are galvanized or zinc-plated carbon steel or stainless steel.

FINISH — Extra durable painted finish is coated with TGIC (Triglycidyl Isocyanurate) Polyester powder that meets 5A and 5B classifications of ASTM D3359. Powder-coat finishes include Dark Bronze, White, Black, and Natural Aluminum colors. Architectural Colors and Special Finishes are available by quote and include, but are not limited to Paint over Hot-dipped Galvanized, RAL Colors, Custom Colors and Extended Warranty Finishes.

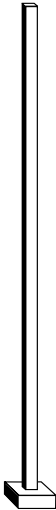
BUY AMERICAN — Product with the BAA option is assembled in the USA and meets the Buy America(n) government procurement requirements under FAR, DFARS and DOT. Please refer to www.acuitybrands.com/buy-american for additional information.

INSTALLATION — Do not erect poles without having fixtures installed. Factory-supplied templates must be used when setting anchor bolts. Lithonia Lighting will not accept claim for incorrect anchorage placement due to failure to use Lithonia Lighting factory templates. If poles are stored outside, all protective wrapping must be removed immediately upon delivery to prevent finish damage. Lithonia Lighting is not responsible for the foundation design.

WARRANTY — 1-year limited warranty. This is the only warranty provided and no other statements in this specification sheet create any warranty of any kind. All other express and implied warranties are disclaimed. Complete warranty terms located at: www.acuitybrands.com/support/warranty/terms-and-conditions

NOTE: Actual performance may differ as a result of end-user environment and application. Specifications subject to change without notice.

Catalog Number
Notes
Type



Anchor Base Poles

SSS

SQUARE STRAIGHT STEEL





SSS Square Straight Steel Poles

ORDERING INFORMATION Lead times will vary depending on options selected. Consult with your sales representative. Example: SSS 20 5C DM19 DDBXD

SSS						
Series	Nominal fixture mounting height	Nominal shaft base size/wall thickness ²	Mounting ³		Options	Finish ¹⁴
SSS ¹	10'-39' (for 1/2 ft increments, add -6 to the pole height. Ex: 20-6 equals 20ft 6in.) See technical information table for complete ordering information.)	4C 4" 11g (0.120") 4G 4" 7g (0.179") 5C 5" 11g (0.120") 5G 5" 7g (0.179") 6G 6" 7g (0.179") See technical information table for complete ordering information.)	Tenon mounting PT Open top (includes top cap) T20 2-3/8" O.D. (2" NPS) T25 2-7/8" O.D. (2-1/2" NPS) T30 3-1/2" O.D. (3" NPS) T35 4" O.D. (3-1/2" NPS) <u>KAC/KAD/KSE/KSF/KVR/KVF Drill mounting⁴</u> DM19 1 at 90° DM28 2 at 180° DM28 PL 2 at 180° with one side plugged DM29 2 at 90° DM39 3 at 90° DM49 4 at 90° <u>CSX/DSX/RSX/AERIS™/OMERO™/HLA/KAX Drill mounting⁴</u> DM19AS 1 at 90° DM28AS 2 at 180° DM29AS 2 at 90° DM39AS 3 at 90° DM49AS 4 at 90° <u>RAD drill mounting^{4,5}</u> DM19RAD 1 at 90° DM28RAD 2 at 180° DM29RAD 2 at 90° DM39RAD 3 at 90° DM49RAD 4 at 90° <u>ESX Drill mounting⁴</u> DM19ESX 1 at 90° DM28ESX 2 at 180° DM29ESX 2 at 90° DM39ESX 3 at 90° DM49ESX 4 at 90°	AERIS™ Suspend drill mounting ^{4,6} DM19AST_ 1 at 90° DM28AST_ 2 at 180° DM29AST_ 2 at 90° DM39AST_ 3 at 90° DM49AST_ 4 at 90° <u>OMERO™ Suspend drill mounting^{4,6}</u> DM19MRT_ 1 at 90° DM28MRT_ 2 at 180° DM29MRT_ 2 at 90° DM39MRT_ 3 at 90° DM49MRT_ 4 at 90°	Shipped installed VD Vibration damper ⁷ HAxy Horizontal arm bracket (1 fixture) ^{8,9} FDLxy Festoon outlet less electrical ^{10,10} CPL12/xy 1/2" coupling ⁸ CPL34/xy 3/4" coupling ⁸ CPL1/xy 1" coupling ⁸ NPL12/xy 1/2" threaded nipple ⁸ NPL34/xy 3/4" threaded nipple ⁸ NPL1/xy 1" threaded nipple ⁸ EHHxy Extra handhole ^{8,11} NEC NEC 410.30 compliant gasketed handhole (Not UL Labeled) IC Interior coating ¹² L/AB Less anchor bolts (Include when anchor bolts are not needed) TP Tamper resistant handhole cover fasteners UL UL listed with label (Includes NEC compliant cover) BAA Buy America(n) Act Compliant ¹³	Super durable paint colors DDBXD Dark bronze DBLXD Black DNAXD Natural aluminum DWHXD White DDBTXD Textured dark bronze DBLBXD Textured black DNATXD Textured natural aluminum DWHGXD Textured white <u>Other finishes</u> GALV Galvanized finish <u>Architectural colors and special finishes</u> Paint over Galvanized, RAL Colors, Custom Colors and Extended Warranty Finishes available.

- NOTES:
- Handhole covers (HHC), full base covers (FBC) and top caps (TC) shipped separately. No need to call out in nomenclature. For additional parts please order as replacements.
 - Wall thickness will be signified with a "C" (11 Gauge) or a "G" (7-Gauge) in nomenclature. "C" - 0.120" | "G" - 0.179".
 - PT open top poles include top cap. When ordering tenon mounting and drill mounting for the same pole, follow this example: DM28/T20. The combination includes a required extra handhole.
 - Refer to the fixture spec sheet for the correct drilling template pattern and orientation compatibility.
 - All RAD drilling's require a minimum top O.D. of 4".
 - Insert "1" or "2" to designate fixture size; e.g. DM19AST2.
 - On 4" and 5" poles, VD cannot be installed if provisions (EHH, FDL, NPL, CPL) are located higher than 2/3 of the pole's total height.
Example: Pole height is 25ft, A provision cannot be placed above 16ft.
 - Specify location and orientation when ordering option.
For "x": Specify the height above the base of pole in feet or feet and inches; separate feet and inches with a ".".
Example: 5ft = 5 and 20ft 3in = 20-3
For "y": Specify orientation from handhole (A,B,C,D) Refer to the Handhole Orientation diagram below.
Example: 1/2" coupling at 5'8"; orientation C = CPL12/5-8C
 - Horizontal arm is 18" x 2-3/8" O.D. tenon standard, with radius curve providing 12" rise and 2-3/8" O.D. If ordering two horizontal arm at the same height, specify with HAxyy. Example: HA20BD.
 - FDL does not come with GFCI outlet or handhole cover. These must be supplied by contractor or electrician.
 - Combination of tenon-top and drill mount includes extra handhole. EHH includes cover.
 - Provides enhanced corrosion resistance.
 - Use when mill certifications are required.
 - Finish must be specified. Additional colors available; see Architectural Colors brochure linked [here](#) (Form No. 794.3).

Accessories: Order as separate catalog number.	
PL DT20	Plugs for ESX drillings
PL DT8	Plugs for DMxxxAS drillings



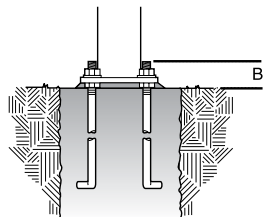
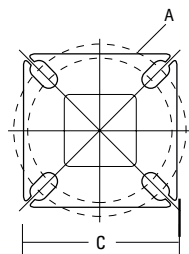
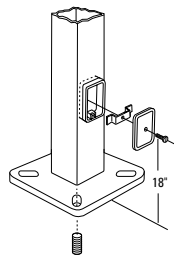
POLE-SSS

SSS Square Straight Steel Poles

TECHNICAL INFORMATION — EPA (ft²) with 1.3 gust													
Catalog Number	Nominal Shaft Length (ft.)*	Pole Shaft Size (Base in. x Top in. x ft.)	Wall thick (in)	Gauge	EPA (ft²) with 1.3 gust						Bolt circle (in)	Bolt size (in. x in. x in.)	Approximate ship weight (lbs.)
					80 MPH	Max. weight	90 MPH	Max. weight	100 MPH	Max. weight			
SSS 10 4C	10	4.0 x 10.0	0.120"	11	30.6	765	23.8	595	18.9	473	8--9	3/4 x 18 x 3	75
SSS 12 4C	12	4.0 x 12.0	0.120"	11	24.4	610	18.8	470	14.8	370	8--9	3/4 x 18 x 3	90
SSS 14 4C	14	4.0 x 14.0	0.120"	11	19.9	498	15.1	378	11.7	293	8--9	3/4 x 18 x 3	100
SSS 16 4C	16	4.0 x 16.0	0.120"	11	15.9	398	11.8	295	8.9	223	8--9	3/4 x 18 x 3	115
SSS 18 4C	18	4.0 x 18.0	0.120"	11	12.6	315	9.2	230	6.7	168	8--9	3/4 x 18 x 3	125
SSS 20 4C	20	4.0 x 20.0	0.120"	11	9.6	240	6.7	167	4.5	150	8--9	3/4 x 18 x 3	140
SSS 20 4G	20	4.0 x 20.0	0.179"	7	14	350	11	275	8	200	8--9	3/4 x 30 x 3	198
SSS 20 5C	20	5.0 x 20.0	0.120"	11	17.7	443	12.7	343	9.4	235	10--12	1 x 36 x 4	185
SSS 20 5G	20	5.0 x 20.0	0.179"	7	28.1	703	21.4	535	16.2	405	10--12	1 x 36 x 4	265
SSS 25 4C	25	4.0 x 25.0	0.120"	11	4.8	150	2.6	100	1	50	8--9	3/4 x 18 x 3	170
SSS 25 4G	25	4.0 x 25.0	0.179"	7	10.8	270	7.7	188	5.4	135	8--9	3/4 x 30 x 3	245
SSS 25 5C	25	5.0 x 25.0	0.120"	11	9.8	245	6.3	157	3.7	150	10--12	1 x 36 x 4	225
SSS 25 5G	25	5.0 x 25.0	0.179"	7	18.5	463	13.3	333	9.5	238	10--12	1 x 36 x 4	360
SSS 30 4G	30	4.0 x 30.0	0.179"	7	6.7	168	4.4	110	2.6	65	8--9	3/4 x 30 x 3	295
SSS 30 5C	30	5.0 x 30.0	0.120"	11	4.7	150	2	50	--	--	10--12	1 x 36 x 4	265
SSS 30 5G	30	5.0 x 30.0	0.179"	7	10.7	267	6.7	167	3.9	100	10--12	1 x 36 x 4	380
SSS 30 6G	30	6.0 x 30.0	0.179"	7	19	475	13.2	330	9	225	11--13	1 x 36 x 4	520
SSS 35 5G	35	5.0 x 35.0	0.179"	7	5.9	150	2.5	100	--	--	10--12	1 x 36 x 4	440
SSS 35 6G	35	6.0 x 35.0	0.179"	7	12.4	310	7.6	190	4.2	105	11--13	1 x 36 x 4	540
SSS 39 6G	39	6.0 x 39.0	0.179"	7	7.2	180	3	75	--	--	11--13	1 x 36 x 4	605

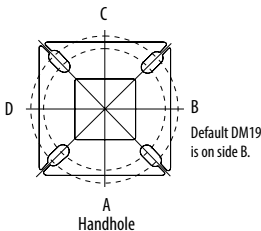
NOTE: * EPA values are based ASCE 7-93 wind map. For 1/2 ft increments, add -6 to the pole height. Ex: 20-6 equals 20ft 6in.

BASE DETAIL



POLE DATA							
Shaft base size	Bolt circle A	Bolt projection B	Base square C	Base plate thickness	Template description	Anchor bolt description	Anchor bolt and template description
4"C	8" -- 9"	3.25" - 3.75"	8" - 8.25"	0.75"	ABTEMPLATE PJ50004	AB18-0	ABSSS-4C
4"G	8" -- 9"	3.38" - 3.75"	8" - 8.25"	0.875"	ABTEMPLATE PJ50004	AB30-0	ABSSS-4G
5"	10" -- 12"	3.5" - 4"	11"	1"	ABTEMPLATE PJ50010	AB36-0	ABSSS-5
6"	11" -- 13"	4" - 4.50"	12.5"	1"	ABTEMPLATE PJ50011	AB36-0	N/A

HANDHOLE ORIENTATION



IMPORTANT INSTALLATION NOTES:

- Do not erect poles without having fixtures installed.
- Factory-supplied templates must be used when setting anchor bolts. Lithonia Lighting will not accept claim for incorrect anchorage placement due to failure to use Lithonia Lighting factory templates.
- If poles are stored outside, all protective wrapping must be removed immediately upon delivery to prevent finish damage.
- Lithonia Lighting is not responsible for the foundation design.
- Bolt circles have +/- 1/2" tolerance.

CAUTION: These specifications are intended for general purposes only. Lithonia Lighting reserves the right to change material or design, without prior notice, in a continuing effort to upgrade its products.



OUTDOOR: One Lithonia Way Conyers, GA 30012 Phone: 800-705-SERV (7378) www.lithonia.com

©1994-2022 Acuity Brands Lighting, Inc. All rights reserved.

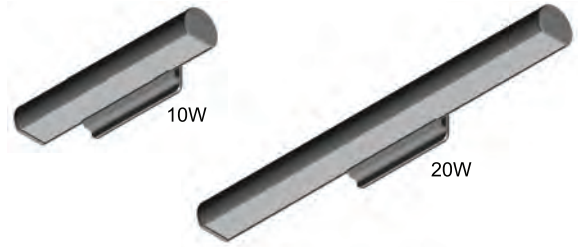
Rev. 04/04/22



EMLED SERIES EUE Mullion Mount Outdoor Emergency Egress Lighting



PROJECT: _____
FIXTURE TYPE: _____
LOCATION: _____
CONTACT/PHONE: _____



PRODUCT DESCRIPTION

Linear LED outdoor egress with both emergency lighting and night lighting function. The EUE series is designed to mount directly on mullion frames used in typical glass panel entrance structures, with vertical mounting surface as small as 2". High efficiency LEDs and full 90° cut-off provide uniform emergency and night lighting on the extended egress pathway. All models are outdoor rated, UL wet location, ADA compliant, and exceed requirements of UL Standard 924 and NFPA 101. Designed and manufactured in the USA, complies with ARRA (American Recovery and Reinvestment Act) and Buy American requirements.

SPECIAL FEATURES

- Very low profile extruded aluminum housing and mount bracket blend seamlessly with structural metal frames
- Remote power supply for 10W and 20W BB and AC model single fixtures
- Option for 20 watt models to operate for 2 hours in emergency mode
- Options for mount bracket height, from 2" to 5"
- Standard finishes include Brushed Aluminum, Satin White, Bronze or Black. Custom colors available on request
- Custom satin finishes for extended outdoor use are available to match any surface
- IP66 housing seals against heavy water spray and fine dust
- Universal side or top mount
- Wide lighting distribution designed for entrance walkways
- 10W or 20W emergency power models
- Optional normal-on switch allows timed control of night lighting
- Self-Test Diagnostics is optional for integral battery models.
- Certified IP66 housing withstands multi direction water spray and fine dust ingress
- Wall mount version available (see Series EAE)
- Standard CRI 5000K, with optional color corrections filters for 2900K, 3200K and 3800K.



ORDERING INFORMATION

Model	Operation	Power	Housing Color	Mount	Options
EUE	BB = Battery Backup (includes RPS)	10 = 10 Watts Emergency and normal on power	BL = Black W = Satin White	T = Top W = Wall	DG = Self-test diagnostics (BB models only)
	AC = No Battery (includes RPS)	20 = 20 Watts emergency and normal on power	A = Aluminum DB = Dark Bronze X = Custom		SD = Night lighting control switch for models with DG option (120-277VAC)
					SB120 = Night lighting control switch for standard BB models (120VAC)
					SB277 = Night lighting control switch for standard with BB models (277VAC)
					REC = 20W RPS panel recessed mount
					2EM = 2 hrs emergency operation for BB models
					CW1 = Color temp. - 3800K
					CW2 = Color temp. - 3200K
					CW3 = Color temp. - 2900K
					DAC = Dual AC input
					2HT = 2" Mount Bracket height
					5HT = 5" Mount Bracket height

EXAMPLE: EUEBB10AW-DG

Mule Lighting, Inc.

46 Baker Street Providence, RI 02905

800 556-7690 P

401 941-2929 F

www.mulelighting.com



EMLED SERIES EUE Mullion Mount Outdoor Emergency Egress Lighting



PROJECT: _____
FIXTURE TYPE: _____
LOCATION: _____
CONTACT/PHONE: _____

CONSTRUCTION

- Extruded aluminum lamp housing 2" diameter, with gasketed mount bracket only
- 2 1/2"Ht that includes a waterproof compression seal for universal wall or top mount.
- Available models include:
 - BB and AC: Single fixtures powered from a Remote Power Supply
 - AC: 120/277 VAC input, with or without battery
- Wet location listed, UL924 and certified IP66
- Gasketed, molded end caps and Sealed acrylic lens
- Stainless steel hardware

LIGHTING

- Lamps connected in parallel allow continuous lighting after failure of one lamp, meeting NEC and NFPA requirements.
- Standard output color 5000K. Optional outputs available 2900K, 3200K and 3800K.
- Dual function available for emergency or normally -on operation.
- Standard Operating Temperature
 - BB: -20C to 40C (-4F to 104F)
 - AC: -20C to 40C (-4F to 104F)

ELECTRONICS

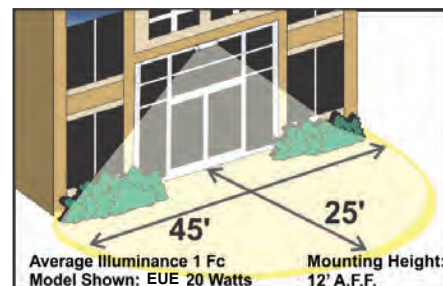
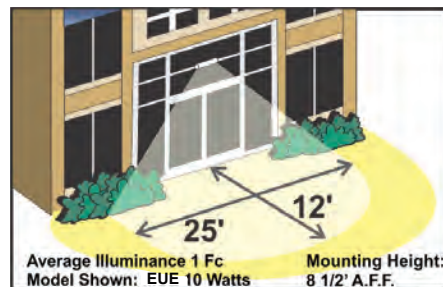
- Self-Test/Self-Diagnostic operation is optional for BB models with the Remote Power Supply.
- Line latch circuit prevents unwanted emergency activation at installation.
- Low Voltage Disconnect prevents deep battery discharge

CODES

- Manufactured and tested to UL Standard 924, NFPA Life Safety Code 101, and certified to IP66.

WARRANTY

- 10 year total customer satisfaction warranty.



NOTE: FOR REFERENCE ONLY. STANDARD REFLECTANCES 80/50/20. MULE IS NOT RESPONSIBLE FOR SPECIFIC CONDITIONS THAT MAY ALTER THE RESULTS.



Self-test Diagnostic Functions (BB models)

STATUS	LED DISPLAY
Normal Full Charge	● GREEN ON
Normal Fast Charge	● ORANGE ON
Failed Battery	● ● RED FLASH FAST
Failed Lamp	● ● GREEN FLASH
Failed Transfer	● ● ORANGE FLASH
Failed Charger	● ● RED FLASH SLOW



EMLED SERIES EUE Mullion Mount Outdoor Emergency Egress Lighting



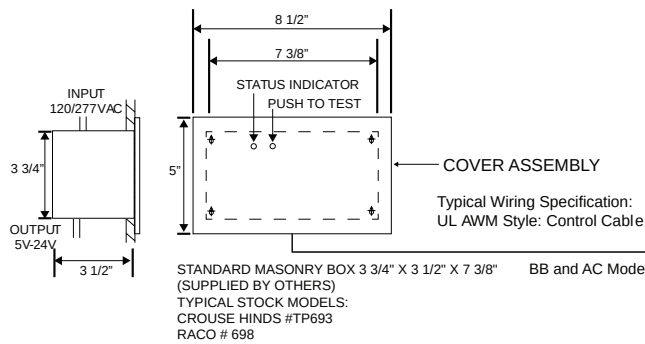
PROJECT: _____
FIXTURE TYPE: _____
LOCATION: _____
CONTACT/PHONE: _____

SUGGESTED SPECIFICATIONS

Fixtures: Supply and install the EMLED Series EUE Mullion Mount or Series EAE Wall Mount emergency lighting fixture manufactured by Mule Lighting Inc. The fixture shall be listed for installation in wet locations in compliance with UL 924 and IP66 standards and shall be capable of operating either from Utility power at 120/277VAC or remote power supply Series RPS. Upon loss of AC building power, emergency models shall operate for a minimum of 90 minutes in compliance with UL Standard 924 and NFPA LSC 101.

MOUNTING DATA

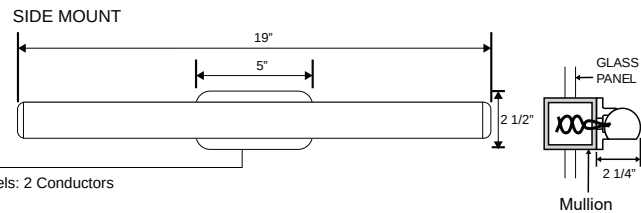
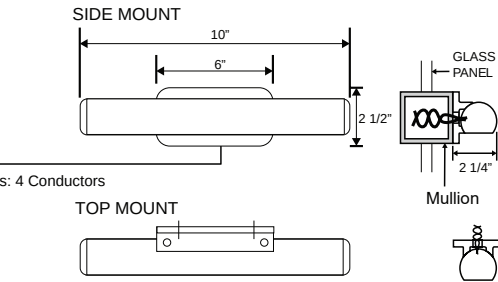
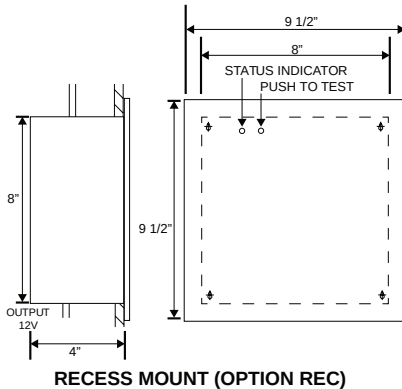
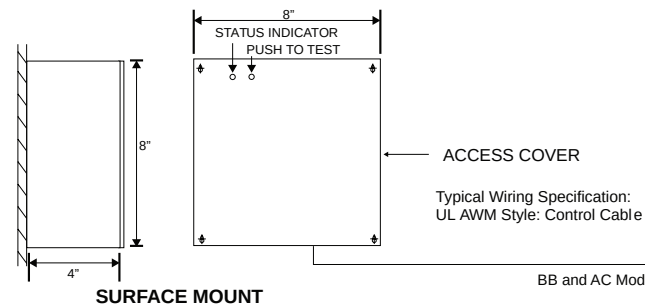
Remote Power Supply (RPS) - Included Standard 10 Watt AC & BB Models



Max. wiring length from RPS to fixture

Wiring Size AWG	LENGTH (FT)	LENGTH (FT)
	EUEBB10	EUEBB20
#22	NA	20
#20	12	40
#18	25	60
#16	50	100
#14	75	160
#12	125	250

Remote Power Supply (RPS) 20 Watt AC & BB Models



Specifications and dimensions subject to change without notice.

**REGIONAL GROCERY CHAIN**

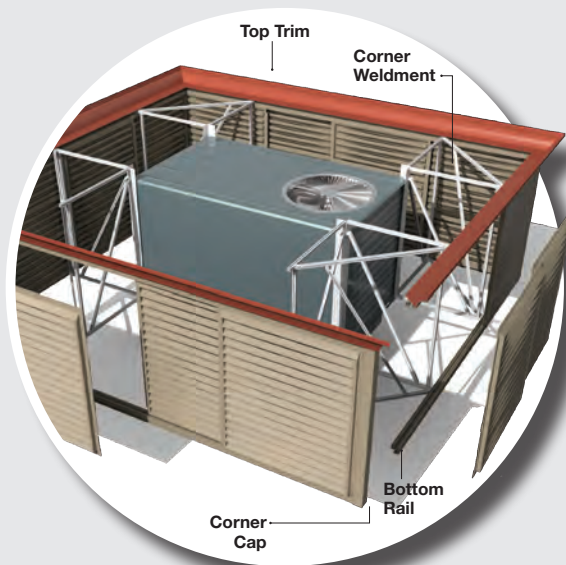
- 52"/35" Stacked Louver & 52" Louver
- Color: Ranchero Red

envisor[®]
SCREENING SYSTEMS

Innovative Rooftop Screens

Attractive, code-compliant and long lasting, Envisor equipment screens offer affordable, elegant, customized screening solutions that blend into the overall design, all with no rooftop penetration. Our patented roof screen system provides practical solutions for municipal screening requirements of HVAC units, chillers, air handlers, power exhausts, roof stacks and communication equipment. You name it, we can screen it!

- **Zero Rooftop Penetration**
- **ABS or Metal**
- **Sliding Panels for Easy Service Access**



U.S. Patent No. 5,664,384
U.S. Patent No. 7,000,362
U.S. Patent No. 7,707,798

CityScapes[®]
ARCHITECTURAL INNOVATIONS



COMMERCIAL OFFICE SPACE

- 52" Horizontal Louver panel with Lineal Band style top trim
- Color: Almond

**THE LEADING ROOF
SCREEN CHOICE OF
ARCHITECTS, BUILDING
OWNERS AND
CONTRACTORS FOR
MORE THAN 20 YEARS.**



CHURCH OFFICE

- 52" Horizontal Louver panel with Cove top trim
- Color: Custom color match



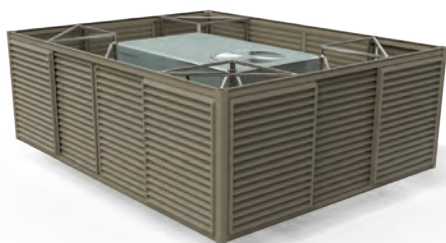
NATIONAL RETAILER

- 70" Horizontal Louver panel with 2 Step top trim
- Color: Alabaster

DESIGN OPTIONS

Envisor screens are the perfect alternative to parapet walls and they satisfy even the strictest screening code requirements. Both styles feature our patented attachment method, which secures our screens directly to the equipment with no rooftop penetration. Post mounted options are also available. Screen heights are available to shield virtually anything you desire. Envisor systems can be stacked up to three panels high to enclose tall RTUs.

VERTICAL



(Available in Metal or Acrylicap® ABS)

CANTED



(Available in Acrylicap® ABS only)

POST MOUNT



(Available in Metal or Acrylicap® ABS)

PANEL STYLES

Panels are available in ten standard styles, allowing you to match or coordinate with the building design. The panels are constructed of thermoformed, high-impact ABS with a co-extruded UV protective layer on both sides or choose one of our metal series options in a variety of thicknesses and finishes. The panels are held firmly in place using a rust-free, double tracked aluminum rail system. This enables the panels to slide side-to-side for easy access to the unit during servicing and maintenance.

ACRYLICAP® ABS SERIES PANELS



LOUVER HORIZONTAL



RIB HORIZONTAL



BRICK



FLAT PAN



FOREST



BATTEN VERTICAL



7.2 RIB HORIZONTAL



RIB VERTICAL

METAL SERIES PANELS


7.2 RIB
HORIZONTAL SOLID

7.2 RIB
VERTICAL SOLID

NEW!
4.0 CORRUGATED
HORIZONTAL SOLID

NEW!
4.0 CORRUGATED
VERTICAL SOLID

7.2 RIB
HORIZONTAL PERFORATED

7.2 RIB
VERTICAL PERFORATED


PAN SOLID



PAN PERFORATED

Don't see a panel that fits your project?
Tell us and we'll make one that you design. (Mold fee may apply)

Traffic Impact Assessment of

Proposed Panera Bread Restaurant with Drive-Through Service

27777 Southfield Road
City of Lathrup Village, Michigan 48076

Prepared: June 28, 2022
Revised: July 1, 2022
Revised: July 14, 2022

STONEFIELD

STONEFIELD

TABLE OF CONTENTS

EXECUTIVE SUMMARY	3
INTRODUCTION	4
EXISTING CONDITIONS	4
Roadway Characteristics.....	4
Traffic Volumes.....	7
FUTURE CONDITIONS	7
Proposed Trip Generation.....	7
Trip Distribution	8
TRAFFIC IMPACTS.....	13
Volume Impacts	13
COLLISION ANALYSIS.....	13
SITE CIRCULATION	13
PARKING SUPPLY	14
DRIVE-THROUGH & QUEUING.....	15
KEY FINDINGS AND CONCLUSIONS.....	15

TECHNICAL APPENDIX

1. Professional Resume
2. Traffic Count Data
3. Hourly Drive-Through Transactions
4. Panera Bread Transaction Times
5. Crash Reports

Executive Summary

The Applicant is proposing to construct Panera Bread restaurant with drive-through service located at the southwesterly quadrant of the intersection of Southfield Road and Sunset Drive in the City of Lathrup Village, Oakland County, Michigan. The subject property's Parcel Identification Number (PIN) is designated as 24-14-432-006. Construction and full occupancy are expected by 2024.

The existing site contains a vacant drive-through bank with three (3) drive-through lanes. Access is presently provided via one (1) full-movement driveway along Sunset Drive and one (1) full-movement driveway along Southfield Road. Under the proposed development program, the existing structure would be razed and a Panera Bread restaurant with one (1) drive-through lane, one (1) rapid pick-up lane, and one (1) by-pass lane would be constructed. Access is proposed via one (1) full-movement driveway along Sunset Drive, one (1) full-movement driveway along Southfield Road, and a cross-access connection to the shopping area to the south would be constructed.

The key findings and conclusions developed in this study are as follows:

1. Under the proposed development program, a 3,483-square-foot Panera Bread restaurant with one (1) drive-through lane, one (1) rapid pick-up lane, and one (1) by-pass lane would be constructed.
2. Access is proposed via one (1) full-movement driveway along Sunset Drive, one (1) full-movement driveway along Southfield Road, and a cross-access connection to the shopping area to the south would be constructed.
3. Under the proposed development program, the proposed development would generate 79 new entering trips and 76 new exiting trips during the weekday morning peak hour, 60 new entering trips and 55 new exiting trips during the weekday evening peak hour, and 98 new entering trips and 94 new exiting trips during the Saturday midday peak hour.
4. Based on a crash analysis conducted for the site, there was approximately one (1) crash every five (5) months at the intersection of Southfield Road, Sunset Drive, and Goldengate Drive over the last six (6) years and only one (1) crash over the last six (6) years at the site driveway along Southfield Road. As such, it is not proposed to restrict the turning movements at the site driveways.
5. The drive-through and rapid pick-up lanes are located in an ideal location on the property to keep the drive-through queue as far as possible from Southfield Road while still allowing vehicles to access the Southfield Road driveway without cutting through the site. The location of the proposed driveways is consistent with the existing condition.
6. The proposed site layout, which includes additional pedestrian crossings, upgraded internal sidewalk, and ADA-ramps, is an improvement compared to the existing condition with respect to pedestrian connectivity with the surrounding area.
7. It is not proposed to restrict the turning movements at the site driveways due to the proximity of the driveways to the Southfield Road and Sunset Drive traffic signal, which would provide gaps in traffic for egress vehicles, and the two-way left-turn lane provided along Southfield Road, which would provide safe and effective left-turn movements into and out of the site. Additionally, the proposed driveway along Southfield Road is located downstream from the signal, outside of the functional area.
8. Based on the ITE's Parking Generation, 5th Edition the proposed parking supply of 40 spaces would be sufficient to support the parking demand of the site.
9. Based on drive-through transaction and service time data from other Panera Bread restaurants, the drive-through and rapid pick-up lane queue would be sufficient to support the maximum drive-through transactions without impacting on-site drive aisles or parking spaces. The analysis conducted shows that vehicles queued within the drive-through would not spill onto Sunset Drive.

Introduction

The Applicant is proposing to construct a Panera Bread with drive-through service located at 27777 Southfield Road.

The subject property is located at the southwesterly quadrant of the intersection of Southfield Road and Sunset Drive in the City of Lathrup Village, Oakland County, Michigan. The site location is shown on **Figure 1**. The subject property's Parcel Identification Number (PIN) is designated as 24-14-432-006. The site has approximately 180 feet of frontage along Southfield Road, approximately 220 feet of frontage along Sunset Drive, and approximately 80 feet of frontage along El Dorado Place. The existing site contains a vacant drive-through bank with three (3) drive-through lanes. Under the proposed development program, the existing structure would be razed and a Panera Bread restaurant with one (1) drive-through lane, one (1) rapid pick-up lane, and one (1) by-pass lane would be constructed. Construction and full occupancy are expected by 2024.

Access to the existing site is presently provided via one (1) full-movement driveway along Sunset Drive and one (1) full-movement driveway along Southfield Road. Under the proposed development program, access is proposed via one (1) full-movement driveway along Sunset Drive, one (1) full-movement driveway along Southfield Road, and a cross-access connection to the shopping area to the south would be constructed.

Existing Conditions

Roadway Characteristics

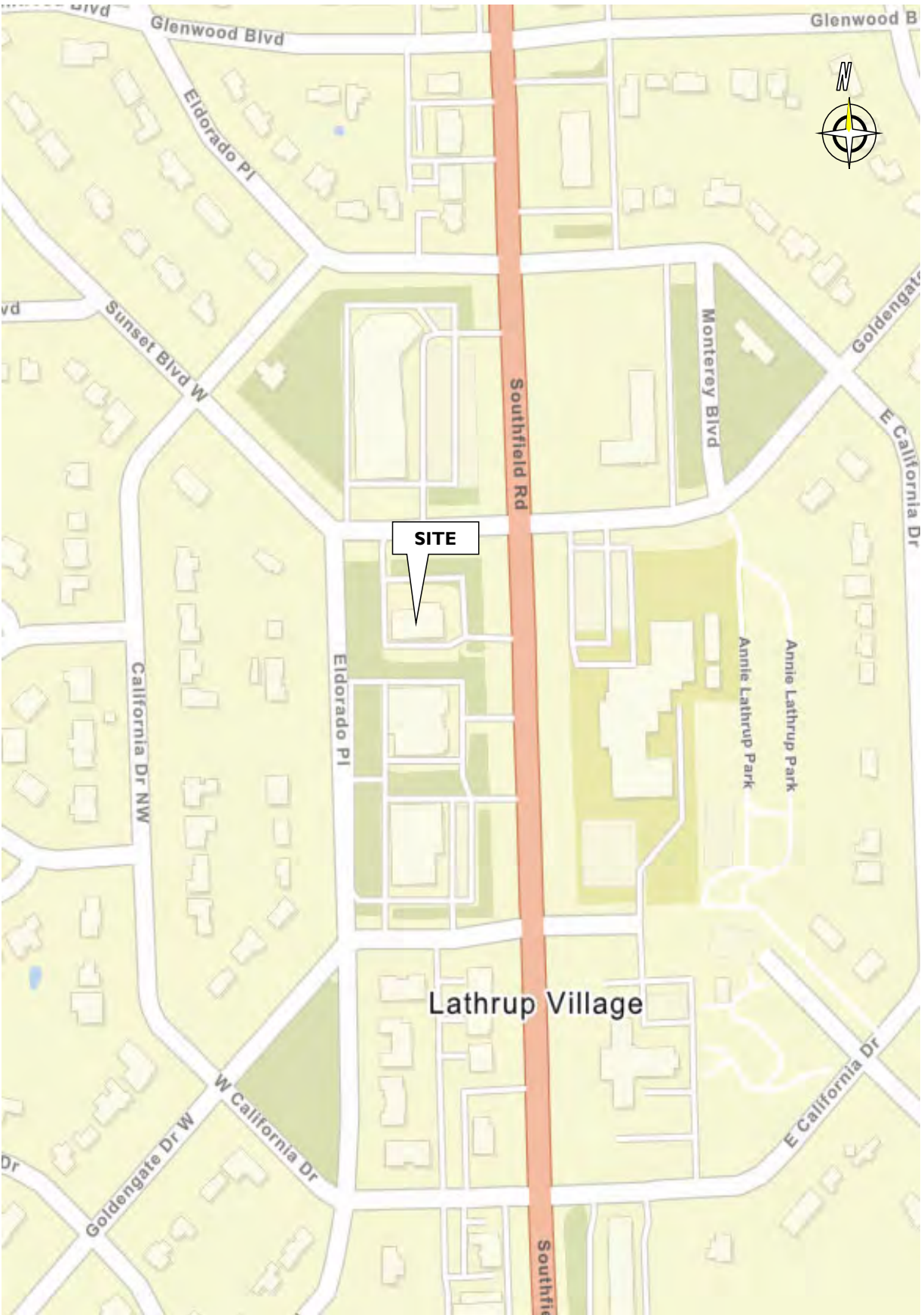
Southfield Road is classified on the Southeast Michigan Council of Governments (SEMCOG) National Functional Classification Map as a Principal Arterial roadway with a general north-south orientation and is under the jurisdiction of the Road Commission for Oakland County (RCOC). Along site frontage, the roadway provides two (2) lanes of travel in each direction, separated by a two-way left turn lane, and has a posted speed limit of 45 mph. Curb is intermittently provided along each side of the roadway, sidewalk and shoulders are provided along both sides of the roadway, and on-street parking is not permitted. Southfield Road provides north-south mobility throughout the City of Lathrup Village and surrounding municipalities for a mix of residential, retail, and commercial uses along its length.

Sunset Drive is classified on the SEMCOG National Functional Classification Map as a local roadway with a general east-west orientation and is under the jurisdiction of the City of Lathrup Village. Along site frontage, the roadway provides one (1) lane of travel in each direction and has a posted speed limit of 25 mph. Curb, sidewalk, and shoulders are generally not provided and on-street parking is not permitted. Sunset Drive provides east-west mobility within the City of Lathrup Village for a mix of residential and retail uses along its length.

El Dorado Place is classified on the SEMCOG National Functional Classification Map as a local roadway with a general north-south orientation and is under the jurisdiction of the City of Lathrup Village. Along site frontage, the roadway provides one (1) lane of travel in each direction. Curb, sidewalk, and shoulders are generally not provided, and on-street parking is not permitted. El Dorado Place provides north-south mobility within the City of Lathrup Village for a mix of retail, residential, and commercial uses along its length.

Southfield Road, Sunset Drive, and Goldengate Drive intersect to form a four (4)-leg signalized intersection. The eastbound approach of Sunset Drive provides one (1) exclusive left turn lane, one (1) exclusive through lane, and one (1) exclusive right turn lane. The westbound approach of Goldengate Drive provides one (1) full-movement lane. The northbound and southbound approaches of Southfield Road provide one (1) exclusive left turn, one (1) exclusive through lane, one (1) exclusive through lane, and one (1) shared through/right turn lane. Crosswalks and pedestrian signals are provided across each of the intersection legs.

Sunset Drive and El Dorado Place intersect to form an unsignalized T-intersection with the northbound approach of El Dorado Place operating under yield control. The eastbound approach of Sunset Drive provides one (1) shared through/right-turn lane and the westbound approach of Sunset Drive provides one (1) shared left-turn/through lane. The northbound approach of El Dorado Place provides one (1) left-turn/right-turn lane. Crosswalks and pedestrian signals are not provided.



STONEFIELD

Proposed Panera Bread w/ Drive-Through
27777 Southfield Road
City of Lathrup Village, Oakland County, Michigan
Traffic Impact Assessment

FIGURE I
Site Location Map

Traffic Volumes

Stonefield utilized 24-hour traffic volume counts provided by the Michigan Department of Transportation's (MDOT's) Transportation Data Management System to determine the hourly traffic volume along Southfield Road. Specifically, Stonefield utilized a 24-hour count conducted on August 10, 2021 along Southfield Road located approximately 1,000 feet to the north of the site. The total daily traffic count data is shown in **Table 1**.

TABLE 1 – 2021 TRAFFIC VOLUME DATA

Street	Location	Direction	24-Hour Traffic Volume
Southfield Road	Between Redwood Avenue & Glenwood Boulevard	NB	19,549
		SB	21,025

Based on a review of the count data, the weekday morning peak hour occurred from 8:00 a.m. to 9:00 a.m. and the weekday evening peak hour occurred from 5:00 p.m. to 6:00 p.m. The MDOT traffic counts forecast a +0.5% increase in traffic between 2018 and 2021. The 2021 counts were increased by 0.5% for one (1) year to calculate the 2022 existing traffic volumes. The MDOT traffic volume data utilized in this report is provided within the appendix. **Table 2** summarizes the 2022 existing weekday morning and weekday evening peak hour traffic volumes along Southfield Road.

TABLE 2 – 2022 EXISTING TRAFFIC VOLUMES

Peak Hour	Direction	Peak Hour Traffic Volume
AM Peak Hour	NB	1,334
	SB	1,212
PM Peak Hour	NB	1,438
	SB	1,641

Future ConditionsProposed Trip Generation

Trip generation projections for the proposed Panera Bread restaurant with drive-through service were prepared utilizing ITE's Trip Generation Manual, 11th Edition. Trip generation rates associated with Land Use 934 "Fast-Food Restaurant with Drive-Through Window" were cited for the proposed 3,483-square-foot Panera Bread. The trip generation was also evaluated based on the number of seats. **Table 3** provides the weekday morning, weekday evening, and Saturday midday peak hour trip generation volumes associated with the proposed development.

TABLE 3 – PROPOSED TRIP GENERATION

Land Use	Weekday Morning Peak Hour			Weekday Evening Peak Hour			Saturday Midday Peak Hour		
	Enter	Exit	Total	Enter	Exit	Total	Enter	Exit	Total
3,483 SF Food Restaurant with Drive-Through ITE Land Use 934	79	76	155	60	55	115	98	94	192
78 Seat Food Restaurant with Drive-Through ITE Land Use 934	54	48	102	40	36	76	95	91	186

As shown in Table 3, the square footage of the proposed development provides a more conservative analysis than the number of seats. As stated within Chapter 10 of ITE's Trip Generation Handbook, 3rd Edition,

there are instances when the total number of trips generated by a site is different from the amount of new traffic added to the street system by the generator. Fast-food restaurants are specifically located on or adjacent to busy streets to attract motorists already on the roadway. Therefore, the proposed development would be expected to attract a portion of its trips from the traffic passing the site on the way from an origin to an ultimate destination. These trips do not add new traffic to the adjacent roadway system and are referred to as pass-by trips.

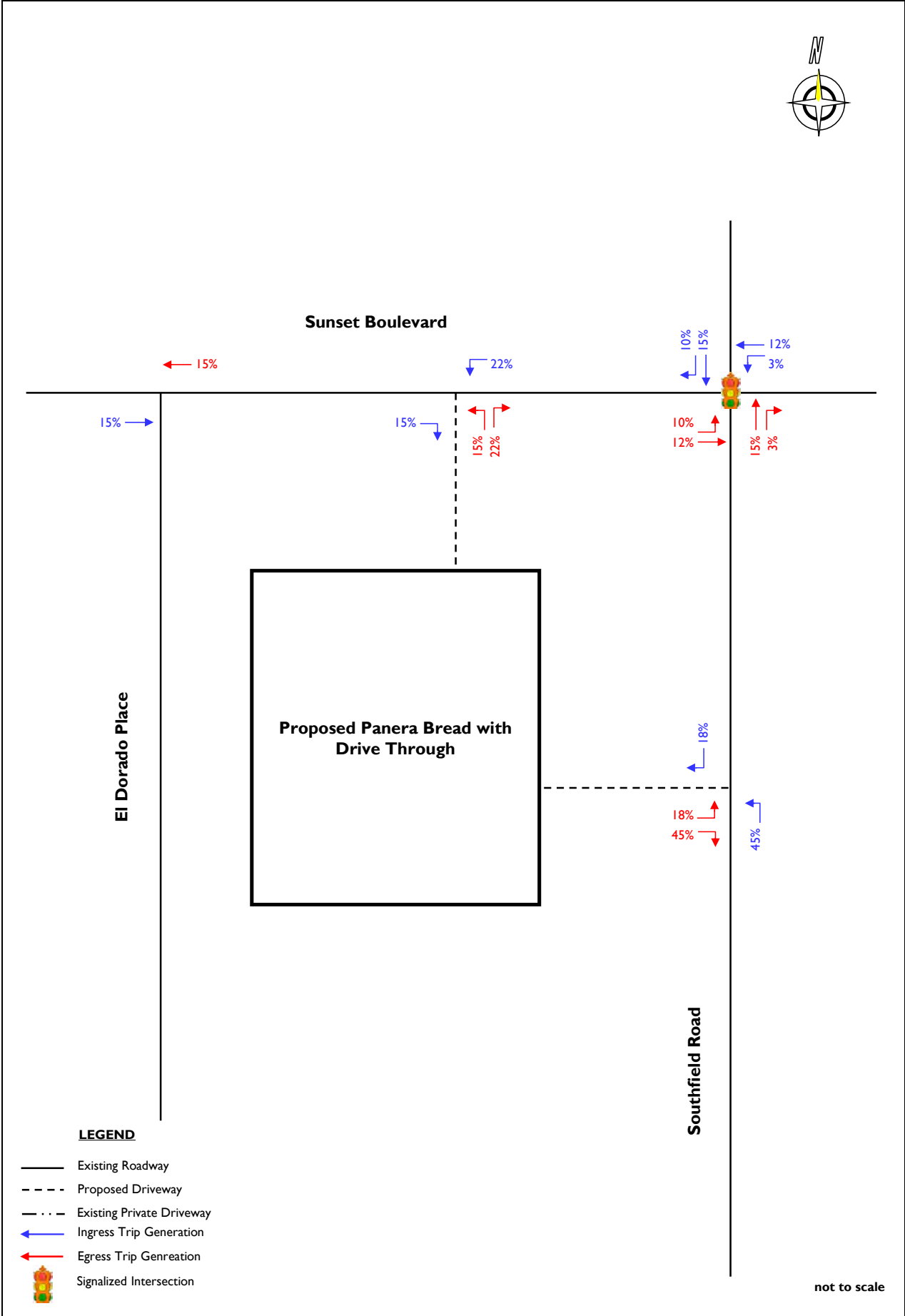
Based upon the published ITE data for Land Use 934 "Fast-Food Restaurant with Drive-Through Window," 50% of the site-generated traffic during the weekday morning peak hours and 55% of site generated traffic during the weekday evening peak hour is comprised of pass-by traffic. It is noted that the ITE does not publish pass-by rates for the Saturday midday peak hour for Land Use 934 "Fast-Food Restaurant with Drive-Through Window." As such, the weekday evening peak hour pass-by rates were utilized for the Saturday midday peak hour. **Table 4** shows the additional site generated traffic in terms of new trips and pass-by trips

TABLE 4 – PROPOSED TRIP GENERATION – NEW & PASS-BY TRIPS

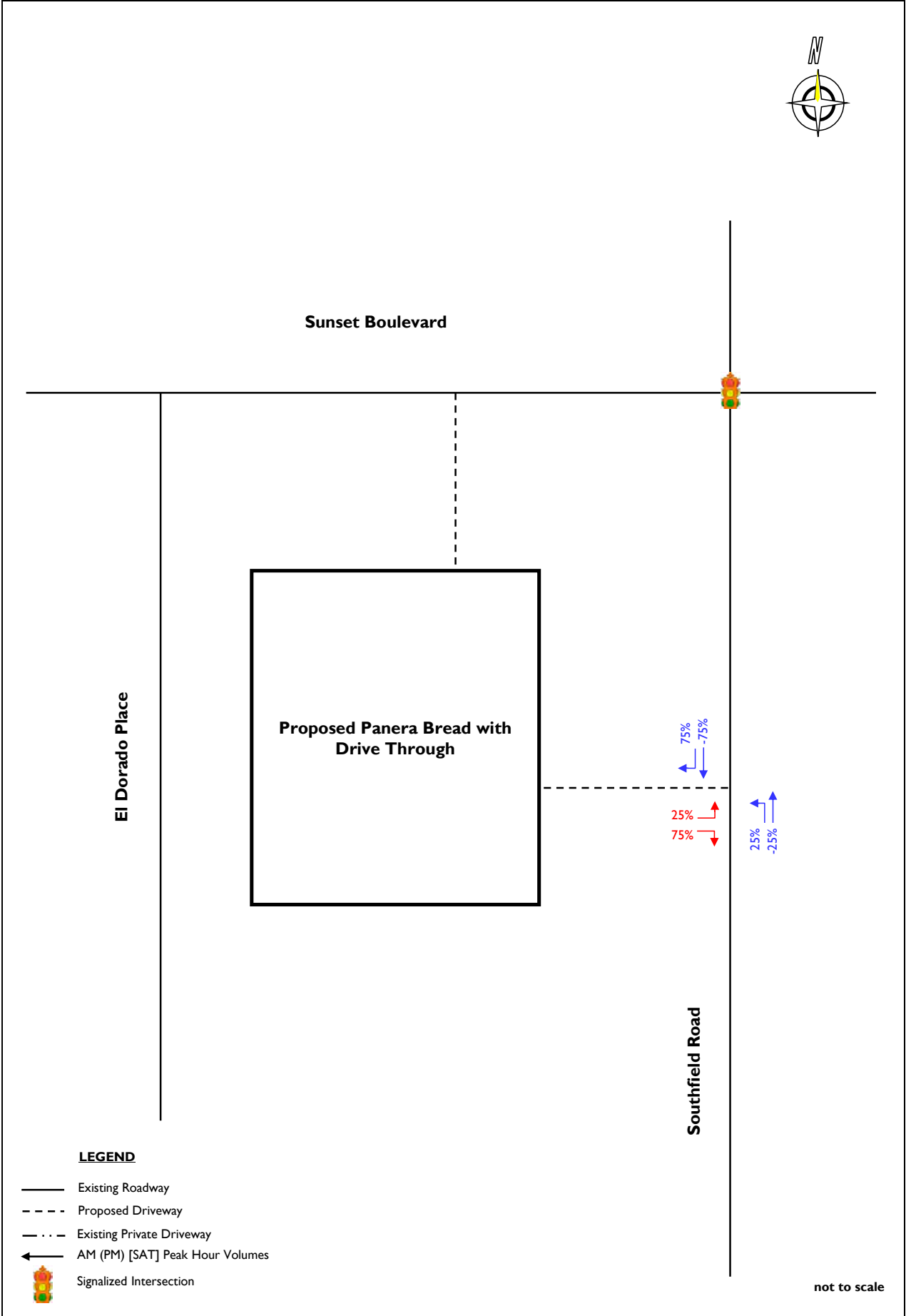
Land Use	Weekday Morning Peak Hour			Weekday Evening Peak Hour			Saturday Midday Peak Hour		
	Enter	Exit	Total	Enter	Exit	Total	Enter	Exit	Total
"New" Trips	40	37	77	28	23	51	45	41	86
"Pass-By" Trips	39	39	78	32	32	64	53	53	106
Total	79	76	155	60	55	115	98	94	192

Trip Distribution

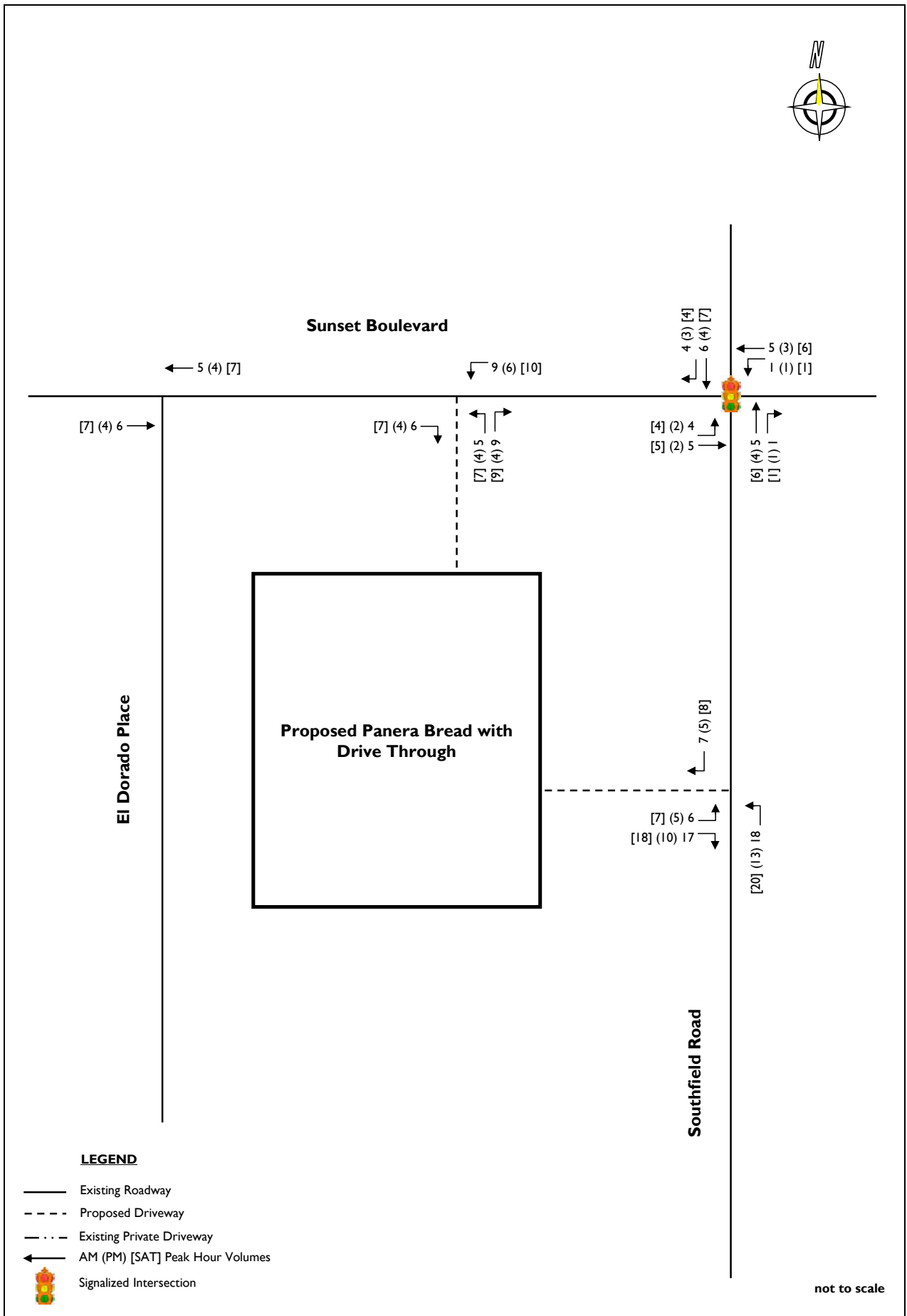
For the purpose of the distribution, the trips were routed to and from the site driveway according to the existing travel pattern along the adjacent roadways and the access management plan of the site. At the site driveways, the calculated number of pass-by trips is shown as a negative number at the through movement as the vehicles are temporarily diverted from the through travel stream into and out of the site access point. **Figure 2** provides the "New" Site-Generated trip distribution and **Figure 3** provides the "Pass-By" Site-Generated trip distribution. **Figure 4** provides the "New" Site-Generated traffic volumes and **Figure 5** provides the "Pass-By" Site-Generated traffic volumes.

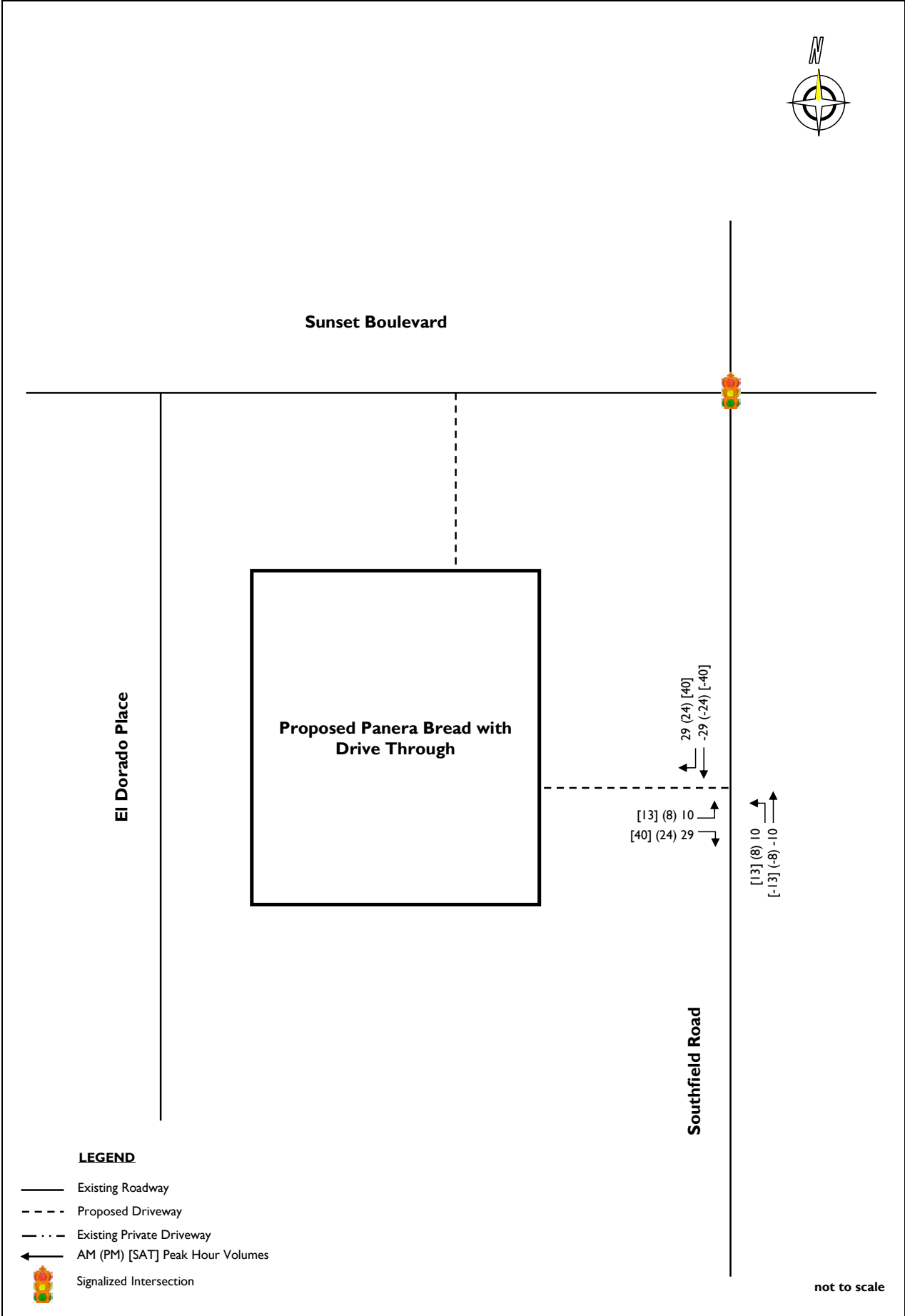


STONEFIELD	Proposed Panera Bread w/ Drive-Through 27777 Southfield Road City of Lathrup Village, Oakland County, Michigan Traffic Impact Assessment	FIGURE 2 "New" Site-Generated Traffic Volumes
-------------------	--	--



STONEFIELD	Proposed Panera Bread w/ Drive-Through 27777 Southfield Road City of Lathrup Village, Oakland County, Michigan Traffic Impact Assessment	FIGURE 3 "Pass-By" Site-Generated Traffic Volumes
-------------------	---	--





STONEFIELD	Proposed Panera Bread w/ Drive-Through 27777 Southfield Road City of Lathrup Village, Oakland County, Michigan Traffic Impact Assessment	FIGURE 5 "Pass-By" Site-Generated Traffic Volumes
-------------------	--	--

Traffic Impacts

Volume Impacts

Based on the trips generated by the proposed Panera Bread restaurant with drive-through service, the traffic volumes along Southfield Avenue are projected to increase approximately 1.8% percent during the weekday morning peak hour and approximately 1.1% during the weekday evening peak hour. It is noted that the MDOT did not publish traffic volumes in the vicinity of the site on Saturday. It is expected that the proposed development would result in a similar increase in traffic on Saturday as it would during the weekday morning and weekday evening peak hours.

Collision Analysis

In order to assess the safety of the intersection of Southfield Road, Sunset Drive, and Goldengate Drive and the existing site driveways, six (6) years of motor vehicle collision data were obtained from the City of Lathrup Police Department. The study time period spans from 2016 to 2021. The crash reports analyzed are appended to this report. **Table 5** provides a summary of the manner and severity of the motor vehicle collisions reported at the intersection of Southfield Road, Sunset Drive, and Goldengate Drive and the existing site driveways.

TABLE 5 – MOTOR VEHICLE COLLISION SUMMARY (6 YEARS)

Intersection/Corridor	Collision Type	Number of Collisions	Collisions Resulting in Injury	Collisions Resulting in Fatality
Southfield Road, Sunset Drive, and Goldengate Drive	Rear End	12	2	0
	Head-On	1	0	0
	Fixed-Object	1	0	0
	Angle	1	0	0
	Animal	1	0	0
	Total	16	2	0
Southfield Road & Site Driveway	Angle	1	0	0
Total		17	2	0

As shown in Table 5, there was a total of 16 collisions over the past six (6) years at the intersection of Southfield Road, Sunset Drive, and Goldengate Drive. This equates to approximately one (1) collision every five (5) months. Additionally, there was only (1) collision at the site driveway along Southfield Road over the last six (6) years, which did not result in injury. The proposed development is not expected to have a significant impact on the safety of the site or surrounding area. As such, it is not proposed to restrict the turning movements at the site driveways.

Site Circulation

A review was conducted of the proposed Panera Bread with drive-through service using the Site Plan prepared by Civil and Environmental Consultants, Inc., dated April 26, 2022. In completing this review, particular attention was focused on the site access, circulation, and parking supply.

Under the proposed development program, a 3,483-square-foot Panera Bread restaurant with one (1) drive-through lane, one (1) rapid pick-up lane, and one (1) by-pass lane would be constructed on the southerly portion of the site. The drive-through lane and rapid pick-up lane would be located along the westerly and southerly sides of the building, with vehicles maneuvering around the building in a counter-clockwise direction. The drive-through lanes are located in an ideal location on the property to keep the drive-through queue as far

as possible from Southfield Road and while still allowing vehicles to access the Southfield Road driveway without cutting through the site.

Access is proposed via one (1) full-movement driveway along Sunset Drive, one (1) full-movement driveway along Southfield Road, and a cross-access connection to the shopping area to the south would be constructed. Circulation throughout the site would be facilitated via a minimum of 24-foot-wide two-way drive aisles. Right-angle parking spaces would be located along the internal drive aisles. ADA-accessible and rapid pick-up spaces would be signed and provided along the easterly side of the proposed building. A trash enclosure would be provided on the northwesterly portion of the site. Sidewalk is currently provided along the Southfield Road and Sunset Drive frontages providing pedestrian access to the site. The proposed site layout, which includes additional pedestrian crossings, upgraded internal sidewalk, and ADA-ramps, is an improvement compared to the existing condition with respect to pedestrian connectivity with the surrounding area.

The proposed driveways were evaluated based on their proximity to the traffic signal at the intersection of Southfield Road, Sunset Drive, and Goldengate Drive. It is noted that the location of the driveways along Southfield Road and Sunset Drive would remain consistent with the existing condition. The driveway along Southfield Road would be located approximately 120 feet away from the signalized intersection and the driveway along Sunset Drive would be located approximately 150 feet away from the signalized intersection. The proximity of the traffic signal to the proposed site driveways would provide gaps in traffic, allowing vehicles to efficiently turn onto Southfield Road and Sunset Drive. The two-way left-turn lane along Southfield Road would provide a two-stage gap which permits safe and effective left-turn egress from the site for vehicles travelling northbound. The driveway along Sunset Drive provides an additional connection to Southfield Road if queues were to extend beyond the site driveway. It is not proposed to restrict the turning movements at the site driveways due to the proximity of the driveways to the Southfield Road and Sunset Drive traffic signal, which would provide gaps in traffic for egress vehicles, and the two-way left-turn lane provided along Southfield Road, which would provide safe and effective left-turn movements into and out of the site. The cross-access connection would provide an additional connection to the businesses to the south of the site.

Parking Supply

The proposed development would provide 40 parking spaces on the site. Right-angle spaces would be located along the drive aisles to the north and east of the proposed building. Specifically, 26 spaces would be located to the north of the building and 14 spaces would be located to the east of the site. Two-way vehicular circulation throughout the parking lot would be facilitated via a minimum 22-foot-wide drive aisles.

It is noted that per the Lathrup Village Zoning Ordinance, restaurants with drive-throughs require 1 parking spaces per 2 maximum customers (assumed seats) plus 1 parking space per 2 employees. The proposed Panera would have 78 customer seats (indoor and outdoor) and a maximum shift of 12 employees; which would equate to a parking requirement of 45 parking spaces. The parking supply was evaluated with respect to data published within the Institute of Transportation Engineers' (ITE) Parking Generation, 5th Edition, for Land Use 934 "Fast-Food Restaurant with Drive-Through Window." Specifically, parking generation rates for general urban/suburban locations were utilized. The average peak parking demand rate during the peak Saturday period for Land Use 934 "Fast-Food Restaurant with Drive-Through Window" is 9.18 vehicles per 1,000 square feet. For the proposed 3,483-square-foot Panera Bread restaurant, this equates to 32 parking spaces. Parking Generation also includes data correlating seats with the average peak parking demand for Weekday (Monday – Thursday), Friday, Saturday, and Sunday. Based on the data within Parking Generation the peak parking demand for Monday through Thursday would be 27 vehicles, on Friday would be 34 vehicles, on Saturday would be 29 vehicles and on Sunday would be 25 vehicles. The site would provide 40 total parking spaces, inclusive of two (2) ADA accessible parking spaces, which would be sufficient to support this project's parking demand.

Drive-Through & Queuing

The operator of the proposed development has provided hourly drive-through transaction data and overall drive-through service time data to assess if the drive-through and rapid pick-up queue lanes would provide sufficient storage to support the drive-through demand. Based on the average transaction time data at Panera Bread restaurants with drive-through service, the longest service time occurs from 6:00 p.m. to 7:00 p.m. During this time, the average customer spends approximately 342 seconds between placing their order and picking up their order. As there are five (5) vehicle positions between the ordering station and the pick-up window, a customer can be served every 69 seconds. As such, the proposed Panera Bread drive-through can process approximately 52 vehicles per hour, without significant queuing.

Based on drive-through transaction data at two (2) similar Panera Bread locations in Ballwin, Missouri and in Apple Valley, Minnesota, the maximum hourly drive-through transactions (including rapid pick-up transactions) was 47 vehicles. The proposed development would be able to process approximately 52 vehicles per hour, which would be sufficient to support the maximum drive-through transactions without impacting on-site drive aisles or parking spaces. Further, based on a Poisson arrival distribution (assuming that 50% of the trip generation would utilize the drive-through), the 85th percentile drive-through queue length would be approximately 11 vehicles. As such, the proposed stacking space of 13 total vehicles (excluding the two (2) striped spaces past the pick-up window) would be sufficient to accommodate the drive-through queue. The two (2) spaces past the pick-up window would provide additional queue storage for orders that would take longer than average. Based on the analysis conducted, vehicles queued within the drive through would not spill onto Sunset Drive.

Key Findings and Conclusions

The key findings and conclusions developed in this study are as follows:

1. Under the proposed development program, a 3,483-square-foot Panera Bread restaurant with one (1) drive-through lane, one (1) rapid pick-up lane, and one (1) by-pass lane would be constructed.
2. Access is proposed via one (1) full-movement driveway along Sunset Drive, one (1) full-movement driveway along Southfield Road, and a cross-access connection to the shopping area to the south would be constructed.
3. Under the proposed development program, the proposed development would generate 79 new entering trips and 76 new exiting trips during the weekday morning peak hour, 60 new entering trips and 55 new exiting trips during the weekday evening peak hour, and 98 new entering trips and 94 new exiting trips during the Saturday midday peak hour.
4. Based on a crash analysis conducted for the site, there was approximately one (1) crash every five (5) months at the intersection of Southfield Road, Sunset Drive, and Goldengate Drive over the last six (6) years and only one (1) crash over the last six (6) years at the site driveway along Southfield Road. As such, it is not proposed to restrict the turning movements at the site driveways.
5. The drive-through and rapid pick-up lanes are located in an ideal location on the property to keep the drive-through queue as far as possible from Southfield Road while still allowing vehicles to access the Southfield Road driveway without cutting through the site. The location of the proposed driveways is consistent with the existing condition.
6. The proposed site layout, which includes additional pedestrian crossings, upgraded internal sidewalk, and ADA-ramps, is an improvement compared to the existing condition with respect to pedestrian connectivity with the surrounding area.
7. It is not proposed to restrict the turning movements at the site driveways due to the proximity of the driveways to the Southfield Road and Sunset Drive traffic signal, which would provide gaps in traffic for egress vehicles, and the two-way left-turn lane provided along Southfield Road, which would provide safe and effective left-turn movements into and out of the site. Additionally, the proposed driveway along Southfield Road is located downstream from the signal, outside of the functional area.

8. Based on the ITE's Parking Generation, 5th Edition the proposed parking supply of 40 spaces would be sufficient to support the parking demand of the site.
9. Based on drive-through transaction and service time data from other Panera Bread restaurants, the drive-through and rapid pick-up lane queue would be sufficient to support the maximum drive-through transactions without impacting on-site drive aisles or parking spaces. The analysis conducted shows that vehicles queued within the drive-through would not spill onto Sunset Drive.

Z:\Michigan\DET\2022\DET-220223-Panera Bread-27777 Southfield Road, Lathrup Village, MI\Calculations & Reports\Traffic\Reports\2022-06 Traffic Impact Assessment\2022-06 Traffic Impact Assessment.docx

TECHNICAL APPENDIX

PROFESSIONAL RESUME

CHARLES D. OLIVO, PE

PRINCIPAL/FOUNDER

Education

BS Civil Engineering

University of Notre Dame, 2002

Licensure

Professional Engineer

Michigan
Indiana
Ohio
New Jersey
New York
Pennsylvania
Connecticut
Maine
Massachusetts
Rhode Island
Maryland
North Carolina
New Hampshire

Professional Traffic Operations Engineer

Associations

Institute of Transportation Engineers (ITE)

American Society of Civil Engineers (ASCE)

Urban Land Institute (ULI)

Mr. Charles Olivo is accomplished in numerous aspects of Civil, Infrastructure, Highway, and Traffic and Transportation Engineering having completed projects for private development/redevelopment entities, public jurisdictional agencies, and local municipalities. Serving clients throughout the Northeast and Midwest, he has professional experience designing and managing the unique and diverse elements of land development and infrastructure design. Mr. Olivo is involved with engineering design from project inception and conceptual development through the entitlement and construction process. His experience in the Civil Engineering field has involved the shaping of development parcels inclusive of both on-site and off-site impacts and access management features.

Preparation of detailed traffic and civil engineering findings during the Due Diligence/Site Assessment process for over 300 development sites to serve as the cornerstone of project viability and create a critical reference point during feasibility assessment. Through thorough research of local development codes and an understanding of development opportunities and constraints, Mr. Olivo has successfully prepared numerous Site and Traffic Analyses for development/redevelopment projects and programs.

Preparation of engineered Site Plan and Traffic Roadway Plan documents to serve as essential components in the land use permitting and entitlement process. Mr. Olivo has been integrally involved in the preparation of over 300 construction document sets, studies, analyses, and assessments associated with land development projects. He has established a reputation of high-quality design, innovative thinking, and understanding of client objectives throughout his experience.

Mr. Olivo has been a key advocate in urban infill development and the advancement of smart growth techniques. He has been the transportation engineer of record for numerous development and redevelopment plans.

Mr. Olivo has been qualified as a traffic and site Engineering Expert and provided testimony before approximately 100 Land Use Boards throughout the country. In addition, he has presented to client groups, public governing bodies, and civic associations to explain the impacts of private development/redevelopment projects and the proposed improvement/mitigation measures associated with these projects.

Mr. Olivo's project experience includes traffic analysis, traffic signal and intersection improvement design, zoning review, site investigation and due diligence, concept preparation, stormwater management and stormwater conveyance system design, grading utility design, soil erosion and sediments, control design, and project coordination.

TRAFFIC COUNT DATA



Transportation Data Management System

Volume Count Report

LOCATION INFO	
Location ID	63-5479
Type	SPOT
Funct'l Class	3
Located On	SOUTHFIELD RD
Direction	2-WAY
County	Oakland
Community	LATHRUP VILLAGE
MPO ID	40484
HPMS ID	
Agency	MDOT

COUNT DATA INFO	
Count Status	Accepted
Start Date	Tue 8/10/2021
End Date	Wed 8/11/2021
Start Time	9:00:00 AM
End Time	9:00:00 AM
Direction	2-WAY
Notes	
Station	63-5479
Study	
Speed Limit	
Description	
Sensor Type	Video Count
Source	TcdsBinToVol
Latitude,Longitude	

INTERVAL:15-MIN					
Time	15-min Interval				Hourly Count
	1st	2nd	3rd	4th	
0:00-1:00	82	77	61	54	274
1:00-2:00	42	36	32	34	144
2:00-3:00	17	32	25	32	106
3:00-4:00	20	36	26	23	105
4:00-5:00	27	47	42	54	170
5:00-6:00	73	110	127	183	493
6:00-7:00	173	245	328	349	1,095
7:00-8:00	388	496	565	614	2,063
8:00-9:00	617	619	667	643	2,546
9:00-10:00	613	563	591	597	2,364
10:00-11:00	544	540	592	613	2,289
11:00-12:00	588	597	659	636	2,480
12:00-13:00	672	679	739	677	2,767
13:00-14:00	693	688	641	667	2,689
14:00-15:00	639	659	728	689	2,715
15:00-16:00	743	775	719	761	2,998
16:00-17:00	763	713	708	754	2,938
17:00-18:00	767	782	750	780	3,079
18:00-19:00	688	748	635	616	2,687
19:00-20:00	596	537	480	475	2,088
20:00-21:00	503	458	429	392	1,782
21:00-22:00	420	369	344	268	1,401
22:00-23:00	247	214	158	181	800
23:00-24:00	155	115	112	119	501
Total					40,574
AADT					40,574
AM Peak	11:45-12:45 2,726				
PM Peak	17:00-18:00 3,079				



Transportation Data Management System

Volume Count Report

LOCATION INFO	
Location ID	63-5479_NB
Type	SPOT
Funct'l Class	3
Located On	SOUTHFIELD RD
Direction	NB
County	Oakland
Community	LATHRUP VILLAGE
MPO ID	40482
HPMS ID	
Agency	MDOT

COUNT DATA INFO	
Count Status	Accepted
Start Date	Tue 8/10/2021
End Date	Wed 8/11/2021
Start Time	9:00:00 AM
End Time	9:00:00 AM
Direction	NB
Notes	
Station	63-5479
Study	
Speed Limit	
Description	
Sensor Type	Video Count
Source	TcdsBinToVol
Latitude,Longitude	

INTERVAL:15-MIN					
Time	15-min Interval				Hourly Count
	1st	2nd	3rd	4th	
0:00-1:00	39	34	32	30	135
1:00-2:00	22	19	17	19	77
2:00-3:00	11	19	9	18	57
3:00-4:00	11	18	12	15	56
4:00-5:00	8	17	23	27	75
5:00-6:00	29	58	65	107	259
6:00-7:00	69	112	166	190	537
7:00-8:00	179	218	293	309	999
8:00-9:00	318	290	358	368	1,334
9:00-10:00	341	305	325	322	1,293
10:00-11:00	271	240	310	330	1,151
11:00-12:00	313	283	320	336	1,252
12:00-13:00	343	322	352	325	1,342
13:00-14:00	338	345	290	322	1,295
14:00-15:00	270	325	336	315	1,246
15:00-16:00	369	399	340	371	1,479
16:00-17:00	361	331	337	355	1,384
17:00-18:00	344	376	349	369	1,438
18:00-19:00	290	385	307	279	1,261
19:00-20:00	262	241	212	194	909
20:00-21:00	221	221	180	179	801
21:00-22:00	188	159	134	114	595
22:00-23:00	97	87	71	92	347
23:00-24:00	63	59	54	51	227
Total					19,549
AM Peak	08:30-09:30				1,372
PM Peak	15:00-16:00				1,479



Transportation Data Management
System

Volume Count Report

LOCATION INFO	
Location ID	63-5479_SB
Type	SPOT
Funct'l Class	3
Located On	SOUTHFIELD RD
Direction	SB
County	Oakland
Community	LATHRUP VILLAGE
MPO ID	40483
HPMS ID	
Agency	MDOT

COUNT DATA INFO	
Count Status	Accepted
Start Date	Tue 8/10/2021
End Date	Wed 8/11/2021
Start Time	9:00:00 AM
End Time	9:00:00 AM
Direction	SB
Notes	
Station	63-5479
Study	
Speed Limit	
Description	
Sensor Type	Video Count
Source	TcdsBinToVol
Latitude,Longitude	

INTERVAL:15-MIN					
Time	15-min Interval				Hourly Count
	1st	2nd	3rd	4th	
0:00-1:00	43	43	29	24	139
1:00-2:00	20	17	15	15	67
2:00-3:00	6	13	16	14	49
3:00-4:00	9	18	14	8	49
4:00-5:00	19	30	19	27	95
5:00-6:00	44	52	62	76	234
6:00-7:00	104	133	162	159	558
7:00-8:00	209	278	272	305	1,064
8:00-9:00	299	329	309	275	1,212
9:00-10:00	272	258	266	275	1,071
10:00-11:00	273	300	282	283	1,138
11:00-12:00	275	314	339	300	1,228
12:00-13:00	329	357	387	352	1,425
13:00-14:00	355	343	351	345	1,394
14:00-15:00	369	334	392	374	1,469
15:00-16:00	374	376	379	390	1,519
16:00-17:00	402	382	371	399	1,554
17:00-18:00	423	406	401	411	1,641
18:00-19:00	398	363	328	337	1,426
19:00-20:00	334	296	268	281	1,179
20:00-21:00	282	237	249	213	981
21:00-22:00	232	210	210	154	806
22:00-23:00	150	127	87	89	453
23:00-24:00	92	56	58	68	274
Total					21,025
AM Peak	11:45-12:45 1,373				
PM Peak	17:00-18:00 1,641				

HOURLY DRIVE-THROUGH TRANSACTIONS

STONEFIELD

Proposed Panera Bread with Drive-Thru

Average Hourly Traffic Volumes

SE&D Job No. DET-220223

Date	Apple Valley, MN			Ballwin, MO		
	Drive-Thru	Rapid Pick-Up	Total	Drive-Thru	Rapid Pick-Up	Total
27-Apr	29	0	29	20	3	23
28-Apr	28	5	33	16	3	19
29-Apr	22	4	26	22	6	28
30-Apr	20	3	23	11	8	19
1-May	22	3	25	14	4	18
2-May	27	8	35	17	7	24
3-May	21	4	25	19	6	25
4-May	29	6	35	25	3	28
5-May	23	6	29	25	13	38
6-May	31	0	31	21	8	29
7-May	20	1	21	3	7	10
8-May	10	10	20	9	2	11
9-May	32	6	38	27	10	37
10-May	30	5	35	17	4	21
11-May	37	4	41	16	3	19
12-May	27	6	33	14	3	17
13-May	27	2	29	9	4	13
14-May	16	5	21	0	5	5
15-May	13	3	16	0	2	2
16-May	23	0	23	9	4	13
17-May	24	7	31	25	15	40
18-May	35	8	43	21	11	32
19-May	24	4	28	26	4	30
20-May	29	6	35	22	3	25
21-May	16	5	21	15	4	19
22-May	27	7	34	8	7	15
23-May	27	5	32	24	10	34
24-May	17	5	22	22	3	25
25-May	25	5	30	34	13	47
26-May	31	5	36	28	3	31
27-May	26	8	34	21	4	25
28-May	18	3	21	15	5	20
29-May	21	2	23	6	4	10
30-May	24	5	29	23	4	27
Average	24	5	29	17	6	23

PANERA BREAD TRANSACTION TIMES

STONEFIELD

Proposed Panera Bread with Drive-Thru

Average Transaction Time Summary

SE&D Job No. DET-220223

Time Period	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Average
8:00 a.m. - 9:00 a.m.	4:55	4:54	4:53	5:00	5:08	5:12	5:06	5:01	5:01
11:00 a.m. - 12:00 p.m.	5:05	5:03	4:59	5:03	5:08	5:13	5:06	5:02	5:04
12:00 p.m. - 1:00 p.m.	4:58	4:58	4:59	4:58	5:01	5:03	5:06	5:00	5:00
6:00 p.m. - 7:00 p.m.	5:42	5:42	5:35	5:42	5:46	5:46	5:44	5:43	5:42

	Panera Bread Café #662 Lathrup Village, MI								
	Signage Responsibility Matrix								
	Indicate QUANTITY in the appropriate column below for each item								
	By Sign Vendor	By Panera GC	By Landlord/ others	N/A - none proposed or required	Description	By Sign Vendor	By Panera GC	By Landlord/ others	N/A - none proposed or required
Description									
Building Mounted Signage - Channel Letters	4				Drive-thru Clearance bar	2			
Building Mounted Logo-	3				Drive-thru Clearance bar foundation			2	
"Drive-Thru" Wall Sign	3				Drive-thru Canopy / speaker post	1			
Marque signs					Drive-thru Canopy / speaker post			1	
Logo Wall Mural - Painted					Digital Preview Board			1	
Pole Sign Structure with Cabinet and Graphics					Drive-thru Preview Board foundation			1	
Monument Sign Structure, Masonry and Electrical					Digital menu board			1	
Monument Sign Foundation					Drive-thru Menu Board foundation			2	
Multi-Tenant Sign					Drive-thru Thank you/ Directional Signs	5			
Multi-Tenant Sign Foundation					Drive-thru Thank you/ Directional Sign foundations				
Panera Panels for Multi-Tenant Sign - FACES ONLY	TBD				Other (Describe fully)				
Rapid Pick-Up Signs - bollard mount	3				Awning Engineering				
Drive Thru Waiting Sign - bollard mount	2				Architectural Building Canopy	2			
Merge Sign -Bollard req'd - bollard mount .	1				Awnings				
Painted Wall Mural	1				Other (Describe fully)				

ARTWORK EXCLUSIVE PROPERTY OF

SINCE 1917



MANDEVILLE SIGN

making your mark.

676 GEORGE WASHINGTON HIGHWAY
LINCOLN, RI 02865-4255

PHONE 401-334-9100 FAX 401-334-7799

WEB www.mandevillesign.com

APPROVALS

Signatures Required Before Release to Production

Engineering	DATE
Sales	DATE
Production	DATE

All electrical signs shall comply with the National Electric Code (Article 600) and be manufactured according to Underwriters Laboratories U.L. 48 standards and labeled accordingly.

REVISIONS

NO.	BY	DESCRIPTION	DATE
1			
2			
3			
4			
5			
6			

CUSTOMER

662



STORE #

27777 Southfield Rd
Lathrup Village, MI

LOCATION

WORK ORDER NUMBER(S)

53754

PROJECT MANAGER

Linda D.

GC

ARTIST

DATE

03/30/22

DRAWING NAME

53754.1

SIGN CODE ALLOWANCE

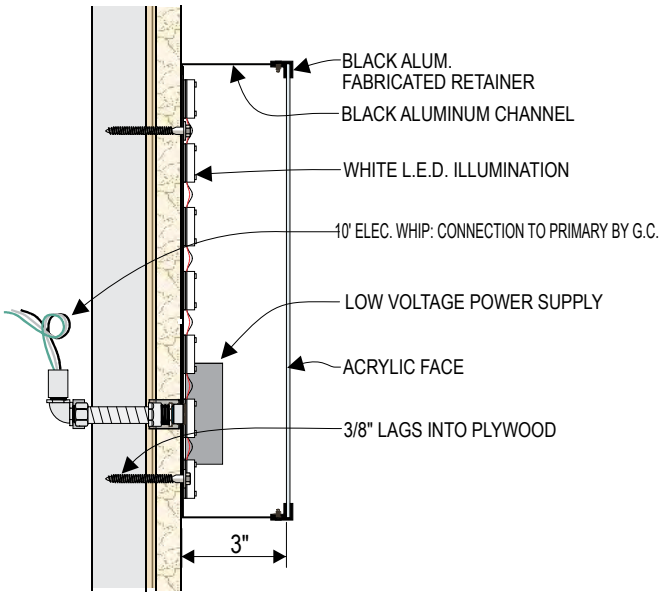
- Wall Signs:
1 sign per business
2 if corner lot (on separate façade)
1 additional on rear if facing parking lot
Front and side 10% façade area NTE 64SF
Rear NTE 24SF
Measure with single rectangle
Ascender/descender up to 12" above or below main font excluded

Awnings
Engineering TBD, but must be designed for 115MPH wind/25PSF snow
1 x 1 x .125 @ 24" o.c.
Or
1 x 2 x .09 @ 36" o.c.
Copy/graphics counts as wall sign area
NTE 80% valance length
Letter height NTE 8"
- Ground signs
Prohibited in Zone
Existing brick base potential for re-use
No LL multi-tenant proposed

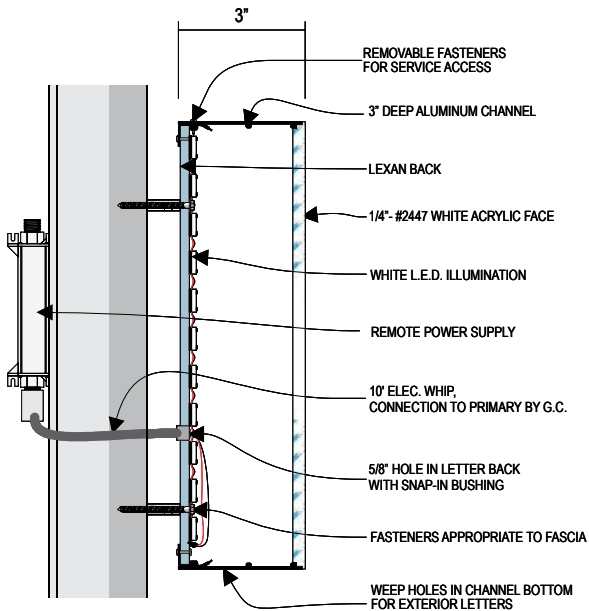
Directional Signs:
1 per drive
Logos are prohibited
NTE 2SF each face, 2.5'height (no permit required)

Drive-Thru Preview/Menu Board:
All Drive-thru uses require an approved PUD
All DT elements allowed per approved Site Plan (show Digital)

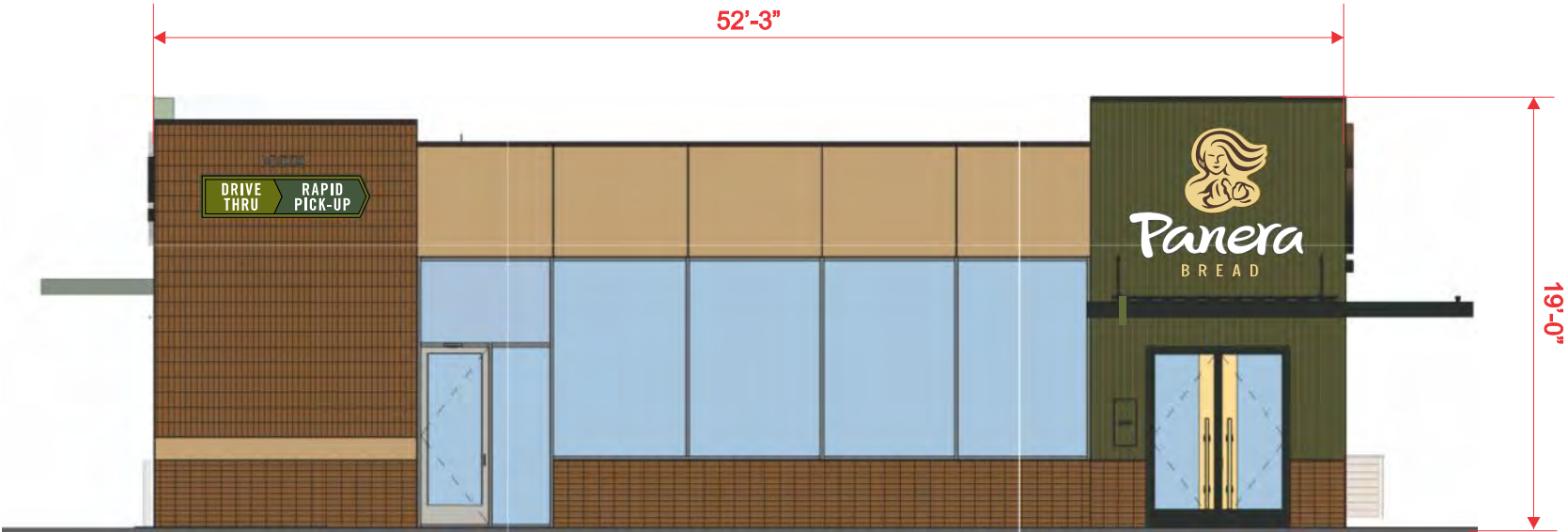
Window signs
Number unrestricted
10% of each window (no permit required)



DRIVE THRU CABINET SIGN SECTION: N.T.S.

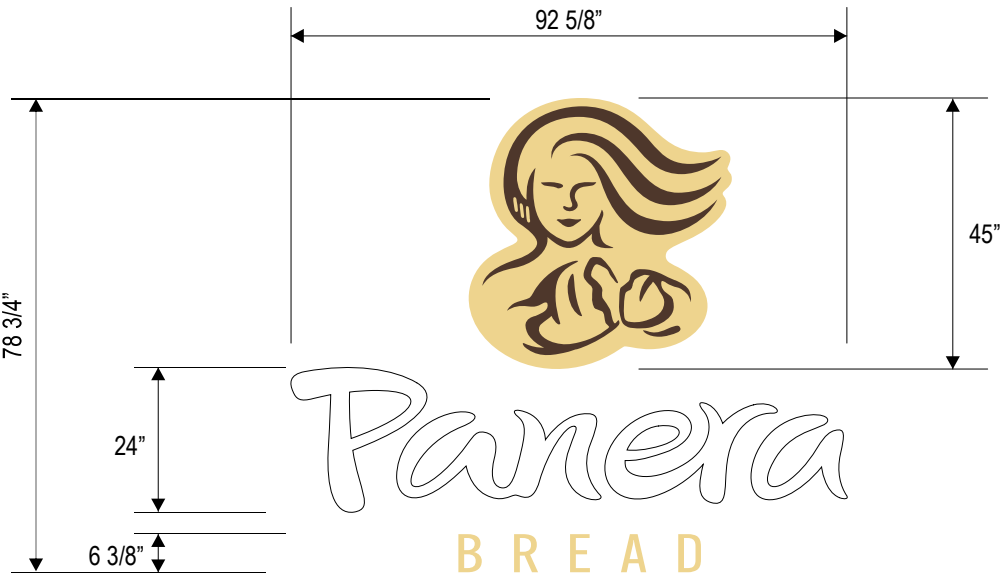


TYPICAL CHANNEL LETTER: N.T.S.



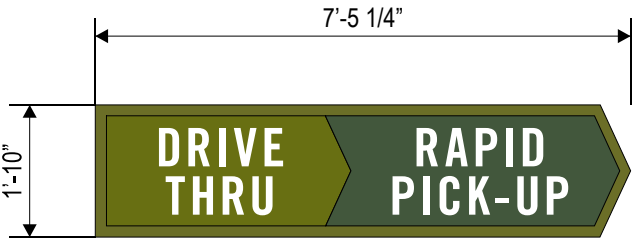
EAST ELEVATION: SCALE: 1/8"=1'-0"

FACES SOUTHFIELD ROAD



SCALE: 3/8" = 1'-0"

INTERNALLY ILLUMINATED FRONT LIT/HALO LIT CHANNEL LETTERS AND LOGO:
"PANERA" LETTERS
- 2447 WHITE FACES WITH 3" DEEP CHANNELS PAINTED PANTONE 7540C SLATE
- CLEAR LEXAN BACKS
- 6500K SLOAN PRISM WHITE LED LIGHTING (PANERA)
- TRIMLESS DESIGN
-"BREAD" LETTERS WITH FIRST SURFACE 7403 C VINYL SLOAN 5000K LED WITH BLACK CHANNELS
- MB LOGO WITH PANTONE 7403 CP INTERNALLY ILLUMINATED/HALO LIT TRANSLUCENT BACKGROUND WITH SLOAN 5000K PRISM LED WITH TRANSLUCENT PANTONE 476 CP BROWN
- 3" DEEP CHANNEL PAINTED TO MATCH PANTONE 7540 C SLATE



13.6 S/F

INTERNALLY ILLUMINATED "DRIVE THRU" WALL SIGN:

- 3" DEEP ALUMINUM CHANNEL AND RETAINER
PAINTED PANTONE 2307 C
- WHITE ACRYLIC FACE WITH FIRST SURFACE DIGITAL PRINT
- PANTONE 2307C C BORDER & CHANNEL
- PANTONE 2410 C GREEN BACKGROUND BEHIND RAPID PICK UP
- WHITE DRIVE THRU COPY AND ARROW
• SLOAN 6500K PRISM WHITE LED ILLUMINATION

EXCEEDS NUMBER ALLOWED

ARTWORK EXCLUSIVE PROPERTY OF MANDENVILLE SIGN
SINCE Item 7A.



MANDENVILLE SIGN
making your mark.

676 GEORGE WASHINGTON HIGHWAY
LINCOLN, RI 02865-4255

401-334-9100 401-334-7799
PHONE FAX

WEB www.mandevillesign.com

APPROVALS

Signatures Required Before Release to Production

Engineering	BY	DATE
Sales	BY	DATE
Estimating	BY	DATE
Production	BY	DATE
Quality Control	BY	DATE

PDF NAME

REVISIONS

NO.	BY	DESCRIPTION	DATE
1			
2			
3			
4			
5			
6			
7			
8			

All electrical signs shall comply with the National Electric Code (Article 600) and be manufactured according to Underwriters Laboratories U.L. 48 standards and labeled accordingly.

53574

WORK ORDER #



CUSTOMER

662

STORE NUMBER

27777 Southfield Rd
Lathrup Village, MI

LOCATION

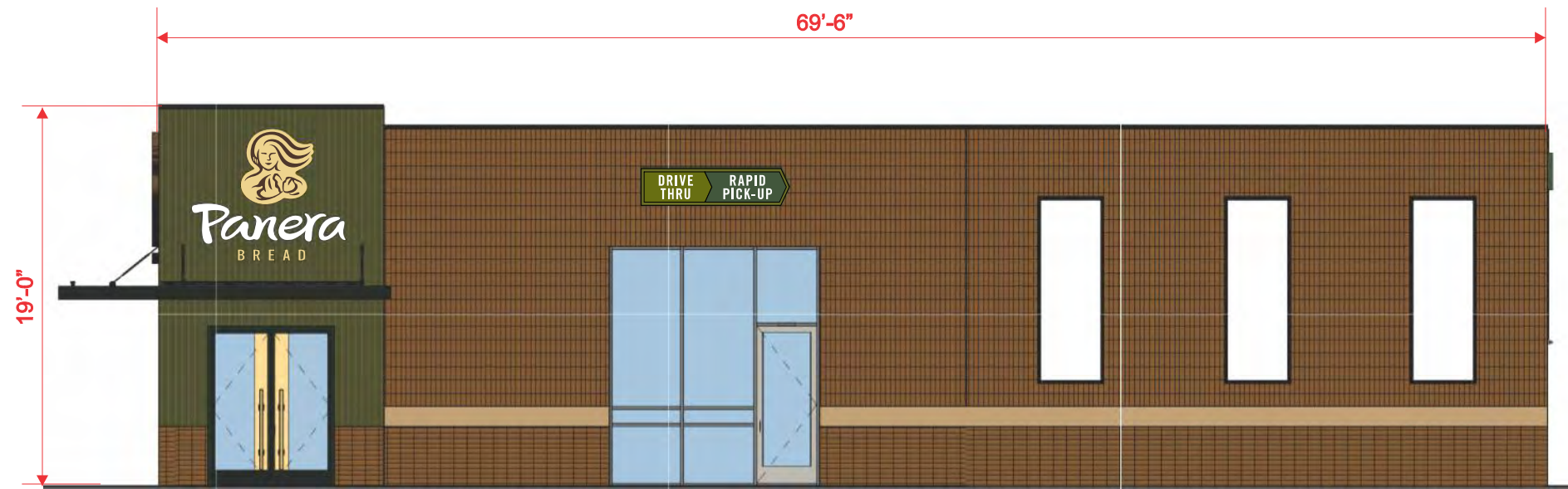
Linda D.

PROJECT MANAGER

GC 03/30/22
ARTIST DATE

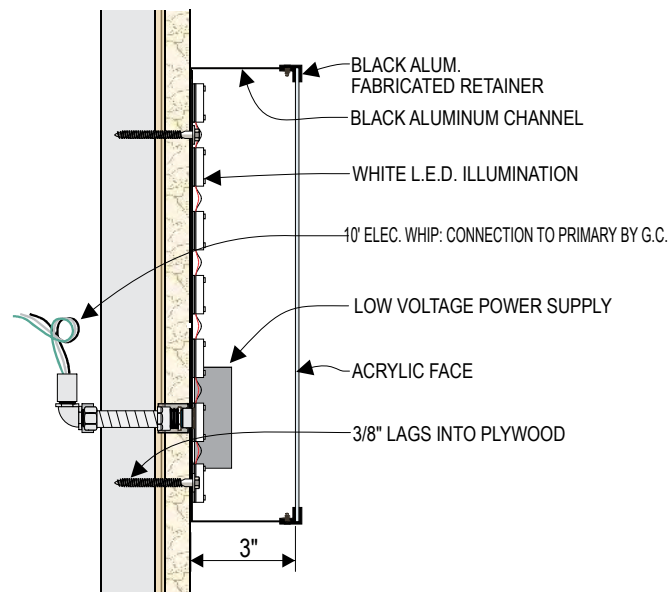
53574.2

DRAWING / FILE NAME

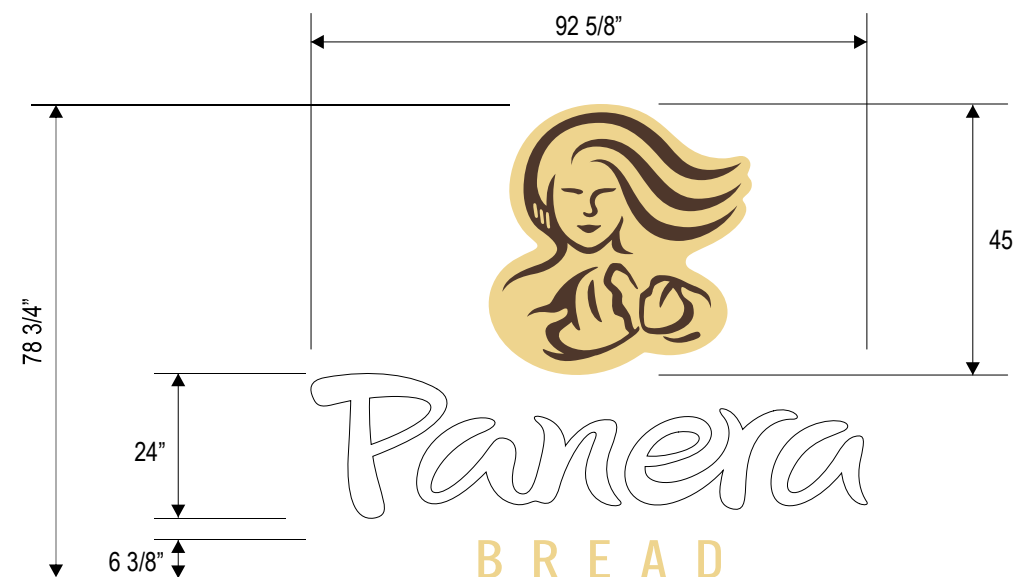


NORTH ELEVATION: SCALE: 1/8"=1'-0"

FACES SUNSET BLVD.



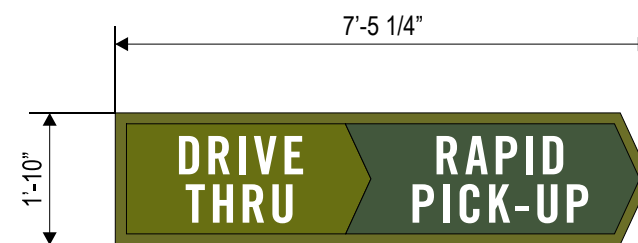
DRIVE THRU CABINET SIGN SECTION: N.T.S.



SCALE: 3/8" = 1'-0"

50.65 S/F

INTERNALLY ILLUMINATED FRONT LIT/HALO LIT CHANNEL LETTERS AND LOGO:
"PANERA" LETTERS
- 2447 WHITE FACES WITH 3" DEEP CHANNELS PAINTED PANTONE 7540C SLATE
- CLEAR LEXAN BACKS
- 6500K SLOAN PRISM WHITE LED LIGHTING (PANERA)
- TRIMLESS DESIGN
-"BREAD" LETTERS WITH FIRST SURFACE 7403 C VINYL SLOAN 5000K LED WITH BLACK CHANNELS
- MB LOGO WITH PANTONE 7403 CP INTERNALLY ILLUMINATED/HALO LIT TRANSLUCENT BACKGROUND WITH SLOAN 5000K PRISM LED WITH TRANSLUCENT PANTONE 476 CP BROWN
- 3" DEEP CHANNEL PAINTED TO MATCH PANTONE 7540 C SLATE

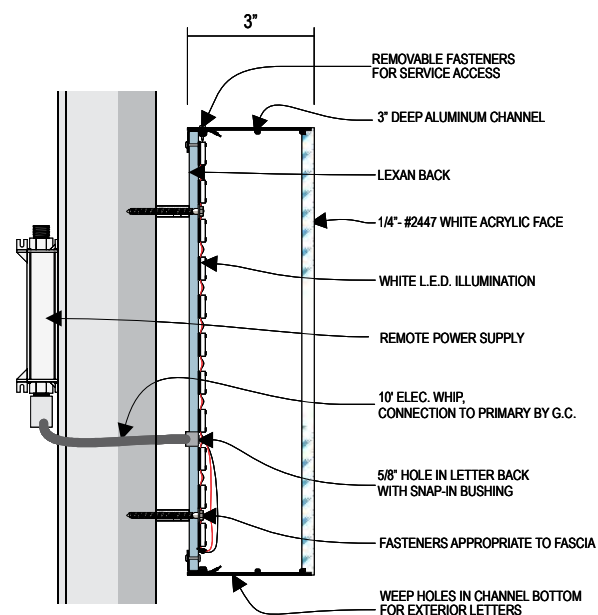


13.6 S/F

INTERNALLY ILLUMINATED "DRIVE THRU" WALL SIGN:

- 3" DEEP ALUMINUM CHANNEL AND RETAINER PAINTED PANTONE 2307 C
- WHITE ACRYLIC FACE WITH FIRST SURFACE DIGITAL PRINT
 - PANTONE 2307C C BORDER & CHANNEL
 - PANTONE 2410 C GREEN BACKGROUND BEHIND RAPID PICK UP
 - WHITE DRIVE THRU COPY AND ARROW
- SLOAN 6500K PRISM WHITE LED ILLUMINATION

EXCEEDS NUMBER ALLOWED



TYPICAL CHANNEL LETTER: N.T.S.

SINCE

ARTWORK EXCLUSIVE PROPERTY OF MANDEVILLE SIGN

Item 7A.

MANDEVILLE SIGN

making your mark.

676 GEORGE WASHINGTON HIGHWAY
LINCOLN, RI 02865-4255

401-334-9100 401-334-7799
PHONE FAX

WEB www.mandevillesign.com

APPROVALS

Signatures Required Before Release to Production

Engineering
BY DATE
Sales
BY DATE
Estimating
BY DATE
Production
BY DATE
Quality Control
BY DATE

PDF NAME

REVISIONS

NO.	BY	DESCRIPTION	DATE
1			
2			
3			
4			
5			
6			
7			
8			

All electrical signs shall comply with the National Electric Code (Article 600) and be manufactured according to Underwriters Laboratories U.L. 48 standards and labeled accordingly.

WORK ORDER #

53574

CUSTOMER

STORE NUMBER

662

27777 Southfield Rd
Lathrup Village, MI

LOCATION

PROJECT MANAGER

Linda D.

GC ARTIST

03/30/22 DATE

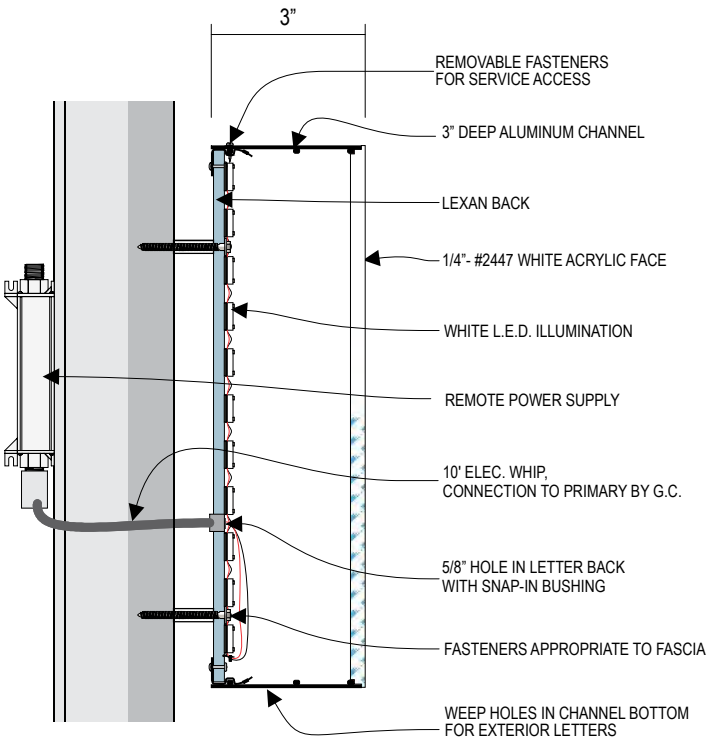
53574.3

DRAWING / FILE NAME

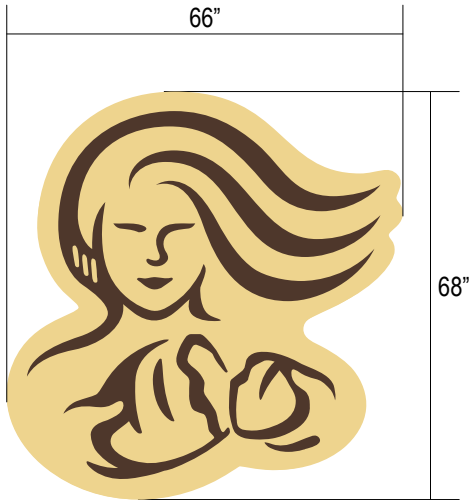


SOUTH ELEVATION: SCALE: 1/8"=1'-0"

NO QUALIFYING FRONTAGE



TYPICAL CHANNEL LETTER: N.T.S.

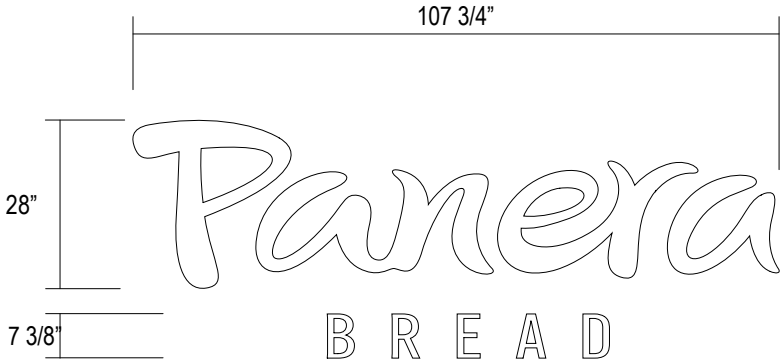


SCALE: 3/8" = 1'-0"

31.1 S/F

INTERNALLY ILLUMINATED FRONT LIT/HALO LIT LOGO:
- MB LOGO WITH PANTONE 7403 CP INTERNALLY ILLUMINATED/HALO LIT
TRANSLUCENT BACKGROUND WITH SLOAN 5000K PRISM LED
WITH TRANSLUCENT PANTONE 476 CP DETAILS
- 3" DEEP CHANNEL PAINTED TO MATCH PANTONE 7640 C SLATE

EXCEEDS NUMBER ALLOWED



SCALE: 3/8" = 1'-0"

29.64 S/F

INTERNALLY ILLUMINATED FRONT LIT/HALO LIT CHANNEL LETTERS AND LOGO:
"PANERA BREAD" LETTERS
- 2447 WHITE FACES WITH 3" DEEP CHANNELS PAINTED PANTONE 7540 C SLATE
- CLEAR LEXAN BACKS
- 6500K SLOAN PRISM WHITE LED LIGHTING (PANERA BREAD)
- TRIMLESS DESIGN
-LETTERS PINNED OFF WALL 1"

SINCE **ARTWORK EXCLUSIVE PROPER** **Item 7A.**



MANDEVILLE SIGN
making your mark.

676 GEORGE WASHINGTON HIGHWAY
LINCOLN, RI 02865-4255

401-334-9100 401-334-7799
PHONE FAX

WEB www.mandevillesign.com

APPROVALS

Signatures Required Before Release to Production

Engineering	
BY	DATE
Sales	
BY	DATE
Estimating	
BY	DATE
Production	
BY	DATE
Quality Control	
BY	DATE

PDF NAME

REVISIONS

NO.	BY	DESCRIPTION	DATE
1			
2			
3			
4			
5			
6			
7			
8			

All electrical signs shall comply with the National Electric Code (Article 600) and be manufactured according to Underwriters Laboratories U.L. 48 standards and labeled accordingly.

WORK ORDER # 53574



CUSTOMER

STORE NUMBER 662

**27777 Southfield Rd
Lathrup Village, MI**

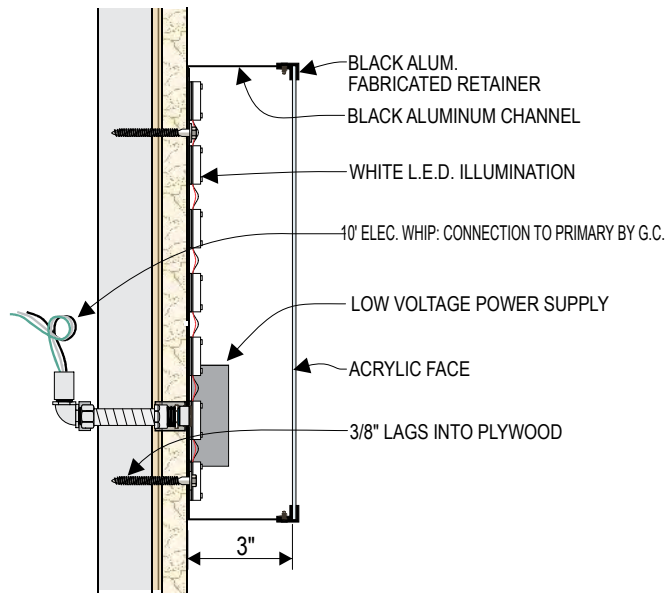
LOCATION

PROJECT MANAGER **Linda D.**

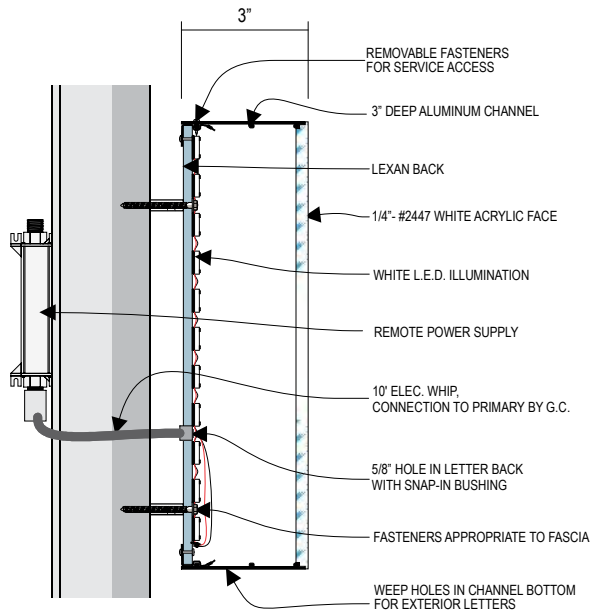
GC **03/30/22**
ARTIST DATE

53574.4

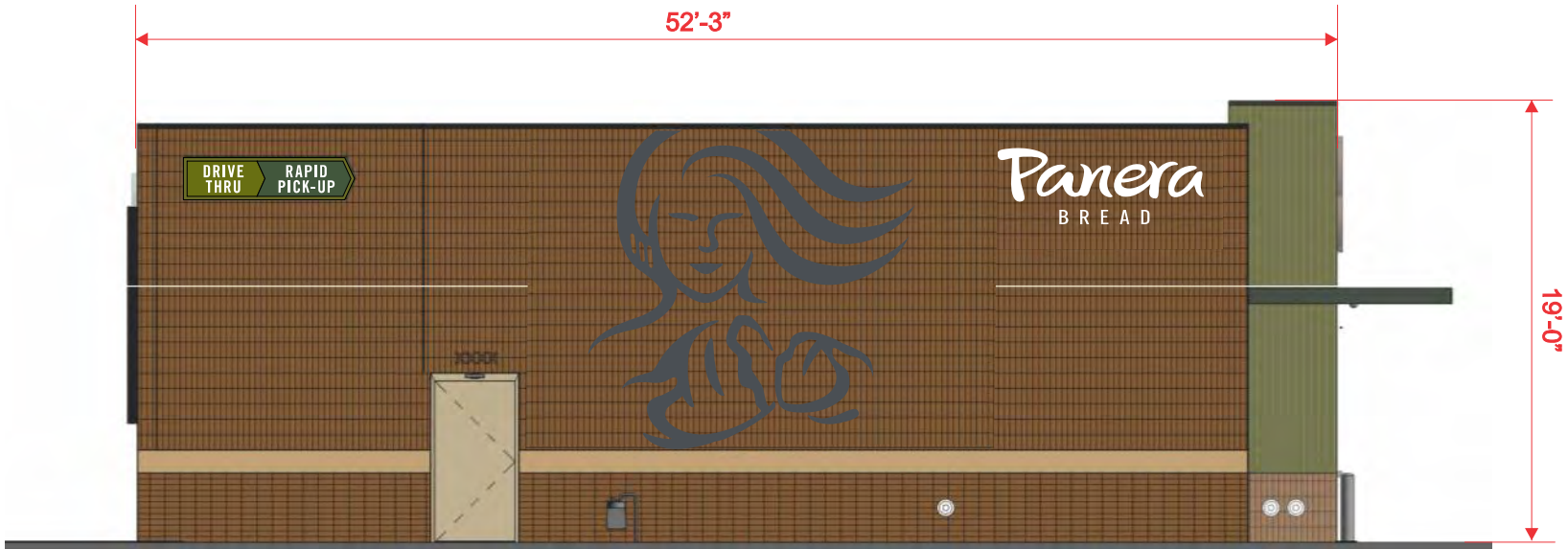
DRAWING / FILE NAME



DRIVE THRU CABINET SIGN SECTION: N.T.S.

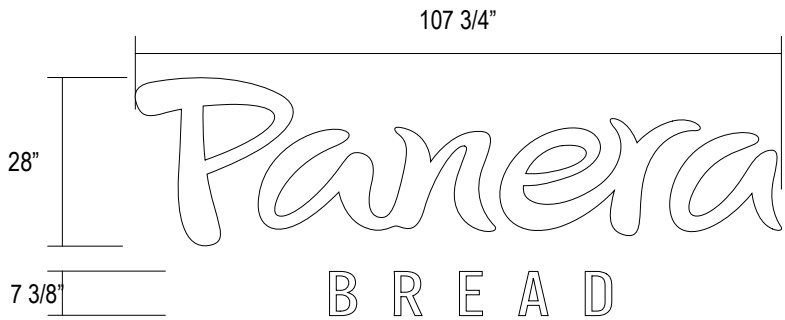


TYPICAL CHANNEL LETTER: N.T.S.



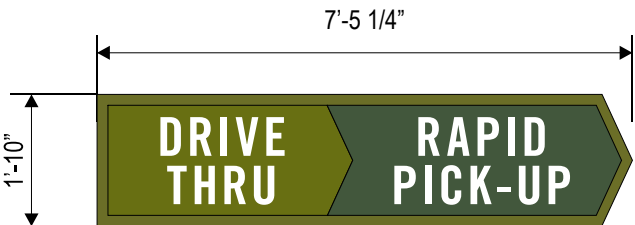
WEST ELEVATION: SCALE: 1/8"=1'-0"

NO QUALIFYING FRONTAGE



SCALE: 3/8" = 1'-0" 29.64 S/F

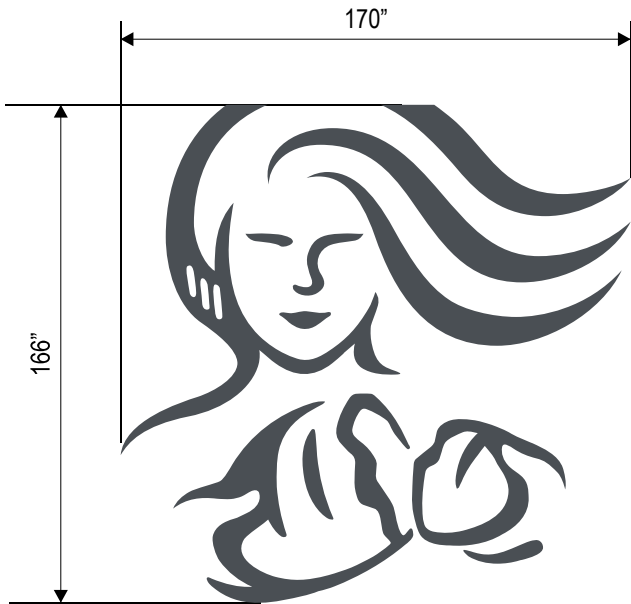
INTERNALLY ILLUMINATED FRONT LIT/HALO LIT CHANNEL LETTERS AND LOGO:
"PANERA BREAD" LETTERS
- 2447 WHITE FACES WITH 3" DEEP CHANNELS PAINTED PANTONE 7540 C SLATE
- CLEAR LEXAN BACKS
- 6500K SLOAN PRISM WHITE LED LIGHTING (PANERA BREAD)
- TRIMLESS DESIGN
- LETTERS PINNED OFF WALL 1"



INTERNALLY ILLUMINATED "DRIVE THRU" WALL SIGN:

- 3" DEEP ALUMINUM CHANNEL AND RETAINER PAINTED PANTONE 2307 C
- WHITE ACRYLIC FACE WITH FIRST SURFACE DIGITAL PRINT
 - PANTONE 2307C C BORDER & CHANNEL
 - PANTONE 2410 C GREEN BACKGROUND BEHIND RAPID PICK UP
 - WHITE DRIVE THRU COPY AND ARROW
- SLOAN 6500K PRISM WHITE LED ILLUMINATION

EXCEEDS NUMBER ALLOWED



SCALE: 3/16" = 1'-0" 195.9 S/F

PAINTED WALL MURAL
WALL MURAL TO BE PAINTED PANTONE 7540 C

EXCEEDS NUMBER ALLOWED

SINCE

ARTWORK EXCLUSIVE PROPERTY OF

Item 7A.



MANDEVILLE SIGN

making your mark.

676 GEORGE WASHINGTON HIGHWAY
LINCOLN, RI 02865-4255

401-334-9100 401-334-7799
PHONE FAX

WEB www.mandevillesign.com

APPROVALS	
Signatures Required Before Release to Production	
Engineering	
BY	DATE
Sales	
BY	DATE
Estimating	
BY	DATE
Production	
BY	DATE
Quality Control	
BY	DATE

REVISIONS			
NO.	BY	DESCRIPTION	DATE
1			
2			
3			
4			
5			
6			
7			
8			

All electrical signs shall comply with the National Electric Code (Article 600) and be manufactured according to Underwriters Laboratories U.L. 48 standards and labeled accordingly.

WORK ORDER # 53574



CUSTOMER

STORE NUMBER 662

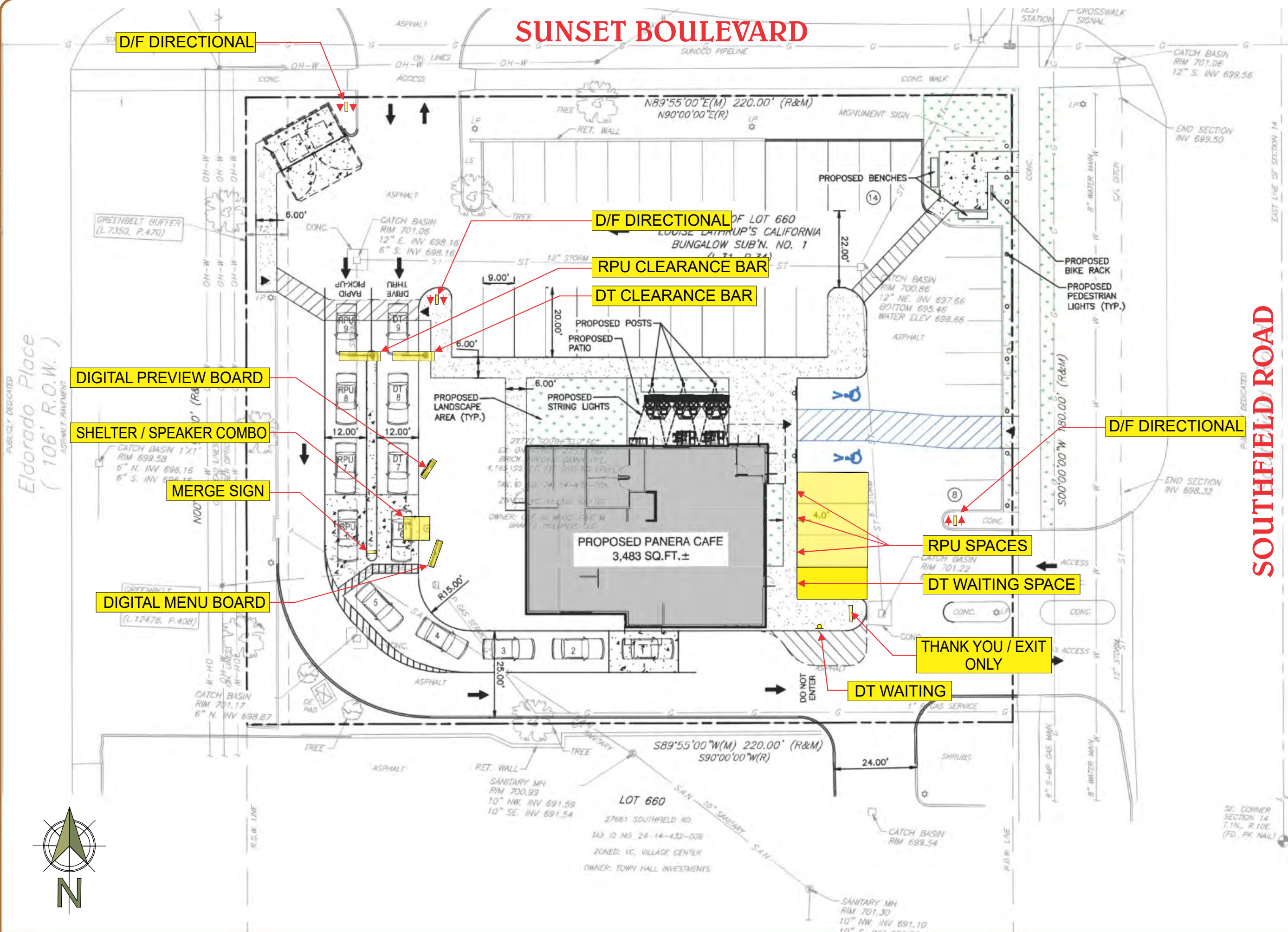
27777 Southfield Rd
Lathrup Village, MI

LOCATION

PROJECT MANAGER Linda D.

GC	03/30/22
ARTIST	DATE

DRAWING / FILE NAME 53574.5



SUNSET BOULEVARD

SOUTHFIELD ROAD

ARTWORK EXCLUSIVE PROPERTY

SINCE

MANDEVILLE SIGN

676 GEORGE WASHINGTON HIGHWAY
LINCOLN, RI 02865-4255

401-334-9100 401-334-7799
PHONE FAX

www.mandevillesign.com

APPROVALS

Signatures Required Before Release to Production

Engineering

BY DATE

Sales

BY DATE

Estimating

BY DATE

Production

BY DATE

Quality Control

BY DATE

PDF NAME

REVISIONS

NO.	BY	DESCRIPTION	DATE
1	JM	relocated RPU signs, added (2) directional signs	04/03/22
2			
3			
4			
5			
6			
7			

All electrical signs shall comply with the National Electric Code (Article 600) and be manufactured according to Underwriters Laboratories U.L. 48 standards and labeled accordingly.

WORK ORDER # 53574

CUSTOMER

STORE NUMBER 662

27777 Southfield Rd
Lathrup Village, MI

LOCATION

PROJECT MANAGER Linda D.

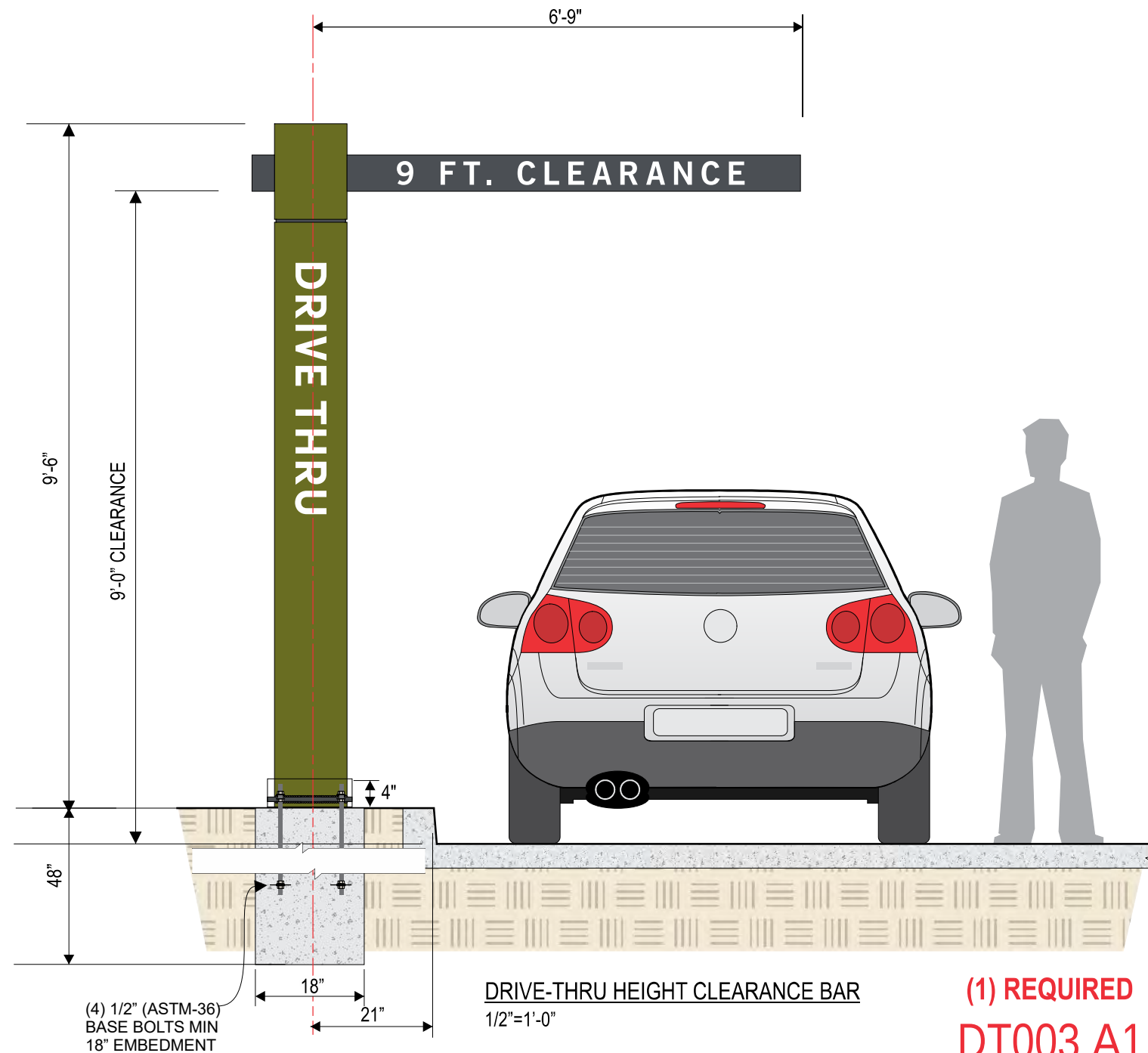
GC 03/30/22
ARTIST DATE

53574.6

DRAWING / FILE NAME

Item 7A.

114

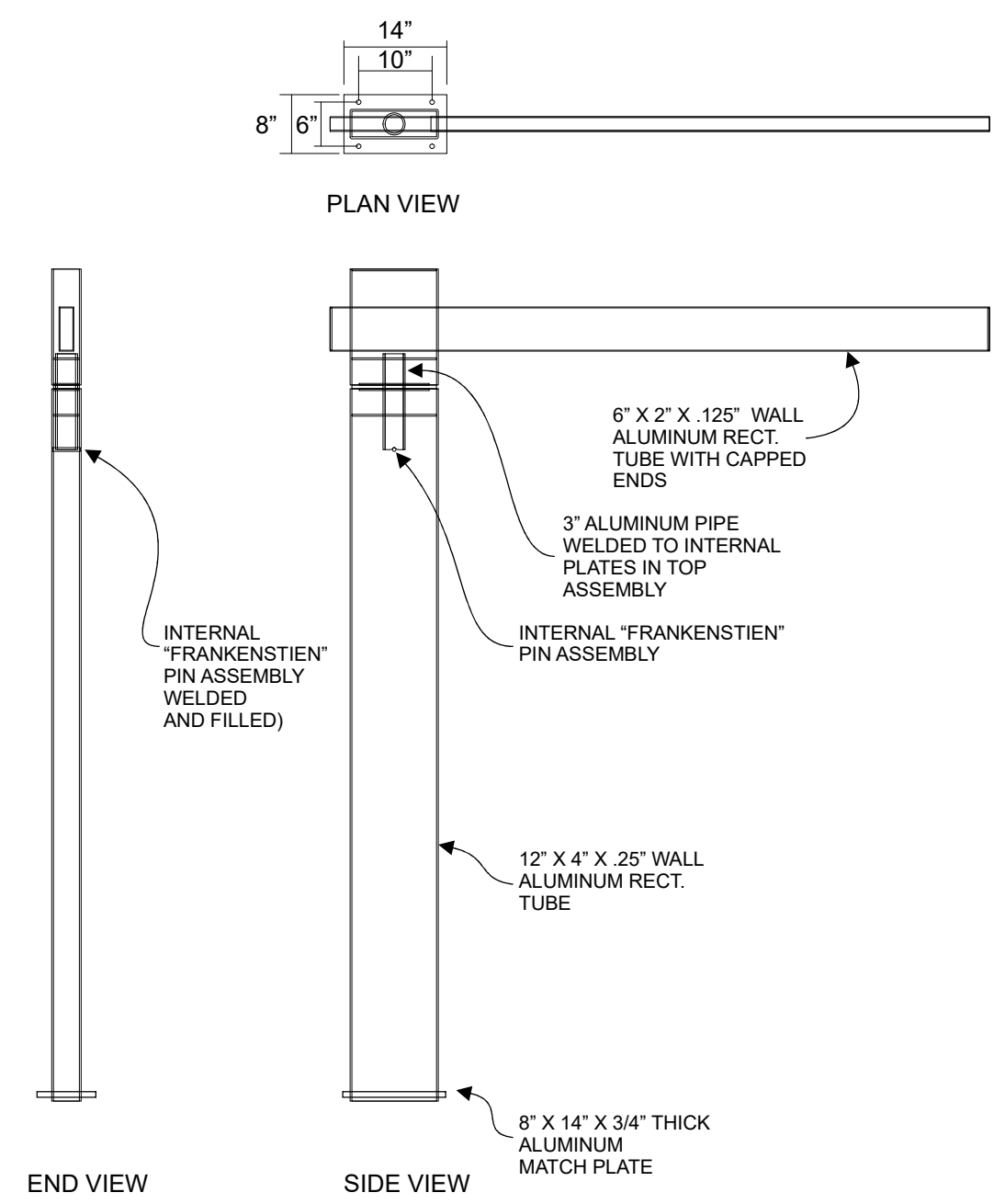


CLEARANCE BAR SIGN
1 1/2" = 1'-0"

PANERA GREEN
PANTONE 2307 C
C32 M2 Y100 K61
R104 G111 B18
HEX #686F12

PANERA SLATE
PANTONE 7540 C
C67 M54 Y46 K40
R75 G79 B84
HEX #4B4F54

(1) REQUIRED
DT003.A1



CLEARANCE BAR SIGN
1 1/2" = 1'-0"

SINCE

ARTWORK EXCLUSIVE PROPERTY

Item 7A.

MANDENVILLE SIGN
making your mark.

676 GEORGE WASHINGTON HIGHWAY
LINCOLN, RI 02865-4255

401-334-9100 401-334-7799
PHONE FAX

WEB www.mandevillesign.com

APPROVALS
Signatures Required Before Release to Production

Engineering
BY DATE

Sales
BY DATE

Estimating
BY DATE

Production
BY DATE

Quality Control
BY DATE

PDF NAME

REVISIONS

NO.	BY	DESCRIPTION	DATE
1			
2			
3			
4			
5			
6			
7			
8			

All electrical signs shall comply with the National Electric Code (Article 600) and be manufactured according to Underwriters Laboratories U.L. 48 standards and labeled accordingly.

WORK ORDER # 53574

Panera
BREAD

CUSTOMER

STORE NUMBER 662

27777 Southfield Rd
Lathrup Village, MI

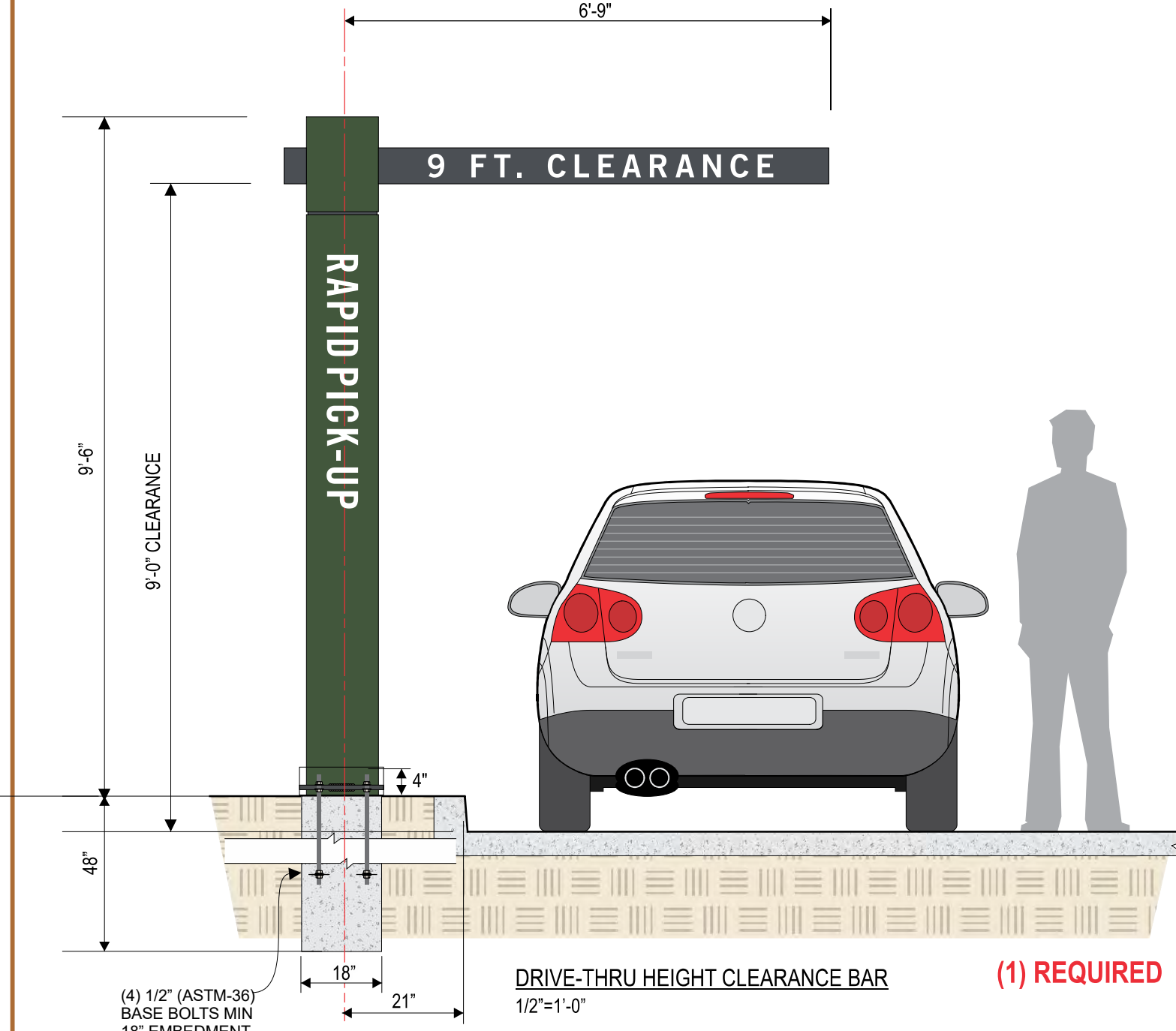
LOCATION

PROJECT MANAGER Linda D.

GC 03/30/22
ARTIST DATE

53574.7

DRAWING / FILE NAME

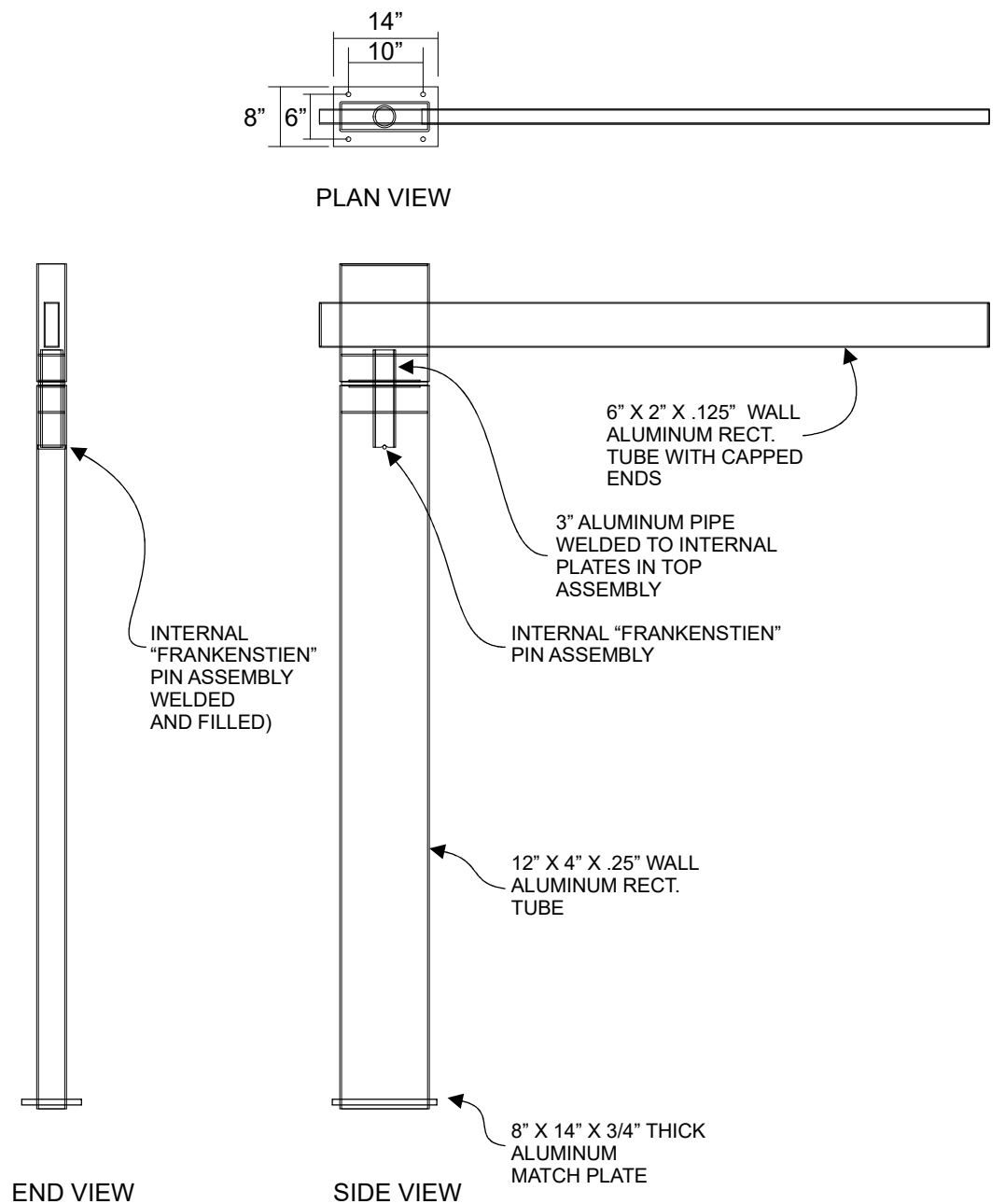


(4) 1/2" (ASTM-36)
BASE BOLTS MIN
18" EMBEDMENT

CLEARANCE BAR SIGN
1 1/2" = 1'-0"

DRIVE-THRU HEIGHT CLEARANCE BAR
1 1/2" = 1'-0"

(1) REQUIRED
DT003.A2



END VIEW

SIDE VIEW

CLEARANCE BAR SIGN
1 1/2" = 1'-0"

SINCE

ARTWORK EXCLUSIVE PROPERTY

Item 7A.

MANDENVILLE SIGN
making your mark.

676 GEORGE WASHINGTON HIGHWAY
LINCOLN, RI 02865-4255

401-334-9100 401-334-7799
PHONE FAX

www.mandevillesign.com
WEB

APPROVALS
Signatures Required Before Release to Production

Engineering
BY DATE

Sales
BY DATE

Estimating
BY DATE

Production
BY DATE

Quality Control
BY DATE

PDF NAME

REVISIONS

NO.	BY	DESCRIPTION	DATE
1			
2			
3			
4			
5			
6			
7			
8			

All electrical signs shall comply with the National Electric Code (Article 600) and be manufactured according to Underwriters Laboratories U.L. 48 standards and labeled accordingly.

WORK ORDER # 53574

CUSTOMER

STORE NUMBER 662

27777 Southfield Rd
Lathrup Village, MI

LOCATION

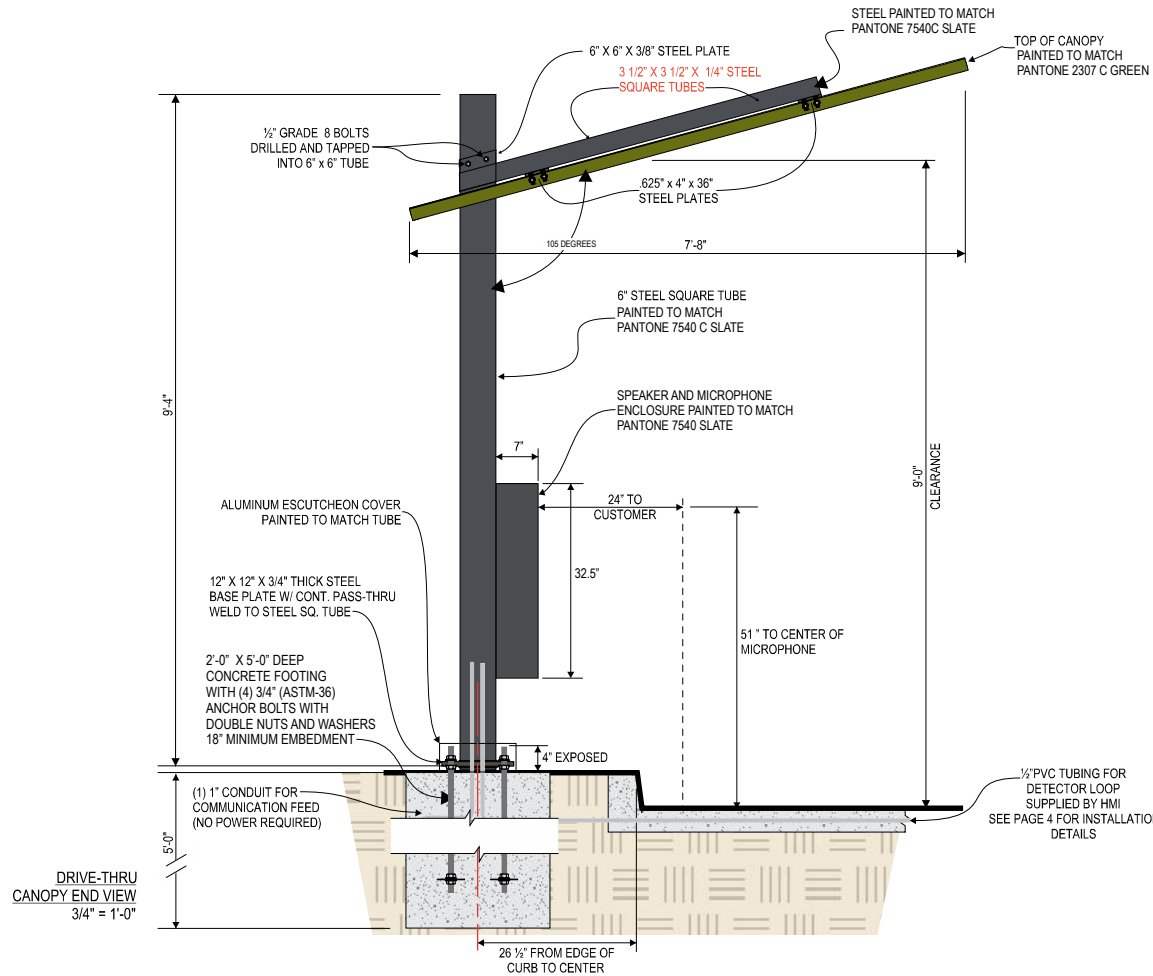
PROJECT MANAGER Linda D.

GC 03/30/22
ARTIST DATE

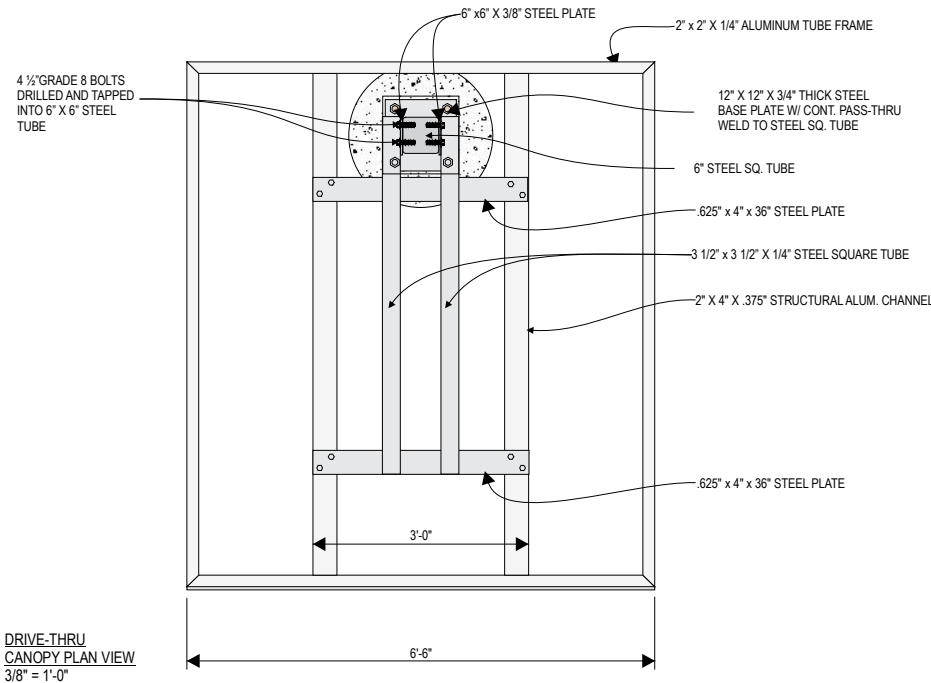
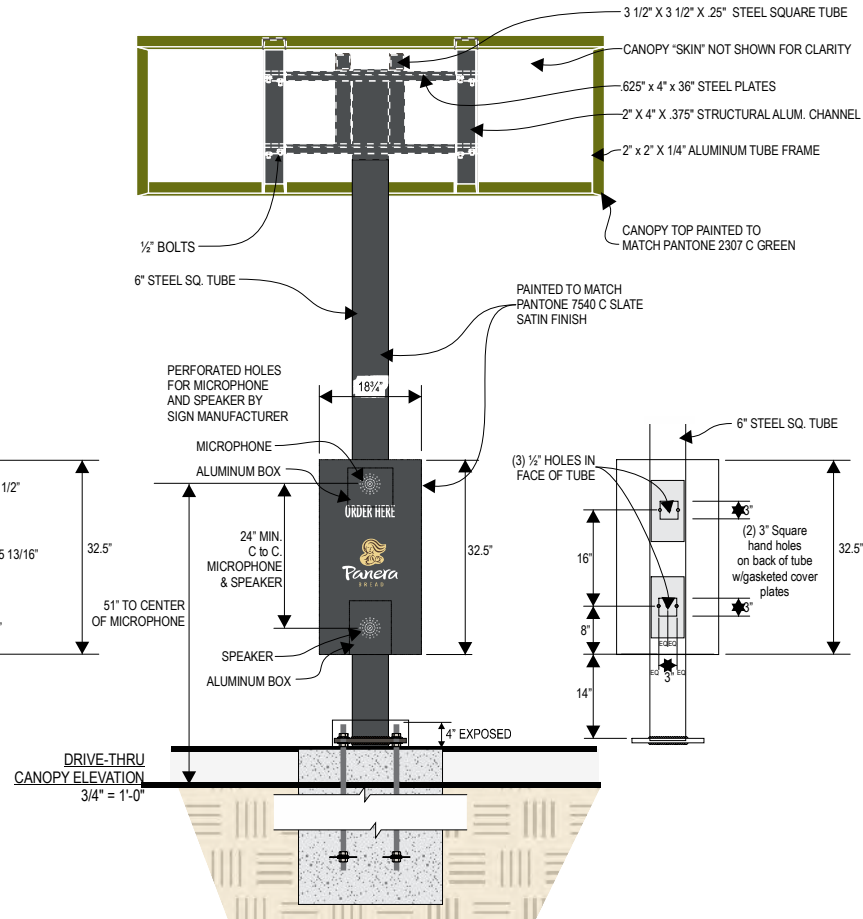
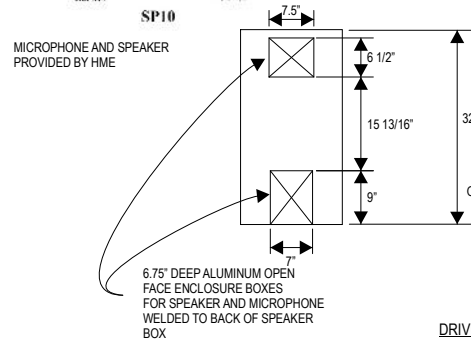
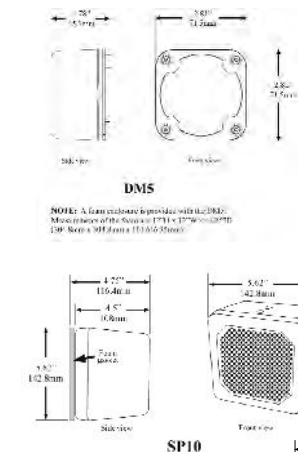
53574.8

DRAWING / FILE NAME

116



DT001.A1



ARTWORK EXCLUSIVE PROPERTY
SINCE
MANDEVILLE SIGN
making your mark.
676 GEORGE WASHINGTON HIGHWAY
LINCOLN, RI 02865-4255
401-334-9100 401-334-7799
PHONE FAX
www.mandevillesign.com
WEB

APPROVALS	
Signatures Required Before Release to Production	
Engineering	
BY	DATE
Sales	
BY	DATE
Estimating	
BY	DATE
Production	
BY	DATE
Quality Control	
BY	DATE

REVISIONS			
NO.	BY	DESCRIPTION	DATE
1			
2			
3			
4			
5			
6			
7			
8			

All electrical signs shall comply with the National Electric Code (Article 600) and be manufactured according to Underwriters Laboratories U.L. 48 standards and labeled accordingly.

WORK ORDER # 53574
CUSTOMER
Panera BREAD

STORE NUMBER 662

27777 Southfield Rd
Lathrup Village, MI

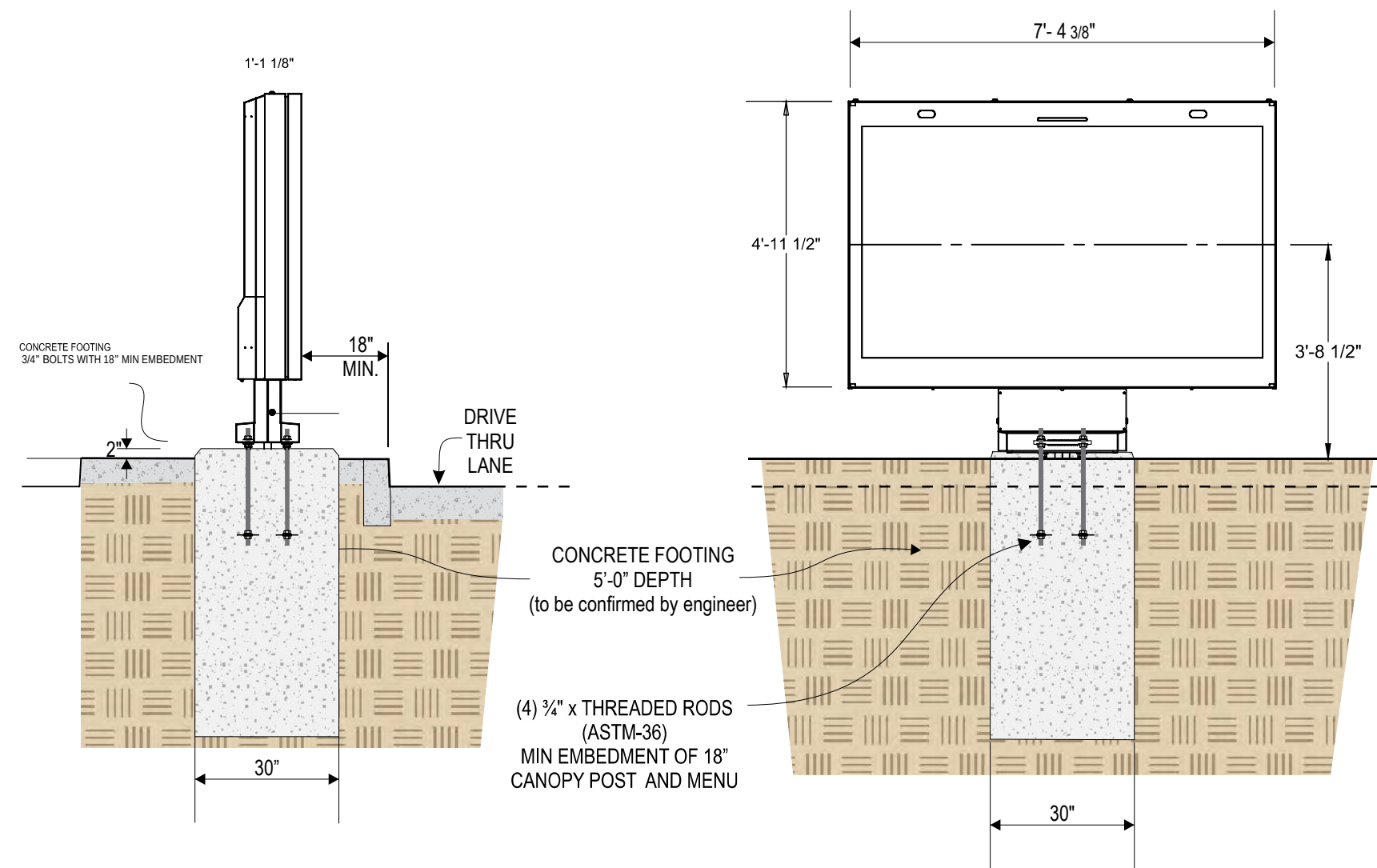
LOCATION
PROJECT MANAGER Linda D.

GC 03/30/22
ARTIST DATE

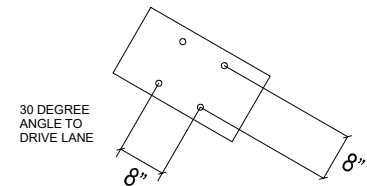
53574.9
DRAWING / FILE NAME

DIGITAL MENU PERMITTED, SUPPLIED AND INSTALLED BY OTHERS

36.5 S/F DIGITAL MENU

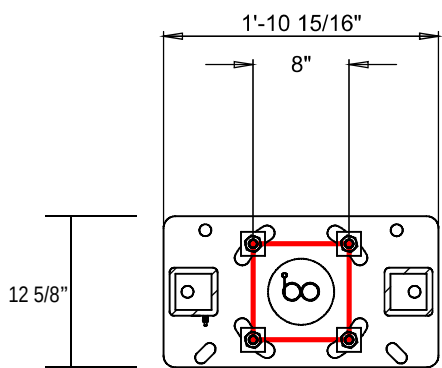


DIGITAL MENU BOARD:
SCALE: 3/8"=1'-0"



FRONT

BOLT CONFIGURATION
SCALE 3/8" = 1'- 0"



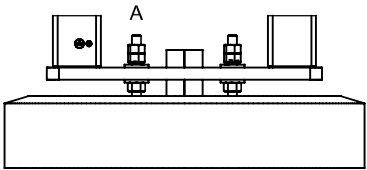
ANCHOR PLATE

PLATE LAYOUT FOR
DIGITAL MENU

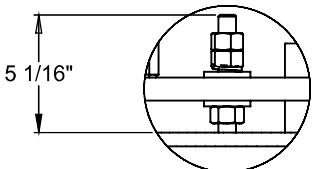
PREFERRED 8" X 8"
ANCHOR PATTERN IS
SUBJECTED TO APPROVAL
BY THE SITE ENGINEER

RIGID CABLE CONDUIT
ENCLOSURE STRUCTURAL FRAME

(4) Ø 7/8" THREADED RODS
W/EMBEDMENT PER ENGINEER
APPROVED SITE DRAWING



STEP 1.3



DETAIL A
SCALE 1 : 5

SINCE
ARTWORK EXCLUSIVE PROPERTY
Item 7A.

MANDENVILLE SIGN
making your mark.

676 GEORGE WASHINGTON HIGHWAY
LINCOLN, RI 02865-4255

401-334-9100 401-334-7799
PHONE FAX

WEB www.mandevillesign.com

APPROVALS	
Signatures Required Before Release to Production	
Engineering	
BY	DATE
Sales	
BY	DATE
Estimating	
BY	DATE
Production	
BY	DATE
Quality Control	
BY	DATE

PDF NAME

REVISIONS			
NO.	BY	DESCRIPTION	DATE
1			
2			
3			
4			
5			
6			
7			
8			

All electrical signs shall comply with the National Electric Code (Article 600) and be manufactured according to Underwriters Laboratories U.L. 48 standards and labeled accordingly.

WORK ORDER # 53574



CUSTOMER

STORE NUMBER 662

27777 Southfield Rd
Lathrup Village, MI

LOCATION

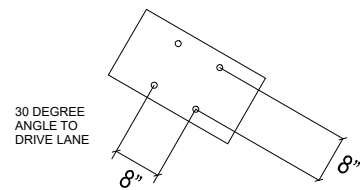
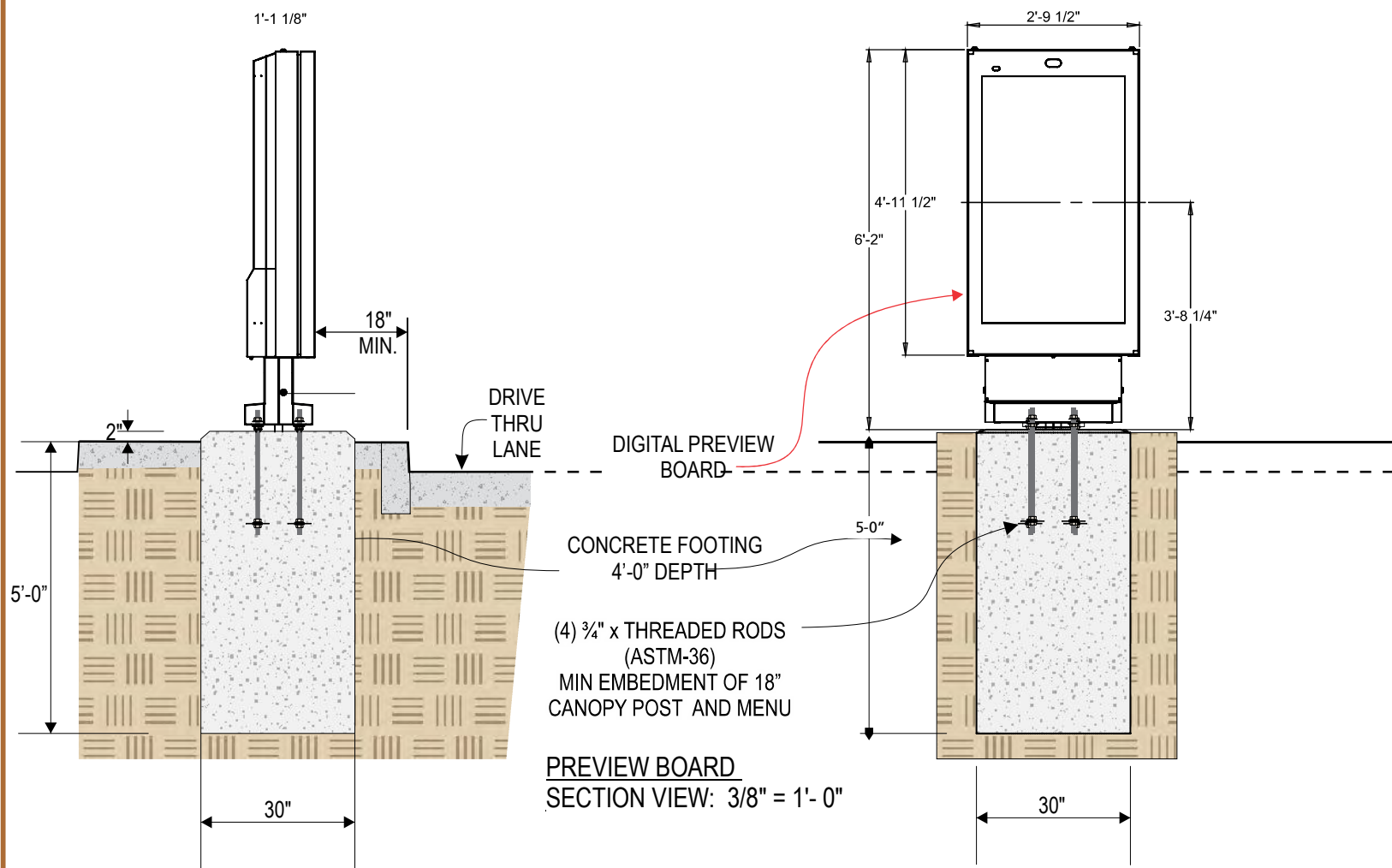
PROJECT MANAGER Linda D.

GC 03/30/22
ARTIST DATE

53574.10
DRAWING / FILE NAME

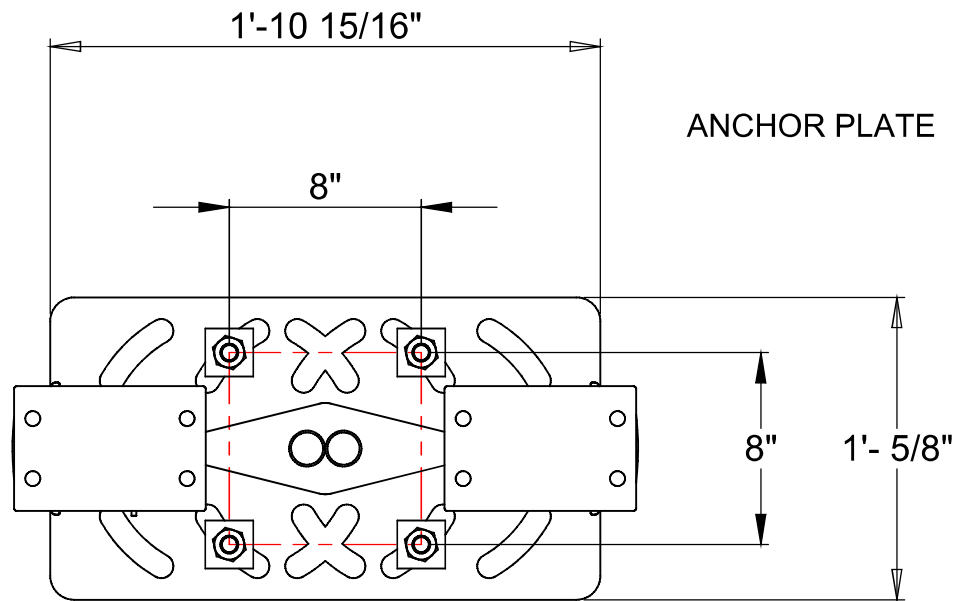
DIGITAL MENU PERMITTED, SUPPLIED AND INSTALLED BY OTHERS

13.84 S/F DIGITAL MENU



FRONT

BOLT CONFIGURATION
SCALE 3/8" = 1'- 0"

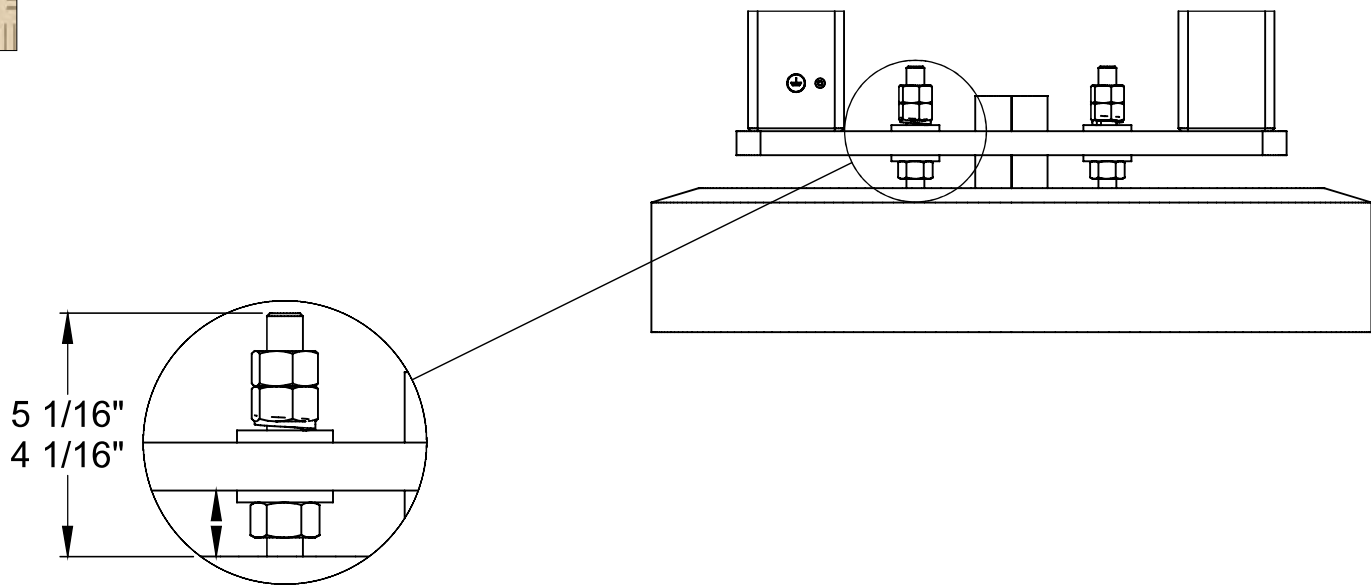


PLAN VIEW
(ANCHOR DETAIL)

PREFERRED 8" X 8"
ANCHOR PATTERN IS
SUBJECTED TO APPROVAL
BY THE SITE ENGINEER

(4) Ø 3/4" THREADED RODS
W/ EMBEDMENT PER ENGINEER
APPROVED SITE DRAWING

RIGID CABLE CONDUIT



ARTWORK EXCLUSIVE PROPERTY

Item 7A.

SINCE

MANDEVILLE SIGN
making your mark.

676 GEORGE WASHINGTON HIGHWAY
LINCOLN, RI 02865-4255

401-334-9100 401-334-7799
PHONE FAX

WEB www.mandevillesign.com

APPROVALS	
Signatures Required Before Release to Production	
Engineering	
BY	DATE
Sales	
BY	DATE
Estimating	
BY	DATE
Production	
BY	DATE
Quality Control	
BY	DATE

REVISIONS			
NO.	BY	DESCRIPTION	DATE
1			
2			
3			
4			
5			
6			
7			
8			

All electrical signs shall comply with the National Electric Code (Article 600) and be manufactured according to Underwriters Laboratories U.L. 48 standards and labeled accordingly.

WORK ORDER # 53574



CUSTOMER

STORE NUMBER 662

27777 Southfield Rd
Lathrup Village, MI

LOCATION

PROJECT MANAGER Linda D.

GC 03/30/22
ARTIST DATE

53574.11

DRAWING / FILE NAME

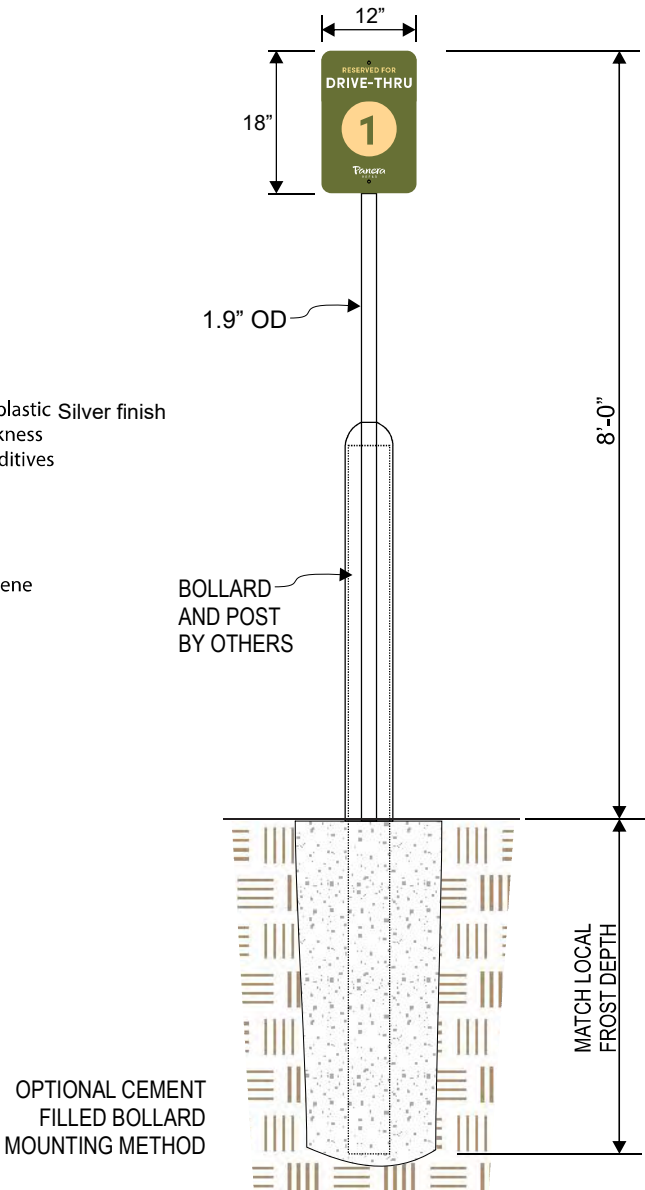


SPECIFICATIONS

Sign Post Material:
1.66" O.D. 14 Gauge Sign Post,
Hi-Density Polyethylene Thermoplastic Silver finish
1.90" O.D. 1/8" Nominal Wall Thickness
w/Ultra-Violet and Anti-Static Additives
Plastic Cap
Standard 3/8" Holes

Bollard Cover:
Dome-Top - Lo-Density Polyethylene
Thermoplastic
1/4" Nominal Wall Thickness
**Refer to architectural
drawings for color finish**

Bollard Pipe:
6" schedule 40 steel pipe



SCALE: 1/2"=1'-0"
(3) S/F SIGNS REQUIRED

SCALE: 1" = 1'- 0"
(5) REQUIRED

SINGLE-SIDED TRAFFIC CONTROL SIGNS:

- WHITE .080 ALUMINUM PANELS
(DO NOT PRE-DRILL HOLES)
- REFLECTIVE, DIGITALLY PRINTED VINYL GRAPHICS
WITH CLEAR OVERLAMINATE
- 10' HEAVY DUTY U-IRON SUPPORT POSTS
- FREE FORMED CONCRETE FOOTINGS



SINCE

ARTWORK EXCLUSIVE PROPERTY

Item 7A.



MANDEVILLE SIGN
making your mark.

676 GEORGE WASHINGTON HIGHWAY
LINCOLN, RI 02865-4255

401-334-9100 401-334-7799
PHONE FAX

www.mandevillesign.com
WEB

APPROVALS
Signatures Required Before Release to Production

Engineering
BY DATE

Sales
BY DATE

Estimating
BY DATE

Production
BY DATE

Quality Control
BY DATE

PDF NAME

REVISIONS

NO.	BY	DESCRIPTION	DATE
1			
2			
3			
4			
5			
6			
7			
8			

All electrical signs shall comply with the National
Electric Code (Article 600) and be manufactured
according to Underwriters Laboratories U.L. 48
standards and labeled accordingly.

WORK ORDER # 53574



CUSTOMER

STORE NUMBER 662

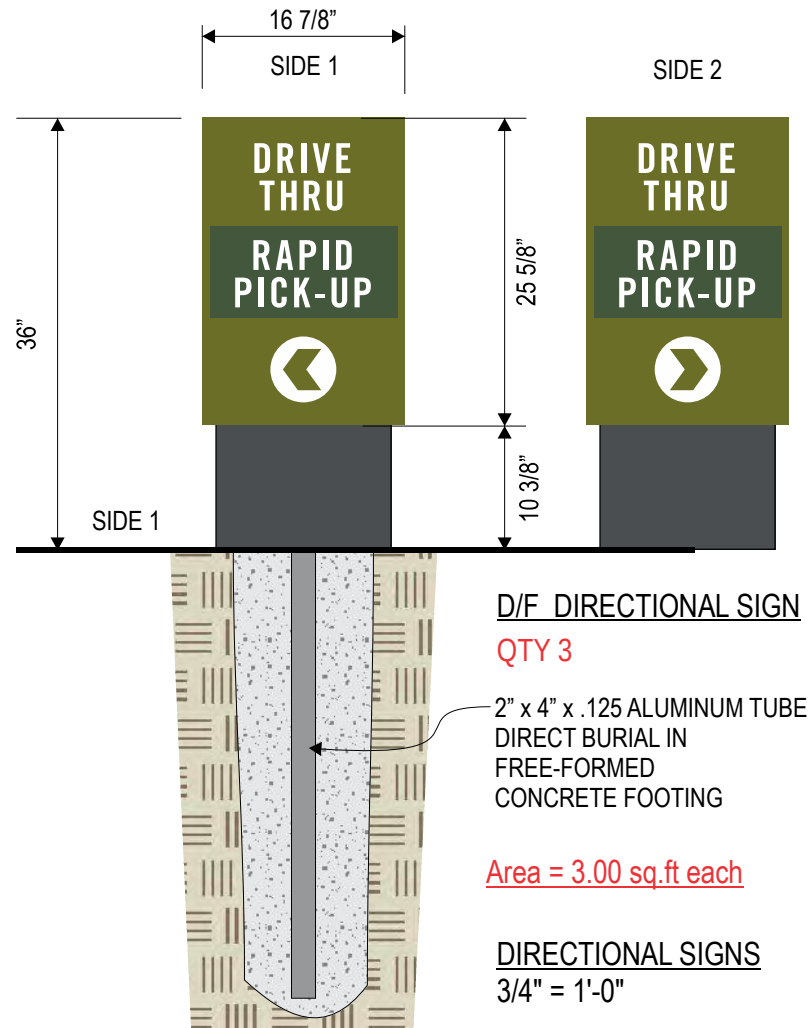
27777 Southfield Rd
Lathrup Village, MI
LOCATION

PROJECT MANAGER Linda D.

GC 03/30/22
ARTIST DATE

53574.13
DRAWING / FILE NAME

120



D/F DIRECTIONAL SIGN
QTY 3

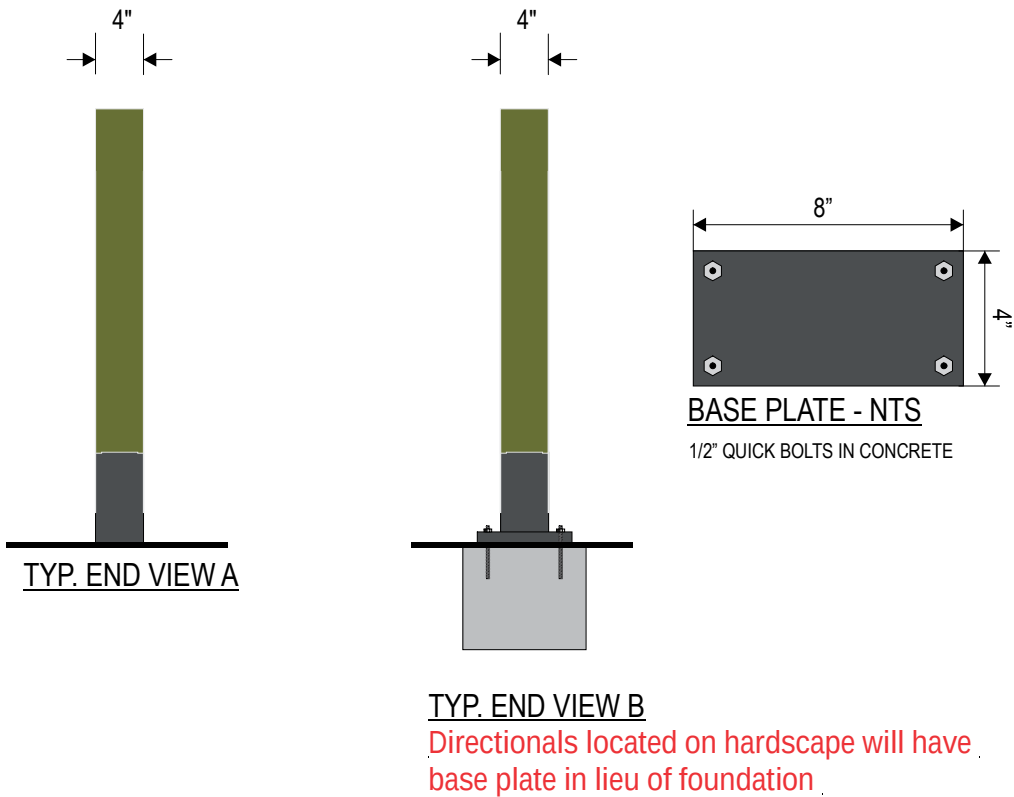
2" x 4" x .125 ALUMINUM TUBE
DIRECT BURIAL IN
FREE-FORMED
CONCRETE FOOTING

Area = 3.00 sq.ft each

DIRECTIONAL SIGNS
3/4" = 1'-0"



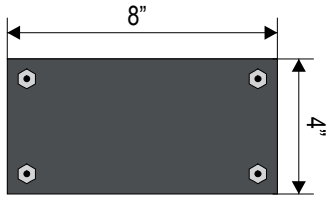
D/F DIRECTIONAL SIGN
QTY 1



TYP. END VIEW A

TYP. END VIEW B

Directionals located on hardscape will have
base plate in lieu of foundation



BASE PLATE - NTS

1/2" QUICK BOLTS IN CONCRETE

NON ILLUMINATED DIRECTIONAL SIGNS:

- 4" DEEP ALUM. PANEL CONSTRUCTION PAINTED TO MATCH PANTONE 2307 C (STAIN FINISH)
- .090 ALUMINUM FACES
- DIGITALLY PRINTED GRAPHICS ON REFLECTIVE PSV (VINYL)
- COLORS AS SHOWN: WHITE & PMS 7403U PEACH & PANTONE 2410 C
- PANTONE 7540 SHROUD WITH 2" x 2" x 1/8" WALL ALUM. SQ. TUBE POSTS
- DIRECT BURIAL IN FREE-FORMED CONCRETE FOOTING



SINCE

ARTWORK EXCLUSIVE PROPERTY

Item 7A.



MANDENVILLE SIGN
making your mark.

676 GEORGE WASHINGTON HIGHWAY
LINCOLN, RI 02865-4255

401-334-9100 401-334-7799
PHONE FAX

WEB www.mandevillesign.com

APPROVALS
Signatures Required Before Release to Production

Engineering
BY DATE

Sales
BY DATE

Estimating
BY DATE

Production
BY DATE

Quality Control
BY DATE

PDF NAME

REVISIONS

NO.	BY	DESCRIPTION	DATE
1	JM	added (2) directional signs	04/03/22
2			
3			
4			
5			
6			
7			
8			

All electrical signs shall comply with the National Electric Code (Article 600) and be manufactured according to Underwriters Laboratories U.L. 48 standards and labeled accordingly.

WORK ORDER # 53574



CUSTOMER

STORE NUMBER 662

27777 Southfield Rd
Lathrup Village, MI

LOCATION

PROJECT MANAGER Linda D.

GC 03/30/22
ARTIST DATE

53574.12

DRAWING / FILE NAME

121



SIDE A



SIDE B

ALL GROUND / TENANT PANEL SIGN SPECIFICATIONS TO BE DETERMINED - VIF

SINCE

ARTWORK EXCLUSIVE PROPERTY OF MANDEVILLE SIGN

Item 7A.

MANDEVILLE SIGN

making your mark.

676 GEORGE WASHINGTON HIGHWAY
LINCOLN, RI 02865-4255

401-334-9100
PHONE

401-334-7799
FAX

www.mandevillesign.com

WEB

APPROVALS

Signatures Required Before Release to Production

Engineering

BY DATE

Sales

BY DATE

Estimating

BY DATE

Production

BY DATE

Quality Control

BY DATE

PDF NAME

REVISIONS

NO.	BY	DESCRIPTION	DATE
1			
2			
3			
4			
5			
6			
7			
8			

All electrical signs shall comply with the National Electric Code (Article 600) and be manufactured according to Underwriters Laboratories U.L. 48 standards and labeled accordingly.

WORK ORDER #

53574

Panera

BREAD

CUSTOMER

STORE NUMBER

662

27777 Southfield Rd
Lathrup Village, MI

LOCATION

PROJECT MANAGER

Linda D.

GC
ARTIST

03/30/22
DATE

53574.14

DRAWING / FILE NAME

122

memorandum

DATE: July 15, 2022
TO: Lathrup Village Planning Commission
FROM: Jill Bahm & Eric Pietsch, Giffels Webster
SUBJECT: Zoning Amendment – Impervious Surface Discussion

Introduction

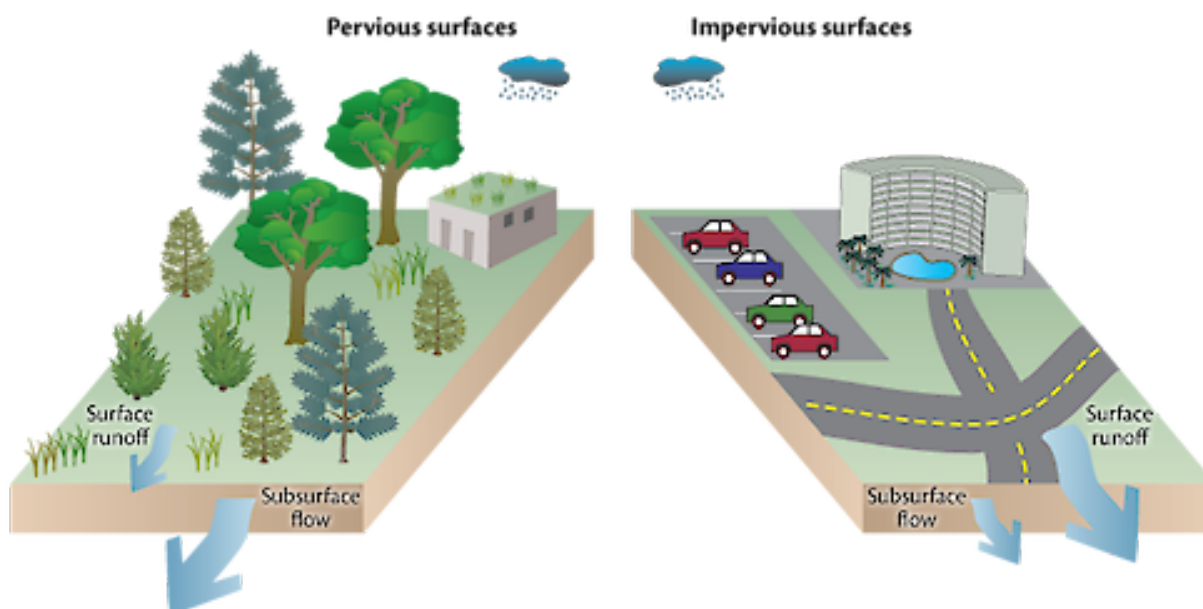
What prompted this amendment?

The Planning Commission has discussed previously the impact of impervious surfaces on stormwater runoff in the city, particularly with respect to flooding concerns.

Impervious surfaces are surfaces that limit the ability of water to be absorbed into the ground. Buildings and roofed areas, parking areas, loading areas, driveways, roads, sidewalks, concrete areas, and asphalt are all surfaces that prevent water from being absorbed. Further, even dirt or gravel surfaces that are highly compacted, like driveways that support vehicles, can also significantly prevent water from being adequately absorbed.

These surfaces affect water quality by increasing the amount of untreated water delivered to a waterbody during and after rainfall or storm event. As has been seen in the city, often the volume and speed of runoff during a storm event is more than the storm drain system can handle, and flooding occurs. In addition, this runoff has regional impacts as precipitation travels on top of the impervious surfaces and picks up pollutants and momentum before reaching a surface water body, like a stream, river, lake, or wetland. Both the pollutants and speed/volume of water negatively impact the receiving water body when this stormwater runoff arrives.

The City of Lathrup Village is located in the Rouge River Watershed, which covers 467 square miles, and is 50% urbanized (developed). As noted in the 2021 Comprehensive Plan, threats to the entire watershed include flooding and streambank erosion, combined sanitary and stormwater sewer overflows, illegal discharges, loss of wildlife habitat, and invasive species. Impervious surfaces play a significant role in these threats. However, efforts to reduce impervious surfaces in the watershed helps local streams withstand increased pollutant loads, peak flood flows, and channel stability. Limiting impervious surfaces allows precipitation that hits the natural ground surface to slowly infiltrate through the ground and into the groundwater.



Pervious surfaces such as grass, soils, and green roofs allow water to infiltrate the ground, slowing and reducing runoff and recharging groundwater. Impervious surfaces such as cement, asphalt, and roofing prevent infiltration, increasing the volume and velocity of surface runoff which carries nutrients and sediments with it. Diagram courtesy of the Integration and Application Network (ian.umces.edu).

Current Ordinance

The ordinance does not regulate impervious surfaces.

Considerations

How does limiting impervious surfaces affect property owners?

Using our mapping tools, we conducted a random sample of 14 residential properties throughout the city and approximated coverage by buildings, driveways, and other things like pools. We did not include commercial properties as they are primarily developed and have limited opportunities to reduce impervious surfaces in meaningful ways. Within this sample, we selected several parcels with circular driveways and/or inground pools, which contribute to higher amounts of impervious surfaces. In this small study, the lowest amount of impervious surface coverage is 24% and the highest is 53%. The average is 35% impervious surface coverage. We will share a map and table of these random properties at our upcoming meeting.

How do other communities regulate impervious surfaces?

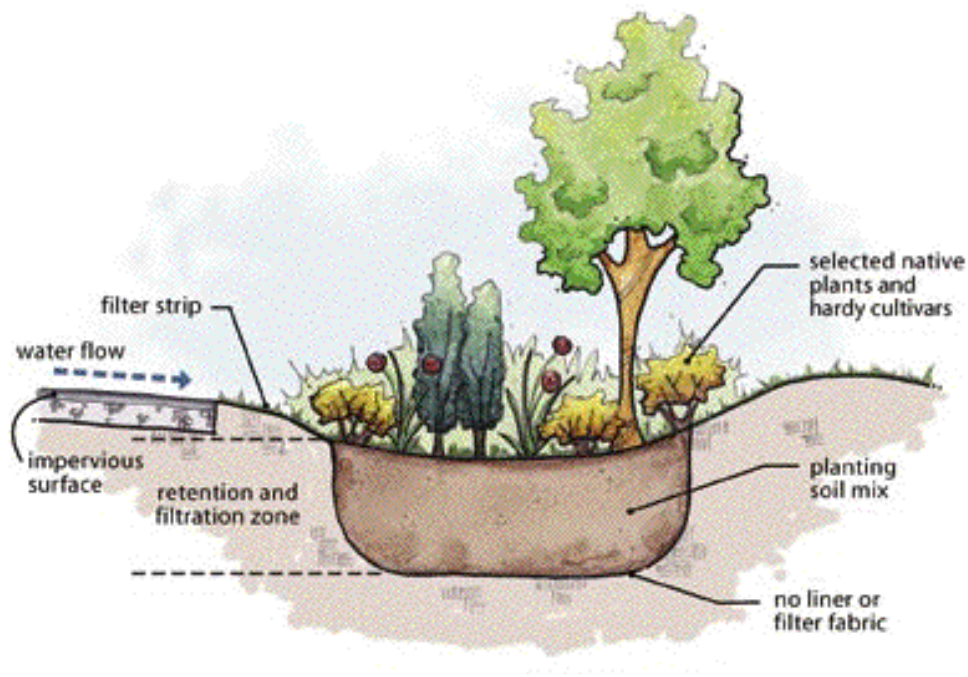
Most communities have some regulations on impervious surfaces, whether through regulating all impervious surfaces or by limiting "lot coverage", which may only address buildings and structures.

- **Berkley:** Maximum percentage of lot coverage is 35% in all residential districts. In R-1A to R-1D districts, maximum lot coverage for corner lots shall not exceed 45%.
- **Beverly Hills:** Maximum coverage of lot by all buildings varies from 25% to 35% in residential districts. In the R-M Multiple Family district, the total land coverage in multiple-developments by all buildings other than carports shall not exceed thirty percent (30%) of land area.
- The Building Official shall have the authority to allow up to a 5% increase above the maximum building coverage if low impact design practices are incorporated into the storm water management plan for the property such that it mitigates the coverage increase.
- **Birmingham:** Maximum lot coverage is 30% in single-family residential (R1A, R1, R2, R3) districts.
- **Oak Park:** “Impervious Surface Coverage” definition includes calculation and bonus is allotted if green roofs are installed.
- Maximum Impervious Surface is 50% in R-1, R-2, and R-3-50 districts and 60% in R-3-35 and R-4 districts, but 70% for non-residential uses in those districts. R-5, R-6, and R-7 the maximum is 65% for single-family, and 70% for two-family, 70-80% for non-residential, and townhomes and multi-family 75-80% in the R-6 and R-7 districts.
- Detached accessory structures are included in and must comply with all maximum impervious surface and building coverage requirements.
- **Southfield:** Maximum lot coverage is 25% in all single-family residence (R A, R 1 to R-4, and R E) districts, but none listed in other residential districts.

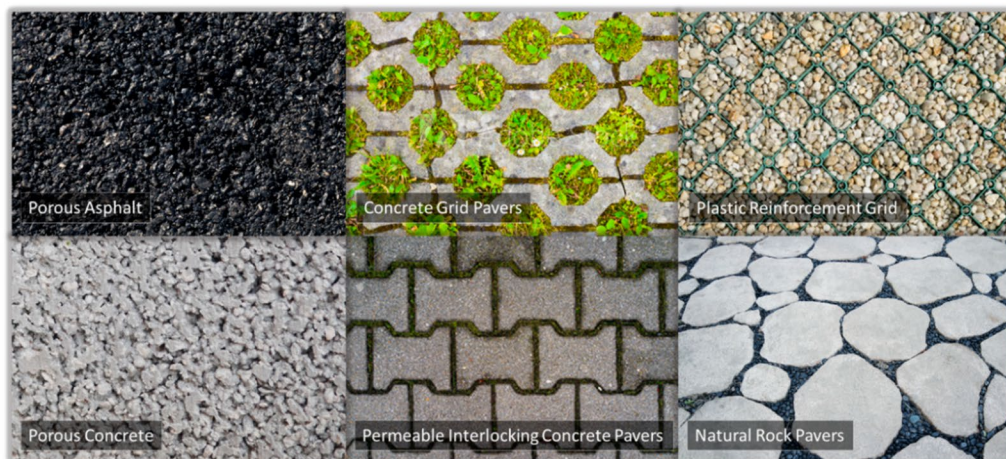
Discussion

There are several options for regulating impervious surfaces, including:

- One maximum percentage of impervious surfaces for all residentially zoned parcels.
- A sliding scale for regulating impervious surfaces that recognizes that smaller parcels may necessarily have more impervious surfaces with their house, driveway, patio, and other structure, like a swimming pool. The percentage of impervious surfaces on larger lots equates to more land area than on smaller lots.
- Allow for offsets from the maximum percentage of impervious surfaces provided other techniques are used. Evaluation of these methods, some of which are noted below, would be by the city engineer.
 - **Bioretention Areas** (including rain gardens): These are natural features that capture and store stormwater runoff and pass it through a filter bed of sand, soil, and organic matter. Filtered runoff may be collected and returned to a storm drain or allowed to infiltrate into the soil. Lathrup Village has a history of utilizing rain gardens and several may still be found around the community, including at City Hall.



- **Permeable Pavements:** Unlike concrete or asphalt, permeable pavement may include porous concrete and or pervious pavers. They are typically units separated by gaps filled with small stones or sand, layered over other aggregate that slows down and holds water until it can be absorbed. These pavements can be good for low traffic areas.



- **Rain Barrels:** These are containers that hold water, typically from a downspout. The [Friends of the Rouge](#) has some interesting information on the benefits and types of rain barrels.

- **Green Roofs:** A roof of a building that is partially or completely covered with vegetation and a growing medium, planted over a waterproofing membrane. It may also include additional layers such as a root barrier and drainage and irrigation systems. These materials slow the flow of precipitation.



We look forward to our discussion on July 19, 2022.

memorandum

DATE: July 22, 2022

TO: Susie Stec, Community & Economic Development Director

FROM: Jill Bahm and Eric Pietsch
Giffels Webster

SUBJECT: Zoning Amendments

Zoning Audit

We have updated the 2016 Zoning Audit to reflect completed items and add items from the Comprehensive Plan (attached to this memo). On the next page, we have created a chart showing which of the items identified in the Zoning Audit can be completed easily and quickly versus those that will take more time to develop the amendments. The Planning Commission may wish to discuss these classifications and make any changes needed, including adding amendments as appropriate.

We propose the following schedule for dealing with these issues that mixes some of the easier amendments with those that may require additional review and discussion. This can easily be modified at the Planning Commission's direction.

July 26

Begin discussion of impervious surfaces

August 16

Review impervious surface standards

Discuss solar energy standards

Begin review of stormwater management and low-impact development standards

Begin review of housing-related discussions

September 20

Review solar energy standards

Review low-impact development standards

Discuss housing-related standards

Oct 18

Review low-impact development standards

Review solar energy standards

Begin discussion on district uses

Nov 15

Final review of amendments for impervious surface standards, solar energy and low-impact development; set public hearing

Discuss district use updates

Begin review of landscape standards

Dec 20

Public hearings as noted above

Assess timeline/priorities for 2023

This chart organizes all of the high priority amendments listed in the zoning audit in terms of relative priority and effort required.

		High Priority	
Low Effort	Update definitions Update bicycle parking Update provisions for solar energy	Create impervious surface standards Update landscape standards Update lighting standards Update stormwater management and low-impact development standards Update CV district standards Update VC district standards Update MX district standards Update site standards for waste/rubbish Update site standards for building materials Update stormwater management-related standards	High Effort
	Update home occupations standards Review housing options Review opportunities for aging in place Update Office district Update GO district Update other district standards Update Sections 4.1-4.5 and 4.7 Update additional use standards Update site standards for inoperable vehicles and blight; update used building materials Update standards on nuisances	Update use standards Updates to district uses Explore accessory dwelling units Review PS district Update access management standards Update tree protection standards Update special land use standards Update nonconformities provisions Update chapter 7 on ZBA, zoning amendments	
		Low Priority	

Zoning Health Checkup for Lathrup Village

In 2016, a review of the City of Lathrup Village's Zoning Ordinance resulted in a list of potential amendments to be considered. Several of the proposed amendments have been implemented since that time (see items in ~~strike through~~ below). The 2021 Lathrup Village Comprehensive Plan included several zoning action items in the Implementation chapter. These items are added in **bold** where appropriate below. Originally included items that also are referenced in the Comprehensive Plan are identified in **bold underlined text**.

DEFINITIONS – Chapter 2		
Criteria	Current Ordinance	Comment
Are the definitions complete?		Consider adding definitions for the following: • Animal day care • Self-storage (there is a parking standard, but no mention of where it is permitted) • Accessory dwelling units • Light industrial uses (permitted in the CV district, but not defined) • Nonconforming lots and structures • Consolidate uses classified/recognized by state law as residential care facilities (e.g., family day care home, adult foster care home – pursuant to the Michigan Zoning Enabling Act) • Temporary structures (tents, temporary car garages)

DEFINITIONS – Chapter 2		
Criteria	Current Ordinance	Comment
Are the definitions current?		Update definitions for the following: • Day spa – this is defined but never used. Add to the examples of “personal service uses” • Drive through • Family (review case law with City Attorney) – at least remove reference to “bona fide servants” • Garage: is this needed? Does the definition of accessory building suffice? Reference to garage in Section 3.4.1 would need to be considered allowing non-attached garage to house in R-1. • Light industrial uses should be defined • Nonconforming lots and nonconforming structures need definitions • Restaurants (define carryout, standard, full service, and consider other types of liquor licenses, including brewpubs) • Remove sign definition as signs are regulated in a separate ordinance. • Update definition for special land use • Wireless communications – update pursuant to state and federal law
Are the definitions clear?	Graphics help with the understanding of certain terms.	

RESIDENTIAL DISTRICTS – Chapter 3		
Criteria	Current Ordinance	Comment
Review Intent sections	There are three residential districts: Most of the City is zoned R1 – single family residential. Smaller areas are zoned R2 (multiple family) and R3 (cluster single family)	Update the intent statements for R1 and R2 to remove redundant language at the end (“The regulations in this article....”).
Home occupations	There are provisions for home occupations	Consider updating the standards in Sec. 4.11 that regulate home based businesses. Remove prohibition of “display shelves,” using accessory structures, and hours of operation (change to a restriction on deliveries). Remove provisions for “periodic inspection” as external site conditions are the primary areas for potential conflict. It is impractical to require home businesses to register and it is likely that few know about this requirement. Consider a separate, optional registration that could help promote home businesses. Item 4 about non-compliance seems unnecessary.

RESIDENTIAL DISTRICTS – Chapter 3		
Criteria	Current Ordinance	Comment
Accessory dwelling units	Not permitted	Consider where accessory dwelling units may be appropriate, with design and site standards. Would backyard cottages be appropriate on larger lots (City of Seattle has excellent standards and guidelines)?
Variety of housing options		Review the Zoning Ordinance to ensure standards support a variety of housing options for young adults, families and older adults.
Aging in place		Ensure the Zoning Ordinance allows appropriate residential retrofits for accessibility in order to help seniors remain in their homes.

OFFICE, COMMERCIAL & INDUSTRIAL DISTRICTS – Chapter 3		
Criteria	Current Ordinance	Comment
Review Intent	Non-residential districts have specific intent statements.	
Public Service district	This district is on the west side of the city, near the high school.	Consider changing “instruction centers for academic and fine arts purposes,” to “schools, private” for clarity. Consider whether the uses under special land uses are appropriate in this district. If the school did not occupy this district, what uses are appropriate in this location? Consider the need for a minimum floor area of 1,250 sf. The reference to Section 3.8.1.B prohibits accessory structures in the CV district – does this also apply to PS?
Office district	This district is primarily located on 12 Mile, with an additional area on Evergreen.	Consider changing “instruction centers for academic and fine arts purposes,” to “schools, private” for clarity. Are veterinary clinics appropriate in this district? Consider standards that limit outdoor kennels.

OFFICE, COMMERCIAL & INDUSTRIAL DISTRICTS – Chapter 3		
Criteria	Current Ordinance	Comment
Commercial vehicular district	This district is located around the intersections of 11 and 12 Mile Roads and Southfield Road.	Consider whether it is consistent to allow bars and taverns as permitted uses, but have establishments involving the manufacture and sale of alcoholic beverages be special land uses. Light industrial uses are permitted as special land uses in this district. While potentially appropriate, this use should be defined and standards created to protect adjacent uses from noise, odor, smoke, and other nuisances. Sec. 3.8 (CV district standards): Add Section 3.8.1 to the setback requirements; consolidate landscape standards into Section 5.15 (landscaping). Move Section 3.8.3 outdoor storage to Chapter 5, site standards and section 3.8.4 open air activities to Chapter 4, use standards.
Village Center district	This district is intended to guide redevelopment along Southfield Road and the California Drives.	Review restaurants and establishments selling alcohol – consistent in list of uses? <u>The City should establish a street light fixture and other street furnishings – this could be included in the sub-area plan.</u> Review and update zoning standards for the VC district to ensure flexibility, consistent with the city’s vision for the district.
Mixed Use district	This district runs along Southfield Road.	Consider reducing the parking setback of five feet as this may be too restrictive. Replace this standard with a parking screening requirement of a 42 inch screenwall and/or landscape screen. Review and update zoning standards for the CV and MX districts to ensure flexibility, consistent with the city’s vision.

OFFICE, COMMERCIAL & INDUSTRIAL DISTRICTS – Chapter 3		
Criteria	Current Ordinance	Comment
Gateway office	This district is located at 11 Mile and Evergreen.	Are veterinary clinics appropriate in this location – create standards for outdoor spaces. Consider adding restaurants to list of permitted uses. The Development Standards table incorrectly notes the side yard setback for parking (copied from the building setback above). The correct setback is provided in Section 3.1.10.G. Clarify Section 3.1.10.F “such uses” should be changed to “permitted and special land uses.” Clarify that the Gateway Overlay is the Gateway Office district Section 3.1.10.G.2 allows council to reduce setbacks, but should be the ZBA. Section 3.1.10.H special findings, should be changed from council to the Planning Commission as the PC has final approval of site plans.

OFFICE, COMMERCIAL & INDUSTRIAL DISTRICTS – Chapter 3		
Criteria	Current Ordinance	Comment
Other district standards		Section 3.2 Lots, Uses for yards, etc.: - Move 3.2.1 on open porches to 3.11.6; remove the provision for projections 36 inches as this is covered in 3.11.6. - Move 3.2.3. to a new section for nonconforming lots. Section 3.3. Cluster Housing. This section should be rewritten to specifically address the one small district the city has identified for cluster housing. Additional standards are noted in 3.6, which also may not be necessary. Section 3.4. Many of the standards in this section are outdated – are any standards still appropriate and needed? Section 3.5. Many of the standards in this section are outdated – are any standards still appropriate and needed? Subsection E should be moved to 3.1.3.D. Section 3.7. These standards pertain to accessory structures and should be consolidated to Chapter 5, site standards. Section 3.11 General exceptions. Update subsection 3 on height limits to provide maximum allowed height over that which is otherwise permitted in the district; remove wireless transmission towers into a separate section. Subsection 4 refers to a planned development, which is not defined or otherwise referenced in the ordinance. Move subsection 5 to subsection 6.
Review all uses		Review Zoning Ordinance to ensure list of uses is flexible to promote and enhance economic activity.

USE STANDARDS – Chapter 4		
Criteria	Current Ordinance	Comment
4.1 Outside storage		Move to Chapter 5 and consolidate text to make less wordy.
4.2 Garage sales		Move these standards to the general code of ordinances
4.3 Basketball backboards		Is this still necessary?
4.4 Financial institutions	Requires special land use for drive-through banks.	This section conflicts with Section 5.13 and should be removed
4.5 Schools	Fencing and lighting standards	As this is likely intended to regulate the high school, it should probably be removed as it is outdated and is not enforceable.
4.6 Wireless telecommunications	Standards for wireless facilities	This section should be updated to comply with state and federal law.

USE STANDARDS – Chapter 4		
Criteria	Current Ordinance	Comment
4.7 Hours of operation		This section should be removed from the zoning ordinance. If still applicable, it should be moved to the general code of ordinances.
4.11 Home based businesses		See comments under residential districts, above.
Automobile washracks and gas stations		Consider additional standards in addition to general special land use standards
Pawn shops		Consider additional standards in addition to general special land use standards
Restaurants, bars, etc. that serve alcohol	No special standards other than general special land use standards	Consider whether it is necessary to make all establishments that serve alcohol be special land uses. Establishments that are primarily full-service restaurants that serve alcohol could be permitted uses, with standards.
Veterinary clinics & animal kennels	No special standards other than the general special land use standards	Create standards that address screening and size of outdoor spaces.
Wireless communication facilities		Update per state and federal law changes (2012). Review and comment timelines are critical. Consider permitting ornamental security fence and change from city council to PC approval

SITE STANDARDS – Chapter 5		
Criteria	Current Ordinance	Comment
5.1 Vision clearance		Update and add graphic for clarity
5.3 Waste and rubbish		Update this section. Remove standards covered in Building Code to ensure no conflicts. Keep standards but remove the requirement for a special permit for a dumpster; they are covered under site plan review. Consider creating standards to improve waste management and encourage recycling efforts.
5.4 Building materials		Should the Planning Commission have ability to modify materials if other materials can be demonstrated to be high quality and/or appropriate for building design?
5.5 Protective or barrier walls		Update this section and move to Section 5.15 Landscaping. Require screenwalls whenever any district other than R-1 abuts an R-1 district. Allow landscape materials in certain circumstances.
5.6 & 5.7 Inoperable vehicles & Blight		Move to general code of ordinances
5.8 Lighting		Update lighting standards
5.10 Used building materials		Move to Section 5.4; consider allowing recycled materials

SITE STANDARDS – Chapter 5		
Criteria	Current Ordinance	Comment
5.11 Temporary dwellings		Covered by Section 4.1 Consider renaming temporary structure to cover all uses (not just for dwelling) and add to definition section
5.14 Nuisances prohibited		Review general code of ordinances; update this section as needed.
5.15 Landscaping		Update this section. Landscaping should be reviewed with site plan by the Planning Commission (not the Building Department). Consider replacing the 5% minimum landscape requirement with requiring foundation plantings, which could be provided in planters. Clarify the Section 5.15.3 for buffer strips only applies to the CV district. Allow the waiver of right-of-way landscaping when that area is developed as parking. Consider alternatives to parking landscaping in the MX district so as not to limit redevelopment options on the existing shallow lots. Consider updating tree caliper to minimum 2.5” Add minimum 3” large deciduous tree to right of way landscaping Under special landscaping requirements, include more language for tree removal/tree replacement ratio and protection for landmark trees.
Electric vehicle charging	No provisions	Consider allowing for electric vehicle charging (external locations) Consider creating standard for electric vehicle charging infrastructure readiness requirement.
Bicycle parking	No provisions	Consider adding bicycle parking standards – credit for vehicle parking?
Stormwater management		
Minimize impervious surfaces		<u>Consider creating standards to improve stormwater management and allow credits for low impact facilities</u> <u>Add standard to minimize impervious surfaces</u>
Role of wetlands		
Rain gardens/Low impact development		
Gray water		
Renewable Energy		
Wind		Consider updating to better regulate solar panels on residential and non-residential property.
Solar		
Access Management		
Connectivity		Consider development of access management standards to improve traffic safety and flow.
Driveways		
Easements		
Natural Features		
Trees		Consider creating standards to protect the city’s trees

DEVELOPMENT REVIEW – Chapter 6		
Criteria	Current Ordinance	Comment
Site plan review		Site plan approval section could be updated for clarity. Remove reference to planned development as there are no associated standards. Clarify that Planning Commission is final approving body for site plans (Section 6.1.2.E and Section 6.1.3). Section 6.1.3.F may be redundant per Section 6.1.B.
Special land uses		Consider allowing the final decision to rest with the PC for special land uses. Otherwise, add reference to the Planning Commission making a recommendation to council for final approval.
Nonconformities	The ordinance provides for nonconforming uses and structures.	Consider allowing small (less than 10%) additions to nonconforming structures as long as not increasing nonconformities.
Reuse or re-occupancy	Ordinance provides reuse or re-occupancy criteria	Suggest adding that the proposed use is a permitted use in the district in which it is located

ADMINISTRATION – Chapter 7		
Criteria	Current Ordinance	Comment
7.2 General provisions		This section should be updated to clarify provisions for interpretations. Subsection A and 3 are unnecessary. Subsection 7 should be moved to Chapter 5, site standards.
7.7 ZBA		Update this section. Subsection 7 should simply cross reference to Section 7.6.2 on public hearings. Delete subsection 9 as deviations are provided for in subsection 14. Delete subsection 15 for special exceptions and subsection 16 as it is confusing.
7.8 Nonconformities	The ordinance provides for nonconforming uses.	Add provisions for nonconforming lots and structures
7.9 Zoning Amendments		Clarify subsection 3.D by removing subsection vi. Delete reference to Southfield Eccentric in subsection 5. Remove subsection 6 pursuant to state law.
7.13 Conformity to Enabling Act	State Statutes resolve any conflicts	Remove outdated provisions