



AGENDA
CITY OF CREVE COEUR
PLANNING AND ZONING
300 NORTH NEW BALLAS RD
FEBRUARY 6, 2023
6:00 PM

CALL TO ORDER

ROLL CALL

Ms. Julie LaBonte (Chair)
Ms. Muriel Hall
Mr. Larry Potashnick
Ms. Marjorie Richter
Mr. AJ Wang
Ms. Rhonda O'Brien
Mr. Thomas Buelter

Mr. Carl Lumley, City Attorney
Mr. Jason Jaggi, Director of Community Development
Ms. Bethany L. Moore, City Planner
Ms. Megan Waller, Administrative Supervisor/Recording Secretary

ACCEPTANCE OF THE AGENDA

APPROVAL OF MINUTES

- 1. January 17, 2023 Planning and Zoning Commission Draft Meeting Minutes**

PUBLIC COMMENT

An opportunity for members of the public to address the Planning and Zoning Commission regarding issues or concerns not already on the agenda for this meeting. Those wishing to speak will be asked to limit comments to three minutes and to complete a speaker card.

UNFINISHED BUSINESS

- 1. PUBLIC HEARING Application #22-031: A Conditional Use Permit with Associated Site Development Plan for A New Chick Fil A Restaurant with Drive Through Services Located at 12398 Olive Boulevard**

Joe Vavrina, of HR Green, Inc, on behalf of Gershman Commercial Real Estate, has submitted an application for a Conditional Use Permit with associated site development plan for a new freestanding Chick Fil A restaurant with a drive-through, located at 12398 Olive Boulevard in the "PC" Planned Commercial zoning district. The project would include the construction of a new 4,700 square foot building with drive through lanes consisting of 74 indoor seats and 24 outside seats



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at the corner of Olive Boulevard and Tempo Drive where the existing TGI Friday's building is located in the Westgate Center development. This public hearing was continued from the December 19, 2022 meeting.

2. Application #22-040: Text Amendments to Various Sections of the Zoning Ordinance (Chapter 405) to Provide Regulations for Recreational Marijuana Related Uses.

Jason Jaggi, Director of Community Development, on behalf of the City of Creve Coeur, has submitted an application to amend various sections of the City's Zoning Ordinance, Chapter 405, to allow recreational marijuana uses in appropriate zoning districts. These marijuana uses include cultivation, manufacturing, and testing facilities, as well as, dispensaries. The proposed changes are in response to an amendment to Missouri's constitution approved by voters on November 8, 2022, which legalized recreational adult-use marijuana. The Planning and Zoning Commission continued this item from the January 17, 2023 meeting.

NEW BUSINESS

1. Application #23-002: Approval of a Site Development Plan for Revised Exterior Materials for a 20 unit Apartment Building at 10809-10819 Olive Boulevard

Adam Bulla, of D&R Building Group, on behalf of JLA Group, LLC, has submitted an application for revised Site Development Plan approval for a 20 Unit, 2-bedroom apartment building at 10809-10819 Olive Boulevard in order to alter the exterior materials. Medium Density Multifamily Residential (up to 20 units per acre) (NAICS-CC814120) Developments are a permitted use in the CB-Core Business District. The development is 1.05 acres.

WORK AGENDA

DEPARTMENT REPORTS

Meeting Procedure Discussion

ADJOURNMENT



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Pursuant to Section 610.022 RSMo., the Planning and Zoning Commission could, at any time during the meeting, vote to close the public meeting and move to closed session to discuss matters relating to litigation, legal actions and/or communications from the City Attorney as provided under Section 610.021(1) RSMo. and/or personnel matters under Section 610.021(13) RSMo. And/or employee matters under Section 610.021(3) RSMo. and/or real estate matters under Section 610.021(2) or other matters as permitted by Chapter 610.

Posted by: _____

Date/Time posted: _____

If you need special accommodations to attend a meeting, services may be arranged by contacting the Office of the City Administrator in advance.



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CALL TO ORDER

The meeting was called to order at 6:00 PM.

ROLL CALL

**Ms. Julie LaBonte (Chair)
Ms. Muriel Hall
Mr. Larry Potashnick
Ms. Marjorie Richter
Mr. AJ Wang
Ms. Rhonda O'Brien
Mr. Thomas Buelter**

The following staff were also present:

**Mr. Carl Lumley, City Attorney
Mr. Jason Jaggi, Director of Community Development
Ms. Bethany L. Moore, City Planner
Ms. Megan Waller, Administrative Supervisor/Recording Secretary**

ACCEPTANCE OF THE AGENDA

Ms. LaBonte requested to move the text amendment to the last item on the agenda.
Ms. O'Brien seconded. All in favor.

Mr. Wang made a motion to approve the agenda as revised. Mr. Potashnick seconded. All in favor.

APPROVAL OF MINUTES

**1. December 19, 2022 Planning and Zoning Commission Draft Meeting
Minutes**

Mr. Wang made a motion to approve the December 19, 2022 meeting minutes. Mr. Buelter seconded. All in favor.

PUBLIC COMMENT

None

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UNFINISHED BUSINESS

1. PUBLIC HEARING Application #22-031: A Conditional Use Permit with Associated Site Development Plan for A New Chick Fil A Restaurant with Drive Through Services Located at 12398 Olive Boulevard

Mr. Wang made a motion to continue this item to the February 6th meeting. Mr. Potashnick seconded. All in favor.

NEW BUSINESS

1. PUBLIC HEARING Application #22-037: A Conditional Use Permit for a 4,900 Square Foot Outpatient Mental Health and Substance Abuse Center, Birch Tree Recovery, Located at 10324 Ladue Road

Those speaking to the request were sworn in.

Mr. Solomon Zelcer, 7830 Blackberry Ave. St. Louis, MO 63130, stated that the conditional use permit application is for a proposed substance abuse treatment facility called Birch Tree Recovery.

Mr. Zelcer stated that this facility will be an outpatient model operating similarly to a medical office building.

Mr. Zelcer stated that there will be medication management, but medication will not be stored on site.

Mr. Zelcer stated that there will be between 4-6 staff members to start the business and increase over time to meet demand.

Mr. Zelcer stated that additional striped parking spaces will be added.

Mr. Zelcer stated that the exterior of the building will remain the same.

Mr. Zelcer stated that the next closest facility is 2.2 miles away, which satisfies the condition of 1-mile minimum separation.

Mr. Zelcer stated that Birch Tree Recovery is in the process of obtaining licensure with the Division of Alcohol and Drug Abuse Department of Mental Health of the State of Missouri.



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Mr. Zelcer thanked the commission for their time.

Ms. O'Brien asked the hours of operations and how many groups will be meeting at once. Mr. Zelcer stated that the facility will be open 9:00 AM - 9:00 PM on weeknights and 9:00 AM - 5:00 PM on weekends. He stated that there will be no more than two groups meeting at one time.

Ms. O'Brien had concerns regarding back-up of traffic entering off of Ladue Rd. Ms. Moore stated that this project does not require a traffic study, but additional striped parking spaces will be added.

Ms. Maria Ulmer, 1440 Russell Rd Paoli, PA 19301, stated that there will be group sizes of typically 8-10 people. She explained that many participants will have other accommodations for getting to the site, as they do not drive. Mr. Zelcer stated that there are two entrances to the parking lot.

Mr. Buelter asked if there will be ADA-accessible spaces. Mr. Zelcer stated there will.

Ms. Bethany Moore, City Planner, stated that the application is for a conditional use permit in the GC-General Commercial district.

Ms. Moore stated that the only change to the site will be the striping for additional parking spaces.

Ms. Moore stated that the applicant is in the process of obtaining the appropriate licenses and that obtaining these licenses is a condition of approval.

Ms. Moore stated that additional conditions of approval include the outside of the building must conform with its surroundings and that there may be no similar uses within a one-mile radius.

Ms. Moore stated that there will be a surplus of parking spaces at the site.

Ms. Moore stated that the hours of operation noted are 9:00 AM - 9:00 PM Monday - Friday. She explained that changes to these hours for weekends should be noted in the motion.



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Ms. LaBonte asked if the additional parking will leave enough room for cars entering and leaving the site. Ms. Moore stated that this will be a requirement of the building permit.

Mr. Buelter asked if there is a lighting plan proposed. Ms. Moore stated that there is existing lighting on the site, but no new lighting is proposed.

Mr. Potashnick asked if the existing lighting is enough. Ms. Ulmer stated that all access points are clearly visible at night and walkways to the building highly visible.

Mr. Buelter asked about the signage of the building. Ms. Moore stated that this will require a separate permit.

Ms. LaBonte closed the public hearing.

Mr. Lumley offered the exhibits to the record.

Mr. Lumley asked for clarification of the hours of operation. Ms. Ulmer stated that the hours will be Monday - Thursday 9:00 AM -9:00 PM and Friday - Sunday 9:00 AM - 5:00 PM.

Mr. Potashnick made a motion to recommend approval of the conditional use permit as outlined in the draft ordinance to include the hours of operation Monday - Thursday 9:00 AM - 9:00 PM and Friday - Sunday 9:00 AM - 5:00 PM. Mr. Wang Seconded. All in favor.

RESULT: APPROVED

MOVER: Potashnick

SECONDER: Wang

AYES: AJ Wang, Muriel Hall, Julie LaBonte, Thomas Buelter, Rhonda O'Brien, Marjorie Richter, Larry Potashnick

NAYS: None



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**2. PUBLIC HEARING #22-038: An Application for a Master Sign Plan for the
Congregation Shaare Emeth Campus Located at 11645 Ladue Road**

Those speaking to the request were sworn in.

Dana Fulton, 615 Pine Ridge Trails Ct. Ballwin, MO 63020, thanked the commission for their time.

Mr. Fulton stated that the request is to replace two existing low monument signs at the entrances on Ladue Rd and Ballas Rd.

Mr. Fulton stated that the property is 21.15 acres.

Mr. Fulton stated that the current signs are worn and dilapidated.

Mr. Fulton stated that there are other directional signs throughout the campus as well as the two low monument signs at the entrances.

Mr. Fulton stated that the proposed new signs will include the address and will match the aesthetic of the newly renovated building.

Mr. Fulton stated that new landscaping will be added to the signs.

Mr. Fulton stated that the new signs will have LED lights on each side to illuminate at night.

Ms. Bethany Moore, City Planner, stated that the proposed master sign plan is on a 21.15-acre site in the A-Single Family Residential district.

Ms. Moore stated that the master sign plan will cover all of the existing interior signs as well as the two new proposed monument signs for the campus. She explained that any future new signs will require an amendment application to the Planning and Zoning Commission.

Ms. Moore stated that the proposed monument signs will be located in the existing sign locations.

Ms. Moore stated that the old signs are about 40 square feet and 4 feet in height while the proposed signs are about 55 square feet with the actual sign face at 28 square feet.



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Ms. Moore stated that the proposed sign materials correspond with the renovations done to the temple.

Ms. Moore stated that conditions of approval include a sign permit for the two proposed entrance signs, an updated landscape plan, and a site map showing all existing and proposed signage.

Ms. LaBonte closed the public hearing.

Mr. Lumley offered the exhibits to the record.

Mr. Wang made a motion to recommend approval of the master signage plan subject to the conditions outlined in the draft ordinance. Mr. Potashnick seconded. All in favor.

RESULT: APPROVED

MOVER: Wang

SECONDER: Potashnick

AYES: AJ Wang, Muriel Hall, Julie LaBonte, Thomas Buelter, Rhonda O'Brien, Marjorie Richter, Larry Potashnick

NAYS: None

3. PUBLIC HEARING #22-041: A Conditional Use Permit for a 2,984 Square Foot Commercial Banking Location, Chase Bank, Located at 11600 Olive Boulevard

Those speaking to the request were sworn in.

Ms. Laura McCaffrey, 9895 Rose Arbor Dr, Centerville, OH 45458, stated that Chase Bank has been opening approximately 10 branches per year in the St. Louis area.

Ms. McCaffrey stated that the closest branch is currently in Des Peres.

Ms. McCaffrey stated that the proposed business hours are 9:00 AM - 5:00 PM Monday - Friday and 9:00 AM - 1:00 PM on Saturday and closed on Sunday.

Ms. McCaffrey stated that the proposed location will condense three existing tenant spaces into one large space.

Ms. McCaffrey stated that there will be a surplus of parking on site for the combined shopping center.



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Ms. McCaffrey stated that the exterior of the site will remain as is, including lighting, landscaping, site trees, and sidewalks.

Ms. McCaffrey stated that the floor plan will include five banker-offices, two teller windows, one interior ATM and one exterior after-hour depository, and one exterior walk-up ATM.

Ms. McCaffrey stated that the existing storefront will be changed from three separate entrances down to one entrance.

Ms. LaBonte asked about the proposed designated parking spaces.

Mr. Buelter asked where the bank deliveries will occur. Ms. McCaffrey stated these occur after hours through the front door.

Ms. Bethany Moore, City Planner, stated that the application for a conditional use permit for Chase Bank is in the Old Ballas shopping center.

Ms. Moore stated that there are minor exterior changes proposed to create one entry point, as three tenant spaces will be merged into one tenant space.

Ms. Moore stated that the exterior materials will remain the same.

Ms. Moore stated that there are 100 parking spaces shared on site. She explained that there is an excess of 27 spaces on site and 73 spaces are required.

Ms. Moore stated that conditions of approval include applying for a building permit and updated hours of operation.

Ms. LaBonte closed the public comment.

Mr. Lumley offered the exhibits to the record.



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Mr. Wang made a motion to recommend approval to the City Council subject to the conditions outlined in the staff report with the hours of operation amended to 9:00 AM - 5:00 PM Monday - Friday, 9:00 AM - 1:00 PM on Saturday, and closed on Sundays. Mr. Buelter seconded. All in favor.

RESULT: APPROVED

MOVER: Wang

SECONDER: Buelter

AYES: AJ Wang, Muriel Hall, Julie LaBonte, Thomas Buelter, Rhonda O'Brien, Marjorie Richter, Larry Potashnick

NAYS: None

4. PUBLIC HEARING #22-042: An Application for a Conditional Use Permit for a 25,003 Square Foot Grand Canyon University Tenant Located at 4 CityPlace Drive

This item has been withdrawn.

5. Application #22-039: Preliminary Plat for the Subdivision of an 8.45 Acre Lot at 871 North Mason Road into Twelve Lots within the D Single Family Residential Zoning District

Mr. Phill Brennan, 1456 Fawnvalley Ct., Des Peres, MO 63131, stated that the application is for an 8.45-acre 12 lot subdivision on Mason Rd.

Mr. Brennan presented McKelvey's history and photo renderings of the proposed homes.

Mr. David Volz, 10849 Indian Head Industrial Blvd., St. Louis, MO 63132, stated that the previously approved site plan for the subdivision has changed due to future St. Louis County plans for the bridge on Mason Rd. and potential future changes to the guardrail.

Mr. Volz explained that the size of the lots, setbacks, common grounds, etc. remain the same as the previous approval. He also explained that there are no new changes to the floodplain.

Mr. Volz stated that the floodplain study has been re-reviewed and shows that there is still zero rise to the creek.



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Mr. Volz stated that there will be additional trees removed to accommodate the sanitary sewer, and that the total removed will still be under the allowable amount.

Mr. Potashnick asked if there will be other proposed models for the subdivision. Mr. Brennan stated that there will not.

Mr. Buelter asked if there will be basements for these homes. Mr. Volz stated that the lots will not sit in the floodplain. He stated that the lowest opening to the basement is at least one foot above the 100-year base flood elevation, and the sewer pipes exit the homes through the first floor where applicable.

Mr. Jim Piper, 218 Chesterfield Towne Center, Chesterfield, MO 63005, stated that all of the homes will have backflow preventers.

Ms. Bethany Moore, City Planner, stated that the proposed preliminary plat will sit on an 8.45-acre lot in the D Single Family Residential zoning district.

Ms. Moore stated that the application was previously approved but the proposed changes to the preliminary plat require a new hearing.

Ms. Moore stated that the proposed lots do meet the minimum 10,000 sq ft lot size.

Ms. Moore presented the site plan and stated that the revised plan reflects a relocated entrance to the subdivision.

Ms. Moore stated that the previous flood study has been re-reviewed and will not be altered by the changes.

Ms. Moore stated that 5ft sidewalks are proposed throughout.

Ms. Moore stated that the proposed plan is to remove 32% of trees. Ms. Moore stated that the new tree ordinance includes 6 caliper inch trees. She explained that a new tree study has not been conducted to include the 6-inch caliper trees.

Ms. Moore explained that the previously approved variance area is to remain unchanged.

Mr. Lumley asked if the sidewalk easement that was a part of the first approval is still required. Ms. Moore stated that there are easements in the common ground areas for landscaping buffers between the subdivision and sidewalks.



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Mr. Potashnick asked for clarification on the difference between the new and old tree ordinance. Ms. Moore stated that the old requirements required counting trees to be removed at 8 caliper inches or higher and the new would require surveying trees at 6 caliper inches and higher.

Mr. Potashnick asked if staff has concerns with the floodplain documents. Ms. Moore stated that the Public Works department has seen the floodplain study and does not have concerns at this time.

Mr. Jaggi asked Mr. Volz to clarify how the basements of the homes will be floodproofed and the revised maps of the floodplain. Mr. Volz stated that the water mitigation is handled by the basement openings being above the base flood elevation and by running the plumbing to the exterior on the first floor of the home. He also explained that there will be water mitigation to control flood waters through the creek and the detention basin in the floodplain area.

Ms. LaBonte asked how the study shows that the floodplain will not be affected on the other side of the creek, causing flooding to neighboring subdivisions. Mr. Volz stated that the study considers all sides of the floodplain and does not allow for an increase of flooding upstream, downstream, or on any side of the creek.

Mr. Piper stated that the site will require several other approvals, including the CLOMR approval from FEMA before the recorded plat can occur.

Mr. Potashnick asked what impact the detention basin will have on the floodplain. Mr. Volz stated that the detention basin is independent of the floodplain, but does require MSD and City approval. He also stated that the detention basin is above the 100-year floodplain.

Mr. Wang asked what protections will be in place to stop the yard from flooding. Mr. Volz stated that the flood plain in the proposed subdivision will be in the common ground areas, not the lots.

Mr. Alastair Pringle, 12721 Creekside View Dr, stated that the residents of Creekside have concerns regarding Fern Ridge Creek causing additional flooding on their side of the creek.

Mr. Pringle had concerns that the detention area may be too small for the area.



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Mr. Pringle had concerns that a stormwater pipe has been removed from the previously approved site.

Mr. Pringle had concerns with the homes on the lots and sewer being moved closer to the Creekside subdivision. He explained that the Creekside residents would like as many of the existing trees to be preserved as possible.

Ms. Claudie Godbee, 12712 Corum Way, Creve Coeur, MO 63141, had concerns regarding the sidewalks and access to Corum Dr. Mr. Volz stated that there will be a landscape buffer and that there is a sidewalk on the south side of the road, not on the north side of the road.

Mr. Volz stated that there are multiple drainage areas in the subdivision to the south, which is why there are multiple detention basins. Mr. Volz stated that MSD requires the pipe to be large enough to pump all of the water from the north to the creek as if there was no detention basin.

Mr. Volz stated that the original proposal had two 12-inch pipes. He explained that this has changed to one 24-inch pipe due to the location of the sanitary sewer pipe.

Mr. Potashnick made a motion to approve the preliminary plat application subject to the conditions outlined in the staff report with the inclusion of a new tree survey showing compliance with the City's updated tree ordinance requirements. Mr. Wang Seconded. All in favor.

RESULT: APPROVED

MOVER: Potashnick

SECONDER: Wang

AYES: AJ Wang, Muriel Hall, Julie LaBonte, Thomas Buelter, Rhonda O'Brien, Marjorie Richter, Larry Potashnick

NAYS: None



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6. PUBLIC HEARING. Application #22-040: Text Amendments to Various Sections of the Zoning Ordinance (Chapter 405) to Provide Regulations for Recreational Marijuana Related Uses.

Those speaking to the request were sworn in.

Jason Jaggi, Director of Community Development, stated that amendment three has been passed by the State of Missouri voters legalizing recreational adult use of marijuana as of November 2022.

Mr. Jaggi stated that currently there are two medical marijuana dispensaries located in the City of Creve Coeur.

Mr. Jaggi stated that currently the State is only accepting applications to convert existing medical marijuana facilities into comprehensive facilities for medical and adult recreational marijuana use.

Mr. Jaggi stated that the State has created a secondary market called microbusinesses that require a separate distinct license. He explained that this is a separate market for smaller operators with different limitations set by the State.

Mr. Jaggi stated that adult use marijuana may be sold legally by dispensaries as soon as February, 2023. He explained that the microbusiness license will be further out.

Mr. Jaggi stated that this was discussed with City Council at the December 12, 2022 meeting, and that Council would suggest updating the Medical Marijuana ordinance to include Adult Use Recreations within the existing framework.

Mr. Jaggi stated that there are four types of regulated uses; dispensaries, cultivation facilities, manufacturing facilities, and testing facilities.

Mr. Jaggi stated that cultivation facilities would require a conditional use permit only in the Light Industrial and Research and Office Park zoning districts.

Mr. Jaggi stated that the manufacturing facilities are conditional uses within the same zoning districts.

Mr. Jaggi stated that both cultivation and manufacturing must be conducted indoors.



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Mr. Jaggi stated that comprehensive dispensaries would be a permitted use in all commercial with the exception of the Planned Office district.

Ms. O'Brien asked about drive-thru dispensaries. Mr. Jaggi stated that this would be a conditional use.

Ms. O'Brien had concerns with the traffic drive-thru facilities may cause on the streets.

Mr. Potashnick asked if this is the same standard as a drive-thru restaurant. Mr. Jaggi stated it is a different standard, similar to banks and pharmacies.

Mr. Jaggi stated that testing facilities would be permitted in Light Industrial and Research Office zoning districts.

Mr. Jaggi stated that currently there is a 300-ft separation between marijuana dispensaries and then existing elementary and secondary schools. He explained that no changes are proposed at this time.

Ms. LaBonte asked why daycare facilities are not included as a school. Mr. Lumley stated that there are many daycare facilities located in commercially zoned districts.

Mr. Jaggi stated that per City ordinance, the cultivation and manufacturing facilities must be completely indoors with odor control.

Mr. Jaggi stated that the current comprehensive plan predates the legalization of recreational use marijuana. He stated that the commission should keep the comprehensive plan's broader goals in mind when considering the text amendment.

Mr. Potashnick asked the city's authorities for these conditional use permits.

Mr. Buelter asked if raising the minimum requirement of feet from a school could help to limit the amount of dispensaries allowed in the City. Mr. Jaggi stated that the law is very specific in how this regulation can be enforced.

Mr. Potashnick asked if there are requirements for liquor licenses. Mr. Jaggi stated that if they are within 300ft of a school or place of worship, they require a conditional use permit approved by the City Council.

Ms. O'Brien stated that she would recommend raising the minimum distance from schools and places of worship to the 1000ft allowed by the State.



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Mr. Buelter asked about the tax revenue of the comprehensive dispensaries. Mr. Lumley stated that the tax is added to the adult recreational use sales, not medical use.

Ms. LaBonte closed the public hearing.

Mr. Lumley offered the exhibits to the record.

Mr. Potashnick suggested deferring the matter and discussing this at the joint work session with City Council.

Ms. Obrien made a motion to continue. Ms. Hall seconded. All in favor.

RESULT: Continued

MOVER: O'Brien

SECONDER: Hall

AYES: AJ Wang, Muriel Hall, Julie LaBonte, Thomas Buelter, Rhonda O'Brien, Marjorie Richter, Larry Potashnick

NAYS: None

WORK AGENDA

None

DEPARTMENT REPORTS

Mr. Jaggi reminded the commission that there will be a joint session with City Council on Monday, the 23rd of January. He explained that there will be a full agenda to cover at the joint session with City Council.

Mr. Jaggi stated that the next regular Planning and Zoning Commission meeting will be the February 6th meeting. He stated that there are three applications on the agenda.

Ms. Moore stated that Little Sunshine's Playhouse has submitted a change to the porte cochere. She explained that the applicant has decided to remove the porte cochere portion and that there will only be an overhang at the entrance of the building. Ms. Moore stated that staff is comfortable approving this at the staff level. The Commission did not express any concerns with the revisions.



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ADJOURNMENT

Mr. Potashnick made a motion to adjourn. Ms. Hall seconded. All in favor. The meeting adjourned at 9:06 PM.

Submitted by:

Recording Secretary

Chair



city of CREVE COEUR

300 North New Ballas Road • Creve Coeur, Missouri 63141

(314) 432-6000 • Fax (314) 872-2539

APPLICATION TO PLANNING AND ZONING COMMISSION #22-031: A CONDITIONAL USE PERMIT WITH ASSOCIATED SITE DEVELOPMENT PLAN FOR A NEW CHICK FIL A RESTAURANT WITH DRIVE THROUGH SERVICES LOCATED AT 12398 OLIVE BOULEVARD

FOR THE MEETING OF: Monday, February 6, 2023

LOCATION: 12398 Olive Boulevard, zoned PC-Planned Commercial District

REQUEST: Joe Vavrina, of HR Green, Inc, on behalf of Gershman Commercial Real Estate, has submitted an application for a Conditional Use Permit with associated site development plan for a new freestanding Chick Fil A restaurant with a drive-through, located at 12398 Olive Boulevard in the "PC" Planned Commercial zoning district. The project would include the construction of a new 4,700 square foot building with drive through lanes consisting of 74 indoor seats and 24 outside seats at the corner of Olive Boulevard and Tempo Drive where the existing TGI Friday's building is located in the Westgate Center development.

ADDITIONAL INFORMATION:

Under Section 405.210, Table A of the Zoning Code, Limited-Service Restaurants (NAICS 722513) require the issuance of a conditional use permit subject to the recommendation of the Planning and Zoning Commission and approval of the City Council. In addition, all drive through restaurants are subject to the conditional use requirements of Section 405.470.A.14. of the Zoning Code. This public hearing was continued from the December 19, 2022 meeting.

Key Issues:

- Does the request further the goals and/or implement the Comprehensive Plan?
- Is the request consistent with the required findings for a conditional use permit?
- Does the request follow the Design Guidelines?

Creve Coeur 2030 Plan References

- Mixed Use District
- Design Guidelines

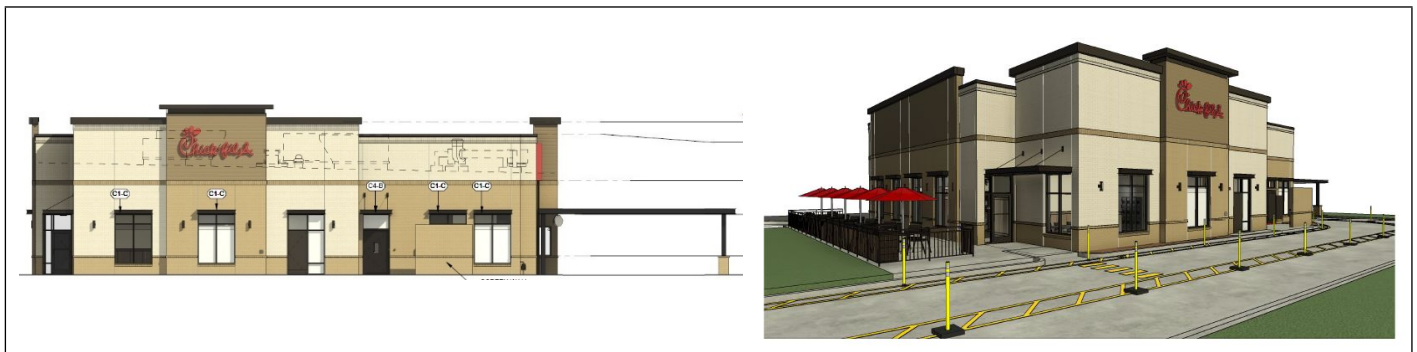
Zoning Code References

- Section 405.350: PC-Planned Commercial District
- Section 405.470: Conditional Uses
- Section 1080: Site Concept, Site Development and Minor Site Plan Approval

APPLICANT: Joe Vavrina
HR Green, Inc
1391 Corporate Drive, Suite 203
McHenry, IL 60050

PROPERTY OWNER:

Bruce J. Brophy
Gershman Commercial Real Estate
150 N. Meramec, Suite 500
St. Louis, MO 63105



REPORT PREPARED BY: Bethany L. Moore, City Planner

DATE: 1/31/2023

ATTACHMENTS: Applicant's Materials received January 20, 2023
Traffic Impact Study and related correspondence
Previous Staff Report from 12/19/22

BACKGROUND

The Planning and Zoning Commission continued this hearing from the December 19, 2022 meeting to allow the applicant additional time to address staff concerns and provide further information. At the previous meeting, staff and the commission discussed the project and their concerns. The applicant has provided revised elevations, landscape plan and updated traffic study information in order to address those concerns. Discussion on other items pertaining to this application can be found in the previous staff report from December 19, 2022.

PROPOSAL

The Applicants are seeking approval for a conditional use permit as required under NAICS 722513 Limited-Service Restaurants and an associated site development plan for a new 4,704 square foot building with drive through lanes for a Chick-fil-a restaurant. The project is located at the southeast corner of Olive Boulevard and Tempo Drive at 12398 Olive Boulevard and the leased area is 1.02 acres within the 7.11 acre Westgate Centre development. There is an existing T.G.I. Friday's restaurant building and associated parking lot that will be demolished in order for Chick-fil-a to redevelop the site. Chick-fil-a is proposing a new single story 4,704 square foot free-standing restaurant with 74 indoor seats and 24 outdoor seats, dual drive-thru facility with free-standing canopies, parking lot, and associated utilities. The new building is positioned similar to the T.G.I. Friday's restaurant in the corner of the shopping center area near the corner of Olive Boulevard and Tempo Boulevard but is a little over half the size of the existing building. The positioning of the Chick-fil-building on the site helps to maintain as much of the existing Westgate Centre parking lot as possible along the south and east sides of the site; provide the maximum number of parking stalls while promoting efficient traffic circulation; provide a sufficiently long drive-thru lane to promote efficient restaurant operations; and to provide adequate visibility to the new store to attract potential new customers that are traveling along Olive Boulevard and within the shopping mall development.

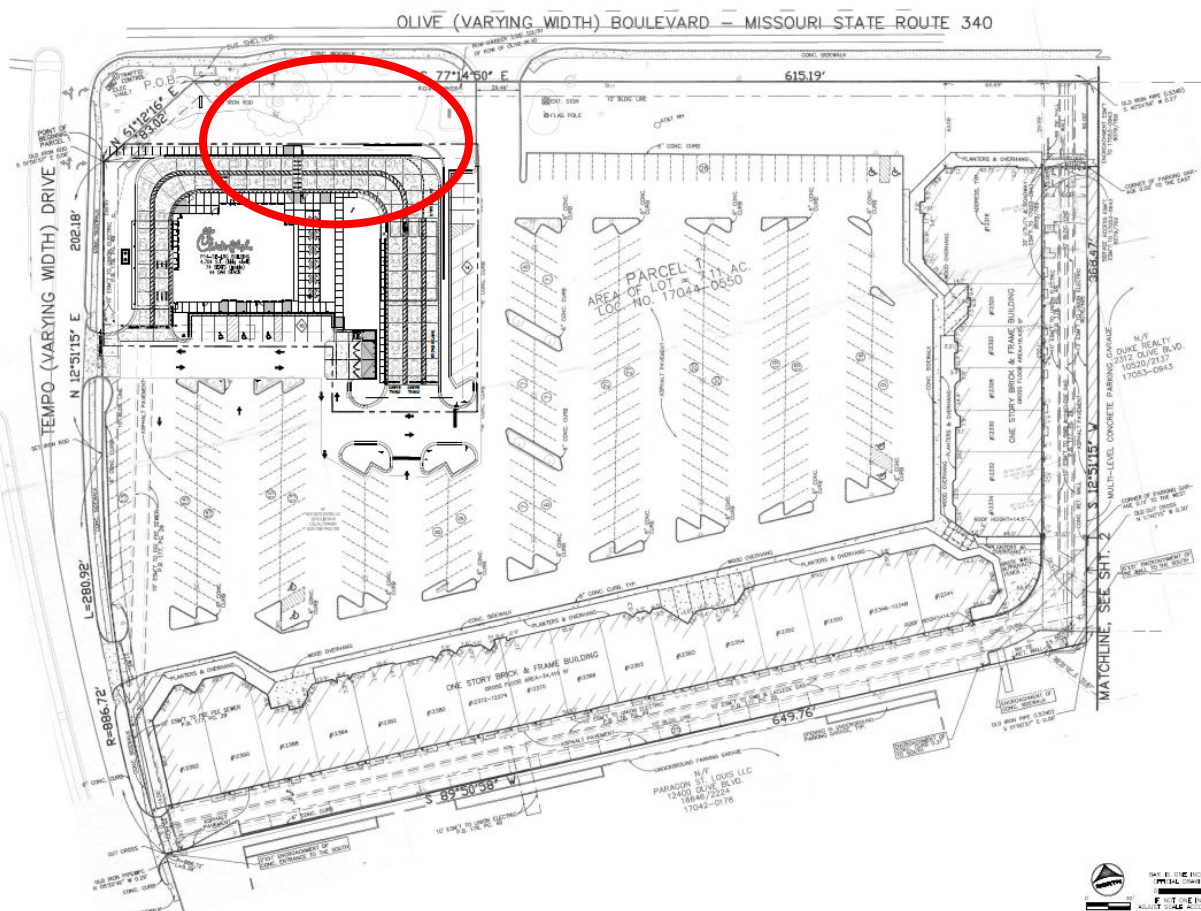


Figure 1: Proposed Site Plan



Figure 2: Revised North and South Elevations

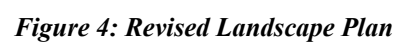


Figure 3: Revised East and West Elevations

The City's Design Guidelines recommend a diversity of high-quality architectural design. Architectural design should be compatible with the developing character of the neighborhood or surrounding area. Design Compatibility includes complementary building style, form, size color and materials. (p. 9). Materials should have good architectural character, be durable, and be selected for their compatibility with adjoining buildings and properties. Varied and interesting building facades are key to creating a "pedestrian oriented" place. All elevations should receive equal design consideration as the primary elevation. Rear and side facades should be designed with similar architectural detailing and materials to be compatible with the principal facades of the building. Staff had given the applicant several comments on the previous design of the building elevations. Staff expressed concerns with the proposed design of the Olive Boulevard facing façade due to the significance of Olive Boulevard to Creve Coeur and the building's connection with the existing shopping center building on the lot. Staff wanted to see the design elements on the Olive Boulevard facade reflect the importance of the street it faced even though it served as back-of-house for the restaurant. Staff had also asked that more design elements from the existing shopping center building be pulled into the new building in order to give the appearance of a more cohesive development as outlined in the Design Guidelines.

The resubmitted elevations show revisions to the materials, roofline, and Olive Boulevard facade. The materials of the new elevations include a modular brick veneer in "Dark Brown" for the water table, the "Dark Brown" brick and same style brick in the color "Light Brown" are both used as the main material for the bulk of the building, and the "Light Brown" brick is used for the recessed portions of the parapet while fiber cement board panel siding in the color "Khaki Brown" is used to the projecting elements of the parapet. The fiber cement siding is a new material introduced in the revisions in order to make a material connection to the wood of the shopping center building. This proposed color palette of lighter and darker browns is similar to the color palette of the existing shopping center building. Both the introduction of the siding and the color palette, while not identical, are compatible and help to make that connection between the buildings that is requested in the Design Guidelines. The roofline has been not only raised to completely cover all roof mounted utilities but also broken up with different parapet heights and tower elements in order to create a more appealing design. The previous design offered a more uniform parapet height that staff felt looked more corporate and less individualized to Creve Coeur. The redesign of the Olive Boulevard elevation has created a more interesting and more well-designed façade to face one of Creve Coeur's most prominent streets (Fig.2.) Staff had concerns about the previous façade design as it appeared to be the rear of the building but faced the street. In terms of the use of the building, the Olive façade is the back-of-house but due to its prominence along Olive Boulevard, staff asked for more design attention to mask the service area elements and to give a sense of importance to the street facing façade. The applicant responded with adding a projecting tower element and adding windows around the service doors to give the facade a more uniform rhythm (shown in red on Fig. 2.) The addition of the projecting tower elements on the north elevation/Olive boulevard façade and the East elevation help to break up the façade in order to offer more architectural interest where the previous design was boxier. These changes have addressed all of staffs concerns with the elevations.

The building includes two metal canopies, one attached and one free standing, to serve as protection from the elements for customers who are ordering their food and employees who will be taking and passing out orders. The canopies were originally proposed as simple, light, metal structures that are able to easily disappear into the site. Although their lightness makes them likely to disappear, from an architectural connection stand point, it also makes them appear to be drive through elements that are stuck on the building with no connection to the overall design. This is something that the Design Guidelines warns against. Staff had previously asked for renderings showing these elements more integrated into the overall design and the applicant has supplied renderings showing brick columns of the same material, color, height, and design as the water table elements to improve the design.



Landscaping

The City's Design Guidelines strongly encourage high quality landscaping that accentuates the building and site, and softens the effects of the parking area. All landscaping plans should exhibit a clear design concept. Parking areas are to be enhanced with landscaped spaces containing trees, tree groupings, and shrubbery or other landscape enhancements, including berms. Landscaped areas are to be maximized and balanced throughout the site. (p.15)

Overall, the Landscape plan shows significant landscaping throughout the site with a variety of plant materials and adequate screening of the parking lot and drive through services along Tempo Drive. As this project is part of the overall Westgate Centre, staff asked for new landscaping along Tempo Drive to buffer the parking lot and headlight glare from the road in order to fill in the existing bare areas. The proposed landscaping along Tempo is a mix of shrubs, evergreen shrubs, grasses and two Willow Oak trees to create a diverse buffer with more street trees per staff's request. An existing utility line prevented the installation of additional trees along Tempo Drive. The required amount of street trees for the proposed development area is 4 along Tempo Drive and 6 have been provided. A mix of evergreen shrubs and evergreen trees have been provided between Tempo Drive and the Chick-fil-a drive through pick up window in order to screen the service area from the road. The patio features a large landscaped area between the seating and the drive through lanes, a buffer of shrubs and upright evergreens around the columns of the canopy, and landscaping at the base of the building in order to provide a welcoming environment for diners. The trash enclosure is adequately screened with landscaping on all three sides and adequate landscaping is provided between the drive through lanes and the entrance lane to the shopping center from Olive Boulevard in form of fountain grass and shrubs. Two landscaping islands are provided in the existing parking lot to replace the landscaping islands that will be removed for the project and also serve to guide customers into the drive through lanes. Staff asked for one tree to be placed in each proposed drive through island in order to comply with the requirements of Section 405.540 (F)(4) and the applicant complied with Japanese Zelkova. Additional landscaping was provided in front of the building in order to screen the drive through lane in compliance with Section 405.470 which requires designated stacking lanes that pass between the building and the primary street frontage to be screened in the form of dense landscaping. The buffer features a mix of Eastern Redbud and Snowdrift Crabapple trees as well as shrubs, evergreen shrubs and grasses. Upon review of the proposed plant material, staff determined that the Firepower Heavenly Bamboo is listed as an invasive species by the Missouri Department of Conservation and should be removed from the landscape plan and replaced with a non-invasive evergreen shrub 3-4 feet in height. The applicant has made the changes requested as well as adding a few additional evergreen shrubs between the drive through lane and Olive Boulevard for additional screening.

Traffic Study

A Traffic Impact Study (TIS) has been provided by the applicant and reviewed by the City's traffic consultant and the Missouri Department of Transportation. The traffic study was prepared by the applicant's traffic engineer in consultation with MoDOT, the City's Public Works Department, Planning staff and the City's contracted traffic engineering consultant.

At the December 19, 2022 meeting, the traffic study was presented and revealed that the proposed Chick Fil A will generate additional traffic over existing (baseline) conditions at certain times of the day. The primary impacts involve the adjacent Olive/Tempo intersection. Comparing the Existing Conditions with the Built Conditions (including the proposed mitigation measures) at the Olive/Tempo intersection, the Level of Service (LOS) is the same or better during all peak periods, except for two. The Queuing is reduced or similar to existing conditions with the exception of some peak periods, notably within the 95th percentile. Please refer to the City's traffic consultant memo from the Lochmueller Group dated December 15, 2022 for additional information. At the time of the December 19th meeting, MoDOT requested additional information from the applicant's traffic engineer and had not yet provided their concurrence on these revisions.

Several areas of concern were highlighted at the previous meeting that have been addressed in a technical memorandum from HR Green's traffic consultant, Dan Shane, dated January 25, 2023. The memo includes information on the anticipated number of inbound and outbound trips to the proposed site

compared to local Chick-fil-a restaurants in Chesterfield, Ellisville, and Des Peres, traffic impacts to the local street network to the north, and impacts to the shopping plaza to the west in order to supplement the TIS. Also included in the memo are supplemental graphics to provide a visual aid for the number of stacked/queuing vehicles as a result of the new restaurant compared to existing conditions.

Concerns were raised at the December meeting that Milwaukee based stores were used for trip generation rates instead of St. Louis area stores. At the request of the Commission, HR Green staff collected traffic data from three local stores in Chesterfield, Ellisville and Des Peres and compared them to the Milwaukee data, finding the data from the local stores to be less than that of the Milwaukee stores. This means that the data used in the TIS for trip generation was conservative. MoDOT approved the use of the data from the Milwaukee stores. Concerns from members of the public were raised about the traffic impacts to the streets north of Olive Boulevard as this area was not studied in the original TIS. The memo estimates that 92% of trips will originate from Olive Boulevard and states that since queues are not expected to impact traffic to the north at Promenade Lane and Design Lane, traffic patterns at the side streets are not expected to change as a result of the new Chick-fil-a. The Commission also raised concerns about the Chick-fil-a traffic impacting motorists trying to access the Shoppes at Westgate whose entrance is directly west of the proposed Chick-fil-a site on Tempo Drive. The memo states that southbound motorists trying to turn right on Tempo to go to the Shoppes at Westgate will not be impeded by left turning Chick-fil-a vehicles due to the additional northbound land a newly striped southbound left turn at the access drive as part of the new development. Vehicles leaving Shoppes at Westgate will experience delays when getting back to Olive Boulevard.

The technical memorandum was reviewed by the City's traffic consultant with Lochmueller Group and he concurred with the findings of HR Green in his memo dated January 31, 2023. He offered a recommendation that a stop sign be installed for westbound vehicles exiting the drive thru and turning onto Tempo Drive, which was suggested as an option by HR Green. A condition of approval has been added to reflect this recommendation. MoDOT submitted a letter dated January 26, 2023 concurring with the recommendation contained in HR Green's TIS from December 2022 and encouraging the construction contractor to work with MoDOT on an active construction project to rebuild the signal at MO-340 and Tempo Drive. This has been added as a condition of approval. Both HR Green's traffic consultant and the City's traffic consultant will be at the meeting to answer questions.

SUMMARY AND RECOMMENDATION

The materials submitted for the Conditional Use Permit and Site Development Plan are overall consistent with the City's Comprehensive Plan, the Design Guidelines, and the Zoning Code. After discussion with the applicant, if the Planning and Zoning Commission finds that the Application is in conformance with the purposes and regulations of the Comprehensive Plan and Zoning Code, it may vote on a recommendation to the City Council with any changes discussed and made by separate actions.

The following are the recommended conditions of approval for this proposal.

1. The Applicant shall submit Grading Plans, showing all exterior improvements, for all new construction to the Division of Planning for review, as required by Section 410.380 of the Subdivision and Land Development Regulations (Subdivision Code). The Grading Plans shall be in substantial conformance with the "Site Development Plans," received November 14, 2022 and the Landscape Plan received January 20, 2023, as bound together and submitted in conjunction with Application #22-031 by HR Green, except as modified below.
2. The Applicant is required to submit a Building Permit application, as required by Article II of the Building Code. Exterior elevations shall be in substantial conformance with the Elevations received January 20, 2023, as bound together and submitted in conjunction with Application #22-031 by Chick-fil-a, except as modified below.
3. All landscaping shall be maintained per the approved Landscape Plan and any vegetation that is totally or predominantly dead and/or disfigured due to disease or injury shall be replaced as needed and in a prompt and workmanlike manner as dictated by accepted horticultural standards.

4. All lighting shall comply with Section 405.680 and 405.810 of the Zoning Ordinance, including the height of the proposed light poles, and with the lighting levels as shown on the photometric plans for the canopy structures, as submitted on October 7, 2022.
5. The accessible parking spaces and signage shall be in compliance with Section 405.840.
6. A stop sign shall be installed at the end of the drive through before Tempo Drive.
7. Chick-fil-a shall work with MoDOT to help facilitate the project to rebuild the signal at MO-340 and Tempo Drive.
8. Any ground or roof mounted mechanical equipment installed for the site shall be properly screened with approved materials.
9. All signs and banners shall be in conformance with Article VIII, Sign Regulations, of the Zoning Code.
10. Any future enlargement, extension, expansion or alteration in the use of the structures or site must be approved by the City Council upon receipt of the recommendation of the Planning and Zoning Commission as an amendment to the Conditional Use Permit before a Building Permit for the enlargement, expansion or alteration may be issued.
11. Failure to comply with any one or all of the conditions of this permit shall be adequate cause for the revocation of said permit by the City Council, provided, however, no permit shall be revoked without prior notice to the owner of the intention of the City Council to revoke this permit and reasonable time granted to the owner to correct or remedy any such breach of conditions, except for repeated breaches or violations.
12. No conditional use permit granted by the City Council shall be valid for a period longer than one year from the date it grants the conditional use permit, unless within such period: (1) a building permit is obtained and construction is begun; or (2) if a building permit is not required, an occupancy permit is obtained, and the use of the building commenced. The City Council may grant extensions to the one (1) year period of not more than one hundred and eighty (180) days each, without notice or hearing, provided that a written request for such extension is filed by the original applicant and approved by the City Council prior to the date the conditional use permit is scheduled to expire.
13. Any transfer of ownership or lease of the property shall include in the transfer or lease agreement a provision that the purchaser or lessee agrees to be bound by the approved Site Development Plan for the property and the conditions herein set forth, and written confirmation thereof signed by the new owner or lessee shall be filed with the City at the time of such transfer or lease. Failure to comply with this provision shall not excuse anyone from these conditions.

ACTION AND MOTION

The following is an example of an appropriate motion for this application:

“I move to recommend approval of a Conditional Use Permit with Site Development Plan for a Chick-fil-a drive through restaurant at 12398 Olive Boulevard, subject to the conditions discussed in the Staff Report and Draft Ordinance for the meeting of February 6, 2023” (conditions may be added, eliminated, or modified by preceding motion).

APPENDIX 1: COMPREHENSIVE PLAN

Included and attached by reference. See body of report for specific excerpts.

APPENDIX 2: ZONING CODE

Included and attached by reference. See body of report for specific excerpts.

BILL NO. _____

ORDINANCE NO. _____

**AN ORDINANCE REPEALING ORDINANCE NO. 823 AND AUTHORIZING THE
ISSUANCE OF A NEW CONDITIONAL USE PERMIT FOR A 4,704 SQUARE FOOT
EATING AND DRINKING ESTABLISHMENT WITH DRIVE THOUGH SERVICES
LOCATED AT 12398 OLIVE BOULEVARD WITHIN WESTGATE CENTRE**

WHEREAS, under Section 405.350(C), all eating and drinking establishments in the “PC”, Planned Commercial zoning district require the issuance of a conditional use permit as provided in Section 405.1070, Conditional Use Permits; and

WHEREAS, Joe Vavrina, of HR Green, submitted an application for a new conditional use permit for a 4,704 sq. ft., limited service restaurant (NAICS 722513) for a new Chick-fil-a drive-thru restaurant located on the 12398 Olive Boulevard lot within Westgate Centre, at the former TGI Fridays Restaurant site; and

WHEREAS, a public hearing was held by the Creve Coeur Planning and Zoning Commission on Monday, December 19, 2022 and Tuesday, February 6, 2023, beginning at 6:00 p.m. or immediately following the close of the previous public hearing, on said application for the conditional use permit as provided by Section 405.1070(D)(2); and,

WHEREAS, notice of publication for said public hearing had been previously published at least 15 days prior to the hearing, in the St. Louis Countian, a newspaper of general circulation in the City of Creve Coeur; and,

WHEREAS, the Planning and Zoning Commission reviewed and, by a ____ vote, recommended approval of the conditional use permit, subject to the conditions contained herein, at its meeting on February 6, 2023; and,

WHEREAS, all parties desiring to be heard, either for or against said application, were given an opportunity to be heard, and a copy of the proposed ordinance has been made available for public inspection prior to its consideration by the Council; and this Bill having been read by title in open meeting two times before final passage by the City Council, and

WHEREAS, the City Council finds that the application and evidence presented clearly indicate that the proposed conditional use, when subject to certain conditions set forth herein:

1. Will contribute to and promote the community welfare and convenience at the specific location.
2. Will not cause substantial injury to the value of neighboring property.
3. Meets the applicable provisions of the City's Comprehensive Plan and any applicable neighborhood or sector plans and complies with other applicable zoning district regulations and provisions of this Chapter, unless good cause exists for deviation therefrom.
4. Will be compatible with the surrounding area and thus will not impose an excessive burden or have a substantial negative impact on surrounding or adjacent users or on community facilities or services.
5. Will provide, if applicable, erosion control and on-site stormwater detention in accordance with the standards contained in this Chapter.
6. Will be compatible with the surrounding area and thus will not impose an excessive burden or have a substantial negative impact on surrounding or adjacent users or on community facilities or services.

BILL NO. _____

ORDINANCE NO. _____

NOW, THEREFORE, be it ordained by the City Council of the City of Creve Coeur, St. Louis County, Missouri, as follows:

Section 1: Ordinance No. 832 is hereby repealed.

Section 2: A Conditional Use Permit is authorized to be issued pursuant to Section 4 hereof for the operation of a restaurant with drive through services located at 12398 Olive Boulevard, in the "PC" Planned Commercial zoning district, within Westgate Centre, whose legal description is as follows:

A TRACT OF LAND IN U.S. SURVEY 1923, TOWNSHIP 45 NORTH, RANGE 5 EAST, IN THE CITY OF CREVE COEUR, ST. LOUIS COUNTY, MISSOURI, AND BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

BEGINNING AT THE INTERSECTION OF THE EASTERN LINE OF TEMPO DRIVE, IRREGULAR WIDTH AND THE SOUTHERN LINE OF OLIVE BOULEVARD, IRREGULAR WIDTH;

THENCE NORTH 61 DEGREES 12 MINUTES 53 SECONDS EAST 18.57 FEET, ALONG THE SOUTHERN LINE OF SAID OLIVE BOULEVARD, TO A POINT;

THENCE LEAVING THE SOUTHERN LINE OF SAID OLIVE BOULEVARD, THE FOLLOWING COURSES AND DISTANCES, SOUTH 77 DEGREES 14 MINUTES 10 SECONDS EAST 243.86 FEET, TO A POINT, SOUTH 11 DEGREES 58 MINUTES 42 SECONDS WEST 13.78 FEET, TO A POINT, SOUTH 13 DEGREES 01 MINUTES 08 SECONDS WEST 170.55 FEET, TO A POINT, NORTH 77 DEGREES 12 MINUTES 37 SECONDS WEST 99.88 FEET, TO A POINT, NORTH 13 DEGREES 12 MINUTES 29 SECONDS EAST 44.74 FEET, TO A POINT AND NORTH 77 DEGREES 02 MINUTES 07 SECONDS WEST 157.88 FEET, TO A POINT, IN THE EASTERN LINE OF SAID TEMPO DRIVE;

THENCE NORTH 12 DEGREES 51 MINUTES 52 SECONDS EAST 126.68 FEET, ALONG THE EASTERN LINE OF SAID TEMPO DRIVE TO THE SOUTHERN LINE OF SAID OLIVE BOULEVARD TO THE POINT OF BEGINNING AND CONTAINING 40,312 SQUARE FEET OR 0.93 ACRES AS PREPARED BY PITZMAN'S COMPANY.

Section 3: The Conditional Use Permit granted shall be subject to all applicable statutes, ordinances, rules and regulations, and the following conditions:

1. The hours of operation for the 4,704 square foot drive through restaurant with 74 indoor seats and 24 outdoor seats shall be Monday-Saturday 6:00 AM to 10:30 PM, closed Sundays. Additional business hours may be permitted with the Zoning Administrator's approval including, but not limited to, the catering of special events.
2. The Applicant shall submit Site Improvement Plans, showing all exterior improvements, for all new construction to the Department of Public Works for review. The Site Improvement Plans shall be in substantial conformance with the "Site Development Plans," received November 14, 2022 and the Landscape Plan received January 20, 2023, as bound together and submitted in conjunction with Application #22-031 by HR Green.
3. The Applicant is required to submit a Building Permit application, as required by Article II of the Building Code. Exterior elevations shall be in substantial conformance with the Elevations received January 20, 2023, as bound together and submitted in conjunction with Application #22-031 by Chick-fil-a.

BILL NO. _____

ORDINANCE NO. _____

4. All landscaping shall be maintained per the approved Landscape Plan and any vegetation that is totally or predominantly dead and/or disfigured due to disease or injury shall be replaced as needed and in a prompt and workmanlike manner as dictated by accepted horticultural standards.
5. All lighting shall comply with Section 405.680 and 405.810 of the Zoning Ordinance, including the height of the proposed light poles, and with the lighting levels as shown on the photometric plans for the canopy structures, as submitted on October 7, 2022.
6. The accessible parking spaces and signage shall be in compliance with Section 405.840.
7. All recommendations for traffic mitigation as recommended by the Traffic Impact Study dated January 25, 2023 prepared by HR Green shall be provided and approved by MoDOT and the City's Department of Public Works prior to approval of a final occupancy permit by the Building Division.
8. A stop sign shall be installed at the end of the drive through before Tempo Drive.
9. Chick-fil-a shall coordinate with MoDOT to help facilitate the project to rebuild the signal at MO-340 and Tempo Drive.
10. All ground or roof mounted mechanical equipment installed for the site shall be properly screened with approved materials.
11. All signs and banners shall be in conformance with Article VIII, Sign Regulations, of the Zoning Code.
12. Any future enlargement, extension, expansion or alteration in the use of the structures or site must be approved by the City Council upon receipt of the recommendation of the Planning and Zoning Commission as an amendment to the Conditional Use Permit before a Building Permit for the enlargement, expansion or alteration may be issued.
13. Failure to comply with any one or all of the conditions of this permit shall be adequate cause for the revocation of said permit by the City Council, provided, however, no permit shall be revoked without prior notice to the owner of the intention of the City Council to revoke this permit and reasonable time granted to the owner to correct or remedy any such breach of conditions, except for repeated breaches or violations.
14. No conditional use permit granted by the City Council shall be valid for a period longer than one year from the date it grants the conditional use permit, unless within such period: (1) a building permit is obtained and construction is begun; or (2) if a building permit is not required, an occupancy permit is obtained and the use of the building commenced. The City Council may grant extensions to the one (1) year period of not more than one hundred and eighty (180) days each, without notice or hearing, provided that a written request for such extension is filed by the original applicant and approved by the City Council prior to the date the conditional use permit is scheduled to expire.
15. Any transfer of ownership or lease of the property shall include in the transfer or lease agreement a provision that the purchaser or lessee agrees to be bound by the approved Site Development Plan for the property and the conditions herein set forth, and written confirmation thereof signed by the new owner or lessee shall be filed with the City at the time of such transfer or lease. Failure to comply with this provision shall not excuse anyone from these conditions.

Section 4: The City Administrator of the City of Creve Coeur is hereby authorized and directed to issue a Conditional Use Permit in accordance with the provisions of this ordinance, said permit to expressly provide for the conditions and stipulations hereinabove set out in Section 3 of this ordinance. Exercise of the rights granted pursuant to the issued permit shall constitute acceptance of all conditions and stipulations set forth herein.

BILL NO. _____

ORDINANCE NO. _____

Section 5: This ordinance shall become effective in accordance with Section 3.11 (g) of the City Charter.

ADOPTED THIS ____ DAY OF _____, 2023.

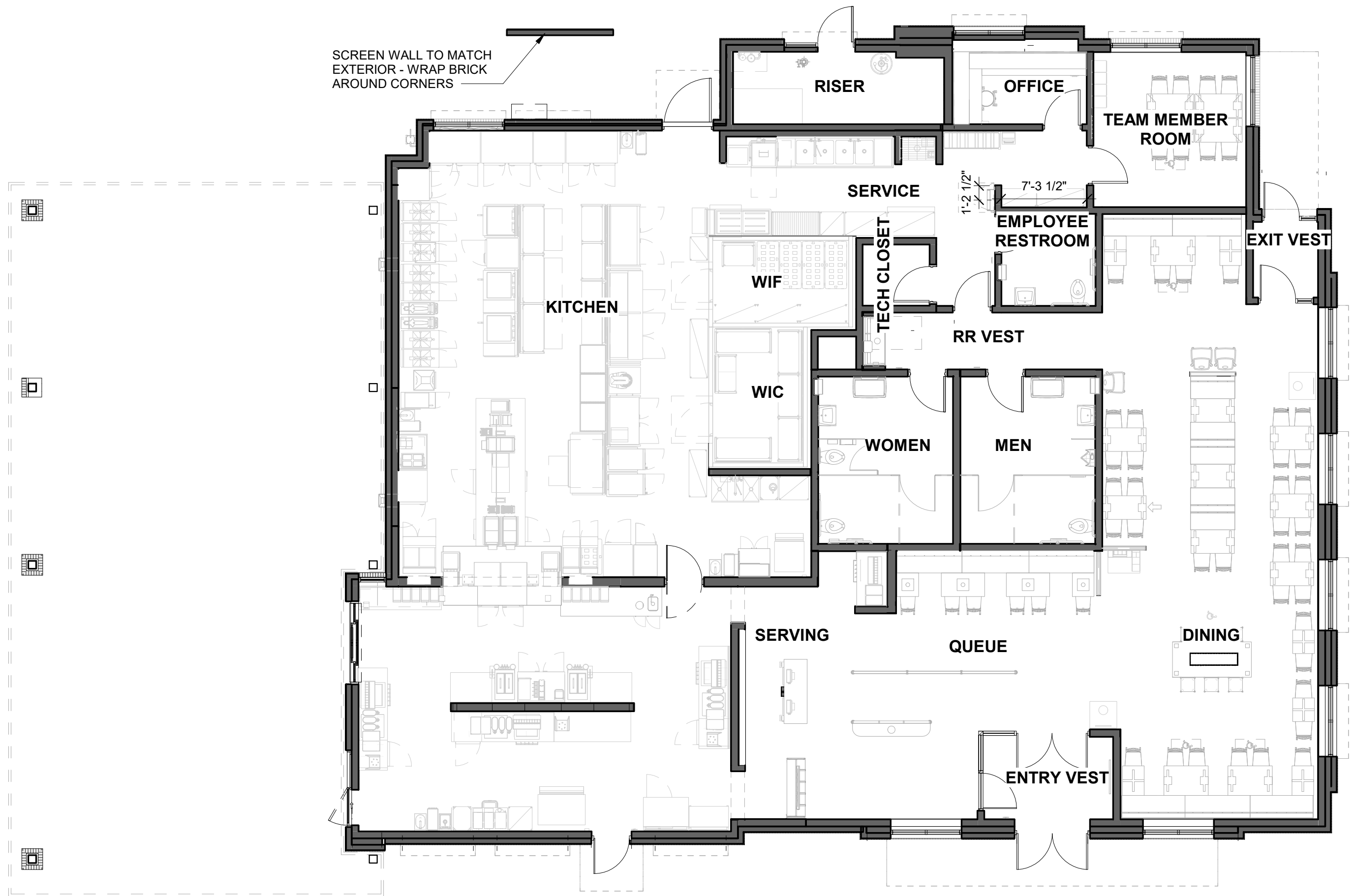
JOSEPH MARTINICH
PRESIDENT OF CITY COUNCIL

APPROVED THIS ____ DAY OF _____, 2023.

DR. ROBERT
HOFFMAN
MAYOR

ATTEST:

KELLIE HENKE
CITY CLERK



FLOOR PLAN

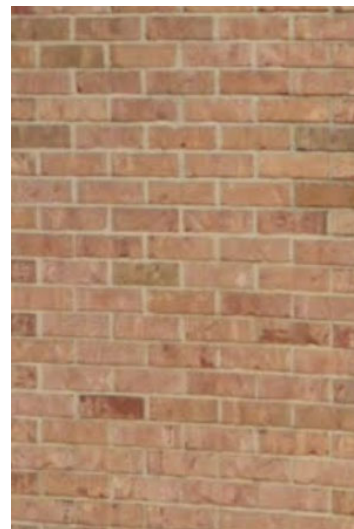
EXTERIOR FINISHES



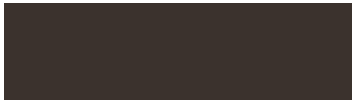
BR-A
BRICK VENEER
COLOR: DARK BROWN
SIZE: MODULAR



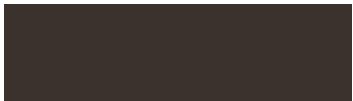
BR-B
BRICK VENEER
COLOR: LIGHT BROWN
SIZE: MODULAR



EXTERIOR BRICK AT PLAZA



EC-1
PREFINISHED METAL COPING
COLOR: MIDNIGHT BRONZE



PT-113
EXTERIOR PAINT
COLOR: DARK BRONZE
FINISH: SEMI-GLOSS



ST-1
STOREFRONT
COLOR: DARK BRONZE



HP-1
FIBER CEMENT BOARD PANEL
SIDING
COLOR: KHAKI BROWN

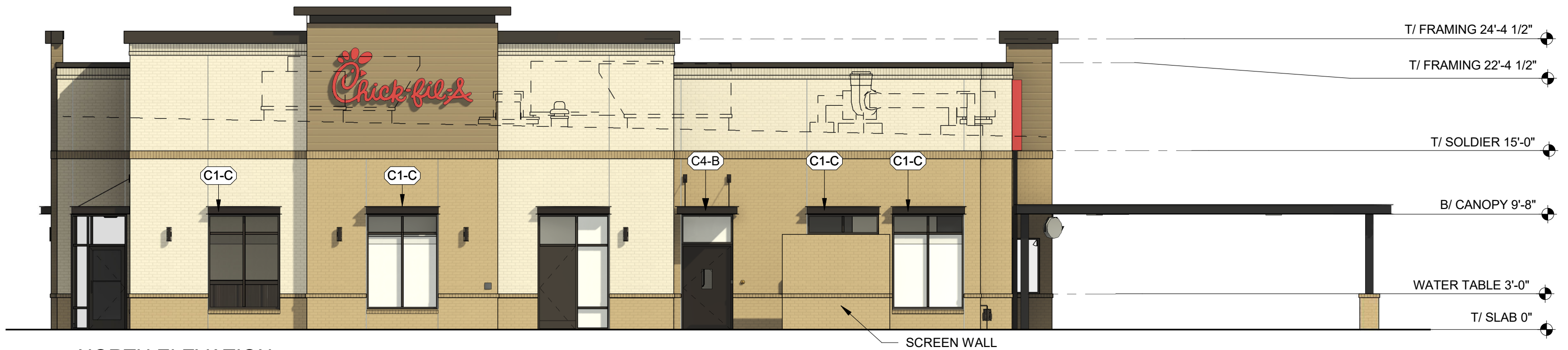


1 EAST ELEVATION
1/8" = 1'-0"

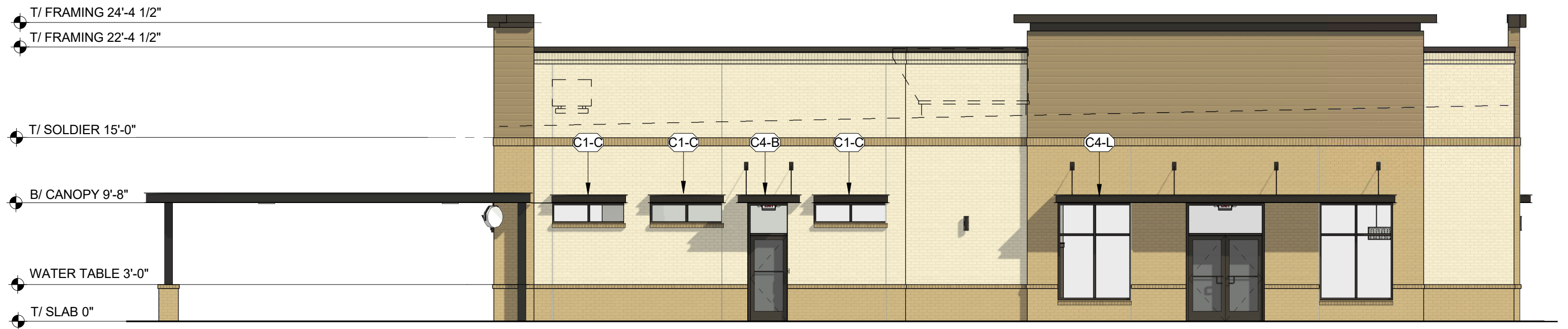


2 WEST ELEVATION
1/8" = 1'-0"

ELEVATIONS



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



2 SOUTH ELEVATION
1/8" = 1'-0"

ELEVATIONS



PERSPECTIVE



PERSPECTIVE



Bethany Moore <blmoore@crevecoeurmo.gov>

CFA Revised Elevations

2 messages

Vavrina, Joseph <jvavrina@hrgreen.com>

Fri, Jan 20, 2023 at 5:43 AM

To: Bethany Moore <blmoore@crevecoeurmo.gov>

Cc: Justin Lurk <justin.lurk@cfacorp.com>, Jason Jaggi <jjaggi@crevecoeurmo.gov>

Good morning Bethany,

Hot off the press please find attached our revised elevations based upon feedback from staff and P&Z commissioners. The following bullet point list is a summary of changes made:

- Raised parapets up on all elevations to the top of the RTU's to fully screen them.
- Removed the brick inlays on the north (Olive) elevation and added in another tower element on this elevation to add more interest and articulation to the top of the building. Also added in additional spandrel glass (shown in white) to further increase the glazing on this elevation to make it look more like the front of house vs. rear. Additional clear glass was also added in above the eastern door.
- Added another tower element on the east elevation to help screen the RTU's as well as provide more articulation along the top of the building.
- Incorporated fiber cement board on all four elevations to better tie into the wood element found throughout the center.

Also included perspectives as requested by the commission to help visualize what the building will look like. CFA is excited about all the changes made and feel they address both staff's and the commissions concerns. Let us know what you think and please forward any comments you may have. If need be we could hop on a call to further discuss.

On a side note Dan is wrapping up the supplemental memo to the traffic study which includes counts at three local CFA's this morning. Should have the memo out to staff before lunch for review. Like the elevations if we need to hop on a call to review the finding of the memo we can most certainly do that. Thanks and appreciate all your help/guidance!

Joe Vavrina, PE, LEED AP

Senior Project Manager – Land Development

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1391 Corporate Drive | Suite 203 | McHenry, IL 60050

Main 815.385.1778 | Fax 713.965.0044 | Direct 815.759.8363 | Cell 815.482.7868

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MEMO

To: Justin Lurk
Chick-fil-A, Inc.
Development & Construction

From: Dan Shane, PE, PTOE

Subject: Supplemental Traffic Engineering Data
Creve Coeur, Missouri

Project Number: 211634

Date: January 25, 2023

This technical memorandum has been completed in response to City officials and Planning and Zoning members regarding the Traffic Impact Study completed related to the proposed redevelopment site at Route 340 (Olive Boulevard) and Tempo Drive. The traffic impacts associated with the redevelopment of the former Friday's Restaurant to a Chick-fil-A restaurant were presented to the Planning and Zoning Commission on December 19, 2022. The following information is included to supplement the original Traffic Impact Study, dated December, 2022, including the anticipated number of inbound and outbound trips to the proposed site compared to local Chick-fil-A restaurants in Chesterfield, Ellisville, and Des Peres; traffic impacts to the local street network to the north; and impacts to the shopping plaza to the west. Also, supplemental graphics are provided to better explain the number of stacked vehicles as a result of the new restaurant compared to existing conditions.

Trip Generation Comparison

During the week of January 8, 2023, HR Green staff conducted peak hour traffic counts to record the inbound and outbound vehicles at Chick-fil-A sites in Chesterfield, Ellisville, and Des Peres to compare with the trip generation rates reported in the traffic study, which used rates based on an average of two restaurants in the Milwaukee, Wisconsin area. These two stores happen to be two of the highest producing stores in the Midwest, and were ultimately used to estimate the trips for the proposed Creve Coeur site as a conservative approach. The peak hours used to conduct the comparison traffic data collection were 6:45 am to 7:45 am, 12:00 pm to 1:00 pm, 5:00 pm to 6:00 pm on a typical weekday; and 12:00 pm to 1:00 pm on a Saturday, as these periods typically represent the highest customer usage hours. The following table summarizes the traffic data collection:

	Chesterfield		Ellisville		Des Peres		Average		Milwaukee Ave.	
	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT
AM	86	70	67	58	91	91	81.3	73.0	82	73
Noon	193	193	180	180	232	232	201.7	201.7	279	258
PM	117	109	159	159	203	203	159.7	157.0	162	140
Sat	161	164	162	158	272	269	198.3	197.0	240	225

***Represented in terms of vehicles arriving and leaving the site during the same peak hour.

As can be seen in the table above, the average of the three local stores is less than the average of the Milwaukee based stores used for comparison. With a couple of exceptions, most of the inbound and outbound traffic at each site reviewed is less than the Milwaukee average. Of course, daily fluctuations in traffic at each store are expected, and it is not uncommon for hourly traffic volumes to fluctuate from 10 to 15 percent on a daily basis, which explains some of the outlier data set points.

MoDOT has approved the use of the average Milwaukee based rates on recent Chick-fil-A development projects in the St. Louis metropolitan area; and based on the results of the average from the Chesterfield, Ellisville, and Des Peres sites, we still feel the rates used in the original study are a good representation of rates expected for the Creve Coeur site.

Vehicle Stacking

As part of the intersection capacity analysis completed with the Traffic Impact Study, vehicle queues (or vehicle stacking) are reported out in tabular form to identify movements where expected queues could impede the progression of traffic. This information can be presented as number of vehicles, or in linear feet. The Traffic Impact Study reported the expected queues in linear feet; however supplemental graphics have been prepared to depict the information more clearly. The equation commonly used in the traffic engineering industry is one stored vehicle for every 25 feet of queue length. For example, if the queue is 100 linear feet, the number of stored vehicles would be $100 / 25$ or 4 vehicles. If the reported queue is 110 linear feet, the number of stored vehicles would be rounded up to the nearest whole vehicle, or 5 vehicles in this example.

The attached exhibits graphically depict the existing vehicle stacking and proposed stacking with the proposed Chick-fil-A site. The critical movements shown include northbound, southbound, eastbound lefts and westbound lefts. The graphics show the number of existing queued vehicles as an outline of a vehicle in a grey box, and proposed queued vehicles as the outline of a vehicle in a red box. It is important to note that as a result of the recommended lane additions to the northbound movement and traffic signal timing upgrades, proposed stacked vehicles are actually less than what is being



experienced today in some cases. This is shown as an existing queued vehicle with a red “X”, indicating the queue reduction.

As can be seen in the exhibits, the westbound left turning vehicle stacking is shown to increase by only two vehicles during the AM and Mid-Day peak traffic periods, and actually decrease by one vehicle during the PM peak. The expected stacking of 13 vehicles during the PM peak should mostly be contained within the existing turn bay of about 300 feet. During Saturday Peak, the westbound left turn stacking is expected to increase by 5 vehicles with the addition of the proposed restaurant and should be contained within the existing turn bay. Due to the northbound lane addition as part of this project, the expected vehicle stacking for northbound traffic should actually decrease from existing conditions in all peak periods analyzed, and furthermore, the vehicle stacking is not anticipated to block the north driveway along Tempo Drive. The southbound movement is expected to have either the same or shorter vehicle queues during all peak periods due to the change in signal operations and timing. The proposed stacking of eastbound lefts is not expected to change from existing conditions in all peak time periods analyzed.

Impacts to Street Network North of Olive Boulevard

While we acknowledge that some of the traffic to and from the proposed Chick-fil-A will have origins and destinations north of Olive Boulevard, we estimate that a majority of the new site trips, about 92%, will be along Olive Boulevard as calculated based on existing traffic patterns. The traffic projections in the Traffic Impact Study only show about 10 to 15 new trips during the peak traffic periods. As discussed in the “Vehicle Staking” section above, recommended lane configurations for the northbound movement and improved traffic signal operations should result in no noticeable impact to the southbound traffic flow and queues at Olive Boulevard. Since queues are not expected to impact traffic to the north at Promenade Lane and Design Lane, traffic patterns at these side streets are not expected to change as a result of the new Chick-fil-A development.

Impacts to Shoppes at Westgate

The shopping plaza immediately to the west of the proposed Chick-fil-A has an access drive adjacent to the drive just south of the proposed restaurant. As part of this development, there will be additional northbound lanes and a newly striped southbound left turn lane at this access drive. Therefore, left turning vehicles going to Chick-fil-A will not impede southbound motorists trying to turn right to go to the Shoppes at Westgate.

The motorists leaving the Shoppes at Westgate will likely experience more delay as a result of the new development. However, traffic operational levels-of-service (LOS) are only expected to go from LOS B to LOS C and D, well within the tolerance of acceptable traffic flow conditions. It should be noted that the traffic signal control at Olive Boulevard and Tempo Drive will create “gaps” in southbound traffic to allow the eastbound movement from the Shoppes at Westgate to function better. Furthermore, the



northbound queues, as discussed in the “Vehicle Stacking” section above, are not expected to extend past the driveway entrance to the Shoppes at Westgate. To alleviate concerns for the eastbound movement, a stop sign can be placed to control westbound traffic coming out of the proposed Chick-fil-A site, providing better opportunities for eastbound traffic to turn left onto Tempo Drive.

Summary

The information provided in the memorandum is to supplement the Traffic Impact Study prepared as part of the proposed Chick-fil-A redevelopment at the intersection of Olive Boulevard and Tempo Drive. Traffic data was collected at comparison sites in Chesterfield, Ellisville, and Des Peres, and the average number of inbound and outbound trips was found to be less than the average of the two sites in the Milwaukee area used for the traffic analysis. Therefore, it is our opinion that the rates used in the Traffic Impact Study represent a conservative approach to the overall Creve Coeur site trip generation.

With proposed mitigation of an additional northbound left turn lane and traffic signal timings, increases to intersection vehicle stacking should moderate, with the exception of the northbound movement, where queues are expected to actually be less. Also, graphical exhibits were prepared with this memorandum to clarify vehicle queues in terms of number of vehicles instead of queue length, to compare existing conditions to proposed conditions.

With a majority of the new trips expected to have origins and destinations to the east and west along Olive Boulevard, and with recommended northbound lane additions and improved traffic signal operations, there is not expected to be significant impacts to the local street system to the north of Olive Boulevard or access to the Shoppes at Westgate.

This memorandum should adequately address the concerns of City officials and Planning and Zoning members. If there are any questions or concerns related to this memorandum, please contact us at 636.812.4211.

HR Green, Inc.

Dan Shane, PE, PTOE

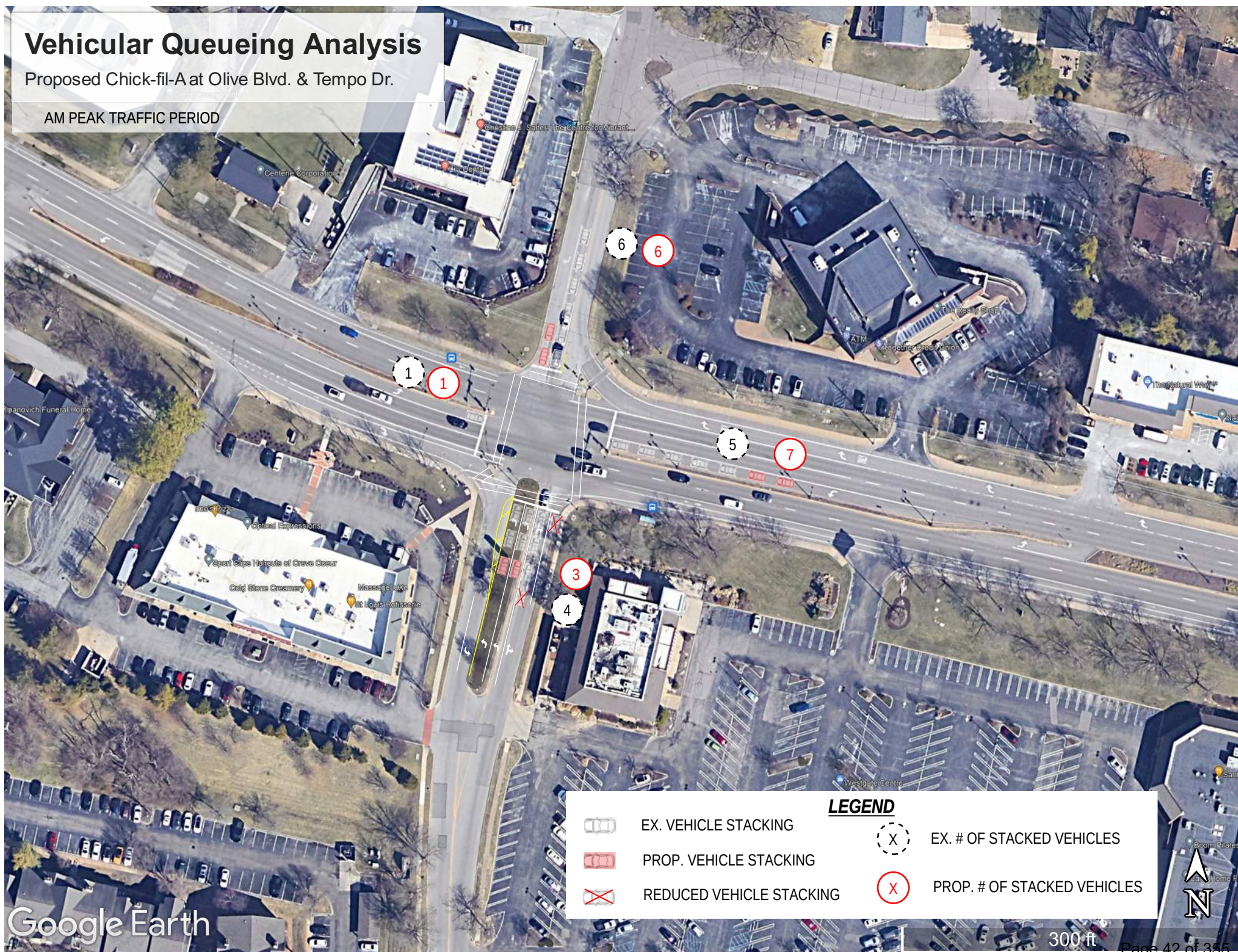
Associate, Senior Traffic Engineer

Attachments (4)

Vehicular Queueing Analysis

Proposed Chick-fil-A at Olive Blvd. & Tempo Dr.

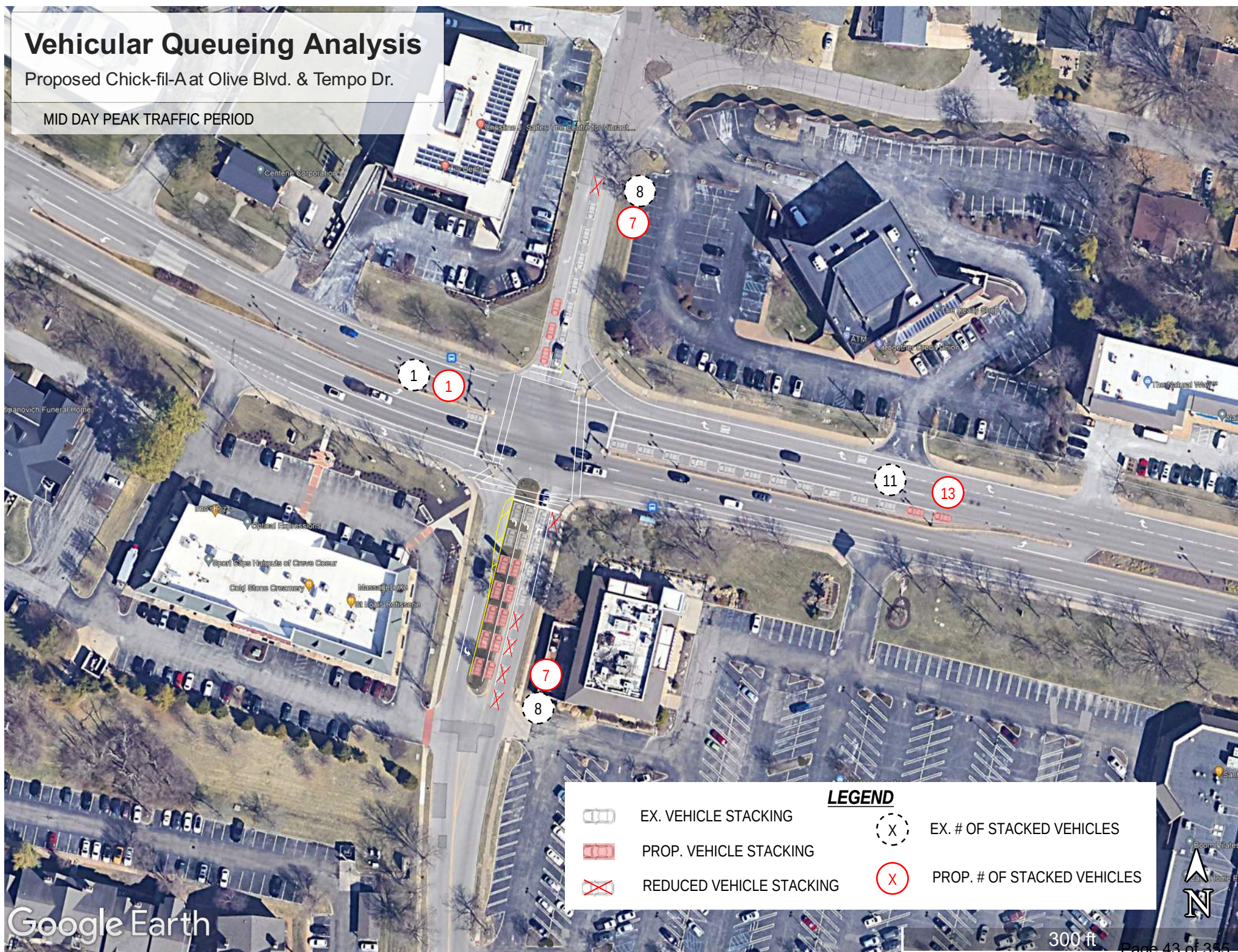
AM PEAK TRAFFIC PERIOD



Vehicular Queueing Analysis

Proposed Chick-fil-A at Olive Blvd. & Tempo Dr.

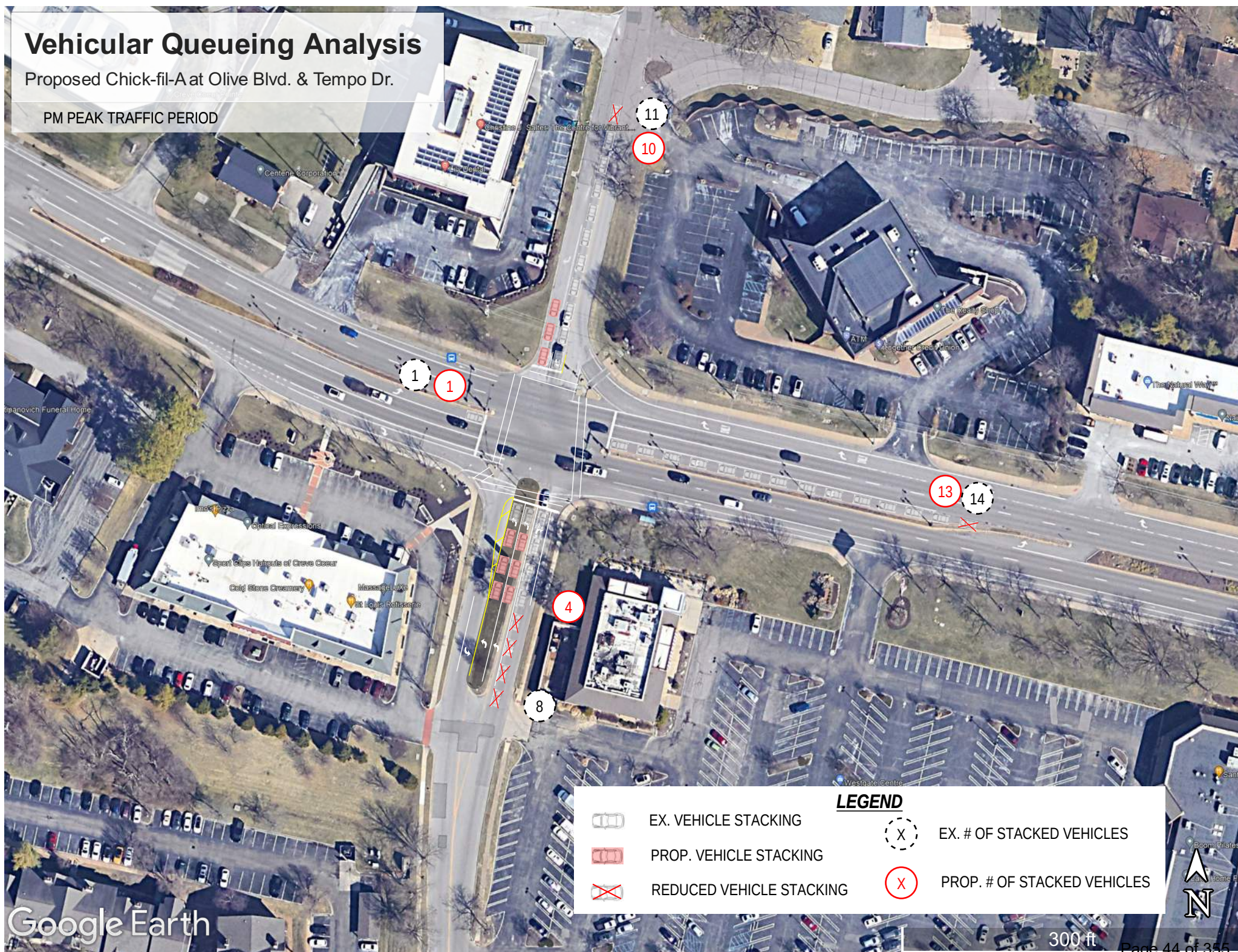
MID DAY PEAK TRAFFIC PERIOD



Vehicular Queueing Analysis

Proposed Chick-fil-A at Olive Blvd. & Tempo Dr.

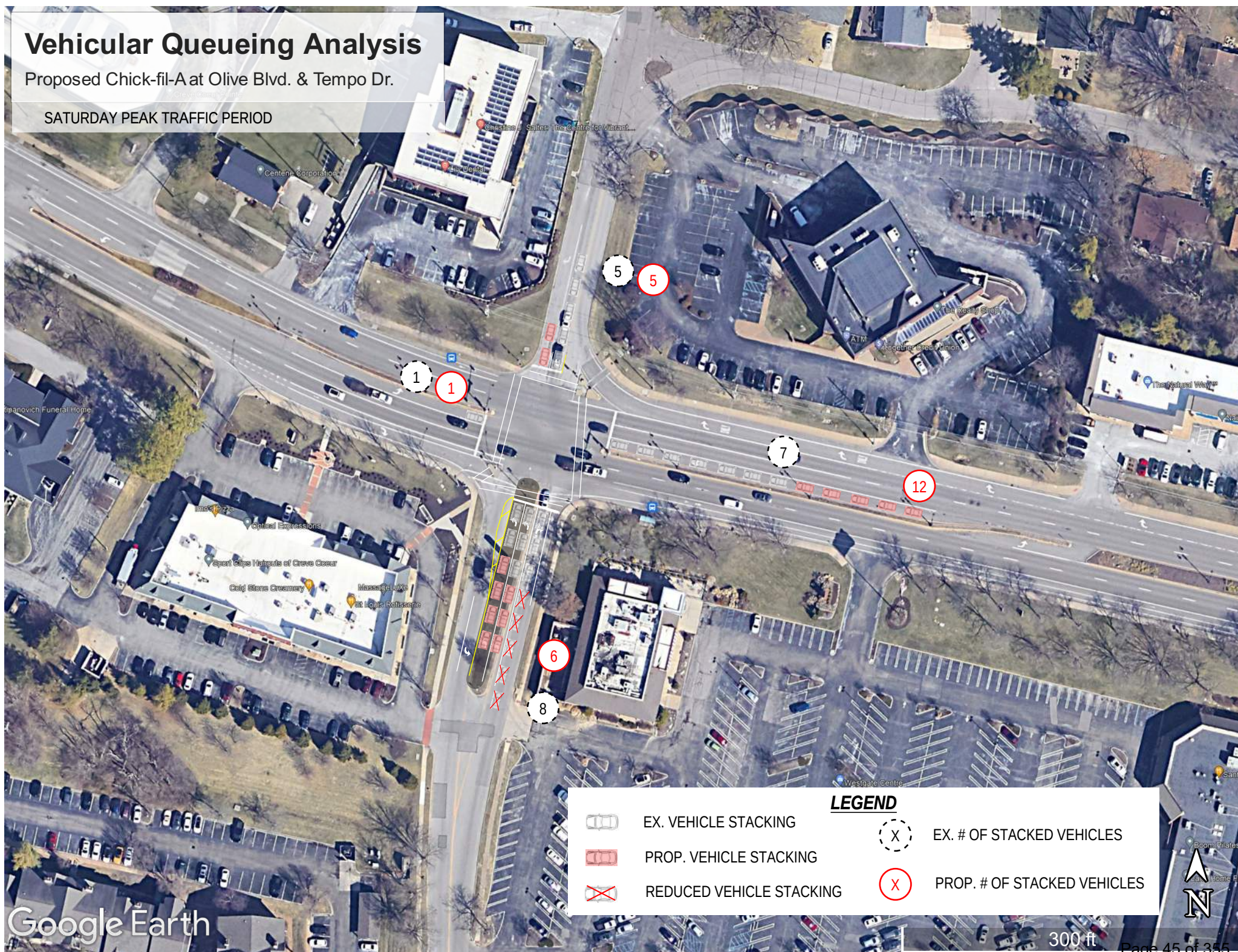
PM PEAK TRAFFIC PERIOD



Vehicular Queueing Analysis

Proposed Chick-fil-A at Olive Blvd. & Tempo Dr.

SATURDAY PEAK TRAFFIC PERIOD



MEMORANDUM

To: Jason Jaggi, AICP (City of Creve Coeur)
Bethany Moore (City of Creve Coeur)

From: Kyle Evans, PE, PTOE

Date: January 31, 2023

Subject: Chick-fil-A Supplemental Traffic Engineering Data Memo Review
Lochmueller Project #: 522-0072-01T

The applicant for the redevelopment of the property located in the southeast corner of Route 340 (Olive Boulevard) and Tempo Drive submitted a technical memorandum, dated January 25, 2023 to provide additional information related to the comments and questions that were provided by City Staff and Commissioners on the Planning and Zoning Committee. The memo addressed the following areas of concern:

1. Trip Generation Comparison
2. Vehicle Stacking (Queuing)
3. Impacts to Street Network North of Olive Boulevard
4. Impacts to Shoppes at Westgate

Trip Generation Comparison

Initial comments during the Planning and Zoning meeting had questioned the use of trip generation related to stores located in Milwaukee, Wisconsin versus the collection and use of data from local area stores. HR Green collected data at stores in Chesterfield, Ellisville, and Des Peres and summarized the findings of those counts in comparison. In almost all of the counts, the data provided from the Milwaukee locations was higher in volume than the average of the three local restaurants.

Lochmueller Group concurs with the findings that the original analysis and trip generation findings were a good representation for the proposed redevelopment site.

Vehicle Stacking (Queuing)

Several questions were brought up during the Planning and Zoning meeting with regards to the vehicle stacking associated with the existing and proposed conditions and how the Synchro output information translated into real world conditions. HR Green provided some graphical representations of the existing and proposed queues based on the peak hour analyses.

Lochmueller Group finds that the exhibits satisfactorily depict the concept of vehicle staking and show a good comparison of the results as they relate to the proposed redevelopment.



Impacts to Street Network North of Olive Boulevard

HR Green provided a brief statement regarding the impacts of proposed traffic on the neighborhoods to the north of Olive Boulevard.

Lochmueller Group concurs with their findings. The existing traffic counts represent the current traffic conditions and the volumes collected show a minimal amount of vehicles using the roadways to the north for cut-through traffic, even with a large variety of commercial developments in the immediate area. Based on these findings, it would consistent with industry practices to assign "new" trips in a manner that coincides with the existing vehicle trip distribution.

Impacts to Shoppes at Westgate

HR Green discussed the impacts of the proposed redevelopment traffic on the Shoppes at Westgate drive on the west side of Tempo Drive. The information provided does suggest the fact that drivers exiting from the Shoppes will experience additional delays. The information provided suggests that the LOS will change from a LOS B to a LOS C/D however, it doesn't specifically state how much additional delay is added to those movements. The thresholds for the various Levels of Service are lower with regards to an unsignalized intersection, but the potential exists for the delay to increase from between 10 – 15 seconds of delay for LOS B to 15 – 35 seconds for LOS C or D.

Lochmueller Group concurs with the findings that the modifications to the existing NB approach at Olive Boulevard and the metered release of vehicles from the drive-thru pick up window will allow for acceptable gaps to be present within the traffic to allow for vehicles to exit the west drive from Shoppes at Westgate. It is our recommendation that a stop sign be installed for westbound vehicles existing the drive-thru and turning onto Tempo Drive.

January 26, 2023

Mr. Dan Shane, P.E., PTOE
Senior Project Manager – Transportation
HR Green
16020 Swingley Ridge Road
Suite 205
Chesterfield, MO 63017
<<Transmitted via e-mail>>

Dear Mr. Shane:

MoDOT Traffic has reviewed HR Green's traffic impact study dated December 2022 for the redevelopment proposal for a Chick-fil-A restaurant near the intersection of MO-340 & Tempo Drive in Creve Coeur, Missouri and offers the following comments.

- MoDOT concurs with all recommendations outlined in the traffic impact study.
- MoDOT has an active construction project that is going to rebuild the signal at MO-340 & Tempo Drive. The developer is encouraged to work with MoDOT and the construction contractor to coordinate the implementation of these recommendations.

Thank you for the opportunity to review the traffic impact study. If you have any questions regarding our comments, please contact me at joseph.mulnik@modot.mo.gov or by phone at 314-343-8475.

Sincerely,



Joe Mulnik
Senior Traffic Studies Specialist

CC: Mr. Ryan Pearcy – AE SL
Mr. Rob Meyer – TR SL
Mr. Jay-Jay Braden – TR SL



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www.modot.org



Jason Jaggi <jjaggi@crevecoeurmo.gov>

Fwd: Chick-Fil-A

1 message

Kellie Henke <khenke@crevecoeurmo.gov>
To: Jason Jaggi <jjaggi@crevecoeurmo.gov>

Fri, Jan 6, 2023 at 2:41 PM

Hi Jason,

Would you please have the email sent from Nina & Edgar Wolff entered into the record for comments in your upcoming P&Z meeting?

Please let me know if you have any questions.

Thank you!

Kellie Henke
City Clerk
City of Creve Coeur
300 N New Ballas Rd, Creve Coeur MO 63141
PH:(314)872-2517
FAX:(314)872-2539
WWW.CREVECOEURMO.GOV

----- Forwarded message -----

From: **Robert Hoffman** <rhoffman@crevecoeurmo.gov>
Date: Fri, Jan 6, 2023 at 1:38 PM
Subject: Re: Chick-Fil-A
To: Kellie Henke <khenke@crevecoeurmo.gov>

Yes please add it. I will be out of town February 6. Returning on the seventh.

Sent from my iPhone

On Jan 6, 2023, at 1:13 PM, Kellie Henke <khenke@crevecoeurmo.gov> wrote:

Hi Mayor!

Were you going to add this public comment to the council meeting on January 23? The first public hearing was held on Dec. 19th. The hearing was continued and they will be on the Feb 6 agenda for the second round. This item will appear on the January 17th PZ agenda but only for a vote to continue to Feb 6th.

I can also forward the comment to P&Z so they can add it to their comments section.

Thank you!

Kellie Henke
City Clerk
City of Creve Coeur
300 N New Ballas Rd, Creve Coeur MO 63141
PH:(314)872-2517
FAX:(314)872-2539
WWW.CREVECOEURMO.GOV

----- Forwarded message -----

From: **Nina Wolff** <ninapwolff@att.net>
 Date: Tue, Dec 27, 2022 at 2:31 PM
 Subject: Re: Chick-Fil-A
 To: Robert Hoffman <rhoffman@crevecoeurmo.gov>

Thank you for reading it and replying.
 Nina Wolff

Sent from my iPhone

> On Dec 27, 2022, at 11:41 AM, Robert Hoffman <rhoffman@crevecoeurmo.gov> wrote:

>

> Thank you for your comments. This proposal is at planning and zoning presently. The next public hearing is January 17th at 6 pm. With your permission I will add your letter to the public comments at both planning and zoning as well as city council. Again thank you for your input. Bob Hoffman.

>

> Sent from my iPhone

>

>> On Dec 26, 2022, at 1:34 PM, Nina Wolff <ninapwolff@att.net> wrote:

>>

>>

>> Mayor Hoffman,

>>

>> My husband and I live in Questover. We are concerned about the possibility of a Chick Fil A at Westgate. Their fast food business model makes McDonalds and Burger King look like amateurs. We have observed the traffic at CFA many times. Around meals times it is very congested. There will be left and right turns constantly.

>>

>> Locating Chick-Fil-A so near I-270 is a big mistake for Creve Coeur. I can understand it is an attractive location for them. But it will hurt Creve Coeur.

>>

>> CC is a unique community. For example, our neighborhood is just a block from Olive Blvd., but in many ways we are very suburban. Crowding Olive with a CFA will bring traffic in that section to a stop.

>>

>> CFA may say it won't add cars. But they service a lot of people in a short time, meaning hundreds of cars will be trying to get into and out of Westgate.

>>

>> I'm sure it is struggle to add new businesses but keep Creve Coeur the special place it is. Olive is not Manchester.

>>

>> We ask for your help.

>>

>> Nina & Edgar Wolff

>>

>>

>>

>>

>> Sent from my iPhone

>

> --

> If you have received

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Jason Jaggi <jjaggi@crevecoeurmo.gov>

Re: Former TGI Friday Property Proposal

1 message

Mark Perkins <mperkins@crevecoeurmo.gov>
 To: Sari Neudorf <sneudorf@crevecoeurmo.gov>
 Cc: Jason Jaggi <jjaggi@crevecoeurmo.gov>

Sun, Dec 18, 2022 at 3:24 PM

Thanks for passing this along, Sari. To clarify, a conditional use permit is required for drive - thru restaurants, no variance is needed.

Mark Perkins
 City Administrator
 City of Creve Coeur
[300 N. New Ballas Road](#)
[Creve Coeur, MO 63141](#)
 314-872-2511

On Dec 18, 2022, at 2:18 PM, Sari Neudorf <sneudorf@crevecoeurmo.gov> wrote:

Hi Mark,
 Hope the holiday season is treating you well.
 Passing on an email from Ward 3.
 Stay safe,
 Sari

----- Forwarded message -----

From: **Carolyn T** <carolynthas@gmail.com>
 Date: Sun, Dec 18, 2022 at 1:49 PM
 Subject: Former TGI Friday Property Proposal
 To: sneudorf@crevecoeurmo.gov <sneudorf@crevecoeurmo.gov>

Dear Ms. Neudorf,

We live in Country Forest now for five years and are proud of our nice little corner of Creve Coeur. Glad to hear we share it with you.

Our concern recently has been the issue of the variance to the property the Chick-fil-A is proposing at the former TGI Friday location. There is no question that the city of Creve Coeur would benefit from this business – and we like their food. However, this is NOT appropriate for the location they are proposing. When traveling we have never seen a time when there is not a long line at the drive-up lanes. The site near our former home town never had a time when there was not a long line at the drive-up lane. Now, we hear from residents near the Bridgeport Chick-fil-A that the lines are very disruptive to the community and traffic.

Thinking about the size of the shopping center, the other businesses that use this access road, the large number of residents in the two apartment complexes of Cove West and Waterfront, not to mention Country Forest, we ask you to diligently decline a variance at this site. Not only will it negatively impact these groups but it makes sense it will impact the traffic on Olive at a very congestive point.

There are so many sites where this would be much more compatible to our city. Please be our voice and reject this proposal.

Your time and interest in our community is much appreciated. Thank you.

Wayne and Carolyn Thas

[12350 Woodline Drive](#)

[Creve Coeur](#)

847-212-0468

Sent from [Mail](#) for Windows

--

Sari Neudorf



city of CREVE COEUR

300 North New Ballas Road • Creve Coeur, Missouri 63141

(314) 432-6000 • Fax (314) 872-2539

APPLICATION TO PLANNING AND ZONING COMMISSION #22-031: A CONDITIONAL USE PERMIT WITH ASSOCIATED SITE DEVELOPMENT PLAN FOR A NEW CHICK FIL A RESTAURANT WITH DRIVE THROUGH SERVICES LOCATED AT 12398 OLIVE BOULEVARD

FOR THE MEETING OF: Monday, December 19, 2022

LOCATION: 12398 Olive Boulevard, zoned PC-Planned Commercial District

REQUEST: Joe Vavrina, of HR Green, Inc, on behalf of Gershman Commercial Real Estate, has submitted an application for a Conditional Use Permit with associated site development plan for a new freestanding Chick Fil A restaurant with a drive-through, located at 12398 Olive Boulevard in the "PC" Planned Commercial zoning district. The project would include the construction of a new 4,700 square foot building with drive through lanes consisting of 74 indoor seats and 24 outside seats at the corner of Olive Boulevard and Tempo Drive where the existing TGI Friday's building is located in the Westgate Center development.

ADDITIONAL INFORMATION:

Under Section 405.210, Table A of the Zoning Code, Limited-Service Restaurants (NAICS 722513) require the issuance of a conditional use permit subject to the recommendation of the Planning and Zoning Commission and approval of the City Council. In addition, all drive through restaurants are subject to the conditional use requirements of Section 405.470.A.14. of the Zoning Code. This application was continued from the November 21 and December 5, 2022 meeting agendas.

Key Issues:

- Does the request further the goals and/or implement the Comprehensive Plan?
- Is the request consistent with the required findings for a conditional use permit?
- Does the request follow the Design Guidelines?

Creve Coeur 2030 Plan References

- Mixed Use District
- Design Guidelines

Zoning Code References

- Section 405.350: PC-Planned Commercial District
- Section 405.470: Conditional Uses
- Section 1080: Site Concept, Site Development and Minor Site Plan Approval

APPLICANT: Joe Vavrina
HR Green, Inc
1391 Corporate Drive, Suite 203
McHenry, IL 60050

PROPERTY OWNER:

Bruce J. Brophy
Gershman Commercial Real Estate
150 N. Meramec, Suite 500
St. Louis, MO 63105



REPORT PREPARED BY: Bethany L. Moore, City Planner

DATE: 12/15/2022

ATTACHMENTS: Applicant's Materials received November 14, 2022 and December 13, 2022
Traffic Impact Study and related correspondence and Acoustic Study

BACKGROUND

The Planning and Zoning Commission continued this item at the November 21st and December 5th meetings to allow the applicant additional time to address staff concerns. Because this is the first review of the proposal by the Commission with many elements to consider and provide further direction, staff has not prepared suggested conditions of approval. After applicant and staff presentations, consideration of public comments and deliberations by the Commission, staff will prepare suggested conditions and a draft ordinance for review at a subsequent meeting.

PROPOSAL

The Applicants are seeking approval for a conditional use permit as required under NAICS 722513 Limited-Service Restaurants and an associated site development plan for a new 4,704 square foot building with drive through lanes for a Chick-fil-a restaurant. The project is located at the southeast corner of Olive Boulevard and Tempo Drive at 12398 Olive Boulevard and the leased area is 1.02 acres within the 7.11 acre Westgate Centre development. There is an existing T.G.I. Friday's restaurant building and associated parking lot that will be demolished in order for Chick-fil-a to redevelop the site. Chick-fil-a is proposing a new single story 4,704 square foot free-standing restaurant with 74 indoor seats and 24 outdoor seats, dual drive-thru facility with free-standing canopies, parking lot, and associated utilities. The new building is positioned similar to the T.G.I. Friday's restaurant in the corner of the shopping center area near the corner of Olive Boulevard and Tempo Boulevard but is a little over half the size of the existing building. The positioning of the Chick-fil-building on the site helps to maintain as much of the existing Westgate Centre parking lot as possible along the south and east sides of the site; provide the maximum number of parking stalls while promoting efficient traffic circulation; provide a sufficiently long drive-thru lane to promote efficient restaurant operations; and to provide adequate visibility to the new store to attract potential new customers that are traveling along Olive Boulevard and within the shopping mall development.

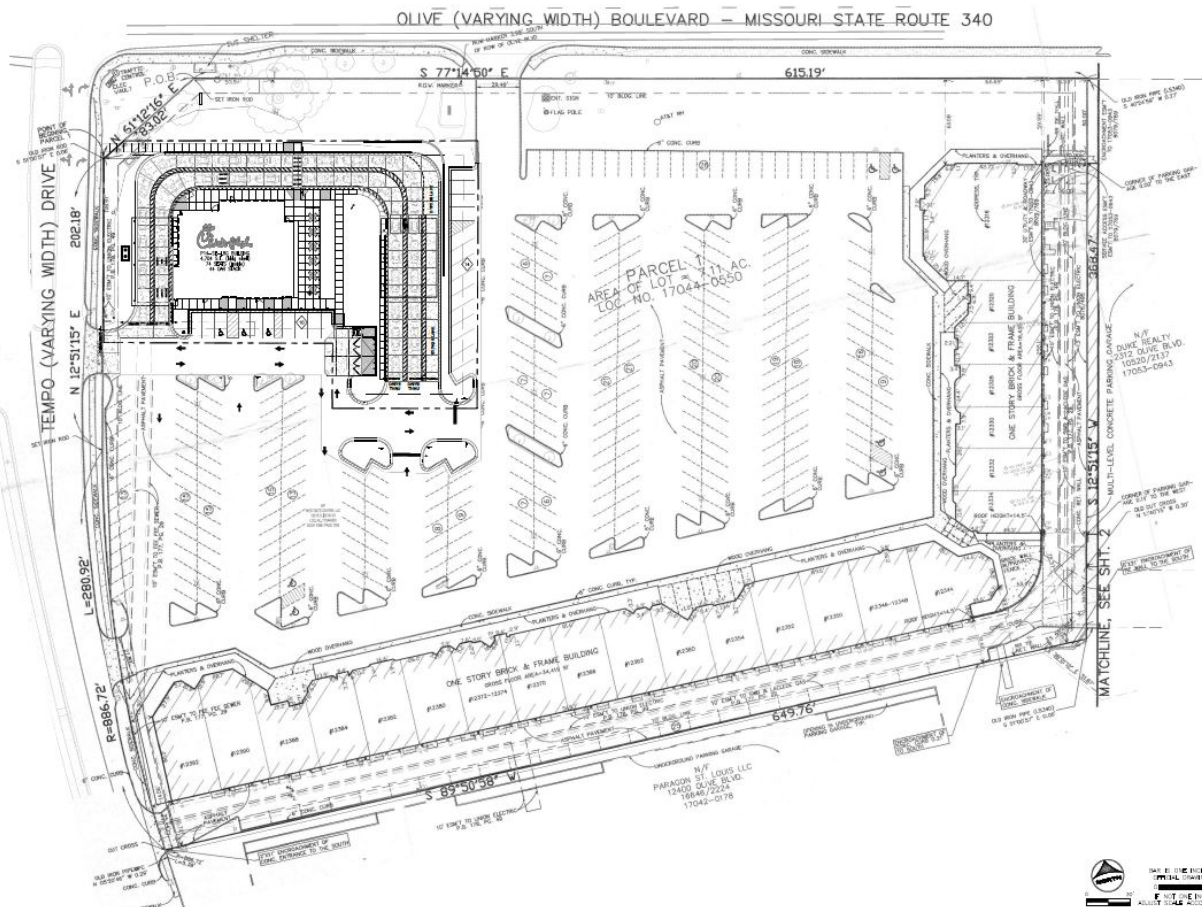


Figure 1: Proposed Site Plan



Figure 2: North and South Elevations



Figure 4: East and West Elevations

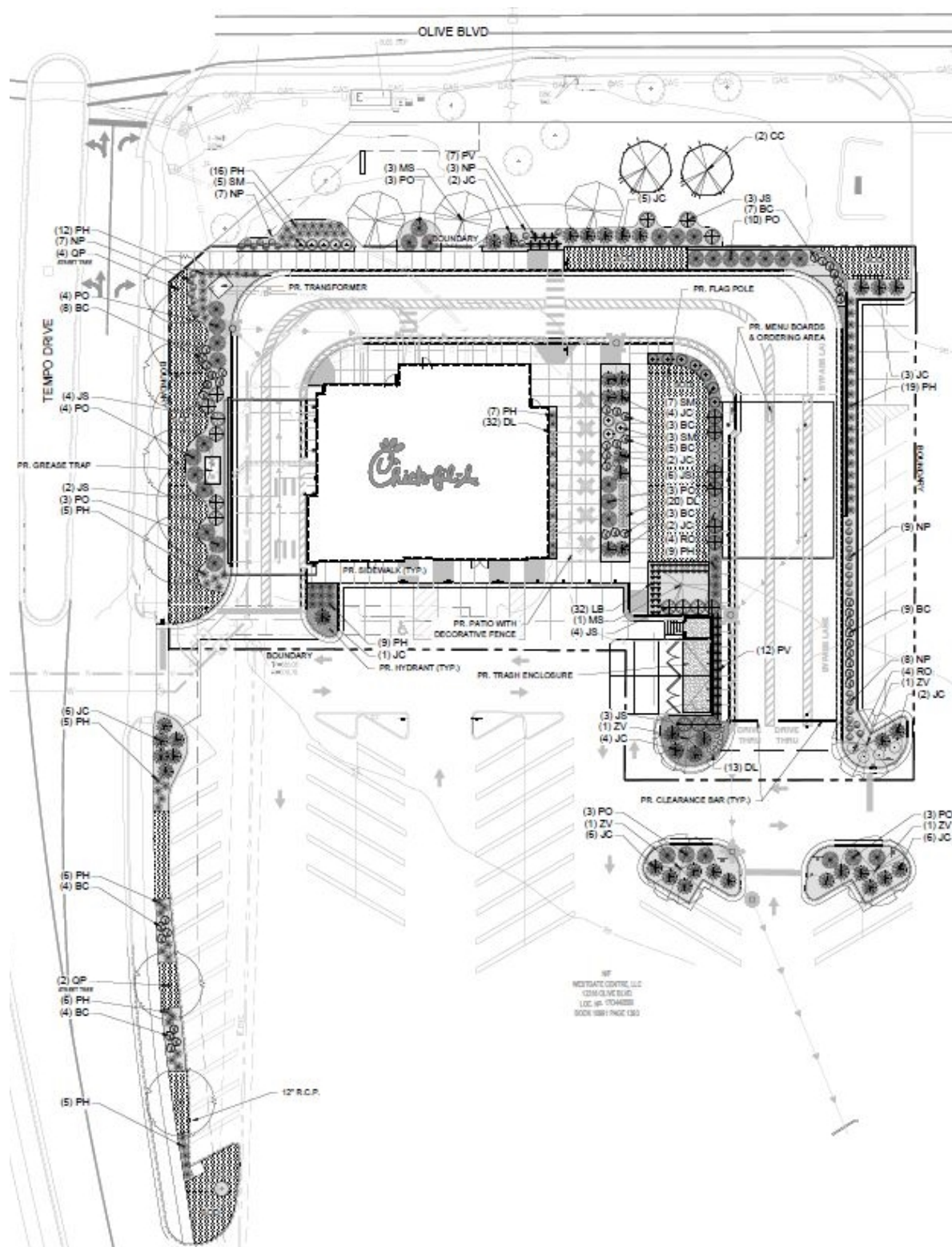


Figure 4: Proposed Landscape Plan

LAND USE AND ZONING OF SURROUNDING PROPERTIES

The adjacent zoning and land uses are as follows:

DIRECTION	USE	ZONED	SEPARATED BY
North	Commercial	GC-General Commercial District	Olive Boulevard
South	Commercial	PC-Planned Commercial District	N/A
East	Commercial	PC-Planned Commercial District	N/A
West	Commercial/Multi-Family Residential	MX-Mixed Use District/AR-Attached Single-Family Residential	Tempo Drive

COMPREHENSIVE PLAN REVIEW

The subject property is included in the Mixed-Use (MU) District Place Type of the *Creve Coeur 2030* Plan. The Mixed-Use District supports the development of a variety of medium-density commercial, retail, office, dining, community services, and multi-family residential on large development sites with centralized parking lots. These land uses are supported through primarily vehicular access with improved walkability; pedestrian connections within developments, to neighboring commercial properties, and to adjacent neighborhoods: and beautifully landscaped streets. The plan recommends that redevelopments along West Olive and in large commercial properties in the Mixed-Use District emphasize shared parking lots, landscape treatments, public site amenities such as outdoor dining, and pedestrian connectivity through the sites and to the primary streets, including Olive Boulevard.

The Chick-fil-a proposal offers many of the items called for in the *Creve Coeur 2030* comprehensive plan. The project is redeveloping an aging outlot building in largely the same footprint but reducing the site coverage by replacing some paving with landscaped areas. A large outdoor dining area with 24 seats is included in the site plan surrounded by a large landscaped area for vibrancy and to serve as a buffer between the stacking lanes and the dining area. Parking requirements no longer apply to outdoor dining amenities in order to promote them in the city. The project includes differentiated pedestrian connections from the parking lot, through the site and connecting to sidewalks along Tempo Drive out to Olive Boulevard. One of the requirements of the CUP for drive throughs that include stacking lanes between the building and the primary street is to include dense landscaping to screen the areas from the street. This requirement also fulfills the recommendations of the comprehensive plan for extensive landscaping along the streetscape in order to promote vibrancy. More landscaping was requested between the building and Olive Boulevard project in order to fully comply with the Zoning Code requirement and comprehensive plan recommendations. The applicant has revised the landscaping plan to accommodate this request and provide additional landscaping to buffer the drive through lane from Olive Boulevard.

DESIGN GUIDELINES REVIEW

Site Design

The Design Guidelines call for the size, design and orientation of new buildings to be sensitive to existing developments and surrounding uses. Phased projects should have design continuity in order to attain visual completeness (p.4). Much attention should be paid to the streetscape and the pedestrian experience in new developments such as walkability, pedestrian connectivity, hidden utility areas, and landscaping (p.4-5). High quality, pedestrian scale and walkable areas are the objective. Site and building design should address pedestrian needs and develop creative approaches to improving pedestrian interest, access and enjoyment. Plazas, courtyards, landscaping, public art and similar amenities or public assembly areas that are accessible and visible from the street are strongly encouraged. In order to emphasize conflict points and improve pedestrian safety and visibility, the use of textured or tinted materials for pedestrian crossings should be utilized where pedestrian circulation paths cross a vehicular route (p.6). The proposed sidewalks connecting the parking lot to the building and the building to Olive Boulevard meet the recommendations of the Design Guidelines and offer an amenity that was not available with the existing development. The pedestrian access through the stacking lanes needs to be differentiated with materials that meet the recommendations of the Design Guidelines. In addition, the design of the building should

[illegible]

Building Design and Materials

The main exterior material for the Chick-fil-a restaurant building is brick. The building will feature two colors of brick, dark brown on the water table and midway up the recessed portions of the building, and light brown on the upper portions and tower elements of the building. The color of the brick does not appear to be similar to the brick on the existing shopping center building and no clear connection with the rest of the shopping center is made. Although the age and architectural design of the existing shopping center

building make it difficult to reflect in a new building, some connection must be made in order to visually connect the two buildings together to reflect the continuity of the development per the Design Guidelines. Staff recommended bring in the color of the brick from the existing shopping center into the new building in order to create a connection but this has not been clearly demonstrated by the applicant. Decorative elements are simple and include bands of brick soldier courses at the water table, just above midpoint, and roofline. The north elevation that faces Olive Boulevard is proposed to have four brick decorative elements in a herring-bone design that do not correspond with the rest of the building or the existing building on the site. Staff suggests removing these elements in favor of a more large-scale architectural feature. The metal elements such as coping, window frames and canopy structure will all be a dark colored metal adding to the overall appearance of the building's simple and modern design. The north elevation, the Olive facing elevation, is plain and does not reflect its importance as the street facing façade along one of Creve Coeur's most important streets. Staff have suggested options to the applicant in order to help enhance the Olive Boulevard façade to create a sense of importance. Functionally, this façade serves as the back of house for the restaurant as it is not the main entrance which faces the parking lot. This façade should be given more attention in terms of decorative elements, varying roof heights and articulation, and significant architectural features. The Planning and Zoning Commission should discuss the design of the Olive Boulevard facing façade due to the significance of Olive Boulevard to Creve Coeur and its connection with the existing building on site in order to provide further direction to the applicant for elevation revisions. These concerns have been discussed with the applicant and staff expects revised elevations to be presented at the meeting. Further comments from staff and the Commission on any revisions to the elevations presented at the meeting should be given and may need to be presented at a subsequent meeting to allow for a full review.



Figure 6: North elevation facing Olive Boulevard.



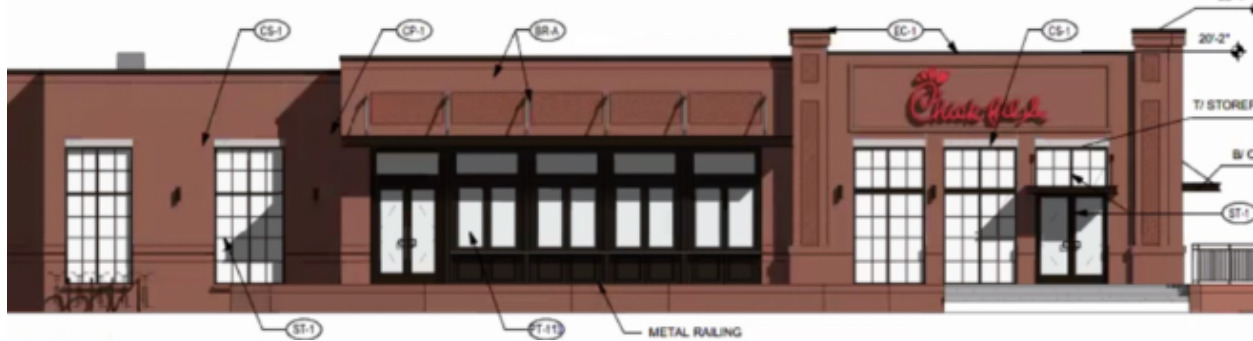


Figure 7: Examples of articulated façades with other Chick Fil A designs.

The building includes two metal canopies, one attached and one free standing, to serve as protection from the elements for customers who are ordering their food and employees who will be taking and passing out orders. The canopies were originally proposed as simple, light, metal structures that are able to easily disappear into the site. Although their lightness makes them likely to disappear, from an architectural connection stand point, it also makes them appear to be drive through elements that are stuck on the building with no connection to the overall design which is something that should be avoided. Staff have asked for renderings showing these elements more integrated into the overall design and the applicant has supplied renderings showing brick columns of the same material, color, height, and design as the water table elements to improve the design.

All rooftop equipment should be screened with appropriate material. The rooftop units appear to be sufficiently screened from view by matching the height of the proposed units. The trash enclosure is located behind the building and will be far enough back from Olive Boulevard to not be noticeable. Landscaping is provided on all three sides in order to screen the structure. The enclosure will be the same dark brown brick as the building and the gate will be a dark metal in the color Midnight Bronze.

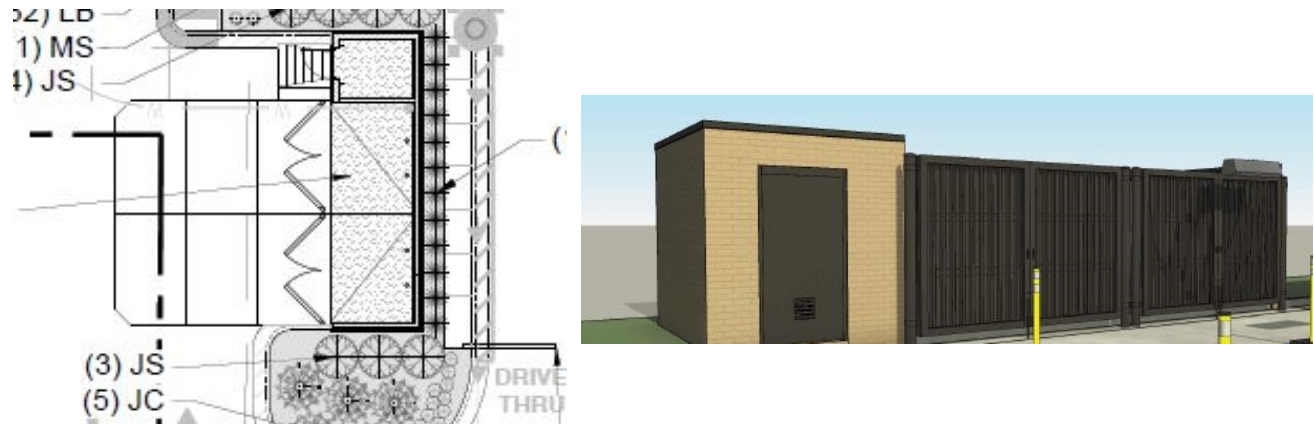


Figure 8: Close-up of the site plan showing the trash enclosure with detail. Material matches building.

Landscaping

The City's Design Guidelines strongly encourage high quality landscaping that accentuates the building and site, and softens the effects of the parking area. All landscaping plans should exhibit a clear design concept. The building should be incorporated into the landscape design; and there should be a consistency of design throughout a development. Parking areas are to be enhanced with landscaped spaces containing trees, tree groupings, and shrubbery or other landscape enhancements, including berms. Landscaped areas are to be maximized and balanced throughout the site. Tree and shrub plantings should be grouped together to create strong accent points with the site plan. Existing landscape elements should be incorporated into landscape plans. Mature trees, tree groupings and rock outcroppings should be considered as part of the design scheme. (p.15)

Overall, the Landscape plan shows significant landscaping throughout the site with a variety of plant materials and adequate screening of the parking lot and drive through services along Tempo Drive. As this project is part of the overall Westgate Centre, staff asked for new landscaping along Tempo Drive to buffer the parking lot and headlight glare from the road in order to fill in the existing bare areas. The proposed landscaping along Tempo is a mix of shrubs, evergreen shrubs, grasses and two Willow Oak trees to create a diverse buffer with more street trees per staff's request. An existing utility line prevented the installation of additional trees along Tempo Drive. The required amount of street trees for the proposed development area is 4 along Tempo Drive and 6 have been provided. A mix of evergreen shrubs and evergreen trees have been provided between Tempo Drive and the Chick-fil-a drive through pick up window in order to screen the service area from the road. The patio features a large landscaped area between the seating and the drive through lanes, a buffer of shrubs and upright evergreens around the columns of the canopy, and landscaping at the base of the building in order to provide a welcoming environment for diners. The trash enclosure is adequately screened with landscaping on all three sides and adequate landscaping is provided between the drive through lanes and the entrance lane to the shopping center from Olive Boulevard in form of fountain grass and shrubs. Two landscaping islands are provided in the existing parking lot to replace the landscaping islands that will be removed for the project and also serve to guide customers into the drive through lanes. Staff asked for one tree to be placed in each proposed drive through island in order to comply with the requirements of Section 405.540 (F)(4) and the applicant complied with Japanese Zelkova. Additional landscaping was provided in front of the building in order to screen the drive through lane in compliance with Section 405.470 which requires designated stacking lanes that pass between the building and the primary street frontage to be screened in the form of dense landscaping. The buffer features a mix of Eastern Redbud and Snowdrift Crabapple trees as well as shrubs, evergreen shrubs and grasses. Upon review of the proposed plant material, staff determined that the Firepower Heavenly Bamboo is listed as an invasive species by the Missouri Department of Conservation and should be removed from the landscape plan and replaced with a non-invasive evergreen shrub 3-4 feet in height. A final landscaping plan can be submitted along with the building permits to address these deficiencies.

Zoning Review

This proposal will be the first project to be reviewed under the new drive through requirements approved under Ordinances 5806 and 5807 in October 2022. As there are several requirements that must be met under these ordinances, staff has decided to list out the criteria and the compliance of the project with each requirement.

Section 405.470(A)(14)(e). Drive-thru services on sites in the "MX," "GC," "CB," "PO," "PC," and "LI" Districts that do not abut single family residential uses or multifamily uses in any zoning district other than the "CB" District and drive-thru services on sites located on one (1) or more lots totaling ten (10) acres or more in the "MX," "GC," "CB," "PO," "PC" and "LI" Districts that abut single family residential uses or multifamily uses in any zoning district other than the "CB" District are subject to the following:

Per the new definition of "abut" provided in the ordinance, having a shared property line and not separated by a street, this project does not abut residential zoning as it is separated from it by Tempo Drive.

1. Drive-thru facilities shall be limited to one (1) restaurant with no more than two (2) service windows and two (2) order facilities in a coordinated development located on one (1) or more lots totaling three (3) or more acres, with shared access and two (2) or more buildings (including the proposed drive-thru), one (1) of which shall have no less than ten thousand (10,000) square feet of gross floor area. All buildings shall be designed with similar use of materials and design elements such that the buildings are aesthetically complementary to each other.

The proposed Chick-fil-a will be placed as an out-lot building within the existing 7-acre Westgate Centre development which includes an existing 34,415 square foot building. The drive through facility will feature two service areas on the west façade for delivery orders to drive through customers and two order board facilities on the east façade for accepting orders. As noted in the

Design Guidelines review, the design of the existing shopping center building and the new building do not appear to be aesthetically complementary to each other and staff encourages the Planning and Zoning Commission to discuss the proposed designs. ***Criterion is partially met, pending further discussion on the design elements.***

2. For drive-thru restaurants on sites located on one (1) or more lots totaling ten (10) acres or more, the drive-thru order facility and service window shall be no less than two hundred (200) feet from any property line of any single-family residential use and no less than fifty (50) feet from any property line of any multifamily uses in any zoning district other than the "CB" District.

Does not apply to this proposal.

3. The drive-thru order facility and service window shall only be on or adjacent to a wall not facing the primary street frontage. If adjacent to a non-primary street, the drive-thru order facility and service window shall provide visual screening in the form of dense landscaping as deemed appropriate by the City Council.

The drive-thru order facility and service window do not face the primary Olive Boulevard street frontage. The service windows are adjacent to a non-primary street along Tempo Drive and dense, evergreen trees and hedges have been provided to serve as screening. ***Criterion met.***

4. The drive-thru restaurant shall have pedestrian-oriented site features. Such features include, but are not limited to, the following: landscaped planting areas adjacent to the building, outdoor seating areas, and pedestrian connections within the site. Unenclosed outdoor seating areas shall not require additional off-street parking.

The project includes all three mentioned pedestrian-oriented site features. ***Criterion met.***

5. If the drive-thru restaurant is freestanding, it shall have no less than two thousand (2,000) square feet of gross floor area (area under roof) and a minimum of fifty-five (55) indoor seats for customers.

The project includes a free-standing 4,704 square foot building with 74 indoor seats. ***Criterion met.***

6. Any service areas, including, but not limited to, trash receptacles, compactors, outdoor cooking or refrigeration equipment must be fully screened.

The trash enclosure is behind the building line and will be fully screened with a brick wall of the same material as the building and a dark metal gate. There will also be landscaping on the three sides not used for trash access. ***Criterion met.***

7. The designated stacking lane shall be no less than one-hundred ninety (190) feet long (approximately ten (10) cars), excluding the space adjoining a service window, which shall be no less than nine (9) feet wide by nineteen (19) feet long.

The two stacking lanes plus overflow lane that are proposed hold 44 cars and are well over 190 feet long including the space adjoining a service window which is also 25 feet wide when measured across both lanes. ***Criterion met.***

8. The entrance to the designated stacking lane shall be no less than fifty (50) feet from the nearest point on the property line across the nearest vehicular entrance.

The entrance to the designated stacking lanes for the driveway is greater than 50 feet from all three points of entry into the complex. ***Criterion met.***

9. If the designated stacking lane crosses between the building and primary street frontage, it shall be screened in the form of dense landscaping as deemed appropriate by the City Council.

Chick-fil-a is proposing that the stacking lanes wrap around the building between the building and the primary street frontage along Olive Boulevard due to the nature of drive through restaurants and the location of the leased space. Screening in the form of a variety of plant material to form a dense landscaping buffer has been provided and staff is mostly supportive of the proposed landscaping buffer with a few exceptions. Staff has requested that the invasive species proposed be removed from the plan and the replacement of additional evergreen shrubs to grow to 3-4 feet in height be provided. ***Criterion partially met subject to further revisions to the landscape plan.***

10. A traffic study shall be submitted by the applicant that demonstrates, to the satisfaction of the City Council, that the required drive-thru facilities shall not interfere with site circulation or be hazardous to motorists or pedestrians entering, exiting or passing by the site and that traffic impacts are otherwise properly mitigated.

A traffic study has been provided by the applicant and reviewed by the City's traffic consultant and the Missouri Department of Transportation. Olive Boulevard is a state route and MoDOT has jurisdiction. Due to the results of the traffic study, the City's consultant and MoDOT requested additional remediation from the applicant in order to address the concerns outlined in the study. The applicant has submitted additional information about the traffic concerns and the City's traffic consultant has reviewed and commented on revisions. The Missouri Department of Transportation has not provided their final concurrence based on the latest revisions at the time of this staff report. Additional discussion of the Traffic Study is provided below in the "Traffic Study" section. ***Criterion partially met; pending final review.***

11. The order facility shall utilize automatic volume control which adjusts outbound volume based on the outdoor ambient noise level.

The technology within the ordering stations compensates for the ambient sound using an Automatic Volume Control (AVC) system. ***Criterion met.***

12. An acoustical study shall be submitted demonstrating that the order facility and service windows will not increase ambient sound levels at the property lines above the average Monday to Friday midday level.

The applicant has submitted an acoustical study completed by McClure Engineering. The study concluded that the sound level from the speaker system will be below the average Monday to Friday midday levels and will have minimal impact on the ambient sound levels in the area. ***Criterion met.***

Lighting

Due to the location of the project on a corner development site setback from Olive Boulevard, the likelihood for light spillage onto adjacent properties is not a concern but the light levels along Tempo Drive are considered. The submitted photometric plan shows that the light spillage onto Tempo Drive will be mostly less than 1 foot candle of illumination except at the Tempo entrance to the site where the illumination reaches 2 foot candles of illumination. The area of spillage is very minimal and does not extend very far onto the right of way. Staff is requesting this area be reevaluated in order to reduce the condition. A condition of approval has been added requiring the applicant to submit a final photometric plan. Lighting will be downcast and shielded in compliance with Section 405.680. The Applicant is proposing the use of LED flush mounted canopy luminaires for the canopy in a low-voltage option. The parking lot lighting is showing a mounting height of 27 feet, where Section 405.680(B)(3) has a maximum mounting height of 24 feet in non-residential districts. A condition of approval has been added to address the light pole heights. Section 405.680, Lighting, of the Zoning Code, and Section 205.810 of the Parking Ordinance requires a minimum of not less than an average of one (1) foot-candle of

illumination for a parking lot where the applicant is showing an average of 2.6 FC. The building lighting proposed is also shielded and will shine directly on the intended surface on site.

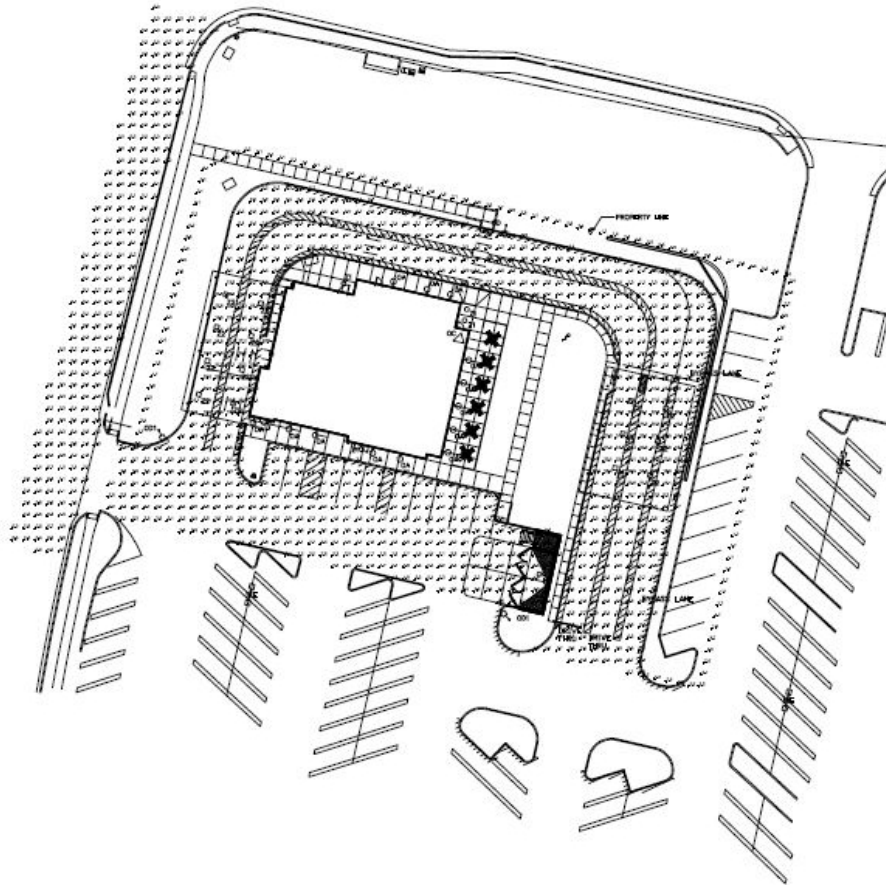


Figure 9: Applicant's Photometric Plan



Figure 10: Applicants Proposed light fixtures (exterior wall mounted lighting on left, flush mounted canopy lighting in center, parking lot lighting on right)

Sidewalks

Section 405.730, requires a clear and safe pedestrian access between the building's main entrance and the public sidewalk, and designed to avoid conflict. In order to emphasize conflict points and improve pedestrian safety and visibility, the use of textured or tinted materials for pedestrian crossings shall be utilized where pedestrian circulation paths cross a vehicular route as determined by the Planning and Zoning Commission. All sidewalks shall be a minimum of 6 feet or 8 feet in width if used as a curb stop. The new sidewalk was designed to comply with these regulations. The side walk is 6 feet wide along the building and connects to pedestrian access on the northern boundary of the project connecting the building to the sidewalk system along Olive Boulevard via Tempo Drive's sidewalk. The proposed pedestrian walkway has to cross the drive through lanes in order to connect the main entrance to the

sidewalks along Tempo and Olive. The pedestrian walk through the drive through lanes is shown on the plans as being differentiated with crosswalk markings. After discussion with the applicant, the applicant informed staff that the pedestrian connections would be cast in a tinted material in order to better stand out; however, these updates are not shown on the plans.

Parking

The proposal provides for sufficient parking on site to meet City code. The existing onsite parking includes 419 parking stalls shared for the entire Westgate Centre commercial complex. Under the new requirements for drive through restaurants, Ordinances 5806 and 5807, outdoor seating no longer requires parking spaces in order to encourage these types of dining amenities in Creve Coeur. The 74 indoor seats proposed along with the 4,704 square foot size of the restaurant means that 44 parking stalls are required for this use. The proposal requires 49 existing parking stalls to be removed in order to accommodate the new Chick-fil-a building and drive through lanes. The remaining parking stalls total 370 when the required parking for the existing and proposed uses requires 337 when the 15% reduction for shopping centers is removed. There is an existing parking stall surplus of 33 spaces.

Tenant	Address	Use	Size (sq. ft.)	Parking Regulations	# of spaces
Santa Fe Bistro	12316	Restaurant	5,190 +400 sq. ft. patio addition (+150 indoor seats, 40 outdoor seats)	1/3 seats in C.U.P., 1/8 outdoor seats, + 1/250 sq. ft.	78
Jon Thomas Salon	12320	Hair Salon	3,450	4/1000 sq. ft.	14
Land Home Financial	12324	Office	1,840	4/1000 sq. ft.	8
Bella Chic	12328	Retail	1,160	4/1000 sq. ft.	5
Boom Pilates	12330	Sports and recreation instruction	1,200	1/150 sq. ft.	8
Vacant	12332	Retail	1,200	4/1000 sq. ft.	5
Dentistry	12334	Office	2,330	4/1000 sq. ft.	10
La Bonne Bouchee	12344-46	Cafe/Bakery	6,615 (+108 indoor seats, 34 outdoor seats)	1/3 seats in C.U.P., 1/8 outdoor seats, + 1/250 sq. ft.	67
Birkenstocks and More	12350	Retail	1,400	4/1000 sq. ft.	6
Belsono Hearing	12352	Retail	1,000	4/1000 sq. ft.	4
Vacant	12354	Retail	3,560	4/1000 sq. ft.	14
Barry Hyatt Custom Jewelers	12360	Retail	1,200	4/1000 sq. ft.	5
Massage	12362	Office	1,200	4/1000 sq. ft.	5
Global Quesadilla	12364	Restaurant	3,000 (+108 indoor seats)	1/3 seats in C.U.P., + 1/250 sq. ft.	48
Proactive Chiropractic	12370	Office	2,100	4/1000 sq. ft.	9
Midwest Dizziness	12372-80	Health Services	2,100	4/1000 sq. ft.	9
SSM Physical Therapy	12382	Office	2,465	4/1000 sq. ft.	10
Alloy Training	12384	Sports and recreation instruction	1,600	1/150 sq. ft.	11
Ichiban Restaurant	12388	Restaurant	1,542 (+ indoor 40 seats)	1/3 seats in C.U.P., + 1/250 sq. ft.	20

Kumon Math & Reading	12390	Other educational services	1,586	1/300 sq. ft.	6
Midwest Eye Health	12392	Office	2,750	4/1000 sq. ft.	11
Proposed Chick-fil-a	12398	Restaurant (out lot building)	4,704 (+74 indoor seats, 24 outdoor)	1/3 seats in C.U.P., + 1/250 sq. ft.	44
				Sub-total:	397
				Minus 15% Reduction:	60
				Total # of Parking Spaces Required:	337
				Total Available On-site:	370

Signs

All signs are reviewed under a separate permit at Staff level in conformance with the Sign Regulations. No approval of the project constitutes approval of any signs shown. An existing monument sign is located on the property for Westgate Centre and no additional monument sign will be permitted per Section 405.950. A maximum of two attached signs are permitted for this project per Section 405.950(B)(2).

Traffic Study

A traffic study has been provided by the applicant and reviewed by the City's traffic consultant and the Missouri Department of Transportation. The traffic study was prepared by the applicant's traffic engineer in consultation with MoDOT, the City's Public Works Department, Planning staff and the City's contracted traffic engineering consultant.

As many know, Chick Fil A is a popular restaurant chain that generates a lot of activity to their locations. Careful review of the traffic impacts are necessary to understand the impacts at this location and to identify the appropriate mitigation measures for any increases that could affect the roadway system. In brief, the traffic study reveals that the proposed Chick Fil A will generate additional traffic over existing (baseline) conditions at certain times of the day. The primary impacts involve the adjacent Olive/Tempo intersection. However, the study reviewed other traffic impacts along Olive and the adjacent intersections to the west and east. The mitigation measures that are proposed to offset the traffic volumes involve signal timing changes on Olive and physical intersection improvements at Olive and Tempo. Specifically, on northbound Tempo at Olive, an additional left turn lane is proposed to reduce queuing which will allow more cars to move through the intersection. To accommodate this additional turn lane, the removal of the landscaped median on Olive is necessary. Restriping on southbound Tempo near the first entrance into Chick Fil A is also proposed to improve existing conditions for motorists accessing the site.

In summary, comparing the Existing Conditions with the Built Conditions (including the proposed mitigation measures) at the Olive/Tempo intersection, the Level of Service (LOS) is the same or better during all peak periods, except for two. The Queuing (expressed in feet) are reduced or are similar to existing conditions with the exception of some peak periods, notably within the 95th percentile. Please refer to the City's traffic consultant memo from the Lochmueller Group dated December 15, 2022 for additional information. Mr. Kyle Evans, the City's consulting traffic engineer, will present his findings at the meeting and will be available to answer any questions.

As noted previously, MoDOT requested additional information from the applicant's traffic engineer and has not yet provided their concurrence on these revisions. Staff expects to receive this information in time for the next P&Z meeting on January 19th.

Acoustical Study

The applicant has submitted an acoustical study completed by McClure Engineering. The report concluded that the sound level for both day and night operation with the Automatic Volume Control (AVC) will be less than 45 dBA at the nearest property line at all times. Based on the manufacturer's data

the sound level contribution from the order station with the AVC activated is calculated to be 40 dBA at the apartments, which are 400 feet from the ordering boards, and 42 dBA at the nearest store front which is 300 feet away from the ordering boards. These sound levels will be far below the current typical ambient sound levels. While the sound levels will typically be somewhere between 60 and 84 dBA at 1' from the order station, the data and calculations show the ordering stations sound levels will be less than ambient sound levels at this site. McClure Engineering reported that the sound from the ordering station and drive-thru is well below the ambient traffic sound in this area and recommended that no further remediation is required. These findings appear to satisfy the conditional use requirements for drive-through restaurants not abutting residential uses.

SUMMARY AND RECOMMENDATION

The materials submitted for the Conditional Use Permit and Site Development Plan are overall consistent with the City's Comprehensive Plan, the Design Guidelines, and the Zoning Code with the following exceptions noted within this report. Staff has provided the following suggestions for specific areas for further discussion with the applicant at the meeting:

- Understanding of The Traffic Impact Study results, proposed mitigation by the applicant, and expected conditions after mitigation measures are implemented. The City's consulting traffic engineer will be present at the meeting to assist the Commission in its review. In addition, final MoDOT review comments have not been received which may require further review.
- If the proposed landscaping between the drive through lanes and Olive Boulevard is satisfactory to serve as a buffer per Section 405.470(14)(e)(9).
- The proposed elevations for the new building along Olive Boulevard and its overall connection to the existing shopping center building on site per the Design Guidelines and conditional user requirements for drive throughs.

Staff recommends that the Commission provide feedback on these issues to the applicant as well as any comments received by the public. Based on the direction given to staff and the applicant, any revisions to the plans can be made and submitted for further consideration at the January 17th meeting.

ACTION

An appropriate motion to continue this agenda item until the next meeting would be as follows:

"I move to continue the public hearing and application #22-031 to the January 17th, 2023 Planning and Zoning Commission meeting."

APPENDIX 1: COMPREHENSIVE PLAN

Included and attached by reference. See body of report for specific excerpts.

APPENDIX 2: ZONING CODE

Included and attached by reference. See body of report for specific excerpts.

Parcels

November 9, 2022



Prepared By HORNER SHAFIN

APPENDIX 4: SITE PHOTOGRAPHS



Description: Apron at Tempo Drive access to the site in need of repair.



Description: Existing lanes on Tempo Drive at Olive Boulevard intersection.



Description: Existing building on site. Former T.G.I.Friday's Restaurant.



Description: Existing signage for the shopping center.



Description: Existing building to be demolished.

EXTERIOR FINISHES



BR-A

BRICK VENEER
COLOR: DARK BROWN
SIZE: MODULAR



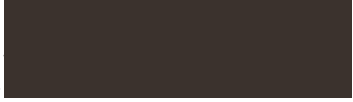
EC-1

PREFINISHED METAL COPING
COLOR: MIDNIGHT BRONZE



BR-B

BRICK VENEER
COLOR: LIGHT BROWN
SIZE: MODULAR



PT-113

EXTERIOR PAINT
COLOR: DARK BRONZE
FINISH: SEMI-GLOSS



ST-1

STOREFRONT
COLOR: DARK BRONZE



EXTERIOR BRICK AT PLAZA



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

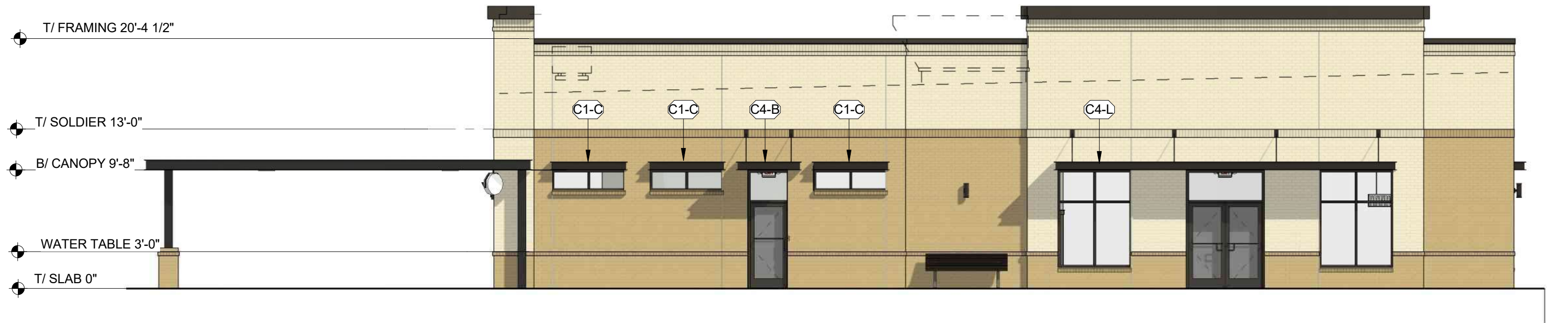


2 EXTERIOR ELEVATION
1/8" = 1'-0"

ELEVATIONS



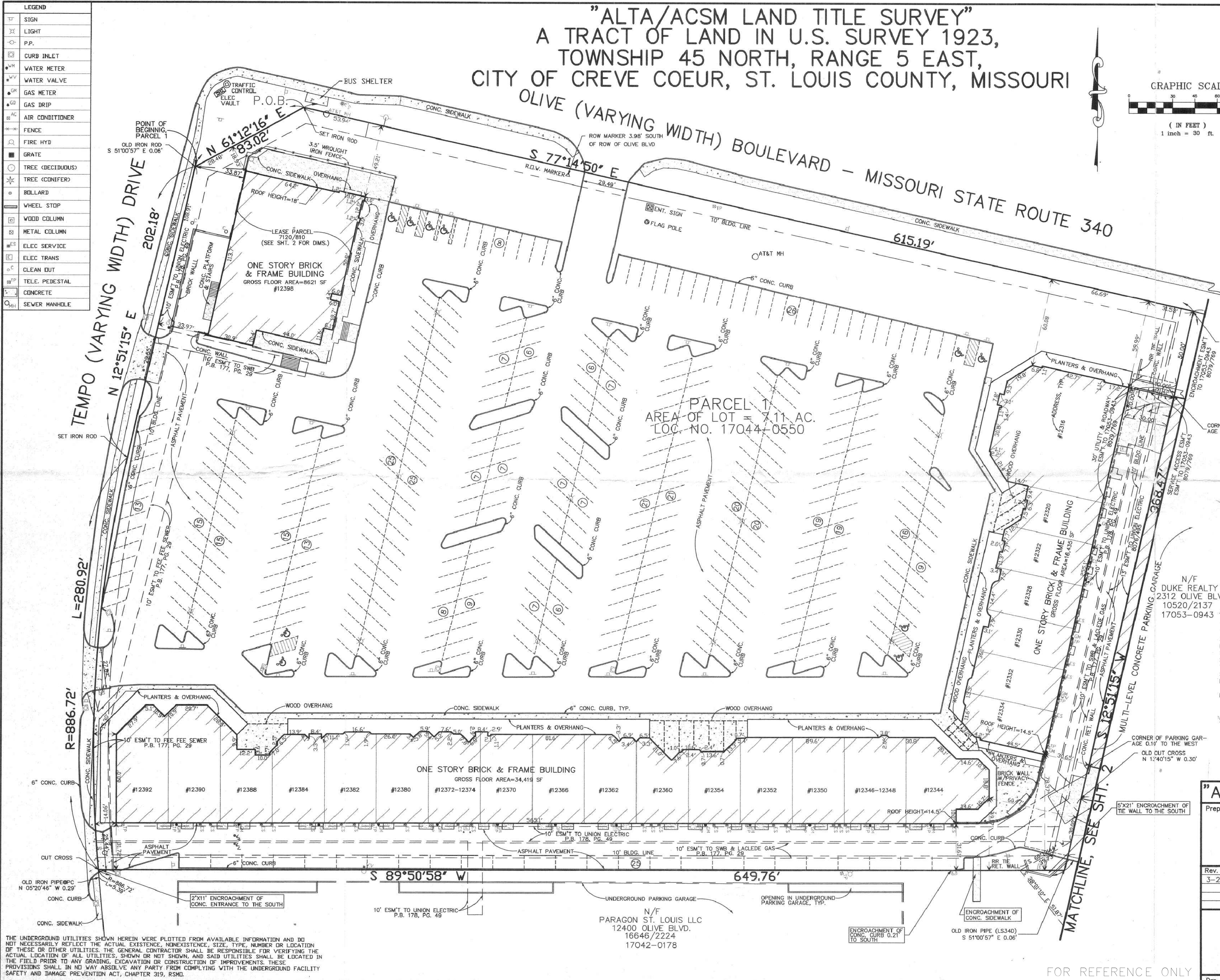
1 EXTERIOR ELEVATION
1/8" = 1'-0"



2 EXTERIOR ELEVATION
1/8" = 1'-0"

ELEVATIONS

LEGEND	
	SIGN
	LIGHT
	P.P.
	CURB INLET
	WATER METER
	WATER VALVE
	GAS METER
	GAS DRIP
	AIR CONDITIONER
	FENCE
	FIRE HYD
	GRATE
	TREE (DECIDUOUS)
	TREE (CONIFER)
	BOLLARD
	WHEEL STOP
	WOOD COLUMN
	METAL COLUMN
	ELEC SERVICE
	ELEC TRANS
	CLEAN OUT
	TELE. PEDESTAL
	CONCRETE
	SEWER MANHOLE



TO SOUTHERN FARM BUREAU LIFE INSURANCE COMPANY, A MISSISSIPPI CORPORATION, ITS SUCCESSORS AND/OR ASSIGNS, AS THEIR RESPECTIVE INTERESTS MAY APPEAR, SOLON GERSHMAN INCORPORATED, AND U.S. TITLE GUARANTY COMPANY:

THIS IS TO CERTIFY THAT THIS MAP OR PLAT AND THE SURVEY ON WHICH IT IS BASED WERE MADE IN ACCORDANCE WITH "MINIMUM STANDARD DETAIL REQUIREMENTS FOR ALTA/ACSM LAND TITLE SURVEYS", JOINTLY ESTABLISHED AND ADOPTED BY ALTA AND NSPS IN 2005, AND INCLUDES ITEMS 1-4 AND 6, 7(a), (b) AND (c), 8-10, 11(b), 12-13, AND 16-18 OF TABLE A THEREOF. PURSUANT TO THE ACCURACY STANDARDS AS ADOPTED BY ALTA AND NSPS AND IN EFFECT ON THE DATE OF THIS CERTIFICATION, THE UNDERSIGNED FURTHER CERTIFIES THAT IN MY PROFESSIONAL OPINION, AS A LAND SURVEYOR REGISTERED IN THE STATE OF MISSOURI, THE RELATIVE POSITIONAL ACCURACY OF THIS SURVEY DOES NOT EXCEED THAT WHICH IS SPECIFIED THEREIN.

McDANIEL ENGINEERING AND SURVEYING CO., INC.

Theodore F. Laneman, Jr.
THEODORE F. LANEMAN, JR. LS 2239

DATE: 3-27-08

SURVEYORS CERTIFICATION

THIS IS TO CERTIFY THAT WE HAVE, DURING THE MONTH OF FEBRUARY 2008, BY THE ORDER OF SOLON GERSHMAN INC., PREPARED A BOUNDARY AND IMPROVEMENT SURVEY OF A TRACT OF LAND IN U.S. SURVEY 1923, TOWNSHIP 45 NORTH, RANGE 5 EAST, ST. LOUIS COUNTY, MISSOURI, AND THE RESULTS OF SAID SURVEY MEETS THE CURRENT MINIMUM STANDARDS FOR PROPERTY SURVEYS 20 CSR 2030-16 MISSOURI DEPARTMENT OF NATURAL RESOURCES AND THE RESULTS ARE CORRECTLY SHOWN ON THE ADJACENT PLAT. TYPE OF SURVEY: URBAN. IN WITNESS WHEREOF I HAVE SIGNED AND SEALED THE FOREGOING THIS 27th DAY OF March, 2008.

McDANIEL ENGINEERING AND SURVEYING CO., INC.

Theodore F. Laneman, Jr.
THEODORE F. LANEMAN, JR. LS 2239



"ALTA/ACSM LAND TITLE SURVEY"

Prepared for:

SOLON GERSHMAN INC.
7 NORTH BEMISTON
CLAYTON, MO 63105
EXISTING CONDITION PLAN

Rev. Date	Description	Rev. Date	Description
3-27-08	REV. PER CLIENT		

McDANIEL
ENGINEERING AND SURVEYING CO., INC.

75 MIDLAND AVENUE ST. LOUIS, MO. 63043
(314) 770-1171 FAX (314) 770-0887

C-001

Drn. By: GJP Date: 2-8-08 Job # 14726

FOR REFERENCE ONLY

R-# REMOVAL TAGS		
REMOVALS / RELOCATES / ADJUSTMENTS		
NUMBER		REMARKS
A-1	SANITARY MANHOLE	ADJUST RIM TO FG
A-2	WATER VALVE BOX	ADJUST RIM TO FG
R-1	BUILDING W/ FOUNDATION	REMOVE
R-2	BITUMINOUS PAVEMENT	REMOVE
R-3	CONCRETE APRON	REMOVE
R-4	CONCRETE BARRIER CURB	REMOVE
R-5	ALUMINUM HANDRAIL	REMOVE
R-6	ELECTRIC SERVICE & METER	REMOVE (COORD. W/ UTILITY)
R-7	LIGHT POLE & SERVICE LINES	REMOVE (COORD. W/ LANDLORD)
R-8	TELEPHONE LINE	REMOVE (COORD. W/ UTILITY)
R-9	CONCRETE SIDEWALK	REMOVE
R-10	GAS SERVICE AND METER	REMOVE (COORD. W/ UTILITY)
R-11	SIGN	REMOVE
R-12	GREASE TRAP	REMOVE
R-13	CONCRETE/BRICK WALL	REMOVE
R-14	CLEANOUT	REMOVE
R-15	WATER SERVICE	REMOVE (COORD. W/ UTILITY)
R-16	STORM SEWER CLEANOUT	REMOVE
R-17	STORM SEWER	REMOVE
R-18	SANITARY SERVICE	REMOVE (COORD. W/ UTILITY)
R-19	CONCRETE PAVEMENT	REMOVE
R-20	LANDSCAPING LIGHT	REMOVE (LIGHTS, WIRES & CONDUITS)
R-21	TRANSFORMER	REMOVE (TRANSFORMER TO BE REUSED)
R-22	TREE	REMOVE (SEE LANDSCAPE PLANS)
R-23	WATER METER VAULT	REMOVE
R-24	SEGMENTAL BLOCK WALL	REMOVE

PROJECT NOTES:

- LAND DISTURBING ACTIVITIES SHALL NOT COMMENCE UNTIL APPROVAL TO DO SO HAS BEEN RECEIVED BY GOVERNING AUTHORITIES. IN ADDITION TO, NO LAND CLEARING OR GRADING SHALL BEGIN UNTIL ALL PERIMETER EROSION AND SEDIMENT CONTROL MEASURES HAVE BEEN INSTALLED. SEE SHEET C-302 FOR EROSION CONTROL MEASURES)
- ALL EXISTING UTILITIES TO BE FIELD VERIFIED PRIOR TO CONSTRUCTION.
- CONTRACTOR SHALL COORDINATE AND COMPLY WITH ALL UTILITY COMPANIES INVOLVED IN PROJECT AND PAY ALL REQUIRED FEES AND COSTS.
- ALL STRUCTURES & DEBRIS SHALL BE REMOVED PRIOR TO CONSTRUCTION & DISPOSED OF OFFSITE.
- ANY EXISTING FIELD DRAIN TILES ENCOUNTERED SHALL BE RECONNECTED OR CONNECTED TO THE NEAREST STORM SEWER.
- CONTRACTOR TO KEEP ACCESS DRIVE OPEN AT ALL TIMES WITH MINOR CLOSINGS ALLOWED FOR PAVING ACTIVITIES.
- THE CONTRACTOR IS CAUTIONED NEITHER TO OBSTRUCT NOR REMOVE ANY EXISTING PAVEMENT, NOR TO DISTURB THE EXISTING TRAFFIC PATTERNS MORE THAN IS NECESSARY FOR THE PROPER EXECUTION OF THE WORK.
- ALL BITUMINOUS PAVEMENT REMOVAL AREAS SHALL BE SAWCUT.
- CONTRACTOR SHALL INSTALL CONSTRUCTION FENCING AND SIGNAGE AROUND CONSTRUCTION BOUNDARIES TO PROTECT PEDESTRIANS.
- THE ELECTRICAL CIRCUITS FOR THE LIGHT POLES SHOWN TO BE REMOVED SHALL BE TERMINATED EITHER IN HANDHOLES OR IN THE LIGHT BASE OF THE LAST REMAINING LIGHT IN THE SERIES.
- CONTRACTOR SHALL COORDINATE ALL WORK WITH LANDLORD.

STAGING NOTES:

(STAGING SUBJECT TO CHANGES PER SITE CONTRACTORS SCHEDULE AND METHODS OF OPERATION)

- EROSION CONTROL MEASURES AND STOCKPILE STAGING
- CONSTRUCTION ENTRANCES
- PLAN REMOVALS
- PROPOSED UNDERGROUND
- GRADING
- PAVING

TRAFFIC CONTROL NOTES:

- ALL APPLICABLE CITY PERMITS, INCLUDING BUT NOT LIMITED TO CLOSURE PERMITS, SHALL BE OBTAINED PRIOR TO ANY CONSTRUCTION WITHIN CITY ROW OR LANE CLOSURES.
- ALL TRAFFIC CONTROL SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.
- PERMANENT SIGNING THAT CONVEYS A MESSAGE CONTRARY TO THE MESSAGE OF TEMPORARY SIGNING AND NOT APPLICABLE TO THE WORKING CONDITIONS SHALL BE COVERED BY THE CONTRACTOR WHEN DIRECTED BY THE CITY.
- THE CONTRACTOR SHALL COORDINATE HIS TRAFFIC CONTROL WITH OTHER CONSTRUCTION PROJECTS IN THE AREA.
- SIDEWALK CLOSED SIGNS REQUIRED FOR ALL SIDEWALK CLOSURES.
- THE CONTRACTOR IS CAUTIONED NEITHER TO OBSTRUCT NOR REMOVE ANY EXISTING PAVEMENT, NOR TO DISTURB THE EXISTING TRAFFIC PATTERNS MORE THAN IS NECESSARY FOR THE PROPER EXECUTION OF THE WORK.

LEGEND

- TTTTTT INDICATES FULL DEPTH SAWCUT
- +++++ INDICATES BIT / ASPHALT PAVEMENT REMOVAL (FULL DEPTH)
- XXXXX INDICATES CONCRETE PAVEMENT REMOVAL (FULL DEPTH)
- XXXXX INDICATES CONCRETE SIDEWALK REMOVAL (FULL DEPTH)
- XXXXX INDICATES BUILDING/TRASH ENCLOSURE REMOVAL
- R-# INDICATES MISC. REMOVAL ITEMS (SEE THIS SHEET FOR DESCRIPTIONS)
- INDICATES CONCRETE CURB & GUTTER REMOVAL
- XXX INDICATES UTILITY/FENCE/WALL REMOVAL
- X INDICATES TREE AND BRUSH REMOVAL (SEE LANDSCAPING PLANS FOR SIZE AND QUANTITY)
- INDICATES TREE AND BRUSH PROTECTION (SEE LANDSCAPING PLANS FOR SIZE AND QUANTITY)

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REVISION SCHEDULE
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ENGINEER'S PROJECT # 211634

PRINTED FOR PRELIMINARY

DATE 05/24/2022

DRAWN BY: MRJ

CHECKED BY: JFV

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SHEET

SITE DEMOLITION PLAN

SHEET NUMBER

C-100



811 or 1-800-344-7483
WWW.MO1CALL.COM

CALL: 811 or 1-800-344-7483

WITH THE FOLLOWING:
COUNTY - St. Louis
CITY-TOWNSHIP - Creve Coeur - Creve Coeur
PARCEL ID. NO. # 1822122709354202003

48 hours before you dig
(Excluding Sat., Sun. & Holidays)

SITE PLAN DESIGN NOTES & KEY PLAN

- 1A DIRECTIONAL ARROW
1B PAINTED HANDICAP PARKING SYMBOL
2A DRIVE-THRU GRAPHICS
2B STOP LINE GRAPHIC
3 STANDARD PARKING STALL (9.0'x19.0') PER CODE
4 STANDARD 60 DEGREE PARKING STALL
4A 4" SOLID WHITE STRIPING
4B 4" SOLID YELLOW STRIPING
4C 4" SKIP DASH YELLOW STRIPING
5 BOLLARD MOUNTED SIGN
6 ADA ACCESSIBLE PARKING SIGN
7 DIRECTIONAL SIGNAGE

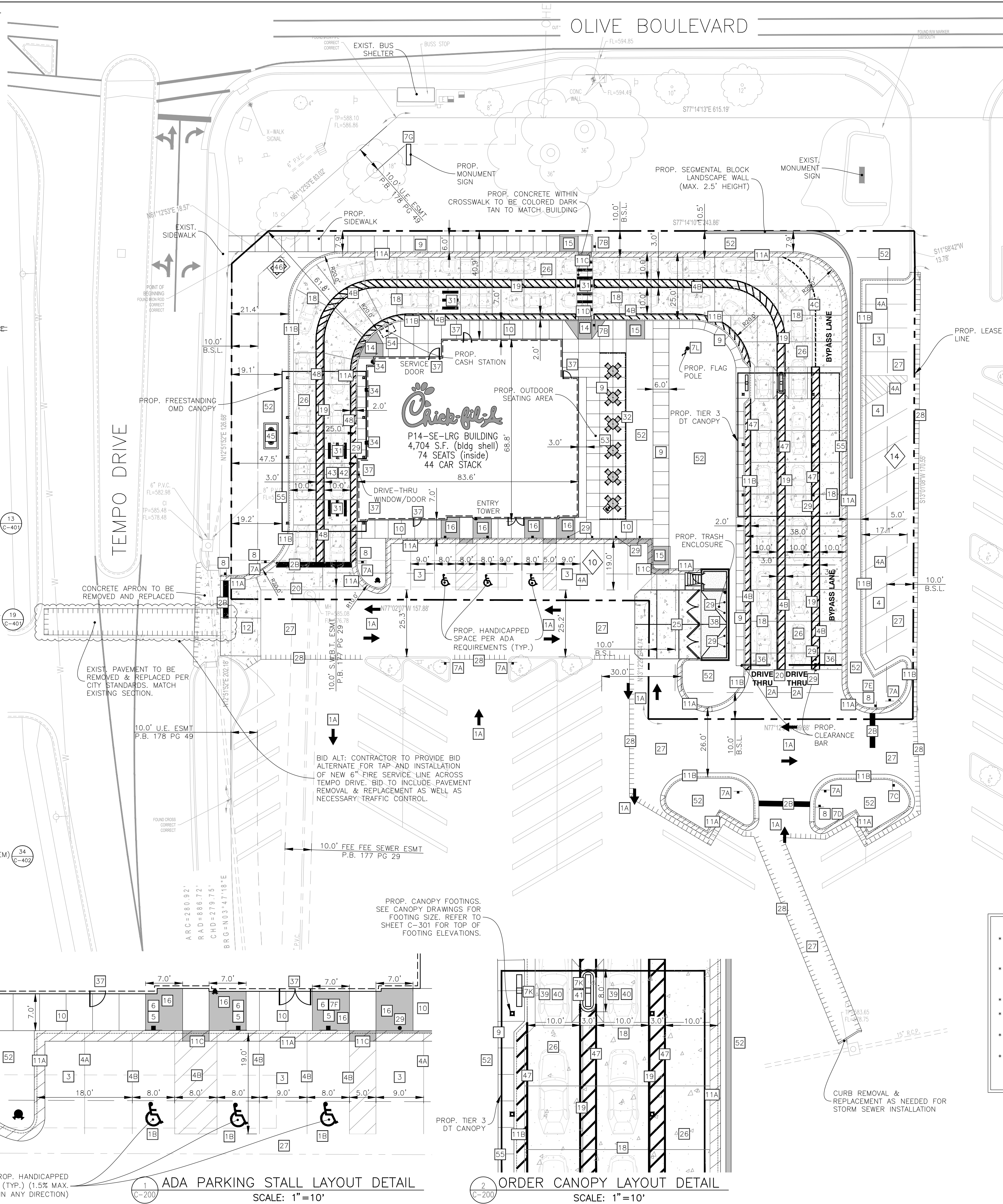
ALL SIGNS SHALL CONFORM TO THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" BY THE U.S. DEPARTMENT OF TRANSPORTATION. (SEE SIGN LEGEND)

7A THRU 7F (SEE SIGNAGE LEGEND, THIS SHEET)

- 7G CHICK-FIL-A MONUMENT SIGN, SEE SIGNAGE PACKAGE
7H CHICK-FIL-A "ENTER" SIGN, SEE SIGNAGE PACKAGE
7I CHICK-FIL-A "EXIT" SIGN, SEE SIGNAGE PACKAGE
7J CHICK-FIL-A "DRIVE THRU" SIGN, SEE SIGNAGE PACKAGE
7K DRIVE THRU ORDERING STATION, SEE SIGNAGE PACKAGE
7L FLAGPOLE, 50', SEE SIGNAGE PACKAGE

- 8 STOP SIGN, SEE SIGNAGE PACKAGE
9 TYPICAL CONCRETE SIDEWALK, 5' MIN.
10 7" WIDE SIDEWALK w/ CURB & GUTTER
11 24" CONCRETE CURB & GUTTER
11A SPILLING CURB SECTION
11B CATCHING CURB SECTION
11C DEPRESSED SPILLING CURB
11D DEPRESSED CATCHING CURB

- 12 CONCRETE PAVEMENT SECTIONS
13 HANDICAP RAMP w/ SHORT FLARED SIDES (GRASSED AREAS)
14 HANDICAP RAMP w/ FLARED SIDES (IN SIDEWALK)
15 RETURNED CURB HANDICAP RAMP
16 SIDEWALK (ADA COMPLIANT) RAMP
17 DETECTABLE WARNING DEVICE
18 TRANSVERSE & LONGITUDINAL CONTRACTION JOINT
19 TRANSVERSE & LONGITUDINAL DOWELED CONSTRUCTION JOINT
20 PAVEMENT EDGE DETAIL
21 CONTRACTION JOINT
22 KEYED CONSTRUCTION JOINT
23 LONGITUDINAL BUTT JOINT
24 EXPANSION JOINT
25 CONCRETE APRON @ TRASH ENCLOSURE
26 CONCRETE PAVEMENT DRIVE-THRU LANE
27 TYPICAL HMA PAVEMENT SECTION
28 BUTT JOINT
29 CONCRETE BOLLARD
30 MULTI-LANE DIRECTIONAL GRAPHICS
31 CROSSWALK MARKINGS
32 ALUMINUM HANDRAIL
33 TYPICAL ADA RAMP & HANDRAIL
34 BUILDING DOWNSPOUT CONNECTION (TO SITE DRAINAGE SYSTEM)
35 ROLLOVER/MOUNTABLE CURB
36 DRIVE-THRU CLEARANCE BAR
37 ENTRY DOOR FROST SLAB DETAIL
38 SCREENED REFUSE ENCLOSURE FOUNDATION
39 MENU BOARD LOOP DETECTION SYSTEM
40 MENU BOARD LOOP DETECTION SYSTEM (ISO VIEW)
41 DRIVE-THRU ORDER POINT ISLAND
42 DRIVE-THRU PLAN FLUSH WITH FFE
43 DRIVE-THRU ISOMETRIC PLAN
44 DRIVE-THRU PLAN - 2" BELOW FFE
45 GREASE TRAP
46 PROPOSED TRANSFORMER
47 DRIVE-THRU STRIPING
48 MEAL DELIVERY AREA STRIPING
49 LANDSCAPE & IRRIGATION PROTECTOR
50 SOLID PLASTIC WHEEL STOP
51 BIKE RACK
52 LANDSCAPED AREA
53 TYPICAL LOCATION FOR OUTDOOR TABLES (SEE EQUIPMENT SCHEDULE)
54 CONCRETE PAD FOR OPTIONAL CASH STATION
55 FACE-TO-FACE DRIVE-THRU CANOPY SYSTEMS



SITE DATA:

- PARCEL ID #: 1822122709354202003
- ZONING: PUD (PLANNED UNIT DEVELOPMENT DISTRICT)
- PROP. LEASE PARCEL SIZE: 44,310± SQ. FT. (1.02 ACRES)

BUILDING DATA:

- BUILDING FLOOR AREA: 4,704± SQ. FT.
- NUMBER OF EMPLOYEES DURING LARGEST SHIFT = 15 EMPLOYEES
- TOTAL NUMBER OF SEATS = 98
 - INDOOR SEATS = 74
 - OUTDOOR SEATS = 24

PARKING DATA:

- NUMBER OF REGULAR PARKING SPACES: 21
- NUMBER OF ADA SPACES: 3
- TOTAL NUMBER OF SPACES PROVIDED: 24
- TOTAL NUMBER OF SPACES REQUIRED: 47
- TYPICAL PARKING WIDTH: 9.0'
- TYPICAL 90° PARKING LENGTH: 19.0'
- MINIMUM ISLE WIDTH: 22.0' (90°)

PARKING FORMULA (RESTAURANTS):

- 1 PARKING SPACE PER EVERY 3 SEATS OF MAX. OCCUPANCY PLUS 1 PARKING SPACE PER 250 SQUARE FEET OF BUILDING AREA PLUS 1 PARKING SPACE PER EACH 8 SEATS IN THE OUTDOOR SEATING AREA.
(74 INDOOR SEATS/3)+(4,704SF/250)+(24/8 OUTDOOR SEATS) = 47
- TOTAL REQUIRED PARKING = 47 SPACES

HATCH LEGEND

- 1 DENOTES STANDARD PAVEMENT SECTION
2 DENOTES CONCRETE SECTION
3 DENOTES PROP. SIDEWALK
4 DENOTES AREA OF DEPRESSED SIDEWALK
5 DENOTES AREA OF DEPRESSED CURB AND GUTTER WITH LENGTH NOTED ON PLANS.
6 DENOTES REVERSE CURB & GUTTER

SIGN LEGEND

- 6 DENOTES "HANDICAPPED PARKING" R7-8, 12" x 18" (TYP.)
7A DENOTES "DO NOT ENTER" R5-1, 30" x 30" (TYP.)
7B DENOTES "PEDESTRIAN CROSSWALK" 12" x 18" (TYP.)
7C DENOTES "RIGHT TURN ONLY" R3-5R, 30" x 36" (TYP.)
7D DENOTES "TRAFFIC FROM LEFT DOES NOT STOP" W4-4AP, 12" x 18" (TYP.)
7E DENOTES "ONCOMING TRAFFIC DOES NOT STOP" W4-4BP, 12" x 18" (TYP.)
7F DENOTES "VAN ACCESSIBLE" D9-6P (BOLLARD MOUNTED WITH 6B)
8 DENOTES "STOP" R1-1, 30" x 30" (TYP.)

PROJECT NOTES:

- ALL CONSTRUCTION WITHIN PUBLIC R.O.W./ EASEMENTS AND OR CONNECTION TO PUBLIC SEWERS AND STREETS SHALL COMPLY WITH THE CITY OF CREVE COEUR STANDARD CONSTRUCTION SPECIFICATIONS.
- AT LEAST ONE WEEK PRIOR TO ANY CONSTRUCTION WITHIN PUBLIC R.O.W./ EASEMENTS AND/OR ANY CONNECTION TO PUBLIC SEWERS AND STREETS, THE CONTRACTOR SHALL CONTACT THE CITY TO OBTAIN APPLICABLE CITY PERMITS.
- INGRESS/EGRESS WILL BE PROVIDED INTERNAL AND EXTERNAL TO THIS SITE.
- ALL CONCRETE CURB & GUTTER SHALL BE 24" (B6.18) UNLESS OTHERWISE NOTED ON THE PLANS.
- ALL PAVEMENT DIMENSIONS ARE MEASURED TO THE FACE OF CURB UNLESS OTHERWISE NOTED.
- ALL CONSTRUCTION MATERIALS, DUMPSTER, DETACHED TRAILERS OR SIMILAR ITEMS ARE PROHIBITED ON PUBLIC STREETS OR WITHIN THE PUBLIC RIGHT-OF-WAY.



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SITE PLAN
SHEET NUMBER
C-200



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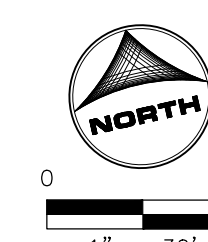
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NO. DATE	

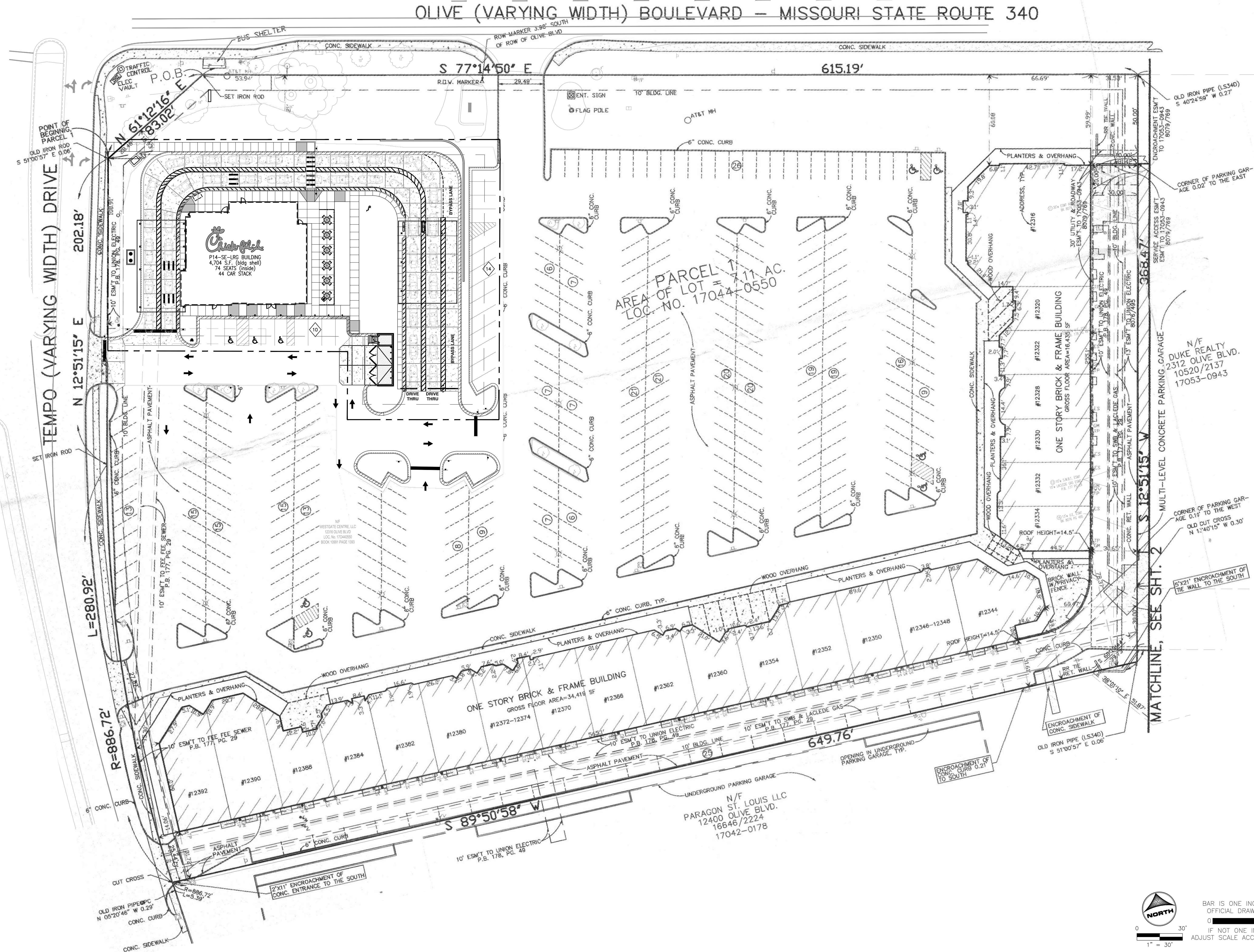
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SHEET	OVERALL SITE PLAN
SHEET NUMBER	C-201



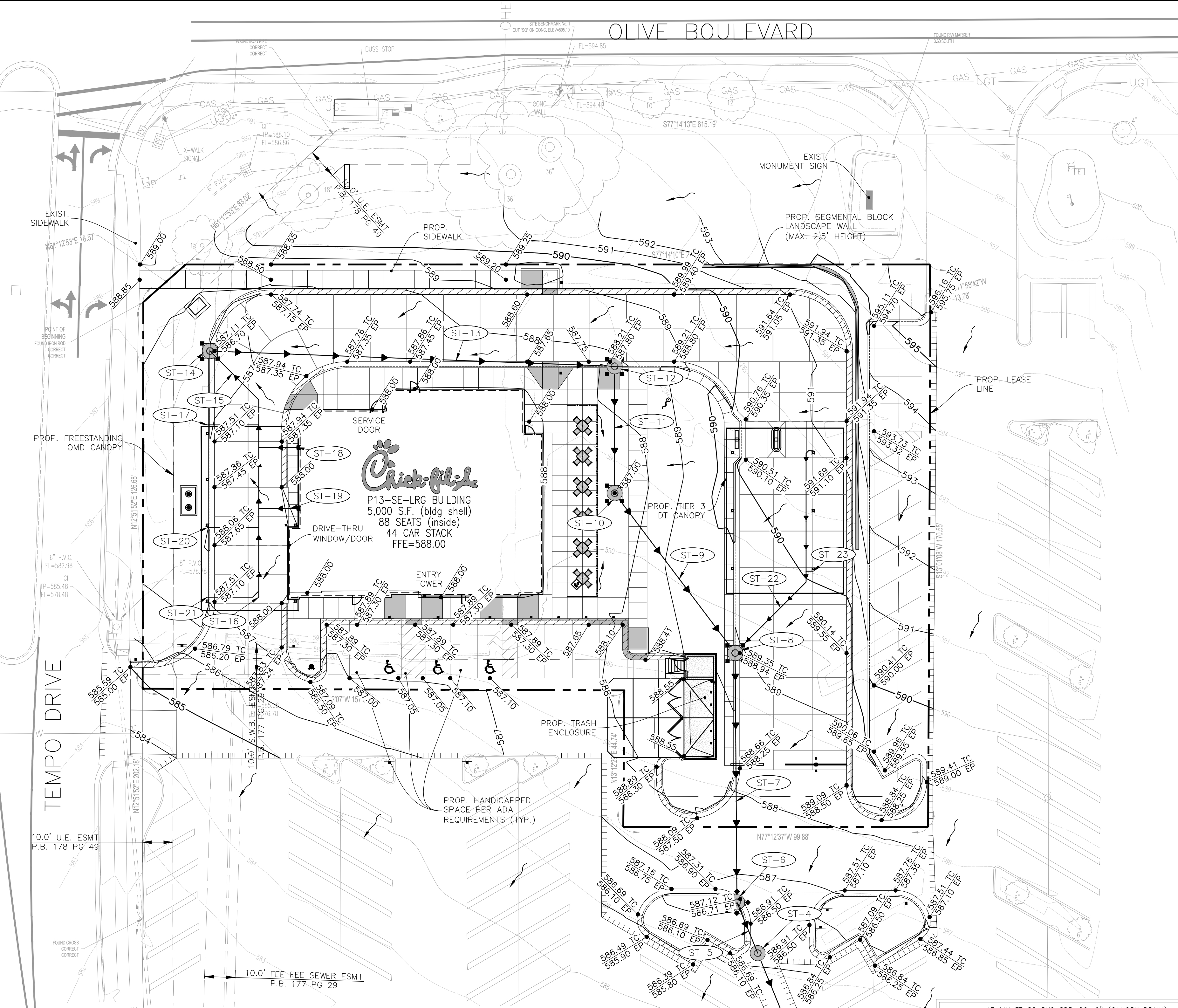
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GRADING & DRAINAGE NOTES

- CONTRACTOR IS RESPONSIBLE FOR COORDINATION OF SITE PLAN DOCUMENTS AND ARCHITECTURAL DESIGN FOR EXACT BUILDING UTILITY CONNECTION LOCATIONS, GREASE TRAP REQUIREMENTS/DETAILS, DOOR ACCESS, AND EXTERIOR GRADING. THE UTILITY SERVICE SIZES ARE TO BE DETERMINED BY THE ARCHITECT. THE CONTRACTOR SHALL COORDINATE INSTALLATION OF UTILITIES/SERVICES WITH THE INDIVIDUAL COMPANIES, TO AVOID CONFLICTS AND ENSURE PROPER DEPTHS ARE ACHIEVED. THE JURISDICTION UTILITY REQUIREMENTS SHALL ALSO BE MET, AS WELL AS COORDINATING THE UTILITY TIE-INS/CONNECTIONS PRIOR TO CONSTRUCTING TO THE EXISTING UTILITY/SERVICE. WHERE CONFLICTS EXIST WITH THESE SITE PLANS, ENGINEER IS TO BE NOTIFIED PRIOR TO CONSTRUCTION TO RESOLVE SAME.
- SITE GRADING SHALL BE PERFORMED IN ACCORDANCE WITH THESE PLANS AND SPECIFICATIONS AND THE RECOMMENDATIONS SET FORTH IN THE GEOTECHNICAL REPORT. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVING AND REPLACING WITH SUITABLE MATERIALS AS SPECIFIED IN THE GEOTECHNICAL REPORT. ALL EXCAVATED OR FILLED AREAS SHALL BE COMPACTED AS OUTLINED IN THE GEOTECHNICAL REPORT. MOISTURE CONTENT AT TIME OF PLACEMENT SHALL BE SUBMITTED IN COMPACTION REPORT PREPARED BY A QUALIFIED GEOTECHNICAL ENGINEER, REGISTERED WITH THE STATE WHERE THE WORK IS PERFORMED, VERIFYING THAT ALL FILLED AREAS AND SUBGRADE AREAS WITHIN THE BUILDING PAD AREA AND AREAS TO BE PAVED HAVE BEEN COMPACTED IN ACCORDANCE WITH THESE PLANS AND SPECIFICATIONS AND THE RECOMMENDATIONS SET FORTH IN THE GEOTECHNICAL REPORT. SUBBASE MATERIAL FOR SIDEWALKS, CURB, OR ASPHALT SHALL BE FREE OF ORGANICS AND OTHER UNSUITABLE MATERIALS. SHOULD SUBBASE BE DEMAED UNSUITABLE BY OWNER OR OWNER'S REPRESENTATIVE, SUBBASE IS TO BE REMOVED AND FILLED WITH APPROVED FILL MATERIAL COMPACTED AS DIRECTED BY THE GEOTECHNICAL REPORT.
- ALL FILL, COMPACTION, AND BACKFILL MATERIALS REQUIRED FOR UTILITY INSTALLATION SHALL BE AS PER THE RECOMMENDATIONS PROVIDED IN THE GEOTECHNICAL REPORT AND SHALL BE COORDINATED WITH THE APPLICABLE UTILITY COMPANY SPECIFICATIONS.
- THE CONTRACTOR SHALL COMPLY TO THE FULLEST EXTENT WITH THE LATEST OSHA STANDARDS AND REGULATIONS, OR ANY OTHER AGENCY HAVING JURISDICTION FOR EXCAVATION AND TRENCHING PROCEDURES. THE CONTRACTOR IS RESPONSIBLE FOR DETERMINING THE "MEANS AND METHODS" REQUIRED TO MEET THE INTENT AND PERFORMANCE CRITERIA OF OSHA, AS WELL AS ANY OTHER ENTITY THAT HAS JURISDICTION FOR EXCAVATION AND/OR TRENCHING PROCEDURES.
- PAVEMENT SHALL BE SAW CUT IN STRAIGHT LINES TO THE FULL DEPTH OF THE EXISTING PAVEMENT. ALL DEBRIS FROM REMOVAL OPERATIONS SHALL BE REMOVED FROM THE SITE AT THE TIME OF EXCAVATION. STOCKPILING OF DEBRIS WILL NOT BE PERMITTED.
- THE TOPS OF EXISTING MANHOLES, INLET STRUCTURES, AND SANITARY CLEANOUT TOPS SHALL BE ADJUSTED, IF REQUIRED, TO MATCH PROPOSED GRADES IN ACCORDANCE WITH ALL APPLICABLE STANDARDS.
- THE CONTRACTOR IS RESPONSIBLE FOR VERIFICATION OF EXISTING TOPOGRAPHIC INFORMATION AND UTILITY INVERT ELEVATIONS PRIOR TO COMMENCEMENT OF ANY CONSTRUCTION. CONTRACTOR TO ENSURE 0.75% MINIMUM SLOPE ALONG ALL ISLANDS, GUTTERS, AND CURBS; 1.0% ON ALL CONCRETE SURFACES; AND 1.5% MINIMUM ON ASPHALT, TO PREVENT PONDING. ANY DISCREPANCIES THAT MAY AFFECT THE PUBLIC SAFETY OR PROJECT COST MUST BE IDENTIFIED TO THE ENGINEER IN WRITING IMMEDIATELY. PROCEEDING WITH CONSTRUCTION WITHOUT NOTIFICATION IS DONE SO AT THE CONTRACTOR'S OWN RISK.
- PROPOSED TOP OF CURB ELEVATIONS ARE GENERALLY 6" ABOVE EXISTING LOCAL ASPHALT GRADE UNLESS OTHERWISE NOTED. FIELD ADJUST TO CREATE A MINIMUM OF 0.75% GUTTER GRADE ALONG CURB FACE. ENGINEER TO APPROVE FINAL CURBING CUT SHEETS PRIOR TO INSTALLATION.
- IN CASE OF DISCREPANCIES BETWEEN PLANS OR RELATIVE TO OTHER PLANS, THE SITE PLAN WILL TAKE PRECEDENCE. IMMEDIATELY NOTIFY THE ENGINEER IN WRITING OF ANY CONFLICTS.
- CONTRACTOR SHALL BE REQUIRED TO SECURE ALL NECESSARY PERMITS AND APPROVALS FOR ALL OFF-SITE MATERIAL SOURCES AND DISPOSAL FACILITIES. CONTRACTOR SHALL SUPPLY A COPY OF APPROVALS TO ENGINEER AND OWNER PRIOR TO INITIATING WORK.
- SITE GRADING SHALL NOT PROCEED UNTIL EROSION CONTROL MEASURES HAVE BEEN INSTALLED.
- SEE EROSION CONTROL PLAN FOR EROSION CONTROL MEASURES AND NOTES.
- ALL EXISTING STRUCTURES, UNLESS OTHERWISE NOTED TO REMAIN, FENCING, TREES, & ETC., WITHIN CONSTRUCTION AREA SHALL BE REMOVED & DISPOSED OF OFF SITE. NO ON SITE BURNING WILL BE ALLOWED
- ALL DRAINAGE STRUCTURES SHALL BE PRE-CAST.
- ALL DRAINAGE STRUCTURES AND STORM SEWER PIPES SHALL MEET HEAVY DUTY TRAFFIC (H20) LOADING AND BE INSTALLED ACCORDINGLY.
- GENERAL CONTRACTOR SHALL NOTIFY ALL UTILITY COMPANIES HAVING UNDERGROUND UTILITIES ON SITE OR IN ADJACENT AREAS PRIOR TO EXCAVATION. CONTRACTOR SHALL CONTACT UTILITY LOCATING COMPANY AND LOCATE ALL UTILITIES PRIOR TO GRADING START.
- NO PART OF THE PROPOSED PROJECT IS LOCATED WITHIN A FLOOD HAZARD AREA
- SPOT ELEVATIONS SHOWN ARE @ EDGE OF PAVEMENT UNLESS OTHERWISE NOTED ON PLAN.
- ALL CONCRETE CURB & GUTTER SHALL BE TYPE B-6.18 CURB UNLESS OTHERWISE NOTED ON THE PLANS.
- ALL STORM SEWER JOINTS SHALL HAVE O-RING GASKETS.
- MATCH EXISTING GRADES AT PROPERTY LINES AND/OR CONSTRUCTION LIMITS.
- BACKFILL TO THE TOP OF CURBS.
- SITE SHALL BE GRADED TO PROVIDE POSITIVE DRAINAGE AWAY FROM BUILDINGS
- ALL SIDEWALK CROSS SLOPES SHALL BE A MAXIMUM OF 1.5%.
- DESIGNATED HANDICAP PARKING AREAS SHALL BE GRADED TO A MAXIMUM OF 1.5%
- SLOPES IN PAVEMENT SHALL BE UNIFORM TO AVOID PONDING OF PAVEMENT.
- THE CONTRACTOR SHALL CONFINE HIS GRADING OPERATIONS TO WITHIN CONSTRUCTION LIMITS AND EASEMENTS SHOWN ON THE PLANS. ANY DAMAGE TO PROPERTIES OUTSIDE THE SITE BOUNDARY SHALL BE AT THE SOLE RESPONSIBILITY OF THE CONTRACTOR.
- THE CONTRACTOR SHALL APPLY NECESSARY MOISTURE CONTROL TO THE CONSTRUCTION AREA AND HAUL ROADS TO PREVENT THE SPREAD OF DUST.
- ALL FIELD TILES ENCOUNTERED SHALL BE REPLACED AND/OR CONNECTED TO THE STORM SEWER SYSTEM AND LOCATED AND IDENTIFIED ON THE RECORD PLANS BY THE CONTRACTOR.
- ALL STORM DRAINAGE CONSTRUCTION SHALL BE PERFORMED IN ACCORDANCE WITH THE MOST CURRENT CITY OF CREVE COEUR STANDARDS AND SPECIFICATIONS.



PROJECT NOTES:

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- AT LEAST ONE WEEK PRIOR TO ANY CONSTRUCTION WITHIN PUBLIC R.O.W./ EASEMENTS AND/OR ANY CONNECTION TO PUBLIC SEWERS AND STREETS, THE CONTRACTOR SHALL CONTACT THE CITY TO OBTAIN APPLICABLE CITY PERMITS.
- INGRESS/EGRESS WILL BE PROVIDED INTERNAL AND EXTERNAL TO THIS SITE.
- ALL CONCRETE CURB & GUTTER SHALL BE 24" (B6.18) UNLESS OTHERWISE NOTED ON THE PLANS.
- ALL PAVEMENT DIMENSIONS ARE MEASURED TO THE FACE OF CURB UNLESS OTHERWISE NOTED.
- ALL CONSTRUCTION MATERIALS, DUMPSTER, DETACHED TRAILERS OR SIMILAR ITEMS ARE PROHIBITED ON PUBLIC STREETS OR WITHIN THE PUBLIC RIGHT-OF-WAY

FLOODPLAIN NOTE:

- PER FEMA FIRM 29189C0187K DATED FEBRUARY 4, 2015 - THE SUBJECT PROPERTY IS:
- ZONE X (UNSHADED) - AREA OF MINIMAL FLOOD HAZARD ZONE

HATCH LEGEND

- | | | | |
|--|--|--|---|
| | DENOTES REVERSE (SPILLING) CURB & GUTTER | | DENOTES AREA OF DEPRESSED SIDEWALK |
| | DENOTES CONCRETE CURB & GUTTER (CATCHING) | | DENOTES EXISTING AND OR PROPOSED SPOT ELEVATIONS. |
| | DENOTES AREA OF DEPRESSED SPILLING CURB & GUTTER | | DENOTES PROPOSED DRAINAGE DIRECTION ARROW. |
| | DENOTES AREA OF DEPRESSED CATCHING CURB & GUTTER | | DENOTES PROPOSED OVERFLOW DIRECTION ARROW. |

NOTE:

- ALL STORM STRUCTURES WITHIN PAVED AREAS REQUIRE WEEP HOLES. SEE DETAILS 40 & 40A ON SHEET C-403 FOR WEEP HOLE DETAILS.

ST-# STORM TAGS

ST-1	EXIST. 115 LIN FT SS RCP, 15" @ 2.15
ST-2	EXIST. STM INTAKE TP = 583.65 FL = 578.75 W. E 15" RCP INV = 579.40 NW 12" RCP (TO BE CORED)
ST-3	85 LIN FT SS RCP, 12" @ 2.00%
ST-4	CONTECH WATER QUALITY UNIT, 6' DIA. CDS3020-6-C RIM = 586.25 INV = 581.10 SE 12" RCP INV = 581.10 NW 12" RCP
ST-5	13 LIN FT SS RCP, 12" @ 1.54%
ST-6	STM SWR CB 4' DIA., R-3235 TY A GRATE T/C = 587.12 INV = 581.30 SE 12" RCP INV = 581.30 NE 12" RCP
ST-7	78 LIN FT SS RCP, 12" @ 0.96%
ST-8	STM SWR CB 4' DIA., R-3235 TY A GRATE T/C = 589.35 INV = 582.05 SW 12" RCP INV = 582.05 NW 12" RCP INV = 586.00 NE 6" PVC
ST-9	62 LIN FT SS RCP, 12" @ 0.73%
ST-10	STM SWR CB 4' DIA., R-2504 TY D GRATE RIM = 587.00 INV = 582.50 SE 12" RCP INV = 582.50 NE 12" RCP
ST-11	38 LIN FT SS RCP, 12" @ 0.66%
ST-12	STM SWR CB 4' DIA., R-3235 TY A GRATE T/C = 588.21 INV = 582.75 SW 12" RCP INV = 582.75 NW 12" RCP
ST-13	129 LIN FT SS RCP, 12" @ 0.58%
ST-14	STM SWR CB 4' DIA., R-3235 TY A GRATE T/C = 587.11 INV = 583.50 SE 12" RCP INV = 584.00 SE 8" PVC
ST-15	86 LIN FT SS PVC SDR-26, 8" @ 1.00%
ST-16	CLEANOUT (SEE DETAIL) RIM = 587.65 INV = 584.86
ST-17	17 LIN FT SS PVC SDR-26, 6" (CANOPY DRAIN) @ 1.00% INV @ ST-15 = 584.37 INV @ DOWNSPOUT = 584.54
ST-18	13 LIN FT SS PVC SDR-26, 8" (BLDG DRAIN) @ 1.00% INV @ ST-15 = 584.36 INV @ BLDG = 584.49
ST-19	13 LIN FT SS PVC SDR-26, 8" (BLDG DRAIN) @ 1.00% INV @ ST-15 = 584.56 INV @ BLDG = 584.69



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NO. DATE DESCRIPTION

ENGINEER'S PROJECT # 211634

PRINTED FOR PRELIMINARY

DATE 05/24/2022

DRAWN BY: MRJ

CHECKED BY: JFV

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SHEET GRADING PLAN

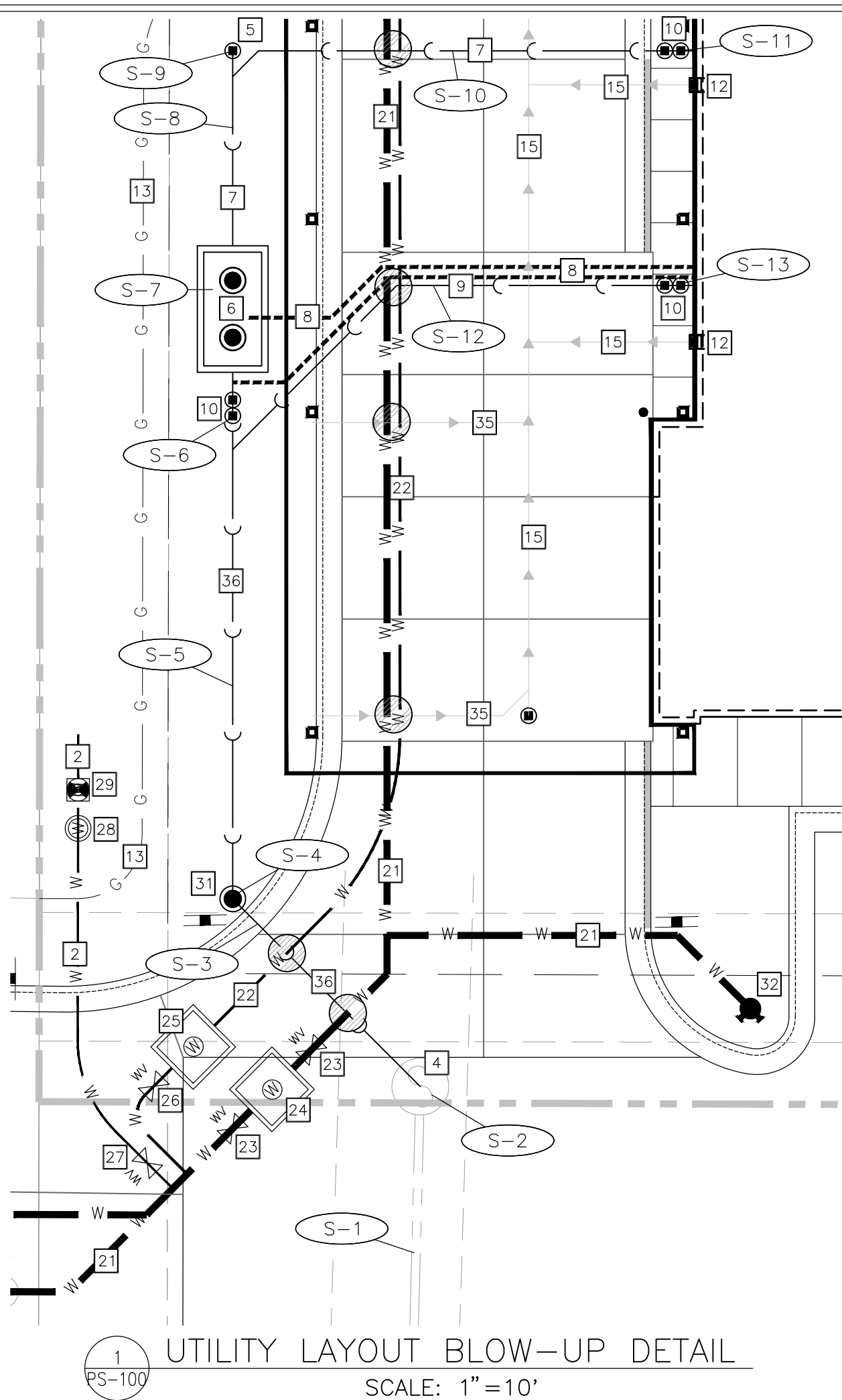
SHEET NUMBER

C-300

PRELIMINARY

LAYOUT NOTES

- PAY CONNECTION FEES FOR 2" DOMESTIC /6" FIRE WATER SERVICE AND METER. DOMESTIC SERVICE TO SPLIT OFF FIRE SERVICE EXTERNAL TO BUILDING.
- 1.5" SOFT COPPER (TYPE K) IRRIGATION LINE TO HAVE SEPARATE METER LOCATED EXTERNAL TO THE BUILDING.
- 3/4" CW TO DUMPSTER POST HYDRANT (SOFT COPPER TYPE K)
- CONNECTION TO EXIST. SANITARY MANHOLE PER MSD REQUIREMENTS. CONTRACTOR TO VERIFY DOWNSTREAM PIPE INVERT PRIOR TO ORDERING STRUCTURES. (SEE SANITARY TAGS FOR INFO)
- 6" CLEAN OUT (SEE DETAIL). CLEANOUT SHALL BE FLUSH W/ PAVEMENT & INSTALLED UNDER A PROTECTIVE METAL BOX COVER SIMILAR TO A METER PIT COVER WITH A TRAFFIC BEARING LID.
- PRECAST 1,500 GAL. CAPACITY GREASE TRAP. PLUMBING CONTRACTOR TO COORDINATE WITH BUILDING CONTRACTOR. TOP OF MANHOLE TO BE 0.2' ABOVE FINISH GRADE AND MATCH SIDEWALK GRADES WHERE REQUIRED. VERIFY GREASE TRAP MEETS CITY/COUNTY SPECIFICATIONS PRIOR TO INSTALLATION. REFER TO PLUMBING PLAN, SHEET P-101.
- 6" KITCHEN WASTE LINE. (SEE SANITARY TAGS FOR INFO)
- 3" VENT LINE. CONNECT TO GREASE INTERCEPTOR. (SEE SHEET P-101 FOR LOCATION)
- 6" RESTROOM WASTE LINE. (SEE SANITARY TAGS FOR INFO)
- 6" TWO-WAY CLEAN OUT. (REFER TO PLUMBING PLANS)(SEE DETAIL 37/C-403)
- DUMPSTER POST HYDRANT REFER TO THE FIXTURE CONNECTION SCHEDULE (P-303) DEPICTED ON THE PROJECT PLUMBING PLANS.
- DOWNSPOUT FOR ROOF DRAINAGE. (REFER TO ARCHITECTURAL PLANS)
- PROPOSED GAS SERVICE. (SEE NOTE 19)
- COORDINATE GAS METER INSTALLATION WITH GAS COMPANY.
- 8" PVC SDR 26 ROOF DRAIN PIPE SYSTEM. (CONNECT TO SITE STORM DRAIN)
- UNDERGROUND PRIMARY ELECTRIC SERVICE. (SEE NOTE 21)
- UNDERGROUND PRIMARY TELEPHONE SERVICE. (SEE NOTE 20)
- UNDERGROUND SECONDARY ELECTRIC SERVICE TO BUILDING. (SEE NOTE 21)
- PROPOSED PAD MOUNTED TRANSFORMER PER ELECTRIC COMPANY STANDARDS. SEE SERVICE UTILITY NOTES, THIS SHEET.
- CFA SERVICE CONNECTION. CONNECT TO EXISTING SERVICE STUB. SERVICE SIZE TO BE VERIFIED.
- 6" FIRE SERVICE - DI CL52 PIPE - OPEN TRENCH
- 2" SOFT COPPER (TYPE K) WITH APPROVED FLARED OR COMPRESSION FITTING ONLY (DOMESTIC)
- 6" CONTROL VALVE & VALVE BOX - FIRE (SEE DETAILS)
- DETECTOR CHECK VAULT AND METER ASSEMBLY - FIRE (SEE DETAILS)
- 2" METER BOX & METER SET - DOMESTIC SERVICE (SEE DETAILS)
- 2" CORPORATION STOP AND CONTROL VALVE & VALVE BOX - DOMESTIC (SEE DETAILS)
- 1 1/2" CORPORATION STOP AND CONTROL VALVE & VALVE BOX - IRRIGATION (SEE DETAILS)
- 1 1/2" ROUND METER BOX & METER SET - IRRIGATION SERVICE (SEE DETAILS)
- ABOVE GROUND HEATED VALVE BOX WITH REDUCE PRESSURE ZONE BACKFLOW PREVENTER FOR IRRIGATION SYSTEM
- UNDERGROUND ISP SERVICE (SEE NOTE 22)
- SANITARY SAMPLING MANHOLE (SEE DETAILS)
- FIRE HYDRANT WITH AUXILIARY VALVE AND VALVE BOX
- EXIST. VALVE & VALVE BOX (SERVICE SIZE TO BE VERIFIED)
- 1.5" GAS LINE TO DT CANOPY (REFER TO CANOPY DRAWINGS FOR CONNECTION)
- 6" PVC SDR 26 CANOPY DRAIN PIPE SYSTEM. (CONNECT TO SITE STORM DRAIN)
- 6" SANITARY SERVICE LINE - PVC SDR 26
- FIRE DEPARTMENT CONNECTION
- EXISTING WATERMAIN (LOCATION, SIZE, & DPETH TO BE VERIFIED)
- BID ALT: CFA SERVICE TAP. CONNECT TO EXIST. WATERMAIN VIA TAPPING SLEEVE AND VALVE & VALVE BOX. CONTRACTOR TO VERIFY LOCATION, DEPTH, AND SIZE OF THE EXISTING WATERMAIN PRIOR TO ORDERING MATERIALS.
- BID ALT: 6" FIRE SERVICE - DI CL52 PIPE - OPEN TRENCH



S-# SANITARY SEWER TAGS

S-1	EXIST. 253 LF SAN SWR MAIN, 8" @ 2.53%	S-8	16 LIN FT SAN SWR, 6" PVC (SDR 26) @ 2.00%
S-2	EXIST. SAN MH EXIST. RIM = 585.08 PROP. RIM = 585.90 INV = 576.78 SW 8" INV = 576.78 NE 8" (EXIST. PIPE INVERT TO BE MORTARED SHUT PER MSD STANDARDS) INV = 577.25 NW 6" PVC (TO BE CORED)	S-9	CLEANOUT (SEE DETAIL) RIM = 587.80 INV = 582.80
S-3	17 LIN FT SAN SWR, 6" PVC (SDR 26) (3.5 LF RISER @ 1:1 SLOPE) (13.5 LF @ 3.70%) (INV @ TOP OF RISER = 580.75)	S-10	37 LIN FT SAN SWR, 6" PVC (SDR 26) @ 2.00% INV @ S-8 = 582.76 INV @ BLDG = 583.50 (VERIFY WITH ARCHITECT/PLANS)
S-4	SAN SWR SAMPLING MH, 4' DIA. (SEE DETAIL) RIM = 586.65 INV = 581.25 SE 6" PVC INV = 581.50 NE 6" PVC	S-11	TWO-WAY CLEAN OUT (SEE DETAIL) RIM = 587.95 INV = +/- 583.46
S-5	41 LIN FT SAN SWR, 6" PVC (SDR 26) @ 2.00%	S-12	42 LIN FT SAN SWR, 6" PVC (SDR 26) @ 3.12% INV @ S-5 = 582.19 INV @ BLDG = 583.50 (VERIFY WITH ARCHITECT/PLANS)
S-6	TWO-WAY CLEAN OUT (SEE DETAIL) RIM = 587.65 INV = +/- 582.25	S-13	TWO-WAY CLEAN OUT (SEE DETAIL) RIM = 588.00 INV = +/- 583.44
S-7	GREASE TRAP (1,500 GAL.) SEE BUILDING PLUMBING PLAN FOR DETAILS RIM(S) = 587.70 S, 587.70 N INV = 582.48 (INLET) INV = 582.31 (OUTLET)		

MISCELLANEOUS NOTES:

- ALL BUILDING UTILITY SERVICE LOCATIONS TO BE VERIFIED W/ ARCHITECTURAL PLANS PRIOR TO CONSTRUCTION.
- FOR EXACT LIGHT POLE LOCATIONS SEE PHOTOMETRICS PLAN.
- AT LEAST ONE WEEK PRIOR TO ANY CONSTRUCTION WITHIN PUBLIC R.O.W./ EASEMENTS AND/OR ANY CONNECTION TO PUBLIC SEWERS AND STREETS, THE CONTRACTOR SHALL CONTACT THE CITY, STATE, OR APPLICABLE UTILITY COMPANY/DISTRICT TO OBTAIN APPLICABLE PERMITS.

CONFLICT TAGS

- OMITTED FOR THIS SUBMITTAL

SEWER FLOW:

AVERAGE POTABLE WATER USAGE: 1,500 GPD

- 775 GPD IS NON-GREASE WASTE
- 725 GPD IS GREASE WASTE
- PEAK DESIGN FLOW: 6,000 GPD

ONSITE WATERLINE NOTES:

- THRUST BLOCKS SHALL BE PROVIDED AT ALL BENDS, TEES, AND FIRE HYDRANTS.
- ALL FIRE HYDRANTS SHALL BE PROVIDED WITH AN APPROVED AUXILIARY GATE VALVE.
- ALL WATER MAINS SHALL BE HYDROSTATICALLY TESTED AND DISINFECTED BEFORE ACCEPTANCE. SEE SITE WORK SPECIFICATIONS.
- ALL TRENCHING, PIPE LAYING, AND BACKFILLING SHALL BE IN ACCORDANCE WITH FEDERAL OSHA REGULATIONS.
- GENERAL CONTRACTOR SHALL HAVE APPROVAL OF ALL GOVERNING AGENCIES HAVING JURISDICTION OVER THIS SYSTEM PRIOR TO INSTALLATION.
- ALL 6" DIAMETER WATER SERVICE PIPE SHALL BE DUCTILE IRON PIPE CLASS 52.
- ALL DIRECT BURIED DUCTILE IRON PIPE, FITTINGS, VALVES, ETC. SHALL BE ENCASED WITH POLYETHYLENE ENCASEMENT PER MISSOURI AMERICAN WATER SPECIFICATIONS.
- ALL 2" DIAMETER AND SMALLER WATER SERVICE PIPE SHALL BE TYPE K COPPER.

● DENOTES MAINTAIN 18" VERTICAL SEPARATION PER MoDNr'S REQUIREMENTS

UTILITY NOTES

- REFER TO MECHANICAL, ELECTRICAL, AND PLUMBING PLANS FOR DUTY SERVICE SIZES AND EXACT LOCATIONS. CONTRACTOR TO CONFIRM SIZES OF ALL SERVICES PRIOR TO INSTALLATION. REFER TO ELECTRICAL PLANS FOR ELECTRIC AND TELEPHONE SERVICE CONSTRUCTION DETAILS. REFER TO MECHANICAL PLANS FOR GAS SERVICE CONSTRUCTION DETAILS.
- FIELD VERIFY ELEVATIONS AND LOCATIONS OF ALL CONNECTIONS TO EXISTING UTILITIES PRIOR TO COMMENCING CONSTRUCTION.
- PROVIDE TEMPORARY SUPPORT FOR EXISTING UTILITY LINES THAT ARE ENCOUNTERED DURING CONSTRUCTION UNTIL BACKFILLING IS COMPLETE.
- MAINTAIN A MINIMUM OF 3.5' COVER OVER ALL WATER MAINS.
- MAINTAIN A MINIMUM OF 3.0' COVER OVERALL SANITARY SEWER.
- ADJUST ALL MANHOLES AND FRAMES TO FINISHED GRADES.
- ALL WATER AND SANITARY SEWER SERVICES SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE REQUIREMENTS OF MISSOURI AMERICAN WATER, THE METROPOLITAN ST. LOUIS SEWER DISTRICT, AND THE CITY OF CREVE COEUR.
- 18" MINIMUM VERTICAL CLEARANCE BETWEEN SANITARY/STORM SEWER AND WATER MAIN. (PER MoDNr STANDARDS).
- MAINTAIN A MINIMUM OF 10' HORIZONTAL SEPARATION BETWEEN SANITARY SEWER LINES AND PUBLIC WATER MAINS.
- WHERE PUBLIC UTILITY FIXTURES ARE SHOWN AS EXISTING ON THE PLANS OR ENCOUNTERED WITHIN THE CONSTRUCTION AREA, IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO NOTIFY THE OWNERS OF THOSE UTILITIES PRIOR TO THE BEGINNING OF ANY CONSTRUCTION. THE CONTRACTOR SHALL AFFORD ACCESS TO THESE FACILITIES FOR NECESSARY MODIFICATION OF SERVICES. UNDERGROUND FACILITIES, STRUCTURES, AND UTILITIES HAVE BEEN PLOTTED FROM AVAILABLE SURVEYS AND RECORDS AND THEREFORE, THEIR LOCATIONS MUST BE CONSIDERED APPROXIMATE ONLY. IT IS POSSIBLE THERE MAY BE OTHERS. THE EXISTENCE OF WHICH IS PRESENTLY NOT KNOWN OR SHOWN. IT IS THE CONTRACTORS RESPONSIBILITY TO DETERMINE THEIR EXISTENCE AND EXACT LOCATIONS AND TO AVOID DAMAGE THERETO. NO CLAIMS FOR ADDITIONAL COMPENSATION WILL BE ALLOWED TO THE CONTRACTOR FOR ANY INTERFERENCE OR DELAY CAUSED BY SUCH WORK. THE CONTRACTOR IS REQUIRED TO UTILIZE THE UTILITY CALL MISSOURI ONE CALL AT 1-800-344-7483 AT LEAST 48 HOURS PRIOR TO EXCAVATING ANYWHERE ON THE PROJECT.
- LOCATION OF SITE UTILITIES SHALL BE VERIFIED WITH PROPER UTILITY COMPANY PROVIDING SERVICE.
- ALL WATER AND SANITARY LEADS TO BUILDING SHALL END 5' OUTSIDE THE BUILDING LIMITS AS SHOWN ON PLAN AND SHALL BE PROVIDED WITH A TEMPORARY PLUG AT END.
- SEE SITE SPECIFICATIONS "UNDERGROUND UTILITIES" FOR BACKFILLING AND COMPACTION REQUIREMENTS.
- GENERAL CONTRACTOR WILL BE RESPONSIBLE FOR ALL TAP AND TIE ON FEES REQUIRED, AS WELL AS COST OF UNDERGROUND SERVICE CONNECTIONS TO THE BUILDING.
- ELECTRICAL SERVICE TO PAD MOUNTED TRANSFORMER SHALL BE RUN UNDERGROUND, FROM ROAD RIGHT-OF-WAY TO TRANSFORMER LOCATION. ASSOCIATED COST BY GENERAL CONTRACTOR.
- ALL EXISTING UTILITIES TO BE FIELD VERIFIED PRIOR TO CONSTRUCTION.
- FOR EXACT LIGHT POLE LOCATIONS SEE PHOTOMETRICS PLAN.
- MATERIAL PERMITTED FOR USE AS SANITARY SEWER PIPES SHALL FOLLOW MSD REQUIREMENTS.
- SPIRE ENERGY WILL FURNISH AND INSTALL THE GAS MAINS AND GAS SERVICE UP TO AND INCLUDING THE METER. IF PAVING IS COMPLETE PRIOR TO GAS SERVICE INSTALLATION, CONTRACTOR TO PROVIDE (1) 4" SCHEDULE 40 PVC CONDUIT UNDER PAVED AREAS.
- CONTRACTOR TO FURNISH AND INSTALL (1) 4" SCHEDULE 40 PVC CONDUIT FOR TELEPHONE SERVICE FROM RIGHT-OF-WAY TO BUILDING. AT&T TO SUPPLY, PROVIDE AND INSTALL PRIMARY TELEPHONE SERVICE. CONDUIT TO BE INSTALLED A MINIMUM 24" BELOW FINISHED GRADE.
- CONTRACTOR TO FURNISH AND INSTALL (2) 4" SCHEDULE 40 PVC CONDUITS WITH PULL WIRE FOR PRIMARY ELECTRIC SERVICE. AMEREN TO PROVIDE AND INSTALL PRIMARY ELECTRIC SERVICE. CONTRACTOR TO FURNISH AND INSTALL (4) 4" SCHEDULE 40 PVC CONDUITS WITH PULL WIRE FOR SECONDARY ELECTRIC SERVICE. CONDUITS SHALL HAVE A MINIMUM OF 48" OF COVER. CONTRACTOR TO PROVIDE AND INSTALL TRANSFORMER PAD IN ACCORDANCE WITH AMEREN SPECIFICATIONS AND REQUIREMENTS. TRANSFORMER PAD SHALL BE INSTALLED TO FINAL GRADE AND LEVELED. CONTRACTOR TO PROVIDE AND INSTALL SECONDARY CONDUCTORS IN ACCORDANCE WITH AMEREN SPECIFICATIONS AND REQUIREMENTS.
- CONTRACTOR TO FURNISH AND INSTALL (1) 3" SCHEDULE 40 PVC CONDUIT WITH PULL STRING FOR ISP SERVICE FROM RIGHT-OF-WAY TO BUILDING. AT&T TO SUPPLY, PROVIDE AND INSTALL ISP SERVICE. CONDUIT TO BE INSTALLED MINIMUM 24" BELOW FINISHED GRADE.
- ALL SANITARY SEWER CONSTRUCTION SHALL MEET THE REQUIREMENTS OF THE METROPOLITAN ST. LOUIS SEWER DISTRICT AND THE CITY OF CREVE COEUR.
- ALL CONNECTIONS TO PUBLIC SANITARY SEWERS SHALL BE CORE DRILLED.
- THE CFA FIRE SERVICE SHALL BE CLASS 52 DUCTILE IRON PIPE.

MSD NOTES:

EXTERNAL GREASE TRAPS AND SAMPLING MANHOLE:

- AN EXTERNAL GREASE TRAP IS REQUIRED TO BE LOCATED IN AN ACCESSIBLE LOCATION FOR MSD INSPECTION. PROVIDE MEANS FOR VISUAL INSPECTION FROM ABOVE FOR BOTH INFLUENT AND EFFLUENT SIDES. A MSD SAMPLING MANHOLE WILL BE LOCATED ON A PRIVATE LATERAL IN AN ACCESSIBLE LOCATION FOR MSD SAMPLING. THE SAMPLING MANHOLE WILL BE LOCATED DOWNSTREAM OF THE GREASE TRAP AND ALL OTHER COMMERCIAL SANITARY LATERAL CONNECTIONS TO FACILITATE MSD SAMPLING. GREASE TRAPS AND SAMPLING MANHOLES WILL BE SHOWN ON THE PLANS AND NOT BE LOCATED IN DRIVE-THRU LANES OR WITHIN PARKING SPACES.
- MAINTENANCE OF THE SEWERS DESIGNATED "PUBLIC" SHALL BE THE RESPONSIBILITY OF THE METROPOLITAN ST. LOUIS SEWER DISTRICT UPON DEDICATION OF THE SEWERS TO THE DISTRICT.
- LOCK DOWN LIDS WILL BE REQUIRED FOR ANY SANITARY MANHOLES IN PAVEMENT SUBJECT TO PONDING, SWALES, OR FLOODPLAINS.



BAR IS ONE INCH ON OFFICIAL DRAWINGS
IF NOT ONE INCH, ADJUST SCALE ACCORDINGLY

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CREVE COEUR, MO 63141

FSR# 05161

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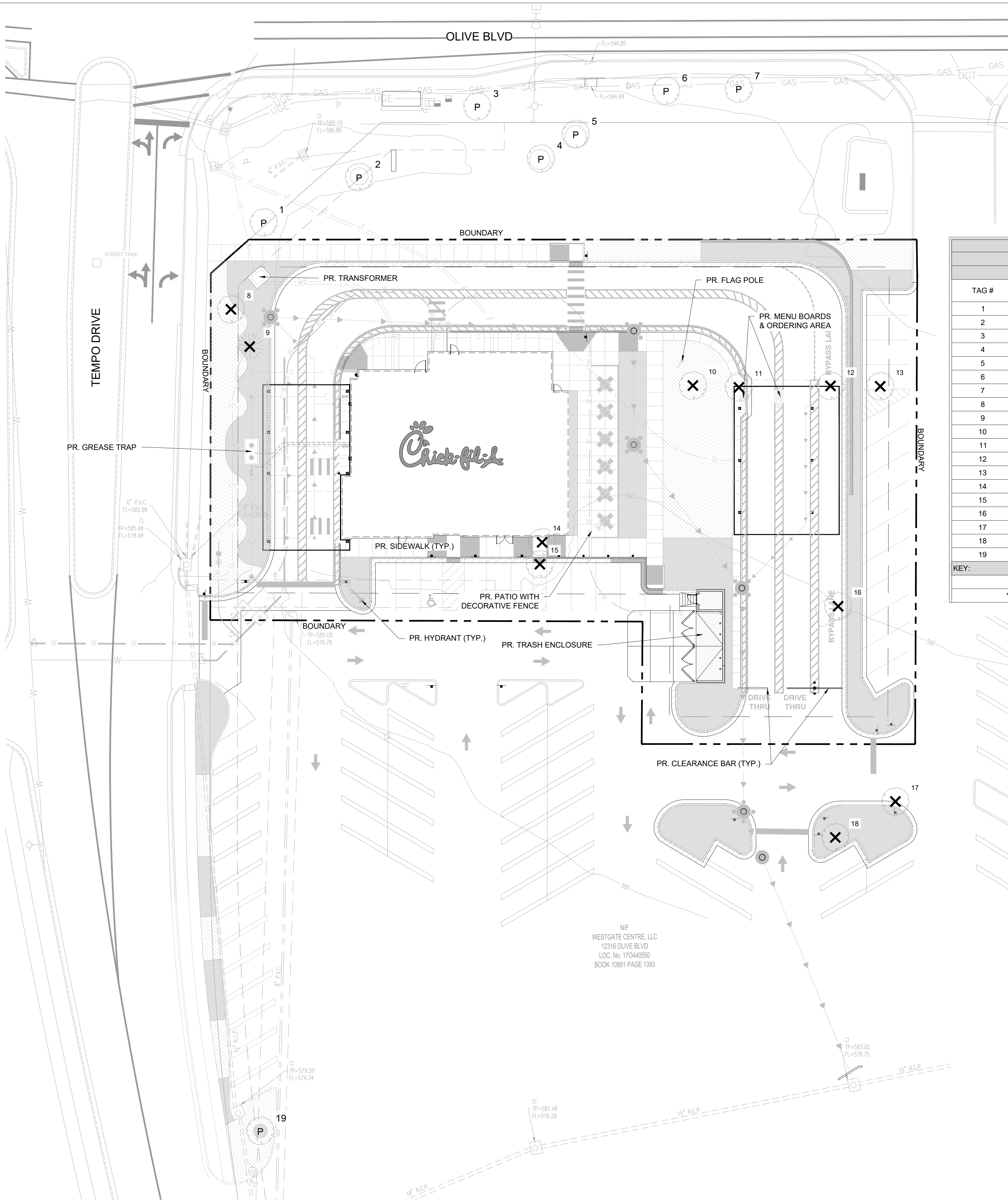
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SHEET

PLUMBING SITE PLAN

SHEET NUMBER

PS-100



CHICK FIL A - CREVE COEUR, MO					
11/7/2022					
TREE SURVEY					
TAG #	DBH (INCHES)	SPECIES	CONDITION**	ACTION	REASON
1	15.0	QUERCUS PHELOW / WILLOW OAK	A	PRESERVE	-
2	18.0	QUERCUS PHELOW / WILLOW OAK	A	PRESERVE	-
3	8.0	GLEDITSIA TRIACANTHOS / HONEY LOCUST	A	PRESERVE	-
4	36.0	ROBINIA PSEUDOACACIA / BLACK LOCUST	A	PRESERVE	-
5	36.0	ROBINIA PSEUDOACACIA / BLACK LOCUST	A	PRESERVE	-
6	10.0	CRATAEGUS CRUS-GALLI / COCKSPUR HAWTHORN	A	PRESERVE	-
7	12.0	CRATAEGUS CRUS-GALLI / COCKSPUR HAWTHORN	A	PRESERVE	-
8	15.0	QUERCUS PHELOW / WILLOW OAK	A	REMOVE	DISTURBANCE IN CRITICAL ROOT ZONE
9	24.0	PINUS SYLVESTRIS / SCOTCH PINE	C	REMOVE	DISTURBANCE IN CRITICAL ROOT ZONE
10	6.0	CRATAEGUS CRUS-GALLI / COCKSPUR HAWTHORN	B	REMOVE	DISTURBANCE IN CRITICAL ROOT ZONE
11	6.0	CRATAEGUS CRUS-GALLI / COCKSPUR HAWTHORN	B	REMOVE	IN FUTURE PAVMENT
12	6.0	CRATAEGUS CRUS-GALLI / COCKSPUR HAWTHORN	B	REMOVE	IN FUTURE PAVMENT
13	6.0	CRATAEGUS CRUS-GALLI / COCKSPUR HAWTHORN	B	REMOVE	IN FUTURE PAVMENT
14	6.0	PHOTINIA GLABRA / JAPANESE PHOTINIA	A	REMOVE	IN FUTURE PAVMENT
15	6.0	PHOTINIA GLABRA / JAPANESE PHOTINIA	A	REMOVE	IN FUTURE PAVMENT
16	6.0	CRATAEGUS CRUS-GALLI / COCKSPUR HAWTHORN	A	REMOVE	IN FUTURE PAVMENT
17	6.0	CRATAEGUS CRUS-GALLI / COCKSPUR HAWTHORN	A	REMOVE	IN FUTURE PAVMENT
18	6.0	CRATAEGUS CRUS-GALLI / COCKSPUR HAWTHORN	A	REMOVE	DISTURBANCE IN CRITICAL ROOT ZONE
19	6.0	QUERCUS PHELOW / WILLOW OAK	A	PRESERVE	-
KEY:					
* AGE: S - Semi-Mature (young trees over 5m high) M - Mature (approximately 40-50 years old) O - Over-Mature (die-back of branches, dead wood, etc.)					
** CONDITION: A - Good B - Fair C - Poor D - Dead					

TREE SURVEY

TREE PROTECTION KEY

P

EXIST. TREE TO BE PRESERVED

X

EXIST. TREE TO BE REMOVED

TRUNK PROTECTIVE FENCING

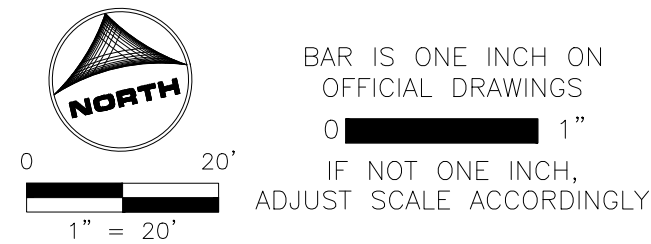
CRITICAL ROOT ZONE

TOTAL QUANTITIES (IN VICINITY OF DISTURBANCE AND PROPOSED IMPROVEMENTS)

EXIST. TREES TO BE PRESERVED	8
EXIST. TREES TO BE REMOVED	11
TOTAL EXISTING TREES TAGGED	19

GENERAL NOTES

- THE INTENT IS TO KEEP THE EXISTING TREES TO BE PRESERVED IN TACT THROUGHOUT THE DURATION OF CONSTRUCTION ON-SITE. IF THE TREES ARE DAMAGED DURING CONSTRUCTION, THE CONTRACTOR IS RESPONSIBLE FOR REPLACING PER THE MUNICIPALITY'S ORDINANCE.
- CONTRACTOR IS RESPONSIBLE FOR THE HAUL-OFF OF ALL TREES AND OTHER VEGETATION TO BE REMOVED.
- THE PRESERVATION OF EACH EXISTING, HEALTHY SHADE TREE THAT IS SIX INCHES OR MORE WILL BE CONSIDERED THE EQUIVALENT OF PLANTING TWO SHADE TREES IN MEETING THE REQUIREMENTS OF THE ORDINANCE REQUIREMENTS.



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SHEET	TREE PRESERVATION PLAN
SHEET NUMBER	L-100



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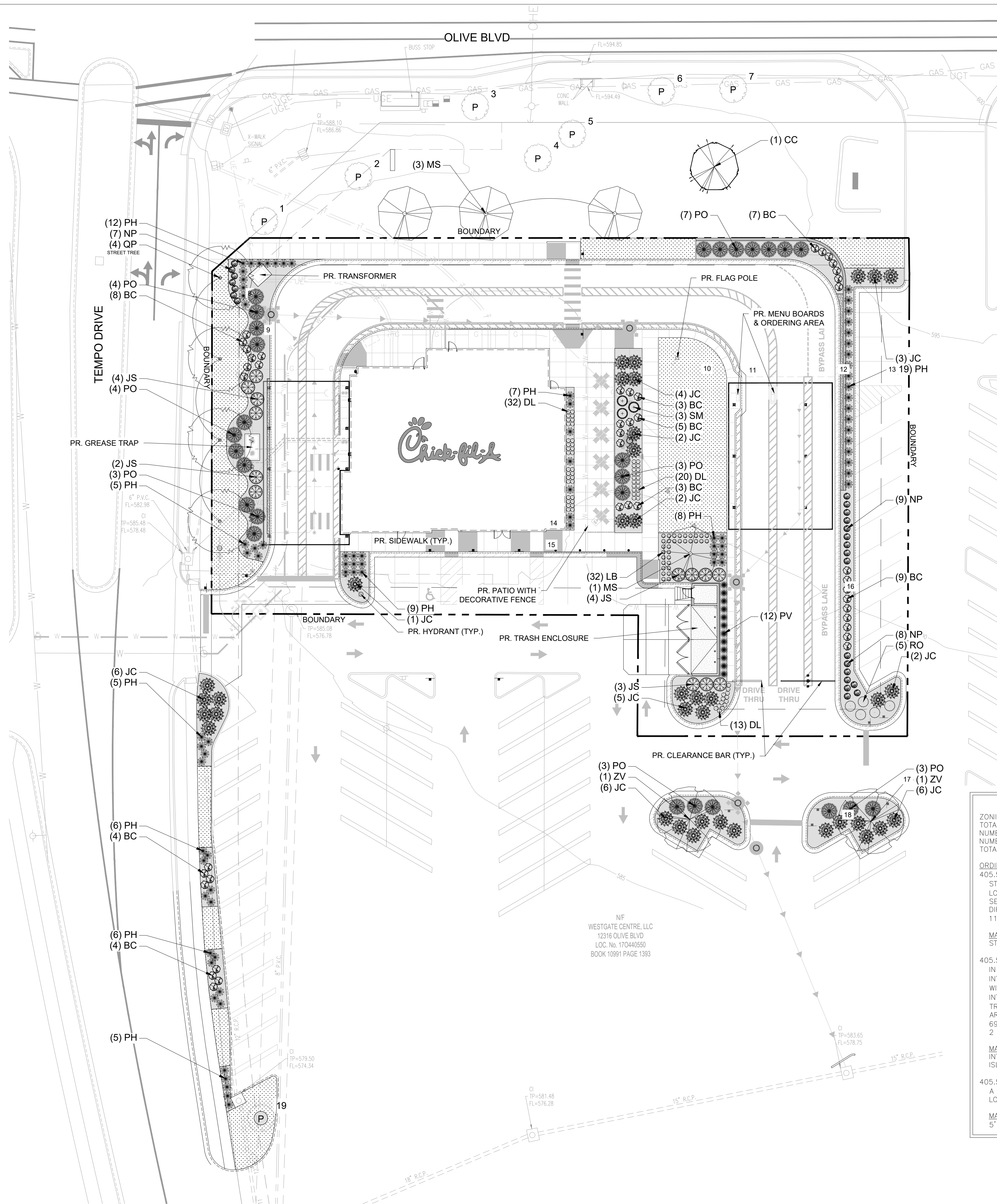
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SHEET LANDSCAPE PLAN

SHEET NUMBER

L-200



GROUND COVER SCHEDULE:

SOD	4429	SF
SHREDDED WOOD MULCH	6185	SF
COBBLE MULCH	134	SF

PLANT LEGEND

TREES	CODE	BOTANICAL / COMMON NAME	SIZE	QTY
	CC	Cercis canadensis / Eastern Redbud	3" Cal.	1
	MS	Malus x 'Snowdrift' / Snowdrift Crabapple	3" Cal.	4
	QP	Quercus phellos / Willow Oak	3" Cal.	4
	ZV	Zelkova serrata 'Village Green' / Village Green Japanese Zelkova	3" Cal.	2
EVERGREEN TREES	CODE	BOTANICAL / COMMON NAME	SIZE	QTY
	JS	Juniperus chinensis 'Spartan' / Spartan Juniper	6' Ht.	13
SHRUBS	CODE	BOTANICAL / COMMON NAME	SIZE	QTY
	BC	Berberis thunbergii 'Crimson Pygmy' / Crimson Pygmy Japanese Barberry	5 gal.	43
	RO	Rosa x 'Knock Out' / Knock Out Rose	5 gal.	5
	SM	Spiraea x bumalda 'Goldmound' / Gold Mound Spirea	5 gal.	3
EVERGREEN SHRUB	CODE	BOTANICAL / COMMON NAME	SIZE	QTY
	JC	Juniperus conferta 'Blue Pacific' / Blue Pacific Shore Juniper	5 gal.	37
	LB	Liriope muscari 'Big Blue' / Big Blue Lilyturf	1 gal.	32
	NP	Nandina domestica 'Firepower' / Firepower Heavenly Bamboo	5 gal.	24
	PO	Prunus laurocerasus 'Otto Luyken' / Otto Luyken English Laurel	5 gal.	27
GRASSES	CODE	BOTANICAL / COMMON NAME	SIZE	QTY
	PV	Panicum virgatum / Switch Grass	1 gal.	12
	PH	Pennisetum alopecuroides 'Hameln' / Hameln Fountain Grass	1 gal.	82
PERENNIALS	CODE	BOTANICAL / COMMON NAME	SIZE	QTY
	DL	Hemerocallis x 'Stella de Oro' / Stella de Oro Daylily	1 gal.	65

SITE CALCULATIONS:

ZONING: PC - PLANNED COMMUNITY DISTRICT
TOTAL SITE AREA: 44,310 SF. 1.02 AC.
NUMBER OF REGULAR PARKING STALLS: 21
NUMBER OF HANDICAP PARKING STALLS: 3
TOTAL NUMBER OF STALLS: 24

ORDINANCE LANDSCAPE REQUIREMENTS

405.540(F)-1 STREET TREE
STREET TREES SHALL BE PROVIDED AT A RATE OF ONE (1) TREE FOR EVERY THIRTY (30) LINEAL FEET OF STREET FRONTAGE. THEY ARE TO BE LOCATED AT LEAST TWO (2) FEET SIX (6) INCHES BUT NOT MORE THAN TWELVE (12) FEET FROM THE BACK OF THE CURB, UNLESS ADDITIONAL SETBACK IS NECESSARY TO ACCOMMODATE PLANNED ROAD WIDENING, OVERHEAD UTILITY LINES OR SOME OTHER CONDITION IDENTIFIED BY THE DIRECTOR OF PLANNING.
118 LF OF STREET FRONTAGE / 30 = 4 TREES

MATERIAL	REQUIRED	PROVIDED
STREET TREE	4 EA	4 EA

405.540(F)-3.4 INTERIOR LANDSCAPED AREA

IN ADDITION TO ANY LANDSCAPED FRONT, BACK OR SIDE YARD AREAS REQUIRED BY SECTION 405.540, A MINIMUM OF TEN (10) SQUARE FEET OF INTERIOR LANDSCAPED AREA SHALL BE PROVIDED WITHIN THE PARKING LOT FOR EACH THREE HUNDRED FIFTY (350) SQUARE FEET OF PAVED AREA WITHIN THE PARKING LOT INCLUDING PARKING SPACES AND DRIVING AISLES. THE LANDSCAPING SHALL BE IN ONE (1) OR MORE AREAS, EACH SEPARATE INTERIOR LANDSCAPED AREA SHALL INCLUDE AT LEAST ONE (1) DECIDUOUS SHADE TREE. THERE SHALL BE A MINIMUM OF TWO (2) DECIDUOUS SHADE TREES, WITHIN AND UP TO, EVERY ONE HUNDRED (100) LINEAL FEET OF PARKING FOR EACH PARKING ROW. SUCH TREES SHALL BE SPACED EVENLY AROUND THE PERIMETER.

6904 SF OF PAVED AREA / 350 = 20 SF OF INTERIOR LANDSCAPED AREA
2 LANDSCAPE ISLANDS REQUIRE 2 DECIDUOUS LANDSCAPE TREES

MATERIAL	REQUIRED	PROVIDED
INTERIOR LANDSCAPED AREA	20 SF	987 SF
ISLAND TREES	2 EA	2 EA

405.540(F)-12 PERIMETER LANDSCAPED BUFFER STRIP

A PERIMETER LANDSCAPED BUFFER STRIP SHALL BE PROVIDED AND MAINTAINED AT A WIDTH OF NOT LESS THAN FIVE (5) FEET BETWEEN A PARKING LOT AND THE PROPERTY LINE OF ABUTTING PROPERTY.

MATERIAL	REQUIRED	PROVIDED
5' LANDSCAPE BUFFER	EAST	YES



BAR IS ONE INCH ON
OFFICIAL DRAWINGS
IF NOT ONE INCH,
ADJUST SCALE ACCORDINGLY

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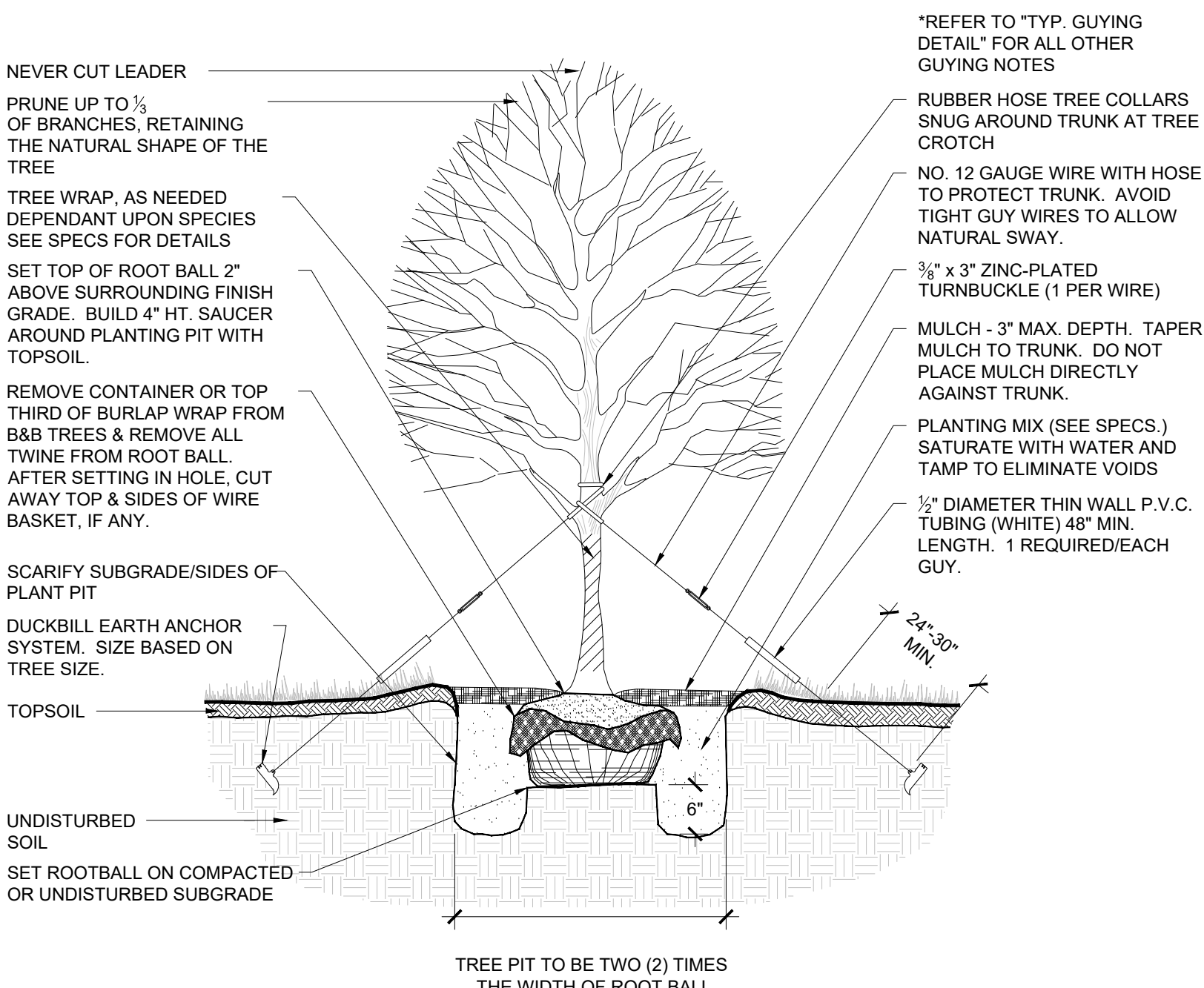
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GENERAL NOTES

1. BASE MAP INFORMATION IS ACCURATE AS OF THE DATE PRINTED ON THIS PACKAGE.
2. THE LANDSCAPE PLANS CONTAINED HEREIN ILLUSTRATE APPROXIMATE LOCATIONS OF ALL SITE CONDITIONS. REFER TO SURVEY, ARCHITECTURAL, CIVIL ENGINEERING, STRUCTURAL, ELECTRICAL, IRRIGATION AND ALL OTHER DRAWINGS, IF AVAILABLE, FOR ADDITIONAL DETAILED INFORMATION.
3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR BECOMING AWARE OF AND FIELD VERIFYING ALL RELATED EXISTING AND PROPOSED CONDITIONS, UTILITIES, PIPES AND STRUCTURES, ETC. PRIOR TO BIDDING AND CONSTRUCTION. THE CONTRACTOR SHALL BE HELD RESPONSIBLE FOR CONTACTING ###. THE COUNTY PUBLIC WORKS DEPARTMENT, THE MUNICIPALITY AND ANY OTHER PUBLIC OR PRIVATE AGENCIES NECESSARY FOR UTILITY LOCATION PRIOR TO ANY CONSTRUCTION. THE CONTRACTOR SHALL NOTIFY THE OWNER'S REPRESENTATIVE OF APPARENT CONFLICTS WITH CONSTRUCTION AND UTILITIES SO THAT ADJUSTMENTS CAN BE PLANNED PRIOR TO INSTALLATION. IF FIELD ADJUSTMENTS ARE NECESSARY DUE TO EXISTING UTILITY LOCATIONS THEY MUST BE APPROVED BY THE OWNER'S REPRESENTATIVE. THE CONTRACTOR SHALL TAKE SOLE RESPONSIBILITY FOR ANY AND ALL COSTS OR OTHER LIABILITIES INCURRED DUE TO DAMAGE OF SAID UTILITIES/STRUCTURES/ETC.
4. THE CONTRACTOR SHALL COMPLY WITH ALL CODES APPLICABLE TO THIS WORK.
5. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATION WITH SUBCONTRACTORS AND OTHER CONTRACTORS OF RELATED TRADES, AS REQUIRED, TO ACCOMPLISH THE PLANTING AND RELATED OPERATIONS.
6. THE CONTRACTOR SHALL COORDINATE INSTALLATION OF ALL PLANT MATERIAL WITH THE INSTALLATION OF OTHER IMPROVEMENTS SUCH AS HARDSCAPE ELEMENTS AND RELATED STRUCTURES. ANY DAMAGE TO EXISTING IMPROVEMENTS IS THE RESPONSIBILITY OF THE CONTRACTOR.
7. THE CONTRACTOR IS RESPONSIBLE TO RESTORE ALL AREAS OF THE SITE, OR ADJACENT AREAS, WHERE DISTURBED BY OPERATIONS OF OR RELATED TO THE CONTRACTOR'S WORK.
8. ALL SURFACE DRAINAGE SHALL BE DIVERTED AWAY FROM STRUCTURES AND NOTED SITE FEATURES IN ALL AREAS AT A MINIMUM OF 2% SLOPE OR AS SHOWN ON THE CIVIL ENGINEERING PLANS. ALL AREAS SHALL POSITIVELY DRAIN AND ALL ISLANDS SHALL BE CROWNED 1" IN HEIGHT PER 1' IN ISLAND WIDTH.
9. THE CONTRACTOR SHALL STAKE ALL TREE LOCATIONS AND THE PERIMETER OF SHRUB/PERENNIAL BEDS PRIOR TO INSTALLATION AND CONTACT THE OWNER'S REPRESENTATIVE FOR APPROVAL. FINAL LOCATION AND STAKING OF ALL PLANT MATERIALS SHALL BE ACCEPTED BY THE OWNER'S REPRESENTATIVE IN ADVANCE OF PLANTING.
10. IF CONFLICTS ARISE BETWEEN THE SIZE OF AREAS AND PLANS, THE CONTRACTOR IS REQUIRED TO CONTACT THE OWNER'S REPRESENTATIVE FOR RESOLUTION PRIOR TO INSTALLATION.
11. WHERE PROVIDED, AREA TAKEOFFS AND PLANT QUANTITY ESTIMATES IN THE PLANT LIST ARE FOR INFORMATION ONLY. THE CONTRACTOR IS RESPONSIBLE TO DO THEIR OWN QUANTITY TAKE-OFFS FOR ALL PLANT MATERIALS AND SIZES SHOWN ON PLANS. IN CASE OF ANY DISCREPANCIES, PLANS TAKE PRECEDENCE OVER CALL-OUTS AND/OR THE PLANT LIST(S).
12. PLANTS ARE TO BE TYPICAL IN SHAPE AND SIZE FOR SPECIES. PLANTS PLANTED IN ROWS OR GROUPS SHALL BE MATCHED IN FORM. PLANTS SHALL NOT BE ROOT-BOUND OR LOOSE IN THEIR CONTAINERS. HANDLE ALL PLANTS WITH CARE IN TRANSPORTING, PLANTING AND MAINTENANCE UNTIL INSPECTION AND FINAL ACCEPTANCE. FIELD COLLECTED MATERIAL SHALL NOT BE USED UNLESS APPROVED BY THE OWNER'S REPRESENTATIVE.
13. SHREDDED HARDWOOD MULCH, FERTILIZING, AS SPECIFIED, STAKING, WATERING AND ONE (1) YEAR PLANT WARRANTY FOR INSTALLED PLANT MATERIAL, SHALL BE CONSIDERED INCIDENTAL TO THE PLANT ITEMS.
14. MUSHROOM COMPOST SHALL BE FINELY SCREENED, HOMOGENOUS, DECOMPOSED ORGANIC MATERIAL SUITABLE FOR HORTICULTURAL USE AS AVAILABLE FROM MIDWEST TRADING HORTICULTURAL SUPPLIES, INC. ST. CHARLES, IL 60174 (630) 365-1990 OR APPROVED EQUAL. MIX THOROUGHLY IN PLANT BED BEFORE INSTALLING PLANTS.

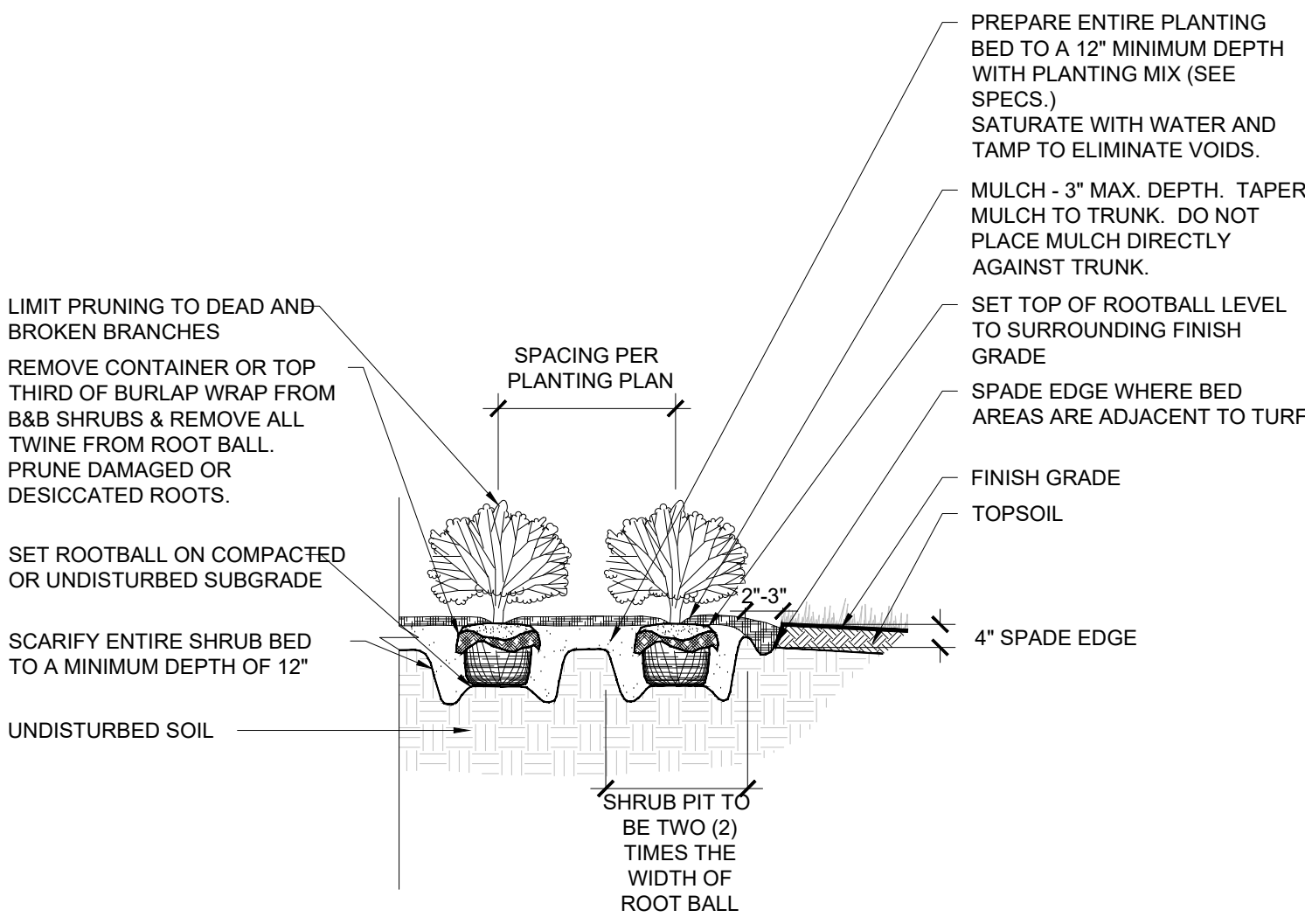
LANDSCAPE NOTES

1. LANDSCAPE CONTRACTOR TO READ AND UNDERSTAND THE LANDSCAPE SPECIFICATIONS (SHEET L-300) PRIOR TO FINALIZING BIDS. THE LANDSCAPE SPECIFICATIONS SHALL BE ADHERED TO THROUGHOUT THE CONSTRUCTION PROCESS.
2. CONTRACTOR RESPONSIBLE FOR LOCATING AND PROTECTING ALL UNDERGROUND UTILITIES PRIOR TO DIGGING.
3. CONTRACTOR RESPONSIBLE FOR PROTECTING EXISTING TREES FROM DAMAGE DURING CONSTRUCTION.
4. ALL PLANTING AREAS SHALL BE CLEARED OF CONSTRUCTION DEBRIS (IE. CONCRETE, ROCK, RUBBLE, BUILDING MATERIALS, ETC.) PRIOR TO ADDING AND SPREADING OF THE TOPSOIL.
5. ALL SHRUBS BEDS (EXISTING AND NEW) TO BE MULCHED WITH A 3 INCH MINIMUM LAYER OF DOUBLE SHREDDED HARDWOOD MULCH.
6. ALL ANNUAL AND PERENNIAL BEDS TO BE TILLED TO A MINIMUM DEPTH OF 12 INCHES AND AMENDED WITH 4 INCHES OF ORGANIC MATERIAL. MULCH PLANTED ANNUAL AND PERENNIAL BEDS WITH 2 INCH DEPTH OF MINI NUGGETS.
7. PLANTING HOLES TO BE DUG A MINIMUM OF TWICE THE WIDTH OF THE SIZE OF THE ROOT BALL OF BOTH SHRUB AND TREE. BACK TO BE A MIX OF 4 PARTS TOPSOIL AND 1 PART ORGANIC SOIL CONDITIONER (IE. NATURE'S HELPER OR PRO MIX). BACKFILL AND TAMP BOTTOM OF HOLE PRIOR TO PLANTING SO TOP OF ROOT BALL DOES NOT SETTLE BELOW SURROUNDING GRADE.
8. EXISTING GRASS IN PROPOSED PLANTING AREAS TO BE KILLED AND REMOVED AND AREA TO BE HAND RAKED TO REMOVE ALL ROCKS AND DEBRIS LARGER THAN 1 INCH IN DIAMETER PRIOR TO PLANTING SHRUBS.
9. ANY EXISTING GRASS DISTURBED DURING CONSTRUCTION TO BE FULLY REMOVED, REGRADED AND REPLACED. ALL TIRE MARKS AND INDENTIONS TO BE REPAIRED.
10. SOIL TO BE TESTED TO DETERMINE FERTILIZER AND LIME REQUIREMENTS AND DISTRIBUTED PRIOR TO LAYING SOD.
11. SOD TO BE DELIVERED FRESH (CUT LESS THAN 24 HOURS PRIOR TO ARRIVING ON SITE), LAID IMMEDIATELY, ROLLED, AND WATERED THOROUGHLY IMMEDIATELY AFTER PLANTING. EDGE OF SOD IS TO BE "V" TRENCHED.
12. ALL CHANGES TO DESIGN OR PLANT SUBSTITUTIONS ARE TO BE AUTHORIZED BY THE LANDSCAPE ARCHITECT.
13. ALL LANDSCAPING SHALL BE INSTALLED IN CONFORMANCE WITH ANSI Z60.1 THE "AMERICAN STANDARD FOR NURSERY STOCK" AND THE ACCEPTED STANDARDS OF THE AMERICAN ASSOCIATION OF NURSERYMEN.
14. THE LANDSCAPE CONTRACTOR SHALL GUARANTEE ALL PLANTS INSTALLED FOR ONE FULL YEAR FROM DATE OF ACCEPTANCE BY THE OWNER. ALL PLANTS SHALL BE ALIVE AND AT A VIGOROUS RATE OF GROWTH AT THE END OF THE GUARANTEE PERIOD. THE LANDSCAPE CONTRACTOR SHALL NOT BE RESPONSIBLE FOR ACTS OF GOD OR VANDALISM.
15. ANY PLANT THAT IS DETERMINED DEAD, IN AN UNHEALTHY OR UNSIGHTLY CONDITION, LOST ITS SHAPE DUE TO DEAD BRANCHES OR OTHER SYMPTOMS OF POOR, NON-VIGOROUS GROWTH SHALL BE REPLACED BY THE LANDSCAPE CONTRACTOR.
16. GENERAL CONTRACTOR IS RESPONSIBLE FOR ADDING A MIN OF 4" OF CLEAN FRIABLE TOPSOIL IN ALL PLANTING BEDS AND ALL GRASSSED AREAS. GRADED AREAS TO BE HELD DOWN THE APPROPRIATE ELEVATION TO ACCOUNT FOR TOPSOIL. SEE SPECIFICATIONS FOR REQUIRED TOPSOIL CHARACTERISTICS.
17. IN ALL PARKING LOT ISLANDS, THE GENERAL CONTRACTOR IS RESPONSIBLE TO REMOVE ALL DEBRIS, FRACTURE/LOOSEN SUBGRADE TO A MIN. 24" DEPTH. ADD TOPSOIL TO A 6"-8" BERM HEIGHT ABOVE ISLAND CURBING; REFER TO LANDSCAPE SPECIFICATIONS AND LANDSCAPE ISLAND DETAIL.
18. PRIOR TO BEGINNING WORK, THE LANDSCAPE CONTRACTOR SHALL INSPECT THE SUBGRADE, GENERAL SITE CONDITIONS, VERIFY ELEVATIONS, UTILITY LOCATIONS, IRRIGATION, APPROVE TOPSOIL PROVIDED BY GENERAL CONTRACTOR AND OBSERVE THE SITE CONDITIONS UNDER WHICH THE WORK IS TO BE DONE. NOTIFY GENERAL CONTRACTOR OF ANY UNSATISFACTORY CONDITIONS, AND WORK SHALL NOT PROCEED UNTIL SUCH CONDITIONS HAVE BEEN CORRECTED AND ARE ACCEPTABLE TO THE LANDSCAPE CONTRACTOR.
19. STAKE ALL EVERGREEN AND DECIDUOUS TREES AS SHOWN IN THE DETAILS THIS SHEET.
20. REMOVE ALL STAKES AND GUYING FROM ALL TREES AFTER ONE YEAR FROM PLANTING.
21. WATER THOROUGHLY TWICE IN FIRST 24 HOURS AND APPLY MULCH IMMEDIATELY.
22. SITE TO BE 100% IRRIGATED IN ALL PLANTING BEDS AND GRASS AREA BY AN AUTOMATIC UNDERGROUND IRRIGATION SYSTEM. SEE IRRIGATION PLAN L-200 FOR DESIGN.
23. ALL TREE PROTECTION DEVICES TO BE INSTALLED PRIOR TO THE START OF LAND DISTURBANCE, AND MAINTAINED UNTIL FINAL LANDSCAPING.
24. ALL TREE PROTECTION AREAS TO BE PROTECTED FROM SEDIMENTATION.
25. ALL TREE PROTECTION FENCING TO BE INSPECTED DAILY, AND REPAIRED OR REPLACED AS NEEDED.
26. NO PARKING, STORAGE OR OTHER CONSTRUCTION ACTIVITIES ARE TO OCCUR WITHIN TREE PROTECTION AREAS.
27. CONTRACTOR SHALL USE CAUTION WHEN DIGGING TREE PITS IN THE VICINITY OF UNDERGROUND UTILITY LINES AND MAY NEED TO HAND DIG THE PITS IN MANY OF THESE INSTANCES.



1 TYP. DECIDUOUS TREE PLANTING DETAIL

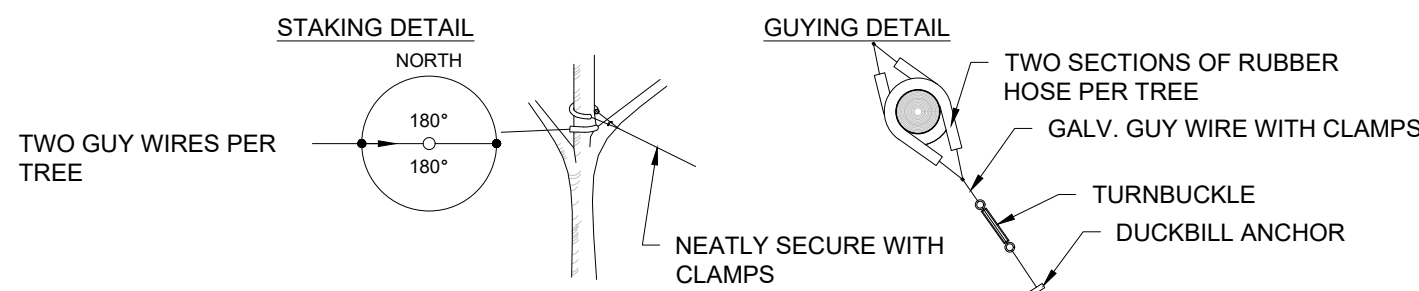
SCALE: NTS



3 TYP. SHRUB PLANTING DETAIL

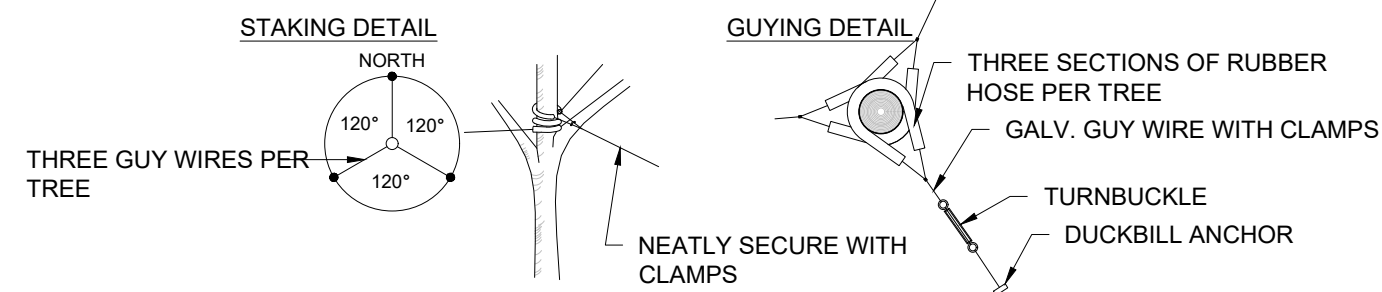
SCALE: NTS

GUYING STANDARDS	
• TWO (2) MODEL 68 DUCKBILL ANCHORS (HOLDING CAPACITY 1100# PER ANCHOR IN NORMAL SOIL.	
• 13' OF 1/8" 7x7 GALVANIZED STEEL CABLE WITH TURNBUCKLE ATTACHED MID-CABLE.	
• 1/2" DIAMETER THIN WALL P.V.C. TUBING (WHITE) 48" MINIMUM LENGTH. ONE (1) REQUIRED/EACH GUY.	
• TWO (2) TURNBUCKLES, EYE AND EYE TYPE, 3/4" THREAD DIAMETER WITH 3" TAKE-UP	
• FOUR (4) 1/8" CABLE CLAMPS, ZINC PLATED (DR-2 STEEL DRIVE ROD 2' LONG WITH 1/4" ROUND DRIVING TIP NEEDED TO INSTALL ANCHORS. ONE ROD, NOT INCLUDED IN KIT, DRIVES HUNDREDS OF ANCHORS)	
• TWO (2) RUBBER HOSE TREE COLLARS, 21" LONG, EA.	



*APPLIES TO SINGLE TRUNK DECIDUOUS TREES 3" CAL. AND LESS & EVERGREEN TREES 8' HT. AND LESS

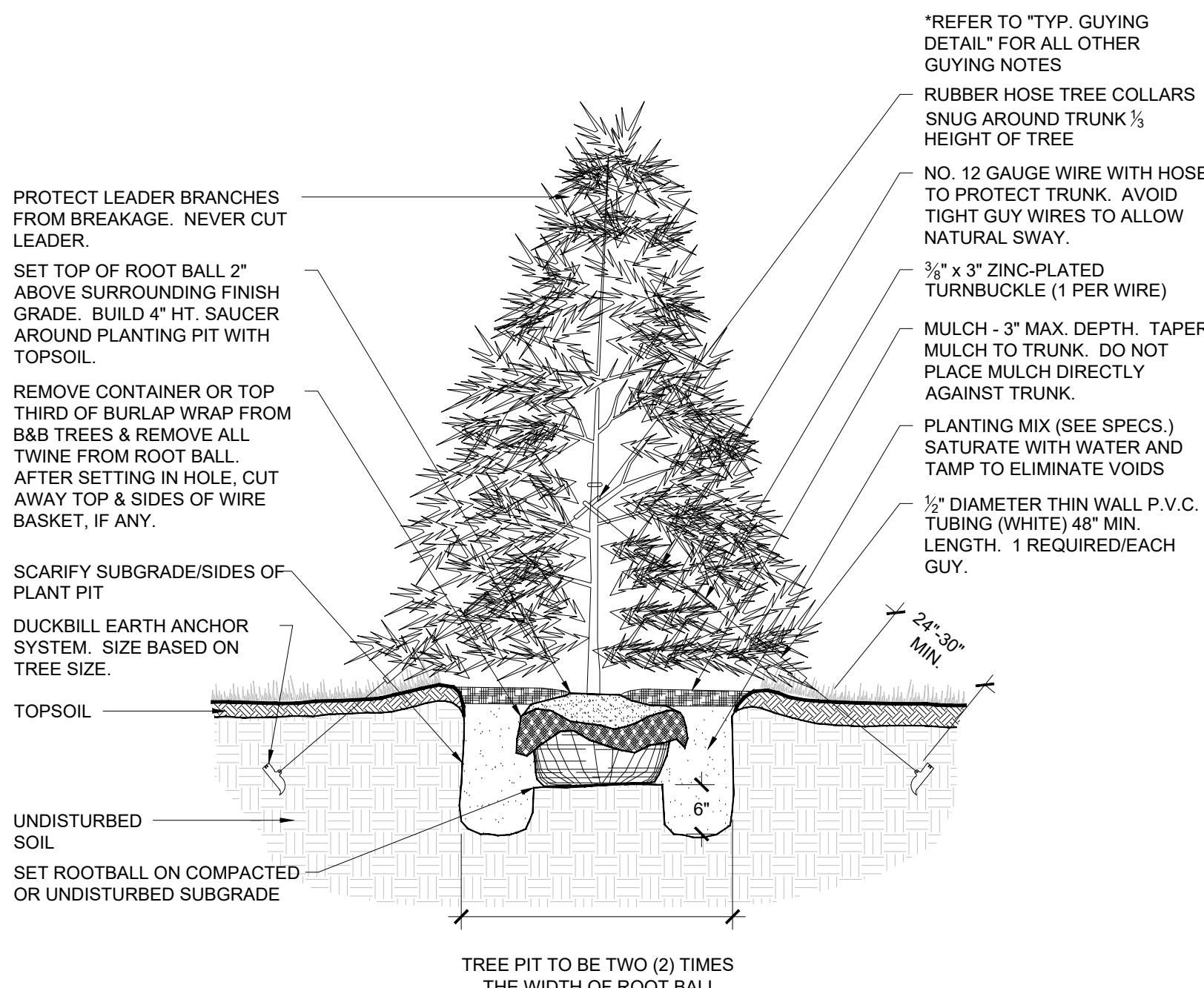
GUYING STANDARDS	
• THREE (3) MODEL 68 DUCKBILL ANCHORS (HOLDING CAPACITY 1100# PER ANCHOR IN NORMAL SOIL.	
• 13' OF 1/8" 7x7 GALVANIZED STEEL CABLE WITH TURNBUCKLE ATTACHED MID-CABLE.	
• 1/2" DIAMETER THIN WALL P.V.C. TUBING (WHITE) 48" MINIMUM LENGTH. ONE (1) REQUIRED/EACH GUY.	
• THREE (3) TURNBUCKLES, EYE AND EYE TYPE, 3/4" THREAD DIAMETER WITH 3" TAKE-UP	
• SIX (6) 1/8" CABLE CLAMPS, ZINC PLATED (DR-2 STEEL DRIVE ROD 2' LONG WITH 1/4" ROUND DRIVING TIP NEEDED TO INSTALL ANCHORS. ONE ROD, NOT INCLUDED IN KIT, DRIVES HUNDREDS OF ANCHORS)	
• THREE (3) RUBBER HOSE TREE COLLARS, 21" LONG, EA.	



*APPLIES TO SINGLE TRUNK DECIDUOUS TREES GREATER THAN 3" CAL. & EVERGREEN TREES GREATER THAN 8' HT.

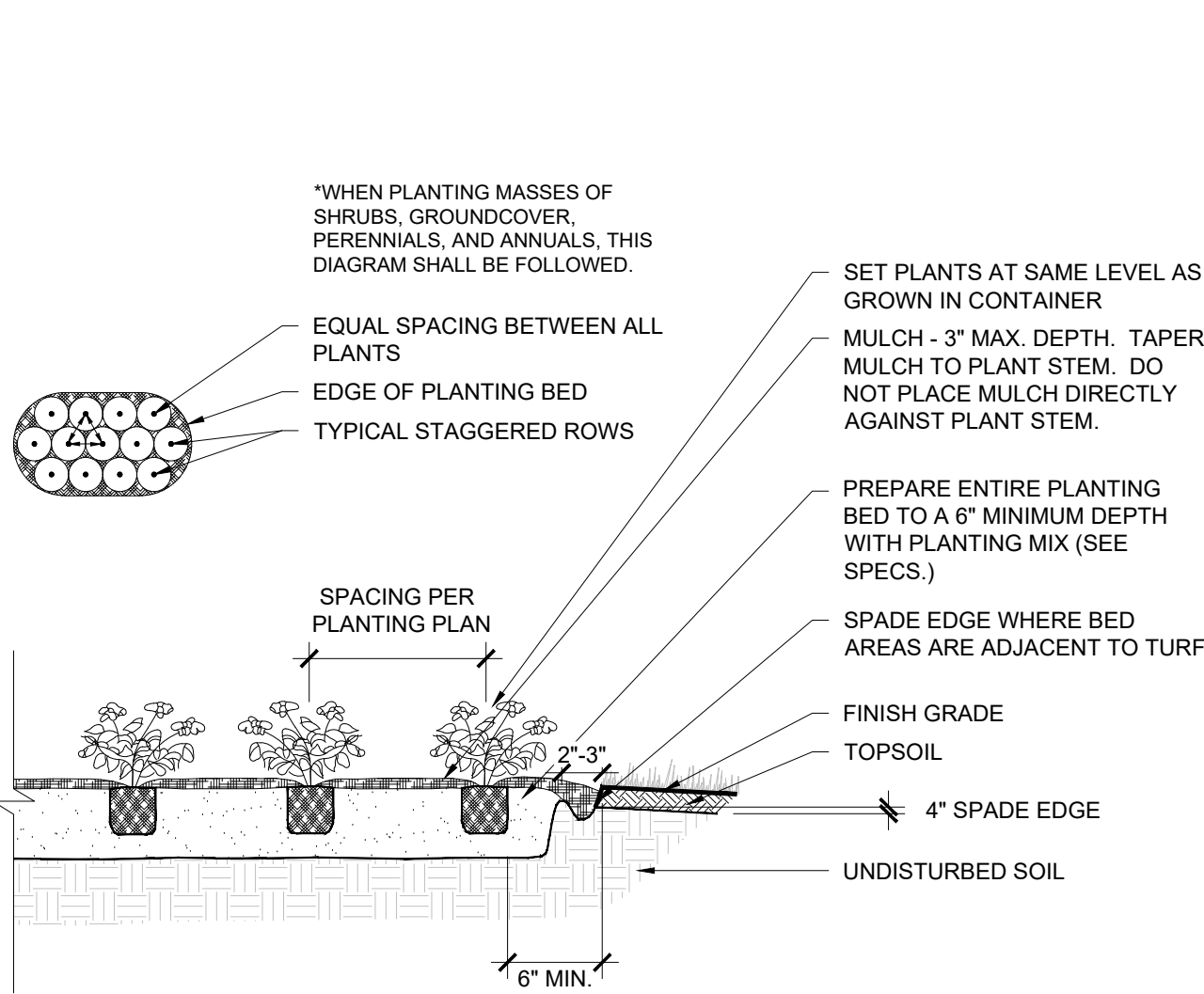
5 TYP. GUYING DETAIL

SCALE: NTS



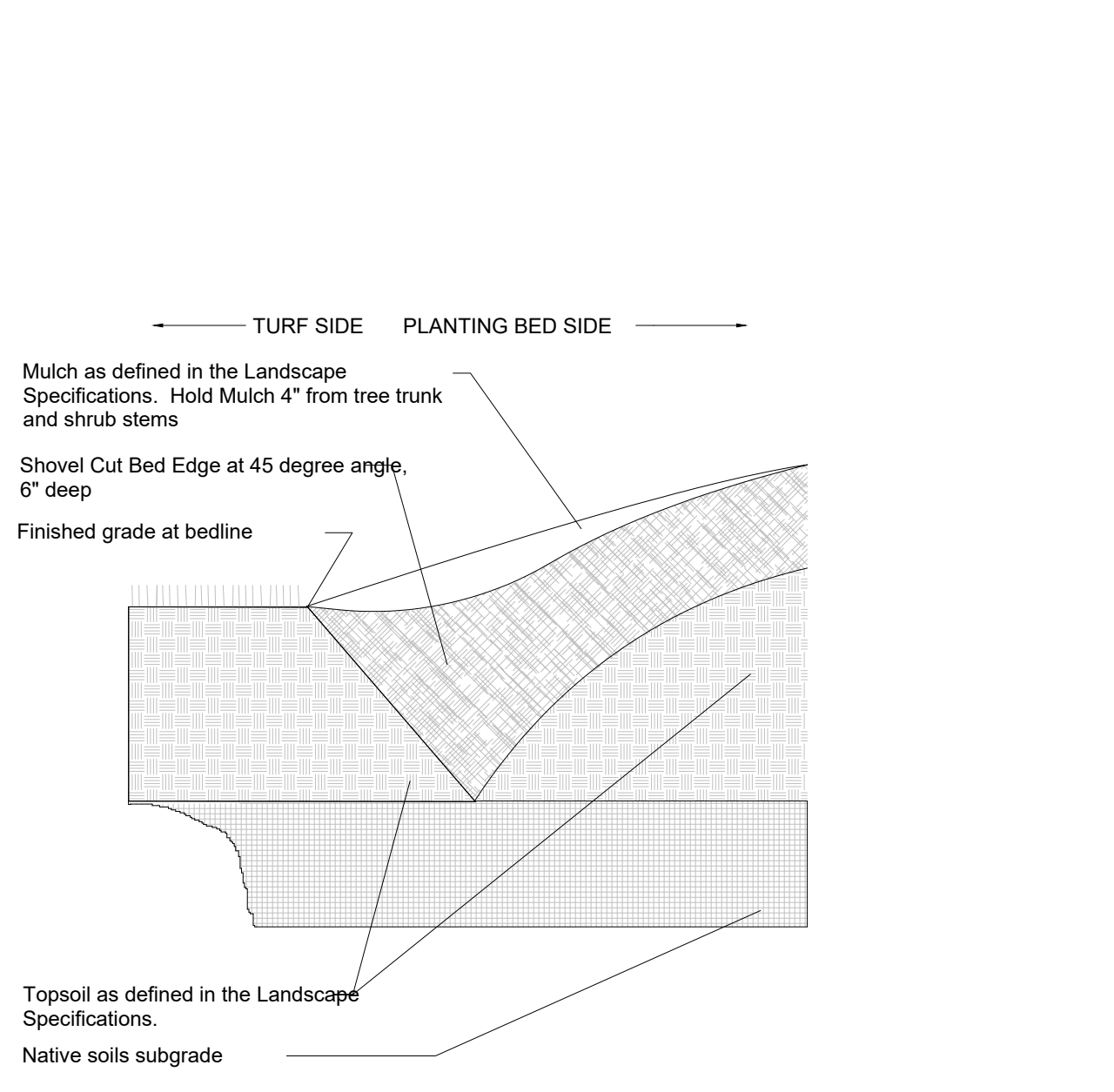
2 TYP. EVERGREEN TREE PLANTING DETAIL

SCALE: NTS



4 TYP. PERENNIAL PLANTING DETAIL

SCALE: NTS



6 "V" TRENCH BED EDGING

SCALE: NTS



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Atlanta, Georgia
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CREVE COEUR (MO) FSU

12398 OLIVE BOULEVARD
CREVE COEUR, MO 63141

FSR# 05161

REVISION SCHEDULE		
NO.	DATE	DESCRIPTION

PRELIMINARY

ENGINEER'S PROJECT #	211634
PRINTED FOR	PRELIMINARY
DATE	05/24/2022
DRAWN BY:	JTK
CHECKED BY:	JFR

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SHEET	LANDSCAPE DETAILS
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SHEET NUMBER

L-300

PRELIMINARY
NOT FOR CONSTRUCTION

LANDSCAPE SPECIFICATIONS

PART 1 - GENERAL

DESCRIPTION

Provide trees, shrubs, ground covers, sod, and annuals/perennials as shown and specified on the landscape plan. The work includes:

1. Soil preparation.
2. Trees, shrubs, ground covers, and annuals/perennials.
3. Planting mixes.
4. Top Soil, Mulch and Planting accessories.
5. Maintenance.
6. Decorative stone.

Related Work:

1. Irrigation System; see irrigation specifications (sheet L-2.2)

QUALITY ASSURANCE

Plant names indicated; comply with "Standardized Plant Names" as adopted by the latest edition of the American Joint Committee of Horticultural Nomenclature. Name varieties not listed conform generally with names accepted by the nursery trade. Provide stock true to botanical name and legibly tagged.

Comply with sizing and grading standards of the latest edition of "American Standard for Nursery Stock". A plant shall be dimensioned as it stands in its natural position.

All plants shall be nursery grown under climatic conditions similar to those in the locality of the project for a minimum of 2 years.

Nursery Stock furnished shall be at least the minimum size indicated. Larger stock is acceptable, at no additional cost, and providing that the larger plants will not be cut back to the size indicated. Provide plants indicated by two measurements so that only a maximum of 25% are of the minimum size indicated and 75% are of the maximum size indicated.

Before submitting a bid, the Contractor shall have investigated the sources of supply and be satisfied that they can supply the listed plants in the size, variety and quality as specified. Failure to take this precaution will not relieve the Contractor from their responsibility for furnishing and installing all plant materials in strict accordance with the Contract Documents without additional cost to the Owner. The Landscape Architect shall approve any substitutes of plant material, or changes in plant material size, prior to the Landscape Contractor submitting a bid.

DELIVER, STORAGE AND HANDLING

Take all precautions customary in good trade practice in preparing plants for moving. Workmanship that fails to meet the highest standards will be rejected. Spray deciduous plants in foliage with an approved "Anti-Desiccant" immediately after digging to prevent dehydration. Dig, pack, transport, and handle plants with care to ensure protection. Repair irrigation system components damaged during planting operations; at the Contractor's expense. Provide inspection certificates required by law shall accompany each shipment invoice or order to stock. Protect all plants from drying out. If plants cannot be planted immediately upon delivery, properly protect them with soil, wet peat moss, or in a manner acceptable to the Landscape Architect. Water heeled-in plantings daily. No plant shall be bound with rope or wire in a manner that could damage or break the branches. Cover plants transported on open vehicles with a protective covering to prevent wind burn.

PROJECT CONDITIONS

Protect existing utilities, paving, and other facilities from damage caused by landscape operations.

A complete list of plants, including a schedule of sizes, quantities, and other requirements are shown on the drawings. In the event that quantity discrepancies or material omissions occur in the plant materials list, the planting plans shall govern.

The irrigation system will be installed prior to planting. Locate, protect and maintain the irrigation system during planting operations. Repair irrigation system components damaged during planting operations; at the Contractor's expense. Refer to the irrigation specifications, irrigation plan and irrigation details.

Do not begin landscape accessory work before completion of final grading or surfacing.

WARRANTY

Warrant plant material to remain alive, be healthy and in a vigorous condition for a period of 1 year after completion and final acceptance of entire project.

Replace, in accordance with the drawings and specifications, all plants that are dead or, are in an unhealthy, or unsightly condition, and have lost their natural shape due to dead branches, or other causes due to the Contractor's negligence. The cost of such replacement(s) is at the Contractor's expense. Warrant all replacement plants for 1 year after installation.

Warranty shall not include damage, loss of trees, plants, or ground covers caused by fires, floods, freezing rains, lightning storms, winds over 15 miles per hour, winter kill caused by extreme cold, severe winter conditions not typical of planting area, and/or acts of vandalism or negligence on a part of the Owner.

Remove and immediately replace all plants, found to be unsatisfactory during the initial planting installation.

Maintain and protect plant material, lawns, and irrigation until final acceptance is made.

ACCEPTANCE

Inspection of planted areas will be made by the Owner's representative.

1. Planted areas will be accepted provided all requirements, including maintenance, have been complied with and plant materials are alive and in a healthy, vigorous condition.

Upon acceptance, the Contractor shall commence the specified plant maintenance.

CODES, PERMITS AND FEES

Obtain any necessary permits for this Section of Work and pay any fees required for permits.

The entire installation shall fully comply with all local and state laws and ordinances, and with all established codes applicable thereto; also as depicted on the landscape and irrigation construction set.

PART 2 - PRODUCTS

MATERIALS

Plants: Provide typical of their species or variety, with normal, densely developed branches and vigorous, fibrous root systems. Provide only sound, healthy, vigorous plants free from defects, disfiguring knots, sun scald injuries, frost cracks, abrasions of the bark, plant diseases, insect eggs, borers, and all forms of infestation. All plants shall have a fully developed form without voids and open spaces. Plants held on storage will be rejected if they show signs of growth during the storage period.

1. Balled and plants wrapped with burlap, to have firm, natural balls of earth of sufficient diameter and depth to encompass the fibrous and feeding root system necessary for full recovery of the plant. Provide ball sizes complying with the latest edition of the "American Standard for Nursery Stock". Cracked or mushroomed balls, or signs of circling roots are not acceptable.
2. Container- grown stock: Grown in a container for sufficient length of time for the root system to have developed to hold its soil together, firm and whole.
 - a. No plants shall be loose in the container.
 - b. Container stock shall not be pot bound.
3. Plants planted in rows shall be matched in form.
4. Plants larger than those specified in the plant list may be used when acceptable to the Landscape Architect.
 - a. If the use of larger plants is acceptable, increase the spread of roots or root ball in proportion to the size of the plant.
5. The height of the trees, measured from the crown of the roots to the top of the top branch, shall not be less than the minimum size designated in the plant list.
6. No pruning wounds shall be present with a diameter of more than 1" and such wounds must show vigorous bark on all edges.
7. Evergreen trees shall be branched to the ground or as specified in plant list.
8. Shrubs and small plants shall meet the requirements for spread and height indicated in the plant list.
 - a. The measurements for height shall be taken from the ground level to the height of the top of the plant and not the longest branch.
 - b. Single stemmed or thin plants will not be accepted.
 - c. Side branches shall be generous, well-twigged, and the plant as a whole well-bushied to the ground.
 - d. Plants shall be in a moist, vigorous condition, free from dead wood, bruises, or other root or branch injuries.

ACCESSORIES

Topsoil: Shall be Fertile, friable, natural topsoil of loamy character, without admixture of subsoil material, obtained from a well-drained arable site, reasonably free from clay lumps, coarse sands, stones, roots, sticks, and other foreign materials, with acidity range of between pH 6.0 and 6.8.

Note: All planting areas shall be cleaned of construction debris (i.e. Concrete, rubble, stones, building material, etc) prior to adding and spreading of the top soil.

1. *Sod Areas:* Spread a minimum 4" layer of top soil and rake smooth.
2. *Planting bed areas:* Spread a minimum 4" layer of top soil and rake smooth.

3. *Landscape Islands/Medians:* Fracture/loosen existing subgrade to a minimum 24" depth. Remove and replace any subgrade unsuitable for planting. Once subgrade is clean of debris and loosened, add topsoil to a minimum berm 6"-8" height above island cutting.
4. *Annual/Perennial bed areas:* Add a minimum of 4" organic matter and till to a minimum 12" depth.

Mulch: Type selected dependent on region and availability; see landscape plans for type of mulch to be used. Hold mulch 4" from tree trunks and shrub stems.

1. Hardwood: 6 month old well rotted double shredded native hardwood bark mulch not larger than 4" in length and ½" in width, free of wood chips and sawdust. Install minimum depth of 3".
2. Pine Straw: Pine straw to be fresh harvest, free of debris, bright in color. Bales to be wired and tightly bound. Needles to be dry. Install minimum depth of 3".
3. River Rock: (color) light gray to buff to dark brown, washed river rock, 1" – 3" in size. Install in shrub beds to an even depth of 3". Weed control barrier to be installed under all rock mulch areas. Use caution during installation not to damage plant material.
4. Mini Nuggets: Install to a minimum depth of 2"-3" at all locations of annual and perennial beds. Lift the stems and leaves of the annuals and carefully spread the mulch to avoid injuring the plants. Gently brush the mulch off the plants.

Guying/Staking:

1. Arborite: Green (or white) staking and guying material to be flat, woven, polypropylene material, ¾" wide 900 lb. break strength. Arborite shall be fastened to stakes in a manner which permits tree movement and supports the tree.
2. Remove Guying/Staking after one year from planting.

Tree Wrap: Tree wraps should be used on young, newly planted thin-barked trees (Cherry, Crabapple, Honey Locust, Linden, Maple, Mountain Ash, Plum) that are most susceptible to sun scald/Sunburn. Standard waterproofed tree wrapping paper, 2-1/2" wide, made of 2 layers of crepe Draft paper weighing not less than 30 lbs. per ream, cemented together with asphalt. Wrap the tree in the fall and leave the wrap in place throughout the winter and early spring. Tree wraps are temporary and no longer needed once trees develop corky bark.

PART 3 – EXECUTION

INSPECTION

Prior to beginning work, the Landscape Contractor shall inspect the subgrade, general site conditions, vertical elevations, utility locations, irrigation, approve top soil provided by the General Contractor and observe the site conditions under which the work is to be done. Notify the General Contractor of any unsatisfactory conditions, and work shall not proceed until such conditions have been corrected and are acceptable to the Landscape Contractor.

PREPARATION

Planting shall be performed only by experienced workmen familiar with planting procedures under the supervision of a qualified supervisor.

Locate plants as indicated on the plans or as approved in the field after staking by the Landscape Contractor. If obstructions are encountered that are not shown on the drawings, do not proceed with planting operations until alternate plant locations have been selected and approved by the Landscape Architect; spacing of plant material shall be as shown on the landscape plan.

Excavate circular plant pits with vertical sides, except for plants specifically indicated to be planted in beds. Provide shrub pits at least 12" greater than the diameter of the root system and 24" greater for trees. Depth of pit shall accommodate the root system. Provide undisturbed sub grade to hold root ball at nursery grade as shown on the drawings.

INSTALLATION

Set plant material in the planting pit to proper grade and alignment. Set plants upright, plumb, and faced to give the best appearance or relationship to each other or adjacent structure. Set plant material 2" – 3" above the finish grade. No filling will be permitted around trunks or stems. Backfill the pit with topsoil mix and excavated material. Do not use frozen or muddy mixtures for backfilling. Form a ring of soil around the edge of each planting pit to retain water.

After balled and wrapped in burlap plants are set, muddle planting soil mixture around bases of balls and fill all voids.

1. Remove all burlap, ropes, and wires from the top 1/3 of the root ball

Space ground cover plants in accordance with indicated dimensions. Adjust spacing as necessary to evenly fill planting bed with indicated quantity of plants. Plant to within 24" of the trunks of trees and shrubs within planting bed and to within 18" of edge of bed.

Mulching:

1. Mulch tree and shrub planting pits and shrub beds with required mulching material (see landscape plan for mulch type); depth of mulch as noted above. **Hold mulch back 4" away from tree trunks and shrub stems.** Thoroughly water mulched areas. After watering, rake mulch to provide a uniform finished surface.

Decorative Stone: (where indicated on landscape plan)

1. Install weed control barrier over sub-grade prior to installing stone. Lap 6" on all sides.
2. Place stone without damaging weed barrier.
3. Arrange stones for best appearance and to cover all weed barrier fabric.

Wrapping, guying, staking:

1. Inspect trees for injury to trunks, evidence of insect infestation, and improper pruning before wrapping.
2. Wrapping:
 - a. Wrap trunks of all young newly planted trees known to have thin bark. Wrap spirally from bottom to top with specified tree wrap and secure in place.
 - b. Overlap ½ the width of the tree wrap strip and cover the trunk from the ground to the height of the second branch.
 - c. Secure tree wrap in place with twine wound spirally downward in the opposite direction, tied around the tree in at least 3 places in addition to the top and bottom.
 - d. Wrap the trees in the fall and leave the wrap in place throughout the winter and early spring.
3. Tree wraps are temporary and no longer needed once the trees develop corky bark.
4. Staking/Guying:
 - a. Stake/guy all trees immediately after lawn sodding operations and prior to acceptance.
 - b. Stake deciduous trees 2" caliper and less. Stake evergreen trees under 7"-0" tall.
 1. Stakes are placed in line with prevailing wind direction and driven into undisturbed soil.
 2. Ties are attached to the tree, usually at the lowest branch.
 - c. Guy deciduous trees over 2" caliper. Guy evergreen trees 7"-0" tall and over.
 1. Guy wires to be attached to three stakes driven into undisturbed soil, with one stake placed in the direction of the prevailing wind.
 2. Ties are attached to the tree as high as practical.
 3. The axis of the stake should be at 90 degree angle to the axis on the pull of the guy wire.
5. **Remove all guying and staking after one year from planting.**

Pruning:

1. Prune deciduous trees and evergreens only to remove broken or damaged branches.

WORKMANSHIP

During landscape/irrigation installation operations, all areas shall be kept neat and clean. Precautions shall be taken to avoid damage to existing structures. All work shall be performed in a safe manner to the operators, the occupants and any pedestrians.

Upon completion of installation operations, all excess materials, equipment, debris and waste material shall be cleaned up and removed from the site; unless provisions have been granted by the owner to use on-site trash receptacles. Sweep parking and walks clean of dirt and debris. Remove all plant tags and other debris from lawns and planting areas.

Any damage to the landscape, the structure, or the irrigation system caused by the landscape contractor shall be repaired by the landscape contractor without charge to the owner.

MAINTENANCE

Contractor shall provide maintenance until work has been accepted by the Owner's Representative.

Maintenance shall include mowing, fertilizing, mulching, pruning, cultivation, weeding, watering, and application of appropriate insecticides and fungicides necessary to maintain plants and lawns free of insects and disease.

1. Re-set settled plants to proper grade and position. Restore planting saucer and adjacent material and remove dead material.
2. repair guy wires and stakes as required. Remove all stakes and guy wires after 1 year.
3. Correct defective work as soon as possible after deficiencies become apparent and weather and season permit.
4. Water trees, plants and ground cover beds within the first 24 hours of initial planting, and not less than twice per week until final acceptance.

LANDSCAPE MAINTENANCE SPECIFICATIONS

The Contractor shall provide as a separate bid, maintenance for a period of **1 year** after final acceptance of the project landscaping. The Contractor must be able to provide continued maintenance if requested by the Owner or provide the name of a reputable landscape contractor who can provide maintenance.

STANDARDS

All landscape maintenance services shall be performed by trained personnel using current, acceptable horticultural practices.

All work shall be performed in a manner that maintains the original intent of the landscape design.

All chemical applications shall be performed in accordance with current county, state and federal laws, using EPA registered materials and methods of application. These applications shall be performed under the supervision of a Licensed Certified applicator.

APPROVALS

All work performed in addition to that which is outlined in the contract shall only be done upon written approval by the Owner's Representative (General Manager of the restaurant).

All seasonal color selections shall be approved by the General Manager prior to ordering and installation.

SOIL TESTING

The maintenance contractor shall perform soil tests as needed to identify imbalances or deficiencies causing plant material decline. The owner shall be notified of the recommendation for approval, and the necessary corrections made at an additional cost to the owner.

Acceptable Soil Test Results

	Landscape Trees and Shrubs	Turf
pH Range	5.0-7.0	6.0-7.0
Organic Matter	>1.5%	>2.5%
Magnesium (Mg)	100-lbs./acre	100-lbs./acre
Phosphorus (P2O5)	150-lbs./acre	150-lbs./acre
Potassium (K2O)	120-lbs./acre	120-lbs./acre
Saluble salts/ Conductivity	N/lt to exceed 900ppm/1.9 mmhos/cm in soil; not to exceed 1400 ppm/2.5 mmhos/cm in high organic mix	N/lt to exceed 750ppm/1.75 mmhos/cm in soil; not to exceed 2000 ppm/2.0 mmhos/cm in high organic mix

For unusual soil conditions, the following optional tests are recommended with levels not to exceed:

Boron	3 pounds per acre
Manganese	60 pounds per acre
Potassium (K2O)	450 pounds per acre
Sodium	20 pounds per acre

WORKMANSHIP

During landscape maintenance operations, all areas shall be kept neat and clean. Precautions shall be taken to avoid damage to existing structures. All work shall be performed in a safe manner to the operators, the occupants and any pedestrians.

Upon completion of maintenance operations, all debris and waste material shall be cleaned up and removed from the site; unless provisions have been granted by the owner to use on-site trash receptacles.

Any damage to the landscape, the structure, or the irrigation system caused by the maintenance contractor, shall be repaired by the maintenance contractor without charge to the owner.

TURF

GENERAL CLEAN UP

Prior to mowing, all trash, sticks, and other unwanted debris shall be removed from lawns, plant beds, and paved areas.

MOWING

Warm season grasses (i.e. Bermuda grass) shall be maintained at a height of 1" to 2" during the growing season.

Cool season grasses, including blue grass, tall fescue, perennial ryegrass, etc., shall be maintained at a height of 2" to 3" in spring and fall. From June through September, mowing height shall be maintained at no less than 3".

The mowing operation includes trimming around all obstacles, raising excessive grass clippings and removing debris from walks, curbs, and parking areas. Caution: Weed eaters should NOT be used around trees because of potential damage to the bark.

EDGING

Edging of all sidewalks, curbs and other paved areas shall be performed once every other mowing. Debris from the edging operations shall be removed and the areas swept clean. Caution shall be used to avoid flying debris.

LIMING & FERTILIZING

A soil test shall be taken to determine whether an application of limestone in late fall is necessary. If limestone is required, the landscape contractor shall specify the rate, obtain approval from the owner and apply it at an additional cost. A unit price for liming of turf shall accompany the bid based on a rate of 50 pounds per 1000 square feet.

Fertilizer shall be applied in areas based on the existing turf species.

LAWN WEED CONTROL: HERBICIDES

Selection and proper use of herbicides shall be the landscape contractor's responsibility. All chemical applications shall be performed under the supervision of a Licensed Certified Applicator. **Read the label prior to applying any chemical.**

INSECT & DISEASE CONTROL FOR TURF

The contractor shall be responsible for monitoring the site conditions on each visit to determine if any insect pest or disease problems exist. The contractor shall identify the insect pest or disease, as well as the host plant, and then consult the most current edition of the Cooperative Extension Service's "Commercial Insecticide Recommendation for Turf" for control. The licensed applicator shall be familiar with the label provided for the selected product prior to application.

Inspection and treatment to control insect pests shall be included in the contract price.

TREES, SHRUBS, & GROUND COVER

PRUNING

All ornamental trees, shrubs and ground cover shall be pruned when appropriate to remove dead or damaged branches, develop the natural shape. **Do not shear trees or shrubs.** If previous maintenance practice has been to shear and ball, then a natural shape will be restored gradually.

Pruning Guidelines:

1. Prune those that flower before the end of June immediately after flowering. Flower buds develop during the previous growing season. Fall, winter or spring pruning would reduce the spring flowering display.
2. Prune those that flower in summer or autumn in winter or spring before new growth begins, since these plants develop flowers on new growth.
3. Delay pruning plants grown for ornamental fruits, such as cotoneasters, pyracanthas and viburnums.
4. Hollies and other evergreens may be pruned during winter in order to use their branches for seasonal decoration. However, severe pruning of evergreens should be done in early spring only.
5. Broadleaf evergreen shrubs shall be hand-pruned to maintain their natural appearance after the new growth hardens off.
6. Hedges or shrubs that require shearing to maintain a formal appearance shall be pruned as required. Dead wood shall be removed from sheared plants before the first shearing of the season.
7. Conifers shall be pruned, if required, according to their genus.
 - A. Yews, junipers, hemlocks, arbovitae, and false-cypress may be pruned after new growth has hardened off in late summer. If severe pruning is necessary, it must be done in early spring.
 - B. Firs and spruces may be lightly pruned in late summer, fall, or winter after completing growth. Leave side buds. Never cut central leader.
 - C. Pines may be lightly pruned in early June by reducing candles.
8. Groundcover shall be edged and pruned as needed to contain it within its borders.

9. Thinning: Remove branches and water sprouts by cutting them back to their point of origin on parent stems. This method results in a more open plant, without stimulating excessive growth. Thinning is used on crepe myrtles, iliacs, viburnums, smoke bush, etc.
10. Renewal pruning: Remove oldest branches of shrub at ground, leaving the younger, more vigorous branches. Also remove weak stems. On overgrown plants, this method may be best done over a three-year period. Renewal pruning may be used on abelia, forsythia, deutzia, spiraea, etc.

Plants overhanging passageways and parking areas and damaged plants shall be pruned as needed.

Shade trees that cannot be adequately pruned from the ground shall not be included in the Maintenance Contract. A certified arborist under a separate contract shall perform this type of work.

SPRING CLEANUP

Plant beds shall receive a general cleanup before fertilizing and mulching. Cleanup includes removing debris and trash from beds and cutting back herbaceous perennials left standing through winter, e.g. ornamental grasses, Sedum Autumn Joy.

FERTILIZING

For trees, the rate of fertilization depends on the tree species, tree vigor, area available for fertilization, and growth stage of the tree. Mature specimens benefit from fertilization every 3 to 4 years; younger trees shall be fertilized more often during rapid growth stages.

The current recommendation is based on the rate of 1000 square feet of area under the tree to be fertilized. For deciduous trees, 2 to 6 pounds of Nitrogen per 1000 square feet; for narrow-leaf evergreens, 1 to 4 pounds of Nitrogen per 1000 square feet; for broadleaf evergreens, 1 to 3 pounds of Nitrogen per 1000 square feet.

Shrubs and groundcover shall be top-dressed with compost 1" deep, or fertilized once in March with 10-6-4 analysis fertilizer at the rate of 3 pounds per 100 square feet of bed area. Ericaceous material shall be fertilized with an ericaceous fertilizer at the manufacturer's recommendation rate. If plants are growing poorly, a soil sample should be taken.

MULCHING

Annually, all tree and shrub beds will be prepared and mulched, to a minimum depth of 3" with quality mulch to match existing. Bed preparation shall include removing all weeds, cleaning up said bed, edging and cultivating decayed mulch into the soil. Debris from edging is to be removed from beds where applicable. If deemed necessary, a pre-emergent herbicide may be applied to the soil to inhibit the growth of future weeds.

Organically maintained gardens shall not receive any pre-emergent herbicides. Mulch in excess of 4" will be removed from the bed areas. SPECIAL CARE shall be taken in the mulching operation not to over mulch or cover the base of trees and shrubs. This can be detrimental to the health of the plants.

WEEDING

All beds shall be weeded on a continuous basis throughout the growing season to maintain a neat appearance at all times.

Pre-emergent (soil-applied) and post-emergent (foliar-applied) herbicides shall be used where and when applicable and in accordance with the product's label.

INSECT & DISEASE CONTROL: TREES, SHRUBS & GROUNDCOVER

The maintenance contractor shall be responsible for monitoring the landscape site on a regular basis. The monitoring frequency shall be monthly except for growing season, which will be every other week. Trained personnel shall monitor for plant damaging insect activity, plant pathogenic diseases and potential cultural problems in the landscape. The pest or cultural problem will be identified under the supervision of the contractor.

For plant damaging insects and mites identified in the landscape, the contractor shall consult and follow the recommendations of the most current edition of the state Cooperative Service publication on insect control on landscape plant material.

Plant pathogenic disease problems identified by the contractor that can be resolved by pruning or physical removal of damaged plant parts will be performed as part of the contract. For an additional charge, plant pathogenic diseases that can be resolved through properly timed applications of fungicides shall be made when the owner authorizes it.

If the contractor notes an especially insect-or disease-prone plant species in the landscape, he/she will suggest replacement with a more pest-resistant cultivar or species that is consistent with the intent of the landscape design.

NOTE: For identification of plant-damaging insects and mites, a reference textbook that can be used is *Insects that feed on Trees and Shrubs* by Johnson and Lyon, Comstock Publishing Associates. For plant pathogenic diseases, two references are suggested: *Scouting and Controlling Woody Ornamental Diseases in Landscapes and Nurseries*, authorized by Gary Moorman, published by Penn State College of Agricultural Sciences, and *Diseases of Trees and Shrubs* by Sinclair and Lyon, published by Comstock Publishing Press.

TRASH REMOVAL

The maintenance contractor shall remove trash from all shrub and groundcover beds with each visit.

LEAF REMOVAL

All fallen leaves shall be removed from the site in November and once in December. If requested by the owner, the maintenance contractor, at an additional cost to the owner shall perform supplemental leaf removals.

WINTER CLEAN-UP

The project shall receive a general clean-up once during each of the winter months, i.e., January, February, and March.

Clean-up includes:

- Cleaning curbs and parking areas
- Removing all trash and unwanted debris
- Turning mulch where necessary
- Inspection of grounds

SEASONAL COLOR: PERENNIALS, ANNUALS, AND BULBS

The installation of perennials, annuals, and bulbs, unless specified herein, shall be reviewed with the owner, and, if accepted, installed and billed to the owner.

SEASONAL COLOR MAINTENANCE

Perennialization of Bulbs:

1. After flowering, cut off spent flower heads.
2. Allow leaves of daffodils and hyacinths to remain for six weeks after flowers have faded. Cut off at base.
3. Allow leaves of other bulbs to yellow naturally and then cut off at base.
4. Apply fertilizer after flowering in spring, possibly again in fall. Apply 10-10-10 at the rate of 2 pounds per 1000 square feet, or top-dress with compost 1" deep. Fall fertilization with a bulb fertilizer or mulching with 1" of compost is optional.

Flower Rotation:

1. Bulbs: Remove the entire plant and bulb after flowers have faded or at the direction of the owner, and install new plants if included in contract.
2. Summer Annuals or Fall Plants:
 - a. Dead heading: Pinch and remove dead flowers on annuals as necessary.
 - b. Fertilizing Summer Annuals: Fertilize using one or two methods: Apply a slow-release fertilizer in May following manufacturer's recommendations. A booster such as 10-10-10 may be necessary in late summer. Or, apply liquid fertilizations of 20-20-20 water-soluble fertilizers, not to exceed 2 pounds of 20-20-20 per 100 gallons of water, monthly; or mulch with compost 1" deep.
 - c. Removal: If fall plants are to be installed, summer annuals shall be left in the ground until the first killing frost and then removed, unless otherwise directed by the owner.

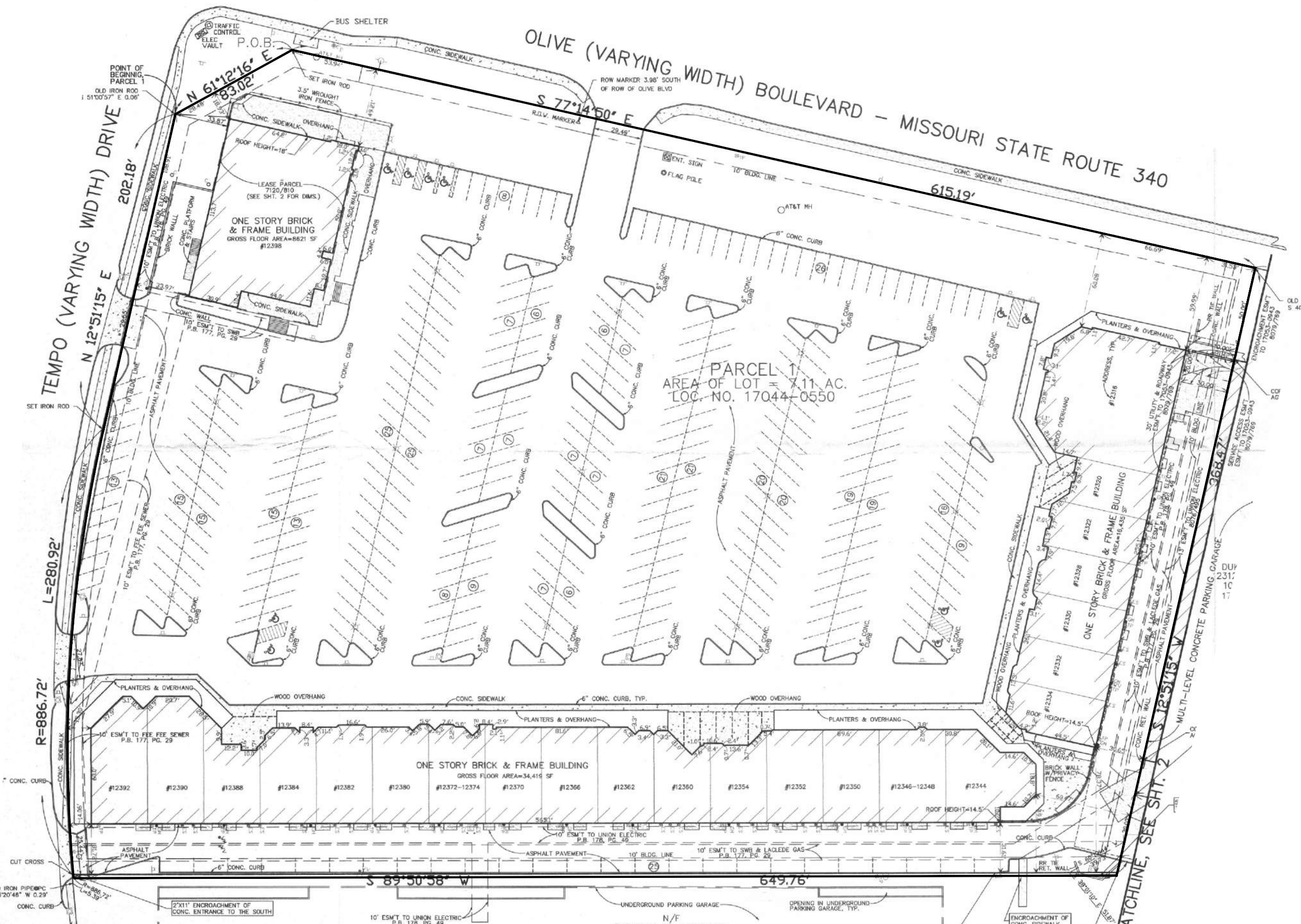
Perennials:

1. After initial installation, if a time-released fertilizer has been incorporated during plant installation,

EXISTING CONDITIONS

OVERALL AREA = 309,682± SF = 7.11 AC.
EXISTING IMPERVIOUS = 267,742± SF = 86.46%
EXISTING PERVIOUS = 41,490± SF = 13.54%

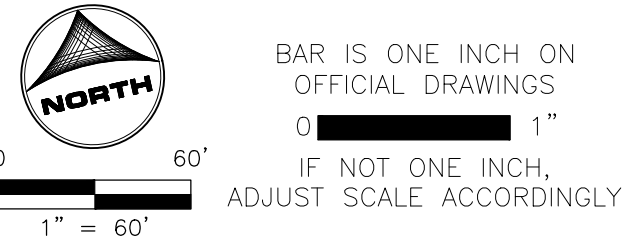
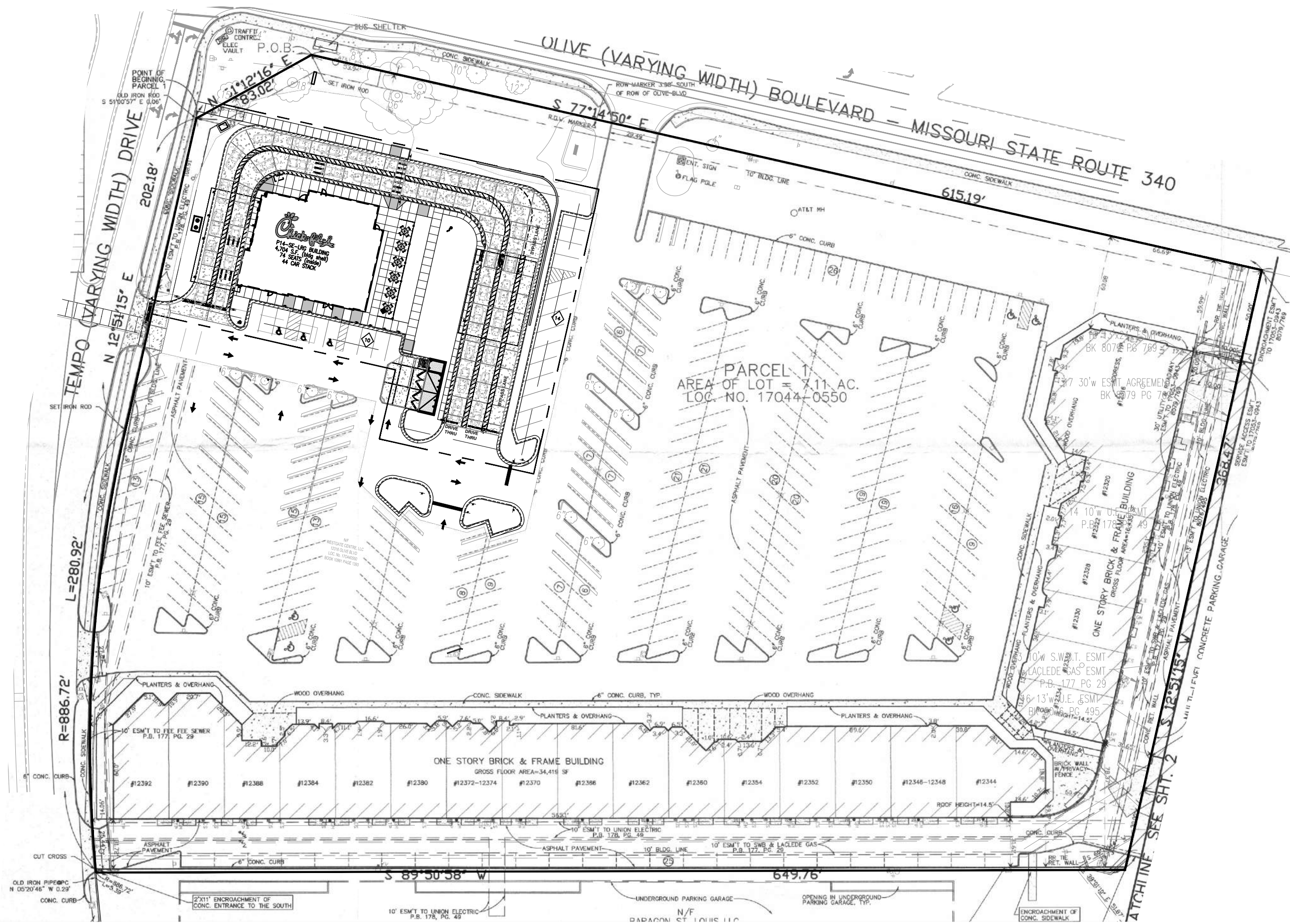
REGULAR PARKING STALLS = 409
ADA PARKING STALLS = 10
TOTAL EXISTING PARKING STALLS = 419



PROPOSED CONDITIONS

OVERALL AREA = 309,682± SF = 7.11 AC.
PROPOSED IMPERVIOUS = 264,017± SF = 85.25%
PROPOSED PERVIOUS = 45,665± SF = 14.75%

REGULAR PARKING STALLS = 361
ADA PARKING STALLS = 9
TOTAL PROPOSED PARKING STALLS = 370



FOR REFERENCE ONLY



Chick-fil-A

Chick-fil-A
5200 Buffington Road
Atlanta, Georgia
30349-2998



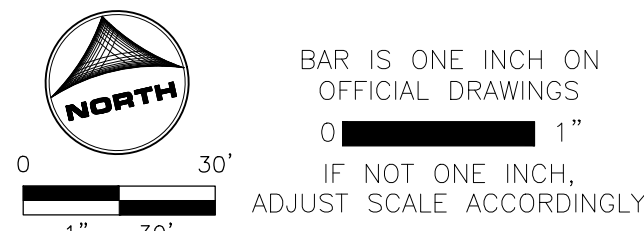
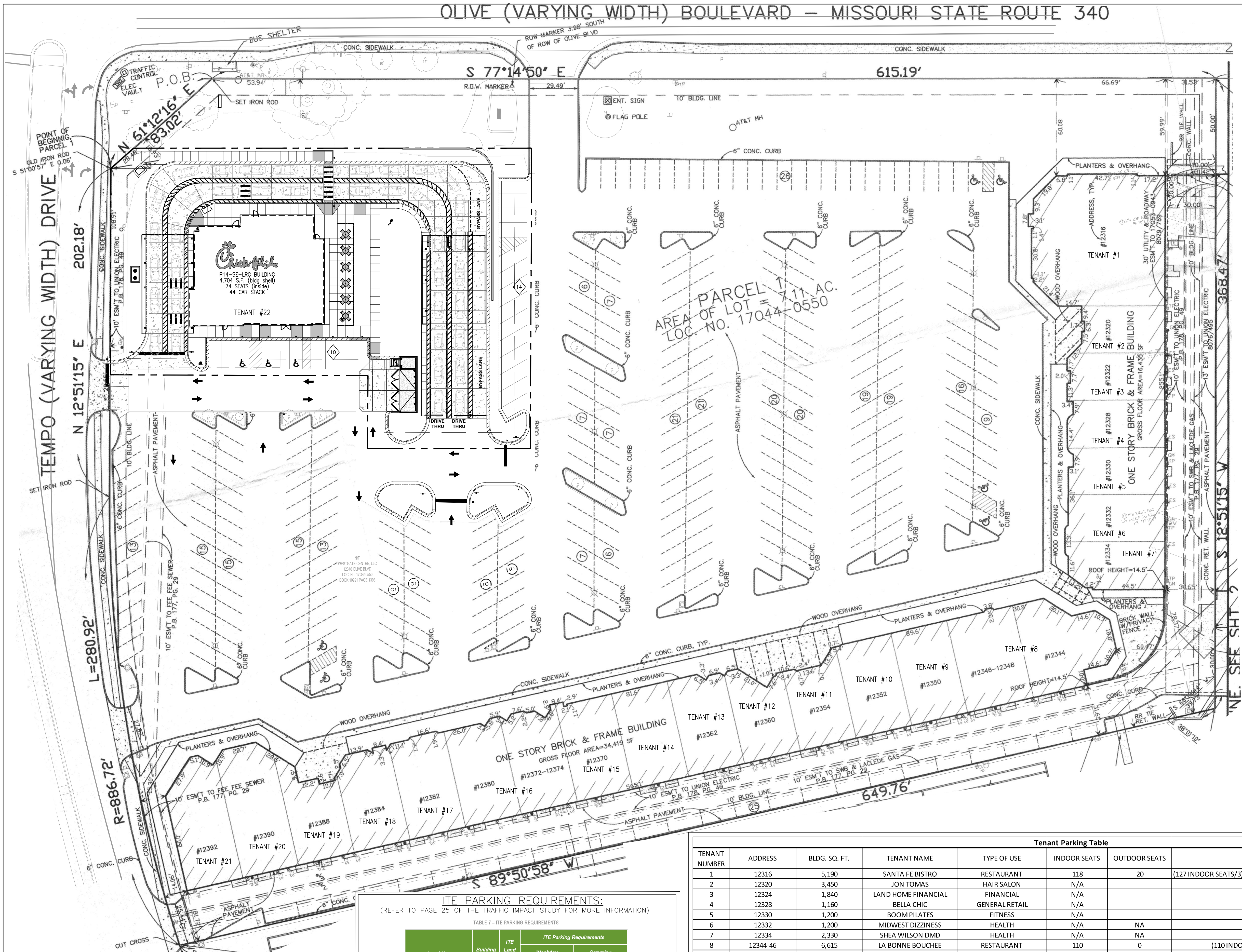
CHICK-FIL-A
CREVE COEUR (MO) FSU
12398 OLIVE BOULEVARD
CREVE COEUR, MO 63141

FSR# 05161

REVISION SCHEDULE		DESCRIPTION
NO.	DATE	

PRELIMINARY

ENGINEER'S PROJECT #		211634
PRINTED FOR	PRELIMINARY	
DATE	05/24/2022	
DRAWN BY:	MRJ	
CHECKED BY:	JFV	
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SHEET OVERALL EXISTING AND PROPOSED PLAN		
SHEET NUMBER EX-200		



FOR REFERENCE ONLY

EXISTING DEVELOPMENT CONDITION:

- 53,488 SQ-FT SHOPPING CENTER AND 7,800 SQ-FT RESTAURANT
- TOTAL ADA STALLS: 10
- TOTAL REGULAR STALLS: 409
- TOTAL STALL COUNT: 419

PROPOSED DEVELOPMENT CONDITION:

- 53,488 SQ-FT SHOPPING CENTER AND 5,000 SQ-FT FAST FOOD RESTAURANT
- TOTAL ADA STALLS: 9
- TOTAL REGULAR STALLS: 361
- TOTAL STALL COUNT: 370

STALL COUNT CHANGES:

- NET CHANGE - REGULAR STALLS: -48
- NET CHANGE - ADA STALLS: -1
- NET CHANGE - TOTAL STALLS: -49

ITE PARKING REQUIREMENTS:

(REFER TO PAGE 25 OF THE TRAFFIC IMPACT STUDY FOR MORE INFORMATION)

TABLE 7 - ITE PARKING REQUIREMENTS

Land Use	Building Size (s.f.)	ITE Land Use Code	ITE Parking Requirements			
			Weekday		Saturday	
			Mid-Day	Evening	Mid-Day	Evening
Chick-fil-A	5,000	934	43	27	46	32
Shopping Center	48,500	820	172	148	174	150
Lot Total	53,500	-	215	175	220	182

ACCORDING TO ITE PARKING RATES, THE HIGHEST PARKING DEMAND IS PROJECTED TO BE 220 VEHICLES DURING THE SATURDAY MID-DAY PEAK PERIOD. COMPARED TO THE 370 AVAILABLE PARKING SPACES, THE OVERALL PARKING UTILIZATION IS PREDICTED TO BE 60%. THE ANALYSIS INDICATES THAT THE PARKING SUPPLY IS EXPECTED TO BE ADEQUATE FOR THE DEVELOPMENT PLANS BASED ON ITE CODE. THE ADDITIONAL 40% OF UNUTILIZED PARKING SUPPLY WILL LIKELY AID IN TRAFFIC CIRCULATION, AS AVAILABLE PARKING SPACES REDUCE THE AMOUNT OF TIME VEHICLES MUST SPEND DRIVING THROUGH THE LOT, SEARCHING FOR A PARKING SPACE.

Tenant Parking Table

TENANT NUMBER	ADDRESS	BLDG. SQ. FT.	TENANT NAME	TYPE OF USE	INDOOR SEATS	OUTDOOR SEATS	PARKING FORMULA	PARKING STALLS REQUIRED
1	12316	5,190	SANTA FE BISTRO	RESTAURANT	118	20	(127 INDOOR SEATS/3)+(5,190SF/250)+(20 OUTDOOR SEATS/8) = 65.59	66
2	12320	3,450	JON TOMAS	HAIR SALON	N/A		(3,450SF/1000*4) = 13.8	14
3	12324	1,840	LAND HOME FINANCIAL	FINANCIAL	N/A		(1,840SF/1000*4) = 7.36	7
4	12328	1,160	BELLA CHIC	GENERAL RETAIL	N/A		(1,160SF/1000*4) = 4.64	5
5	12330	1,200	BOOM PILATES	FITNESS	N/A		(1,200SF/150) = 8	8
6	12332	1,200	MIDWEST DIZZINESS	HEALTH	N/A	NA	(1,200SF/1000*4) = 4.8	5
7	12334	2,330	SHEA WILSON DMD	HEALTH	N/A	NA	(2,330SF/1000*4) = 9.32	9
8	12344-46	6,615	LA BONNE BOUCHEE	RESTAURANT	110	0	(110 INDOOR SEATS/3)+(6,615SF/250) = 63.13	63
9	12350	1,400	BIRKENSTOCK & MORE	GENERAL RETAIL	N/A		(1,400SF/1000*4) = 5.6	6
10	12352	1,000	BELSONO HEARING	HEALTH	N/A		(1,000SF/1000*4) = 4	4
11	12354	3,560	VACANT	GENERAL RETAIL	N/A		(3,560SF/1000*4) = 14.24	14
12	12360	1,200	HYATT JEWELERS	GENERAL RETAIL	N/A		(1,200SF/1000*4) = 4.8	5
13	12362	1,200	PEACEFUL GARDEN	HEALTH	N/A		(1,200SF/1000*4) = 4.8	5
14	12364	3,000	GLOBAL QUESADILLA	RESTAURANT	80	0	(80 INDOOR SEATS/3)+(3,000SF/250) = 38.67	39
15	12370	2,100	PROACTIVE CHIRO	HEALTH	N/A		(2,100SF/1000*4) = 8.4	8
16	12372-80	2,100	MIDWEST DIZZINESS	HEALTH	N/A		(2,100SF/1000*4) = 8.4	8
17	12382	2,465	SSM PHYSICAL THERAPY	HEALTH	N/A		(2,465SF/1000*4) = 9.86	10
18	12384	1,600	ALLOY TRAINING	FITNESS	N/A		(1,600SF/150) = 10.67	11
19	12388	1,542	ICHIBAN	RESTAURANT	60	0	(60 INDOOR SEATS/3)+(1,542SF/250) = 26.17	26
20	12390	1,586	KUMON MATH & READING	EDUCATIONAL	N/A		(1,586SF/300) = 5.28	5
21	12392	2,750	MIDWEST EYE	HEALTH	N/A		(2,750SF/1000*4) = 11	11
22	12398	5,000	CHICK-FIL-A	RESTAURANT	74	24	(74 INDOOR SEATS/3)+(4,704SF/250)+(24 OUTDOOR SEATS/8) = 46.48	47
TOTAL REQUIRED STALLS PER USE =								376



Chick-fil-A

Chick-fil-A
5200 Buffington Road
Atlanta, Georgia
30349-2998



HRGreen.com
HRGreen

CHICK-FIL-A

CREVE COEUR (MO) FSU

12398 OLIVE BOULEVARD
CREVE COEUR, MO 63141

FSR# 05161

REVISION SCHEDULE
NO. DATE DESCRIPTION

PRELIMINARY

ENGINEER'S PROJECT # 211634

PRINTED FOR PRELIMINARY

DATE 05/24/2022

DRAWN BY: MRJ

CHECKED BY: JFV

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SHEET

OVERALL PARKING

COUNT EXHIBIT

SHEET NUMBER

EX-1

November 15, 2022

Via email: jvavrina@hrgreen.com

Mr. Joseph Vavrina
1391 Corporate Drive, Suite 203
McHenry, IL 60050

Re: Chick-fil-A Drive Thru Sound Study
McClure Project: 104275.000

Dear Mr. Vavrina:

McClure has reviewed the site plans, project information and the typical sound pressure levels emitted from the proposed Chick-fil-A drive-thru ordering station and operations. Background sound level data and acoustical models have been assembled using manufacture data to find the estimated acoustical impact a new drive-thru with a speaker system will have on the surrounding area. Based on this information and measured sound levels on the proposed project site, the sound level from the speaker system will be below the Creve Coeur Zoning Ordinance No. 5400 sound control code for both day and night operation and will have minimal impact on the ambient sound levels in this area. The technology within the ordering stations compensates for the ambient sound resulting in sound levels like two people having a conversation in the parking lot.

Background sound levels from traffic noise on Route 340 (Olive Boulevard) are high at this intersection. The average daytime sound level is in the range of 60 to 65 dBA near the ordering stations.

Calculations and Sound Level Measurements

The proposed site plan provided by HR Green® dated 5/24/2022, indicates the approximate distance to the nearest residential property is 400 feet southwest from the ordering stations. The nearest store front in the Westgate Centre is 300 feet. The sound data provided by the order station manufacturer, HME Electronics, includes maximum sound levels as well as sound levels with the Automatic Volume Control (AVC) system activated. There will be two ordering stations, and both will be equipped with the AVC system.

Because of the high ambient sound levels, the worst case is calculated to be 58 dBA at the Cove West Apartment complex. This is based on a two-speaker system with a maximum output of 86.5 dBA near the order stations. The ordering stations will employ AVC and could operate as high as 75 to 80 dBA at the ordering stations when the ambient sound level is between 60 and 65 dBA.

Based on the manufacturer's data the sound level contribution from the order station with the AVC activated is calculated to be 40 dBA at the apartments and 42 dBA at the nearest store front. These sound levels will be far below the current typical ambient sound levels. While the sound levels will typically be somewhere in between 60 and 84 dBA at 1' from the order station, the data and calculations show the ordering stations sound levels will be less than ambient sound levels at this site. Sound maps for this project site with each scenario are provided in **Attachment A**.

The following results are provided:

- 1) Map 1 – Road Noise Only
- 2) Map 2 – Drive-thru Speakers only
- 3) Map 3 – Speaker and Road Noise
- 4) Map 4 – Drive-thru cars and Road Noise
- 5) Map 5 – Drive-thru Speakers plus Cars and Road Noise
- 6) Map 6 – Drive-thru Speaker and Cars – No Background

The Creve Coeur sound code (Ordinance No. 5400) states that the sound level will not exceed 60 dBA at the property line. The sound emitted by the order station is less than 45 dBA at the nearest property line at all times.

Noise Monitoring Data and Results

A SVANTek Model 307 Sound Level Meters (SLM) was used for the sound measurements. The SLMs recorded and stored the following A-weighted quantities for each one-hour increment of the measurement period: (1) energy equivalent sound level [Leq], (2) the maximum sound level [Lmax], (3) the sound level exceeded 10% of the time [L10] and (4) the sound level exceeded 90% of the time [L90]. All measurements were A-weighted per ANSI S1.4 and were designated as decibels (dBA).

Figure 1 is the site map showing the sound level monitor locations.



Figure 1- Ariel view of Site Plan with SLM Locations

The data collected has been plotted into one chart for each location and are shown in **Figure 2** and **3**.

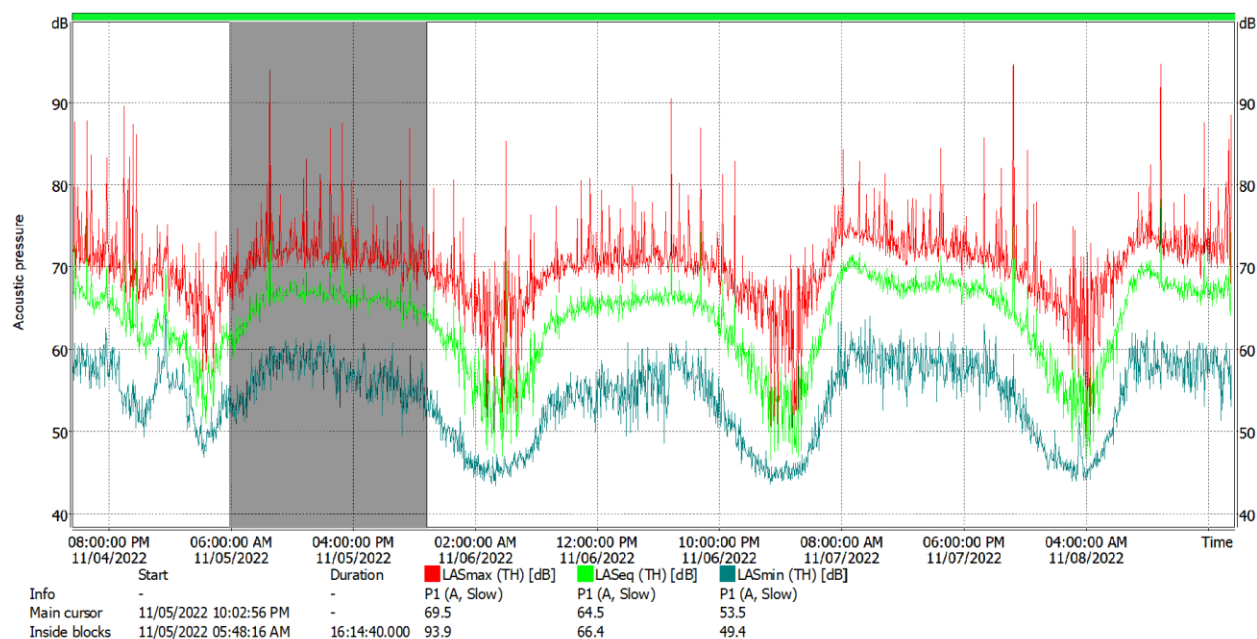


Figure 2 – Loc 1 Sound Data

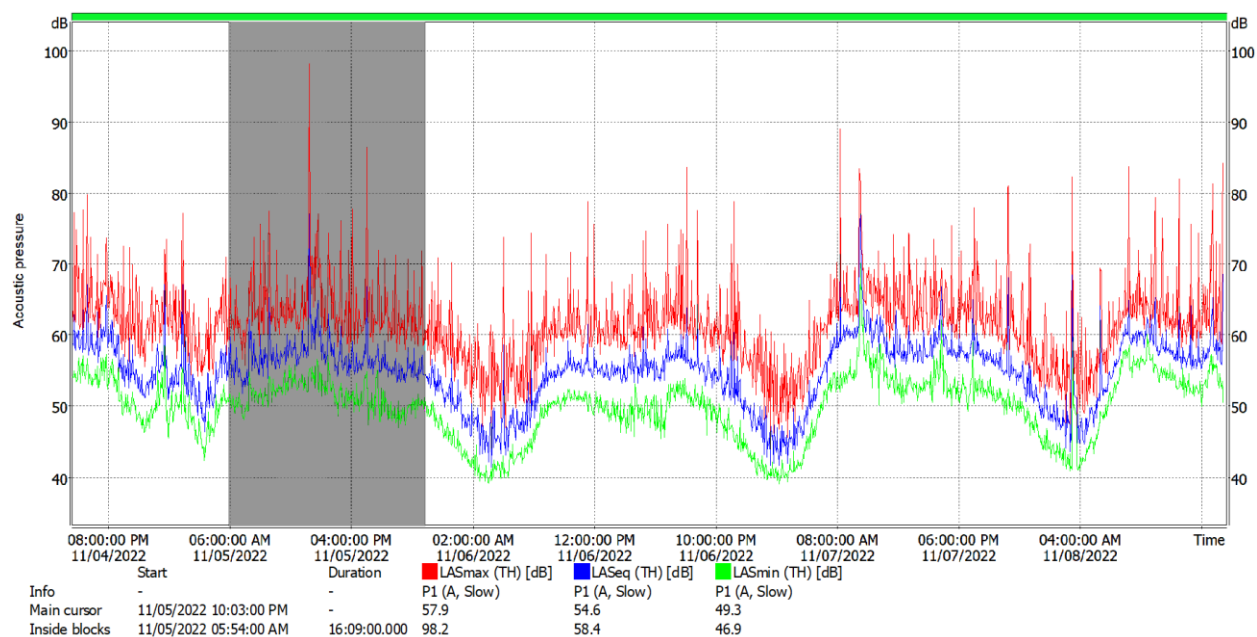


Figure 3 – Loc 2 Sound Data

These charts also summarize the energy equivalent sound levels (Leq) for Saturday November 5th from 6:00 AM to 10:00 PM (gray shaded area). Sound level monitor Location 1 was setup near Olive Boulevard approximately 100 feet northwest of the ordering stations, Location 2 in the center of the proposed site for Chick-fil-A parking lot on the south side of the site away from Olive Boulevard. The monitor was placed approximately 300 feet from the Core West Apartments to the monitor location for three full days (Saturday, Sunday, and Monday).

The monitors measured all sounds, including but not limited to sound from aircraft overflights, the nearby roadways, nature sounds (insects) and rooftop mechanical equipment. However, the majority of the sound is from road noise from Olive Boulevard. This is reflected in part of the noise patterns shown in the data. The sound levels were very consistent over the noise monitoring period.

All the sound in the area of our study is considered background noise. Background noise at the site was determined by monitoring A-weighted sound levels at the site for a period of three days. The average one-hour daytime Leq data was used to establish the current background sound levels for this site. The nominal Leq day-time and night-time background sound level in the area ranged from 65 dBA during the day-time hours and as low 45 in the late night hours (2am and 5 am).

Conclusions

The background sound level is controlled by traffic sound based on site observations and measured data rather than the ordering stations. From our measurements, the sound data indicated the Automatic Volume Control (AVC) will function as designed since the ordering station level blends in with the traffic and other ambient sounds.

The calculated sound levels at the southwest property line will be at or below 45 dBA without background sound levels. Sound from the ordering stations will be below Creve Coeur sound code and will not have any significant impact on the ambient sound in the area. The technology within the order station compensates for the ambient sound resulting in sound levels similar to two people having a conversation in the parking lot. The property line of the apartments will experience sound levels from the ordering stations to be less than 40 dBA. As a reference, conversational speech levels are typically 55 to 65 dBA.

Recommendations

The sound from the ordering station and drive-thru is less than the Creve Coeur sound code requires and is well below the ambient traffic sound in this area. No further remediation is required.

Please contact me if you have any questions.

Sincerely,

A handwritten signature in black ink that reads "Gary Brown". The signature is fluid and cursive, with the first name "Gary" and last name "Brown" clearly distinguishable.

Gary Brown, ASA, INCE

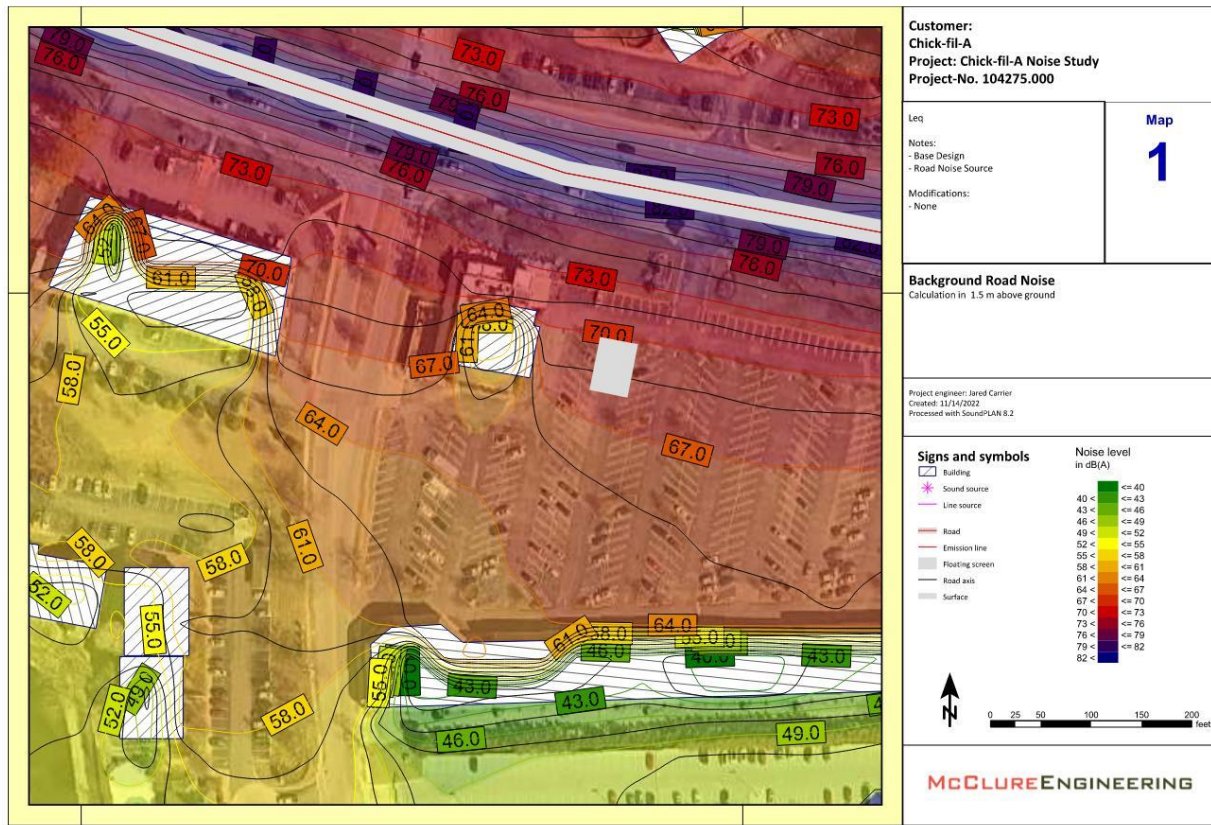
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Attachments: Attachment A: Sound Maps 1 thru 6

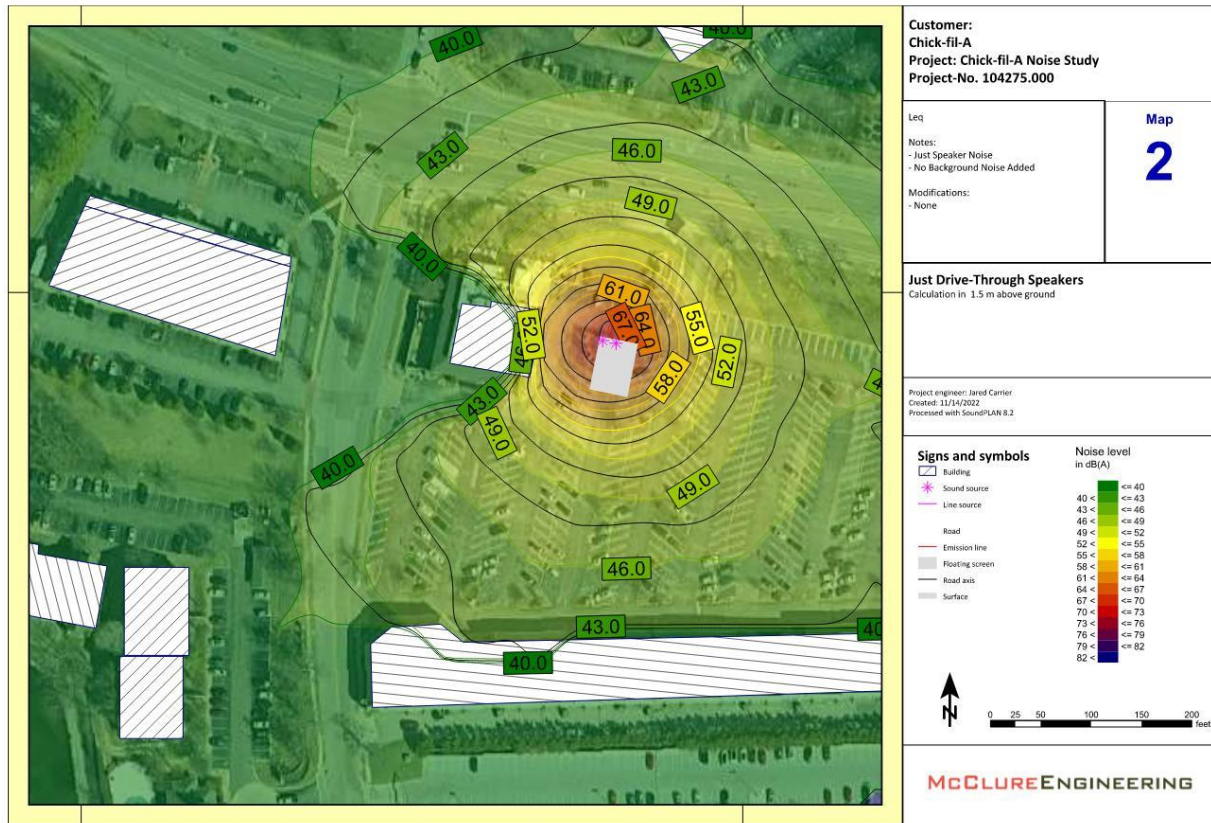
Mr. Joseph Vavrina
November 15, 2022
Page 5 of 11

Attachment A
Sound Maps

Map 1 – Road Noise Only

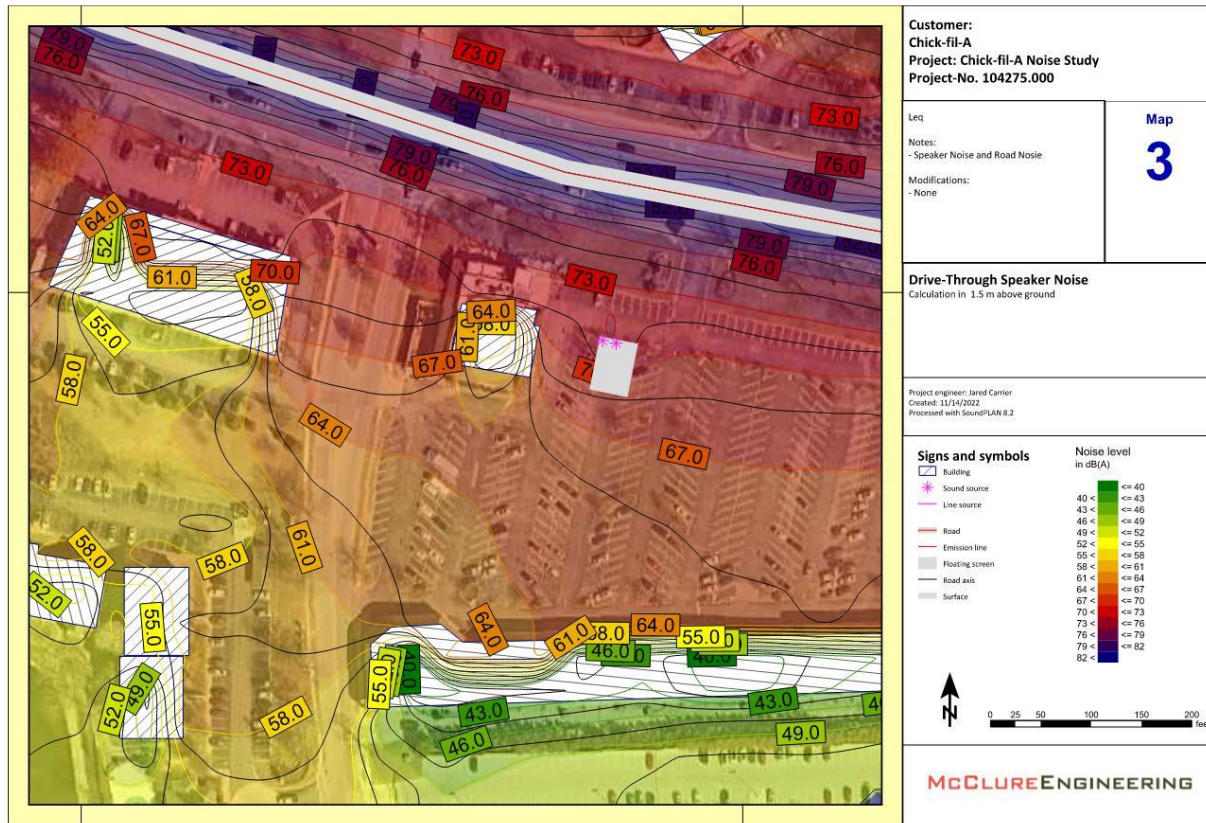


Map 2 – Drive-thru Speakers only



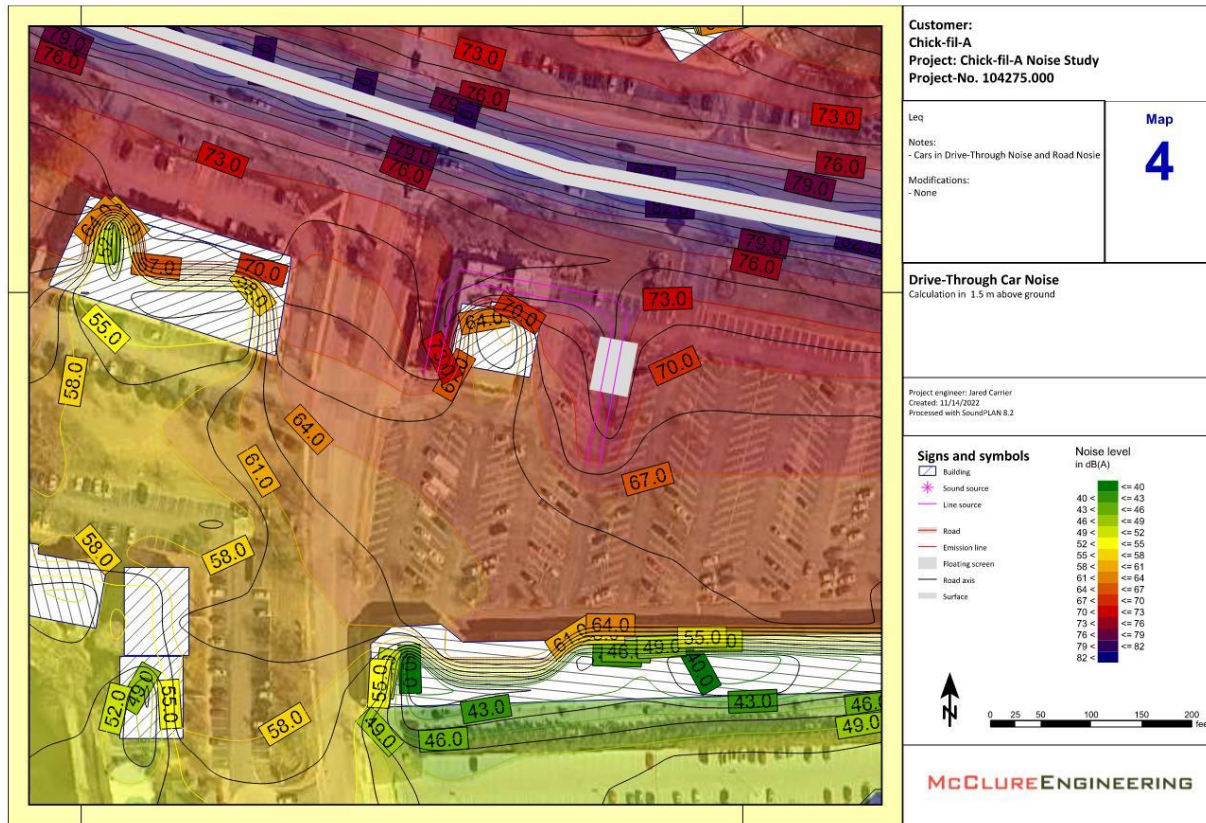
S:\104275.000 Chick-fil-A Noise Study\04 Acoustics\Calculations\Soundplan Model - Chick-fil-A Noise Study\Map 2 - Just Drive-Through Speakers.sps

Map 3 – Speaker and Road Noise

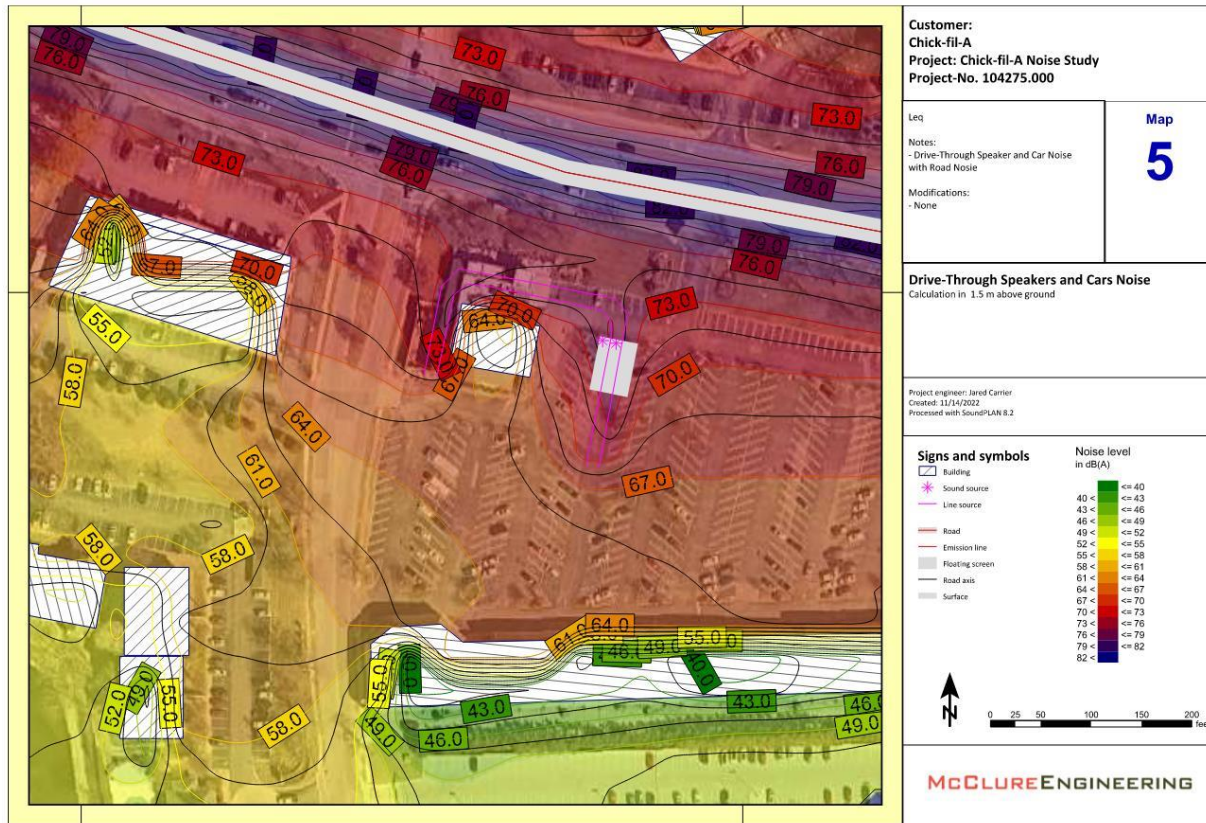


S:\104275.000 Chick-fil-A Noise Study\04 Acoustics\Calculations\Soundplan Model - Chick-fil-A Noise Study\Map 3 - Speaker and Road Noise.apx

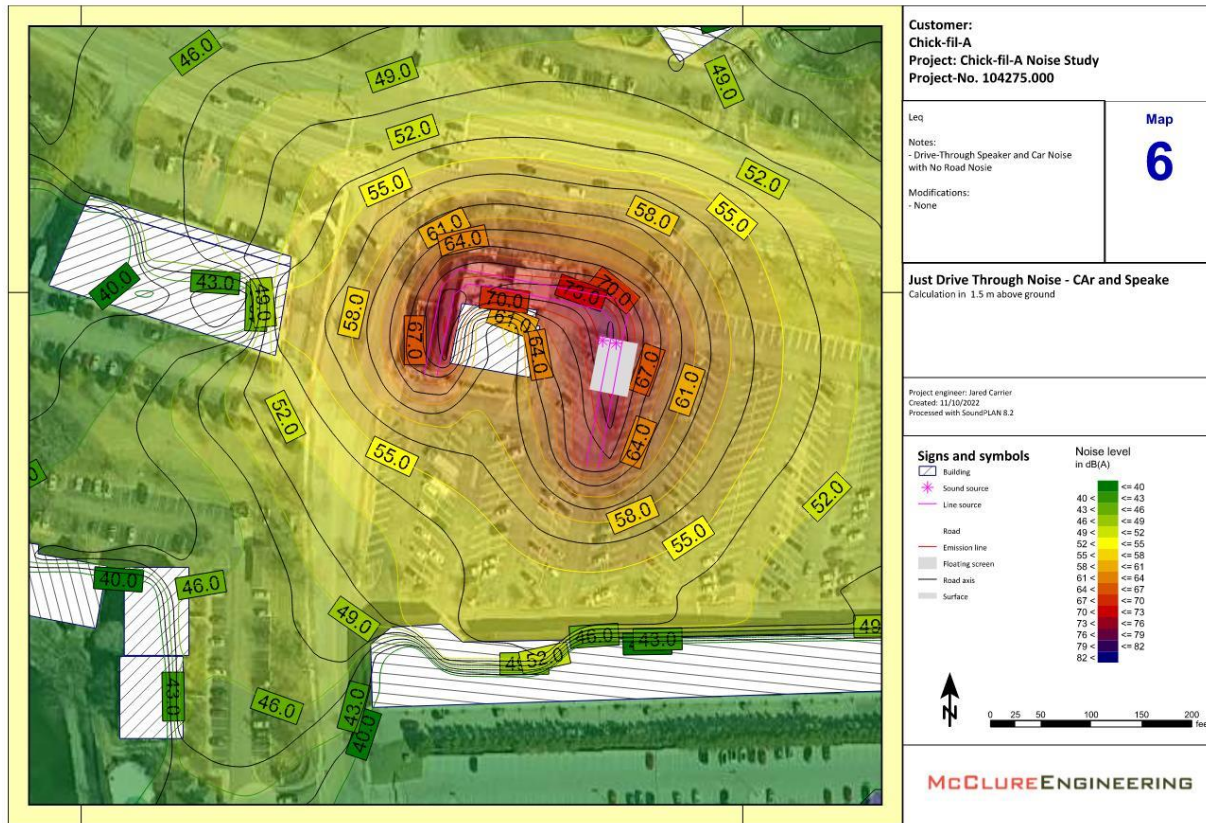
Map 4 – Drive-thru cars and Road Noise



Map 5 – Drive-thru Speakers plus Cars and Road Noise



Map 6 – Drive-thru Speaker and Cars – No Background



S:\104275.000 Chick-fil-A Noise Study\04 Acoustics\Calculations\Soundplan Model - Chick-fil-A Noise Study\Map 6 - Just Drive Through Speaker and Cars.sps



▶ 1391 Corporate Drive | Suite 203
McHenry, IL 60050
Main 815.385.1778 + **Fax** 713.965.0044
▶ **HRGREEN.COM**

November 14, 2022

City of Creve Coeur
Bethany L. Moore, City Planner
300 North New Ballas Road
Creve Coeur, MO 63141

RE: Chick-fil-A – 12398 Olive Blvd.
Response to Review Comments – Application #22031 Conditional Use Permit
HR Green Project No.: 211634

Dear Ms. Moore:

Please see below our responses to the comments provided in the letter dated October 20, 2022. Responses to each comment are shown in **bold** following the comment.

Landscape Plan:

1. Please provide the location of all trees, existing and proposed, on the site clearly marked as such including species, size, and condition as is required per Section 405.540(D).
RESPONSE: Existing and proposed plant information further detailed.
2. Please provide additional evergreens as the predominant plant material to screen the service window and drive through lanes.
RESPONSE: Additional Laurel and Juniper placed along service window and drive-through lanes.
3. Please provide landscaped areas with additional plantings adjacent to the building in fulfillment with the requirements of the Conditional Use Permit.
RESPONSE: As discussed foundation plantings have been added on the east side of the building. A mixture of perennials and grasses have been proposed in this area.
4. Please provide any missing street trees to fulfill the requirements of Section 405.540(F)(1), 1 per 30 feet, and clearly mark them on the plan as such.
RESPONSE: Street trees labeled. Note street trees could be added along Tempo south of the access point due to an existing storm sewer pipe that runs under the grass strip.
5. Please provide additional plantings to screen headlights along Tempo frontage.
RESPONSE: Firepower Heavenly Bamboo placed to block headlights coming from drive-through lane.
6. Please provide additional landscaping adjacent to the outdoor dining area to provide a more welcoming environment.
RESPONSE: Additional and diversified plants placed adjacent to the outdoor dining area.

Site Development Plans:

1. Please provide an additional sheet with existing conditions.
RESPONSE: Additional existing conditions sheet added.
2. Please include adjacent roadway details on the site plans.
RESPONSE: Details have been added to the plans depicting the layout of Tempo.

3. Please provide an additional site plan sheet to show the entire shopping center with the proposed improvements.
RESPONSE: Exhibit included showing the inclusion of the proposed development within the overall development.
4. Please provide an existing parking count for the entire center along with a list of tenant spaces and uses. Please also provide a proposed parking count for comparison. Is there a shared parking easement or agreement in place for Chick-fil-A's use? The parking for Chick-fil-A relies on a shared parking arrangement with the rest of the center and parking requirements are considered together.
RESPONSE: Overall parking exhibit included with the submittal that notes the various existing tenant spaces with parking count as well as a proposed parking count for comparison. Per the lease CFA will have shared parking rights with the rest of the center.
5. Per Section 405.730, internal sidewalks need to be a minimum of 6-feet in width.
RESPONSE: Sidewalks widened to 6'.
6. Please provide site coverage calculations, existing and proposed, for the entire site.
RESPONSE: Site coverage exhibit included showing existing coverages as well as proposed coverages post CFA development.
7. Please widen the pedestrian crosswalk to 6 feet minimum through the drive through lanes and provide a change in material for greater visibility.
RESPONSE: Plans revised accordingly.
8. The apron off of Tempo Drive is cracked and needs to be replaced. Please provide a note on the plans.
RESPONSE: Note added to the plans.
9. Please verify the ownership and maintenance of the landscaped median on Tempo Drive.
RESPONSE: We've reached out to ownership and provided the maintenance agreement furnished by the City for review. Ownership responded and noted they believe the agreement is still in force and the medians on Tempo and Cove Creek are to be maintained by the two apartment complexes. Cove West Apartments (Cove Property) is to maintain the Tempo median. Waterfront Crossing (Apartments) is to maintain the Cross Creek median strip. Both apartment complexes are owned by Summerset Partners.

Building Elevations:

1. The elevation facing Olive Boulevard appears from the street as the rear of the building and needs additional articulation and design elements to provide greater interest from the primary street. Please refer to Design Guidelines Chapter 2, C1 and C3.
RESPONSE: CDA Response: The elevation facing Olive Boulevard has been adjusted to accommodate the following design elements:
 - i. Raised parapets creating a tower element
 - ii. Brick detailing at the upper tower band
 - iii. Brick wall to screen the electrical MDP + CT cabinet
 - iv. Addition of spandrel glazing to create more interest from Olive Boulevard

2. The Design Guidelines also recommend that the design of buildings be unique to Creve Coeur and not be designed to have a “corporate” style. Please refer to Design Guidelines Chapter 2, C6.

RESPONSE: The design of the building has been adjusted to be unique to Creve Coeur, while still maintaining overall Chick-fil-A brand identity by implementing the following design elements:

- v. Utilizing brick colors that compliment the existing shopping center design
- vi. Implementing spandrel glazing to provide additional visual interest
- vii. Adding brick canopy wraps to help connect the canopy to the building design
- viii. Raising parapets to create tower elements initiated by the Olive Boulevard elevation
- ix. Unique brick detailing included on the Olive Boulevard elevation to increase visual interest

3. Please provide specific information as to how the design and materials are compatible with the shopping center. Provide information to the specific coordination of the existing shopping center building to the new Chick-fil-A building per Chapter 3, C4 of the Design Guidelines.

RESPONSE: The design of the building has included the following design elements to be consistent with the existing shopping center

- x. The use of complimentary brick colors to enhance the overall design of the shopping center.
- xi. The inclusion of bronze canopies, coping, and storefront which is compatible with what’s currently included within the shopping center.

4. The proposed canopies are not architecturally integrated into the overall design of the building. Please provide elevations as an alternative that do architecturally integrate the canopies for reference per Chapter 3, A2 of the Design Guidelines.

RESPONSE: Chick-fil-A has included column wraps to visually connect the canopy to the main building design.

5. The proposed freestanding screening fence should either be removed or integrated into the overall design of the Olive facing façade.

RESPONSE: Chick-fil-A has revised the screen fence to be a solid CMU wall with brick veneer to match the overall building design.

Additional Information:

1. This item has been tentatively moved to the November 21, 2022 Planning and Zoning Commission meeting agenda or a later date in order to allow time for the applicant to provide additional materials requested and to allow staff time to review said materials.

RESPONSE: So noted.

2. Additional comments will be provided after review of the TIS and comments received from the City’s traffic engineer consultant.



RESPONSE: TIS comments received from the City on November 11th. TIS has been revised accordingly and included with this resubmittal.

3. Please provide a sound study that is specific for this location and based on the proposed layout. Please refer to Section 405.470(14) for requirements.

RESPONSE: Study to be submitted to the City on November 15th for review/approval.

If you have any questions, please contact us.

Sincerely,

HR GREEN, INC.

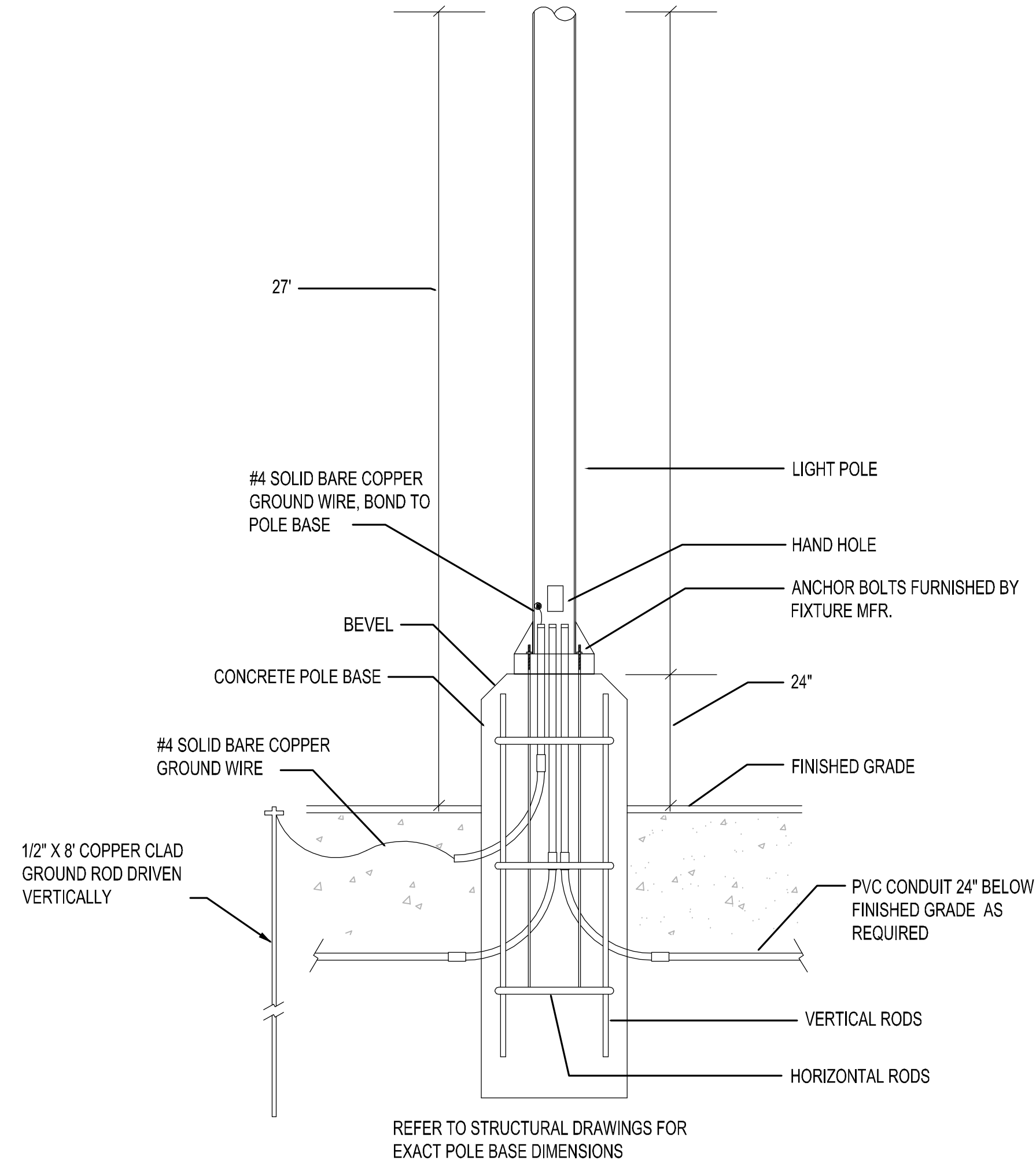
A handwritten signature in black ink, appearing to read 'Joseph F. Vavrina'.

Joseph Vavrina, PE, LEED AP
Senior Project Manager – Land Development

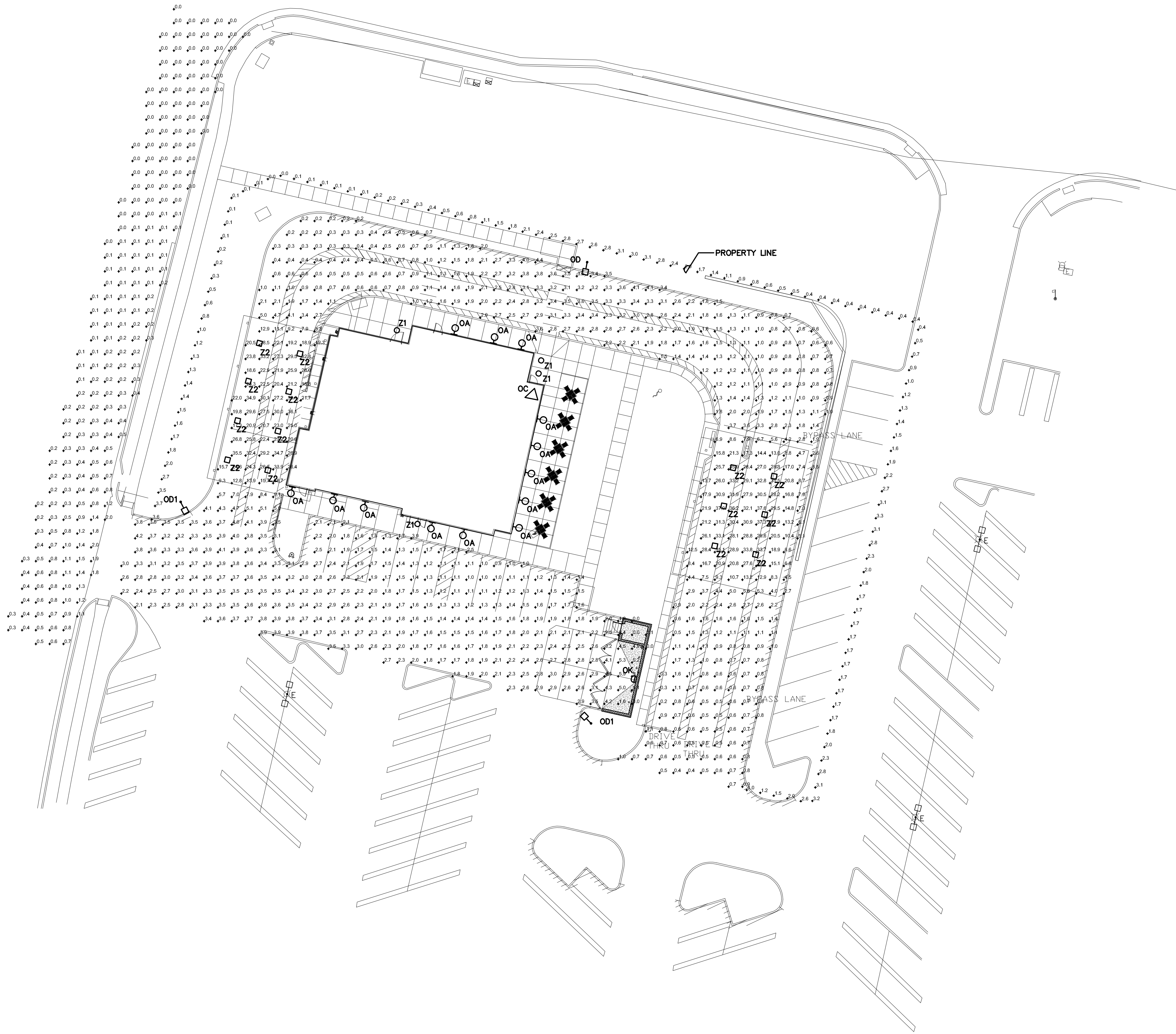
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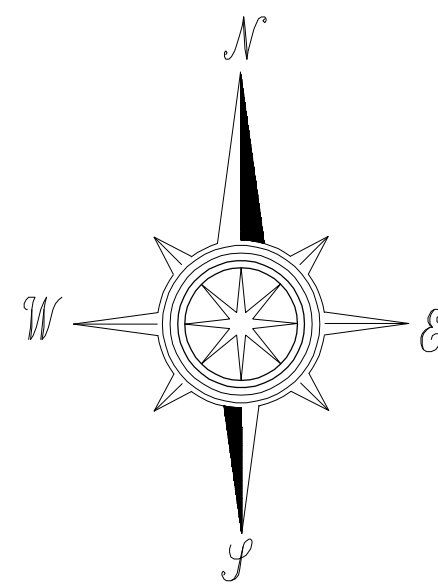
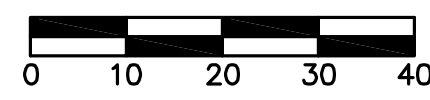
Chick-fil-A
5200 Buffington Road
Atlanta, Georgia 30349-2998



2 TYPICAL POLE BASE DETAIL
NOT TO SCALE



1 PHOTOMETRIC PLAN
SCALE: 1"=20'-0"



PHOTOMETRIC STATISTICS (MAINTAINED) IN PARKING LOT (NOT INCLUDING UNDER CANOPY LIGHTING)	
AVERAGE	2.6 FC
MAX	4.8 FC
MIN	1.3 FC

FIXTURE	HEIGHT (UNLESS NOTED OTHERWISE)	LIGHT LOSS FACTOR	COLOR	LIGHT FIXTURE SPECIFICATION	POLE	COMMENTS
OC	ON BUILDING	.9	4000K	HUBBELL - FLI-42L-95-4K7-N-U-K-DB		
OD	24'	.9	4000K	COOPER/LUMARK - PRV-C60-D-UNV-T3-SA-BZ	KW INDUSTRIES - SSP22-4.0-7-BRZ-DM10-BC (SINGLE LUMINAIRE)	
OD1	24'	.9	4000K	COOPER/LUMARK - PRV-C60-D-UNV-T4-SA-BZ	KW INDUSTRIES - SSP22-4.0-7-BRZ-DM10-BC (SINGLE LUMINAIRE)	
OA	8'	.9	3000K	PROGRESS LIGHTING - P5675-31 WITH TOP COVER LENS		
OK	8'	.9	3000K	HUBBELL - LNC-5LU-3K-3-1		
Z1	10'	.9	3000K	PROVIDED WITH CANOPY		
Z2	9.5'	.5	3000K	LSI - CRUS-SC-LED-LW30-UE-WHT		

CHICK-FIL-A
CREVE COEUR FSU
12398 Olive Blvd
Creve Coeur, MO 63141

FSR# 05161

REVISION SCHEDULE		
NO.	DATE	DESCRIPTION

ARCHITECT'S PROJECT #	#
PRINTED FOR	TOWN REVIEW
DATE	12/12/2022
DRAWN BY	JR/GD
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SHEET	

SHEET NUMBER



Chick-fil-A
5200 Buffington Road
Atlanta, Georgia
30349-2998



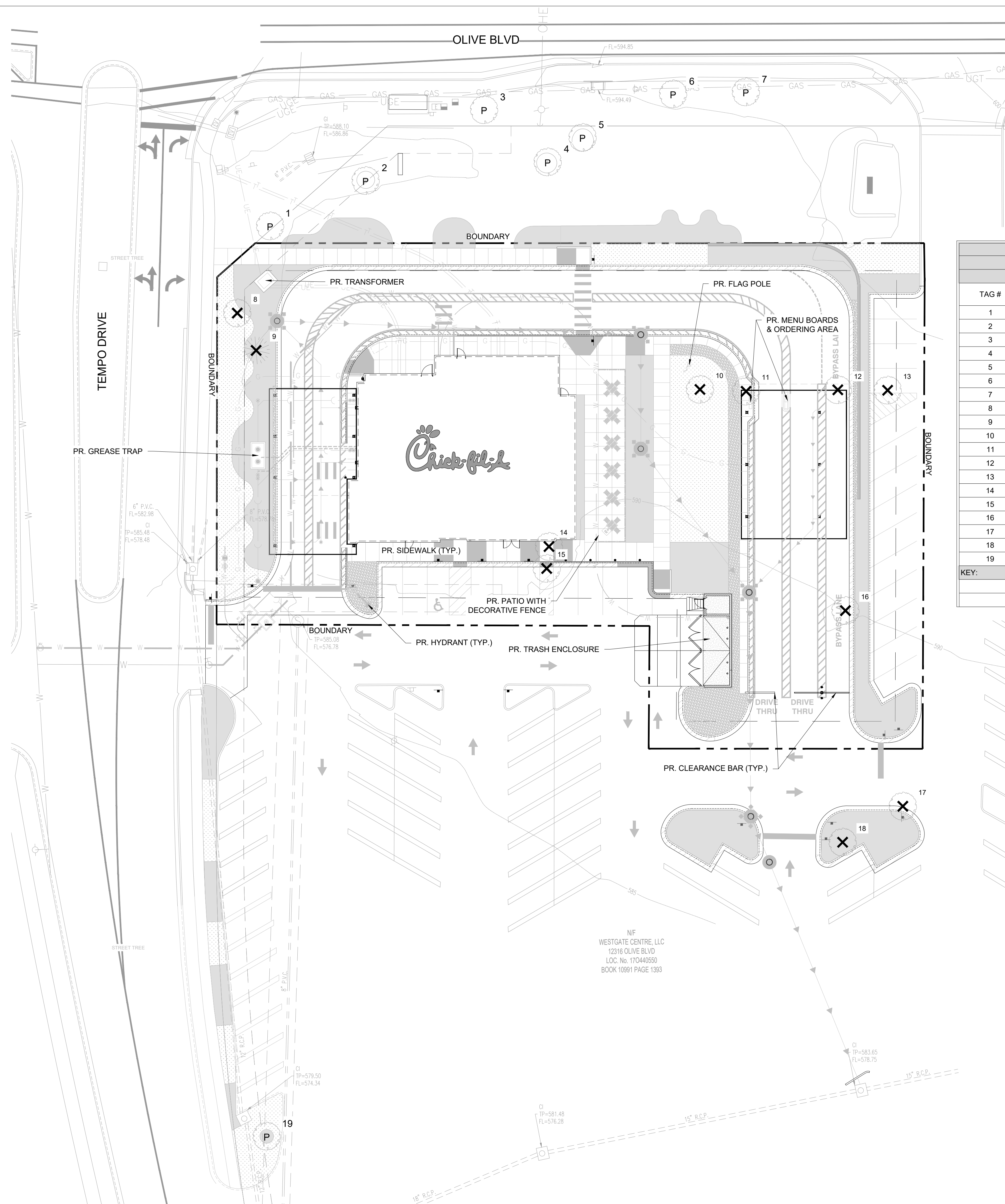
CHICK-FIL-A
CREVE COEUR (MO) FSU
12398 OLIVE BOULEVARD
CREVE COEUR, MO 63141

FSR# 05161

REVISION SCHEDULE		
NO.	DATE	DESCRIPTION

PRELIMINARY

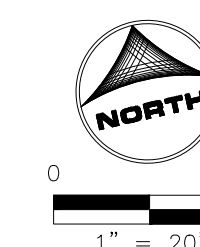
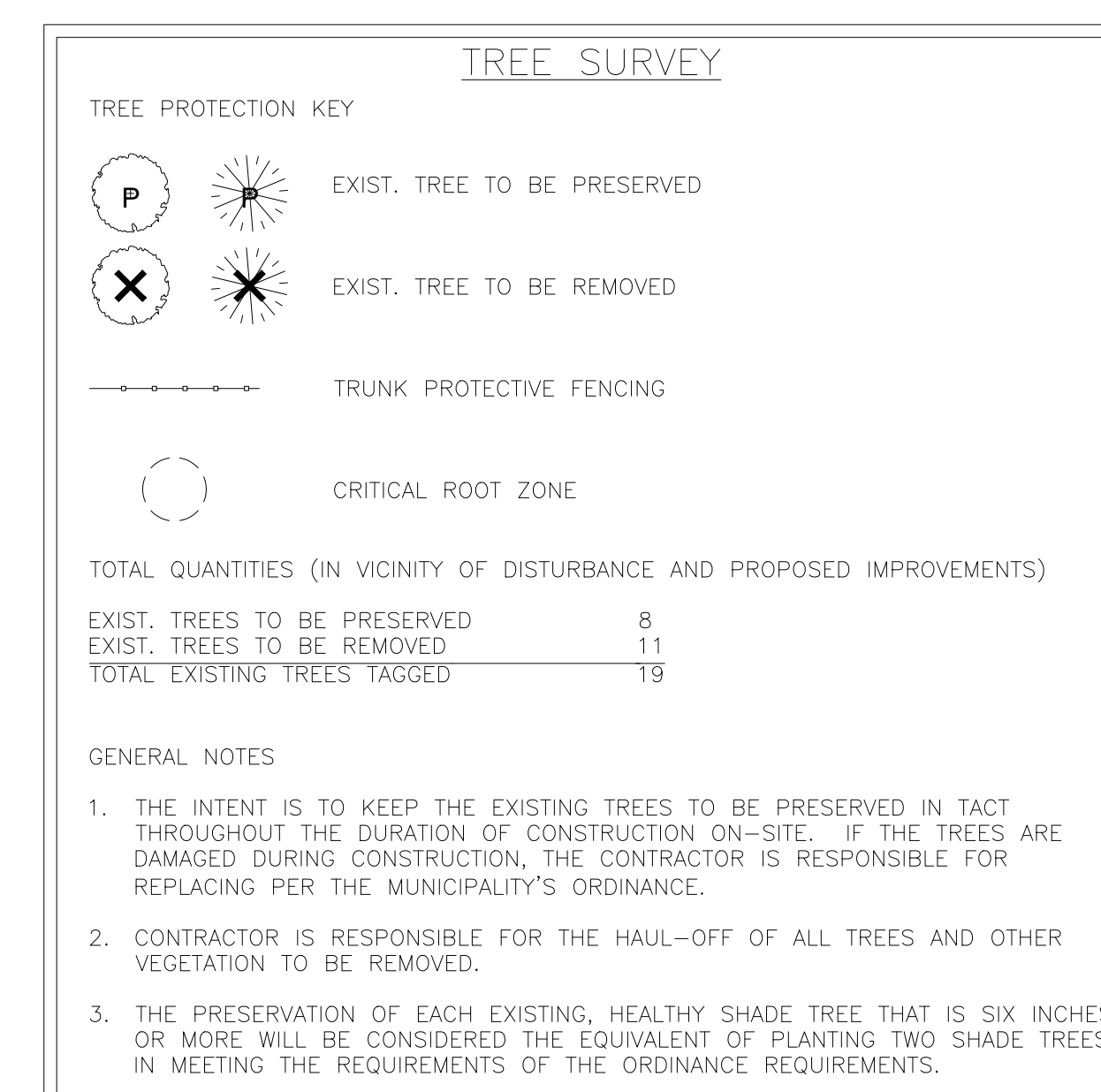
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DATE	05/24/2022	
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CHECKED BY: JFR		
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SHEET		
TREE PRESERVATION PLAN		
SHEET NUMBER		
M-100		



CHICK FIL A - CREVE COEUR, MO						
11/7/2022						
TREE SURVEY						
TAG #	DBH (INCHES)	SPECIES	CONDITION**	ACTION	REASON	
1	15.0	QUERCUS PHELOW / WILLOW OAK	A	PRESERVE	-	
2	18.0	QUERCUS PHELOW / WILLOW OAK	A	PRESERVE	-	
3	8.0	GLEDITSIA TRIACANTHOS / HONEY LOCUST	A	PRESERVE	-	
4	36.0	ROBINIA PSEUDOACACIA / BLACK LOCUST	A	PRESERVE	-	
5	36.0	ROBINIA PSEUDOACACIA / BLACK LOCUST	A	PRESERVE	-	
6	10.0	CRATAEGUS CRUS-GALLI / COCKSPUR HAWTHORN	A	PRESERVE	-	
7	12.0	CRATAEGUS CRUS-GALLI / COCKSPUR HAWTHORN	A	PRESERVE	-	
8	15.0	QUERCUS PHELOW / WILLOW OAK	A	REMOVE	DISTURBANCE IN CRITICAL ROOT ZONE	
9	24.0	PINUS SYLVESTRIS / SCOTCH PINE	C	REMOVE	DISTURBANCE IN CRITICAL ROOT ZONE	
10	6.0	CRATAEGUS CRUS-GALLI / COCKSPUR HAWTHORN	B	REMOVE	DISTURBANCE IN CRITICAL ROOT ZONE	
11	6.0	CRATAEGUS CRUS-GALLI / COCKSPUR HAWTHORN	B	REMOVE	IN FUTURE PAVMENT	
12	6.0	CRATAEGUS CRUS-GALLI / COCKSPUR HAWTHORN	B	REMOVE	IN FUTURE PAVMENT	
13	6.0	CRATAEGUS CRUS-GALLI / COCKSPUR HAWTHORN	B	REMOVE	IN FUTURE PAVMENT	
14	6.0	PHOTINIA GLABRA / JAPANESE PHOTINIA	A	REMOVE	IN FUTURE PAVMENT	
15	6.0	PHOTINIA GLABRA / JAPANESE PHOTINIA	A	REMOVE	IN FUTURE PAVMENT	
16	6.0	CRATAEGUS CRUS-GALLI / COCKSPUR HAWTHORN	A	REMOVE	IN FUTURE PAVMENT	
17	6.0	CRATAEGUS CRUS-GALLI / COCKSPUR HAWTHORN	A	REMOVE	IN FUTURE PAVMENT	
18	6.0	CRATAEGUS CRUS-GALLI / COCKSPUR HAWTHORN	A	REMOVE	DISTURBANCE IN CRITICAL ROOT ZONE	
19	6.0	QUERCUS PHELOW / WILLOW OAK	A	PRESERVE	-	

KEY:

** AGE:	S - Semi-Mature (young trees over 5m high)	M - Mature (approximately 40-50 years old)	O - Over-Mature (die-back of branches, dead wood, etc.)
** CONDITION:	A - Good	B - Fair	C - Poor
		D - Dead	



BAR IS ONE INCH ON
OFFICIAL DRAWINGS
0  1"
IF NOT ONE INCH,
ADJUST SCALE ACCORDINGLY

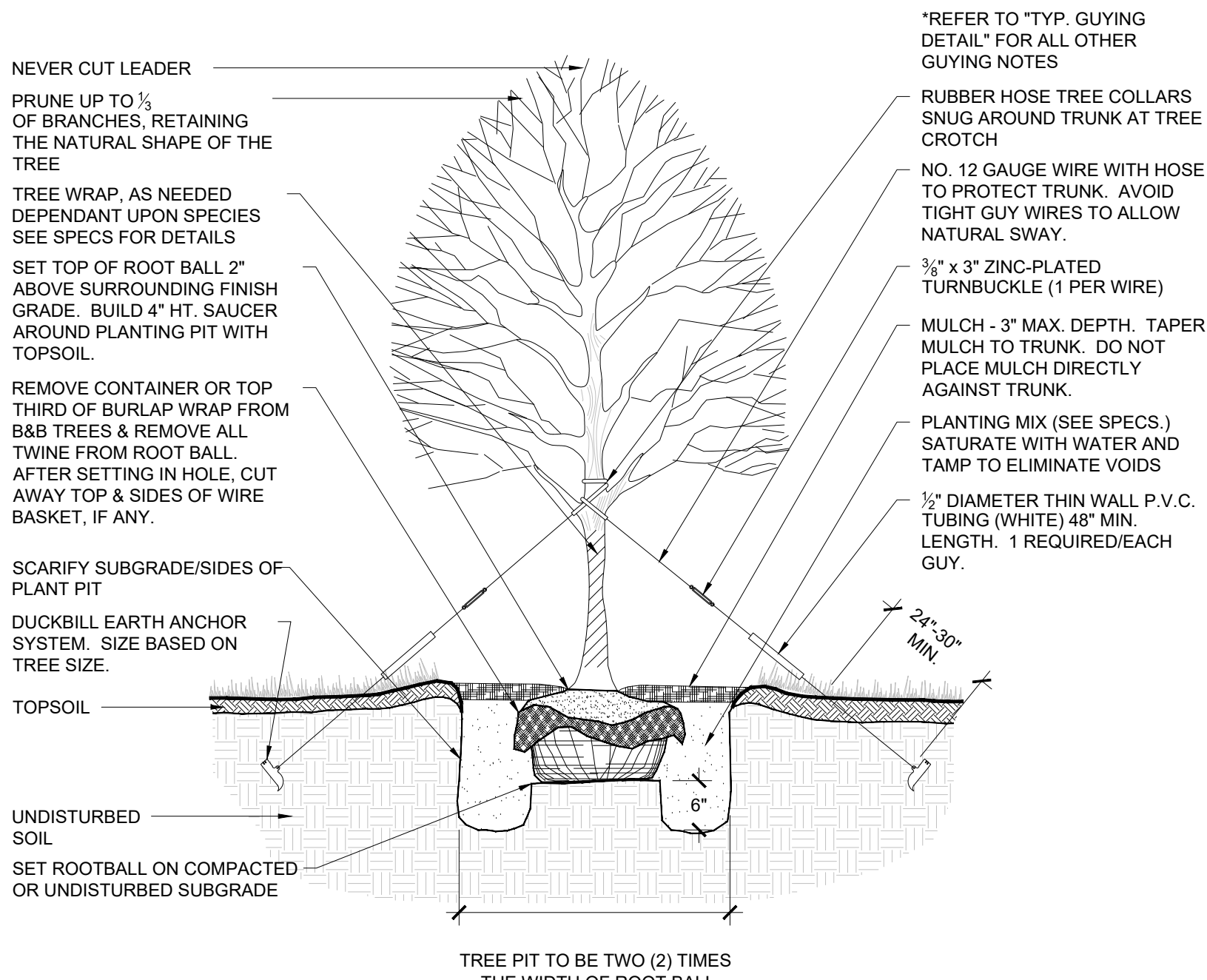
PRELIMINARY
NOT FOR CONSTRUCTION

GENERAL NOTES

1. BASE MAP INFORMATION IS ACCURATE AS OF THE DATE PRINTED ON THIS PACKAGE.
2. THE LANDSCAPE PLANS CONTAINED HEREIN ILLUSTRATE APPROXIMATE LOCATIONS OF ALL SITE CONDITIONS. REFER TO SURVEY, ARCHITECTURAL, CIVIL ENGINEERING, STRUCTURAL, ELECTRICAL, IRRIGATION AND ALL OTHER DRAWINGS, IF AVAILABLE, FOR ADDITIONAL DETAILED INFORMATION.
3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR BECOMING AWARE OF AND FIELD VERIFYING ALL RELATED EXISTING AND PROPOSED CONDITIONS, UTILITIES, PIPES AND STRUCTURES, ETC., PRIOR TO BIDDING AND CONSTRUCTION. THE CONTRACTOR SHALL BE HELD RESPONSIBLE FOR CONTACTING #####, THE COUNTY PUBLIC WORKS DEPARTMENT, THE MUNICIPALITY AND ANY OTHER PUBLIC OR PRIVATE AGENCIES NECESSARY FOR UTILITY LOCATION PRIOR TO ANY CONSTRUCTION. THE CONTRACTOR SHALL NOTIFY THE OWNER'S REPRESENTATIVE OF APPARENT CONFLICTS WITH CONSTRUCTION AND UTILITIES SO THAT ADJUSTMENTS CAN BE PLANNED PRIOR TO INSTALLATION. IF FIELD ADJUSTMENTS ARE NECESSARY DUE TO EXISTING UTILITY LOCATIONS THEY MUST BE APPROVED BY THE OWNER'S REPRESENTATIVE. THE CONTRACTOR SHALL TAKE SOLE RESPONSIBILITY FOR ANY AND ALL COSTS OR OTHER LIABILITIES INCURRED DUE TO DAMAGE OF SAID UTILITIES/STRUCTURES/ETC.
4. THE CONTRACTOR SHALL COMPLY WITH ALL CODES APPLICABLE TO THIS WORK.
5. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATION WITH SUBCONTRACTORS AND OTHER CONTRACTORS OF RELATED TRADES, AS REQUIRED, TO ACCOMPLISH THE PLANTING AND RELATED OPERATIONS.
6. THE CONTRACTOR SHALL COORDINATE INSTALLATION OF ALL PLANT MATERIAL WITH THE INSTALLATION OF OTHER IMPROVEMENTS SUCH AS HARDSCAPE ELEMENTS AND RELATED STRUCTURES. ANY DAMAGE TO EXISTING IMPROVEMENTS IS THE RESPONSIBILITY OF THE CONTRACTOR.
7. THE CONTRACTOR IS RESPONSIBLE TO RESTORE ALL AREAS OF THE SITE, OR ADJACENT AREAS, WHERE DISTURBED BY OPERATIONS OF OR RELATED TO THE CONTRACTOR'S WORK.
8. ALL SURFACE DRAINAGE SHALL BE DIVERTED AWAY FROM STRUCTURES AND NOTED SITE FEATURES IN ALL AREAS AT A MINIMUM OF 2% SLOPE OR AS SHOWN ON THE CIVIL ENGINEERING PLANS. ALL AREAS SHALL POSITIVELY DRAIN AND ALL ISLANDS SHALL BE CROWNED 1" IN HEIGHT PER 1' IN ISLAND WIDTH.
9. THE CONTRACTOR SHALL STAKE ALL TREE LOCATIONS AND THE PERIMETER OF SHRUB/PERENNIAL BEDS PRIOR TO INSTALLATION AND CONTACT THE OWNER'S REPRESENTATIVE FOR APPROVAL. FINAL LOCATION AND STAKING OF ALL PLANT MATERIALS SHALL BE ACCEPTED BY THE OWNER'S REPRESENTATIVE IN ADVANCE OF PLANTING.
10. IF CONFLICTS ARISE BETWEEN THE SIZE OF AREAS AND PLANS, THE CONTRACTOR IS REQUIRED TO CONTACT THE OWNER'S REPRESENTATIVE FOR RESOLUTION PRIOR TO INSTALLATION.
11. WHERE PROVIDED, AREA TAKEOFFS AND PLANT QUANTITY ESTIMATES IN THE PLANT LIST ARE FOR INFORMATION ONLY. THE CONTRACTOR IS RESPONSIBLE TO DO THEIR OWN QUANTITY TAKE-OFFS FOR ALL PLANT MATERIALS AND SIZES SHOWN ON PLANS. IN CASE OF ANY DISCREPANCIES, PLANS TAKE PRECEDENCE OVER CALL-OUTS AND/OR THE PLANT LIST(S).
12. PLANTS ARE TO BE TYPICAL IN SHAPE AND SIZE FOR SPECIES. PLANTS PLANTED IN ROWS OR GROUPS SHALL BE MATCHED IN FORM. PLANTS SHALL NOT BE ROOT-BOUNDED OR LOOSE IN THEIR CONTAINERS. HANDLE ALL PLANTS WITH CARE IN TRANSPORTING, PLANTING AND MAINTENANCE UNTIL INSPECTION AND FINAL ACCEPTANCE. FIELD COLLECTED MATERIAL SHALL NOT BE USED UNLESS APPROVED BY THE OWNER'S REPRESENTATIVE.
13. SHREDDED HARDWOOD MULCH, FERTILIZING, AS SPECIFIED, STAKING, WATERING AND ONE (1) YEAR PLANT WARRANTY FOR INSTALLED PLANT MATERIAL, SHALL BE CONSIDERED INCIDENTAL TO THE PLANT ITEMS.
14. MUSHROOM COMPOST SHALL BE FINELY SCREENED, HOMOGENOUS, DECOMPOSED ORGANIC MATERIAL SUITABLE FOR HORTICULTURAL USE AS AVAILABLE FROM MIDWEST TRADING HORTICULTURAL SUPPLIES, INC. ST. CHARLES, IL 60174 (630) 365-1990 OR APPROVED EQUAL. MIX THOROUGHLY IN PLANT BED BEFORE INSTALLING PLANTS.

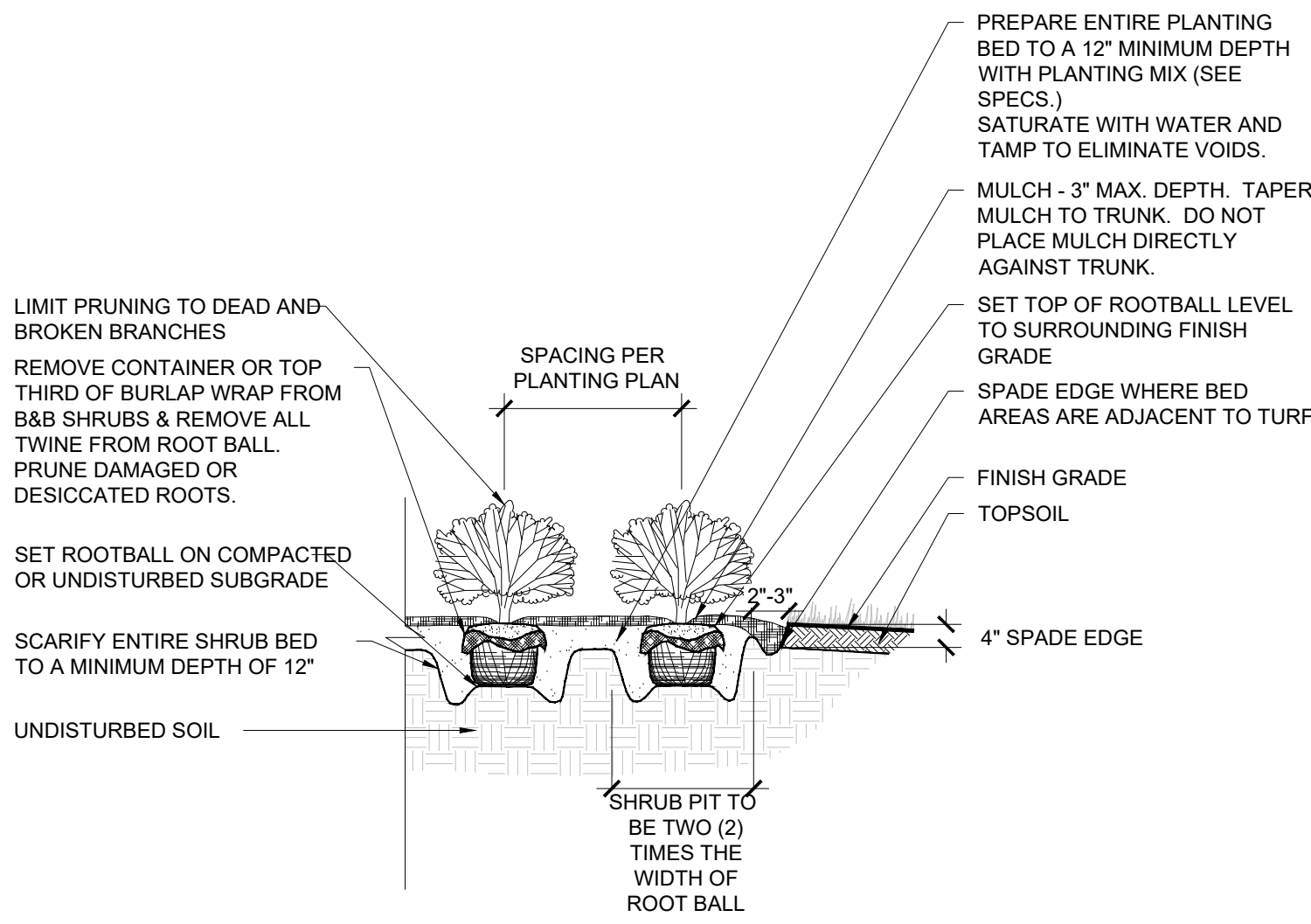
LANDSCAPE NOTES

1. LANDSCAPE CONTRACTOR TO READ AND UNDERSTAND THE LANDSCAPE SPECIFICATIONS (SHEET L-300) PRIOR TO FINALIZING BIDS. THE LANDSCAPE SPECIFICATIONS SHALL BE ADHERED TO THROUGHOUT THE CONSTRUCTION PROCESS.
2. CONTRACTOR RESPONSIBLE FOR LOCATING AND PROTECTING ALL UNDERGROUND UTILITIES PRIOR TO DIGGING.
3. CONTRACTOR RESPONSIBLE FOR PROTECTING EXISTING TREES FROM DAMAGE DURING CONSTRUCTION.
4. ALL PLANTING AREAS SHALL BE CLEARED OF CONSTRUCTION DEBRIS (IE. CONCRETE, ROCK, RUBBLE, BUILDING MATERIALS, ETC.) PRIOR TO ADDING AND SPREADING OF THE TOPSOIL.
5. ALL SHRUBS BEDS (EXISTING AND NEW) TO BE MULCHED WITH A 3 INCH MINIMUM LAYER OF DOUBLE SHREDDED HARDWOOD MULCH.
6. ALL ANNUAL AND PERENNIAL BEDS TO BE TILLED TO A MINIMUM DEPTH OF 12 INCHES AND AMENDED WITH 4 INCHES OF ORGANIC MATERIAL. MULCH PLANTED ANNUAL AND PERENNIAL BEDS WITH 2 INCH DEPTH OF MINI NUGGETS.
7. PLANTING HOLES TO BE DUG A MINIMUM OF TWICE THE WIDTH OF THE SIZE OF THE ROOT BALL OF BOTH SHRUB AND TREE. BACK TO BE A MIX OF 4 PARTS TOPSOIL AND 1 PART ORGANIC SOIL CONDITIONER (IE. NATURE'S HELPER OR PRO MIX). BACKFILL AND TAMP BOTTOM OF HOLE PRIOR TO PLANTING SO TOP OF ROOT BALL DOES NOT SETTLE BELOW SURROUNDING GRADE.
8. EXISTING GRASS IN PROPOSED PLANTING AREAS TO BE KILLED AND REMOVED AND AREA TO BE HAND RAKED TO REMOVE ALL ROCKS AND DEBRIS LARGER THAN 1 INCH IN DIAMETER PRIOR TO PLANTING SHRUBS.
9. ANY EXISTING GRASS DISTURBED DURING CONSTRUCTION TO BE FULLY REMOVED, REGRADED AND REPLACED. ALL TIRE MARKS AND INDENTIONS TO BE REPAIRED.
10. SOIL TO BE TESTED TO DETERMINE FERTILIZER AND LIME REQUIREMENTS AND DISTRIBUTED PRIOR TO LAYING SOD.
11. SOD TO BE DELIVERED FRESH (CUT LESS THAN 24 HOURS PRIOR TO ARRIVING ON SITE), LAID IMMEDIATELY, ROLLED, AND WATERED THOROUGHLY IMMEDIATELY AFTER PLANTING. EDGE OF SOD IS TO BE "V" TRENCHED.
12. ALL CHANGES TO DESIGN OR PLANT SUBSTITUTIONS ARE TO BE AUTHORIZED BY THE LANDSCAPE ARCHITECT.
13. ALL LANDSCAPING SHALL BE INSTALLED IN CONFORMANCE WITH ANSI Z60.1 THE "AMERICAN STANDARD FOR NURSERY STOCK" AND THE ACCEPTED STANDARDS OF THE AMERICAN ASSOCIATION OF NURSERYMEN.
14. THE LANDSCAPE CONTRACTOR SHALL GUARANTEE ALL PLANTS INSTALLED FOR ONE FULL YEAR FROM DATE OF ACCEPTANCE BY THE OWNER. ALL PLANTS SHALL BE ALIVE AND AT A VIGOROUS RATE OF GROWTH AT THE END OF THE GUARANTEE PERIOD. THE LANDSCAPE CONTRACTOR SHALL NOT BE RESPONSIBLE FOR ACTS OF GOD OR VANDALISM.
15. ANY PLANT THAT IS DETERMINED DEAD, IN AN UNHEALTHY OR UNSIGHTLY CONDITION, LOST ITS SHAPE DUE TO DEAD BRANCHES OR OTHER SYMPTOMS OF POOR, NON-VIGOROUS GROWTH SHALL BE REPLACED BY THE LANDSCAPE CONTRACTOR.
16. GENERAL CONTRACTOR IS RESPONSIBLE FOR ADDING A MIN OF 4" OF CLEAN FRIABLE TOPSOIL IN ALL PLANTING BEDS AND ALL GRASSSED AREAS. GRADED AREAS TO BE HELD DOWN THE APPROPRIATE ELEVATION TO ACCOUNT FOR TOPSOIL. SEE SPECIFICATIONS FOR REQUIRED TOPSOIL CHARACTERISTICS.
17. IN ALL PARKING LOT ISLANDS, THE GENERAL CONTRACTOR IS RESPONSIBLE TO REMOVE ALL DEBRIS, FRACTURE/LOOSEN SUBGRADE TO A MIN. 24" DEPTH. ADD TOPSOIL TO A 6"-8" BERM HEIGHT ABOVE ISLAND CURBING; REFER TO LANDSCAPE SPECIFICATIONS AND LANDSCAPE ISLAND DETAIL.
18. PRIOR TO BEGINNING WORK, THE LANDSCAPE CONTRACTOR SHALL INSPECT THE SUBGRADE, GENERAL SITE CONDITIONS, VERIFY ELEVATIONS, UTILITY LOCATIONS, IRRIGATION, APPROVE TOPSOIL PROVIDED BY GENERAL CONTRACTOR AND OBSERVE THE SITE CONDITIONS UNDER WHICH THE WORK IS TO BE DONE. NOTIFY GENERAL CONTRACTOR OF ANY UNSATISFACTORY CONDITIONS, AND WORK SHALL NOT PROCEED UNTIL SUCH CONDITIONS HAVE BEEN CORRECTED AND ARE ACCEPTABLE TO THE LANDSCAPE CONTRACTOR.
19. STAKE ALL EVERGREEN AND DECIDUOUS TREES AS SHOWN IN THE DETAILS THIS SHEET.
20. REMOVE ALL STAKES AND GUYING FROM ALL TREES AFTER ONE YEAR FROM PLANTING.
21. WATER THOROUGHLY TWICE IN FIRST 24 HOURS AND APPLY MULCH IMMEDIATELY.
22. SITE TO BE 100% IRRIGATED IN ALL PLANTING BEDS AND GRASS AREA BY AN AUTOMATIC UNDERGROUND IRRIGATION SYSTEM. SEE IRRIGATION PLAN L-200 FOR DESIGN.
23. ALL TREE PROTECTION DEVICES TO BE INSTALLED PRIOR TO THE START OF LAND DISTURBANCE, AND MAINTAINED UNTIL FINAL LANDSCAPING.
24. ALL TREE PROTECTION AREAS TO BE PROTECTED FROM SEDIMENTATION.
25. ALL TREE PROTECTION FENCING TO BE INSPECTED DAILY, AND REPAIRED OR REPLACED AS NEEDED.
26. NO PARKING, STORAGE OR OTHER CONSTRUCTION ACTIVITIES ARE TO OCCUR WITHIN TREE PROTECTION AREAS.
27. CONTRACTOR SHALL USE CAUTION WHEN DIGGING TREE PITS IN THE VICINITY OF UNDERGROUND UTILITY LINES AND MAY NEED TO HAND DIG THE PITS IN MANY OF THESE INSTANCES.



1 TYP. DECIDUOUS TREE PLANTING DETAIL

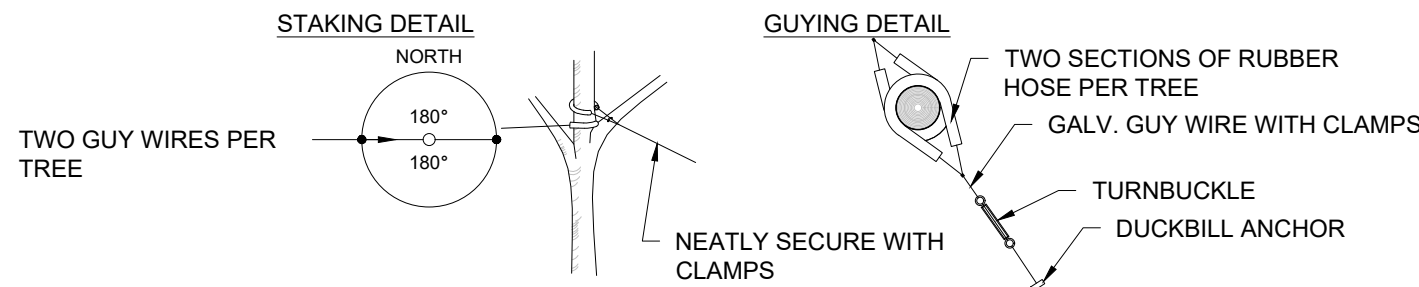
SCALE: NTS



3 TYP. SHRUB PLANTING DETAIL

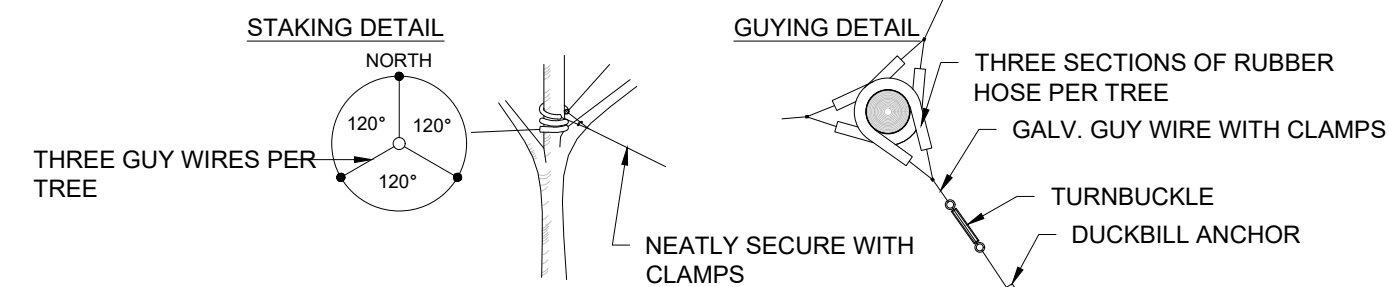
SCALE: NTS

GUYING STANDARDS	
• TWO (2) MODEL 68 DUCKBILL ANCHORS (HOLDING CAPACITY 1100# PER ANCHOR IN NORMAL SOIL.	
• 13' OF 1/8" 7x7 GALVANIZED STEEL CABLE WITH TURNBUCKLE ATTACHED MID-CABLE.	
• 1/2" DIAMETER THIN WALL P.V.C. TUBING (WHITE) 48" MINIMUM LENGTH. ONE (1) REQUIRED/EACH GUY.	
• TWO (2) TURNBUCKLES, EYE AND EYE TYPE, 3/4" THREAD DIAMETER WITH 3" TAKE-UP	
• FOUR (4) 1/8" CABLE CLAMPS, ZINC PLATED (DR-2 STEEL DRIVE ROD 2' LONG WITH 1/4" ROUND DRIVING TIP NEEDED TO INSTALL ANCHORS. ONE ROD, NOT INCLUDED IN KIT, DRIVES HUNDREDS OF ANCHORS)	
• TWO (2) RUBBER HOSE TREE COLLARS, 21" LONG, EA.	



*APPLIES TO SINGLE TRUNK DECIDUOUS TREES 3" CAL. AND LESS & EVERGREEN TREES 8' HT. AND LESS

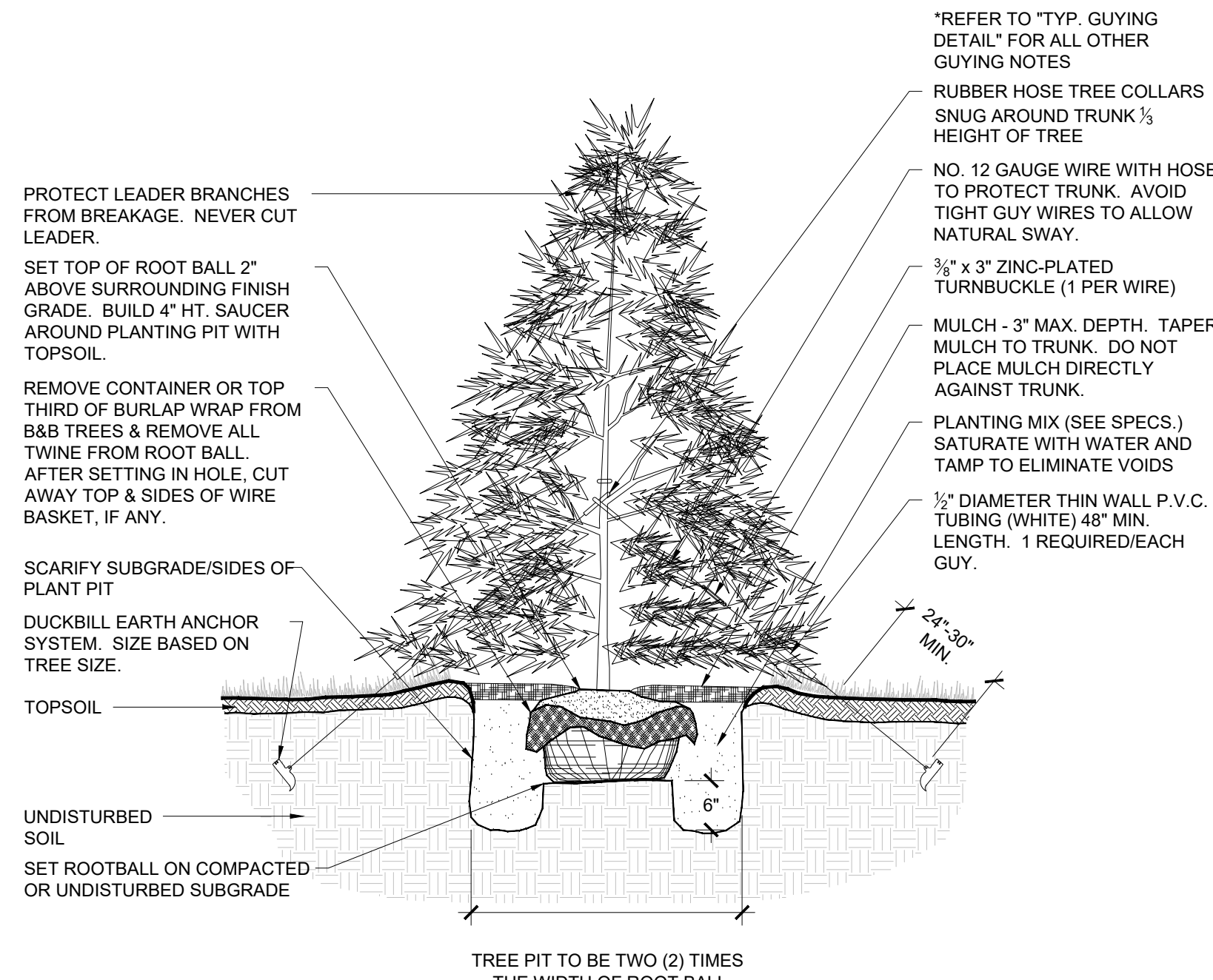
GUYING STANDARDS	
• THREE (3) MODEL 68 DUCKBILL ANCHORS (HOLDING CAPACITY 1100# PER ANCHOR IN NORMAL SOIL.	
• 13' OF 1/8" 7x7 GALVANIZED STEEL CABLE WITH TURNBUCKLE ATTACHED MID-CABLE.	
• 1/2" DIAMETER THIN WALL P.V.C. TUBING (WHITE) 48" MINIMUM LENGTH. ONE (1) REQUIRED/EACH GUY.	
• THREE (3) TURNBUCKLES, EYE AND EYE TYPE, 3/4" THREAD DIAMETER WITH 3" TAKE-UP	
• SIX (6) 1/8" CABLE CLAMPS, ZINC PLATED (DR-2 STEEL DRIVE ROD 2' LONG WITH 1/4" ROUND DRIVING TIP NEEDED TO INSTALL ANCHORS. ONE ROD, NOT INCLUDED IN KIT, DRIVES HUNDREDS OF ANCHORS)	
• THREE (3) RUBBER HOSE TREE COLLARS, 21" LONG, EA.	



*APPLIES TO SINGLE TRUNK DECIDUOUS TREES GREATER THAN 3" CAL. & EVERGREEN TREES GREATER THAN 8' HT.

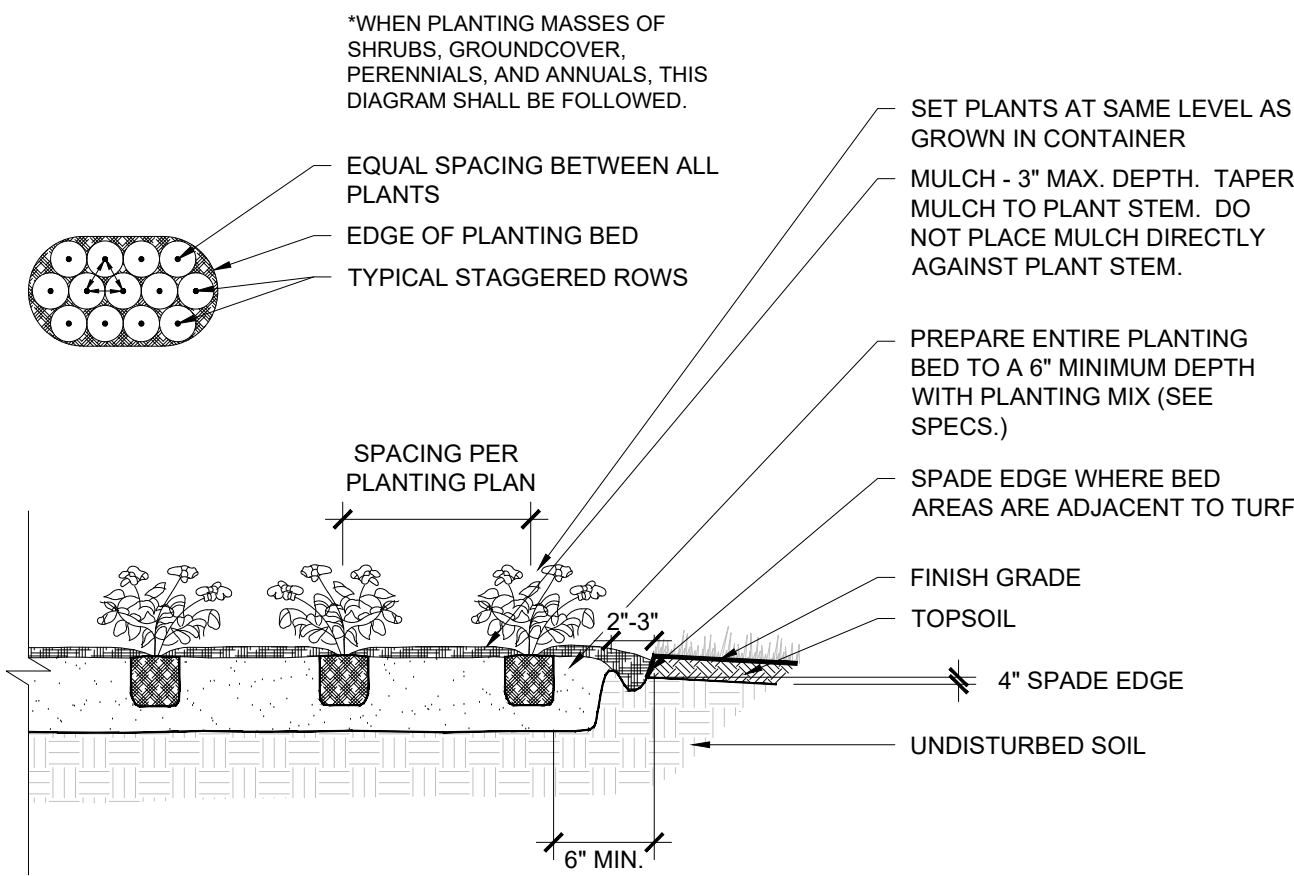
5 TYP. GUYING DETAIL

SCALE: NTS



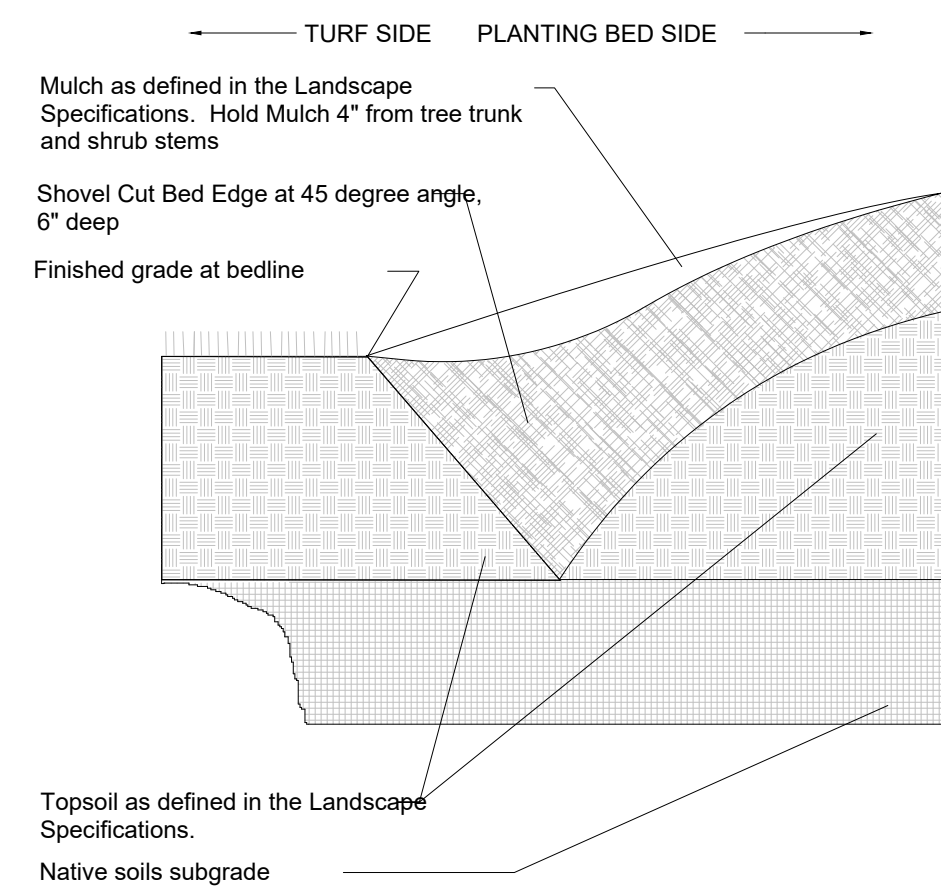
2 TYP. EVERGREEN TREE PLANTING DETAIL

SCALE: NTS



4 TYP. PERENNIAL PLANTING DETAIL

SCALE: NTS



6 "V" TRENCH BED EDGING

SCALE: NTS

PRELIMINARY
NOT FOR CONSTRUCTION



Chick-fil-A
5200 Buffington Road
Atlanta, Georgia
30349-2998



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FSR# 05161

REVISION SCHEDULE
NO. DATE DESCRIPTION

ENGINEER'S PROJECT # 211634

PRINTED FOR PRELIMINARY

DATE 05/24/2022

DRAWN BY: JTK
CHECKED BY: JFR

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SHEET

LANDSCAPE DETAILS

SHEET NUMBER

L-300

PRELIMINARY

LANDSCAPE SPECIFICATIONS

PART 1 - GENERAL

DESCRIPTION

Provide trees, shrubs, ground covers, sod, and annuals/perennials as shown and specified on the landscape plan. The work includes:

1. Soil preparation.
2. Trees, shrubs, ground covers, and annuals/perennials.
3. Planting mixes.
4. Top Soil, Mulch and Planting accessories.
5. Maintenance.
6. Decorative stone.

Related Work:

1. Irrigation System; see irrigation specifications (sheet L-2.2)

QUALITY ASSURANCE

Plant names indicated; comply with "Standardized Plant Names" as adopted by the latest edition of the American Joint Committee of Horticultural Nomenclature. Name varieties not listed conform generally with names accepted by the nursery trade. Provide stock true to botanical name and legibly tagged.

Comply with sizing and grading standards of the latest edition of "American Standard for Nursery Stock". A plant shall be dimensioned as it stands in its natural position.

All plants shall be nursery grown under climatic conditions similar to those in the locality of the project for a minimum of 2 years.

Nursery Stock furnished shall be at least the minimum size indicated. Larger stock is acceptable, at no additional cost, and providing that the larger plants will not be cut back to size indicated. Provide plants indicated by two measurements so that only a maximum of 25% are of the minimum size indicated and 75% are of the maximum size indicated.

Before submitting a bid, the Contractor shall have investigated the sources of supply and be satisfied that they can supply the listed plants in the size, variety and quality as specified. Failure to take this precaution will not relieve the Contractor from their responsibility for furnishing and installing all plant materials in strict accordance with the Contract Documents without additional cost to the Owner. The Landscape Architect shall approve any substitutes of plant material, or changes in plant material size, prior to the Landscape Contractor submitting a bid.

DELIVER, STORAGE AND HANDLING

Take all precautions customary in good trade practice in preparing plants for moving. Workmanship that fails to meet the highest standards will be rejected. Spray deciduous plants in foliage with an approved "Anti-Desiccant" immediately after digging to prevent dehydration. Dig, pack, transport, and handle plants with care to ensure protection. Inspection certificates required by law shall accompany every shipment invoice or order to stock. Protect all plants from drying out. If plants cannot be planted immediately upon delivery, properly protect them with soil, wet peat moss, or in a manner acceptable to the Landscape Architect. Water heeled-in plantings daily. No plant shall be bound with rope or wire in a manner that could damage or break the branches. Cover plants transported on open vehicles with a protective covering to prevent wind burn.

PROJECT CONDITIONS

Protect existing utilities, paving, and other facilities from damage caused by landscape operations.

A complete list of plants, including a schedule of sizes, quantities, and other requirements are shown on the drawings. In the event that quantity discrepancies or material omissions occur in the plant materials list, the planting plans shall govern.

The irrigation system will be installed prior to planting. Locate, protect and maintain the irrigation system during planting operations. Repair irrigation system components damaged during planting operations; at the Contractor's expense. Refer to the irrigation specifications, irrigation plan and irrigation details.

Do not begin landscape accessory work before completion of final grading or surfacing.

WARRANTY

Warrant plant material to remain alive, be healthy and in a vigorous condition for a period of 1 year after completion and final acceptance of entire project.

Replace, in accordance with the drawings and specifications, all plants that are dead or, are in an unhealthy, or unsightly condition, and have lost their natural shape due to dead branches, or other causes due to the Contractor's negligence. The cost of such replacement(s) is at the Contractor's expense. Warrant all replacement plants for 1 year after installation.

Warranty shall not include damage, loss of trees, plants, or ground covers caused by fires, floods, freezing rains, lightning storms, winds over 15 miles per hour, winter kill caused by extreme cold, severe winter conditions not typical of planting area, and/or acts of vandalism or negligence on a part of the Owner.

Remove and immediately replace all plants, found to be unsatisfactory during the initial planting installation.

Maintain and protect plant material, lawns, and irrigation until final acceptance is made.

ACCEPTANCE

Inspection of planted areas will be made by the Owner's representative.

1. Planted areas will be accepted provided all requirements, including maintenance, have been complied with and plant materials are alive and in a healthy, vigorous condition.

Upon acceptance, the Contractor shall commence the specified plant maintenance.

CODES, PERMITS AND FEES

Obtain any necessary permits for this Section of Work and pay any fees required for permits.

The entire installation shall fully comply with all local and state laws and ordinances, and with all established codes applicable thereto; also as depicted on the landscape and irrigation construction set.

PART 2 - PRODUCTS

MATERIALS

Plants: Provide typical of their species or variety, with normal, densely developed branches and vigorous, fibrous root systems. Provide only sound, healthy, vigorous plants free from defects, disfiguring knots, sun scald injuries, frost cracks, abrasions of the bark, plant diseases, insect eggs, borers, and all forms of infestation. All plants shall have a fully developed form without voids and open spaces. Plants held on storage will be rejected if they show signs of growth during the storage period.

1. Balled and plants wrapped with burlap, to have firm, natural balls of earth of sufficient diameter and depth to encompass the fibrous and feeding root system necessary for full recovery of the plant. Provide ball sizes complying with the latest edition of the "American Standard for Nursery Stock". Cracked or mushroomed balls, or signs of circling roots are not acceptable.
2. Container- grown stock: Grown in a container for sufficient length of time for the root system to have developed to hold its soil together, firm and whole.
 - a. No plants shall be loose in the container.
 - b. Container stock shall not be pot bound.
3. Plants planted in rows shall be matched in form.
4. Plants larger than those specified in the plant list may be used when acceptable to the Landscape Architect.
 - a. If the use of larger plants is acceptable, increase the spread of roots or root ball in proportion to the size of the plant.
5. The height of the trees, measured from the crown of the roots to the top of the top branch, shall not be less than the minimum size designated in the plant list.
6. No pruning wounds shall be present with a diameter of more than 1" and such wounds must show vigorous bark on all edges.
7. Evergreen trees shall be branched to the ground or as specified in plant list.
8. Shrubs and small plants shall meet the requirements for spread and height indicated in the plant list.
 - a. The measurements for height shall be taken from the ground level to the height of the top of the plant and not the longest branch.
 - b. Single stemmed or thin plants will not be accepted.
 - c. Side branches shall be generous, well-twigged, and the plant as a whole well-bushied to the ground.
 - d. Plants shall be in a moist, vigorous condition, free from dead wood, bruises, or other root or branch injuries.

ACCESSORIES

Topsoil: Shall be Fertile, friable, natural topsoil of loamy character, without admixture of subsoil material, obtained from a well-drained arable site, reasonably free from clay lumps, coarse sands, stones, roots, sticks, and other foreign materials, with acidity range of between pH 6.0 and 6.8.

Note: All planting areas shall be cleaned of construction debris (e. Concrete, rubble, stones, building material, etc) prior to adding and spreading of the top soil.

1. *Sod Areas:* Spread a minimum 4" layer of top soil and rake smooth.
2. *Planting bed areas:* Spread a minimum 4" layer of top soil and rake smooth.

3. *Landscape Islands/Medians:* Fracture/loosen existing subgrade to a minimum 24" depth. Remove and replace any subgrade unsuitable for planting. Once subgrade is clean of debris and loosened, add topsoil to a minimum berm 6"-8" height above island cutting.
4. *Annual/Perennial bed areas:* Add a minimum of 4" organic matter and till to a minimum 12" depth.

Mulch: Type selected dependent on region and availability; see landscape plans for type of mulch to be used. Hold mulch 4" from tree trunks and shrub stems.

1. Hardwood: 6 month old well rotted double shredded native hardwood bark mulch not larger than 4" in length and ½" in width, free of wood chips and sawdust. Install minimum depth of 3".
2. Pine Straw: Pine straw to be fresh harvest, free of debris, bright in color. Bales to be wired and tightly bound. Needles to be dry. Install minimum depth of 3".
3. River Rock: (color) light gray to buff to dark brown, washed river rock, 1" – 3" in size. Install in shrub beds to an even depth of 3". Weed control barrier to be installed under all rock mulch areas. Use caution during installation not to damage plant material.
4. Mini Nuggets: Install to a minimum depth of 2"-3" at all locations of annual and perennial beds. Lift the stems and leaves of the annuals and carefully spread the mulch to avoid injuring the plants. Gently brush the mulch off the plants.

Guying/Staking:

1. Arborite: Green (or white) staking and guying material to be flat, woven, polypropylene material, ¾" wide 900 lb. break strength. Arborite shall be fastened to stakes in a manner which permits tree movement and supports the tree.
2. Remove Guying/Staking after one year from planting.

Tree Wrap: Tree wraps should be used on young, newly planted thin-barked trees (Cherry, Crabapple, Honey Locust, Linden, Maple, Mountain Ash, Plum) that are most susceptible to sun scald/Sunburn. Standard waterproofed tree wrapping paper, 2-1/2" wide, made of 2 layers of crepe Draft paper weighing not less than 30 lbs. per ream, cemented together with asphalt. Wrap the tree in the fall and leave the wrap in place throughout the winter and early spring. Tree wraps are temporary and no longer needed once trees develop corky bark.

PART 3 – EXECUTION

INSPECTION

Prior to beginning work, the Landscape Contractor shall inspect the subgrade, general site conditions, verify elevations, utility locations, irrigation, approve top soil provided by the General Contractor and observe the site conditions under which the work is to be done. Notify the General Contractor of any unsatisfactory conditions, and work shall not proceed until such conditions have been corrected and are acceptable to the Landscape Contractor.

PREPARATION

Planting shall be performed only by experienced workmen familiar with planting procedures under the supervision of a qualified supervisor.

Locate plants as indicated on the plans or as approved in the field after staking by the Landscape Contractor. If obstructions are encountered that are not shown on the drawings, do not proceed with planting operations until alternate plant locations have been selected and approved by the Landscape Architect; spacing of plant material shall be as shown on the landscape plan.

Excavate circular plant pits with vertical sides, except for plants specifically indicated to be planted in beds. Provide shrub pits at least 12" greater than the diameter of the root system and 24" greater for trees. Depth of pit shall accommodate the root system. Provide undisturbed sub grade to hold root ball at nursery grade as shown on the drawings.

INSTALLATION

Set plant material in the planting pit to proper grade and alignment. Set plants upright, plumb, and faced to give the best appearance or relationship to each other or adjacent structure. Set plant material 2" – 3" above the finish grade. No filling will be permitted around trunks or stems. Backfill the pit with topsoil mix and excavated material. Do not use frozen or muddy mixtures for backfilling. Form a ring of soil around the edge of each planting pit to retain water.

After balled and wrapped in burlap plants are set, muddle planting soil mixture around bases of balls and fill all voids.

1. Remove all burlap, ropes, and wires from the top 1/3 of the root ball

Space ground cover plants in accordance with indicated dimensions. Adjust spacing as necessary to evenly fill planting bed with indicated quantity of plants. Plant to within 24" of the trunks of trees and shrubs within planting bed and to within 18" of edge of bed.

Mulching:

1. Mulch tree and shrub planting pits and shrub beds with required mulching material (see landscape plan for mulch type); depth of mulch as noted above. **Hold mulch back 4" away from tree trunks and shrub stems.** Thoroughly water mulched areas. After watering, rake mulch to provide a uniform finished surface.

Decorative Stone: (where indicated on landscape plan)

1. Install weed control barrier over sub-grade prior to installing stone. Lap 6" on all sides.
2. Place stone without damaging weed barrier.
3. Arrange stones for best appearance and to cover all weed barrier fabric.

Wrapping, guying, staking:

1. Inspect trees for injury to trunks, evidence of insect infestation, and improper pruning before wrapping.
2. Wrapping:
 - a. Wrap trunks of all young newly planted trees known to have thin bark. Wrap spirally from bottom to top with specified tree wrap and secure in place.
 - b. Overlap ½ the width of the tree wrap strip and cover the trunk from the ground to the height of the second branch.
 - c. Secure tree wrap in place with twine wound spirally downward in the opposite direction, tied around the tree in at least 3 places in addition to the top and bottom.
 - d. Wrap the trees in the fall and leave the wrap in place throughout the winter and early spring.
3. Tree wraps are temporary and no longer needed once the trees develop corky bark.
3. Staking/Guying:
 - a. Stake/guy all trees immediately after lawn sodding operations and prior to acceptance.
 - b. Stake deciduous trees 2" caliper and less. Stake evergreen trees under 7"-0" tall.
 1. Stakes are placed in line with prevailing wind direction and driven into undisturbed soil.
 2. Ties are attached to the tree, usually at the lowest branch.
 - c. Guy deciduous trees over 2" caliper. Guy evergreen trees 7'-0" tall and over.
 1. Guy wires to be attached to three stakes driven into undisturbed soil, with one stake placed in the direction of the prevailing wind.
 2. Ties are attached to the tree as high as practical.
 3. The axis of the stake should be at 90 degree angle to the axis on the pull of the guy wire.
4. Remove all guying and staking after one year from planting.

Pruning:

1. Prune deciduous trees and evergreens only to remove broken or damaged branches.

WORKMANSHIP

During landscape/irrigation installation operations, all areas shall be kept neat and clean. Precautions shall be taken to avoid damage to existing structures. All work shall be performed in a safe manner to the operators, the occupants and any pedestrians.

Upon completion of installation operations, all excess materials, equipment, debris and waste material shall be cleaned up and removed from the site; unless provisions have been granted by the owner to use on-site trash receptacles. Sweep parking and walks clean of dirt and debris. Remove all plant tags and other debris from lawns and planting areas.

Any damage to the landscape, the structure, or the irrigation system caused by the landscape contractor shall be repaired by the landscape contractor without charge to the owner.

MAINTENANCE

Contractor shall provide maintenance until work has been accepted by the Owner's Representative.

Maintenance shall include mowing, fertilizing, mulching, pruning, cultivation, weeding, watering, and application of appropriate insecticides and fungicides necessary to maintain plants and lawns free of insects and disease.

1. Re-set settled plants to proper grade and position. Restore planting saucer and adjacent material and remove dead material.
2. repair guy wires and stakes as required. Remove all stakes and guy wires after 1 year.
3. Correct defective work as soon as possible after deficiencies become apparent and weather and season permit.
4. Water trees, plants and ground cover beds within the first 24 hours of initial planting, and not less than twice per week until final acceptance

LANDSCAPE MAINTENANCE SPECIFICATIONS

The Contractor shall provide as a separate bid, maintenance for a period of **1 year** after final acceptance of the project landscaping. The Contractor must be able to provide continued maintenance if requested by the Owner or provide the name of a reputable landscape contractor who can provide maintenance.

STANDARDS

All landscape maintenance services shall be performed by trained personnel using current, acceptable horticultural practices.

All work shall be performed in a manner that maintains the original intent of the landscape design.

All chemical applications shall be performed in accordance with current county, state and federal laws, using EPA registered materials and methods of application. These applications shall be performed under the supervision of a Licensed Certified applicator.

APPROVALS

All work performed in addition to that which is outlined in the contract shall only be done upon written approval by the Owner's Representative (General Manager of the restaurant).

All seasonal color selections shall be approved by the General Manager prior to ordering and installation.

SOIL TESTING

The maintenance contractor shall perform soil tests as needed to identify imbalances or deficiencies causing plant material decline. The owner shall be notified of the recommendation for approval, and the necessary corrections made at an additional cost to the owner.

Acceptable Soil Test Results

	Landscape Trees and Shrubs	Turf
pH Range	5.0-7.0	5.0-7.0
Organic Matter	>1.5%	>2.5%
Magnesium (Mg)	100-lbs./acre	100-lbs./acre
Phosphorus (P2O5)	150-lbs./acre	150-lbs./acre
Potassium (K2O)	120-lbs./acre	120-lbs./acre
Soluble salts/ Conductivity	N/lt to exceed 900ppm/1.3 mmhos/cm in soil; not to exceed 1400 ppm/2.5 mmhos/cm in high organic mix	N/lt to exceed 750ppm/0.75 mmhos/cm in soil; not to exceed 2000 ppm/2.0 mmhos/cm in high organic mix

For unusual soil conditions, the following optional tests are recommended with levels not to exceed:

Boron	3 pounds per acre
Manganese	60 pounds per acre
Potassium (K2O)	450 pounds per acre
Sodium	20 pounds per acre

WORKMANSHIP

During landscape maintenance operations, all areas shall be kept neat and clean. Precautions shall be taken to avoid damage to existing structures. All work shall be performed in a safe manner to the operators, the occupants and any pedestrians.

Upon completion of maintenance operations, all debris and waste material shall be cleaned up and removed from the site, unless provisions have been granted by the owner to use on-site trash receptacles.

Any damage to the landscape, the structure, or the irrigation system caused by the maintenance contractor, shall be repaired by the maintenance contractor without charge to the owner.

TURF

GENERAL CLEAN UP

Prior to mowing, all trash, sticks, and other unwanted debris shall be removed from lawns, plant beds, and paved areas.

MOWING

Warm season grasses (i.e. Bermuda grass) shall be maintained at a height of 1" to 2" during the growing season.

Cool season grasses, including blue grass, tall fescue, perennial ryegrass, etc., shall be maintained at a height of 2" to 3" in spring and fall. From June through September, mowing height shall be maintained at no less than 3".

The mowing operation includes trimming around all obstacles, routing excessive grass clippings and removing debris from walks, curbs, and parking areas. Caution: Weed eaters should NOT be used around trees because of potential damage to the bark.

EDGING

Edging of all sidewalks, curbs and other paved areas shall be performed once every other mowing. Debris from the edging operations shall be removed and the areas swept clean. Caution shall be used to avoid flying debris.

LIMING & FERTILIZING

A soil test shall be taken to determine whether an application of limestone in late fall is necessary. If limestone is required, the landscape contractor shall specify the rate, obtain approval from the owner and apply it at an additional cost. A unit price for liming of turf shall accompany the bid based on a rate of 50 pounds per 1000 square feet.

Fertilizer shall be applied in areas based on the existing turf species.

LAWN WEED CONTROL: HERBICIDES

Selection and proper use of herbicides shall be the landscape contractor's responsibility. All chemical applications shall be performed under the supervision of a Licensed Certified Applicator. **Read the label prior to applying any chemical.**

INSECT & DISEASE CONTROL FOR TURF

The contractor shall be responsible for monitoring the site conditions on each visit to determine if any insect pest or disease problems exist. The contractor shall identify the insect pest or disease, as well as the host plant, and then consult the most current edition of the Cooperative Extension Service's "Commercial Insecticide Recommendation for Turf" for control. The licensed applicator shall be familiar with the label provided for the selected product prior to application.

Inspection and treatment to control insect pests shall be included in the contract price.

TREES, SHRUBS, & GROUND COVER

PRUNING

All ornamental trees, shrubs and ground cover shall be pruned when appropriate to remove dead or damaged branches, develop the natural shape. **Do not shear trees or shrubs.** If previous maintenance practice has been to shear and ball, then a natural shape will be restored gradually.

Pruning Guidelines:

1. Prune those that flower before the end of June immediately after flowering. Flower buds develop during the previous growing season. Fall, winter or spring pruning would reduce the spring flowering display.
2. Prune those that flower in summer or autumn in winter or spring before new growth begins, since these plants develop flowers on new growth.
3. Delay pruning plants grown for ornamental fruits, such as cotoneasters, pyracanthas and viburnums.
4. Hollies and other evergreens may be pruned during winter in order to use their branches for seasonal decoration. However, severe pruning of evergreens should be done in early spring only.
5. Broadleaf evergreen shrubs shall be hand-pruned to maintain their natural appearance after the new growth hardens off.
6. Hedges or shrubs that require shearing to maintain a formal appearance shall be pruned as required. Dead wood shall be removed from sheared plants before the first shearing of the season.
7. Conifers shall be pruned, if required, according to their genus.
 - A. Yews, junipers, hemlocks, arbovitae, and false-cypress may be pruned after new growth has hardened off in late summer. If severe pruning is necessary, it must be done in early spring.
 - B. Firs and spruces may be lightly pruned in late summer, fall, or winter after completing growth. Leave side buds. Never cut central leader.
 - C. Pines may be lightly pruned in early June by reducing candles.
8. Groundcover shall be edged and pruned as needed to contain it within its borders.

9. Thinning: Remove branches and water sprouts by cutting them back to their point of origin on parent stems. This method results in a more open plant, without stimulating excessive growth. Thinning is used on crepe myrtles, ilacs, viburnums, smoke bush, etc.
10. Renewal pruning: Remove oldest branches of shrub at ground, leaving the younger, more vigorous branches. Also remove weak stems. On overgrown plants, this method may be best done over a three-year period. Renewal pruning may be used on abelia, forsythia, deutzia, spiraea, etc.

Plants overhanging passageways and parking areas and damaged plants shall be pruned as needed.

Shade trees that cannot be adequately pruned from the ground shall not be included in the Maintenance Contract. A certified arborist under a separate contract shall perform this type of work.

SPRING CLEANUP

Plant beds shall receive a general cleanup before fertilizing and mulching. Cleanup includes removing debris and trash from beds and cutting back herbaceous perennials left standing through winter, e.g. ornamental grasses, Sedum Autumn Joy.

FERTILIZING

For trees, the rate of fertilization depends on the tree species, tree vigor, area available for fertilization, and growth stage of the tree. Mature specimens benefit from fertilization every 3 to 4 years; younger trees shall be fertilized more often during rapid growth stages.

The current recommendation is based on the rate of 1000 square feet of area under the tree to be fertilized. For deciduous trees, 2 to 6 pounds of Nitrogen per 1000 square feet; for narrow-leaf evergreens, 1 to 4 pounds of Nitrogen per 1000 square feet; for broadleaf evergreens, 1 to 3 pounds of Nitrogen per 1000 square feet.

Shrubs and groundcover shall be top-dressed with compost 1" deep, or fertilized once in March with 10-6-4 analysis fertilizer at the rate of 3 pounds per 100 square feet of bed area. Ericaceous material shall be fertilized with an ericaceous fertilizer at the manufacturer's recommendation rate. If plants are growing poorly, a soil sample should be taken.

MULCHING

Annually, all tree and shrub beds will be prepared and mulched, to a minimum depth of 3" with quality mulch to match existing. Bed preparation shall include removing all weeds, cleaning up said bed, edging and cultivating decayed mulch into the soil. Debris from edging is to be removed from beds where applicable. If deemed necessary, a pre-emergent herbicide may be applied to the soil to inhibit the growth of future weeds.

Organically maintained gardens shall not receive any pre-emergent herbicides. Mulch in excess of 4" will be removed from the bed areas. SPECIAL CARE shall be taken in the mulching operation not to over mulch or cover the base of trees and shrubs. This can be detrimental to the health of the plants.

WEEDING

All beds shall be weeded on a continuous basis throughout the growing season to maintain a neat appearance at all times.

Pre-emergent (soil-applied) and post-emergent (foliar-applied) herbicides shall be used where and when applicable and in accordance with the product's label.

INSECT & DISEASE CONTROL: TREES, SHRUBS & GROUNDCOVER

The maintenance contractor shall be responsible for monitoring the landscape site on a regular basis. The monitoring frequency shall be monthly except for growing season, which will be every other week. Trained personnel shall monitor for plant damaging insect activity, plant pathogenic diseases and potential cultural problems in the landscape. The pest or cultural problem will be identified under the supervision of the contractor.

For plant damaging insects and mites identified in the landscape, the contractor shall consult and follow the recommendations of the most current edition of the state Cooperative Service publication on insect control on landscape plant material.

Plant pathogenic disease problems identified by the contractor that can be resolved by pruning or physical removal of damaged plant parts will be performed as part of the contract. For an additional charge, plant pathogenic diseases that can be resolved through properly timed applications of fungicides shall be made when the owner authorizes it.

If the contractor notes an especially insect-or disease-prone plant species in the landscape, he/she will suggest replacement with a more pest-resistant cultivar or species that is consistent with the intent of the landscape design.

NOTE: For identification of plant-damaging insects and mites, a reference textbook that can be used is *Insects that feed on Trees and Shrubs* by Johnson and Lyon, Comstock Publishing Associates. For plant pathogenic diseases, two references are suggested: *Scouting and Controlling Woody Ornamental Diseases in Landscapes and Nurseries*, authorized by Gary Moorman, published by Penn State College of Agricultural Sciences, and *Diseases of Trees and Shrubs* by Sinclair and Lyon, published by Comstock Publishing Press.

TRASH REMOVAL

The maintenance contractor shall remove trash from all shrub and groundcover beds with each visit.

LEAF REMOVAL

All fallen leaves shall be removed from the site in November and once in December. If requested by the owner, the maintenance contractor, at an additional cost to the owner shall perform supplemental leaf removals.

WINTER CLEAN-UP

The project shall receive a general clean-up once during each of the winter months, i.e., January, February, and March.

Clean-up includes:

- Cleaning curbs and parking areas
- Removing all trash and unwanted debris
- Turning mulch where necessary
- Inspection of grounds

SEASONAL COLOR: PERENNIALS, ANNUALS, AND BULBS

The installation of perennials, annuals, and bulbs, unless specified herein, shall be reviewed with the owner, and, if accepted, installed and billed to the owner.

SEASONAL COLOR MAINTENANCE

Perennialization of Bulbs:

1. After flowering, cut off spent flower heads.
2. Allow leaves of daffodils and hyacinths to remain for six weeks after flowers have faded. Cut off at base.
3. Allow leaves of other bulbs to yellow naturally and then cut off at base.
4. Apply fertilizer after flowering in spring, possibly again in fall. Apply 10-10-10 at the rate of 2 pounds per 1000 square feet, or top-dress with compost 1" deep. Fall fertilization with a bulb fertilizer or mulching with 1" of compost is optional.

Flower Rotation:

1. Bulbs: Remove the entire plant and bulb after flowers have faded or at the direction of the owner, and install new plants if included in contract.
2. Summer Annuals or Fall Plants:
 - a. Dead heading: Pinch and remove dead flowers on annuals as necessary.
 - b. Fertilizing Summer Annuals: Fertilize using one or two methods: Apply a slow-release fertilizer in May following manufacturer's recommendations. A booster such as 10-10-10 may be necessary in late summer. Or, apply liquid fertilizations of 20-20-20 water-soluble fertilizers, not to exceed 2 pounds of 20-20-20 per 100 gallons of water, monthly; or mulch with compost 1" deep.
 - c. Removal: If fall plants are to be installed, summer annuals shall be left in the ground until the first killing frost and then removed, unless otherwise directed by the owner.

Perennials:

1. After initial installation, if a time-released fertilizer has been incorporated during plant installation, no more fertilizer need be applied the first growing season.
2. The following year:
 - a. Fertilize perennials with a slow-release fertilizer or any 50% organic fertilizer, or mulch perenn

MEMORANDUM

To: Jason Jaggi, AICP (City of Creve Coeur)
Bethany Moore (City of Creve Coeur)

From: Kyle Evans, PE, PTOE

Date: October 18, 2022

Subject: Chick-fil-A TIS Review
Lochmueller Project #: 522-0072-01T

As requested, Lochmueller staff have completed a review of the traffic impact study report submitted in association with the proposed Chick-fil-A, located in Creve Coeur, Missouri in the southeast quadrant of Olive Boulevard and Tempo Drive. The study was prepared by HR Green, Inc. and submitted in September 2022.

It is our understanding from the report that the proposed Chick-fil-A will replace the TGI Friday's currently occupying the site. Access to the site will be provided via the existing access drives. The primary access is located at the North Entrance on Tempo Drive and the secondary access is located at the South Entrance on Tempo Drive as well as a right-in, right-out access drive on Olive Boulevard. The proposed site area and site plan are shown in **Figure 1** and **Figure 4** of the report.

The project involves the redevelopment of a 1.02-acre lot, which is currently occupied by a TGI Friday's. The proposed Chick-fil-A will have an expected building footprint of 5,000 square-feet. Two drive-thru lanes are provided. There is one by-pass lane provided, however this lane terminates prematurely.

The project is proposed to be completed in a single phase, with analysis completed for the 2022 Base Condition (2019 and 2022 Count Data), 2022 Build Conditions (2022 Base Volumes plus Additional Site-Generated Trips), 2045 No-Build (2019 and 2022 Count Data plus an annual Background Growth Rate of 0.5% along the through movements of Olive Boulevard), and 2045 Build (2045 Base Volumes plus Additional Site-Generated Trips).

Given that traffic counts at some of the study intersections were counted in 2019 as opposed to 2022, the 2019 counts were grown by 0.5% annually to 2022. It should be noted that the peak hours were never stated in the report. It is our opinion that growing the 2019 counts by an annual growth rate of 0.5% to 2022 is a valid approach.

Per the provided Synchro reports, the following storage bays were incorrect:

- Olive Boulevard & Cross Creek Drive/Woodcrest Executive Drive:
 - Westbound left-turn lane should be 180 feet rather than 225 feet.
- Olive Boulevard & Tempo Drive:
 - Eastbound left-turn lane should be 180 feet rather than 200 feet.
- Olive Boulevard & Ross Avenue/ Questover Lane:
 - Westbound left-turn lane should be 200 feet rather than 250 feet.

At the intersection of Olive Boulevard and Cross Creek Drive/Woodcrest Executive Drive, the westbound left-turn 95th percentile queue length exceeds the storage bay during the weekday AM, midday, and PM peak hours in the 2022 existing conditions. In addition, the southbound left-turn lane 95th percentile queue length exceeds the storage bay during the weekday midday and PM peak hours in the 2022 existing conditions. At the intersection of Olive Boulevard and Ross Avenue/Questover Lane, the southbound left-turn 95th percentile queue length exceeds the storage bay during all peak hours in the 2022 existing conditions. In addition, the eastbound left-turn 95th percentile queue length exceeds the storage bay during the weekday midday peak hour in the 2022 existing conditions.

The peak hour factor for each approach was not calculated, rather a peak hour factor of 0.90 was assumed for each approach at each study intersection. However, we do not feel that the peak hour factors would significantly differ from the assumed values.

As part of this study, HR Green utilized trip generation estimates based upon data provided from an average of two existing Chick-fil-A stores in Milwaukee from similar suburban land density and store characteristics to the proposed Chick-fil-A in Creve Coeur. These rates were compared to the Institute of Transportation Engineer's (ITE) Trip Generation Manual, Eleventh Edition for Land Use 934: Fast-Food Restaurant with Drive-Through Window. A comparison of the rates between ITE's manual and the average counts from the two other Chick-fil-A stores showed that the counts provided showed a significant increase in the number of trips that were site generated. They decided to remain conservative for the purposes of the traffic impact evaluation and utilized the higher rates from the field data. Additionally, it should be noted that data from the other two stores was only provided for the PM and Saturday peak hours. The AM and weekday midday site generated trips were estimated using ITE's time of day distribution values. It is our opinion that this approach is a valid method.

A pass-by rate of 40% was used for all time periods. Per the ITE Pass-By Rate Table provided in the TGM Appendices, an average pass-by rate of 50% is recommended for Land Use Code 934 during the AM peak hour and 55% is recommended during the PM peak hour. In addition, a 10% common trip reduction was applied to the site generated trips as it was assumed that some drivers would have more than one destination within the strip mall. Given that the pass-by percentage applied is conservative, it is our opinion that this approach is a valid method.

The traffic impact study stated the site-generated traffic was assigned to the adjoining roadway network based on existing traffic patterns within the study area. The traffic impact study assumed that 10% of the trips would originate from Tempo Drive to the north and 10% of trips would originate from Tempo Drive to the south. However, the average over all four peak hours is only about 8%. Therefore, it is our opinion that a total of 20% of site generated trips along Tempo Drive is too high and understates the traffic along Olive Boulevard. It is recommended that the site generated trips be revised to reflect 3% of trips originating from the north along Tempo Drive, 5% of trips originating from the south of Tempo Drive, 44% of trips originating from the west of Olive Boulevard, and 48% of trips originating from the east of Olive Boulevard.

The site generated trips are shown in **Figure 6** of the report. The site generated trips do not add up in **Figure 6**. For example, at the intersection of Olive Boulevard and Tempo Drive there are 22 vehicles making an eastbound right-turn, 30 vehicles making a westbound left-turn, and 7 vehicles making a southbound through. This should equal 59 vehicles heading southbound at Tempo Drive and the North

Entrance; however, 66 vehicles are shown in **Figure 6**. It is recommended that this figure be revisited when applying the new directional distribution.

The 2022 Base and Build conditions Synchro input files and output information were reviewed to determine the impact of the development on the existing roadway network. Based on the increase in trips and associated delays at the study intersections, the following improvements were suggested for the study area:

- Re-stripe the north and south approaches of Tempo Drive at Olive Boulevard to provide a dedicated left-turn lane and shared through/right-turn lane.
- Provide four section flashing yellow arrow signal heads on exiting traffic signal poles for the northbound and southbound directions of Tempo Drive.
- Revise the traffic signal phasing at the Olive Boulevard at Tempo Drive intersection to provide protected and permitted left turn phasing for Tempo Drive.
- Re-optimize the traffic signal splits for the Olive Boulevard at Tempo Drive intersection, as well as re-optimize the intersection offsets for the same intersection and the neighboring signals on Olive Boulevard.

We agree with the above stated proposed improvements.

No southbound left turn lane was recommended along Tempo Drive at the North Entrance due to the expected minimal queue lengths and delays. Review of the MoDOT EPG for auxiliary lanes does show that the left turn volumes would warrant an auxiliary left turn lane during the weekday midday, weekday PM, and Saturday midday peak hours. However, the southbound approach at this intersection is approximately 22 feet. Therefore, should any queueing occur, southbound thru vehicles can easily navigate around the southbound left-turning vehicles.

On page 17, 2026 is stated as the future year, when it should read 2045. It is recommended that the text be revised to read 2045 rather than 2026.

The parking lot capacity analysis was performed using the ITE Parking Generation, 5th Edition. Land Use Code 934: Fast-Food Restaurant with Drive-Through Window was used for the analysis. The nearby shopping center was included as Land Use Code 820: Shopping center. We agree with the land uses chosen. Typically, the 85th percentile is used for calculating parking requirements. Rather, it appears that hourly distributions were used to calculate the required parking. It is our opinion that this approach is a valid method.

Summary of TIS Review

As requested, Lochmueller staff have completed a review of the traffic impact study report submitted in association with the proposed Chick-fil-A, located in Creve Coeur, Missouri in the southeast quadrant of Olive Boulevard and Tempo Drive.

Below is a summary of comments from the traffic impact study review:

1. No peak hours were specified in the report.
2. Per the provided Synchro reports, the following storage bays were incorrect:

- a. Olive Boulevard & Cross Creek Drive/Woodcrest Executive Drive:
 - i. Westbound left-turn lane should be 180 feet rather than 225 feet.
 - b. Olive Boulevard & Tempo Drive:
 - i. Eastbound left-turn lane should be 180 feet rather than 200 feet.
 - c. Olive Boulevard & Ross Avenue/ Questover Lane:
 - i. Westbound left-turn lane should be 200 feet rather than 250 feet.
3. The following 95th percentile queues exceed the provided storage bays in the 2022 existing conditions:
 - a. Olive Boulevard and Cross Creek Drive/Woodcrest Executive Drive,
 - i. Westbound left-turn during the weekday AM, midday, and PM peak hours
 - ii. Southbound left-turn during the weekday midday and PM peak hours
 - b. Olive Boulevard and Ross Avenue/Questover Lane,
 - i. Southbound left-turn during all peak hours
 - ii. Eastbound left-turn during the weekday midday peak hour
4. The peak hour factor for each approach was not calculated. Rather, a peak hour factor of 0.90 was assumed for each approach at each study intersection. However, we do not feel that the peak hour factors would significantly differ from the assumed values.
5. The study documented the existing trip generation associated with the average of two similar Chick-fil-A restaurants. It was noted that the trip generation was much higher than what was presented from the ITE forecast. The study stated they would utilize the more conservative numbers provided by the field data. It is our opinion that utilizing the more conservative trip generation is the correct assumption for the study.
6. A pass-by rate of 40% was used for all time periods. Given that the pass-by percentage applied is conservative, it is our opinion that this approach is a valid method.
7. The directional distribution shown in **Figure 5** has 20% of traffic originating to/from Tempo Drive. However, the average over all four peak hours is only about 8%. It is our opinion that the 20% along Tempo Drive is too high.
8. The site generated trips shown in **Figure 6** do not add up correctly based on the site generated trips provided in **Table 3** and the directional distribution shown in **Figure 5**.
9. The following improvements were suggested for the study area:
 - a. Re-stripe the north and south approaches of Tempo Drive at Olive Boulevard to provide a dedicated left-turn lane and shared through/right-turn lane.
 - b. Provide four section flashing yellow arrow signal heads on exiting traffic signal poles for the northbound and southbound directions of Tempo Drive.
 - c. Revise the traffic signal phasing at the Olive Boulevard at Tempo Drive intersection to provide protected and permitted left turn phasing for Tempo Drive.
 - d. Re-optimize the traffic signal splits for the Olive Boulevard at Tempo Drive intersection, as well as re-optimize the intersection offsets for the same intersection and the neighboring signals on Olive Boulevard.
10. We agree with the above stated proposed improvements.
11. No southbound left turn lane was recommended along Tempo Drive at the North Entrance due to the expected minimal queue lengths and delays. Review of the MoDOT EPG for auxiliary lanes does show that the left turn volumes would warrant an auxiliary left turn lane during several peak hours. However, the southbound approach at this intersection is approximately 22 feet. Therefore, should any queueing occur, southbound thru vehicles can easily navigate around the southbound left-turning vehicles.
12. On page 17, 2026 is stated as the future year, when it should read 2045.

13. The parking lot capacity analysis was performed using the ITE Parking Generation, 5th Edition. agree with the land uses chosen. Typically, the 85th percentile is used for calculating parking requirements. Rather, it appears that hourly distributions were used to calculate the required parking. It is our opinion that this approach is a valid method.

Below is a summary of recommendations from the traffic impact study review:

14. It is recommended that the study peak hours be included within the body of the report.
15. It is recommended that the storage bay lengths be adjusted to reflect the correct lengths.
16. It is recommended that the site generated trips be revised to reflect 3% of trips originating from the north along Tempo Drive, 5% of trips originating from the south of Tempo Drive, 44% of trips originating from the west of Olive Boulevard, and 48% of trips originating from the east of Olive Boulevard.
17. It is recommended that **Figure 6** be revisited and corrected when applying the new directional distribution.
18. It is recommended that the text on page 17 be revised to read 2045 rather than 2026.

cc: file

Technical Report

Traffic Impact Study

Chick-fil-A

Creve Coeur, Missouri

Prepared By:



November 2022

HR Green Job No.: 211634

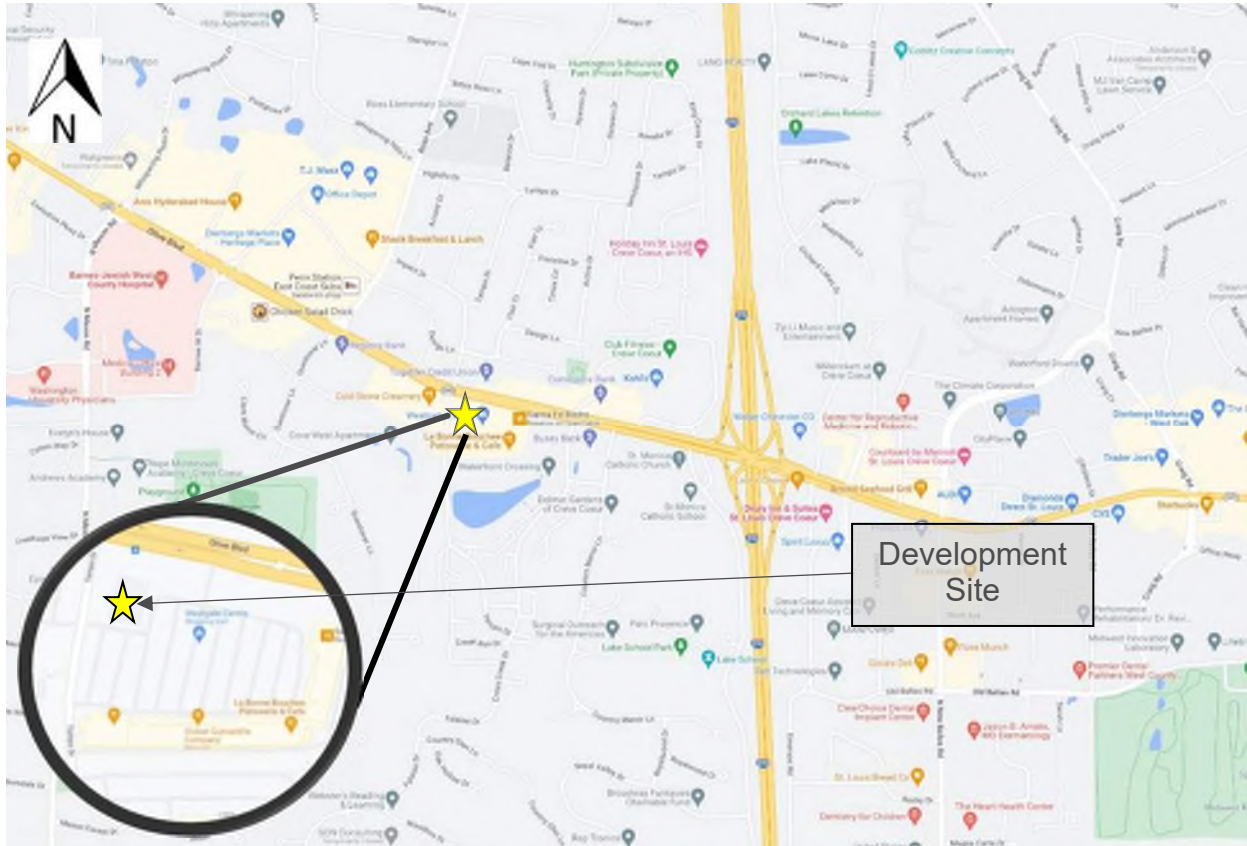


Introduction

A comprehensive review of a proposed Chick-fil-A restaurant was completed in an effort to estimate the traffic impacts of the development on nearby, connecting roadways. The site is located in Creve Coeur, Missouri, currently occupied by TGI Friday's, at the intersection of Olive Boulevard and Tempo Drive in the Westgate Centre.

This technical report will provide brief discussions on the existing conditions of the site and the expected traffic impacts associated with the proposed redevelopment, including: trip generation, parking lot demand, traffic assignment and distribution, and traffic analysis.

FIGURE 1 – PROJECT LOCATION



Existing Conditions

As part of overall site assessment, a description of the street network, existing land use, and traffic characteristics is provided in the following sections.

FIGURE 2 – EXISTING ROADWAY NETWORK



Existing Street Network

The existing development site is the TGI Friday's lot south of Olive Boulevard and east of Tempo Drive. Primary access to the development site is via the North Entrance on Tempo Drive, with secondary access via the South entrance on Tempo Drive and the Right-in, Right-out (RIRO) Entrance on Olive Boulevard.

Olive Boulevard is an east/west principal arterial roadway which serves local and regional traffic in Creve Coeur. The road provides access to commercial and residential areas throughout Creve Coeur. The facility is primarily two lanes in each direction, with left turn lanes added at signalized intersections.

Tempo Drive is a local road, running north/south in the study area. South of the commercial area at the signalized intersection with Olive Boulevard, Tempo Drive serves local residential traffic. There is one through lane in each direction in the study area. The lanes are separated by a raised median within the study area, with curb cuts allowing full access at the Northeast Access Drive.

The signalized intersection approximately 1,100' west of the Tempo Drive is the intersection of Olive Boulevard with Ross Avenue/Questover Lane. Ross Avenue is a major collector, running north of Olive Boulevard in the study area. Ross Avenue serves a mix of residential traffic as well as commercial traffic to the shopping center located in the northwest corner of the Olive Boulevard intersection. Questover Lane, a local road, continues south of Olive Boulevard. Questover Lane serves local residential traffic with one lane in each direction. At the Olive Boulevard intersection there is an added left turn lane in the northbound direction.

Approximately 1,100' east of Tempo Drive is the signalized intersection of Olive Boulevard with Cross Creek Drive/Woodcrest Executive Drive. Cross Creek Drive is a local road, continuing north from Olive Boulevard. Cross Creek Drive serves local residential traffic. There is one through lane in each direction in the study area. The lanes are separated by a raised median within the study area. Woodcrest Executive Drive is a local road, running south

of Olive Boulevard. Woodcrest Executive Drive serves as an access road to businesses and the Creve Coeur Shopping Center.

Existing Traffic Volumes

Peak hour turning movement counts were collected on Saturday August 20, 2022, from 11:00 am - 1:00 pm and on Tuesday August 23, 2022, from 6:45 am – 7:45 am, 11:00 am – 1:00 pm, and 4-6:00 pm for the following intersections:

- Tempo Drive at North Entrance
- Tempo Drive at South Entrance
- Olive Boulevard at RIRO Access

Peak hour turning movement counts were collected on Thursday October 3, 2019, from 6:30 am - 6:30 pm and on Saturday October 5, 2019, from 10:00 am – 4:00 pm following intersections:

- Olive Boulevard at Questover Lane/Ross Avenue
- Olive Boulevard at Tempo Drive
- Olive Boulevard at Cross Creek Drive/Woodcrest Executive Drive

Four peak hours were considered for this study and are analyzed in each scenario: an AM, mid-day, and PM peak hour of a weekday, and a Saturday mid-day peak hour. Based on the observed counts, these peak hours were determined to be 6:45-7:45 am, 11:15 am – 12:15 pm, and 3:45-4:45 pm on a weekday, and from 12:00-1:00 pm on Saturday.

Due to the existing traffic counts from the major intersections occurring in 2019, traffic volumes on through movements along Olive Boulevard were increased at an annual growth rate of 0.5%. After applying that growth rate for 3 years, a total of 1.5% increase in traffic volumes was applied to the through movements. Side roads are assumed to be fully developed and therefore the growth rate was not applied to turning movements on Olive Boulevard or any movements on side roads.

The raw traffic count information is provided in **Appendix A**, and the resulting baseline 2022 peak hour traffic volumes are depicted in **Figure 3**.

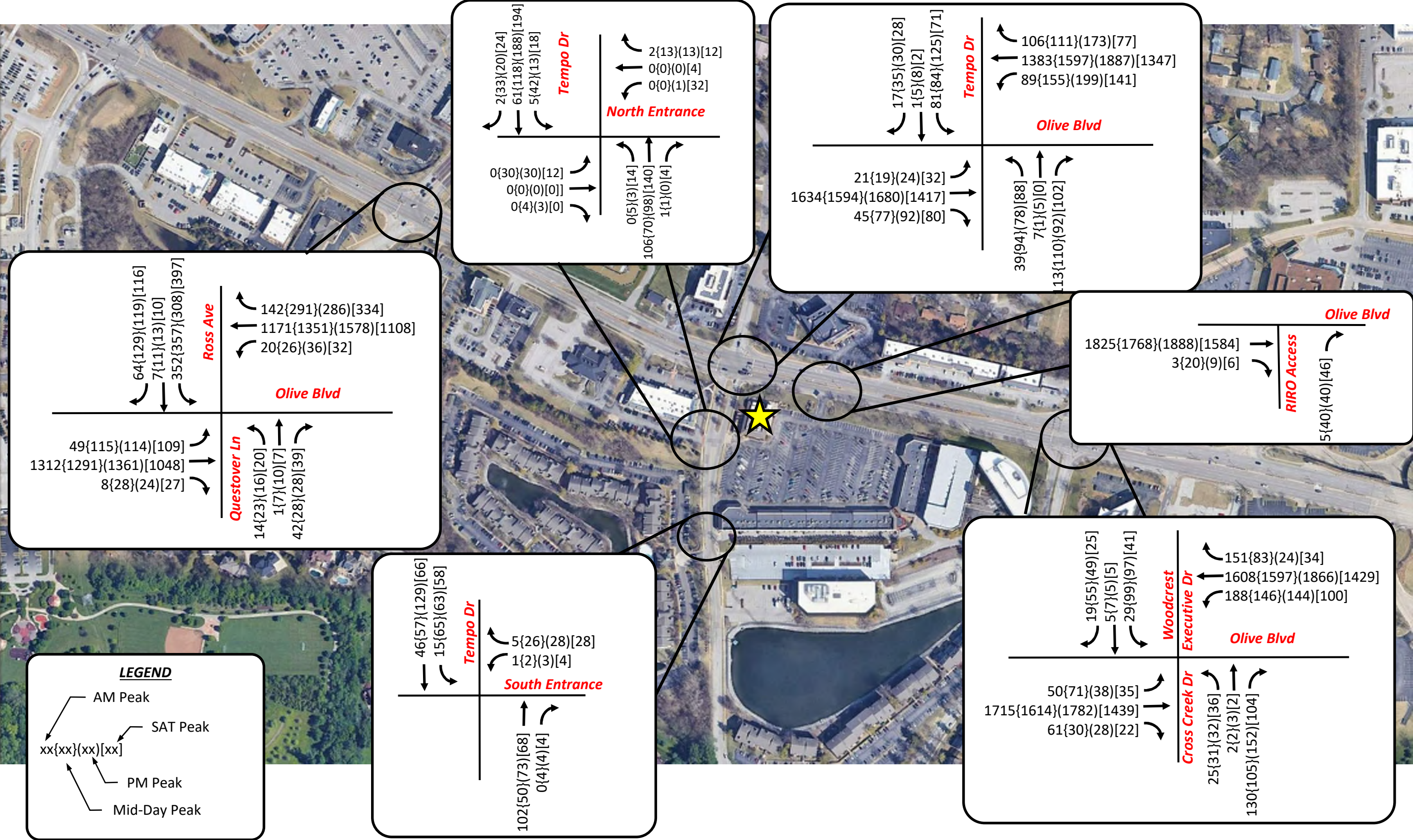


Figure 3
2022 Baseline Traffic Volumes

Existing Traffic Operations

The intersection capacity analysis was completed with Synchro software to measure the effectiveness of the intersections in terms of vehicle delay and expected queuing. Analysis was completed at each of the intersections with existing traffic volumes and lane configurations during morning and evening peak hours of commuter traffic.

Intersection Capacity Analysis...The study intersections were each analyzed to determine how they would operate, known as Level-of-Service (LOS). LOS criteria are outlined in the 6th Edition of the Highway Capacity Manual (HCM) for signalized and unsignalized intersections. The HCM defines LOS as a measure of the quality of traffic flow. There are six different levels of service for each facility type, each representing a range of operating conditions as indicated by amounts of average delay expected per entering vehicle. Each level of service is designated a letter from "A" to "F", with "A" being the least congested (free flow condition) and "F" being the highest congestion (least desirable condition). LOS thresholds for stop controlled intersections differ from those with traffic signal control to reflect different driver expectations with respect to delay.

Table 1 summarizes the criteria for both signalized and unsignalized intersections, as defined in the Highway Capacity Manual. LOS C, which is normally used for highway design, represents a roadway with volumes ranging from 70% to 80% of its capacity. However, Level D is considered acceptable for peak period conditions in urban and suburban areas.

TABLE 1: INTERSECTION LEVEL OF SERVICE

Level of Service (LOS)*	Average Control Delay (Seconds/vehicle)	
	Signalized Intersection	Two-Way Stop Control Intersection
A	≤10	≤10
B	>10 and ≤20	>10 and ≤15
C	>20 and ≤35	>15 and ≤25
D	>35 and ≤55	>25 and ≤35
E	>55 and ≤80	>35 and ≤50
F	>80	>50

Source: Transportation Research Board, Highway Capacity Manual, 2010.

* LOS = F when volume to capacity ratio is greater than 1

The delay values in this study were analyzed using Synchro methodology. Intersections are signalized where Olive Boulevard intersects with Questover Lane, Tempo Drive, and Cross Creek Drive. The North and South Entrances as well as the RIRO Entrance into the study area are stop-controlled. The estimated 95th percentile queues reported by Synchro were also reviewed to identify any operational deficiencies along the corridor in terms of available turn bay storage, or blockage of upstream intersections. It should be noted that the 95th percentile queue calculation represents the worst case scenario, and queues exceeding this value can be expected only five percent of the time.

Existing signal timings were provided by MoDOT and used at signalized intersections. However, MoDOT also advised that a current construction project (J6S3255) will implement split phasing on Tempo Drive at Olive Boulevard. This phasing was implemented and optimized based on existing traffic counts in the baseline model, and in all other analysis scenarios.

Olive Boulevard and Questover Lane/Ross Avenue...Traffic operations for this intersection indicate high delays for the eastbound left movement in the mid-day and PM peak hours. All other movements on Olive Boulevard operate at an acceptable level. The northbound and southbound approaches experience high delays for left turns and through movements during the four peak hours. Overall, the intersection is analyzed as LOS B or C during all four

peaks. Queues are expected to exceed storage lengths for the southbound left (225' storage) and eastbound left (180' storage) movements during various peak hours.

Olive Boulevard and Tempo Drive... Traffic analysis for this intersection shows high delays for the westbound left movement in the mid-day and PM peak hours. All other approaches on Olive Boulevard operate at an acceptable level. The northbound and southbound approaches experience high delays for the left/through lanes during all peak hours. Overall, the intersection is analyzed as LOS C or better during all four peaks. Queues for the westbound left turn movement are expected to exceed the 300' storage length during the PM peak hour under the proposed split phasing. 95th percentile queues for the northbound direction are also expected to stretch back through the North Entrance intersection (170' distance) during the mid-day and PM weekday peak hours.

Olive Boulevard and Cross Creek Drive/Woodcrest Executive Drive... Vehicles at this intersection experience high delays for the eastbound and westbound left approach in all four peak hours. All other movements on Olive Boulevard operate at an acceptable level. The northbound and southbound lefts experience high delays during the four peak hours. Overall, the intersection is analyzed as LOS B or better during all four peaks. 95th percentile queues are projected to exceed storage lengths for the westbound left (180' storage) and southbound left (100' storage) during several peak hours.

Tempo Drive and North Entrance, South Entrance, and RIRO Access... All movements for these intersections were analyzed at LOS B or better for all four peaks.

The Baseline traffic conditions for the aforementioned intersections during the peak hours are summarized in **Table 2A** and **2B**, with detailed Synchro outputs in **Appendix B**. The delay, LOS, and queuing information are shown for the critical movements at each intersection.

TABLE 2A: 2022 BASELINE CONDITIONS TRAFFIC OPERATIONS

Location / Critical Movements	Baseline Conditions 2022 (No Build)											
	AM Peak Hour			Mid-Day Peak Hour			PM Peak Hour			SAT Peak Hour		
	Delay	LOS	Queue	Delay	LOS	Queue	Delay	LOS	Queue	Delay	LOS	Queue
Olive Boulevard and Ross Avenue/Questover Lane												
EB Left	6.8	A	16'	75.1	E	190'	53.8	D	112'	34.3	C	90'
EB Thru	12.1	B	760'	22.5	C	581'	10.2	B	728'	21.2	C	431'
EB Right	0.0	A	0'	0.1	A	0'	0.0	A	0'	0.1	A	0'
WB Left	5.9	A	4'	3.0	A	2'	2.0	A	1'	3.3	A	3'
WB Thru	8.0	A	95'	17.7	B	713'	11.5	B	941'	18.6	B	311'
WB Right	0.7	A	2'	4.9	A	74'	1.3	A	32'	3.1	A	45'
NB Left	61.9	E	38'	58.3	E	49'	62.1	E	41'	51.8	D	40'
NB Thru	58.0	E	7'	53.7	D	22'	59.8	E	29'	48.7	D	22'
NB Right	1.5	A	0'	0.8	A	0'	0.9	A	0'	0.9	A	0'
SB Left	72.1	E	255'	72.0	E	268'	77.0	E	250'	67.3	E	275'
SB Left/Thru	72.0	E	256'	73.8	E	277'	76.5	E	249'	67.4	E	278'
SB Right	1.0	A	0'	4.0	A	17'	4.6	A	18'	1.7	A	0'
OVERALL	16.6	B		25.2	C		16.8	B		23.6	C	
Olive Boulevard and Tempo Drive												
EB Left	2.2	A	2'	8.5	A	7'	6.5	A	4'	11.2	B	11'
EB Thru	10.0	B	401'	23.9	C	415'	16.3	B	293'	29.7	C	702'
EB Right	0.2	A	0'	1.0	A	5'	0.9	A	4'	4.8	A	24'
WB Left	53.6	D	105'	82.2	F	260'	120.0	F	328'	51.1	D	168'
WB Thru	18.8	B	324'	25.4	C	836'	27.6	C	585'	9.6	A	513'
WB Right	4.4	A	33'	2.9	A	36'	4.5	A	44'	0.2	A	0'
NB Left/Thru	72.7	E	87'	99.8	F	183'	119.2	F	183'	72.2	E	140'
NB Right	8.0	A	17'	4.7	A	4'	4.2	A	0'	3.0	A	0'
SB Left/Thru	82.6	F	145'	105.4	F	180'	109.3	F	257'	74.2	E	125'
SB Right	0.4	A	0'	1.0	A	0'	0.7	A	0'	0.6	A	0'
OVERALL	16.6	B		28.7	C		29.4	C		22.2	C	
Olive Boulevard and Cross Creek Drive/Woodcrest Executive Drive												
EB Left	78.3	E	63'	59.2	E	64'	41.9	D	37'	48.8	D	42'
EB Thru	4.3	A	249'	15.8	B	508'	7.5	A	294'	7.5	A	150'
EB Right	0.2	A	0'	0.0	A	0'	0.0	A	0'	0.1	A	0'
WB Left	86.5	F	240'	61.7	E	195'	88.5	F	175'	60.4	E	131'
WB Thru	2.2	A	61'	17.2	B	378'	15.1	B	524'	7.7	A	241'
WB Right	0.2	A	1'	0.6	A	5'	0.0	A	0'	0.1	A	0'
NB Left	65.3	E	55'	41.1	D	52'	44.6	D	56'	55.8	E	61'
NB Thru	55.0	D	10'	54.0	D	11'	56.3	E	13'	45.0	D	9'
NB Right	19.7	B	65'	4.5	A	0'	17.0	B	57'	16.0	B	53'
SB Left	67.1	E	60'	49.5	D	129'	53.5	D	131'	57.8	E	68'
SB Thru/Right	29.6	C	35'	13.3	B	45'	13.8	B	41'	23.0	C	34'
OVERALL	9.6	A		19.2	B		15.6	B		11.1	B	

TABLE 3B: 2022 BASELINE CONDITIONS TRAFFIC OPERATIONS

Location / Critical Movements	Baseline Conditions 2022 (No Build)											
	AM Peak Hour			Mid-Day Peak Hour			PM Peak Hour			SAT Peak Hour		
	Delay	LOS	Queue	Delay	LOS	Queue	Delay	LOS	Queue	Delay	LOS	Queue
Tempo Drive and North Entrance												
EB Left/Thru/Right	N/A	N/A	N/A	11.3	B	5'	11.4	B	5'	12.5	B	2'
WB Left/Thru/Right	8.9	A	0'	8.7	A	1'	9.0	A	1'	11.9	B	8'
SB Left	0.6	A	0'	1.8	A	2'	0.5	A	1'	0.7	A	1'
Tempo Drive and South Entrance												
WB Left/Right	9.0	A	1'	8.8	A	2'	9.0	A	3'	9.0	A	3'
SB Left	1.9	A	1'	4.1	A	4'	2.7	A	4'	3.7	A	3'
Olive Boulevard and RIRO Access												
NB Right	11.0	B	1'	11.8	B	6'	12.2	B	7'	10.9	B	6'
N/A: No volume projected for this movement												

Future Conditions

Proposed Redevelopment

The proposed redevelopment will be located on a 1.02 acre lot, currently occupied by TGI Friday's. The redevelopment will consist of a new Chick-fil-A restaurant, with a building footprint of about 5,000 square feet. Access to the proposed site will be via the existing North Access Drive on Olive Boulevard, the existing South Access Drive on Tempo Drive, and the existing RIRO Entrance on Olive Boulevard. **Figure 4** depicts the proposed Chick-Fil-A restaurant, and the full site plan is included in **Appendix C**.

[illegible]

Trip Generation...Additional traffic generated by the proposed redevelopment can typically be estimated by utilizing the 11th edition of the *Institute of Transportation Engineers (ITE) Trip Generation Manual*. The tables in the *ITE Trip Generation Manual* estimate the ingress and egress traffic for both morning and evening peak traffic conditions for various types of land uses. However, the MoDOT and the City requested that existing data from Chick-fil-A restaurants be used, as this restaurant may generate trips at a higher rate than ITE predicts. The existing data is an average from two stores in the Milwaukee area, which represent a similar suburban land density and store characteristics as the proposed restaurant. The existing data, included in **Appendix A**, showed higher trip generation numbers than ITE, and therefore those more conservative numbers will be used in this study. It should be noted that the existing counts only included data from the PM and Saturday peak hours. The AM and mid-day peak hours were estimated using the ITE time of day distribution values included in the appendix of the *Trip Generation Manual*. For example, the ITE tables indicate that the PM peak hour represents about 7.4% of the daily trips for a fast food restaurant. That relationship was used to estimate the AM and mid-day trips for the restaurant, which represent 3.5% and 11.9% of daily trips, respectively. The trip generation comparison for the proposed development can be seen in **Table 3**.

TABLE 3: TRIP GENERATION ESTIMATE

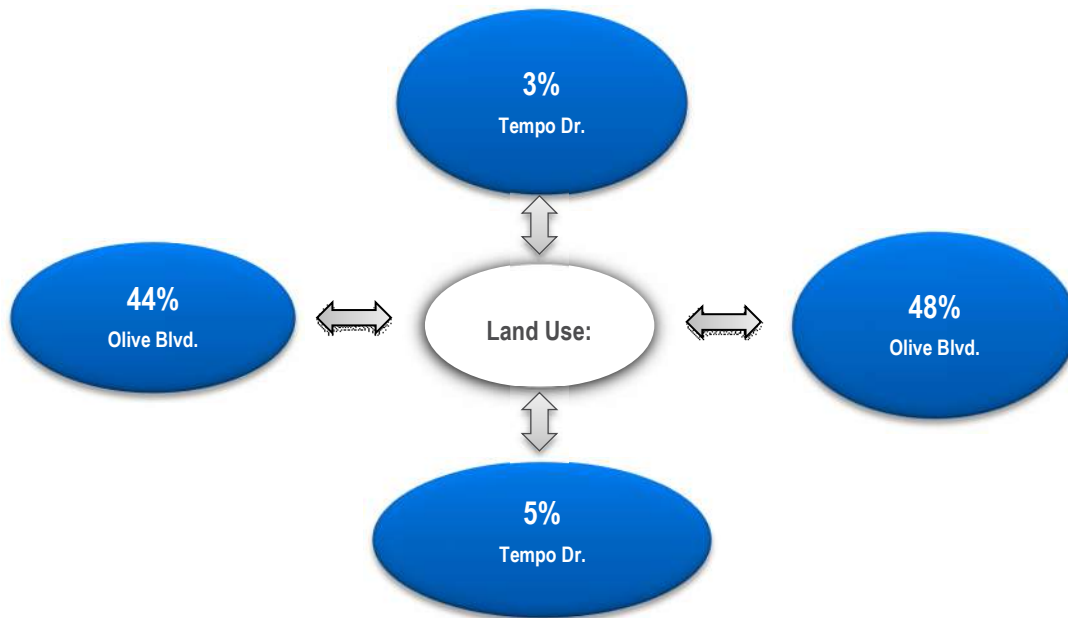
Land Use	ITE Code	Square Footage	AM Peak Hour		Mid-Day Peak Hour		PM Peak Hour		Saturday Peak Hour	
			In	Out	In	Out	In	Out	In	Out
Fast Food Restaurant w/ Drive Thru	934	5,000	115	110	135	120	85	80	140	135
Existing CFA Data			82	73	279	258	162	140	240	225
TOTAL TRIPS			82	73	279	258	162	140	240	225
Pass-By Trip Reduction (40%)			30	27	103	95	60	52	88	83
TOTAL NEW TRIPS			52	46	176	163	102	88	152	142

Many new developments which consist of commercial, or retail land uses may consider the impacts of pass-by trips, or traffic which is already on the roadway network which will now patronize the new business. These site trips would, therefore, not be considered “new” to the area. For this development, it was assumed that pass-by trips would have a significant impact to the adjacent street network, as it is reasonable to expect motorists to stop at the proposed restaurant on their way to work or home. The *ITE Trip Generation Handbook* recommends a reduction up to 40-50% for this type of restaurant. For this site, the pass-by reduction would apply to through vehicles on Olive Boulevard, and 40% of the site generated turning trips from Olive Boulevard was chosen as a conservative estimate.

Developments that are placed in a mixed-use shopping center may also be subject to a reduction of site-generated traffic through common trips. Common trips are patrons of the restaurant that are also visiting other businesses within the shopping center. Those trips may be subtracted from the overall trip generation estimate. In this shopping center, MoDOT advised that a common trip reduction should not be used because several other businesses are also restaurants. Therefore, no common trip reduction was applied to this estimate. However, there are still several non-restaurant businesses within the strip mall that may result in common trips with the Chick-fil-A. Because of this, the proposed trip generation estimate results in a conservative analysis of the traffic impact of the restaurant.

Traffic Distribution and Assignment... Traffic distribution to and from the proposed site will typically depend on the actual land use, population centers, employment centers, and major transportation corridors. The development site is immediately surrounded by commercial and retail centers, with residential neighborhoods north and south of the site. Olive Boulevard is classified as an arterial route and provides good connectivity to the surrounding residential areas and most likely customers. A large portion of vehicles will likely use Olive Boulevard from either the eastbound or westbound directions. Some residential customers from the north and south will likely access the site using Tempo Drive. The distribution of vehicles accessing or leaving the site from the north and south are also informed by the existing traffic patterns obtained in the turning movement counts.

FIGURE 5 – DIRECTIONAL DISTRIBUTION



The site generated traffic was assigned to the adjacent street network, and the total distribution of the new site-generated trips is estimated as shown in **Figure 6**, and the resulting 2022 Build volumes are in **Figure 7**.

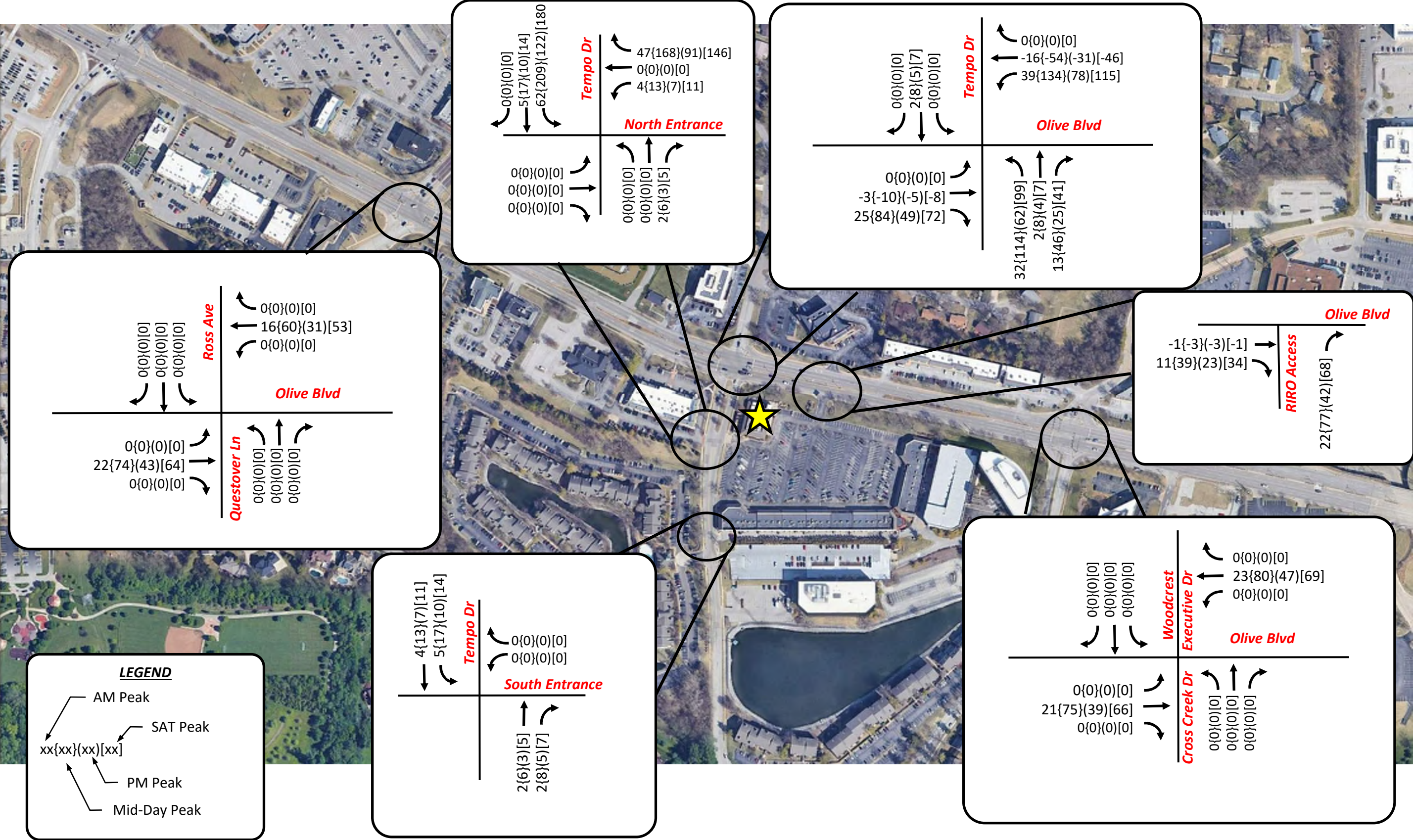


Figure 6
Site Generated Traffic Volumes

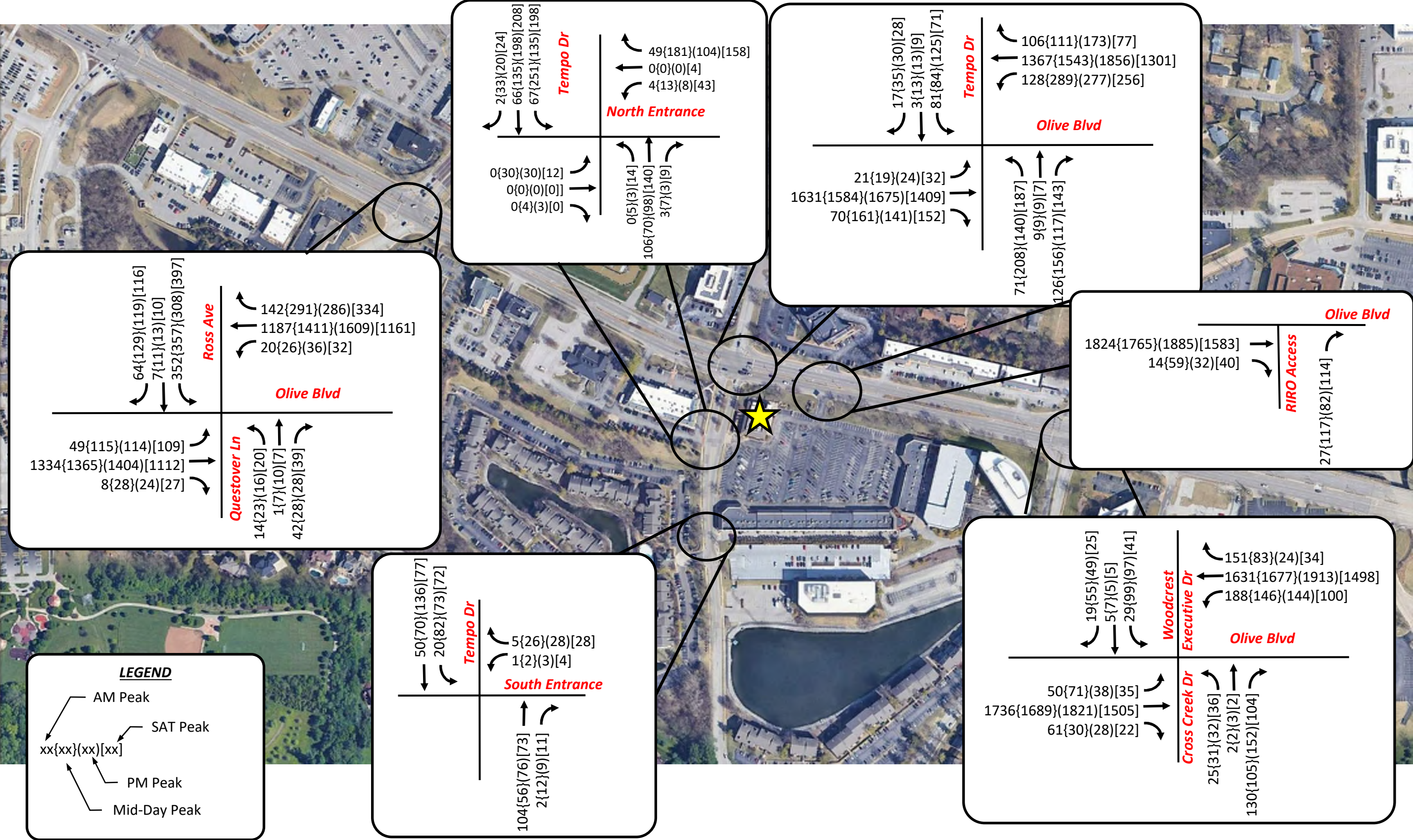


Figure 7
2022 Build Traffic Volumes

Intersection Improvements

Some intersection improvements are recommended to maintain satisfactory operations and progression along Olive Boulevard, and to improve traffic flow on Tempo Drive. The north and south legs of Tempo Drive at Olive Boulevard have a shared left/through lane and a dedicated right lane. Based on the existing traffic counts and the projected site-generated traffic, there is an imbalance in the lane usage with this configuration. It is recommended that Tempo Drive be re-stripped so that the north and south legs have a dedicated left turn lane and a shared right/through lane. The addition of the dedicated left turn lane allows for more efficient traffic distribution on Tempo Drive under the split signal phasing, which will help process the added northbound left-turning traffic leaving the development.

To accompany the lane re-stripping, advanced lane usage signing should be provided on both approaches of Tempo Drive to inform drivers of the new lane configuration. Some realignment of the through lane may be required in the northbound direction to ensure that the new northbound through/right turn lane is in line with the receiving lane on the north side of the intersection.

The City also requested an evaluation of whether a southbound left turn lane entering the development site at the North Entrance drive would be required. Based on the analysis to follow, delays and queues for the southbound direction do not indicate that that delays or queues are expected to be excessively high for this movement. However, the turning volumes surpass MoDOT's threshold for an auxiliary turn lane. Because the southbound pavement is 20' wide at this location, it can be re-stripped to two 10' lanes to provide a southbound through and a southbound left turn lane into the restaurant.

Build Traffic Operations

The Build traffic operations for the study intersections during the peak hours are summarized in **Table 4A** and **4B**, with detailed Synchro outputs in **Appendix B**. The operations results include the recommended lane configuration and phasing improvements. The Tempo Drive signal phasing and splits were re-optimized, and the corridor offsets were also re-optimized based on the new signal splits. The delay, LOS, and queuing information are shown for the critical movements at each intersection.

*Olive Boulevard and Questover Lane/Ross Avenue...*The added development traffic is expected to have minor impacts at this intersection. Overall intersection delays are expected to increase up to 9% in the PM peak hour, and the overall intersection grade is predicted to remain at LOS C or better. The minor street approaches and the eastbound left are still expected to have high delays, though the difference between the no-build and build scenarios is minimal, as no additional traffic is projected for these movements.

*Olive Boulevard and Tempo Drive...*The intersection is projected to operate at LOS D or better after the development and intersection improvements. The westbound left movement is expected to operate at LOS E or F during all peak hours. 95th percentile queues are expected to exceed 300' storage length, as in the existing conditions, with a 35-55% increase in length during the mid-day and PM peak hours. After the lane configuration improvements to improve traffic balance and lane utilization, the added traffic on Tempo Drive is anticipated to result in delays that are only increased between 6-27% for the northbound and southbound left turning movements. Northbound queues are again expected to extend through the North Entrance intersection. If queues are too long, drivers leaving the site may elect to use the South Entrance intersection, which is not expected to be impacted by queueing, and will have excess capacity to serve vehicles.

It should be noted that the northbound approach, southbound approach, and westbound left turns are the movements most impacted by the use of split phasing on Tempo Drive. While the proposed restaurant will likely have an effect on those movements, the current construction project to implement split phasing is expected to increase delays and queues for those movements prior to the construction of the restaurant.

Olive Boulevard and Cross Creek Drive/Woodcrest Executive Drive... Similar to the Questover Lane/Ross Avenue intersection, the added traffic is predicted to have minor impacts. The re-optimized offsets are expected to result in some minor improvements in overall delays, while the minor street movements and major street left turns are expected to remain near capacity.

Tempo Drive and North Entrance, South Entrance, and RIRO Access... The eastbound approach of North Entrance at Tempo Drive is predicted to operate at LOS D during the mid-day peak and Saturday peaks, which have the heaviest projected traffic for the development. All other movements at the access intersections during all other peak hours are projected at LOS C or better with queues no longer than 2-3 vehicles long.

TABLE 4A: 2022 BUILD CONDITIONS TRAFFIC OPERATIONS

Location / Critical Movements	Baseline Conditions 2022 (Build)											
	AM Peak Hour			Mid-Day Peak Hour			PM Peak Hour			SAT Peak Hour		
	Delay	LOS	Queue	Delay	LOS	Queue	Delay	LOS	Queue	Delay	LOS	Queue
Olive Boulevard and Ross Avenue/Questover Lane												
EB Left	6.3	A	16'	75.1	E	190'	56.6	E	120'	34.3	C	90'
EB Thru	9.7	A	772'	23.8	C	639'	9.0	A	504'	22.1	C	469'
EB Right	0.0	A	0'	0.1	A	0'	0.0	A	0'	0.1	A	0'
WB Left	2.1	A	2'	7.8	A	6'	7.0	A	7'	8.2	A	9'
WB Thru	7.4	A	407'	17.2	B	760'	16.1	B	958'	19.0	B	536'
WB Right	1.0	A	20'	3.1	A	24'	2.3	A	8'	3.8	A	45'
NB Left	61.9	E	38'	58.3	E	49'	62.1	E	41'	51.8	D	40'
NB Thru	58.0	E	7'	53.7	E	22'	59.8	E	29'	48.7	D	22'
NB Right	1.5	A	0'	0.8	A	0'	0.9	A	0'	0.9	A	0'
SB Left	72.1	E	255'	72.0	E	268'	77.0	E	250'	67.3	E	275'
SB Left/Thru	72.0	E	256'	73.8	E	277'	76.5	E	249'	67.4	E	278'
SB Right	1.0	A	0'	4.0	A	17'	4.6	A	18'	1.7	A	0'
OVERALL	15.3	B		25.2	C		18.3	B		24.1	C	
Olive Boulevard and Tempo Drive												
EB Left	3.7	A	4'	13.7	B	11'	6.9	A	7'	11.3	B	18'
EB Thru	9.0	A	321'	59.8	E	908'	38.8	D	994'	36.8	D	720'
EB Right	0.3	A	2'	9.4	A	76'	1.5	A	11'	6.6	A	60'
WB Left	63.1	E	183'	114.8	F	407'	130.5	F	445'	67.0	E	314'
WB Thru	19.5	B	438'	17.1	B	295'	24.0	C	1053'	13.8	A	163'
WB Right	3.8	A	37'	0.7	A	8'	3.2	A	23'	0.2	A	0'
NB Left	83.2	F	131'	112.9	F	348'	129.0	F	278'	91.7	F	291'
NB Thru/Right	23.2	C	77'	13.8	B	76'	19.3	B	73'	13.4	B	67'
SB Left	87.6	F	153'	121.9	F	178'	133.6	F	257'	82.7	F	134'
SB Thru/Right	28.1	C	31'	32.3	C	53'	30.3	C	51'	28.4	C	42'
OVERALL	18.4	B		46.0	D		40.4	D		31.1	C	
Olive Boulevard and Cross Creek Drive/Woodcrest Executive Drive												
EB Left	77.5	E	63'	77.6	E	69'	40.2	D	37'	55.4	E	35'
EB Thru	4.1	A	227'	15.8	B	191'	6.9	A	217'	2.1	A	60'
EB Right	0.1	A	0'	0.0	A	0'	0.0	A	0'	0.0	A	0'
WB Left	84.8	F	221'	61.7	E	195'	91.2	F	167'	60.4	E	131'
WB Thru	2.0	A	50'	17.8	B	407'	17.3	B	570'	7.8	A	257'
WB Right	0.2	A	0'	0.6	A	5'	0.0	A	0'	0.1	A	0'
NB Left	65.3	E	55'	41.1	D	52'	44.6	D	56'	55.8	E	61'
NB Thru	55.0	D	10'	54.0	D	11'	56.3	E	13'	45.0	D	9'
NB Right	19.7	B	65'	4.5	A	0'	17.0	B	57'	16.0	B	53'
SB Left	67.1	E	60'	49.5	D	129'	53.5	D	131'	57.8	E	68'
SB Thru/Right	29.6	C	35'	13.3	B	45'	13.8	B	41'	23.0	C	34'
OVERALL	9.2	A		19.7	B		16.4	B		8.8	A	

TABLE 4B: 2022 BUILD CONDITIONS TRAFFIC OPERATIONS

Location / Critical Movements	Baseline Conditions 2022 (Build)											
	AM Peak Hour			Mid-Day Peak Hour			PM Peak Hour			SAT Peak Hour		
	Delay	LOS	Queue	Delay	LOS	Queue	Delay	LOS	Queue	Delay	LOS	Queue
Tempo Drive and North Entrance												
EB Left/Thru/Right	N/A	N/A	N/A	34.1	D	21'	20.1	C	11'	33.3	D	8'
WB Left/Thru/Right	9.3	A	5'	10.9	B	26'	10.0	B	13'	16.2	C	51'
NB Left/Thru/Right	0.0	A	0'	0.5	A	0'	0.2	A	0'	0.8	A	1'
SB Left	7.6	A	4'	4.7	A	17'	7.7	A	8'	8.0	A	14'
Tempo Drive and South Entrance												
WB Left/Right	9.0	A	1'	8.9	A	3'	9.1	A	3'	9.1	A	3'
SB Left	2.2	A	1'	4.3	A	5'	2.9	A	4'	3.8	A	4'
Olive Boulevard and RiRO Access												
NB Right	11.2	B	4'	12.7	B	20'	13.3	B	16'	12.5	B	19'
N/A: No volume projected for this movement												

Future Traffic Volumes

It is reasonable to expect the existing background traffic volumes to increase due to area growth factors such as new development, population growth, and more drivers per average household. For the purposes of this traffic engineering study, a 2045 no-build analysis and a 2045 build-out analysis will be completed. The 2045 no-build traffic volumes will account for the background traffic growth not attributed to the studied development.

Projected traffic volumes were developed using the same method as the 2022 baseline volumes. Traffic volumes on through movements along Olive Boulevard were increased at an annual growth rate of 0.5%. After applying that growth rate for 23 additional years, a total of 12.2% increase in traffic volumes was applied to the through movements. Side roads are again assumed to be fully developed and therefore the growth rate was not applied to turning movements on Olive Boulevard or any movements on side roads.

This study will expand on the baseline traffic analysis by reviewing the following traffic volume scenarios during the identified peak traffic hours:

1. **Future 2045 (No-Build)** – This scenario will consider future traffic volumes without the impact of the proposed site generated trips (**Figure 8**).
2. **Future 2045 (Build)** – This scenario will consider future traffic volumes with the impact of the proposed site generated trips and the proposed intersection improvements at Tempo Drive (**Figure 9**).

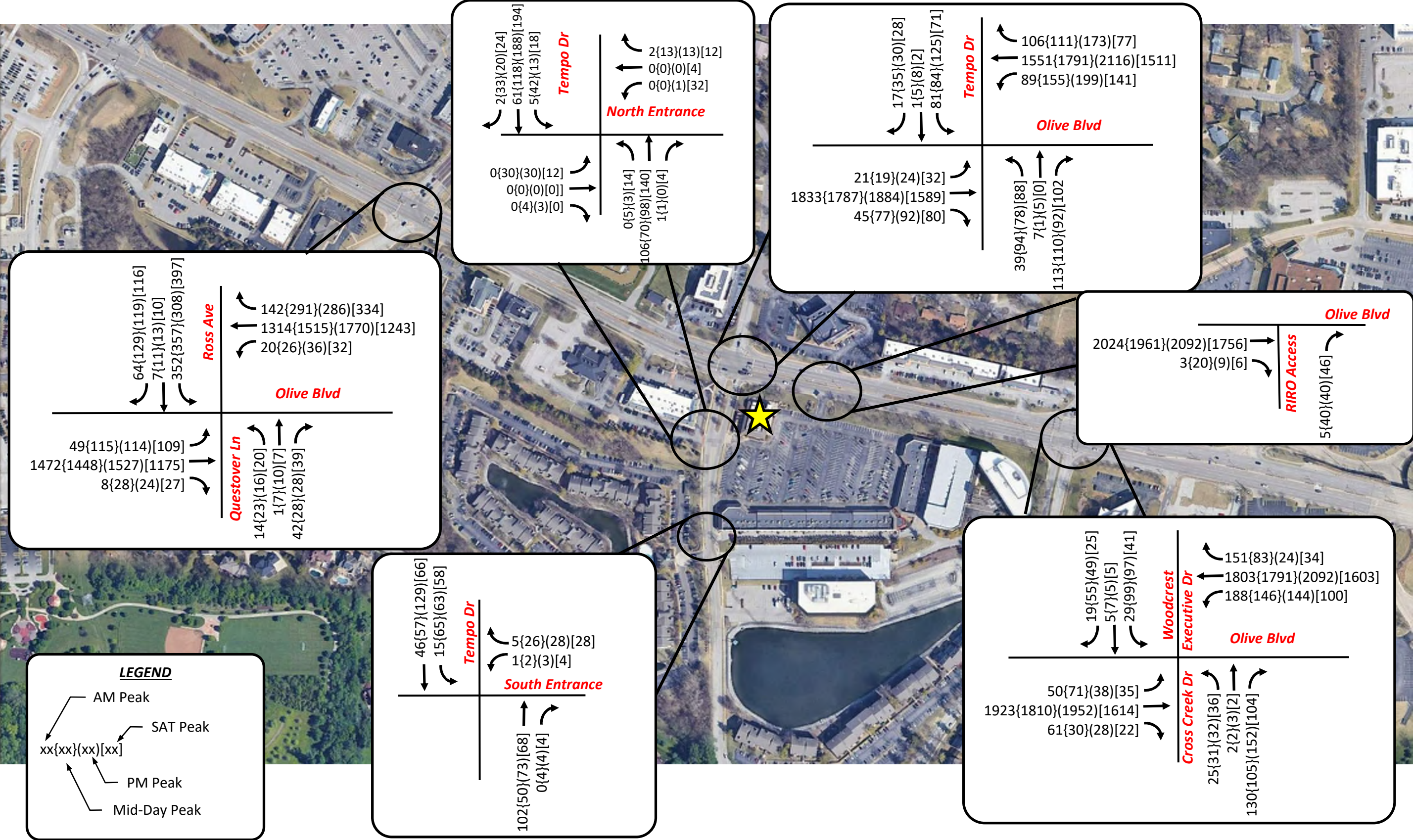


Figure 8
2045 No Build Traffic Volumes

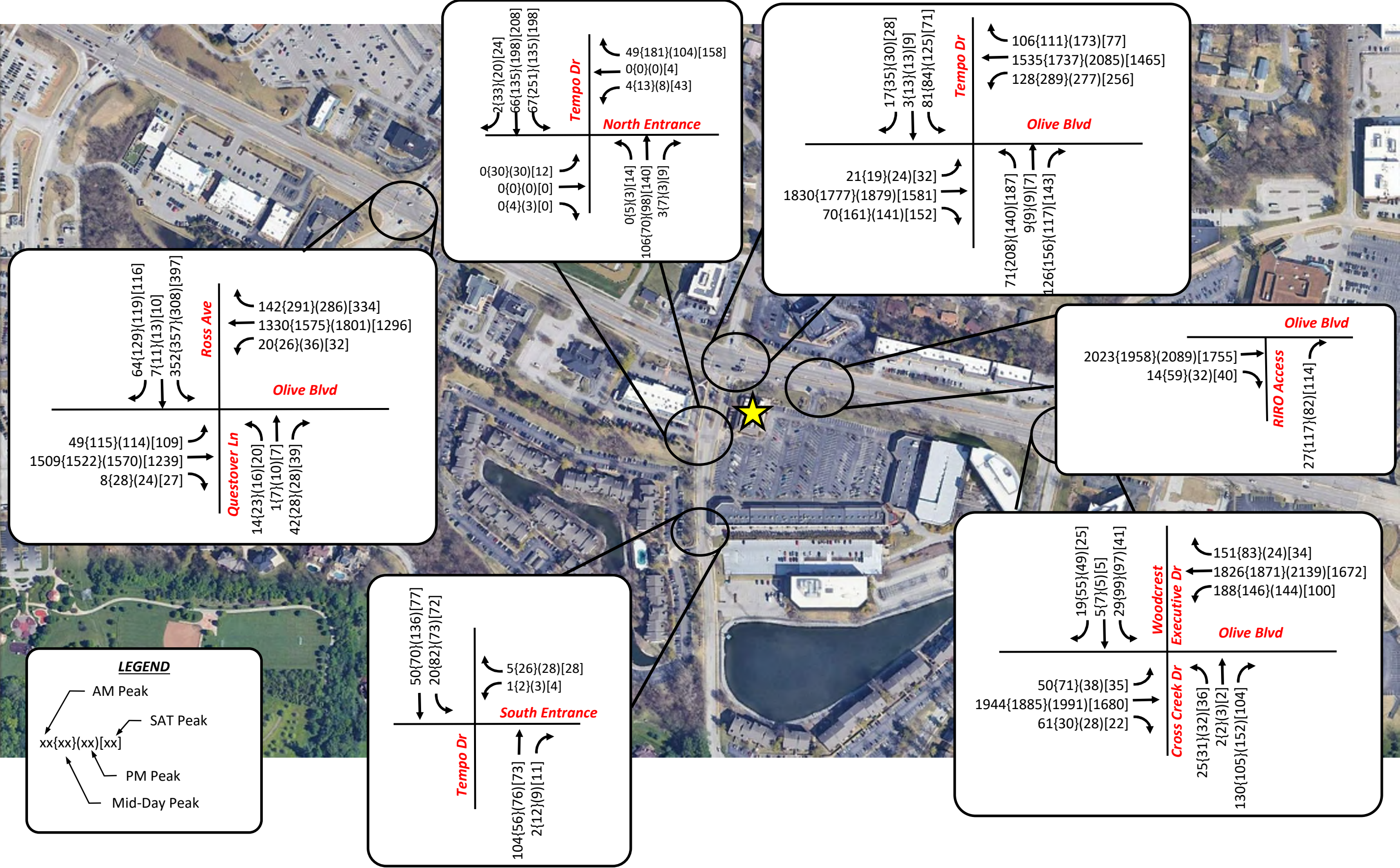


Figure 9
2045 Build Traffic Volumes

Future Traffic Operations

Additional analysis was completed to provide an operational comparison between the future no-build traffic conditions, and the future conditions with the added site development traffic.

Future 2045 (No-Build)... Intersection capacity and queueing analysis of this scenario will consider future traffic volumes and baseline lane configurations, without the impact of the proposed site generated trips. Future traffic signal phasing and splits will be re-optimized as needed based on traffic volumes. The cycle lengths for each peak hour were assumed to remain the same as the existing timings. **Tables 5A and 5B** show the critical movements at each intersection for the Future, No Build traffic volume scenario.

Olive Boulevard and Questover Lane/Ross Avenue...The overall intersection is expected to operate with 2-6 added seconds of delay over the baseline analysis, while remaining at LOS C. The added delay is a result of the background traffic growth on Olive Boulevard. The same minor street and eastbound left movements are predicted to operate with high delays, as in the baseline analysis.

Olive Boulevard and Tempo Drive...The intersection is projected to operate at LOS D or better during all peak hours. The westbound left movement and minor street movements are again expected to operate at LOS E or F during most peak hours. Westbound left queues and northbound queues again are predicted to exceed the existing storage length during the mid-day and PM peak hours.

Olive Boulevard and Cross Creek Drive/Woodcrest Executive Drive...This intersection is predicted to operate at LOS C or better during all peak hours under the 2045 No-Build volumes. The eastbound and westbound lefts are expected to continue experiencing high delays, as are the northbound and southbound left-turning movements during some peak hours.

Tempo Drive and North Entrance, South Entrance, and RIRO Access...All access intersection approaches are expected to operate at LOS B or better during all peak hours.

TABLE 5A: 2045 NO BUILD CONDITIONS TRAFFIC OPERATIONS

Location / Critical Movements	Future Conditions 2045 (No Build)											
	AM Peak Hour			Mid-Day Peak Hour			PM Peak Hour			SAT Peak Hour		
	Delay	LOS	Queue	Delay	LOS	Queue	Delay	LOS	Queue	Delay	LOS	Queue
Olive Boulevard and Ross Avenue/Questover Lane												
EB Left	9.9	A	18'	75.1	E	190'	53.6	D	114'	34.3	C	90'
EB Thru	14.9	B	867'	25.4	C	726'	15.0	B	877'	23.0	C	510'
EB Right	0.0	A	0'	0.1	A	0'	0.0	A	0'	0.1	A	0'
WB Left	14.8	B	10'	8.4	A	10'	7.0	A	2'	3.7	A	3'
WB Thru	17.3	B	298'	24.3	C	911'	21.9	C	987'	21.8	C	635'
WB Right	5.0	A	35'	3.8	A	92'	1.5	A	24'	4.8	A	74'
NB Left	61.9	E	38'	58.3	E	49'	62.1	E	41'	51.8	D	40'
NB Thru	58.0	E	7'	53.7	D	22'	59.8	E	29'	48.7	D	22'
NB Right	1.5	A	0'	0.8	A	0'	0.9	A	0'	0.9	A	0'
SB Left	72.1	E	255'	72.0	E	268'	77.0	E	250'	67.3	E	275'
SB Left/Thru	72.0	E	256'	73.8	E	277'	76.5	E	249'	67.4	E	278'
SB Right	1.0	A	0'	4.0	A	17'	4.6	A	18'	1.7	A	0'
OVERALL	21.0	C		28.4	C		22.4	C		25.2	C	
Olive Boulevard and Tempo Drive												
EB Left	1.9	A	1'	18.3	B	9'	7.0	A	4'	11.2	B	19'
EB Thru	11.8	B	227'	45.1	D	952'	27.0	C	1077'	33.8	C	777'
EB Right	0.1	A	0'	4.1	A	13'	0.7	A	2'	4.0	A	17'
WB Left	42.7	D	104'	127.7	F	286'	141.7	F	311'	63.4	E	178'
WB Thru	11.4	B	233'	12.7	B	212'	41.9	D	1269'	12.9	B	603'
WB Right	1.6	A	19'	0.2	A	1'	5.3	A	57'	0.2	A	0'
NB Left/Thru	80.0	F	94'	123.6	F	194'	141.5	F	192'	80.9	F	151'
NB Right	8.8	A	17'	5.1	A	4'	4.6	A	0'	3.2	A	0'
SB Left/Thru	89.7	F	159'	122.8	F	187'	131.1	F	269'	83.0	F	135'
SB Right	0.5	A	0'	1.0	A	0'	0.7	A	0'	0.7	A	0'
OVERALL	14.2	B		34.4	C		41.1	D		25.9	C	
Olive Boulevard and Cross Creek Drive/Woodcrest Executive Drive												
EB Left	73.3	E	0'	43.6	D	67'	41.7	D	35'	45.1	D	36'
EB Thru	3.0	A	186'	44.9	D	591'	8.5	A	349'	9.5	A	191'
EB Right	0.1	A	0'	0.0	A	0'	0.0	A	0'	0.1	A	0'
WB Left	82.2	F	213'	61.7	E	195'	85.6	F	177'	60.4	E	131'
WB Thru	3.2	A	215'	18.6	B	450'	16.3	B	589'	8.2	A	284'
WB Right	0.2	A	0'	0.6	A	5'	0.0	A	0'	0.1	A	0'
NB Left	65.3	E	55'	41.1	D	52'	44.6	D	56'	55.8	E	61'
NB Thru	55.0	D	10'	54.0	D	11'	56.3	E	13'	45.0	D	9'
NB Right	19.7	B	65'	4.5	A	0'	17.0	B	57'	16.0	B	53'
SB Left	67.1	E	60'	49.8	D	129'	53.5	D	131'	57.8	E	68'
SB Thru/Right	29.6	C	35'	13.4	B	45'	13.8	B	41'	23.0	C	34'
OVERALL	8.6	A		31.7	C		16.2	B		11.9	B	

TABLE 5B: 2045 NO BUILD CONDITIONS TRAFFIC OPERATIONS

Location / Critical Movements	Future Conditions 2045 (No Build)											
	AM Peak Hour			Mid-Day Peak Hour			PM Peak Hour			SAT Peak Hour		
	Delay	LOS	Queue	Delay	LOS	Queue	Delay	LOS	Queue	Delay	LOS	Queue
Tempo Drive and North Entrance												
EB Left/Thru/Right	N/A	N/A	N/A	11.3	B	5'	11.4	B	5'	12.5	B	2'
WB Left/Thru/Right	8.9	A	0'	8.7	A	1'	9.0	A	1'	12.0	B	8'
SB Left	0.6	A	0'	1.8	A	2'	0.5	A	1'	0.7	A	1'
Tempo Drive and South Entrance												
WB Left/Right	9.0	A	1'	8.8	A	2'	9.0	A	3'	9.0	A	3'
SB Left	1.9	A	1'	4.1	A	4'	2.7	A	4'	3.7	A	3'
Olive Boulevard and RIRO Access												
NB Right	13.5	B	1'	13.3	B	8'	13.9	B	8'	11.9	B	7'
N/A: No volume projected for this movement												

Future 2045 (Build)... Intersection capacity and queueing analysis of this scenario will consider future traffic volumes, plus the Tempo Drive intersection lane configuration improvements, with the impact of the proposed site generated trips. The timing plan at Tempo Drive was again re-optimized to accommodate the new lane configuration, and offsets among the three signalized intersection were optimized. **Tables 6A and 6B** show the critical movements at each intersection for the 2045 Build scenario.

Olive Boulevard and Questover Lane/Ross Avenue...The added development traffic is again expected to have minor impacts at this intersection. Overall intersection delays are expected to increase up to 11% in the AM peak hour, and the overall intersection grade is predicted to remain at LOS C or better. The minor street approaches and the eastbound left are still expected to have high delays, though the difference between the no-build and build scenarios is minimal, as no additional traffic is projected for these movements.

Olive Boulevard and Tempo Drive...The intersection is projected to operate at LOS D or E during the mid-day, PM, and Saturday peak hours after the development and intersection improvements. The westbound left movement is expected to operate at LOS E or F during all peak hours, with 95th percentile queues again increasing by up to 55% during the mid-day and PM peak hours, and continuing to exceed the existing storage length. After the lane improvements, the added traffic on Tempo Drive is anticipated to result in delays that are increased by up to 43% over the No-Build analysis for the northbound and southbound left turning movements.

Olive Boulevard and Cross Creek Drive/Woodcrest Executive Drive...Similar to the Questover Lane/Ross Avenue intersection, the added traffic is predicted to have minor impacts. The re-optimized offsets are expected to result in some minor improvements in overall delays, while the minor street movements and major street left turns are expected to remain near capacity.

Tempo Drive and North Entrance, South Entrance, and RIRO Access...The eastbound approach of North Entrance at Tempo Drive is again predicted to operate at LOS D during the mid-day and Saturday peaks. All other movements at the access intersections during all other peak hours are projected at LOS C or better with queues no longer than 2-3 vehicles long.

TABLE 6A: 2045 BUILD CONDITIONS TRAFFIC OPERATIONS

Location / Critical Movements	Future Conditions 2045 (Build)											
	AM Peak Hour			Mid-Day Peak Hour			PM Peak Hour			SAT Peak Hour		
	Delay	LOS	Queue	Delay	LOS	Queue	Delay	LOS	Queue	Delay	LOS	Queue
Olive Boulevard and Ross Avenue/Questover Lane												
EB Left	10.7	B	18'	75.1	E	190'	57.3	E	132'	34.3	C	90'
EB Thru	18.9	B	906'	27.1	C	831'	12.0	B	918'	24.1	C	554'
EB Right	0.0	A	0'	0.1	A	0'	0.0	A	0'	0.1	A	0'
WB Left	16.1	B	10'	8.7	A	6'	13.7	B	8'	5.7	A	4'
WB Thru	19.1	B	319'	29.9	C	928'	27.4	C	983'	23.0	C	665'
WB Right	5.6	A	36'	3.5	A	41'	3.3	A	14'	3.5	A	28'
NB Left	61.9	E	38'	58.3	E	49'	62.1	E	41'	51.8	D	40'
NB Thru	58.0	E	7'	53.7	D	22'	59.8	E	29'	48.7	D	22'
NB Right	1.5	A	0'	0.8	A	0'	0.9	A	0'	0.9	A	0'
SB Left	72.1	E	255'	72.0	E	268'	77.0	E	250'	67.3	E	275'
SB Left/Thru	72.0	E	256'	73.8	E	277'	76.5	E	249'	67.4	E	278'
SB Right	1.0	A	0'	4.0	A	17'	4.6	A	18'	1.7	A	0'
OVERALL	23.3	C		31.0	C		24.3	C		25.9	C	
Olive Boulevard and Tempo Drive												
EB Left	1.9	A	2'	12.0	B	10'	6.2	A	5'	13.7	B	21'
EB Thru	12.4	B	226'	73.9	E	1041'	68.5	E	1168'	50.6	D	871'
EB Right	0.1	A	0'	7.1	A	57'	0.9	A	3'	8.4	A	66'
WB Left	78.8	E	198'	165.0	F	442'	149.6	F	447'	75.8	E	327'
WB Thru	9.5	A	193'	15.7	B	928'	41.9	D	1273'	14.7	B	620'
WB Right	1.0	A	14'	0.3	A	2'	3.7	A	29'	0.2	A	0'
NB Left	90.4	F	143'	158.6	F	372'	153.8	F	290'	115.8	F	305'
NB Thru/Right	39.4	D	126'	15.3	B	77'	22.4	C	79'	14.3	B	69'
SB Left	97.2	F	165'	121.9	F	178'	145.5	F	262'	82.7	F	134'
SB Thru/Right	28.9	C	31'	32.3	C	53'	30.8	C	51'	28.4	C	42'
OVERALL	16.9	B		55.4	E		60.3	E		38.2	D	
Olive Boulevard and Cross Creek Drive/Woodcrest Executive Drive												
EB Left	71.5	E	56'	67.1	E	67'	36.8	D	32'	49.6	D	34'
EB Thru	3.4	A	192'	24.7	C	302'	6.5	A	205'	6.0	A	110'
EB Right	0.1	A	0'	0.0	A	0'	0.0	A	0'	0.0	A	0'
WB Left	80.0	F	209'	61.7	E	195'	90.1	F	189'	60.4	E	131'
WB Thru	3.8	A	299'	19.4	B	484'	19.5	B	654'	8.4	A	302'
WB Right	0.3	A	0'	0.6	A	5'	0.0	A	0'	0.1	A	0'
NB Left	65.3	E	55'	41.1	D	52'	44.6	D	56'	55.8	E	61'
NB Thru	55.0	D	10'	54.0	D	11'	56.3	E	13'	45.0	D	9'
NB Right	19.7	B	65'	4.5	A	0'	17.0	B	57'	16.0	B	53'
SB Left	67.1	E	60'	49.5	D	129'	53.5	D	131'	57.8	E	68'
SB Thru/Right	29.6	C	35'	13.3	B	45'	13.8	B	41'	23.0	C	34'
OVERALL	8.8	A		23.8	C		16.8	B		10.3	B	

TABLE 6B: 2045 BUILD CONDITIONS TRAFFIC OPERATIONS

Location / Critical Movements	Future Conditions 2045 (Build)											
	AM Peak Hour			Mid-Day Peak Hour			PM Peak Hour			SAT Peak Hour		
	Delay	LOS	Queue	Delay	LOS	Queue	Delay	LOS	Queue	Delay	LOS	Queue
Tempo Drive and North Entrance												
EB Left/Thru/Right	N/A	N/A	N/A	34.1	D	21'	20.1	C	11'	33.3	D	8'
WB Left/Thru/Right	9.3	A	5'	10.9	B	26'	10.0	B	13'	16.2	C	51'
SB Left	7.6	A	4'	7.9	A	17'	7.7	A	8'	8.0	A	14'
Tempo Drive and South Entrance												
WB Left/Right	9.0	A	1'	8.9	A	3'	9.1	A	3'	9.1	A	3'
SB Left	2.2	A	1'	4.3	A	5'	2.9	A	4'	3.8	A	4'
Olive Boulevard and RIRO Access												
NB Right	13.8	B	5'	13.3	B	22'	14.0	B	17'	12.8	B	20'
N/A: No volume projected for this movement												

Parking Lot Capacity

Because the proposed restaurant footprint will eliminate some of the existing parking spaces, and because the lot is shared among the various land uses, an evaluation of the parking lot capacity for the Westgate Centre was also conducted as part of the study. The combined projected parking demand for the shopping center and the proposed restaurant was compared to the number of available parking spaces after the development. There are approximately 387 existing parking spaces in all the shared lot areas. After the improvements, the total number of parking spaces will be 343.

Each of the land uses in the shopping center was considered for parking requirements, based on the Institute of Transportation Engineers (ITE) *Parking Generation, 5th Edition*. ITE provides either an average parking demand rate or a fitted curve equation based on their study data for peak parking demand by land use. ITE also provides data on the percentage of peak parking demand each hour, as experienced by each land use.

Chick-fil-A falls under ITE Land Use Code 934 – Fast-Food Restaurant with Drive-Through Window. The proposed building is approximately 5,000 square feet (s.f.).

The large building containing various businesses such as retail, office buildings, restaurants, and medical offices is approximately 48,500 s.f. To be conservative, this entire building was considered to be Land Use 820 – Shopping Center, as it has the highest parking rate of the retail and restaurant land uses.

Parking demands for each land use were calculated and summed for the Westgate Centre. A mid-day peak hour and an evening peak hour were considered for both weekday and Saturday demand, as these are the peak demand times for both land uses. A weekday morning peak hour was not analyzed because of the relatively low demand for the shopping center. To be conservative, the highest mid-day rate (11:00am-2:00pm) and highest evening rate (4:00-7:00pm) were used, even if the peak hours did not line up exactly among the land uses. The peak period parking demands for each Lot are summarized in **Table 7**.

TABLE 7 – ITE PARKING REQUIREMENTS

Land Use	Building Size (s.f.)	ITE Land Use Code	ITE Parking Requirements			
			Weekday		Saturday	
			Mid-Day	Evening	Mid-Day	Evening
Chick-fil-A	5,000	934	43	27	46	32
Shopping Center	48,500	820	172	148	174	150
Lot Total	53,500	-	215	175	220	182

According to ITE parking rates, the highest parking demand is projected to be 220 vehicles during the Saturday mid-day peak period. Compared to the 343 available parking spaces, the overall parking utilization is predicted to be 64%. The analysis indicates that the parking supply is expected to be adequate for the development plans based on ITE code. The additional 36% of unutilized parking supply will likely aid in traffic circulation, as available parking spaces reduce the amount of time vehicles must spend driving through the lot, searching for a parking space.

Conclusion and Recommendations

A comprehensive review was completed to estimate the impacts to the adjacent street network associated with the proposed Chick-fil-A development plans. This traffic review consisted of existing traffic data, trip generation and traffic assignment, intersection operation levels-of-service, and parking demand. Analysis was completed for four volume scenarios: existing (or baseline), baseline plus site (build), future (no build), and future plus site (build). Each scenario was reviewed during the morning, mid-day, and evening peak hours of a weekday, and the mid-day Saturday peak hour.

The proposed development will be a 5,000 square foot restaurant located in a vacant lot. Access to the site will be via two existing full access intersections on Tempo Drive and one right-in, right-out entrance on Olive Boulevard.

For the purposes of this traffic engineering study, a design year of 2045 was considered. Baseline 2022 volumes were based on existing traffic volumes. Future 2045 traffic volumes were derived using a 0.5% annual growth rate on Olive Boulevard. The 2022 and 2045 build analyses considered the addition of the development traffic on top of normal background traffic growth.

The following intersection improvements are recommended to ensure the efficient operation of the Olive Boulevard corridor after construction:

- Re-stripe the north and south approaches of Tempo Drive at Olive Boulevard to provide a dedicated left turn lane and a shared through/right lane
- Add intersection lane control signage to both approaches of Tempo Drive at Olive Boulevard to inform drivers of the lane configuration
- Re-optimize the traffic signal splits for the Olive Boulevard at Tempo Drive intersection, as well as re-optimize the intersection offsets for the same intersection and the neighboring signals on Olive Boulevard
- Re-stripe southbound Tempo Drive between Olive Boulevard and North Entrance to provide a dedicated left turn lane entering the development site

The addition of site traffic will likely add delay to several of the major intersection movements at Tempo Drive and Olive Boulevard. However, the analysis indicates the study intersections are predicted to maintain similar levels of service as the existing condition with these proposed improvements. The construction project currently underway at that intersection will implement split phasing on the minor street approaches, which is expected to increase delays and queues prior to construction of the restaurant.

Additionally, the projected parking lot demand for the proposed development and the existing Westgate Centre was studied. The analysis indicates that the proposed parking supply is expected to be greater than the proposed demand. Up to 64% utilization of the parking lot is projected, leaving ample space for vehicles to park.

Appendix C – Proposed Site Plan

SITE PLAN DESIGN NOTES & KEY PLAN

- 1A DIRECTIONAL ARROW
1B PAINTED HANDICAP PARKING SYMBOL
2A DRIVE-THRU GRAPHICS
2B STOP LINE GRAPHIC
3 STANDARD PARKING STALL (9.0'x19.0') PER CODE
4 STANDARD 60 DEGREE PARKING STALL
4A 4" SOLID WHITE STRIPING
4B 4" SOLID YELLOW STRIPING
4C 4" SKIP DASH YELLOW STRIPING
5 BOLLARD MOUNTED SIGN
6 ADA ACCESSIBLE PARKING SIGN
7 DIRECTIONAL SIGNAGE

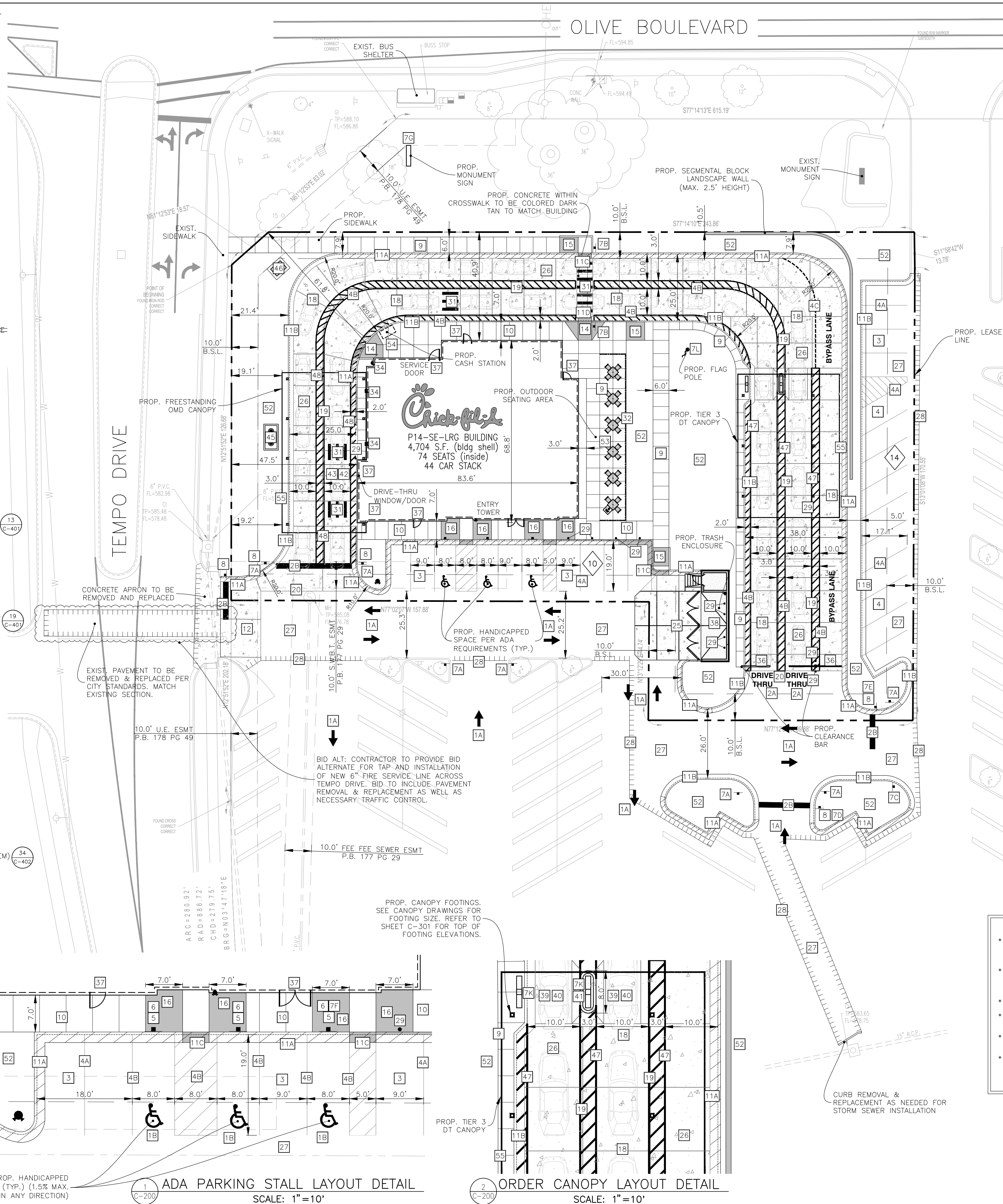
ALL SIGNS SHALL CONFORM TO THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" BY THE U.S. DEPARTMENT OF TRANSPORTATION. (SEE SIGN LEGEND)

7A THRU 7F (SEE SIGNAGE LEGEND, THIS SHEET)

- 7G CHICK-FIL-A MONUMENT SIGN, SEE SIGNAGE PACKAGE
7H CHICK-FIL-A "ENTER" SIGN, SEE SIGNAGE PACKAGE
7I CHICK-FIL-A "EXIT" SIGN, SEE SIGNAGE PACKAGE
7J CHICK-FIL-A "DRIVE THRU" SIGN, SEE SIGNAGE PACKAGE
7K DRIVE THRU ORDERING STATION, SEE SIGNAGE PACKAGE
7L FLAGPOLE, 50', SEE SIGNAGE PACKAGE

- 8 STOP SIGN, SEE SIGNAGE PACKAGE
9 TYPICAL CONCRETE SIDEWALK, 5' MIN.
10 7' WIDE SIDEWALK w/ CURB & GUTTER
11 24" CONCRETE CURB & GUTTER
11A SPILLING CURB SECTION
11B CATCHING CURB SECTION
11C DEPRESSED SPILLING CURB
11D DEPRESSED CATCHING CURB

- 12 CONCRETE PAVEMENT SECTIONS
13 HANDICAP RAMP w/ SHORT FLARED SIDES (GRASSED AREAS)
14 HANDICAP RAMP w/ FLARED SIDES (IN SIDEWALK)
15 RETURNED CURB HANDICAP RAMP
16 SIDEWALK (ADA COMPLIANT) RAMP
17 DETECTABLE WARNING DEVICE
18 TRANSVERSE & LONGITUDINAL CONTRACTION JOINT
19 TRANSVERSE & LONGITUDINAL DOWELED CONSTRUCTION JOINT
20 PAVEMENT EDGE DETAIL
21 CONTRACTION JOINT
22 KEYED CONSTRUCTION JOINT
23 LONGITUDINAL BUTT JOINT
24 EXPANSION JOINT
25 CONCRETE APRON @ TRASH ENCLOSURE
26 CONCRETE PAVEMENT DRIVE-THRU LANE
27 TYPICAL HMA PAVEMENT SECTION
28 BUTT JOINT
29 CONCRETE BOLLARD
30 MULTI-LANE DIRECTIONAL GRAPHICS
31 CROSSWALK MARKINGS
32 ALUMINUM HANDRAIL
33 TYPICAL ADA RAMP & HANDRAIL
34 BUILDING DOWNSPOUT CONNECTION (TO SITE DRAINAGE SYSTEM)
35 ROLLOVER/MOUNTABLE CURB
36 DRIVE-THRU CLEARANCE BAR
37 ENTRY DOOR FROST SLAB DETAIL
38 SCREENED REFUSE ENCLOSURE FOUNDATION
39 MENU BOARD LOOP DETECTION SYSTEM
40 MENU BOARD LOOP DETECTION SYSTEM (ISO VIEW)
41 DRIVE-THRU ORDER POINT ISLAND
42 DRIVE-THRU PLAN FLUSH WITH FFE
43 DRIVE-THRU ISOMETRIC PLAN
44 DRIVE-THRU PLAN - 2" BELOW FFE
45 GREASE TRAP
46 PROPOSED TRANSFORMER
47 DRIVE-THRU STRIPING
48 MEAL DELIVERY AREA STRIPING
49 LANDSCAPE & IRRIGATION PROTECTOR
50 SOLID PLASTIC WHEEL STOP
51 BIKE RACK
52 LANDSCAPED AREA
53 TYPICAL LOCATION FOR OUTDOOR TABLES (SEE EQUIPMENT SCHEDULE)
54 CONCRETE PAD FOR OPTIONAL CASH STATION
55 FACE-TO-FACE DRIVE-THRU CANOPY SYSTEMS



SITE DATA:

- PARCEL ID #: 1822122709354202003
- ZONING: PUD (PLANNED UNIT DEVELOPMENT DISTRICT)
- PROP. LEASE PARCEL SIZE: 44,310± SQ. FT. (1.02 ACRES)

BUILDING DATA:

- BUILDING FLOOR AREA: 4,704± SQ. FT.
- NUMBER OF EMPLOYEES DURING LARGEST SHIFT = 15 EMPLOYEES
- TOTAL NUMBER OF SEATS = 98
 - INDOOR SEATS = 74
 - OUTDOOR SEATS = 24

PARKING DATA:

- NUMBER OF REGULAR PARKING SPACES: 21
- NUMBER OF ADA SPACES: 3
- TOTAL NUMBER OF SPACES PROVIDED: 24
- TOTAL NUMBER OF SPACES REQUIRED: 47
- TYPICAL PARKING WIDTH: 9.0'
- TYPICAL 90° PARKING LENGTH: 19.0'
- MINIMUM ISLE WIDTH: 22.0' (90°)

PARKING FORMULA (RESTAURANTS):

- 1 PARKING SPACE PER EVERY 3 SEATS OF MAX. OCCUPANCY PLUS 1 PARKING SPACE PER 250 SQUARE FEET OF BUILDING AREA PLUS 1 PARKING SPACE PER EACH 8 SEATS IN THE OUTDOOR SEATING AREA.
- (74 INDOOR SEATS/3)+(4,704SF/250)+(24/8 OUTDOOR SEATS) = 47
- TOTAL REQUIRED PARKING = 47 SPACES

HATCH LEGEND

- DENOTES STANDARD PAVEMENT SECTION
DENOTES CONCRETE SECTION
DENOTES PROP. SIDEWALK
DENOTES AREA OF DEPRESSED SIDEWALK
DENOTES AREA OF DEPRESSED CURB AND GUTTER WITH LENGTH NOTED ON PLANS.
DENOTES REVERSE CURB & GUTTER

SIGN LEGEND

- DENOTES "HANDICAPPED PARKING" R7-8, 12" X 18" (TYP.)
DENOTES "\$250 FINE" R7-1101 6" X 12" (TYP.)
DENOTES "DO NOT ENTER" R5-1, 30" X 30" (TYP.)
DENOTES "PEDESTRIAN CROSSWALK" 12" X 18" (TYP.)
DENOTES "RIGHT TURN ONLY" R3-5R, 30" X 36" (TYP.)
DENOTES "TRAFFIC FROM LEFT DOES NOT STOP" W4-4AP, 12" X 18" (TYP.)
DENOTES "ONCOMING TRAFFIC DOES NOT STOP" W4-4BP, 12" X 18" (TYP.)
DENOTES "VAN ACCESSIBLE" D9-6P (BOLLARD MOUNTED WITH 6B)
DENOTES "STOP" R1-1, 30" X 30" (TYP.)

PROJECT NOTES:

- ALL CONSTRUCTION WITHIN PUBLIC R.O.W./ EASEMENTS AND OR CONNECTION TO PUBLIC SEWERS AND STREETS SHALL COMPLY WITH THE CITY OF CREVE COEUR STANDARD CONSTRUCTION SPECIFICATIONS.
- AT LEAST ONE WEEK PRIOR TO ANY CONSTRUCTION WITHIN PUBLIC R.O.W./ EASEMENTS AND/OR ANY CONNECTION TO PUBLIC SEWERS AND STREETS, THE CONTRACTOR SHALL CONTACT THE CITY TO OBTAIN APPLICABLE CITY PERMITS.
- INGRESS/EGRESS WILL BE PROVIDED INTERNAL AND EXTERNAL TO THIS SITE.
- ALL CONCRETE CURB & GUTTER SHALL BE 24" (B6.18) UNLESS OTHERWISE NOTED ON THE PLANS.
- ALL PAVEMENT DIMENSIONS ARE MEASURED TO THE FACE OF CURB UNLESS OTHERWISE NOTED.
- ALL CONSTRUCTION MATERIALS, DUMPSTER, DETACHED TRAILERS OR SIMILAR ITEMS ARE PROHIBITED ON PUBLIC STREETS OR WITHIN THE PUBLIC RIGHT-OF-WAY.



BAR IS ONE INCH ON OFFICIAL DRAWINGS
IF NOT ONE INCH, ADJUST SCALE ACCORDINGLY

PRELIMINARY
NOT FOR CONSTRUCTION



Chick-fil-A

Chick-fil-A
5200 Buffington Road
Atlanta, Georgia
30349-2998

HRGreen.com
HRGreen

CHICK-FIL-A
CREVE COEUR (MO) FSU
12398 OLIVE BOULEVARD
CREVE COEUR, MO 63141

FSR# 05161

REVISION SCHEDULE
NO. DATE DESCRIPTION

PRELIMINARY

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SITE PLAN
SHEET NUMBER
C-200

MEMORANDUM

To: Jason Jaggi, AICP (City of Creve Coeur)
Bethany Moore (City of Creve Coeur)

From: Kyle Evans, PE, PTOE

Date: November 4, 2022

Subject: Chick-fil-A TIS Review
Lochmueller Project #: 522-0072-01T

As requested, Lochmueller staff have completed a review of the traffic impact study report submitted in association with the proposed Chick-fil-A, located in Creve Coeur, Missouri in the southeast quadrant of Olive Boulevard and Tempo Drive. The study was prepared by HR Green, Inc. and submitted in September 2022.

Executive Summary

Below is a summary of comments from the traffic impact study review:

1. No peak hours were specified in the report.
2. Per the provided Synchro reports, the following storage bays were incorrect:
 - a. Olive Boulevard & Cross Creek Drive/Woodcrest Executive Drive:
 - i. Westbound left-turn lane should be 180 feet rather than 225 feet.
 - b. Olive Boulevard & Tempo Drive:
 - i. Eastbound left-turn lane should be 180 feet rather than 200 feet.
 - c. Olive Boulevard & Ross Avenue/ Questover Lane:
 - i. Westbound left-turn lane should be 200 feet rather than 250 feet.
3. The following 95th percentile queues exceed the provided storage bays in the 2022 existing conditions:
 - a. Olive Boulevard and Cross Creek Drive/Woodcrest Executive Drive,
 - i. Westbound left-turn during the weekday AM, midday, and PM peak hours
 - ii. Southbound left-turn during the weekday midday and PM peak hours
 - b. Olive Boulevard and Ross Avenue/Questover Lane,
 - i. Southbound left-turn during all peak hours
 - ii. Eastbound left-turn during the weekday midday peak hour
 - c. Olive Boulevard and Tempo Drive,
 - i. **Northbound left-turn during the weekday midday, PM, and Saturday peak hours**
4. On page 15, the report mentions that after the lane and phasing improvements, the added traffic on Tempo Drive is anticipated to results in delays that are increased by up to 50% for the northbound and southbound left turning movements.” The text does not indicate that the anticipated 95th percentile queue lengths for northbound traffic will exceed the available

- storage distance between Olive Boulevard and the north entrance. This could lead to vehicles backing up within the Chick-Fil-A parking lot or utilizing the south access as a means of egress.
5. The peak hour factor for each approach was not calculated. Rather, a peak hour factor of 0.90 was assumed for each approach at each study intersection. However, we do not feel that the peak hour factors would significantly differ from the assumed values.
 6. The study documented the existing trip generation associated with the average of two similar Chick-fil-A restaurants in the Milwaukee, WI area. It was noted that the trip generation was much higher than what was presented from the ITE forecast. The study stated they would utilize the more conservative numbers provided by the field data. It is our opinion that utilizing the more conservative trip generation is the correct assumption for the study.
 7. A pass-by rate of 40% was used for all time periods. Given that the pass-by percentage applied is conservative, it is our opinion that this approach is a valid method.
 8. The directional distribution shown in **Figure 5** has 20% of traffic originating to/from Tempo Drive. However, the average over all four peak hours is only about 8%. It is our opinion that the 20% along Tempo Drive is too high. Which could lead to a reduction in actual demand along Olive Boulevard which could impact the operations of the westbound left turn lane at Tempo Drive further.
 9. The site generated trips shown in **Figure 6** do not add up correctly based on the site generated trips provided in **Table 3** and the directional distribution shown in **Figure 5**.
 10. The following improvements were suggested for the study area:
 - a. Re-stripe the north and south approaches of Tempo Drive at Olive Boulevard to provide a dedicated left-turn lane and shared through/right-turn lane.
 - b. Provide four section flashing yellow arrow signal heads on exiting traffic signal poles for the northbound and southbound directions of Tempo Drive.
 - c. Revise the traffic signal phasing at the Olive Boulevard at Tempo Drive intersection to provide protected and permitted left turn phasing for Tempo Drive.
 - d. Re-optimize the traffic signal splits for the Olive Boulevard at Tempo Drive intersection, as well as re-optimize the intersection offsets for the same intersection and the neighboring signals on Olive Boulevard.
 11. We agree with the above stated proposed improvements, with the addition that the approaches for Tempo Drive should have additional lane usage signage installed.
 12. No southbound left turn lane was recommended along Tempo Drive at the North Entrance due to the expected minimal queue lengths and delays. However, review of the MoDOT EPG for auxiliary lanes does show that the left turn volumes would warrant an auxiliary left turn lane during several peak hours. It is suggested that the segment of Tempo Drive between Olive Boulevard and the north entrance be restriped as two (2) eleven-foot lanes with a through lane and dedicated southbound left turn lane. In addition to the striping, lane usage signs should be provided.
 13. On page 17, 2026 is stated as the future year, when it should read 2045.
 14. The parking lot capacity analysis was performed using the ITE Parking Generation, 5th Edition. agree with the land uses chosen. Typically, the 85th percentile is used for calculating parking requirements. Rather, it appears that hourly distributions were used to calculate the required parking. It is our opinion that this approach is a valid method.

Below is a summary of recommendations from the traffic impact study review:

15. It is recommended that the study peak hours be included within the body of the report.

16. It is recommended that the storage bay lengths be adjusted to reflect the correct lengths.
17. It is recommended that the site generated trips be revised to reflect 3% of trips originating from the north along Tempo Drive, 5% of trips originating from the south of Tempo Drive, 44% of trips originating from the west of Olive Boulevard, and 48% of trips originating from the east of Olive Boulevard.
18. It is recommended that **Figure 6** be revisited and corrected when applying the new directional distribution.
19. It is recommended that the text on page 17 be revised to read 2045 rather than 2026.
20. It is recommended to add lane usage signage for the northbound and southbound approaches along Tempo Drive to inform drivers of the revised lane assignments
21. It is recommended to re-stripe southbound Tempo Drive between Olive Boulevard and the north entrance as a two-lane segment with a dedicated left turn lane. Lane usage signage and appropriate pavement markings should also be included.

TIS Review Documentation

It is our understanding from the report that the proposed Chick-fil-A will replace the TGI Friday's currently occupying the site. Access to the site will be provided via the existing access drives. The primary access is located at the North Entrance on Tempo Drive and the secondary access is located at the South Entrance on Tempo Drive as well as a right-in, right-out access drive on Olive Boulevard. The proposed site area and site plan are shown in **Figure 1** and **Figure 4** of the report.

The project involves the redevelopment of a 1.02-acre lot, which is currently occupied by a TGI Friday's. The proposed Chick-fil-A will have an expected building footprint of 5,000 square-feet. Two drive-thru lanes are provided. There is one by-pass lane provided, however this lane terminates prematurely.

The project is proposed to be completed in a single phase, with analysis completed for the 2022 Base Condition (2019 and 2022 Count Data), 2022 Build Conditions (2022 Base Volumes plus Additional Site-Generated Trips), 2045 No-Build (2019 and 2022 Count Data plus an annual Background Growth Rate of 0.5% along the through movements of Olive Boulevard), and 2045 Build (2045 Base Volumes plus Additional Site-Generated Trips).

Given that traffic counts at some of the study intersections were counted in 2019 as opposed to 2022, the 2019 counts were grown by 0.5% annually to 2022. It should be noted that the peak hours were never stated in the report. It is our opinion that growing the 2019 counts by an annual growth rate of 0.5% to 2022 is a valid approach.

Per the provided Synchro reports, the following storage bays were incorrect:

- Olive Boulevard & Cross Creek Drive/Woodcrest Executive Drive:
 - Westbound left-turn lane should be 180 feet rather than 225 feet.
- Olive Boulevard & Tempo Drive:
 - Eastbound left-turn lane should be 180 feet rather than 200 feet.
- Olive Boulevard & Ross Avenue/ Questover Lane:
 - Westbound left-turn lane should be 200 feet rather than 250 feet.

At the intersection of Olive Boulevard and Cross Creek Drive/Woodcrest Executive Drive, the westbound left-turn 95th percentile queue length exceeds the storage bay during the weekday AM, midday, and PM

peak hours in the 2022 existing conditions. In addition, the southbound left-turn lane 95th percentile queue length exceeds the storage bay during the weekday midday and PM peak hours in the 2022 existing conditions. At the intersection of Olive Boulevard and Ross Avenue/Questover Lane, the southbound left-turn 95th percentile queue length exceeds the storage bay during all peak hours in the 2022 existing conditions. In addition, the eastbound left-turn 95th percentile queue length exceeds the storage bay during the weekday midday peak hour in the 2022 existing conditions.

The peak hour factor for each approach was not calculated, rather a peak hour factor of 0.90 was assumed for each approach at each study intersection. However, we do not feel that the peak hour factors would significantly differ from the assumed values.

As part of this study, HR Green utilized trip generation estimates based upon data provided from an average of two existing Chick-fil-A stores in Milwaukee from similar suburban land density and store characteristics to the proposed Chick-fil-A in Creve Coeur. These rates were compared to the Institute of Transportation Engineer's (ITE) Trip Generation Manual, Eleventh Edition for Land Use 934: Fast-Food Restaurant with Drive-Through Window. A comparison of the rates between ITE's manual and the average counts from the two other Chick-fil-A stores showed that the counts provided showed a significant increase in the number of trips that were site generated. They decided to remain conservative for the purposes of the traffic impact evaluation and utilized the higher rates from the field data. Additionally, it should be noted that data from the other two stores was only provided for the PM and Saturday peak hours. The AM and weekday midday site generated trips were estimated using ITE's time of day distribution values. It is our opinion that this approach is a valid method.

A pass-by rate of 40% was used for all time periods. Per the ITE Pass-By Rate Table provided in the TGM Appendices, an average pass-by rate of 50% is recommended for Land Use Code 934 during the AM peak hour and 55% is recommended during the PM peak hour. In addition, a 10% common trip reduction was applied to the site generated trips as it was assumed that some drivers would have more than one destination within the strip mall. Given that the pass-by percentage applied is conservative, it is our opinion that this approach is a valid method.

The traffic impact study stated the site-generated traffic was assigned to the adjoining roadway network based on existing traffic patterns within the study area. The traffic impact study assumed that 10% of the trips would originate from Tempo Drive to the north and 10% of trips would originate from Tempo Drive to the south. However, the average over all four peak hours is only about 8%. Therefore, it is our opinion that a total of 20% of site generated trips along Tempo Drive is too high and understates the traffic along Olive Boulevard. It is recommended that the site generated trips be revised to reflect 3% of trips originating from the north along Tempo Drive, 5% of trips originating from the south of Tempo Drive, 44% of trips originating from the west of Olive Boulevard, and 48% of trips originating from the east of Olive Boulevard.

The site generated trips are shown in **Figure 6** of the report. The site generated trips do not add up in **Figure 6**. For example, at the intersection of Olive Boulevard and Tempo Drive there are 22 vehicles making an eastbound right-turn, 30 vehicles making a westbound left-turn, and 7 vehicles making a southbound through. This should equal 59 vehicles heading southbound at Tempo Drive and the North Entrance; however, 66 vehicles are shown in **Figure 6**. It is recommended that this figure be revisited when applying the new directional distribution.

The 2022 Base and Build conditions Synchro input files and output information were reviewed to determine the impact of the development on the existing roadway network. Based on the increase in trips and associated delays at the study intersections, the following improvements were suggested for the study area:

- Re-stripe the north and south approaches of Tempo Drive at Olive Boulevard to provide a dedicated left-turn lane and shared through/right-turn lane.
- Provide four section flashing yellow arrow signal heads on exiting traffic signal poles for the northbound and southbound directions of Tempo Drive.
- Revise the traffic signal phasing at the Olive Boulevard at Tempo Drive intersection to provide protected and permitted left turn phasing for Tempo Drive.
- Re-optimize the traffic signal splits for the Olive Boulevard at Tempo Drive intersection, as well as re-optimize the intersection offsets for the same intersection and the neighboring signals on Olive Boulevard.

In addition to the above statements, we recommend that the approaches for Tempo Drive should have additional lane usage signage installed to inform drivers of the revised lane assignments.

No southbound left turn lane was recommended along Tempo Drive at the North Entrance due to the expected minimal queue lengths and delays. 1. However, review of the MoDOT EPG for auxiliary lanes does show that the left turn volumes would warrant an auxiliary left turn lane during several peak hours. It is suggested that the segment of Tempo Drive between Olive Boulevard and the north entrance be restriped as two (2) eleven-foot lanes with a through lane and dedicated southbound left turn lane. In addition to the striping, lane usage signage should be provided.

On page 17, 2026 is stated as the future year, when it should read 2045. It is recommended that the text be revised to read 2045 rather than 2026.

The parking lot capacity analysis was performed using the ITE Parking Generation, 5th Edition. Land Use Code 934: Fast-Food Restaurant with Drive-Through Window was used for the analysis. The nearby shopping center was included as Land Use Code 820: Shopping center. We agree with the land uses chosen. Typically, the 85th percentile is used for calculating parking requirements. Rather, it appears that hourly distributions were used to calculate the required parking. It is our opinion that this approach is a valid method.

Summary of TIS Review

As requested, Lochmueller staff have completed a review of the traffic impact study report submitted in association with the proposed Chick-fil-A, located in Creve Coeur, Missouri in the southeast quadrant of Olive Boulevard and Tempo Drive.

Below is a summary of comments from the traffic impact study review:

1. No peak hours were specified in the report.
2. Per the provided Synchro reports, the following storage bays were incorrect:
 - a. Olive Boulevard & Cross Creek Drive/Woodcrest Executive Drive:
 - i. Westbound left-turn lane should be 180 feet rather than 225 feet.

- b. Olive Boulevard & Tempo Drive:
 - i. Eastbound left-turn lane should be 180 feet rather than 200 feet.
 - c. Olive Boulevard & Ross Avenue/ Questover Lane:
 - i. Westbound left-turn lane should be 200 feet rather than 250 feet.
3. The following 95th percentile queues exceed the provided storage bays in the 2022 existing conditions:
 - a. Olive Boulevard and Cross Creek Drive/Woodcrest Executive Drive,
 - i. Westbound left-turn during the weekday AM, midday, and PM peak hours
 - ii. Southbound left-turn during the weekday midday and PM peak hours
 - b. Olive Boulevard and Ross Avenue/Questover Lane,
 - i. Southbound left-turn during all peak hours
 - ii. Eastbound left-turn during the weekday midday peak hour
4. On page 15, the report mentions that after the lane and phasing improvements, the added traffic on Tempo Drive is anticipated to result in delays that are increased by up to 50% for the northbound and southbound left turning movements.” The text does not indicate that the anticipated 95th percentile queue lengths for northbound traffic will exceed the available storage distance between Olive Boulevard and the north entrance. This could lead to vehicles backing up within the Chick-Fil-A parking lot or utilizing the south access as a means of egress.
5. The peak hour factor for each approach was not calculated. Rather, a peak hour factor of 0.90 was assumed for each approach at each study intersection. However, we do not feel that the peak hour factors would significantly differ from the assumed values.
6. The study documented the existing trip generation associated with the average of two similar Chick-fil-A restaurants. It was noted that the trip generation was much higher than what was presented from the ITE forecast. The study stated they would utilize the more conservative numbers provided by the field data. It is our opinion that utilizing the more conservative trip generation is the correct assumption for the study.
7. A pass-by rate of 40% was used for all time periods. Given that the pass-by percentage applied is conservative, it is our opinion that this approach is a valid method.
8. The directional distribution shown in **Figure 5** has 20% of traffic originating to/from Tempo Drive. However, the average over all four peak hours is only about 8%. It is our opinion that the 20% along Tempo Drive is too high.
9. The site generated trips shown in **Figure 6** do not add up correctly based on the site generated trips provided in **Table 3** and the directional distribution shown in **Figure 5**.
10. The following improvements were suggested for the study area:
 - a. Re-stripe the north and south approaches of Tempo Drive at Olive Boulevard to provide a dedicated left-turn lane and shared through/right-turn lane.
 - b. Provide four section flashing yellow arrow signal heads on exiting traffic signal poles for the northbound and southbound directions of Tempo Drive.
 - c. Revise the traffic signal phasing at the Olive Boulevard at Tempo Drive intersection to provide protected and permitted left turn phasing for Tempo Drive.
 - d. Re-optimize the traffic signal splits for the Olive Boulevard at Tempo Drive intersection, as well as re-optimize the intersection offsets for the same intersection and the neighboring signals on Olive Boulevard.
11. We agree with the above stated proposed improvements with the addition that the approaches for Tempo Drive should have additional lane usage signage installed.
12. No southbound left turn lane was recommended along Tempo Drive at the North Entrance due to the expected minimal queue lengths and delays. However, review of the MoDOT EPG for

auxiliary lanes does show that the left turn volumes would warrant an auxiliary left turn lane during several peak hours. It is suggested that the segment of Tempo Drive between Olive Boulevard and the north entrance be restriped as two (2) eleven-foot lanes with a through lane and dedicated southbound left turn lane. In addition to the striping, lane usage signs should be provided.

13. On page 17, 2026 is stated as the future year, when it should read 2045.
14. The parking lot capacity analysis was performed using the ITE Parking Generation, 5th Edition. agree with the land uses chosen. Typically, the 85th percentile is used for calculating parking requirements. Rather, it appears that hourly distributions were used to calculate the required parking. It is our opinion that this approach is a valid method.

Below is a summary of recommendations from the traffic impact study review:

15. It is recommended that the study peak hours be included within the body of the report.
16. It is recommended that the storage bay lengths be adjusted to reflect the correct lengths.
17. It is recommended that the site generated trips be revised to reflect 3% of trips originating from the north along Tempo Drive, 5% of trips originating from the south of Tempo Drive, 44% of trips originating from the west of Olive Boulevard, and 48% of trips originating from the east of Olive Boulevard.
18. It is recommended that **Figure 6** be revisited and corrected when applying the new directional distribution.
19. It is recommended that the text on page 17 be revised to read 2045 rather than 2026.
20. It is recommended to add lane usage signage for the northbound and southbound approaches along Tempo Drive to inform drivers of the revised lane assignments
21. It is recommended to re-stripe southbound Tempo Drive between Olive Boulevard and the north entrance as a two-lane segment with a dedicated left turn lane. Lane usage signage and appropriate pavement markings should also be included.

cc: file

November 7, 2022

Mr. Dan Shane, P.E., PTOE
Senior Project Manager – Transportation
HR Green
16020 Swingley Ridge Road
Suite 205
Chesterfield, MO 63017
<<Transmitted via e-mail>>

Dear Mr. Shane:

MoDOT Traffic has reviewed HR Green's traffic impact study for the redevelopment proposal for a Chick-fil-A restaurant near the intersection of MO-340 & Tempo Drive in Creve Coeur, Missouri and offers the following comments.

- MoDOT does not support the installation of flashing yellow arrows on the northbound and southbound approaches at MO-340 & Tempo due to sight distance concerns. MoDOT is going to implement split phasing with J6S3255, which is currently in the construction phase. Please update the TIS accordingly.
- MoDOT does not believe a common trip reduction is appropriate since most other services within the strip mall are restaurants as well. If a common trip reduction is to be used, NCHRP 684 must be consulted as per MoDOT EPG 905.3.4.8
- MoDOT concurs that traffic signal timing will have to be updated.

Thank you for the opportunity to review the traffic impact study. If you have any questions regarding our comments, please contact me at joseph.mulnik@modot.mo.gov or by phone at 314-343-8475.

Sincerely,



Joe Mulnik
Senior Traffic Studies Specialist

CC: Mr. Ryan Pearcy – AE SL
Mr. Rob Meyer – TR SL
Mr. Jay-Jay Braden – TR SL



Our mission is to provide a world-class transportation system that is safe, innovative, reliable and dedicated to a prosperous Missouri.

www.modot.org

November 7, 2022

Mr. Dan Shane, P.E., PTOE
Senior Project Manager – Transportation
HR Green
16020 Swingley Ridge Road
Suite 205
Chesterfield, MO 63017
<<Transmitted via e-mail>>

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- MoDOT does not support the installation of flashing yellow arrows on the northbound and southbound approaches at MO-340 & Tempo due to sight distance concerns. MoDOT is going to implement split phasing with J6S3255, which is currently in the construction phase. Please update the TIS accordingly.
- MoDOT does not believe a common trip reduction is appropriate since most other services within the strip mall are restaurants as well. If a common trip reduction is to be used, NCHRP 684 must be consulted as per MoDOT EPG 905.3.4.8
- MoDOT concurs that traffic signal timing will have to be updated.

Thank you for the opportunity to review the traffic impact study. If you have any questions regarding our comments, please contact me at joseph.mulnik@modot.mo.gov or by phone at 314-343-8475.

Sincerely,



Joe Mulnik
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▶ **HRGREEN.COM**

November 14, 2022

City of Creve Coeur
Bethany L. Moore, City Planner
300 North New Ballas Road
Creve Coeur, MO 63141

RE: Chick-fil-A – 12398 Olive Blvd.
Response to TIS Review Comments – Application #22031 Conditional Use Permit
HR Green Project No.: 211634

Dear Ms. Moore:

Please see below our responses to the recommendations provided in the letter dated November 4, 2022. Responses to each comment are shown in **bold** following the comment.

TIS Review:

1. It is recommended that the study peak hours be included within the body of the report.
RESPONSE: Observed peak hour time periods have been added to the Existing Traffic Volumes section of the report.
2. It is recommended that the storage bay lengths be adjusted to reflect the correct lengths.
RESPONSE: The Synchro file was provided by MoDOT, and existing signal timing and geometric data was not adjusted within the file. However, the storage lengths are now noted in the existing traffic operations section of the report, where analyzed queues exceeded the storage lengths outlined in the comment letter.
3. It is recommended that the site generated trips be revised to reflect 3% of trips originating from the north along Tempo Drive, 5% of trips originating from the south of Tempo Drive, 44% of trips originating from the west of Olive Boulevard, and 48% of trips originating from the east of Olive Boulevard.
RESPONSE: Site-generated trips have been revised using this provided directional distribution. Note that there is still significant residential population north and south of Olive Boulevard that may drive more traffic than recommended. This distribution will result in a more conservative analysis.
4. It is recommended that **Figure 6** be revisited and corrected when applying the new directional distribution.
RESPONSE: Figure 6 has been updated.
5. It is recommended that the text on page 17 be revised to read 2045 rather than 2026.
RESPONSE: Text has been revised.
6. It is recommended to add lane usage signage for the northbound and southbound approaches along Tempo Drive to inform drivers of the revised lane assignments
RESPONSE: Recommendation for intersection lane use signage has been added to the text of the report and the conclusion.



7. It is recommended to re-stripe southbound Tempo Drive between Olive Boulevard and the north entrance as a two-lane segment with a dedicated left turn lane. Lane usage signage and appropriate pavement markings should also be included.

RESPONSE: Recommendation for re-striping to include a dedicated southbound left turn lane at North Entrance has been added to the text of the report and the conclusion.

Additionally, MoDOT provided comments on the TIS in a letter dated November 7, 2022. Responses to each comment are shown in **bold** following the comment.

1. MoDOT does not support the installation of flashing yellow arrows on the northbound and southbound approaches at MO-340 & Tempo due to sight distance concerns. MoDOT is going to implement split phasing with J6S3255, which is currently in the construction phase. Please update the TIS accordingly.
RESPONSE: Revised split phasing plan has been incorporated into the TIS, and is being used for all analysis scenarios. Recommendation to use protected/permitted phasing with flashing yellow arrows on Tempo Drive has been removed.
2. MoDOT does not believe a common trip reduction is appropriate since most other services within the strip mall are restaurants as well. If a common trip reduction is to be used, NCHRP 684 must be consulted as per MoDOT EPG 905.3.4.8
RESPONSE: Common trip reduction has been eliminated from the trip generation estimates to provide a more conservative analysis. There is still potential for some common trips, given that the current shopping center has several medical offices, retail stores, and service businesses. However, eliminating all potential common trips provides the most conservative analysis.
3. MoDOT concurs that traffic signal timing will have to be updated.
RESPONSE: Noted. Signal timing re-optimization was again included for the build analyses

If you have any questions, please contact us.

Sincerely,

HR GREEN, INC.

A handwritten signature in black ink, appearing to read 'Ted Yelton'.

Ted Yelton, PE, PTOE
Project Engineer

MEMORANDUM

To: Jason Jaggi, AICP (City of Creve Coeur)
Bethany Moore (City of Creve Coeur)

From: Kyle Evans, PE, PTOE

Date: November 16, 2022

Subject: Chick-fil-A TIS Review
Lochmueller Project #: 522-0072-01T

As requested, Lochmueller staff have completed a review of the revised traffic impact study report submitted in association with the proposed Chick-fil-A, located in Creve Coeur, Missouri in the southeast quadrant of Olive Boulevard and Tempo Drive. The study was prepared by HR Green, Inc. and submitted in November 2022.

Executive Summary

Below is a summary of the original comments from the traffic impact study review and a follow-up with regards to the revised documentation:

1. No peak hours were specified in the original report. **The revised documentation does document the specific peak hours for each of the scenarios that were analyzed.**
2. Per the originally provided Synchro reports, the following storage bays were incorrect. **The revised documentation and Synchro analysis print outs show that these items have been addressed:**
 - a. Olive Boulevard & Cross Creek Drive/Woodcrest Executive Drive:
 - i. Westbound left-turn lane should be 180 feet rather than 225 feet.
 - b. Olive Boulevard & Tempo Drive:
 - i. Eastbound left-turn lane should be 180 feet rather than 200 feet.
 - c. Olive Boulevard & Ross Avenue/ Questover Lane:
 - i. Westbound left-turn lane should be 200 feet rather than 250 feet.
3. **Per the revisions made as part of the comments from the City of Creve Coeur and the Missouri Department of Transportation the results show that these conditions still existing in the revised analysis. In many instances, the queue lengths became greater as part of the revisions.** The following 95th percentile queues exceed the provided storage bays in the 2022 existing conditions:
 - a. Olive Boulevard and Cross Creek Drive/Woodcrest Executive Drive,
 - i. Westbound left-turn during the weekday AM, midday, and PM peak hours
 - ii. Southbound left-turn during the weekday midday and PM peak hours
 - b. Olive Boulevard and Ross Avenue/Questover Lane,
 - i. Southbound left-turn during all peak hours
 - ii. Eastbound left-turn during the weekday midday peak hour
 - c. Olive Boulevard and Tempo Drive,

i. Northbound left-turn during the weekday midday, PM, and Saturday peak hours

4. In the original submittal, it stated on page 15, that after the lane and phasing improvements, the added traffic on Tempo Drive is anticipated to result in delays that are increased by up to 50% for the northbound and southbound left turning movements.” The text does not indicate that the anticipated 95th percentile queue lengths for northbound traffic will exceed the available storage distance between Olive Boulevard and the north entrance. This could lead to vehicles backing up within the Chick-Fil-A parking lot or utilizing the south access as a means of egress. The revised documentation states that delays are only increased between 6-27%. This change is based on the fact that MoDOT is implementing split phase operations as part of an upcoming project and required that the split phasing for north/south operations remain in place. These changes led to increased delays for the existing baseline conditions. The revisions that were requested based on trip distribution have increased queue lengths. During the Baseline Conditions 2022 (Build), the queue lengths for westbound left turning vehicles along Olive Boulevard are 407’ and 445’ respectively during the weekday mid-day and weekday PM peak scenarios. These queue lengths will extend beyond the existing median opening allowing eastbound left turns into the existing commercial development on the north side of Olive Boulevard.



With respect to the anticipated queues related to the northbound traffic along Tempo Drive. The conditions reported for the Baseline Conditions 2022 (No Build) show queue lengths during the mid-day and PM peak hours that have 95th – percentile queue lengths of 183’, which just extend to the north access. For the Baseline Conditions 2022 (Build) scenario, these queue lengths increase to 348’ during the mid-day peak, 278’ during the PM peak and 291’ during the Saturday mid-day peak. Additionally, during the weekday mid-day peak, the 50th – percentile queue length is 182’. Which suggests that during the mid-day peak, the back of the queue will consistently be right at the north access to the study location. The 95th percentile queue lengths will extend past the north entrance, and if drivers do not choose to leave an opening at the north access, southbound left turning drivers will not have the ability to turn into the property.

5. The peak hour factor for each approach was not calculated. Rather, a peak hour factor of 0.90 was assumed for each approach at each study intersection. However, we do not feel that the peak hour factors would significantly differ from the assumed values. For the revised documentation, this factor was not revised.

6. The study documented the existing trip generation associated with the average of two similar Chick-fil-A restaurants in the Milwaukee, WI area. It was noted that the trip generation was much higher than what was presented from the ITE forecast. The study stated they would utilize the more conservative numbers provided by the field data. It is our opinion that utilizing the more conservative trip generation is the correct assumption for the study. **This item remains the same for the revised documentation.**
7. A pass-by rate of 40% was used for all time periods. Given that the pass-by percentage applied is conservative, it is our opinion that this approach is a valid method. **This item remains the same for the revised documentation.**
8. The directional distribution shown in **Figure 5** has 20% of traffic originating to/from Tempo Drive. However, the average over all four peak hours is only about 8%. It is our opinion that the 20% along Tempo Drive is too high. Which could lead to a reduction in actual demand along Olive Boulevard which could impact the operations of the westbound left turn lane at Tempo Drive further. **The analysis was revised based on this suggestion and the Synchro analysis re-done based on the new trip assignment and distribution.**
9. The site generated trips shown in **Figure 6** do not add up correctly based on the site generated trips provided in **Table 3** and the directional distribution shown in **Figure 5**. **This item has been corrected in the revised documentation.**
10. The following improvements were suggested for the study area:
 - a. Re-stripe the north and south approaches of Tempo Drive at Olive Boulevard to provide a dedicated left-turn lane and shared through/right-turn lane.
 - b. Provide four section flashing yellow arrow signal heads on exiting traffic signal poles for the northbound and southbound directions of Tempo Drive. **This item was removed per MoDOT response.**
 - c. Revise the traffic signal phasing at the Olive Boulevard at Tempo Drive intersection to provide protected and permitted left turn phasing for Tempo Drive. **This item was removed per MoDOT response.**
 - d. Re-optimize the traffic signal splits for the Olive Boulevard at Tempo Drive intersection, as well as re-optimize the intersection offsets for the same intersection and the neighboring signals on Olive Boulevard.
11. We agree with the above stated proposed improvements, with the addition that the approaches for Tempo Drive should have additional lane usage signage installed. **The item related to additional signage was documented in the revised document.**
12. No southbound left turn lane was recommended along Tempo Drive at the North Entrance due to the expected minimal queue lengths and delays. However, review of the MoDOT EPG for auxiliary lanes does show that the left turn volumes would warrant an auxiliary left turn lane during several peak hours. It is suggested that the segment of Tempo Drive between Olive Boulevard and the north entrance be restriped as two (2) eleven-foot lanes with a through lane and dedicated southbound left turn lane. In addition to the striping, lane usage signs should be provided. **This item has been added to the proposed improvements in the revised documentation.**
13. On page 17, 2026 is stated as the future year, when it should read 2045. **Item has been revised.**
14. The parking lot capacity analysis was performed using the ITE Parking Generation, 5th Edition. agree with the land uses chosen. Typically, the 85th percentile is used for calculating parking requirements. Rather, it appears that hourly distributions were used to calculate the required parking. It is our opinion that this approach is a valid method. **This item remains the same for the revised documentation.**

Below is a summary of recommendations from the traffic impact study review:

15. It is recommended that the study peak hours be included within the body of the report.
Completed
16. It is recommended that the storage bay lengths be adjusted to reflect the correct lengths.
Corrected
17. It is recommended that the site generated trips be revised to reflect 3% of trips originating from the north along Tempo Drive, 5% of trips originating from the south of Tempo Drive, 44% of trips originating from the west of Olive Boulevard, and 48% of trips originating from the east of Olive Boulevard.
Revisions made as requested
18. It is recommended that **Figure 6** be revisited and corrected when applying the new directional distribution.
Figure 6 has been revised accordingly.
19. It is recommended that the text on page 17 be revised to read 2045 rather than 2026.
Revised
20. It is recommended to add lane usage signage for the northbound and southbound approaches along Tempo Drive to inform drivers of the revised lane assignments.
This recommendation has been addressed
21. It is recommended to re-stripe southbound Tempo Drive between Olive Boulevard and the north entrance as a two-lane segment with a dedicated left turn lane. Lane usage signage and appropriate pavement markings should also be included.
This recommendation has been addressed
22. Additional review of the proposed Future conditions show additional queuing issues related to the westbound and northbound left movements at the intersection of Olive Boulevard and Tempo Drive. During the mid-day, PM peak and Saturday mid-day peak the westbound left experiences queue lengths greater than 300' which extend beyond the available storage and back into the through lane. In the No-Build scenario, that occurs during the PM peak hour only. In the mid-day and PM peaks, the anticipated maximum queue lengths are 442' and 447' respectively and will block off the existing eastbound left turn access. For the northbound left turns, the anticipated queue lengths are 372', 290', and 305' during the mid-day, PM peak and Saturday mid-day peak. During all three of these analysis periods this queue length will block entrance into the property unless drivers stop prior to the entrance and allow southbound left vehicles to enter. The corresponding existing queue lengths during those time periods are 194', 192' and 151' respectively.

TIS Review Documentation

It is our understanding from the report that the proposed Chick-fil-A will replace the TGI Friday's currently occupying the site. Access to the site will be provided via the existing access drives. The primary access is located at the North Entrance on Tempo Drive and the secondary access is located at the South Entrance on Tempo Drive as well as a right-in, right-out access drive on Olive Boulevard. The proposed site area and site plan are shown in **Figure 1**, **Figure 2** and **Figure 4** of the report.

The project involves the redevelopment of a 1.02-acre lot, which is currently occupied by a TGI Friday's. The proposed Chick-fil-A will have an expected building footprint of 5,000 square-feet. Two drive-thru lanes are provided. There is one by-pass lane provided, however this lane terminates prematurely.

The project is proposed to be completed in a single phase, with analysis completed for the 2022 Base Condition (2019 and 2022 Count Data), 2022 Build Conditions (2022 Base Volumes plus Additional Site-Generated Trips), 2045 No-Build (2019 and 2022 Count Data plus an annual Background Growth Rate of 0.5% along the through movements of Olive Boulevard), and 2045 Build (2045 Base Volumes plus Additional Site-Generated Trips).

Given that traffic counts at some of the study intersections were counted in 2019 as opposed to 2022, the 2019 counts were grown by 0.5% annually to 2022. The documented peak hours, as per the report, are 6:45-7:45 am, 11:15 am - 12:15 pm, and 3:45 – 4:45 pm on a weekday, and from 12:00 – 1:00 pm on Saturday. It is our opinion that growing the 2019 counts by an annual growth rate of 0.5% to 2022 is a valid approach.

At the intersection of Olive Boulevard and Cross Creek Drive/Woodcrest Executive Drive, the westbound left-turn 95th percentile queue length exceeds the storage bay during the weekday AM, midday, and PM peak hours in the 2022 existing conditions. In addition, the southbound left-turn lane 95th percentile queue length exceeds the storage bay during the weekday midday and PM peak hours in the 2022 existing conditions. At the intersection of Olive Boulevard and Ross Avenue/Questover Lane, the southbound left-turn 95th percentile queue length exceeds the storage bay during all peak hours in the 2022 existing conditions. In addition, the eastbound left-turn 95th percentile queue length exceeds the storage bay during the weekday midday peak hour in the 2022 existing conditions.

The peak hour factor for each approach was not calculated, rather a peak hour factor of 0.90 was assumed for each approach at each study intersection. However, we do not feel that the peak hour factors would significantly differ from the assumed values.

As part of this study, HR Green utilized trip generation estimates based upon data provided from an average of two existing Chick-fil-A stores in Milwaukee from similar suburban land density and store characteristics to the proposed Chick-fil-A in Creve Coeur. These rates were compared to the Institute of Transportation Engineer's (ITE) Trip Generation Manual, Eleventh Edition for Land Use 934: Fast-Food Restaurant with Drive-Through Window. A comparison of the rates between ITE's manual and the average counts from the two other Chick-fil-A stores showed that the counts provided showed a significant increase in the number of trips that were site generated. They decided to remain conservative for the purposes of the traffic impact evaluation and utilized the higher rates from the field data. Additionally, it should be noted that data from the other two stores was only provided for the PM and Saturday peak hours. The AM and weekday midday site generated trips were estimated using ITE's time of day distribution values. It is our opinion that this approach is a valid method.

A pass-by rate of 40% was used for all time periods. Per the ITE Pass-By Rate Table provided in the TGM Appendices, an average pass-by rate of 50% is recommended for Land Use Code 934 during the AM peak hour and 55% is recommended during the PM peak hour. Given that the pass-by percentage applied is conservative, it is our opinion that this approach is a valid method.

The traffic impact study stated the site-generated traffic was assigned to the adjoining roadway network based on existing traffic patterns within the study area. The traffic impact study assumed that 3% of the trips would originate from Tempo Drive to the north and 5% of trips would originate from Tempo Drive to the south. The directional distribution also applies 44% of trips originating from the west of Olive Boulevard, and 48% of trips originating from the east of Olive Boulevard. This distribution matches the calculated averages as per the background data collected for the study.

The site generated trips are shown in **Figure 6** of the report along with the 2022 Build Traffic Volumes in **Figure 7**.

The 2022 Base and Build conditions Synchro input files and output information were reviewed to determine the impact of the development on the existing roadway network. Based on the increase in trips and associated delays at the study intersections, the following improvements were suggested for the study area:

- Re-stripe the north and south approaches of Tempo Drive at Olive Boulevard to provide a dedicated left-turn lane and shared through/right-turn lane.
- Advanced lane usage signing should be provided on both approaches of Tempo Drive to inform drivers of the new lane configuration.
- Re-optimize the traffic signal splits for the Olive Boulevard at Tempo Drive intersection, as well as re-optimize the intersection offsets for the same intersection and the neighboring signals on Olive Boulevard.
- Re-stripe the section of Tempo Drive south of Olive Boulevard between Olive and the North site entrance to provide a through lane and a dedicated southbound left turn lane.

The parking lot capacity analysis was performed using the ITE Parking Generation, 5th Edition. Land Use Code 934: Fast-Food Restaurant with Drive-Through Window was used for the analysis. The nearby shopping center was included as Land Use Code 820: Shopping center. We agree with the land uses chosen. Typically, the 85th percentile is used for calculating parking requirements. Rather, it appears that hourly distributions were used to calculate the required parking. It is our opinion that this approach is a valid method.

Summary of TIS Review

As requested, Lochmueller staff have completed a review of the traffic impact study report submitted in association with the proposed Chick-fil-A, located in Creve Coeur, Missouri in the southeast quadrant of Olive Boulevard and Tempo Drive.

Below is a summary of comments from the traffic impact study review:

1. No peak hours were specified in the original report. **The revised documentation does document the specific peak hours for each of the scenarios that were analyzed.**
2. Per the originally provided Synchro reports, the following storage bays were incorrect. **The revised documentation and Synchro analysis print outs show that these items have been addressed:**
 - a. Olive Boulevard & Cross Creek Drive/Woodcrest Executive Drive:
 - i. Westbound left-turn lane should be 180 feet rather than 225 feet.

- b. Olive Boulevard & Tempo Drive:
 - i. Eastbound left-turn lane should be 180 feet rather than 200 feet.
 - c. Olive Boulevard & Ross Avenue/ Questover Lane:
 - i. Westbound left-turn lane should be 200 feet rather than 250 feet.
3. **Per the revisions made as part of the comments from the City of Creve Coeur and the Missouri Department of Transportation the results show that these conditions still existing in the revised analysis. In many instances, the queue lengths became greater as part of the revisions.** The following 95th percentile queues exceed the provided storage bays in the 2022 existing conditions:
- d. Olive Boulevard and Cross Creek Drive/Woodcrest Executive Drive,
 - i. Westbound left-turn during the weekday AM, midday, and PM peak hours
 - ii. Southbound left-turn during the weekday midday and PM peak hours
 - e. Olive Boulevard and Ross Avenue/Questover Lane,
 - i. Southbound left-turn during all peak hours
 - ii. Eastbound left-turn during the weekday midday peak hour
 - f. Olive Boulevard and Tempo Drive,
 - i. **Northbound left-turn during the weekday midday, PM, and Saturday peak hours**
4. In the original submittal, it stated on page 15, that after the lane and phasing improvements, the added traffic on Tempo Drive is anticipated to results in delays that are increased by up to 50% for the northbound and southbound left turning movements.” The text does not indicate that the anticipated 95th percentile queue lengths for northbound traffic will exceed the available storage distance between Olive Boulevard and the north entrance. This could lead to vehicles backing up within the Chick-Fil-A parking lot or utilizing the south access as a means of egress. **The revised documentation states that delays are only increased between 6-27%. This change is based on the fact that MoDOT is implementing split phase operations as part of an upcoming project and required that the split phasing for north/south operations remain in place. These changes led to increased delays for the existing baseline conditions. The revisions that were requested based on trip distribution have increased queue lengths. During the Baseline Conditions 2022 (Build), the queue lengths for westbound left turning vehicles along Olive Boulevard are 407’ and 445’ respectively during the weekday mid-day and weekday PM peak scenarios. These queue lengths will extend beyond the existing median opening allowing eastbound left turns into the existing commercial development on the north side of Olive Boulevard.**



With respect to the anticipated queues related to the northbound traffic along Tempo Drive. The conditions reported for the Baseline Conditions 2022 (No Build) show queue lengths during the mid-day and PM peak hours that have 95th – percentile queue lengths of 183', which just extend to the north access. For the Baseline Conditions 2022 (Build) scenario, these queue lengths increase to 348' during the mid-day peak, 278' during the PM peak and 291' during the Saturday mid-day peak. Additionally, during the weekday mid-day peak, the 50th – percentile queue length is 182'. Which suggests that during the mid-day peak, the back of the queue will consistently be right at the north access to the study location. The 95th percentile queue lengths will extend past the north entrance, and if drivers do not choose to leave an opening at the north access, southbound left turning drivers will not have the ability to turn into the property.

5. The peak hour factor for each approach was not calculated. Rather, a peak hour factor of 0.90 was assumed for each approach at each study intersection. However, we do not feel that the peak hour factors would significantly differ from the assumed values. **For the revised documentation, this factor was not revised.**
6. The study documented the existing trip generation associated with the average of two similar Chick-fil-A restaurants in the Milwaukee, WI area. It was noted that the trip generation was much higher than what was presented from the ITE forecast. The study stated they would utilize the more conservative numbers provided by the field data. It is our opinion that utilizing the more conservative trip generation is the correct assumption for the study. **This item remains the same for the revised documentation.**
7. A pass-by rate of 40% was used for all time periods. Given that the pass-by percentage applied is conservative, it is our opinion that this approach is a valid method. **This item remains the same for the revised documentation.**
8. The directional distribution shown in **Figure 5** has 20% of traffic originating to/from Tempo Drive. However, the average over all four peak hours is only about 8%. It is our opinion that the 20% along Tempo Drive is too high. Which could lead to a reduction in actual demand along Olive Boulevard which could impact the operations of the westbound left turn lane at Tempo Drive further. **The analysis was revised based on this suggestion and the Synchro analysis re-done based on the new trip assignment and distribution.**
9. The site generated trips shown in **Figure 6** do not add up correctly based on the site generated trips provided in **Table 3** and the directional distribution shown in **Figure 5**. **This item has been corrected in the revised documentation.**
10. The following improvements were suggested for the study area:
 - g. Re-stripe the north and south approaches of Tempo Drive at Olive Boulevard to provide a dedicated left-turn lane and shared through/right-turn lane.
 - h. Provide four section flashing yellow arrow signal heads on exiting traffic signal poles for the northbound and southbound directions of Tempo Drive. **This item was removed per MoDOT response.**
 - i. Revise the traffic signal phasing at the Olive Boulevard at Tempo Drive intersection to provide protected and permitted left turn phasing for Tempo Drive. **This item was removed per MoDOT response.**
 - j. Re-optimize the traffic signal splits for the Olive Boulevard at Tempo Drive intersection, as well as re-optimize the intersection offsets for the same intersection and the neighboring signals on Olive Boulevard.

11. We agree with the above stated proposed improvements, with the addition that the approaches for Tempo Drive should have additional lane usage signage installed. **The item related to additional signage was documented in the revised document.**
12. No southbound left turn lane was recommended along Tempo Drive at the North Entrance due to the expected minimal queue lengths and delays. However, review of the MoDOT EPG for auxiliary lanes does show that the left turn volumes would warrant an auxiliary left turn lane during several peak hours. It is suggested that the segment of Tempo Drive between Olive Boulevard and the north entrance be restriped as two (2) eleven-foot lanes with a through lane and dedicated southbound left turn lane. In addition to the striping, lane usage signs should be provided. **This item has been added to the proposed improvements in the revised documentation.**
13. On page 17, 2026 is stated as the future year, when it should read 2045. **Item has been revised.**
14. The parking lot capacity analysis was performed using the ITE Parking Generation, 5th Edition. agree with the land uses chosen. Typically, the 85th percentile is used for calculating parking requirements. Rather, it appears that hourly distributions were used to calculate the required parking. It is our opinion that this approach is a valid method. **This item remains the same for the revised documentation.**

Below is a summary of recommendations from the traffic impact study review:

15. It is recommended that the study peak hours be included within the body of the report.
Completed
16. It is recommended that the storage bay lengths be adjusted to reflect the correct lengths.
Corrected
17. It is recommended that the site generated trips be revised to reflect 3% of trips originating from the north along Tempo Drive, 5% of trips originating from the south of Tempo Drive, 44% of trips originating from the west of Olive Boulevard, and 48% of trips originating from the east of Olive Boulevard.
Revisions made as requested
18. It is recommended that **Figure 6** be revisited and corrected when applying the new directional distribution.
Figure 6 has been revised accordingly.
19. It is recommended that the text on page 17 be revised to read 2045 rather than 2026.
Revised
20. It is recommended to add lane usage signage for the northbound and southbound approaches along Tempo Drive to inform drivers of the revised lane assignments.
This recommendation has been addressed
21. It is recommended to re-stripe southbound Tempo Drive between Olive Boulevard and the north entrance as a two-lane segment with a dedicated left turn lane. Lane usage signage and appropriate pavement markings should also be included.
This recommendation has been addressed
22. **Additional review of the proposed Future conditions show additional queuing issues related to the westbound and northbound left movements at the intersection of Olive Boulevard and Tempo Drive. During the mid-day, PM peak and Saturday mid-day peak the westbound left experiences queue lengths greater than 300' which extend beyond the available storage and back into the through lane. In the No-Build scenario, that occurs during the PM peak hour only. In the mid-day and PM peaks, the anticipated maximum queue lengths are 442' and 447'**



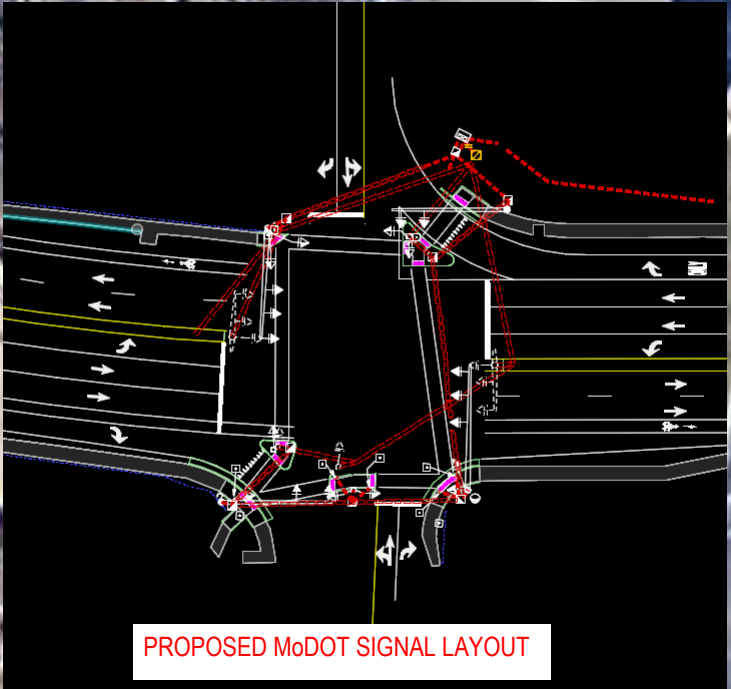
respectively and will block off the existing eastbound left turn access. For the northbound left turns, the anticipated queue lengths are 372', 290', and 305' during the mid-day, PM peak and Saturday mid-day peak. During all three of these analysis periods this queue length will block entrance into the property unless drivers stop prior to the entrance and allow southbound left vehicles to enter. The corresponding existing queue lengths during those time periods are 194', 192' and 151' respectively.

cc: file

Rt 340 and Tempo Dr.
Modification to NB Approach

Legend

- Feature 1
- Feature 2



PROPOSED MoDOT SIGNAL LAYOUT



MEMORANDUM

To: Jason Jaggi, AICP (City of Creve Coeur)
Bethany Moore (City of Creve Coeur)

From: Kyle Evans, PE, PTOE

Date: December 15, 2022

Subject: Chick-fil-A TIS Review
Lochmueller Project #: 522-0072-01T

As requested, Lochmueller Group staff have completed a review of the revised Synchro files associated with the proposed Chick-fil-A, located in Creve Coeur, Missouri in the southeast quadrant of Olive Boulevard and Tempo Drive. The original study was prepared by HR Green, Inc. and submitted in September 2022 and a subsequent revision to the report was submitted in November of 2022 to address City and MoDOT comments.

It is our understanding that these subsequent revisions are based in part on City concerns regarding queuing and operations of traffic along the northbound Tempo Drive approach for vehicles exiting the study location and westbound operations for vehicles turning left onto Tempo Drive for entering the study location. A drawing of the proposed revisions to the Tempo Drive northbound approach are provided on the following page. It is also our understanding, that as of the date of this memo, there have been no review comments received from MoDOT regarding these latest revisions.

Since Lochmueller Group was only provided with the Synchro analysis files and not a revised document, we created intersection operations reports for the AM, Mid-day, PM and Saturday Mid-Day peak hours looking at LOS, delay and queuing outputs.

The tables on Page 3 highlight the results between the existing conditions and the 2025 Build conditions with regards to the proposed mitigation strategies. It documents the results for operations (based on LOS and delay in seconds) and reports queuing for the 50th-percentile (average queue) and 95th-percentile (maximum queue). The results reported in the Build Conditions table, are highlighted green for the movements which are improved over existing and red in the instances where delays/LOS have gotten worse. As shown, there are additional delays associated with the westbound left turning movements during the AM Peak and the Saturday Mid-day peak, but neither one of those reaches a LOS F. Under the queuing column, items highlighted in red represent the scenarios in which the analyzed queue length has exceeded the available storage length for the westbound left turn lane.



EXISTING CONDITIONS					
		Operations		Queuing (ft)	
		LOS	Delay	50th %-ile	95th %-ile
AM PEAK	WBT	B	18.8	284	324
	WBL	D	53.6	33	105
	NB	E	72.7	42	87
Mid-Day PEAK	WBT	C	25.4	736	836
	WBL	F	82.2	127	260
	NB	F	99.8	82	183
PM PEAK	WBT	C	27.6	402	585
	WBL	F	120.0	158	328
	NB	F	119.2	79	183
SAT PEAK	WBT	A	9.6	67	513
	WBL	D	51.1	57	168
	NB	E	72.2	68	140

BUILD CONDITIONS					
		Operations		Queuing (ft)	
		LOS	Delay	50th %-ile	95th %-ile
AM PEAK	WBT	B	16.9	299	344
	WBL	E	65.0	48	169
	NBL	E	60.6	31	58
Mid-Day PEAK	WBT	B	14.1	212	310
	WBL	D	42.4	141	309
	NBL	E	70.0	89	170
PM PEAK	WBT	B	16.3	905	1105
	WBL	D	54.7	184	330
	NBL	E	61.7	61	99
SAT PEAK	WBT	A	8.8	405	499
	WBL	E	71.8	138	306
	NBL	E	60.2	72	141

The results from the tables show that during the PM and Saturday peaks, the queues associated with the westbound through movements will be the largest factor of the operations of the westbound left turns. This is due to mainline through capacity and peak hour volumes approaching the theoretical capacity for a two-lane roadway. These results also show that the queuing associated with the mainline will impact drivers' abilities to utilize the left turn lane as through movement queues will extend beyond the entrance to the left turn lane. Without additional mainline capacity, adding a second turn lane would not have a significant impact on the left turn operations.

SUMMARY OF FINDINGS

The modification of the northbound Tempo Drive approach and construction of a second left turn lane will have a significant impact on traffic operations with regards to vehicles exiting the study location. This will reduce delays and greatly reduce the queue lengths associated with this movement. The highest peak demand (Mid-Day scenario) results related to the previous submittal showed an average queue length that was approximately 180-feet and a maximum queue length greater than 300-feet. The addition of a second left turn lane reduces these queue lengths to 89-feet and 170-feet respectively. These documented queue lengths will not impact operations at the north entrance to the site.

Based on the results of the Synchro operations during the PM peak and Saturday peaks when through volumes along Olive Boulevard are higher, left turn lane accessibility will be impacted due to the queues. In the existing condition the average PM peak queue length already impacts drivers' ability to access the left turn lane. The construction of a second left turn lane for westbound traffic would not produce the desired effect of reduced delays and shorter queues at this location as through operations would still be the governing factor.

Based on the information provided, Lochmueller Group recommends the following:

1. The design engineer should review the layout of the channelization island in the southwest quadrant and verify it does not lead to any driver path issues with regards to the new striping for Southbound Tempo Drive.
2. Install appropriate signing and pavement marking for the modifications to the south leg of Tempo Drive.



3. The revised pedestrian crossing on the south side of Olive Boulevard should be reviewed. Is there a reason the crossing isn't tied to the channelization island on the southwest quadrant versus crossing all the way to the corner? Previous layout had a refuge island in the center for pedestrians to stop, if needed.
4. The removal of the median on the south leg will lead to the removal of the second ped pole signal for southbound traffic. These improvements could be an opportunity to update the signal to include mast arm poles for northbound and southbound traffic. Especially with the revised geometrics for the northbound approach.
5. Review of the autoturn documentation that was submitted shows issues related to a WB-67 vehicle making the outermost northbound left turning movement and the eastbound to southbound right turn. With the existing channelization island in the southwest quadrant, it is suggested that an autoturn layout be completed for the westbound to southbound left turn.



Jason Jaggi <jjaggi@crevecoeurmo.gov>

FW: Chick-fil-A at Tempo and Olive

1 message

Mark Perkins <mperkins@crevecoeurmo.gov>
To: Jason Jaggi <jjaggi@crevecoeurmo.gov>

Mon, Dec 5, 2022 at 12:34 PM

Fyi,

From: Sari Neudorf <sneudorf@crevecoeurmo.gov>
Sent: Friday, December 2, 2022 4:48 PM
To: Mark Perkins <mperkins@crevecoeurmo.gov>
Subject: Fwd: Chick-fil-A at Tempo and Olive

Hi Mark,

Received this and wanted to forward to you.

Have a spectacular weekend.

Sari

----- Forwarded message -----

From: Clare Quatmann <larryquatmann@gmail.com>
Date: Fri, Dec 2, 2022 at 3:38 PM
Subject: Chick-fil-A at Tempo and Olive
To: <dhoffman@crevecoeurmo.gov>, <sneudorf@crevecoeurmo.gov>

Dear David and Sari,

I just received the latest newsletter from Creve Coeur and was surprised to read of the pending consideration for a Chick-Fil-A Drive through restaurant at Olive and Tempo. Hopefully you have experienced the traffic backup that occurs near these restraints at lunch and dinner time. My personal experience relates more to the restaurant in the Chesterfield Valley. The traffic back ups all all too common. While there are ways to get around the traffic in Chesterfield, I can not envision any simple solution for the corner of Olive and Tempo. i believe this will create a traffic problem of significant proportion and will disrupt Olive street traffic significantly at meal times. Additionally, i thought there was a Creve Coeur moratorium on drive-thru restaurants.

As a longtime citizen of Creve Coeur who lives at [12664 Villa Hill Lane](#) just off of Mason Road I want to express my concerns for the location of this facility. I am not opposed to the restaurant itself but am opposed to the traffic problems it will create on Olive which is a street on which i commute several times per day.

Please accept my opinion when considering this location for a busy Drive thru restaurant. if you need further proof of my concerns, i would recommend that you look at the traffic situation around the Chick-Fil-A Chesterfield location during busy lunch and dinner hours.

Sincerely: Edmund (Larry) Quatmann
[12664 Villa Hill Ln, Creve Coeur, MO.](#)

--

Sari Neudorf



Bethany Moore <blmoore@crevecoeurmo.gov>

Conditional Use Permit #22-031 - public comment

2 messages

Steve Raskin <sraskin@cordoganclark.com>

Sat, Nov 19, 2022 at 3:42 PM

To: "blmoore@crevecoeurmo.gov" <blmoore@crevecoeurmo.gov>, "dhoffman@crevecoeurmo.gov" <dhoffman@crevecoeurmo.gov>, "sneudorf@crevecoeurmo.gov" <sneudorf@crevecoeurmo.gov>
 Cc: "mroark1138@gmail.com" <mroark1138@gmail.com>, "mdavecampbell9009@gmail.com" <mdavecampbell9009@gmail.com>, "jjaggi@crevecoeurmo.gov" <jjaggi@crevecoeurmo.gov>, "rhoffman@crevecoeurmo.gov" <rhoffman@crevecoeurmo.gov>

November 18, 2022

Attn: Ms. Bethany Moore, City Planner, blmoore@crevecoeurmo.gov
 David Hoffman, Ward 3, dhoffman@crevecoeurmo.gov
 Sari Neudorf, Ward 3, sneudorf@crevecoeurmo.gov
 City of Creve Coeur
 300 N New Ballas Road
 Creve Coeur, MO 63141

Re: Application to Planning and Zoning Commission

[Conditional Use Permit #22-031](#)

DEVELOPMENT PLAN FOR A NEW CHICK FIL A RESTAURANT WITH DRIVE
 THROUGH SERVICES LOCATED AT [12398 OLIVE BOULEVARD](#)

Ms. Moore,

My name is Steve Raskin and my family and I have lived at 1017 Fashion Square for nearly 30 years. Our home is less than one-third of a mile from the existing TGI Fridays. I am writing to voice my opposition to the proposed developed of a new Chick Fil A restaurant at [12398 Olive Blvd.](#)

There are several factors to be considered as part of this development which will adversely affect our community.

1. Building Elevation – We recognize the value of branding to an enterprise such as CFA, however, the palette of building materials and colors is incompatible with the existing facilities at this location. A quick review of the building elevations at the Olive Blvd/Tempo intersection shows a consistent blend of red brick masonry, sloped shingle roofs and neutral color palettes. The proposed CFA elevations show flat roofs and tan bricks with no regard to the existing adjacent developments aesthetics.
2. Noise Concerns –Neither the HME Whitepaper dated 5/24/2010 nor the McClure Engineering report dated 11/15/22 take into account the elevation of the TGI Fridays site relative to the lower surrounding residential communities. The combination of concrete parking at the project location and concrete roadways creates a complex refraction of sound waves that increases substantially in the residential areas to the north. The increased hours of operation starting at 6am through 10:30pm will increase noise level both day and night and be a nuisance to our community.
3. Traffic – The additional traffic which will be generated as part of this development will create a safety issue at an already congested intersection at Olive and Tempo Dr. The current drive and turn lanes at this intersection cannot accommodate this added traffic resulting for a new fast-food restaurant with three drive-thru lanes and both inside and outside dining. In addition, there is already a serious concern of vehicles

traveling north on Tempo Dr. to Impact Dr. to Ross Avenue and back to Olive Blvd in an effort to avoid traffic delays through the Huntington Subdivision where we live. This proposed development will significantly increase the number of vehicles traveling through these residential streets with no sidewalks and limited lighting creating a significant safety concern.

The MoDOT letter dated 11/7/22 provided by Mr. Shane expressed further concerns regarding signalization. This letter references a traffic impact study prepared by the developer HR Green which is not included as part of this permit submittal which should be made public for review and comment.

My family and I have been life-long residents in this community and have raised our children who attended local schools. This proposed CFA development of another national chain fast food restaurant does not add to the quality of life in our community while at the same time creating significant sound, traffic and safety concerns. We respectfully ask that the Planning and Zoning Commission reject this CFA Conditional Use Permit.

Sincerely, Lori and Steve Raskin, AIA

Cc: Wayne Lewis, Huntington Subdivision Director, mroark1138@gmail.com
Dave Campbell, Huntington Subdivision Director, mdavecampbell9009@gmail.com
Piper Cason, Huntington Subdivision Director
Jason Jaggi, City of Creve Coeur Director of Community Development, jjaggi@crevecoeurmo.gov
Robert Hoffman, City of Creve Coeur Mayor, rhoffman@crevecoeurmo.gov

Bethany Moore <blmoore@crevecoeurmo.gov>

Mon, Nov 21, 2022 at 9:04 AM

To: Steve Raskin <sraskin@cordoganclark.com>

Cc: "dhoffman@crevecoeurmo.gov" <dhoffman@crevecoeurmo.gov>, "sneudorf@crevecoeurmo.gov" <sneudorf@crevecoeurmo.gov>, "mroark1138@gmail.com" <mroark1138@gmail.com>, "mdavecampbell9009@gmail.com" <mdavecampbell9009@gmail.com>, "jjaggi@crevecoeurmo.gov" <jjaggi@crevecoeurmo.gov>, "rhoffman@crevecoeurmo.gov" <rhoffman@crevecoeurmo.gov>

Mr. Raskin,

Thank you for your comment. I will add it to our file and make sure it is included in our packet for the commissioners. The Chick-Fil-A project has been tentatively moved to the Dec. 5th meeting in order to give staff more time to review additional requested materials. Please continue to check the "Current Planning Projects" page on our website for updates. If you would like to make a comment at the meeting please attend in person at the Creve Coeur Government Center at 6pm in the Council Chambers. Thank you!

[Quoted text hidden]

--

Bethany L. Moore

City Planner

City of Creve Coeur

300 North New Ballas Rd

Creve Coeur, MO 63141

314-442-2087

www.crevecoeurmo.gov



Bethany Moore <blmoore@crevecoeurmo.gov>

Application No 22-031 RE Chik-Fil-A at Tempo/Olive

2 messages

Manors at Questover HOA <manorsatquestoverhoa@gmail.com>

Mon, Nov 21, 2022 at 10:05 AM

To: "blmoore@crevecoeurmo.gov" <blmoore@crevecoeurmo.gov>

Cc: David Hoffman <dhoffman@crevecoeurmo.gov>

Dear Planning and Zoning Commission,

With respect to the matter referenced above, our primary concern is increased "turn-around" traffic on Questover Manor Court. This would essentially involve west-bound traffic on Olive, which misses the left turn into Tempo, and which then turns left on Questover Lane. Questover Manor Court is a private street with 16 townhome units. Currently, we see approximately 4-8 "turn-around" vehicles each day on our street. Any steps you might take to assist with what we believe may be an increase in traffic, would be appreciated. Thank you for your attention to this.

Sincerely,

Bill Spieler

Trustee

Manors at Questover HOA

manorsatquestoverhoa@gmail.com

Bethany Moore <blmoore@crevecoeurmo.gov>

Mon, Nov 21, 2022 at 10:19 AM

To: Manors at Questover HOA <manorsatquestoverhoa@gmail.com>

Cc: David Hoffman <dhoffman@crevecoeurmo.gov>

Bill,

Thank you for the comment! I will add it to our file and make sure the commission receives it in their packet. Chick-fil-a has been tentatively moved to the December 5th meeting in order to give staff more time to review additional requested information. Please check our "Current Planning Projects" page on our city website for updates. You can also give a comment in person at the meeting. They are held at 6pm in the Council Chambers of the Creve Coeur Government Center. Thanks!

[Quoted text hidden]

--

Bethany L. Moore

City Planner

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Creve Coeur, MO 63141

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Page 1 1 PLANNING AND ZONING COMMISSION MEETING 2 CITY OF CREVE COEUR, MISSOURI 3 300 NORTH NEW BALLAS ROAD 4 MONDAY, DECEMBER 19, 2022 5 6:00 P.M. 6 7 PUBLIC HEARING 8 APPLICATION NO. 22-031 9 10 THOSE IN ATTENDANCE: 11 Ms. Julie LaBonte, Chair 12 Ms. Muriel Hall 13 Mr. Larry Potashnick 14 Mr. AJ Wang 15 Ms. Rhonda O'Brien 16 Mr. Thomas Buelter 17 Ms. Marjorie Richter 18 Mr. Carl Lumley, City Attorney 19 Mr. Jason Jaggi, Director of Community Development 20 Ms. Bethany L. Moore, City Planner 21 Ms. Megan Waller Administrative Supervisor/Recording Secretary 22 23 McLaughlin Court Reporting Services, Inc. 24 Deborah K. McLaughlin, RPR, MO-CCR #314, IL-CSR, KS-CCR 25 4772 Gatesbury Drive St. Louis, MO 63128 (314) 974-1199	Page 3 1 Conditional Use Permit with Associated Site Development 2 Plan for a New Chick Fil A Restaurant with Drive Through 3 Services Located at 12398 Olive Boulevard. 4 If anyone that's going to be speaking, may 5 please come forward and be sworn in. 6 (The speakers were sworn in by the court 7 reporter.) 8 MR. JUSTIN LURK: All right. Good evening. My 9 name is Justin Lurk. I'm a principal development lead for 10 -- for Chick-fil-A. 11 Madam Commissioner -- or Madam Chair, Members of 12 the Commission, thanks for having us here tonight. 13 We'll just go through a quick overview of 14 what -- what we're proposing here. I'll start off with a 15 quick overview of Chick-fil-A and kind of who we are, but 16 here for a conditional use permit, so. 17 I don't know if everyone's familiar with 18 Chick-fil-A or not, but we are a family-owned, privately 19 held company. 20 Our founder, Truett Cathy, opened his first 21 restaurant, a diner, with his brother back in 1946 in 22 Atlanta, Georgia. 23 And there is -- they serve typical food you 24 would -- you would get at a diner, and that's where he 25 developed the special recipe that we have now for our
Page 2 1 CHAIRMAN LABONTE: Okay. We'll call the meeting 2 to order at six o'clock with roll call. 3 Ms. Hall? 4 MS. HALL: Present. 5 CHAIRMAN LABONTE: Mr. Potashnick? 6 MR. POTASHNICK: Present. 7 CHAIRMAN LABONTE: Ms. Richter? 8 MS. RICHTER: Here. 9 CHAIRMAN LABONTE: Mr. Wang? 10 MR. WANG: Here. 11 CHAIRMAN LABONTE: Ms. O'Brien? 12 MS. O'BRIEN: Here. 13 CHAIRMAN LABONTE: Mr. Buelter? 14 MR. BUELTER: Present. 15 CHAIRMAN LABONTE: Mr. Lumley? 16 MR. LUMLEY: Here. 17 CHAIRMAN LABONTE: Mr. Jaggi? 18 MR. JAGGI: Present. 19 CHAIRMAN LABONTE: Ms. Moore? 20 MS. MOORE: Present. 21 CHAIRMAN LABONTE: And, Ms. Waller? 22 MS. WALLER: Present. 23 CHAIRMAN LABONTE: Okay. Next we'll move to our 24 Unfinished Business. 25 We'll open Public Hearing Application 22-031: A	Page 4 1 chicken sandwiches, and that's where he developed the 2 chicken sandwich. 3 So wasn't until 1967 when he opened up the first 4 restaurant in Greenbriar Mall. Prior to that there was no 5 food in malls, but his sister owned a store in the mall, 6 and she said, Truett, you got to -- you got to help me 7 figure out how to keep people in the mall a little bit 8 longer. So went to ownership. They opened up the first 9 Chick-fil-A in 1967. And that was our growth strategy 10 from 1967 to '86. 11 So opened up our first freestanding unit, and 12 that's what we'll be talking about here today, in 1986. 13 So that's been the primary growth model since then. But 14 we still have mall locations, airports, license like 15 college campuses, et cetera, so. 16 Important fact, that when he and his brother Ben 17 opened up the diner in 1946, they were open 24 hours a 18 day, six days a week, and they believed in giving 19 themselves and their associates a day of rest. So they 20 were closed on Sundays at the diner, and that's a 21 tradition that we still honor today. So, just open Monday 22 through Saturdays, not 24 hours a day, 6:30 a.m., 23 generally, till about 10 p.m. 24 And we've got just over 2600 locations now, and 25 now 48 states. We opened up in Hawaii this year, which

Page 5 1 was a big milestone, also in Puerto Rico, so we're in the 2 States, Puerto Rico and Canada. 3 And one thing that makes us different is just 4 the local ownership mentality, so as a franchisee, you're 5 promised one location, which is a little bit different 6 than most franchisees where you can buy a market and open 7 up multiple. 8 So not really interested in -- in investors as 9 our owners. Interested in leaders as our owners. And, 10 frankly, that's -- a lot of people ask how do you do it, 11 what's the secret sauce. And it's our ownership model, 12 that's the secret sauce, so kind of cool, lot of these 13 owners will grow up in a restaurant, you know, starting as 14 a server or whatnot, becoming leader, becoming one of the 15 leaders for that restaurant and then applying for their 16 own -- own franchise. 17 But working at Chick-fil-A gives you quite a bit 18 of flexibility, obviously, at least one day off every 19 week. And then leadership opportunities like I mentioned, 20 scholarships, quite a bit of scholarships. You can see 21 here, since 1970, Chick-fil-A, Inc. corporate has donated 22 over 110 million to the team members, over 66,000 team 23 members, so big on -- big on giving back. That's how we 24 give back to the team members. Give -- big on giving back 25 to the community as well.	Page 7 1 as well. 2 Not as large of a building as what's there right 3 now, giving us flexibility to add in the drive-through 4 lanes. 5 So just wanted to put this up here to kind of 6 give you an orientation of how that would fit within the 7 center. 8 So, this would be probably version 20 to 25 of 9 our site plan. We spun it a lot of times just to make 10 sure that we're -- we're bringing the best to Chick-fil-A 11 for Chick-fil-A, but then also for the existing tenants 12 within the center as well. 13 And this is just an overall site plan. There's 14 three -- three yellow highlights on here, just 15 highlighting the existing curb cuts, so we're not looking 16 to change any curb cuts on Temple Drive nor from Olive 17 Boulevard, so fitting within existing improvements that 18 are there right now. 19 And then lastly, just more of a zoomed-in -- a 20 zoomed-in view of the Chick-fil-A building. 21 So, if you've been to any of our other 22 Chick-fil-As throughout the metro area, you're probably 23 used to seeing two drive-through lanes to where you can 24 order from two points, and then it merges down into one 25 lane after that. That was our model preCOVID.
Page 6 1 So every time we open up a new restaurant, 2 \$25,000 donation is made to the local food bank for that 3 municipality near us, just to -- just to name one item. 4 And then we've got the True Inspiration Awards, 5 which is, you know, a scholarship that we give to -- to 6 businesses, and a lot of times those businesses are 7 nominated by the local franchise owner/operator, so this 8 program started back in 2015, and we've donated over 9 12 million to organizations across the country here, so. 10 And then I won't spend too much time on this 11 slide, but just several different recognitions from, you 12 know, customer services. You know, we pride ourselves on 13 customer service and serving -- serving you with a warm 14 smile and a warm meal. 15 So that's just a high level overview of who we 16 are. 17 Now I want to get into what we're looking at 18 today. 19 So this is the Westgate Center on the left-hand 20 of the screen. You'll see the existing conditions plan. 21 And we're -- we're talking about the property in 22 the northwest corner of Westgate Center that's 23 currently -- or formerly the TGI Fridays. Looking to 24 demolish that building, and then put up a -- a 25 freestanding Chick-fil-A building in the northwest corner	Page 8 1 And then once COVID happened, or during COVID, 2 we realized we needed to meet the customers where they 3 were, and we developed a plan of a dual drive-through lane 4 all the way around the building. So that's what you're 5 seeing here. Two drive-through lane. Two lanes at the 6 entrance to the drive-through, and then that would carry 7 all the way around, and that's -- that would be an open 8 drive-through lane. We've got striping between the two 9 lanes to allow our team members a safe place to walk back 10 and forth if they need to. 11 And then the -- the second lane from the order 12 point to the pickup window, I'll just kind of briefly 13 mention what that is used for. We see our owner/operators 14 utilizing that in one of three ways. 15 Number one is a bypass lane, so after the order 16 points, operators have flexibility to merge the cars back 17 down into one lane, and then you -- you come to the 18 pick-up window and pick up your food. That way if -- if 19 you're car one and you have a large order, and then car 20 two right behind you has a typical order, called a number 21 one with a coke, we could deliver food to car number two 22 and they could pull around car number one and exit safely. 23 So, that's one way they use that second lane. 24 The second way we've seen use the second lane is 25 during peak hours when there's a big demand on the

Page 9 1 restaurant, if you order in lane two, you stay in lane 2 two. 3 So, if -- if I'm a car, and I order in lane two, 4 I stay here and wrap all the way around the building, and 5 I pick up my food in lane two as well. 6 So there's two canopies that we have on site. 7 If you're familiar with any of our locations, you'll 8 see -- been seeing those pop up across the area where 9 we've added those canopies, another -- another thing that 10 we thought was beneficial for associates and our guests, 11 just giving them protection, obviously, in the St. Louis 12 market like this, specifically this week, expect -- 13 expecting some pretty severe weather, so just giving our 14 associates and our team leaders protection; snow, wind and 15 then the summer, you know, the summer heat as well. 16 But in lane two, if you pick up your food in 17 lane two, then a team member would cross lane one, deliver 18 your food to you in your car in lane two, and then you 19 leave. So that would be the second way we see them use 20 that. 21 And then third way we seen the operators using 22 that second lane after the order point is kind of like the 23 mobile express order lane. So, if you're familiar with 24 our -- our app, you can place an order via the app, and 25 then come -- get in line at the drive-through and come	Page 11 1 We're working with staff right now on the 2 elevations trying to make few other tweaks to it. 3 Certainly, one thing that we worked on with them 4 to date is just trying to -- this elevation facing Olive 5 is technically our back of house, our kitchen, if you 6 will, so how do we make the back of the building look more 7 like the front of the building to -- to dress it up and to 8 give that appearance to passersby on Olive Boulevard. 9 And then you can see the -- the -- the pick-up 10 canopy over -- over the two pick-up lanes, and then we've 11 carried -- carried our brick kind of on the -- the water 12 table brick on the canopy columns as well, just to kind of 13 integrate those into the building. They're not physically 14 attached to the building, they're freestanding open air 15 structures next to the building. But try to design them 16 to incorporate into the building (inaudible) as well. 17 And then here's the two other elevations. So at 18 the top of the page, you've got the -- you've got the east 19 elevation, and then on the bottom of the page you have the 20 west elevation, which is -- which would be facing Tempo 21 Drive, and that would be the second sign that we're 22 proposing on the building. 23 We're not proposing any freestanding signs. 24 Westgate Center, as a development, is maxed out on -- on 25 signage itself, so just proposing -- we would have a panel
Page 10 1 pick up your food that way, so you don't have to come in 2 or have any contact with anyone. 3 So, those are the three ways we see our 4 operators using that second lane after the order points. 5 On this particular location there's also another 6 lane here, so to meet city code we added a -- a third lane 7 through the order points, just to give kind of a bypass 8 lane for the -- for the entire -- for the entire 9 drive-through. 10 So that -- that's a high level overview kind of 11 the operations of the drive-through itself. 12 Again, kind of in the same spot as -- as TGI 13 Fridays. 14 And then I'll move on quickly to our elevations 15 here. These are proposed elevations. Nothing's been 16 approved yet, but what you see at the top of the screen is 17 proposed north elevations. That would be facing Olive. 18 And then what you see at the bottom of the screen is the 19 south elevation. That's what would be facing the other 20 tenants within the development. 21 We, per code, we'd be allowed two signs. We're 22 proposing one on Olive, on the Olive Street front -- 23 frontage, and then when I flip to the next slide, we're 24 proposing one on Tempo Drive as well. Those would be the 25 two elevations that we're allowed a sign.	Page 12 1 on the multi-tenant sign, but not a -- not our own 2 freestanding sign. 3 So, again, elevations. This is -- this is where 4 we're at to date, again, not version one, but we're not 5 quite there yet with staff, so we'll continue to work with 6 them to make sure everybody's on board with the 7 elevations, but wanted to put these in front of you today. 8 So, with that being said, I'll bring up our 9 engineer to kind of talk about what we're doing 10 landscaping wise as well. 11 MR. JOE VAVRINA: Thank you, Justin. 12 My name is Joe Vavrina with HR Green. 13 Address too? 1391 Corporate Drive, McHenry, 14 Illinois 60050. 15 So what you see here before you is a fairly 16 robust landscape plan that we propose. 17 Again, this is probably iteration two or three 18 on this working with staff, really to provide a, not only 19 a -- a inviting environment for guests that do decide to 20 dine in, as well as use the drive-through lane and the 21 outdoor patio. 22 So outdoor patio is located right here, so we -- 23 we have a fairly robust landscape area that is between, 24 I'll call the -- the drive-through lane, which is here, 25 and patio, which is a mix of and variety of ornamental

Page 13 1 grasses, evergreen shrubs, as well as deciduous shrubs. 2 On the outside of the drive-through lane, same 3 thing, very -- very similar palette; mixture of ornamental 4 grasses, evergreen shrubs, evergreen trees and deciduous 5 trees. 6 Mainly focused evergreens on the outside, 7 especially at the corners for light wash, so that those 8 lights are not glaring out on to Tempo. The evergreens 9 will provide a year-round screen. 10 Also note that, you can't see it on this plan, 11 but the Chick-fil-A building itself sit much lower than 12 Olive. The elevation difference at this corner from the 13 drive-through to Olive at this intersection is about 14 12 feet, so the vehicles on Olive will look over the top 15 of the drive-through lane at the vehicles in it, for sure. 16 But, again, this landscaping is really there to 17 provide some interest as well, year-round as well, with 18 some screening effect. 19 We also did propose additional new landscaping 20 here along Tempo to kind of tie in, integrate the -- all 21 the new landscaping that we're putting at the Chick-fil-A 22 to the rest of the center, again, providing a mix of 23 evergreen shrubs, ornamental grasses and a couple trees. 24 We put as many trees as we could in on this frontage. We 25 did have an existing utility that prevented us from	Page 15 1 Swingley Ridge Road in Chesterfield 63017. 2 As Joe said, I'm going to talk about the traffic 3 engineering components of this project. 4 And before we really dove too deep into it, we 5 wanted to get a good feel for what the concerns were from 6 some of the stakeholders, including the city and MoDOT. 7 We had a scoping meeting at MoDOT, and members 8 of the city's planning team and their traffic engineering 9 consultant were present at this meeting along with MoDOT. 10 Of course, the city's primary concerns are that 11 the overall traffic flow through the area. More 12 specifically, they are concerned about the northbound 13 traffic at -- at Olive Boulevard and Tempo, and the queues 14 getting too long where they might block that -- that first 15 driveway back to the south there. 16 And then kind of on the other side, going 17 southbound, how that traffic's going to interact, be able 18 to turn left into that site. 19 MoDOT's, you know, obviously, their -- their 20 concerns are more on the Olive Boulevard side with the 21 three intersections of Tempo. And then they like to look 22 at intersections on the adjacent sides to the development, 23 so at Questover, they want us to take a look at, as well 24 as -- as cross street. 25 So the yellow circles right there you see, those
Page 14 1 putting any more in. But, again, you know, the palette we 2 propose there compliments the palette that we have on here 3 at the Chick-fil-A. 4 So, again, the -- the way Chick-fil-A approaches 5 their sites is, you know, again, you know, this is the 6 first thing that the guest sees when they -- when they 7 arrive at the site, so they want to make it -- make it to 8 look like a first class facility. 9 Again, the palette that's proposed, you know, 10 again, is -- is a year-round palette that will provide a 11 lot of interest, and more so, they look at their 12 landscaping, you know, that you typically see (inaudible) 13 restaurant. 14 With that -- oh, last thing, but not least, 15 trash enclosure, which is right in the middle of the site. 16 Again, same thing. Fairly amount of both year-round 17 landscaping, as well as deciduous landscaping around that, 18 so when the guest enters the driveway-through lane, it 19 breaks up the mass of that wall, so that it blends -- it 20 blends away, so it doesn't -- it's not -- it's not 21 sticking out, if you will. 22 And with that, I will turn it over to Dan to 23 talk about some traffic. 24 MR. DAN SHANE: Good evening, Commissioners. My 25 name is Dan Shane with HR Green. Address is 16020	Page 16 1 are the study intersections that we reviewed as part of 2 this analysis. 3 MoDOT was nice enough to provide us with some 4 existing traffic data that we were able to use the 5 analysis, and then part of the HR Green team went out 6 there and collected data at the -- at the site driveways, 7 the two driveways on Tempo, and then the 8 right-in/right-out driveway on Olive Boulevard. 9 So, we were able to collect that data, and then 10 get a good feel for what the existing conditions look like 11 kind of as a baseline condition. 12 It's probably not a big surprise to everybody, 13 but a lot of those intersections on Olive Boulevard don't 14 necessarily work the greatest during peak periods, so we 15 just want to have a good feel for what the baseline 16 condition was, then we could add our traffic that we would 17 estimate for the Chick-fil-A store and assign those 18 inbound and outbound trips during the peak periods of 19 the -- like a typical morning peak, I would say, a noon, 20 like lunchtime peak, a dinnertime peak, and then a 21 Saturday peak. 22 Keeping in mind, that the breakfast time is not 23 really Chick-fil-A's primary mode of operation, but they 24 really do have a big heavy traffic movement for the 25 lunchtime peaks, and the, as you're probably all aware, of

Page 17 1 the evening peaks and the Saturday peaks. 2 So we're able to take that data, and then 3 analyze it kind of the same way we did with the existing, 4 kind of seeing, as comparison, how those typical -- the 5 movements of the city and MoDOT concerned with, how they 6 functioned with the new traffic volumes. 7 And, again, it probably wasn't a surprise that 8 it's not going to work that great, but we were able to 9 talk with MoDOT and the city and come up with some 10 strategies on how to make that better. 11 Some of the areas we're seeing that were -- were 12 not really that great were the northbound movement where 13 the queues were starting to get pretty long. So what we 14 were able to do is re-time the signals on 340. We talked 15 with MoDOT about that, and they said that's perfectly 16 acceptable way to mitigate some traffic concerns. 17 MoDOT, typically, re-times their signals on 18 major corridors like Olive Boulevard every three to five 19 years, so they said that's perfectly within their 20 expectation and we could do something like that. 21 The other thing we looked at, advance one slide 22 here, is to help mitigate some of those concerns for the 23 northbound movement on Tempo, we've got a lot of -- we got 24 a wide area of pavement from curb to curb with the median 25 in the middle of it.	Page 19 1 difference. I wouldn't expect, you know, during the -- 2 the peak operation period, maybe one or two cycles of the 3 signal, that it might potentially exceed the queuing 4 capacity, but for the rest of the day it should operate 5 just fine. 6 The other thing I wanted to make note is MoDOT 7 is in the process of upgrading a lot of the pedestrian 8 improvements and the intersections all along Olive 9 Boulevard, basically, from I-64 or -- yeah, 64 all the way 10 to 270. 11 They're currently still in the Chesterfield 12 area, but the -- the improvements are working their way 13 towards Creve Coeur. And we've -- we've communicated with 14 MoDOT about these improvements, and they're perfectly fine 15 with these, as long as it wasn't going to interfere or 16 disrupt anything they were doing with these pedestrian 17 (inaudible). 18 So we -- we communicated this plan with the -- 19 with MoDOT and they're acceptable to it. 20 So, with that, I think that is it, and I'll turn 21 it back over to Justin. 22 MR. JUSTIN LURK: Yeah, so we just wanted to 23 give a -- a brief overview of the project from site 24 layout, from landscaping, from the traffic standpoint, and 25 we'll turn it over to staff. Been working great with
Page 18 1 We felt like we could utilize a lot of that 2 space better than what it is today with taking that median 3 out, and then providing two northbound left turn lanes and 4 then a -- the furthest most lane would be a through, and a 5 right turn lane to help mitigate some of the queuing 6 concerns for that northbound movement. 7 And then, again, from a southbound movement, 8 right here, again, that was one of the concerns from the 9 city is how that -- that southbound left is going to 10 interact with the traffic coming in and out of that 11 driveway, so we were able to widen that out to provide a 12 dedicated turn left lane southbound into that first -- 13 first access point, which really helped out. 14 Just kind of in summary, you know, the -- the 15 overall traffic operations, when we re-timed it, provide 16 these two left turn lanes, really wasn't a whole lot 17 different than what we're seeing out there today, in 18 fact -- in fact, the queues for the northbound move are 19 probably going to be a little less than what we see out 20 there today with this mode of operation. 21 The one thing that I wanted to note is the 22 westbound left turn, you know, those -- the queues for the 23 westbound left turn going south into -- into the plaza, 24 they're already pretty long with, again, with this 25 mitigation strategy, there's probably not a whole lot of	Page 20 1 Mr. Jaggi and Mrs. Moore. They've been fantastic partners 2 to work with and make sure we're putting a good plan in 3 front of you. And we know we're not here for a vote 4 today, but we can provide all the information to you and 5 just have a general overall discussion. 6 So appreciate your time. 7 CHAIRMAN LABONTE: Thank you. 8 MR. JAGGI: Jason Jaggi, Director of Community 9 Development with the City of Creve Coeur. 10 I'm going to bring up my presentation. I do not 11 have ice cream cones on mine. 12 Okay, again, Jason Jaggi, Director of Community 13 Development with the City of Creve Coeur. 14 I think the applicants have done a really good 15 job of giving you an overview of the project. 16 I'm going to cover some of that information, but 17 I'll try to move through it quickly and kind of highlight 18 some of the issues that we would like to bring to your 19 attention this evening, so there can be some discussion, 20 and then certainly take some public comments. And then at 21 the end of tonight's meeting, we can see what information 22 is requested for us to come back at a future time. 23 So, it is a conditional use permit that is 24 requested tonight, along with a site development plan for 25 the Chick-fil-A.

Page 21 1 So, just respect for our timeline here, so 2 tonight is we consider this kind of a first review, 3 introducing the project, reviewing the zoning requirements 4 that the city has for drive-through restaurants, 5 discussing some of the traffic impacts and the mitigation 6 that's proposed, you've already heard some of that 7 tonight, conduct a public hearing, and then, of course, 8 receive some direction from the Commission for the next 9 meeting. 10 And so that would be planned for the Tuesday 11 meeting on January 17th where we would have that. And 12 then at that time, hopefully, we will be prepared, staff 13 will, to provide some recommendations for your 14 consideration at that meeting. 15 Then after P&Z review, then it goes to the City 16 Council, and then they take it up for their review, based 17 on your recommendation, and there's two meetings at City 18 Council, and then a final vote would occur there. 19 So, if anybody's in the audience wondering what 20 the process is, this is, essentially, what -- what the 21 review entails. 22 So, just a brief introduction. Like I said, 23 they require a CUP, all drive-through restaurants do. 24 It's enumerated in our -- on our zoning 25 ordinance with this section here. And, of course, we	Page 23 1 us. 2 And the hours of operation would be 6 a.m. to 3 10:30 p.m., Monday through Saturday, and then all 4 Chick-fil-As, as you probably are aware, they're closed on 5 Sundays. 6 In terms of the site information, the entire 7 Westgate Center development here, the retail shopping 8 center, is just over 7 acres. The site that Chick-fil-A 9 referred to as their lease area, so the portion of 10 their -- their site within the shopping center, is just 11 about 1 acre in that northwest corner. 12 In terms of our Comprehensive Plan review, it is 13 located within the Mixed-Use Place Type District. This is 14 a very common place type district in terms of the 15 framework of our plan. 16 And it's also within the West Olive and large 17 commercial property recommendation. So our Comprehensive 18 Plan looks at the whole West Olive Corridor, when we say 19 West Olive, basically, west of 270. 20 And it would support a variety of medium 21 density, commercial, retail, office, dining, community 22 services and multi-family within large development sites. 23 So, as we go to 270, the sites get a little 24 bigger than what you find east of 270. And they're, 25 obviously, (inaudible) oriented locations, and that's
Page 22 1 recently revised our -- our drive-through standards, that 2 began early last -- or early this year, went through the 3 Planning and Zoning Commission. You all spent a lot of 4 time with it. Then it went to the City Council. And a 5 few months was spent at City Council refining our 6 drive-through ordinance. 7 So this is the first request that we have under 8 those revised rules. So, and I will go through those with 9 you and we can see how it -- how it compares to the rules 10 that were just passed by the city back in 2022. 11 So, it is a freestanding Chick-fil-A. This was 12 already discussed. The TGIF Fridays would be demolished. 13 The restaurant side with about 4700 square feet; 74 indoor 14 seats, 24 outdoor seats. 15 The design capacity for this drive-through is 44 16 cars. So it's pretty significant. 17 You've heard earlier it's got two drive-through 18 lanes. There's a bypass lane that could create a 19 potential third, you know, during very heavy times, but -- 20 so there's some flexibility built in with the site design. 21 There are two order stations, two -- one pick-up 22 window and one service door on the Tempo side. So it's a 23 pretty robust proposal here. 24 The maximum employees per the shift is between 25 15 and 20 people, according to the information they gave	Page 24 1 expected to continue. But as we review developments, as 2 we looked at that corridor, we looked for opportunities to 3 improve walkability, enhance our streetscape, provide 4 outdoor amenities within our Commercial Districts, and 5 that's, essentially, what our Comprehensive Plan suggests 6 to us. 7 It also refers to this area as supporting the 8 day-to-day activities of Creve Coeur and -- and our 9 residents and visitors throughout the day. 10 So, with this proposal, we found that it does 11 provide that extensive landscaping that's recommended on 12 Olive, as well as Tempo, which are the two major streets 13 around this development. 14 There is defined and landscaped outdoor dining, 15 so it's not just some chairs around a fence, it's 16 actually -- has some nice atmosphere with it with 17 landscaping surrounding it. 18 There are improved pedestrian connections to 19 this site to Tempo Boulevard. And it is located within a 20 shared parking facility that shares parking with the 21 shopping center. 22 So, a lot of the recommendations on how the 23 built environment is requested are kind of present here in 24 this -- in this proposal. 25 Then when we look at the Design Guidelines in

Page 25 1 terms of the project with the site design, it is a 2 separated -- so it does have separated drive-through 3 lanes. 4 This is something that we were very happy with 5 because some other drive-throughs that we have the 6 drive-through lanes are kind of mixed in with parking 7 lots, they're either conflicts, heavy conflicts with 8 pedestrians. 9 You can see here, it is a -- kind of a 10 segregated area for the drive-through facility. So, if 11 you're parking out here in front of the restaurant, you 12 can get to the front door and you don't have to cross 13 these drive-through lanes, which is something that was 14 nice based on this chosen layout. 15 There is a sidewalk connection that we don't 16 have today that is proposed. So you can see here, here's 17 a sidewalk that cuts you -- cuts through the property, 18 through the project, into the parking lot, that'll also 19 lead out to this new sidewalk that would connect to the 20 sidewalk on Tempo Drive. 21 I will note, though, it will have to cross a -- 22 the drive-through lanes here, and we did recommend that 23 there be some textured pavements, maybe some signage to 24 make that a little more safer. But really there's no 25 other way to get up there.	Page 27 1 refine that. 2 Staff's feeling is that those -- those materials 3 aren't -- the relationships aren't quite there, they're a 4 little detached from where we'd like them, and I think 5 we'll see some revised elevations, hopefully, at the next 6 meeting to -- to address that a little bit. 7 But, as was also mentioned, they have two 8 canopies. These are kind of unique features to 9 Chick-fil-A where we have freestanding canopies. 10 We have worked with them to try to enhance that 11 appearance of those canopies, and with that, they've 12 provided brick bases for all of those to try to tie in 13 with the building a little bit more. And then the color 14 of it will match the trimwork of the building. 15 So, there is -- there is some visual connection 16 with those canopies. 17 And this kind of illustrates that. So you've 18 seen this earlier, but these are their proposed 19 elevations. 20 You can see the colors here kind of tie in with 21 the building, but we don't see a lot of direct 22 relationship with the brick like this or the dark-stained 23 wood that you find on the shopping center. None of those 24 are directly tied in, but I know they're exploring some 25 ways to try to get us there a little bit.
Page 26 1 But in terms of the day-to-day usability within 2 the parking area, this site lays out pretty well. 3 There -- we did explore some pedestrian 4 connections to other areas of the center, but due to the 5 existing conditions there really are no way -- there 6 really is no way to bring a sidewalk into the shopping 7 center. You'd be taking out lots of parking. It's just 8 not set up for that. 9 So, I think this is probably about as good as 10 we're going to get in terms of pedestrian access to the 11 site, but it is an improvement over what we find today. 12 The building design and materials in terms of 13 our guidelines, the objectives that we have are to be 14 compatible with surrounding -- with the surrounding area 15 in terms of building style, form, size, color and 16 materials. 17 And, specifically, when you have developments 18 that have multiple buildings on a site, there should be a 19 cohesive visual relationship between all of those 20 buildings with well articulated facades. 21 This proposal does provide an all brick 22 building, which suggest that the quality type material. 23 The colors that are being provided are stated as 24 complimentary with the shopping center. As was noted -- 25 as was noted, we are still working with them to try to	Page 28 1 I would also note that existing shopping 2 center -- I'm going to jump ahead here. Really far ahead. 3 This is the shopping center here. It's a older 4 design, so it's a little bit challenging to try to mimic 5 what's here with an outbuilding, but I think we can pick 6 up a little bit maybe of this darker wood material, bring 7 that into the building and have a little bit better 8 connection, and those are the things that we're talking 9 about. 10 So I'm going to jump back and continue here. 11 So, I mentioned the canopies. This is the one 12 that would face Tempo, and there's also a freestanding one 13 out in the parking lot, but it is behind the building, and 14 this is the brick masonry that you'd see at the base to 15 try to match what the building -- look of the building 16 here. 17 So, again, just some of the -- the concerns that 18 we had, the strong visual connection with the existing 19 shopping center, the Olive facade, it was explained that's 20 the back of the house, but it faces our main street, so 21 they need to work a little bit more to make that facade on 22 Olive, you know, a little bit better than what we see. 23 So, in essence, we are expecting further 24 enhancements to those designs and we will bring that back. 25 And when we say what type of articulation,

Page 29 1 how -- what are we talking about. These are just some 2 examples of other Chick-fil-As. I think this is an older 3 design that they don't use as much anymore, but this is an 4 example of how, you know, you can see there's greater 5 articulation of the building, there's an ability to bring 6 in some materials that are different than what we see. 7 You can see here there's just various design elements that 8 are not present on this building that we'd like to see 9 incorporated into it. 10 It was already spoken about the landscaping. It 11 is a very robust landscape plan, as the code requires. 12 There's extensive landscaping along the perimeter of the 13 drive-through lanes, as well as within the site itself, so 14 all of this area would be landscaped around the patio and 15 adjacent to the drive-through lanes. This area is 16 screened as well along Tempo, and then they're filling in 17 some of the landscape islands here as well, adding 18 additional plants along Tempo further south, so that all 19 looks pretty good. 20 We would like to work with them a little bit 21 more to refine some of the plant material particularly 22 along Olive. Our goal would be to have really heavy 23 evergreens that provide year-round screening. 24 Some of the developments we've seen, you know, 25 the winter looks a lot different than the summer, so the	Page 31 1 coordinated development on one or more lots totaling three 2 or more acres with shared access and two or more 3 buildings, one of which shall have no less than 4 10,000 square feet of gross floor area, and then all -- 5 all buildings shall be designed with similar materials and 6 design elements, so that they're esthetically 7 complimentary toward one another. 8 And this proposal is an out lot building. The 9 overall site with the shopping center included is over 10 7 acres. There is a one single large building already on 11 the -- on the site, two service areas, two order board 12 facilities. And then as we discussed, you know, with some 13 more refinement, we think that that building can be 14 designed and be complimentary with the shopping center. 15 So, our conclusion is this criteria is partially 16 met. The area that's a little missing is some of the 17 design that I've already gone through for the elevation. 18 And I already went through that. So we'll just 19 keep moving. 20 For drive-through restaurants on site, this -- 21 this was a criteria when we have large -- large properties 22 that were adjacent to single-family, we have separate 23 rules. This doesn't apply in this case, so no need to 24 look at that. 25 The drive-through order facility and service
Page 30 1 evergreens help us make sure that that's maintained 2 throughout all the year. 3 They do have a lot of evergreens, but there's 4 some areas we kind of like to see filled in a little bit, 5 but those are relatively minor revisions. 6 And then there is a proposal for bamboo. Some 7 of this is bamboo, and that's listed as invasive in 8 Missouri, so that would need to come out. 9 But, by and large, the landscape plan is very 10 extensive for this type. 11 Now, I do want to get into the zoning review, 12 and go through these standards with you. They're quite 13 extensive. As you know, with our ordinance in terms of 14 all the qualifications, so I think it's important that we 15 look at all of that. 16 So, it is in this section here of our code. And 17 these are -- we're looking at drive-through restaurants, 18 but do not abut single-family or multi-family uses in any 19 zoning district other than CB. That is the case here. 20 So, it is not abutting any single-family or 21 multi-family on this site. So it follows those sets of 22 rules. And twelve standards then must be satisfied. 23 So, just the first one here. Drive-through 24 facilities are limited to one restaurant with no more than 25 two service windows and two order facilities in a	Page 32 1 window shall be only on or adjacent to a wall, not facing 2 the primary streets. If it's not on the primary street, 3 it must be screened with landscaping, and so this order 4 facility is on the Tempo side, which is not the primary 5 street. Olive is the primary street. And then the 6 service windows are all adjacent to that, and then there 7 are evergreens and dense hedges proposed along the Tempo 8 frontage, so we believe that criteria has been met. 9 And then pedestrian oriented features are to be 10 provided, and that includes, but not limited to, landscape 11 (inaudible) areas adjacent to the building, outdoor 12 seating areas, and pedestrian connections within the site. 13 Unenclosed park outdoor seating does not require 14 additional parking. And this project includes all three 15 of those suggested site. So that has been satisfied. 16 If it's freestanding, it shall have no less than 17 2,000 square feet of gross floor area and at least 55 18 indoor seats. This project exceeds that. It's 4700 19 square feet with 74 seats. 20 Any of the service areas, including trash 21 enclosures, need to be screened from view with -- with 22 proposed materials that match the building. The site -- 23 the site plan shows a trash enclosure is away from the 24 street. It has a brick enclosure, as well as landscape 25 around that brick enclosure, so this is satisfied.

Page 33 1 Then we have standards on how long the stacking 2 lanes should be, and with Chick-fil-A, that's, obviously, 3 a concern of theirs, to make sure there's enough room on 4 the site for the stacking lanes. 5 Our code requires at least that stacking lane to 6 be 195 feet long to -- to allow for ten cars. As I said, 7 this allows for 44, so it's well above that. So, this is 8 in compliance as well. It exceeds all of these things. 9 We also have a requirement that the entrance to 10 the stacking lane shall not be -- shall not be 50 feet -- 11 less than 50 feet from the entrances. And I think that -- 12 that requirement is in the code so that, you know, if 13 there were to be overflow of vehicles, there's some room 14 before you have them back out on to a street, or where you 15 have cars that stop because cars are -- they can't get 16 into the site because they're waiting for the 17 drive-through. 18 So, this -- this complies with that. It's well 19 beyond 50 feet, the entrance to their drive-through from 20 any of the access points, so that has been (inaudible). 21 The 9 -- No. 9 here says, the stacking lane, if 22 it crosses their building in the primary street, it needs 23 to be landscaped. That is the case. Along Olive 24 Boulevard that is our primary street, and there is heavy 25 landscaping proposed for that area.	Page 35 1 have produced a study by McClure Engineering stating that 2 the speaker volume will be below that level, and that 3 their engineer believes that they're in compliance. 4 So, that's a lot of requirements that we have 5 for drive-through restaurants, but we certainly felt the 6 need to go through that with you. 7 With respect to parking, they're required 44 8 spaces. When you consider all the parking in the center, 9 they meet that requirement and there's actually a surplus 10 of parking spaces, so they do meet -- meet the 11 requirements for parking. 12 Now, the last thing I think I want to cover is 13 the traffic study. Mr. Shane mentioned the scope and 14 meeting that all of us had several months ago. 15 HR Green did prepare that traffic impact study. 16 It was reviewed by our city's consulting engineer, which 17 is Mr. Kyle Evans here to my left. 18 And, you know, basically, the conclusion is 19 additional traffic is expected to be generated at certain 20 times of the day, and the proposed mitigations that were 21 already reviewed are the signal timing changes along 22 Olive, and then as well as intersection improvements at 23 Tempo. 24 So, with that, I would ask Mr. Evans, maybe he 25 can provide some brief comments on his review and
Page 34 1 Again, we did -- I did mention we'd like to see 2 some adjustments to their planting material, but, by 3 large, this criteria has been met. 4 And then the traffic study. They need to submit 5 a traffic study, and then they have to demonstrate that it 6 won't be hazardous to motorists or pedestrians entering, 7 exiting or passing by the site, and that the traffic 8 impacts are otherwise mitigated. 9 You heard from their traffic engineer, 10 Mr. Shane, explained all of the modeling and the traffic 11 study that's gone into this. Essentially, we do expect 12 there to be additional traffic as a result of this 13 Chick-fil-A. 14 But the question then becomes how is it to be 15 mitigated, and they are proposing mitigation. And we'll 16 get into this just a little bit further in my comments. 17 So, where we're at on this is that I think the 18 criterion is partially met having final review on these 19 matters. 20 And then the facility must have automatic volume 21 control. That is a requirement and this is proposed to 22 meet that. 23 And then we have a sound study that's required 24 to not increase the ambient sound levels at property lines 25 above the average Monday to Friday midday level, and they	Page 36 1 recommendations, and then I'll conclude my remarks and 2 we'll take any questions. 3 CHAIRMAN LABONTE: Thank you. 4 MR. KYLE EVANS: Good evening. As mentioned, my 5 name is Kyle Evans with Lochmueller Group. Business 6 address is 411 North Tenth Street in St. Louis. 7 Mr. Jaggi mentioned, I did review -- there have 8 been three submittals on the traffic impact study, and 9 I've reviewed each and every one of those. 10 It started, we did have some concerns related to 11 the queuing on North Tempo originally with the single lane 12 that that queue went back past the north entrance, and so 13 that was the first thing that we mentioned after reviewing 14 that. 15 Based on the latest -- or the latest mitigations 16 that they provided, the queuing is greatly reduced on 17 Tempo. It actually is short of the north entrance. 18 The other item that was of concern, obviously, 19 is Olive Boulevard. 20 And I put the table together (inaudible). 21 MR. JAGGI: Yeah, next slide. 22 MR. KYLE EVANS: Okay. 23 So this table was generated from the latest 24 analysis files that were provided to us. 25 On the left are the existing conditions. And

Page 37 1 those incorporate the latest changes that MoDOT is 2 proposing with the -- 3 (Inaudible conversation.) 4 Okay. So what happens when they do split 5 phasing on the north and south, that takes more time away 6 from Olive Boulevard. So the conditions that are going to 7 be out there, once that changes, are actually going to be 8 a little bit worse than what is seen today, and that is 9 before any additional development or changes. 10 So, what I've pointed out in this table is the 11 queue length along westbound Olive in the midday peak and 12 the p.m. peak, the average queue, which is going to 13 happen, you know, throughout that peak hour actually 14 extends beyond the westbound turn lane, so those 15 conditions for the westbound left turns are already 16 impacted greatly out there today. 17 And on the right are the conditions based on all 18 the mitigations, the signal time and changes, the 19 additional lanes. 20 And, as you can see, for the operations with 21 regards to delays that are experienced and level of 22 service, those have been -- oh, sorry -- those have been 23 improved in almost every condition except for the morning 24 and the Saturday for the westbound left. 25 But what I do want to point out, during those	Page 39 1 MR. KYLE EVANS: It's one peak hour, so in the 2 morning -- 3 MR. BUELTER: One peak hour. 4 MR. KYLE EVANS: I don't have the exact times, 5 but seven (inaudible). 6 VOICE: It's probably around seven to eight in 7 the morning. 8 MR. KYLE EVANS: And then noon's typically 9 twelve to one. And then the evening, depending on the 10 commuter route, could be 4:30 to 5:30 or five to six, it 11 just kind of depends on when traffic starts moving in that 12 area, but it represents one hour. 13 MR. BUELTER: Okay. 14 CHAIRMAN LABONTE: Any other questions? 15 MR. KYLE EVANS: Thank you. 16 CHAIRMAN LABONTE: Thank you. 17 MR. JAGGI: Thank you, Kyle. 18 I think just to kind of summarize where we're at 19 here. 20 So, I think it's important for the Commission 21 tonight to review the traffic impacts and the proposed 22 mitigation. 23 Understand that we do not have final -- a final 24 letter of concurrence from MoDOT that's accepted. All 25 this information, they've issued their first review
Page 38 1 times, again, the average queue length for through traffic 2 on Olive Boulevard is going to extend beyond the left turn 3 lane. So, the conditions out there, while there's 4 additional delay, a lot of that's actually impacted by 5 through traffic on Olive and not additional traffic from 6 the Chick-fil-A development. 7 MR. BUELTER: Just a quick question on -- 8 MR. KYLE EVANS: Yes, sir. 9 MR. BUELTER: -- nomenclature there on the -- I 10 understand WBL, westbound lane. 11 Northbound -- WBT. 12 MR. KYLE EVANS: Westbound through traffic. 13 MR. BUELTER: Okay. Thank you. 14 MR. KYLE EVANS: And I do want to point out, so 15 there's two different distances listed for queuing. 16 The 50th percentile queue is, basically, the 17 average queue that's experienced throughout the hour. And 18 then the 95th percentile queue, basically, in terms of an 19 hour, that distance for a maximum queue is probably 20 experience during possibly one or two cycles total for the 21 whole hour, so possibly three to four minutes, depending 22 on the cycle lives. 23 MR. BUELTER: And the times that you're using 24 for the peaks, I -- it says peaks on there, but, you know, 25 like a.m. peak, is that eight to ten?	Page 40 1 comments. 2 These -- where we're at tonight reflects all of 3 that. But I think it's been submitted to them. We don't 4 have their final review comments yet. We would hope to 5 have that before it's presented again at the next meeting. 6 Consider some of the comments that we've had in 7 terms of the landscaping and with additional revisions to 8 the frontage along Olive Boulevard. 9 And then, as I've discussed extensively, some 10 additional refinement on the exterior elevations we think 11 are needed to fully satisfy the requirements of those 12 buildings, you know, are compatible with one another, so. 13 Happy to answer any questions the Commission may 14 have. 15 MS. O'BRIEN: I don't -- I don't really 16 understand all the technicalities in the traffic reports. 17 I read through them and all of that. 18 MR. JAGGI: Uh-huh. 19 MS. O'BRIEN: So I'm just going to ask a simple 20 question. 21 Are there going to be a lot of times where 22 there's traffic that's piled up on Tempo and people can't 23 get in to the mall for other reasons? 24 MR. JAGGI: Yeah, I would -- you want to go 25 ahead and address that?

Page 41 1 I think with the mitigation that's proposed, 2 with these dual lefts coming up north on Tempo, that 3 should reduce the queuing, so that they won't be blocking 4 that entrance here that we see coming southbound. That's 5 why these additional lanes have been added, otherwise if 6 we don't, the data was showing that we could potentially 7 have cars stacking up across this access point, and then 8 you have a situation where you have to come in further 9 south and use that other entrance. That's not desirable. 10 I think the goal here is to try to keep the 11 traffic up on this corner as much as possible during most 12 of the -- most of the peak periods throughout all of their 13 operations. 14 So, and then that along with signal timing along 15 the main lane, which is Olive Boulevard, those signal 16 adjustments that MoDOT has already kind of agreed with, 17 that should help get cars through this intersection a 18 little bit quicker, so I think -- I think that largely 19 mitigates a lot of the traffic concerns we have. 20 Kyle did note, though, that, you know, because 21 of the volumes that we have on Olive during some of the 22 periods, in particular, I believe it's in the evening, the 23 p.m. peak, there's already stacking going on here at this 24 intersection, so those cars have a length of time, you can 25 see here p.m. peak, that's westbound through at Olive at	Page 43 1 bit longer than that. 2 But I think that's what we see is a pretty rare 3 occasion, and with Tempo, the improvements on Tempo, 4 there's a lot of improvements that we see in terms of cars 5 getting through that intersection. 6 CHAIRMAN LABONTE: I think the question may be 7 more -- I think you're asking about coming in, though, 8 maybe if you could put up the picture of how traffic 9 actually flows around the building. 10 MR. JAGGI: Oh, sure. Okay. 11 CHAIRMAN LABONTE: Because, to me, that -- it's 12 clear for people going east on Olive that they wouldn't 13 want to maybe go Tempo, they would want to take the other 14 entrance in cause they would bypass it completely. 15 MR. JAGGI: Yeah. Okay. 16 CHAIRMAN LABONTE: But for anyone coming the 17 other -- coming west on Olive needing to get, that's the 18 only way they can get in, and then just looking at the 19 flow, it's not clear, really, unless you make an immediate 20 right into the parking lot how you get to the rest of the 21 buildings to -- 22 MR. JAGGI: I think -- yeah, I think their 23 presentation might show it a little bit better than mine. 24 I see what you're saying. 25 Let's bring that up.
Page 42 1 that Tempo intersection, that's 1100 feet of cars stacking 2 there waiting to go through. 3 We do have a little bit of the left turn lane 4 that's coming in a little higher than the length of that 5 turn lane. That turn lane's about 300 feet long going 6 westbound on Olive to -- to left bound -- southbound on 7 Tempo. 8 So that was a little bit of a concern and issue, 9 like, you know, on the 95th percentile, which is, again, 10 one or two times per cycle, what that kind of like 11 translates to, we could have a vehicle, the length of a 12 car thereabout, kind of going beyond what the capacity is 13 for those cars to turn. 14 But kind of going back to my original point, 15 you've already got 1100 feet of cars stacked, so when you 16 come up there you're not even reaching that point with 17 that many cars stacking there, so you've got a lot of 18 congestion already present. So it kind of takes the sting 19 a little bit away from some of these 300 numbers cause 20 you've got some traffic already there. 21 That's not to say that there may be some 22 occasions where that left bound, southbound Tempo -- make 23 sure I'm saying this right -- westbound on Olive, that 24 left turn lane to go southbound on Tempo, it will be 25 utilized quite a bit, and may, on occasion, go a little	Page 44 1 Okay. See if I can find it here. Here we go. 2 I think this might help. 3 So, this is Olive Boulevard up through here. 4 There is a median here, so if you're going westbound, you 5 can't access this center -- 6 MS. O'BRIEN: Right. 7 CHAIRMAN LABONTE: Right. 8 MR. JAGGI: -- drive. 9 So you have to go -- so all westbound Olive 10 traffic will have to use Tempo. And then they'll -- 11 they'll be turning in here, ideally, most of those cars 12 will turn in here, and then they'll come through here, and 13 then they'll access the drive-through lane here, go 14 through the drive-through facility, and then they will 15 exit back on to Tempo and back out. 16 Or, they could come through here, and then there 17 is, obviously, the option where they could come through -- 18 back through here and then exit and turn right on to Olive 19 that way. 20 MS. O'BRIEN: So the people who are going to the 21 other stores would take the bottom yellow? 22 MR. JAGGI: Right. There are two access points 23 on Tempo, and these are not proposed to change. They're 24 existing today. You can come in through here to -- to 25 utilize the storefronts further south.

Page 45 1 CHAIRMAN LABONTE: And are there two -- but 2 there's still only one lane in, or we added a left turn 3 lane going southbound on Tempo? 4 MR. JAGGI: Yes -- 5 CHAIRMAN LABONTE: Yes. 6 MR. JAGGI: -- there has been a lane striped -- 7 CHAIRMAN LABONTE: So that -- 8 MR. JAGGI: -- on southbound Tempo to turn left. 9 CHAIRMAN LABONTE: You could go -- you wouldn't 10 have to wait for them turning in, it sounds like? 11 MR. JAGGI: Right here. 12 VOICE: Yeah. 13 MR. JAGGI: This is the exhibit, so this is the 14 proposed mitigation. 15 This -- the landscape median would come out. 16 You would have two left turn lanes, dedicated left, going 17 westbound on Olive, and one through and right. And then 18 when you're coming southbound on Tempo, this is the new 19 striped left turn lane that would allow queuing and 20 dedicated lefts to go into the access drive here. 21 CHAIRMAN LABONTE: And then -- 22 MR. JAGGI: If you're not turning into this -- 23 this site here, you would come through here and access the 24 through lane. 25 CHAIRMAN LABONTE: Okay. Thank you.	Page 47 1 and we can potentially utilize one of these lanes and come 2 back around to have a minimal impact. 3 MR. LUMLEY: The 44 car count that Mr. Jaggi was 4 talking about, does that include the third bypass lane or 5 just the two regular ones? 6 MR. JUSTIN LURK: Just the two. 7 MS. O'BRIEN: Then for the people in the 8 subdivisions behind all of this, they're -- they would not 9 need to wait for Chick-fil-A people who are going -- or 10 leaving in order to get to Olive? There will be a lane 11 that they could take? 12 MR. JUSTIN LURK: If -- if you're trying to go 13 south? Correct. 14 MS. O'BRIEN: No, north. 15 MR. JUSTIN LURK: Oh, going north. So if 16 they're leaving their apartments? 17 MS. O'BRIEN: Home, and they're going to 18 Olive -- 19 MR. JUSTIN LURK: Uh-huh. 20 MS. O'BRIEN: And there's all these Chick-fil-A 21 people. 22 MR. JUSTIN LURK: Yeah, so that's what you see 23 on this side. So, taking what's -- what's there right 24 now, which is two lanes, and turning that into three 25 lanes, so having two as a dedicated left on Olive and then
Page 46 1 MR. BUELTER: On the traffic study. So can we 2 go back with the previous that you had. 3 So just -- yeah, that's good. 4 MR. JAGGI: Uh-huh. 5 MR. BUELTER: Just a what if for the 6 Chick-fil-A. 7 So, let's say big day, you have over 44 in the 8 queue. Where are they going to come out of the back 9 there? Are we going to curl those around to the left or 10 how do we think we're going to do traffic if we are over 11 44? 12 MR. JUSTIN LURK: Yeah, sure. 13 So if -- if we get more than 44, let's call it 14 grand opening weekend, right, so we'll partner with the 15 shopping center owner to develop a plan, call it a grand 16 opening plan, overflow plan, whatever the case may be, to 17 figure out a mitigation effort that won't impact the rest 18 of the tenants in the shopping center, so we don't have 19 that plan devised yet, but in concert with ownership we 20 can -- we can figure something out to handle overflow 21 traffic. 22 But right now -- 23 MR. LUMLEY: Does the -- 24 MR. JUSTIN LURK: To your point right now, would 25 curl around, you know, either up here or curl around here,	Page 48 1 one as a through and a right on Olive. 2 CHAIRMAN LABONTE: Where's the parking for, if 3 you're doing curbside or kind of counter (inaudible)? 4 MR. JUSTIN LURK: Yeah, so that's a -- that's a 5 operator or franchisee option, so it's not a requirement 6 to have pull-in spaces for curbside, so not many operators 7 in the St. Louis market are utilizing that right now. 8 Just -- I think just a handful that are. 9 But we don't dedicate -- or we don't specify 10 which parking space those would be. Just go back to the 11 overall site plan. Generally, they're close, you know, 12 somewhere close to the front door, so the team members 13 could, you know, could come out, service those vehicles, 14 so something in this general vicinity is what I would -- 15 what I would imagine. 16 MR. POTASHNICK: Where's that again? Where were 17 you pointing to? 18 MR. JUSTIN LURK: Somewhere -- somewhere in this 19 general facility. Some of the angled parking spaces 20 closest to the front door. So there are parking spaces up 21 here, these are generally ADA, the ADA stalls. 22 CHAIRMAN LABONTE: Uh-huh. 23 MR. JUSTIN LURK: I think there's one, two, 24 three, four, five, there are five that are non-ADA close 25 to the front door up there, so some of those could be

Page 49 1 utilized as well. 2 MR. WANG: I have a question about the traffic 3 study. 4 I'm more familiar with the ones -- like you 5 represent the queuing in terms of feet. Like bad one was 6 1400 feet or something. I'm used to seeing it in number 7 of cars. Would that be more helpful to guide us? 8 MR. JUSTIN LURK: So, generally -- I'm not a 9 traffic engineer, so I'm going to try to give -- 10 MR. WANG: Oh, Mr. Shane. Yeah. 11 MR. JUSTIN LURK: -- try to give you my take on 12 it. 13 But the reason you see feet is that there's a 14 variation in length for different types of cars. Call it 15 F350 is a different size than a Chevy Cruz, right? 16 So I think that's why a lot of people see 17 traffic studies as feet because can't -- you can't change 18 that. 19 But I don't know what's typical about 20 feet on 20 average. 21 MR. DAN SHANE: So, as rule of thumb, like if we 22 have in the queue of 200 feet, we consider the vehicle, 23 including the length of the vehicle and the kind of space 24 in between that vehicle and the next vehicle about 25 25 feet, so 200 feet of queue would represent eight	Page 51 1 MR. POTASHNICK: Yeah. 2 MR. JAGGI: Yeah. Yeah. That was -- that was a 3 lot of our concerns on that design size is the making it 4 fit in a little bit better to that area. 5 MR. POTASHNICK: If we want to make some 6 headway, I would expect to see something of better fit 7 design wise. So something that the staff would absolutely 8 support. 9 MR. JAGGI: Yeah. Right. Okay. 10 MR. BUELTER: We put a request in there, so, you 11 know, like materials for the building, can we get samples 12 once we get to that point? 13 MR. JAGGI: Yes. Yeah. We'll ask them to have 14 material samples, so you can see the brick and how their 15 -- all their exterior materials, what it will actually 16 look like -- 17 MR. BUELTER: Okay. 18 MR. JAGGI: -- because, as we've talked about 19 before, these color elevations, you can't really tell the 20 actual color, and we don't want any surprises. Try to 21 avoid that when it gets constructed, that, hey, that 22 doesn't look like the shade of brown we thought. 23 MR. POTASHNICK: Sure. 24 And, also, I'm trying to understand the traffic 25 study.
Page 50 1 vehicles. 2 So that's kind of how that works. 3 MR. WANG: I think for us as lay people, it's 4 more -- we can grasp ten cars instead of, you know, 5 250 feet easier. That's just my opinion. 6 MR. DAN SHANE: Yeah. We like to, as we're 7 making comparisons to the existing storage capacity of the 8 turn lanes, those are in feet, so we just like to keep it 9 in apples and apples, so. 10 But like I said, a general rule of thumb, it's 11 about 25 feet per -- per vehicle. 12 MR. WANG: Okay. Thank you. 13 MR. DAN SHANE: Uh-huh. 14 MR. POTASHNICK: I have a observation for -- for 15 Jason. 16 Not to quibble over words, but I think what I 17 heard in the presentation was there might be some design 18 tweaks, but sitting here and listening and looking, I 19 would say -- I would say I would be expecting something 20 profoundly more than design tweaks for the next 21 presentation. 22 I just -- it just doesn't -- the design just 23 doesn't fit in with what's -- with what's there. Just 24 sticks out -- going to stick out like an -- 25 MR. JAGGI: The design of the building?	Page 52 1 MR. JAGGI: Uh-huh. 2 MR. POTASHNICK: So, the intersection's already 3 over congested at times and -- 4 MR. JAGGI: I would ask Mr. Evans maybe. He's 5 our consulting traffic engineer. Would value his opinion 6 on the assessment of the overall traffic. 7 But, yes, I mean I would say, in summary, 8 this -- this use is going to put more cars out on to our 9 roadways during certain times of the day, therefore, 10 requires mitigation to handle that, and that's what we 11 describe -- 12 MR. POTASHNICK: So what I'm trying to 13 understand is just a plain English -- plain English, how 14 overburdened is the intersection now -- 15 MR. JAGGI: Yeah. 16 MR. POTASHNICK: -- and for how long, and in a 17 worst case -- more of a worst case scenario, where are we 18 going to be with heavier traffic? 19 MR. JAGGI: Yeah. 20 MR. KYLE EVANS: Okay. So, in terms of overall 21 intersections, the level of service is just like grade 22 school. So it's levels A through F where A is very little 23 congestion, F is intersection that's overcapacity, you 24 have lots of delay, a lot of queuing. 25 For the -- for what's out there today, these are

Page 53 1 just the individual approaches, because those are what we 2 felt were the critical movements. 3 As you can see, I'll try and highlight it, but 4 in the existing condition, during the midday, that 5 westbound left off of Olive and the northbound movement 6 off of Tempo, were level service F. 7 During the p.m. peak, the same thing, the 8 westbound left and the northbound movement are level 9 service F, so that's midday during the week and then the 10 p.m. during the week. 11 What was presented to us, based on the 12 mitigation of signal timing changes, and then the addition 13 of that second northbound left, even though they do have 14 additional cars that will be going through the 15 intersection, those movements were actually improved from 16 Fs to a level service D and a level service E, and in 17 terms -- for the midday, and then D and E also for the 18 mid -- or for the p.m. peak. 19 MoDOT does allow level service E on -- on 20 approaches, especially on a heavily congested corridor 21 like Olive. That's not something that's uncommon out 22 there. Especially, you know, the -- the through volumes 23 out there are almost reaching capacity for a two-lane 24 roadway, which would cause excessive congestion and 25 backups.	Page 55 1 MR. BUELTER: I have another question on -- can 2 you put the elevation up for me, please -- 3 MR. JAGGI: Uh-huh. 4 MR. BUELTER: -- for the proposed one. 5 So, I'm taking it the -- the dotted lines that 6 are on the top of those side views and front views is the 7 top -- the top of a roof. Okay. 8 MR. JAGGI: Well, that -- yes, these are the 9 parapets that extend beyond the top, correct. 10 MR. BUELTER: So the dotted lines that are 11 blanked out on -- are to use or what do we have up there? 12 MR. JAGGI: Yes. Yeah, that's correct. 13 MR. BUELTER: So when I was reading down through 14 here, typically, and I didn't see it on the existing 15 Chick-fil-A, is that they're screened, so are these that 16 are sticking above the parapet, are they going to be 17 screened on these? 18 MR. JAGGI: So our discussions with the 19 applicant is that -- is that these RTUs will match the 20 height of the parapet. 21 MR. BUELTER: Okay. 22 MR. JAGGI: I would agree, though, that that's 23 not really shown very accurate. 24 Especially on some of these -- some of these 25 elevations look -- look okay, but these ones stick out, so
Page 54 1 But the overall intersection is improved based 2 on the mitigation factors that have been applied for the 3 project. 4 MR. POTASHNICK: How many Es and Fs, I can't 5 quite see it -- 6 MR. KYLE EVANS: So -- 7 MR. POTASHNICK: -- that are in green on the -- 8 on -- 9 MR. KYLE EVANS: -- on the green, so I put a -- 10 if I highlighted it in green, basically, that means either 11 the level of service improved or the delay was reduced. 12 So in the a.m. peak, the westbound through, the 13 delay has been reduced by two seconds; the westbound left 14 is actually increased by approximately ten seconds. 15 But for northbound, it's -- the delay has been 16 reduced by ten seconds in the morning. 17 Those improvements have changed drastically 18 during the midday when you have more traffic out there. 19 So, for the westbound left, it's been reduced by 20 almost 40 seconds, and then the northbound movement has 21 improved from 100 second delay down to a 70 second delay. 22 So you, each vehicle that experiences delay 23 is -- it's been improved by almost 30 seconds per cycle. 24 MR. POTASHNICK: Okay. Thank you. 25 MR. KYLE EVANS: Yeah.	Page 56 1 I think that's -- that's an area that we're going to 2 refine a little bit further as well on that. 3 MR. BUELTER: Yeah. 4 MR. JAGGI: But this would not be an acceptable 5 condition unless additional screening was proposed with 6 the intent is to have that parapet go to the height of all 7 (inaudible). We would want to show that. 8 I would also mention that, I'm going to work 9 with them, and I think it'd be helpful to see perspective 10 renderings of the buildings on this site to have some 11 dimensional views, not just straight elevations. I think 12 that would also help you with the -- with some of the 13 revised design, kind of see how it fits in little better, 14 so we'll work with them on that too. 15 MR. BUELTER: And then one, and this is a 16 smaller question, on the trash enclosure -- 17 MR. JAGGI: Yeah. 18 MR. BUELTER: -- the one that I saw on the notes 19 here, it looked like it had two dumpsters, I'm thinking, 20 with, you know, drive-up, pick-up, the building that was 21 next to that, what is that there? Had a door on it. I 22 was like -- didn't know was -- almost looked like a trash 23 compactor first time I looked at it. 24 MR. JUSTIN LURK: No, just outdoor storage, like 25 shovels --

Page 57 1 MR. BUELTER: Okay. 2 MR. JUSTIN LURK: -- you know, anything from 3 out -- outdoor, you know, not -- not food wise, and 4 they're all -- all dried good -- 5 MR. BUELTER: Yes, that one there. 6 MR. JUSTIN LURK: Just out -- small outdoor 7 storage facility. 8 MR. BUELTER: Okay. Thank you. 9 That's all I have. Thanks. 10 CHAIRMAN LABONTE: Any other questions? 11 Before we open the -- oh, go ahead. 12 MS. O'BRIEN: I wanted to know about the sound 13 study and all that. At one point in a different hearing 14 there was some mention at night the sound carried 15 differently than it carries during the day, and it was 16 concern that the study, I might have not understood it 17 correctly, but it was measuring the sound during the day, 18 and I know there's a lot more traffic on Olive and maybe 19 noise like that, so that it would kind of muffle the -- 20 the sounds or the window or whatever, and maybe at night 21 it wouldn't, and it could be carried into the subdivisions 22 or whatever, that's my question. 23 MR. JAGGI: Okay. 24 Yeah, so there is actually two standards in our 25 ordinance.	Page 59 1 MR. BUELTER: One more question. 2 Lighting study. 3 MR. JAGGI: Yes. Yeah, there is a lighting plan 4 in the packet. We did cover it in the staff report. 5 They are proposing your standard height LED 6 parking lot lights that are down -- downcast, and they did 7 submit a photometric plan to show the lighting levels. 8 We usually look at that a little bit more in 9 detail at the permit stage, but we didn't see anything 10 that created concern for us on that. 11 MR. BUELTER: Okay. 12 CHAIRMAN LABONTE: Okay. 13 Let's open it up for public comment. 14 Thanks, Jason. 15 MR. JAGGI: Thank you. 16 CHAIRMAN LABONTE: So, I've got Steve Ras -- is 17 it Raskin? 18 If you'd like to come forward and state your 19 name and address. 20 MR. STEVE RASKIN: Sure. 21 CHAIRMAN LABONTE: Thank you. 22 MR. STEVE RASKIN: My name is Steve Raskin. I 23 live at 1017 Fashion Square. This is my daughter Ashley. 24 We've been residents in this community for 25 almost 30 years. Longer than she's been around.
Page 58 1 One standard is if it's adjacent to residential 2 or abutting residential, then there are more requirements 3 that come into play. 4 Since this is not abutting residential -- 5 MS. O'BRIEN: Okay. 6 MR. JAGGI: -- the standards aren't as high. 7 And all they're required to show is that it will 8 not increase the ambient sound levels as exist today at 9 the midday time period Monday through Friday. 10 So that does acknowledge if there's a lot of 11 noise in the area at that time, and this new facility 12 shouldn't increase anything above that. 13 And so the sound study that they've submitted 14 shows that that would be the case. 15 And it also has the automatic volume control 16 where that has an ambient noise sensor that adjusts the 17 speaker level, so you have protection there as well. 18 But these -- you know, these drive-through order 19 boards, they're on the interior side of the center. 20 They're not even near any residential. 21 And then the pick-up window, you know, there 22 aren't usually any speakers involved over there, so I 23 don't see it as a concern. 24 But, anyway, there were -- they were able to 25 demonstrate compliance.	Page 60 1 We're here today to voice our opposition to this 2 proposed development for a number of reasons. 3 I think that the gentleman spoke about some of 4 the esthetics and some of the acoustics. However, I'd 5 like to focus predominantly on the traffic study and the 6 overall safety of our community. 7 I believe Mr. Shane had mentioned that the 8 traffic doesn't work that great. As a longtime community 9 member, I can tell you, quite frankly, it doesn't. We've 10 had problems in this community on that subdivision 11 intersection between Tempo and Olive Boulevard for many, 12 many years, and traffic only gets worse as time 13 progresses. 14 This particular development is unique. This is 15 the first time the City of Creve Coeur has initiated a 16 dual drive-in system. 17 To my knowledge, I'm not aware of any of those 18 in local surrounding communities. It's going to be 19 something very unique for us, and they've got a 20 tremendously successful food franchise, and I would expect 21 that we would see a commensurate amount of traffic as part 22 of that. 23 Currently we have traffic that will bypass the 24 Ross and Olive intersection to get off at Tempo side. And 25 they go straight through our subdivision. This happens in

Page 61 1 the morning. This happens in the evening. This happens 2 all of the time. 3 With this additional traffic, we would expect to 4 continue and create a further traffic issue for us. 5 There's been a lot of conversation about what's 6 been happening with the traffic on the -- on the south 7 side of Olive Street Road, and we certainly respect that. 8 However, for all of us community members that 9 live on the north side, we don't have sidewalks, we have 10 very limited lighting, especially in the evenings, so when 11 people walk around, when we just walk in our community, 12 this additional traffic is going to create a real hazard. 13 And for that reason, I'm very concerned about 14 this proposed development, number of cars that are being 15 developed. 16 As I -- as many of you have made comments about 17 the traffic study. I had a chance to review it a little 18 bit. I noticed that some of the numbers were used off of 19 a facility in Milwaukee. I don't particularly know about 20 that facility. All I know is that many of their food 21 franchises are incredibly successful, (inaudible) a 22 tremendous amount of vehicular traffic. 23 All you have to do is take a look at Ellisville; 24 to take a look at Chesterfield, and you can see the volume 25 of cars that we're talking about.	Page 63 1 MS. MELANIE GALVIN: My name is Melanie Galvin. 2 I live in the Cove West Apartments on Tempo Drive. 3 There is a little shopping center on the west 4 side of Tempo Drive. 5 How are those people -- how will those 6 businesses be affected even with -- especially with two 7 left turn lanes coming in there? 8 The Cove West Apartments have one entrance and 9 one exit on to Tempo. There are school bus traffic that 10 has to come through. 11 My concern, in reviewing the plan, I also had a 12 question about how many cars they're really talking about. 13 You talk about, you know, queuing and stacking and, you 14 know, the variety of vehicles you can have. How many 15 vehicles really going to come through that Chick-fil-A 16 Monday through Friday during peak hours? 17 The study that Mr. Raskin was talking about was 18 one done in Wisconsin. They actually came up with 635 19 cars at the two peak times per day. 20 Tempo and Olive, even with the mitigation, will 21 not be able to address that. You cannot overcome human 22 behavior. And if you use that intersection often enough, 23 you see people trying to zoom through the -- the left turn 24 lane. It's just -- and I think the city has done some 25 things.
Page 62 1 If we see similar amounts of traffic in our 2 community, by inference we would expect that many of those 3 folks are going to take shortcuts. They're going to go 4 north, straight across Olive Boulevard. They don't want 5 to go west. They don't want to go through all the street 6 lights. They're going to go straight through Tempo, 7 they're going to make a left on Impact, they're going to 8 make a right-hand turn on Ross Road to move to areas to 9 the north, and that creates a safety issue for us. 10 So, just as the gentleman had mentioned, the 11 drive-through is designed for the safety and security of 12 their team members. I would ask you as -- as 13 Commissioners to extend the same courtesy for us as 14 community members. 15 We want to make sure our communities are safe, 16 not only for us, but also for our children, and for that 17 reason, I voice my opposition to this. 18 CHAIRMAN LABONTE: Thank you. Thank you for 19 sharing. 20 Do we have anyone else here this evening that 21 would like to speak? 22 Yes. 23 MS. MELANIE GALVIN: I just have a question. 24 CHAIRMAN LABONTE: You want to come up, please, 25 and state your name and address.	Page 64 1 One interesting thing that they did was to 2 change the way the signal length works. And that was a 3 good thing. It was kind of surprising the way it worked, 4 but it does work, particularly on weekends. 5 But the volume of traffic they're talking about, 6 and you're not just talking about cars and minivans and 7 SUVs, there will be probably commercial traffic as well 8 with people coming in on their lunch hours in big service 9 trucks or whatever. So, that intersection is really, even 10 with the mitigation, is not going to handle it. 11 And, again, you cannot overcome human nature. 12 People are going to do things. We already know that they 13 don't observe it when you post the signs about not 14 blocking the intersection, for example. The volume is 15 going to create that problem. 16 So, that's my two cents. 17 CHAIRMAN LABONTE: Thank you. Thank you for 18 sharing. 19 Is there anyone else that would like to speak 20 this evening? 21 We need a motion? 22 MR. LUMLEY: Page 24 in the packet. 23 MS. O'BRIEN: I'll make a motion to -- I move to 24 continue the Public Hearing Application No. 22-031 to 25 January 17th, 2023 Planning & Zoning Commission meeting.

Page 65 1 MR. BUELTER: Second. 2 CHAIRMAN LABONTE: Okay. 3 MR. JAGGI: Before we do that, I think it's -- 4 is there anything else besides what we've talked about 5 that the Commission would expect staff or the applicant to 6 come back with? Is there anything that we haven't covered 7 that would be expected? 8 CHAIRMAN LABONTE: I like the thought of how 9 many cars are we really talking about, and, you know, at 10 the peak hour, and then maybe within a day. And then 11 understanding what the current number of cars is. Current 12 number of cars at the day and for the peak hours versus 13 what would be expected. 14 Cause I think, to your point, AJ, number of cars 15 resonates a lot more with that. 16 MR. LUMLEY: Maybe like a diagram or picture 17 form, so you can actually see it. 18 Even if your total eighteen cars, I'm not sure 19 understand what that really means unless you see it on the 20 screen. 21 MR. POTASHNICK: Do we need a (inaudible)? 22 MR. LUMLEY: I suggest wait and see what 23 dimensional plans that Jason talked about. If that's not 24 adequate then can use that option as well. 25 MR. WANG: Can I -- I was toying with the idea	Page 67 1 referring to? 2 CHAIRMAN LABONTE: Yeah. 3 MR. JAGGI: Okay. 4 MS. HALL: They have such a long parking lot, 5 though. They have a lot more space just kind of deal with 6 their traffic, whereas, we're talking about they can't 7 even get on the lot before we have a traffic issue. So, 8 and Bridgeton would kind of be closer to that, but I think 9 either one would be good to know, so. 10 MR. JAGGI: Okay. We can certainly confer with 11 the applicants -- 12 MR. WANG: Yeah. 13 MR. JAGGI: -- to see if that information is 14 available. 15 At least at a high level view, I'm thinking, you 16 know, getting traffic counts and all that, we'll just have 17 to see, I guess, what MoDOT has, and see if some of that 18 information is available. 19 I'm not sure what level of data we can get for 20 two or three other locations, but we'll see what we can do 21 when we come back. Yeah. 22 MS. O'BRIEN: The other thing I think would be 23 helpful is just to understand like the other properties 24 that have access to Tempo and how traffic would be 25 affected by them.
Page 66 1 if some kind of a study on the facilities on Manchester 2 Road and the one in Chesterfield. How do you assess 3 that -- those facilities? Are they -- how does this one 4 compare with that one, if possible. Cause those two 5 operations, I'm kind of familiar with. I see how much 6 traffic. Is this one going to be similar, worse, you 7 know, more traffic? Something -- 8 MS. O'BRIEN: Yeah, it would be nice to know, of 9 those two that AJ's mentioned, how many cars go through 10 there, you know, per hour or whatever, especially during 11 the peak times. 12 I think it would make it a little more 13 understandable for us. 14 MS. HALL: Also, I think the one in Bridgeton 15 probably give us a better idea because it's so close to 16 the street, which is a similar situation that we're going 17 to be dealing with. 18 Whereas, in Chesterfield it's kind of like 19 they're already on the parking lot once the traffic starts 20 for them, so I think Bridgeton probably would give us a 21 better glimpse of what the traffic would be (inaudible). 22 MR. WANG: I would already say that the one on 23 Manchester Road, though, seems to be (inaudible). 24 MS. HALL: Right. 25 MR. JAGGI: Is this the one in Des Peres you're	Page 68 1 I mean I know we had sort of an overview of 2 that, but like would it just be between four and seven at 3 night that, you know, maybe the apartment building would 4 be hard to get into or, you know, maybe a little bit more 5 specifics on it would be helpful. 6 MR. JAGGI: Okay. 7 MR. POTASHNICK: And one other question. Could 8 we possibly get some feedback on the residential streets, 9 the traffic, the traffic flow? 10 MR. JAGGI: Which residential streets would you 11 be interested in? 12 VOICE: Fashion Square. 13 MR. POTASHNICK: The gentleman who spoke first. 14 MR. STEVE RASKIN: Tempo, Fashion Square, 15 Impact, some of those streets that are approximate to 16 Ross. 17 MR. JAGGI: On the north side of Olive? 18 MR. STEVE RASKIN: Yes, sir. 19 MR. JAGGI: Again, we'll see what we can get, 20 you know, at the next meeting and what's available and try 21 and -- I'll certainly do my best to bring that information 22 back. I just can't answer yes, we can get all that 23 information, it's out there and we can get it to you then. 24 But I think I understand what you're trying to 25 get, a little bit more of a comparison, a little bit more

Page 69 1 detail on some of these surrounding areas with traffic, 2 and we will certainly do our best to bring that to you. 3 CHAIRMAN LABONTE: Well, and I think Chick -- 4 the Chick-fil-A team, to me, should be able to tell number 5 of orders an hour. I mean maybe we're not talking cars, 6 but number of orders an hour for a store, like an average 7 store that's expected. 8 I'm sure to put a store there, they've already 9 done some type of study to understand what they expect for 10 the number of patrons that are going to be coming in, or 11 they wouldn't have chosen that location. 12 So, I'm assuming you have some type of 13 expectation of what the order -- orders are going to be. 14 So I think that would be -- that, you know, not 15 cars, maybe, but -- 16 MS. HALL: Just the volume. 17 CHAIRMAN LABONTE: The volume of orders coming 18 through, we could associate that to cars. 19 MS. O'BRIEN: One other thing I think that might 20 have been helpful, all those charts with the A, B, C, D, E 21 and F, I didn't understand them. And maybe it's in the 22 report. Maybe I need to look at it. 23 But if we could have maybe the chart that was up 24 there with the legend of what all those grades meant, and 25 then we could look at it again, that might be helpful too.	Page 71 1 Thank you. Appreciate it. 2 CHAIRMAN LABONTE: Uh-huh. Thank you. 3 All right. So now take a vote, right? 4 All right. So this is the motion for the 5 January 17th meeting. 6 MR. LUMLEY: You can just do all in favor. 7 CHAIRMAN LABONTE: Okay. 8 All in favor? 9 (All responded aye.) 10 CHAIRMAN LABONTE: Any opposed? 11 Okay. So, we'll look forward to seeing you back 12 on the 17th. 13 Thank you. And thank you for everyone that came 14 and spoke tonight. 15 (At 8:01 p.m. the Public Hearing was continued 16 to January 17, 2023.) 17 18 19 20 21 22 23 24 25
Page 70 1 Cause I mean I think understanding is we've 2 already got a problem with through traffic, this -- the 3 mitigations are supposed to help with some of the through 4 traffic, but then there's the left turn issue. It's 5 two -- almost like two separate. 6 MR. BUELTER: I daily, I go that way a lot so, 7 but, you know, at that point you actually almost have 8 people think there's three through lanes there, and you 9 get down to Tempo and you got to -- you have to turn 10 right, so I've been in that one lane many times where 11 people will get down there and go I want to go through, 12 and they'll buzz right in there, so it's not the most 13 ideal intersection to start with. 14 MR. JAGGI: You mean the right going westbound 15 on Olive, that's a right only? 16 MR. BUELTER: Correct. 17 MR. JAGGI: Yeah, you have to get over one, 18 yeah. 19 MR. BUELTER: I won't say it's going -- 20 MR. JAGGI: Yeah. 21 MR. BUELTER: -- from three to two lanes. 22 MR. JAGGI: Oh, I can only turn right, I got to 23 get over. 24 MR. BUELTER: Correct. I've been bumped over. 25 MR. JAGGI: Yeah.	

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44/15 44/23 45/3	52/23 53/9 53/21	4/8 4/17 4/18	56/9 56/11 60/3	60/15 61/2
45/8 45/18 53/6	53/21 55/12	4/19 8/2 8/10	63/24 65/3 65/14	timed [1] 18/15
60/11 60/24 62/6	55/22 56/1 56/1	8/22 8/23 14/6	66/12 66/14	timeline [1]
63/2 63/4 63/9	57/9 57/22 64/16	14/6 14/7 14/11	66/20 67/8 67/22	21/1
63/20 67/24	65/23 69/7 70/15	15/12 15/14	68/24 69/3 69/14	times [15] 6/6
68/14 70/9	that's a [1]	15/21 15/23	69/19 70/1 70/8	7/9 17/17 22/19
ten [5] 33/6	48/4	16/23 17/5 17/15	think their [1]	35/20 38/1 38/23
38/25 50/4 54/14	that's what [1]	17/19 19/16	43/22	39/4 40/21 42/10
54/16	52/10	21/16 21/23	thinking [2]	52/3 52/9 63/19
tenant [1] 12/1	their [31] 4/19	22/25 27/7 28/21	56/19 67/15	66/11 70/10
tenants [3] 7/11	5/15 14/5 14/11	29/3 30/3 33/15	third [4] 9/21	times and [1]
10/20 46/18	15/8 15/19 15/19	34/4 34/5 34/15	10/6 22/19 47/4	52/3
Tenth [1] 36/6	17/17 17/19	34/25 35/9 35/10	this [132]	timing [3] 35/21
terms [15] 23/6	19/12 21/16 23/9	36/16 37/4 41/3	Thomas [1] 1/13	41/14 53/12
23/12 23/14 25/1	23/10 23/10	43/12 43/13	those [58] 1/10	today [16] 4/12
26/1 26/10 26/12	27/18 33/19	43/14 43/18	6/6 9/8 9/9 10/3	4/21 6/18 12/7
26/15 30/13	33/22 34/2 34/9	44/14 44/16	10/24 11/13 13/7	18/2 18/17/18/20
38/18 40/7 43/4	35/3 39/25 40/4	44/17 46/8 47/8	15/25 16/13	20/4 25/16 26/11
49/5 52/20 53/17	41/12 43/22	47/11 53/13	16/17 17/4 17/22	37/8 37/16 44/24
textured [1]	47/16 51/14	55/16 58/24 59/5	18/22 22/8 22/8	52/25 58/8 60/1
25/23	51/15 61/20	59/6 60/25 62/4	26/19 27/2 27/2	together [1]
TGI [2] 6/23	62/12 64/8 67/6	62/5 63/18 64/1	27/11 27/12	36/20
10/12	theirs [1] 33/3	64/12 66/3 67/4	27/16 27/23 28/8	tonight [7] 3/12
TGIF [1] 22/12	them [19] 9/11	67/5 67/6 69/9	28/24 30/5 30/21	20/24 21/2 21/7
than [23] 5/6	9/19 11/3 11/15	69/11	32/15 36/9 37/1	39/21 40/2 71/14
13/11 18/2 18/17	12/6 26/25 27/4	they'll [5]	37/14 37/22	tonight's [1]
	27/10 29/20	44/10 44/11	37/22 37/25	20/21

T	45/22 47/24	Unenclosed [1] 32/13	variation [1] 49/14	30/11 35/12
too [6] 6/10	turns [1] 37/15	Unfinished [1] 2/24	variety [3] 12/25 23/20	37/25 38/14
12/13 15/4 15/14	tweaks [3] 11/2	unique [3] 27/8	63/14	40/24 43/13
56/14 69/25	twelve [2] 30/22	60/14 60/19	various [1] 29/7	43/13 51/5 51/20
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11/18 13/14 55/6	two [59] 7/23	unless [3] 43/19	vehicle [7] 42/11 49/22	62/15 62/24
55/7 55/7 55/9	7/24 8/5 8/5 8/8	56/5 65/19	49/23 49/24	70/11
total [2] 38/20	8/20 8/21 9/1	until [1] 4/3	49/24 50/11	wanted [7] 7/5
65/18	9/2 9/3 9/5 9/6	up [48] 4/3 4/8	54/22	12/7 15/5 18/21
totaling [1] 31/1	9/16 9/17 9/18	4/11 4/17 4/25	vehicles [7] 13/14 13/15	19/6 19/22 57/12
toward [1] 31/7	10/21 10/25	5/7 5/13 6/1	33/13 48/13 50/1	warm [2] 6/13
towards [1] 19/13	11/10 11/17	6/24 7/5 8/18	63/14 63/15	6/14
toying [1] 65/25	12/17 16/7 18/3	8/18 9/5 9/8	vehicular [1] 61/22	was [46] 4/4 4/9
tradition [1] 4/21	18/16 19/2 21/17	9/16 10/1 11/7	version [2] 7/8	5/1 7/25 9/10
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trash [5] 14/15	38/15 38/20	25/25 26/8 28/6	13/3 22/19 23/14	28/19 29/10
32/20 32/23	42/10 44/22 45/1	40/22 41/2 41/7	25/4 29/11 30/9	31/21 35/16
56/16 56/22	45/16 47/5 47/6	41/11 42/16 43/8	52/22 55/23	36/13 36/18
trees [4] 13/4	47/24 47/25	43/25 44/3 46/25	60/19 61/10	36/23 41/6 42/8
13/5 13/23 13/24	48/23 53/23	48/20 48/25 55/2	61/13	47/3 49/5 50/17
tremendous [1] 61/22	54/13 56/19	55/11 56/20	via [1] 9/24	51/2 51/2 53/11
tremendously [1] 60/20	57/24 63/6 63/19	56/20 58/21	vicinity [1] 48/14	54/11 55/13 56/5
trimwork [1] 27/14	64/16 66/4 66/9	59/13 62/24	view [3] 7/20	56/20 56/22
trips [1] 16/18	67/20 70/5 70/5	63/18 69/23	32/21 67/15	56/22 57/14
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True [1] 6/4	two-lane [1] 53/23	us [27] 3/12 5/3	55/6 56/11	63/17 63/17 64/1
Truett [2] 3/20	type [7] 23/13	6/3 7/3 13/25	visitors [1] 24/9	64/2 64/3 65/25
4/6	23/14 26/22	15/23 16/3 20/22	visual [3] 26/19	69/23 71/15
try [14] 11/15	28/25 30/10 69/9	23/1 24/6 27/25	27/15 28/18	wash [1] 13/7
20/17 26/25	69/12	30/1 35/14 36/24	voice [2] 60/1	wasn't [4] 4/3
27/10 27/12	types [1] 49/14	49/7 50/3 53/11	62/17	17/7 18/16 19/15
27/25 28/4 28/15	typical [5] 3/23	59/10 60/19 61/4	volume [8] 34/20	water [1] 11/11
41/10 49/9 49/11	8/20 16/19 17/4	61/8 62/9 62/13	35/2 58/15 61/24	way [22] 8/4 8/7
51/20 53/3 68/20	49/19	62/16 66/13	64/5 64/14 69/16	8/18 8/23 8/24
trying [7] 11/2	typically [4] 14/12 17/17 39/8	66/15 66/20	69/17	9/4 9/19 9/21
11/4 47/12 51/24	55/14	usability [1] 26/1	volumes [3] 17/6	10/1 14/4 17/3
52/12 63/23	U	use [16] 3/1	41/21 53/22	17/16 19/9 19/12
68/24	Uh [8] 40/18	3/16 8/23 8/24	vote [3] 20/3	25/25 26/5 26/6
trying to [1] 11/4	46/4 47/19 48/22	9/19 12/20 16/4	21/18 71/3	43/18 44/19 64/2
Tuesday [1] 21/10	50/13 52/1 55/3	20/23 23/13 29/3	W	64/3 70/6
turn [30] 14/22	71/2	41/9 44/10 52/8	wait [3] 45/10	ways [3] 8/14
15/18 18/3 18/5	Uh-huh [8] 40/18	65/24	47/9 65/22	10/3 27/25
18/12 18/16	46/4 47/19 48/22	used [4] 7/23	waiting [2] 33/16 42/2	WBL [1] 38/10
18/22 18/23	50/13 52/1 55/3	8/13 49/6 61/18	walk [3] 8/9	WBT [1] 38/11
19/20 19/25	71/2	uses [1] 30/18	61/11 61/11	we [190]
37/14 38/2 42/3	uncommon [1] 53/21	using [3] 9/21	walkability [1] 24/3	we'd [4] 10/21
42/5 42/5 42/13	under [1] 22/7	10/4 38/23	wall [2] 14/19	27/4 29/8 34/1
42/24 44/12	understand [10] 38/10 39/23	usually [2] 58/22 59/8	32/1	we'll [18] 2/1
44/18 45/2 45/8	40/16 51/24	utility [1] 13/25	Waller [2] 1/16	2/23 2/25 3/13
45/16 45/19 50/8	52/13 65/19	utilize [3] 18/1	2/21	4/12 12/5 19/25
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turning [4] 44/11 45/10	understandable [1] 66/13	utilizing [2] 8/14 48/7	want [19] 6/17	56/14 67/16
	understanding [2] 65/11 70/1	V	14/7 15/23 16/15	67/20 68/19
	understood [1] 57/16	value [1] 52/5		71/11
				we're [37] 3/14
				5/1 6/17 6/21
				6/21 7/10 7/10
				7/15 10/21 10/23
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W	23/7	32/4 35/16 37/12	worst [2] 52/17	Z
we're... [10]	what [64] 3/14	41/15 42/9 47/24	52/17	zoning [7] 1/1
39/18 40/2 46/10	3/14 4/12 6/17	48/10 53/24	would [88]	21/3 21/24 22/3
50/6 56/1 60/1	8/4 8/13 10/16	66/16 68/10	wouldn't [5]	30/11 30/19
61/25 66/16 67/6	10/18 10/19 12/9	while [1] 38/3	19/1 43/12 45/9	64/25
69/5	12/15 15/5 16/10	who [5] 3/15	57/21 69/11	zoom [1] 63/23
we've [17] 4/24	16/15 17/13 18/2	6/15 44/20 47/9	wrap [1] 9/4	zoomed [2] 7/19
6/4 6/8 8/8 8/24	18/17 18/19	68/13		7/20
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19/13 19/13	21/20 21/20	18/25 23/18	yeah [34] 19/9	7/19 7/20
29/24 40/6 51/18	23/24 24/5 26/11	38/21	19/22 36/21	
59/24 60/9 65/4	28/15 28/22	why [2] 41/5	40/24 43/15	
70/1	28/25 29/1 29/6	49/16	43/22 45/12 46/3	
weather [1] 9/13	37/4 37/8 37/10	wide [1] 17/24	46/12 47/22 48/4	
week [5] 4/18	37/25 42/10	widen [1] 18/11	49/10 50/6 51/1	
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53/10	46/5 47/22 48/14	11/6 13/9 13/14	51/13 52/15	
weekend [1]	48/15 50/16	14/10 14/21	52/19 54/25	
46/14	51/15 52/10	14/22 21/12	55/12 56/3 56/17	
weekends [1]	52/12 53/1 53/11	21/13 22/8 25/21	57/24 59/3 66/8	
64/4	55/11 56/21 65/4	25/21 27/14	67/2 67/12 67/21	
well [33] 5/25	65/11 65/13	28/24 35/2 42/24	70/17 70/18	
7/1 7/12 9/5	65/19 65/22	44/10 44/12	70/20 70/25	
9/15 10/24 11/12	66/21 67/17	44/14 47/10	year [8] 4/25	
11/16 12/10	67/19 67/20	51/15 53/14	13/9 13/17 14/10	
12/20 13/1 13/17	68/19 68/24 69/9	55/19 58/7 60/23	14/16 22/2 29/23	
13/17 14/17	69/13 69/24	63/5 63/20 64/7	30/2	
15/23 24/12 26/2	what's [11] 5/11	69/2 70/11	year-round [5]	
26/20 29/13	7/2 28/5 47/23	wind [1] 9/14	13/9 13/17 14/10	
29/16 29/17	47/23 49/19	window [6] 8/12	14/16 29/23	
32/24 33/7 33/8	50/23 50/23	8/18 22/22 32/1	years [3] 17/19	
33/18 35/22 49/1	52/25 61/5 68/20	57/20 58/21	59/25 60/12	
55/8 56/2 58/17	whatever [5]	windows [2]	yellow [3] 7/14	
64/7 65/24 69/3	46/16 57/20	30/25 32/6	15/25 44/21	
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16/5 22/2 22/4	whatnot [1] 5/14	Wisconsin [1]	45/4 45/5 51/13	
31/18 36/12	when [25] 4/3	63/18	52/7 55/8 55/12	
were [29] 3/6	4/16 8/25 10/23	wise [3] 12/10	57/5 59/3 62/22	
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16/9 17/8 17/11	24/25 26/17	7/12 7/17 10/20	12/5 40/4 46/19	
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53/6 53/15 58/24	where [26] 3/24	34/6 41/3 46/17	7/22 8/4 8/19	
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43/17 62/5 63/2	39/18 40/2 40/21	28/6	47/12 48/3 64/6	
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westbound [20]	46/8 48/16 52/17	work [10] 12/5	you've [9] 7/21	
18/22 18/23	52/22 58/16	16/14 17/8 20/2	11/18 11/18 21/6	
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37/15 37/24	Where's [2] 48/2	56/14 60/8 64/4	42/15 42/17	
38/10 38/12	48/16	worked [3] 11/3	42/20	
41/25 42/6 42/23	whereas [2]	27/10 64/3	your [15] 8/18	
44/4 44/9 45/17	66/18 67/6	working [6] 5/17	9/16 9/18 9/18	
53/5 53/8 54/12	which [23] 4/25	11/1 12/18 19/12	10/1 20/6 20/18	
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70/14	11/20 12/24	works [2] 50/2	46/24 59/5 59/18	
Westgate [4]	12/25 14/15	64/2	62/25 65/14	
6/19 6/22 11/24	18/13 24/12	worse [3] 37/8	65/18	
	25/13 26/22 31/3	60/12 66/6		



**APPLICATION TO PLANNING AND ZONING COMMISSION
#22-040: TEXT AMENDMENTS TO VARIOUS SECTIONS OF THE
ZONING ORDINANCE (CHAPTER 405) TO PROVIDE REGULATIONS FOR
RECREATIONAL MARIJUANA BUSINESSES**

FOR THE MEETING OF: Monday, February 6, 2023, 6:00 P.M.

LOCATION: All Office, Commercial and Light Industrial Zoning Districts

REQUEST: Jason Jaggi, Director of Community Development, on behalf of the City of Creve Coeur, has submitted an application to amend various sections of the City's Zoning Ordinance, Chapter 405, to allow recreational marijuana uses in appropriate zoning districts. These marijuana uses include cultivation, manufacturing, and testing facilities, as well as, dispensaries. The proposed changes are in response to an amendment to Missouri's constitution approved by voters on November 8, 2022, which legalized recreational, adult-use marijuana.

ADDITIONAL INFORMATION: The Planning and Zoning Commission held a public hearing for this item on January 17, 2023. The public hearing was closed, and the Commission continued this item to the February 6, 2023 meeting.

APPLICANT: Jason W. Jaggi, AICP
Director of Community Development
City of Creve Coeur
300 N. New Ballas Road
Creve Coeur, MO 63141

REPORT PREPARED BY: Jason W. Jaggi, AICP, Director of Community Development

DATE: February 2, 2023

ATTACHMENTS: Draft Ordinance

Key Issues:

- Are the changes consistent with the purposes of the Zoning Code?
- Are the changes consistent with the purposes of the Comprehensive Plan?

Creve Coeur 2030 References

- NA

Zoning Code References

- Section 405.120 Definition of Terms
- Section 405.210: Regulation of Uses
- Section 405.470: Conditional Uses

BACKGROUND

The Planning and Zoning Commission held a public hearing on this item at the January 17, 2023 meeting. The Commission closed the public hearing and requested that this matter be included at the January 23rd City Council/Planning and Zoning Commission Joint Work Session to allow for further discussion. The Commission subsequently continued this item to the February 6, 2023 meeting.

The primary issues expressed by the Commission concerned the 300-foot separation requirement for marijuana dispensaries and the exclusion of daycares and places of worship from this separation requirement as allowed by the State. Related to this matter, is the revised method of how the distance requirements are measured. There were also some concerns with the allowance of drive-throughs for marijuana dispensaries.

REVISED ORDINANCE

Based on the prior discussion by the Planning and Zoning Commission, staff has proposed additional amendments to the draft ordinance.

Separation Requirements

The State allows local governments to require marijuana facilities to be up to 1,000-feet away from churches, schools and day-care centers. For medical marijuana, the City established a 300-foot separation requirement for medical marijuana dispensaries for existing schools only. The separation requirements were measured from the property line of the dispensary to the closest property line of the school.

Revisions: The revised draft ordinance increases the distance for all marijuana dispensaries to 1,000 feet and adds daycares and churches.

Measurement Method

Amendment 3 provided for a specific method for measuring distance between marijuana facilities. This change affects how the distance is applied compared the City's medical marijuana ordinance.

The method for measuring the separation of dispensary facilities has been amended as follows to include the 1,000 feet separation requirement and daycares and churches:

...no Comprehensive or Medical Marijuana Dispensary Facility, or Microbusiness Marijuana Dispensary Facility shall be initially sited within ~~three hundred (300)~~ one thousand (1,000) feet of any then-existing elementary or secondary school, ~~daycare, or church~~. In the case of a free-standing facility, the distance between the facility and the school shall be measured from the external wall of the facility closest in proximity to the school to the closest point of the property line of the school, unless the school is part of a larger structure such as an office building or ~~strip~~ mall, in which case the distance shall be measured to the entrance or exit of the school in closest proximity to the facility. In the case of a facility that is part of a larger structure, such as an office building or ~~strip~~ mall, the distance between the facility and the school shall be measured from the property line of the school to the facility's entrance or exit closest in proximity to the school, unless the school is part of a larger structure such as an office building or ~~strip~~ mall, in which case the distance shall be measured to the entrance or exit of the school in closest proximity to the facility. Measurements shall be made along the shortest path between the demarcation points that can be lawfully traveled by foot.

The following maps were presented at the joint work session taking into account the above method for measuring distance with the two existing medical marijuana dispensaries to schools, churches and daycares. These maps show that the existing dispensaries would not be affected by the increase to 1,000 feet and the inclusion of daycares and churches and would be able to convert to a comprehensive

marijuana dispensary. Both facilities appear to be further than the 1,000 feet requirement from these protected land uses.

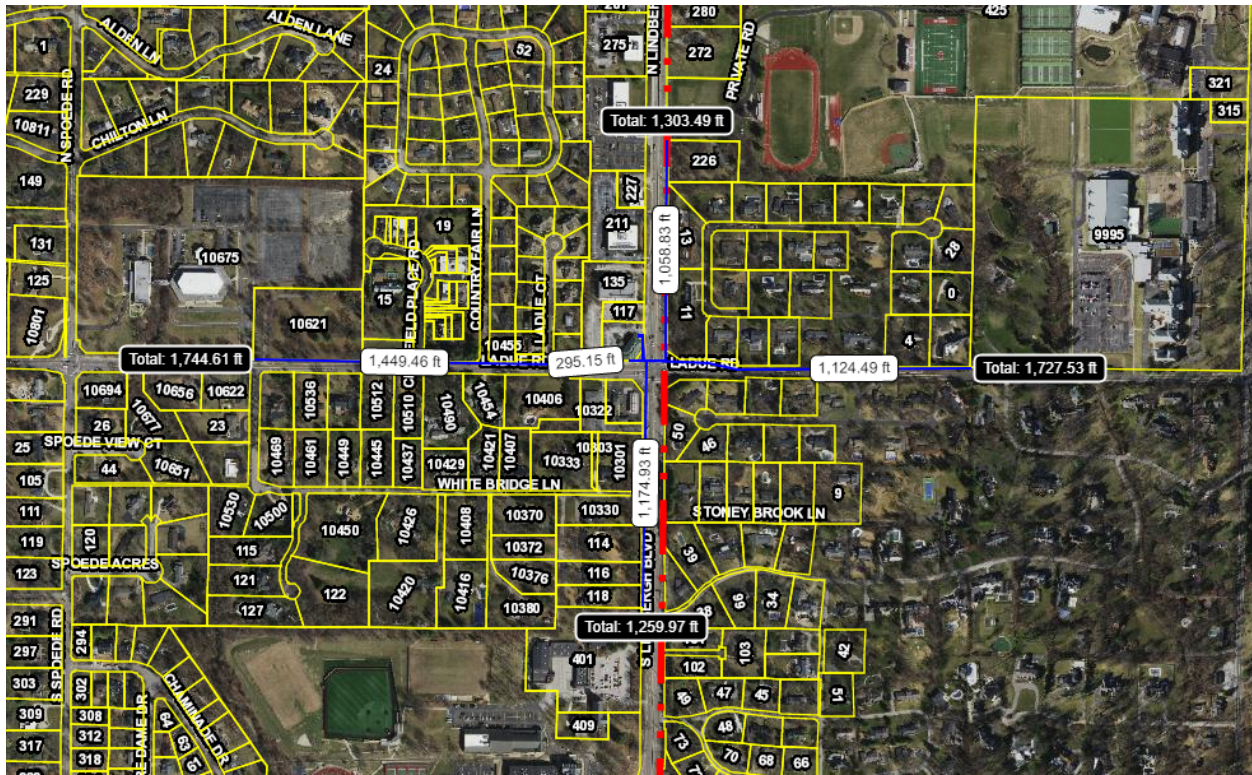


Figure 1: Distance measurements (totals shown in black boxes) from existing dispensary at 105 N. Lindbergh to closest churches, schools, and daycares.

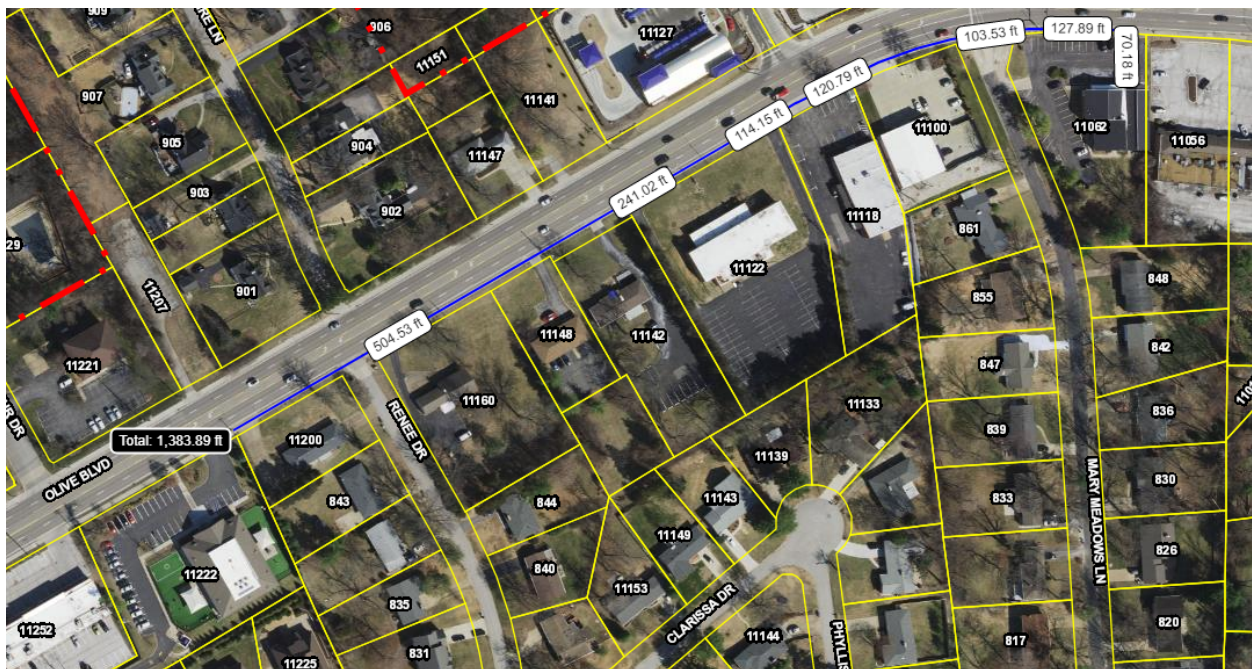


Figure 2: Distance measurements (totals shown in black boxes) from existing dispensary at 11062 Olive to closest churches, schools, and daycares.

Drive-throughs for Dispensaries

The Commission expressed concerns with allowing drive-throughs for marijuana dispensaries. The prior draft ordinance included the ability to allow drive-throughs as a conditional use in all commercial and light industrial districts, except Planned Office (PO) subject to the following conditional use standards:

- a. Shall provide space for at least three (3) cars per drive-up window or station.
- b. Shall provide landscaping to screen the view of drive-up waiting spaces from surrounding properties.
- c. Drive-up window access, waiting spaces and egress shall not interfere with site circulation or be hazardous to motorists entering, exiting or passing by the site.
- d. When provided in the "PH" District, drive-through services shall be limited to uses complementary to the medical uses existing on the campus.

The state law allows for drive-through dispensaries; however, the state also allows local governments to regulate, time, place and manner for marijuana facilities. With this in mind, it appears that the City could choose to not allow drive-through dispensaries under these broad parameters. If the City was comfortable with the foregoing standards, a traffic study could be required in connection with item c above when deemed necessary.

Staff requests further discussion and resolution on this topic by the Commission.

NEXT STEPS

The Commission should review the proposed revisions to these regulations. If there are any other discussion items or revisions to the Ordinance, staff will be available for assistance. If the Commission is in agreement with the proposed text amendments in keeping with the Comprehensive Plan and sufficiently provides the necessary regulations for these uses, a motion to recommend approval to the City Council would be needed.

MOTION

If the Planning and Zoning Commission accepts the revised draft ordinance as written, the following would be a suitable motion for this application:

“I move to recommend approval to the City Council of the proposed text amendments to various sections of the Zoning Ordinance as discussed with Application #22-040 to allow for recreational marijuana related uses in compliance with State Law, with certain conditions as discussed within the proposed draft ordinance for the meeting of February 6, 2023” (conditions may be added, eliminated, or modified by preceding motion).

APPENDIX 1: COMPREHENSIVE PLAN

Included and attached by reference. See body of report for specific excerpts.

APPENDIX 2: ZONING CODE

Included by reference. See body of report for specific excerpts.

BILL NO. _____

ORDINANCE NO. _____

AN ORDINANCE AMENDING VARIOUS SECTIONS OF CHAPTER 405, THE ZONING ORDINANCE, TO ALLOW FOR RECREATIONAL MARIJUANA RELATED USES

WHEREAS, an amendment to Missouri's constitution was approved by voters on November 8, 2022 which legalized recreational marijuana; and

WHEREAS, all marijuana activities are subject to regulation by the State of Missouri; and

WHEREAS, an application was submitted by the Director of Community Development for text amendments to various sections of the City's Zoning Ordinance to allow recreational marijuana uses in appropriate zoning districts; and

WHEREAS, the Planning and Zoning Commission of the City of Creve Coeur, Missouri has recognized the need for such changes as set forth herein for conformity with state law and zoning practices that are consistent with public health and welfare; and

WHEREAS, the Planning and Zoning Commission of the City of Creve Coeur, Missouri, held a public hearing thereon at the Creve Coeur Government Center on _____, beginning at 6:00 p.m., or immediately following the close of the previous public hearing; and

WHEREAS, the Planning and Zoning Commission reviewed and, by a vote of ____ recommended approval of the subject amendments at its meeting on _____; and

WHEREAS, notice of said public hearing had previously been published at least 15 days prior to the hearing in the St. Louis Countian, a newspaper of general circulation in the City of Creve Coeur and otherwise posted and published in accordance with the Zoning Ordinance; and

WHEREAS, all persons who presented themselves at said meeting and desiring to be heard were given an opportunity to be heard and a copy of the proposed ordinance has been made available for public inspection prior to its consideration by the City Council; and the Bill was read by title in open meeting two times before final passage by the City Council; and

WHEREAS, the City Council being fully informed finds that amending the City Code of Ordinances as provided herein would be in harmony with and bear a substantial relation to the public welfare, health, safety, comfort and convenience of the citizens of the City of Creve Coeur and in the public interest,

NOW, THEREFORE, be it ordained by the City Council of the City of Creve Coeur, Missouri, as follows:

BILL NO. _____

ORDINANCE NO. _____

SECTION 1. Table A, Permitted and Conditional Uses, is amended in the manner shown below:

Use Code	2012 NAICS Title	ZONING DISTRICTS													
		A	B	C	D	AR	HE	PH	PO	RO	MX	PC	GC	CB	LI
CC111419	<u>Comprehensive or Medical Marijuana Cultivation Facility, and Microbusiness Marijuana Wholesale Facility, inside a building or greenhouse as defined under Section 405.120 with no drive up facilities</u>									C					C
325414	Biological Product (except Diagnostic) Manufacturing									C					C
CC325415	<u>Comprehensive or Medical Marijuana-Infused Product Manufacturing Facility, entirely within an enclosed building as defined under Section 405.120 with no drive up facilities</u>									C					C
453998	All Other Miscellaneous Store Retailers (except auction houses, pool and hot tub sales/supplies and cemetery memorial dealers)										P	P	P	P	P
CC453999	<u>Comprehensive or Medical Marijuana Dispensary Facility as defined under Section 405.120, including Microbusiness Marijuana Dispensary Facility (provided any drive-thru or drive-up portion of any such dispensary shall be a conditional use in the designated districts)</u>							P		P	P	P	P	P	P
541380	Testing Laboratories								P	P		P	P	P	P
CC541381	<u>Medical Marijuana Testing Facility as defined under Section 405.120</u>									P					P

SECTION 2. Section 405.120 Definition of Terms of the Creve Coeur Code of Ordinances is hereby amended to include new and revised definitions as follows:

BILL NO. _____

ORDINANCE NO. _____

COMPREHENSIVE MARIJUANA CULTIVATION FACILITY: a facility licensed as such by the State of Missouri.

COMPREHENSIVE MARIJUANA DISPENSARY FACILITY: a facility licensed as such by the State of Missouri.

COMPREHENSIVE MARIJUANA-INFUSED PRODUCT MANUFACTURING FACILITY: a facility licensed as such by the State of Missouri.

MARIJUANA OR MARIHUANA: *Cannabis indica*, *Cannabis sativa*, and *Cannabis ruderalis*, hybrids of such species, and any other strains commonly understood within the scientific community to constitute marijuana, as well as resin extracted from the plant and marijuana-infused products. “Marijuana” or “Marihuana” do not include industrial hemp as defined by Missouri statute, containing a crop-wide average tetrahydrocannabinol concentration that does not exceed three-tenths of one percent on a dry weight basis, or commodities or products manufactured from industrial hemp.

~~MARIJUANA-INFUSED PRODUCTS: products that are infused with marijuana or an extract thereof and are intended for use or consumption other than by smoking, including, but not limited to, edible products, ointments, tinctures and concentrates.~~

MEDICAL MARIJUANA CULTIVATION FACILITY: a facility licensed as such by the State of Missouri ~~to acquire, cultivate, process, store, transport, and sell marijuana to a Medical Marijuana Dispensary Facility, Medical Marijuana Testing Facility, or to a Medical-Infused Products Manufacturing Facility.~~

MEDICAL MARIJUANA DISPENSARY FACILITY: a facility licensed as such by the State of Missouri ~~to acquire, store, sell, transport, and deliver marijuana, marijuana-infused products and drug paraphernalia used to administer marijuana in accordance with applicable law and regulations.~~

MEDICAL MARIJUANA-INFUSED PRODUCTS MANUFACTURING FACILITY: a facility licensed as such by the State of Missouri, ~~to acquire, store, manufacture, transport, and sell marijuana-infused products to a Medical Marijuana Dispensary Facility, a Medical Marijuana Test Facility, or to another Medical Marijuana-Infused Projects Manufacturing Facility.~~

~~MEDICAL MARIJUANA TESTING FACILITY: a facility certified as such by the State of Missouri, to acquire, test, certify, and transport marijuana.~~

BILL NO. _____

ORDINANCE NO. _____

MICROBUSINESS MARIJUANA DISPENSARY FACILITY: a facility licensed as such by the State of Missouri.

MICROBUSINESS MARIJUANA WHOLESALE FACILITY: a facility licensed as such by the State of Missouri.

SECTION 3. Section 405.450 Permitted Uses, Subsection G, is amended as follows:

- G Comprehensive or Medical Marijuana Dispensary Facility, and Microbusiness Marijuana Dispensary Facility (NAICS CC453999) ~~and Medical Marijuana Testing Facility (NAICS CC541384)~~ as defined in Section 405.120, which abide by all applicable laws and regulations, are permitted uses in the zoning districts as shown in Table A Permitted and Conditional Uses, but no Comprehensive or Medical Marijuana Dispensary Facility, or Microbusiness Marijuana Dispensary Facility shall be initially ~~sited on a property~~ within one thousand (~~300~~1,000) feet of a property of any then-existing elementary or secondary school, daycare, or a permanent building primarily and regularly used as a place of religious worship. ~~Measurements shall be made from the closest property line of the proposed Dispensary Facility to the closest property line of any such other use listed in this section. In the case of a free-standing facility, the distance between the facility and the school, daycare, or place of worship shall be measured from the external wall of the facility closest in proximity to the school, daycare, or place of worship to the closest point of the property line of the school, daycare, or place of worship unless the school, daycare or place of worship is part of a larger structure such as an office building or strip mall, in which case the distance shall be measured to the entrance or exit of the school, daycare, or place of worship in closest proximity to the facility. In the case of a facility that is part of a larger structure, such as an office building or strip mall, the distance between the facility and the school, daycare, or place of worship shall be measured from the property line of the school, daycare or place of worship to the facility's entrance or exit closest in proximity to the school, daycare, or place of worship, unless the school, daycare, or place of worship is part of a larger structure such as an office building or strip mall, in which case the distance shall be measured to the entrance or exit of the school, daycare, or place of worship in closest proximity to the facility. Measurements shall be made along the shortest path between the demarcation points that can be lawfully traveled by foot.~~

SECTION 4. Section 405.470 Conditional Uses, subsection A.8, is amended as follows:

8. All drive-through and drive-in sales of goods or services including but not limited to freestanding drive-in pharmacies, banking facilities, and marijuana dispensary facilities (not including restaurants) (CC442100) (conditional use in the "PH," "MX," "PC," "GC," "CB" and "LI" districts). [Ord. No. 5400 §1, 11-10-2014; Ord. No. 5717, 9-29-2020]

- a. Shall provide space for at least three (3) cars per drive-up window or station.

BILL NO. _____

ORDINANCE NO. _____

b. Shall provide landscaping to screen the view of drive-up waiting spaces from surrounding properties.

c. Drive-up window access, waiting spaces and egress shall not interfere with site circulation or be hazardous to motorists entering, exiting or passing by the site.

d. When provided in the "PH" District, drive-through services shall be limited to uses complementary to the medical uses existing on the campus.

SECTION 5. Section 405.470 Conditional Uses, subsection A.33, is amended as follows:

33. Comprehensive or Medical Marijuana Cultivation Facility (NAICS CC111419) and Comprehensive or Medical Marijuana-Infused Products Manufacturing Facility, and Microbusiness Marijuana Wholesale Facility (NAICS CC325415) as defined in Section 405.120, which abide by all applicable laws and regulations, are conditional uses in the zoning districts as shown in Table A Permitted and Conditional Uses, subject to the following specific standards:

a. No marijuana-related use or facility shall emit an odor or in any way cause a public nuisance per Section 405.550 or Chapter 215, as applicable. The applicant shall demonstrate that the appropriate systems will be provided to prevent any odor of marijuana or fumes from leaving the facility.

b. Marijuana cultivation and processing activities shall occur only within an enclosed building.

SECTION 6. This ordinance shall become effective in accordance with Section 3.11 (g) of the City Charter.

ADOPTED THIS ____ DAY OF _____, 2023.

JOSEPH MARTINICH
PRESIDENT OF CITY COUNCIL

APPROVED THIS ____ DAY OF _____, 2023.

ROBERT
HOFFMAN
MAYOR

ATTEST:

BILL NO._____

ORDINANCE NO. _____

KELLIE HENKE
CITY CLERK

To: Jason Jaggi and Julie LaBonte

From: Larry Potashnick

Re: Recreational Marijuana

1/24/2023

A number of comments come to mind related to our recent P and Z discussion on zoning ordinances on medical and recreational marijuana. My primary objection to this topic relates to the economic development of this line of business.

Recreational marijuana is not the type of business our city should seek to attract.

A drive-through capability is an issue related to medical marijuana. Adding a drive through capability for medical marijuana places a dispensary on par with CVS and Walgreens. However, it should be noted that CVS does not sell liquor through a drive through window. A drive through recreational marijuana capability should not be permitted.

Zoning for a liquor store includes distance provisions from day care and church facilities. Our current medical marijuana dispensary zoning does not include these same provisions. To achieve parity in our zoning statutes, a recreational marijuana dispensary should be subject to the same standards as a retail liquor establishment.

1 PLANNING AND ZONING COMMISSION MEETING

2 CITY OF CREVE COEUR, MISSOURI

3 300 NORTH NEW BALLAS ROAD

4 TUESDAY, JANUARY 17, 2023

5 6:00 P.M.

6
7 PUBLIC HEARING

8 APPLICATION NO. 22-040

9
10 THOSE IN ATTENDANCE:

11 Ms. Julie LaBonte, Chair

Ms. Muriel Hall

12 Mr. Larry Potashnick

Mr. AJ Wang

13 Ms. Rhonda O'Brien

Mr. Thomas Buelter

14 Ms. Marjorie Richter

Mr. Carl Lumley, City Attorney

15 Mr. Jason Jaggi, Director of Community Development

Ms. Bethany L. Moore, City Planner

16 Ms. Megan Waller Administrative Supervisor/Recording
Secretary

17
18
19
20
21
22 McLaughlin Court Reporting Services, Inc.

23 Deborah K. McLaughlin, RPR, MO-CCR #314, IL-CSR, KS-CCR
4772 Gatesbury Drive
24 St. Louis, MO 63128
(314) 974-1199
25

1 CHAIRMAN LABONTE: All right. We'll call the
2 meeting to order at six o'clock with roll call.

3 Ms. Hall?

4 MS. HALL: Present.

5 CHAIRMAN LABONTE: Mr. Potashnick?

6 MR. POTASHNICK: Present.

7 CHAIRMAN LABONTE: Ms. Richter?

8 MS. RICHTER: Here.

9 CHAIRMAN LABONTE: Mr. Wang?

10 MR. WANG: Here.

11 CHAIRMAN LABONTE: Ms. O'Brien?

12 MS. O'BRIEN: Here.

13 CHAIRMAN LABONTE: Mr. Buelter?

14 MR. BUELTER: Here.

15 CHAIRMAN LABONTE: Mr. Lumley?

16 MR. LUMLEY: Here.

17 CHAIRMAN LABONTE: Mr. Jaggi?

18 MR. JAGGI: Present.

19 CHAIRMAN LABONTE: Ms. Moore?

20 MS. MOORE: Present.

21 CHAIRMAN LABONTE: And, Ms. Waller?

22 MS. WALLER: Present.

23 CHAIRMAN LABONTE: All right. We're going to
24 open the Public Hearing Application 22-40: Text
25 Amendments to Various Sections of the Zoning Ordinance

1 (Chapter 405) to Provide Regulations for Recreational
2 Marijuana Related Uses.

3 (The speakers were sworn in by the court
4 reporter.)

5 MR. JAGGI: Are we ready?

6 Jason Jaggi, Director of Community Development,
7 City of Creve Coeur.

8 This is a zoning ordinance text amendment
9 request submitted by the city staff related to
10 recreational or adult use marijuana.

11 So, Amendment 3 was passed by the State of
12 Missouri voters this past November. It legalized
13 recreational or adult use marijuana in the State of
14 Missouri.

15 So, with that, previously only medical marijuana
16 was approved in the state, and that was a result of the
17 election or the ballot issue, constitutional amendment,
18 back in November of 2018.

19 As a response to that, at the time the city
20 adopted medical marijuana zoning regulations to regulate
21 the land use aspects of -- of these new uses through
22 Ordinance 5637, which was adopted by the City Council in
23 2019. And we had extensive process back then. We had
24 public meetings; we had a lot of public engagement, which
25 informed us and helped us to come up with the rules at the

1 time for medical marijuana.

2 And so after the adoption of the ordinance,
3 today we have two medical marijuana dispensaries in the
4 City in Creve Coeur; Terrabis at 11062 Olive, and then
5 HomeState at the corner of Olive -- I'm sorry -- corner of
6 Ladue and Lindbergh, 105 North Lindbergh. And those are
7 the only two medical marijuana uses we have in existence
8 today.

9 So, we don't have any cultivation facilities, no
10 manufacturing facilities or testing facilities, just the
11 two dispensaries are here in the city today.

12 So, with the passage of Amendment 3, the state
13 has a licensing process that's separate from the city's
14 zoning authority, but it certainly plays into how we -- we
15 regulate these uses in terms of zoning.

16 So, what the state is doing is they're only --
17 and this is information I included in the packet, there's
18 an FAQ by the State Department of Health and Senior
19 Services on the website. There's also a timeline chart
20 that I included just for your reference. But I'll cover
21 that a little bit here tonight.

22 So, what the state is doing, they're only
23 accepting applications to convert --

24 CHAIRMAN LABONTE: Not covert.

25 MR. JAGGI: Not covert. I just noticed that.

1 Convert existing medical marijuana facilities into
2 comprehensive facilities.

3 And comprehensive facilities would include
4 medical and adult use recreational. That's what it means,
5 really, to be comprehensive.

6 So, they're not looking to allow any new
7 licenses for new comprehensive facilities. They feel
8 there's enough with the current right now. That could
9 change in the future, but now they're only accepting
10 conversion applications.

11 So, and then they're introducing a new category
12 called microbusinesses. And those are, in a nutshell,
13 it's a -- they're trying to create a secondary market to
14 open up access to the industry for folks that didn't have
15 an opportunity to participate in the medical marijuana,
16 the Amendment 3 included this concept of microbusinesses,
17 and you have to meet very specific state requirements to
18 be eligible to apply under that category of marijuana use,
19 I guess you'd say.

20 And that is in the report that I gave you.
21 There's all sorts -- I'm not going to get into all that.
22 That's not necessarily our issue tonight.

23 But suffice it to say, there are a lot of state
24 requirements for these things.

25 And those microbusinesses can be dispensaries or

1 wholesale facilities, so they're a separate distinctive
2 license from the state versus a comprehensive license,
3 which, today, is only looking at converting existing
4 medical marijuana to -- to the comprehensive facility.

5 So, does that make sense? Is that somewhat
6 clear?

7 CHAIRMAN LABONTE: Okay.

8 MS. RICHTER: Is the microbusiness what --
9 what -- if I want to grow six plants myself or something?

10 MR. JAGGI: No. There's separate rules that
11 govern how much a person can grow, how much you can grow
12 in your house.

13 We're not -- none of this is being proposed --

14 MS. RICHTER: Okay.

15 MR. JAGGI: -- because that's allowed by state.

16 So, we don't have any updates for that tonight.

17 Really, it's just -- it's a different model.
18 It's a different market for smaller operators.

19 And, you know, because I think some of the --
20 some of the criticism, apparently, was that it just
21 precluded a lot of the population from getting into this
22 industry.

23 If you had a lot of wherewithal, if you had a
24 lot of big financial backing, you could get in and you
25 submit all the requirements, and that excluded a lot of

1 folks, and I think that's the attempt that Amendment 3 was
2 trying to address with this microbusiness.

3 So, they're smaller operators, smaller shops.
4 But, so we could see additional dispensaries. I think
5 that's the impact for us tonight, is we could see
6 additional dispensaries if they get the microlicense
7 versus the two that we have today, or in addition to the
8 two.

9 So, the state timeline is as follows, again, I
10 gave this to you in your packet, so you can refer back to
11 it. But back in December 8, 2022 the state opened up the
12 application process to allow existing medical marijuana
13 facilities to apply to convert to the comprehensive or
14 adult use process that began back on December 8th.

15 The program rules on February 6th will be
16 finalized, and you can then -- it would be allowed
17 legally, they could be sold by dispensaries as soon as
18 February 6th. That's all in the timeline with Amendment
19 3.

20 So, it's very tight timeframe, so, you know, it
21 is in our interest to keep things moving because we need
22 to be kind of ready for these, cause they could come
23 fairly soon.

24 Now, of course, they have to get their license,
25 and that may not be realistically possible, to get it that

1 soon, but it could happen relatively quickly, you know, by
2 February 6th.

3 So then this -- the microlicense process I was
4 telling about is a different timeframe. And that's a
5 little further out. Cause they have to still develop some
6 of the rules for these things, and they're saying on their
7 website, the state is, is that they will -- they will
8 begin having applications available in June, and then
9 they'll start accepting them no later than September 4th,
10 I believe is the time. And then they said, you know, more
11 information will -- will be coming forth, so.

12 Little bit more time on these, but the -- what
13 we can expect are the two existing dispensaries that are
14 here for medical will be applying to convert for full
15 adult use. That's what we will expect and believe that's
16 what will happen.

17 MR. POTASHNICK: So when they apply --

18 MR. JAGGI: Yes.

19 MR. POTASHNICK: -- they want -- they're going
20 to ask to amend their existing conditional permit?

21 MR. JAGGI: So, they don't require conditional
22 uses, and I'll get into that. But they don't need that.

23 So, what -- how we handle this. Obviously,
24 Mr. Lumley has assisted us too and helped us with getting
25 this, you know, we need to get going on this because of

1 the tight timeframe, so we've kind of moved forward pretty
2 quickly, and the first step that we took is we discussed
3 this with the City Council just to gauge where they were
4 at with this process, explain, you know, where we've been,
5 what we have for medical, and get some general thoughts on
6 how we want to proceed because we can't relook at all
7 this.

8 But, they, basically, said we think we should
9 move forward with keeping the rules we have for medical
10 marijuana, and update them for the converted comprehensive
11 license and the microbusinesses, and that's -- we took
12 that direction, and that's what's in front of you tonight,
13 is, basically, updating the ordinance to not changing any
14 of the rules we have for medical. Those would still be in
15 place for adults. And I'll go through that.

16 So, these are the four categories of regulated
17 marijuana uses. Dispensaries, obviously, that's where you
18 purchase the product; cultivation is where they're grown,
19 it's the grow facilities where their -- where the plants
20 are grown, and manufacturing is where they take the, you
21 know, the -- the product and apply it to like infused --

22 MS. O'BRIEN: The gummies.

23 MR. JAGGI: -- the gummies --

24 CHAIRMAN LABONTE: Edibles.

25 MR. JAGGI: -- you know, whatever, edibles, you

1 name it, it's got the marijuana in it, and that's where
2 they make it -- that includes the marijuana, and then the
3 testing facilities are the state requires these things to
4 be tested periodically, and there are separate facilities
5 for that.

6 And, so, this is, really, in a nutshell what
7 we're looking at in terms of zoning. So I want to give
8 you at least a background on what the state requires, all
9 the categories and how they're looking at it, all based
10 upon the Amendment 3 passing.

11 And, so, this is what we have proposed in front
12 of you in terms of our zoning code, our land use
13 requirements.

14 So, the blue text here is what we've updated to
15 reflect the microbusiness license types, as well as the
16 comprehensive, and leaving in the existing medical
17 marijuana, so we're really treating all of these the same.
18 We're not making any distinctions between any of them.
19 It's presented. All of it is included.

20 So, I think, Larry, your question is, you know,
21 what requires a conditional use, so I'll just go through
22 this.

23 So, cultivation facilities or grow facilities,
24 either comprehensive, medical or microbusiness, would be a
25 conditional use permit only in the RO District and in

1 Light Industrial District.

2 So, the Light Industrial District, if you'll
3 remember, that northeast corner of the city, past
4 Danforth, that industrial area back there that's part of
5 39 North, that's zoned LI. It would be allowed there as a
6 conditional use, okay. And then the R0 District, which
7 includes the Danforth Campus, as well as the existing Baer
8 Campus, both sides, east and west. And we know that Baer
9 West has been sold, and we're expecting a redevelopment of
10 that. That would -- for that project to move forward, it
11 would have to be rezoned out of R0, so that would no
12 longer apply.

13 So, those are the only very limited areas where
14 you can even have these types of grow facilities, and it
15 is with a conditional use, so we get to look extensively
16 into how that use is being operated; how they're
17 controlling odors; how deliveries are made; all the
18 operational characteristics, we -- we get into a lot of
19 detail with that if we have one proposed.

20 And like I said, we don't have any that are
21 existing today.

22 So, that's -- that is left unchanged.

23 Then we have the manufacturing facilities. Same
24 thing. Those have to be built within enclosed buildings
25 as well. Again, I forgot to mention, that's a requirement

1 that everything is conducted inside; for the cultivation
2 or the manufacturing has to be inside. Those are
3 conditional uses in the same district.

4 The dispensaries, which now has been updated to
5 include the comprehensive facilities, as well as
6 microbusiness facilities, are permitted in, basically, all
7 of the commercial zoning districts with the exception of
8 the Office District, Planned Office District.

9 Every other Commercial District and Light
10 Industrial District is a permitted use. That's what we
11 have for medical, and that's what's being proposed for
12 comprehensive as well.

13 So, as a permitted use, all they need is a
14 business license. They get any permits that they need for
15 any material or tenant finish work.

16 If they were to have an exterior change, it
17 might need your review in terms of a site plan for
18 exterior changes, but beyond that, it is a administrative
19 process as long as they get all their permits, they can --
20 they can operate.

21 MS. O'BRIEN: What about the drive-up?

22 MR. JAGGI: Yeah. So the drive-up is -- is --
23 is a new component. I -- I think you could have had -- if
24 somebody asked for today under medical marijuana, I think
25 it would fall under drive-through goods and services as a

1 conditional use, generally, but to take any question out
2 of that, we had it listed in the amendment as a
3 conditional use.

4 And I will tell you that I've been contacted by
5 the facility at Ladue and Lindbergh, they're asking if
6 that's something that the city is looking at allowing
7 because they have an existing drive-through facility that
8 they could reopen, and that is their intent, so just --

9 MS. O'BRIEN: That is the same place where I'm
10 telling you that if there's people stopping their cars and
11 turning left into that rehab place and right into that,
12 there's not enough space, and it's very dark there --

13 MR. JAGGI: Yeah.

14 MS. O'BRIEN: -- when you make that turn.

15 MR. JAGGI: That area's always been challenging.
16 I know the city looked at it when that building -- I
17 looked at some of the files when that building went in.
18 It was Pioneer Bank, I think, originally. And there
19 was -- I think to elongate that median, so that --

20 CHAIRMAN LABONTE: Well, cause people try to
21 turn around it, so go they go into the gas station, even
22 though it says no right turn.

23 MR. JAGGI: Right. Right.

24 No, it's -- I've noticed a lot of that too,
25 but --

1 MR. POTASHNICK: For the --

2 MR. JAGGI: -- just to be upfront, I mean we
3 have been contacted. So, there's a business interest in
4 this, so we said, well, we might as well address it now --

5 CHAIRMAN LABONTE: Right.

6 MR. JAGGI: -- and discuss it, so.

7 MR. POTASHNICK: So, let me make sure I
8 understood what you said.

9 MR. JAGGI: Yeah.

10 MR. POTASHNICK: So, this drive-through
11 modification, is this the same standard that Chick-fil-A's
12 going to have to go through?

13 MR. JAGGI: No. It's different standards.

14 MR. POTASHNICK: Why?

15 MR. JAGGI: Because we regulate drive-through
16 restaurants differently than other drive-throughs.

17 So this would be -- the same rules would apply
18 to this as we would apply to banks --

19 MR. POTASHNICK: Okay.

20 MR. LUMLEY: And pharmacies.

21 MR. JAGGI: -- which are -- and -- and
22 pharmacies, yes, drive-through pharmacies as well.

23 MR. BUELTER: Then, I mean if this occurs, and
24 they ask for it, I'm going to ask -- I'll just let
25 everybody know, I'm going to ask for a traffic study

1 because, case in point, I could not get to work because
2 they opened up recreational over in Illinois in
3 Collinsville, and it was lined down the street for a week
4 and a half.

5 MR. JAGGI: Is it still like that today or has
6 that --

7 MR. BUELTER: It's not anymore, but --

8 MR. JAGGI: Yeah.

9 MR. BUELTER: -- for a good period of time --

10 MR. JAGGI: Yeah.

11 MR. BUELTER: -- it was an issue.

12 MR. JAGGI: And that's why we have it listed
13 as a conditional use.

14 CHAIRMAN LABONTE: For a drive-through or --

15 MR. JAGGI: Yes.

16 CHAIRMAN LABONTE: For a drive-through.

17 MR. JAGGI: That's why --

18 MS. RICHTER: For parking lots, too, when they
19 first opened.

20 MR. BUELTER: And parking.

21 MR. JAGGI: Oh, yeah.

22 MR. BUELTER: If we didn't have a fence around
23 Ameren over there they -- the neighbor was losing his mind
24 because his employees couldn't park in the parking lot
25 cause everybody was parking and walking over to --

1 CHAIRMAN LABONTE: Well, luckily, that --

2 MR. BUELTER: -- buy their stuff.

3 CHAIRMAN LABONTE: -- has a big parking lot, so.
4 The one on Olive is tiny.

5 MR. JAGGI: It's a small dispensary, yeah, the
6 one on Olive.

7 I mean there's not a real practical way to add a
8 drive-through, but, obviously, the one at --

9 MR. BUELTER: No.

10 MR. JAGGI: -- Ladue and Lindbergh it used to
11 have one as a bank.

12 MR. BUELTER: And it might be a new thing too --

13 MR. JAGGI: Yeah.

14 MR. BUELTER: -- which I'll -- I'll take that
15 too, but.

16 MR. JAGGI: Yeah.

17 No, I mean we -- those are all things you look
18 at as part of the conditional use process; (inaudible),
19 what the traffic, that's why we have it listed as
20 conditional, so we can examine all that.

21 Just moving on. Testing facilities, again, we
22 don't have any of those, but we can certainly get one in
23 the future. Those would be permitted, though, only in
24 Research Office and Light Industrial, so, again, limited
25 areas where these would be allowed.

1 CHAIRMAN LABONTE: So, for the testing
2 laboratory, the one --

3 MR. JAGGI: Uh-huh.

4 CHAIRMAN LABONTE: -- above it, do we need to
5 say excluding marijuana, and then -- then there's the
6 marijuana, cause like the other ones say except blah,
7 blah, blah, like that --

8 MR. JAGGI: Here's the language we have here.
9 Marijuana testing facility as defined under our -- and
10 that's our definition section. This is how we're --

11 CHAIRMAN LABONTE: But what -- what are the
12 testing laboratories above it?

13 MR. JAGGI: Those are just -- those are
14 non-marijuana --

15 CHAIRMAN LABONTE: Yeah, so that's --

16 MR. JAGGI: -- regular testing.

17 CHAIRMAN LABONTE: -- what, do we need to put
18 non-marijuana in the parentheses for that one?

19 MR. JAGGI: I don't think so cause it ties to
20 a -- a use code here.

21 CHAIRMAN LABONTE: Okay.

22 MR. JAGGI: So that already describes what
23 testing laboratories fit within this use. I think we're
24 covered.

25 CHAIRMAN LABONTE: Okay.

1 MR. JAGGI: And what we have here, just so you
2 know this, when we see the CC in front of it, so we use
3 the NAICS Industrial Classification Code, and then that
4 informs us on what types of, you know, what illustrative
5 examples are of these uses.

6 When you see the CC, that is our own unique
7 code --

8 CHAIRMAN LABONTE: Okay.

9 MR. JAGGI: -- where we apply our own rules to
10 it.

11 CHAIRMAN LABONTE: Okay.

12 MR. JAGGI: So, I think -- I think we're covered
13 okay. I think it's clear that this only applies to
14 marijuana. This is --

15 CHAIRMAN LABONTE: So there's going to be a big
16 one at the old Baer site.

17 MR. JAGGI: So, moving on.

18 Additional requirements. We had, back in the
19 medical marijuana analysis, we established a 300-foot
20 separation requirement between marijuana dispensaries,
21 really all marijuana-type uses, now it is just
22 dispensaries, marijuana dispensaries, and -- and then
23 existing elementary and secondary schools. And the reason
24 why it's written that way is that if a new dispensary were
25 to come in, we would look at just the -- just the schools

1 that are existing at that time.

2 So if -- if a, you know, let's say we have -- we
3 had the dispensary on Olive, if a school were to move in
4 within 300 feet, that 300-foot rule, if they're closer to
5 that, it wasn't -- wouldn't apply cause it's known that's
6 already there.

7 CHAIRMAN LABONTE: So, do we already have that
8 rule?

9 MR. JAGGI: Yes, that's how it is today.

10 CHAIRMAN LABONTE: So the -- because there's a
11 school on -- a daycare on Olive.

12 MR. JAGGI: So this doesn't apply to daycares.
13 Right here. It just applies to existing, then existing,
14 existing elementary and secondary schools.

15 It does not apply to daycares and places of
16 worship.

17 CHAIRMAN LABONTE: Why is that?

18 MR. JAGGI: So the state allows the cities to go
19 up to 1,000 feet distance and to require that distance to
20 schools, including daycares and places of worship, the
21 city previously elected not to -- we amended that maximum
22 standard. We reduced it to 300 feet, and then it was not
23 applied to daycares or places of worship.

24 And the reason being, there was a lot of
25 analysis, there were maps that were shown that shows what

1 300 feet means, what 1,000 feet means.

2 And I think the thought at the time was 1,000
3 feet really goes pretty far when you look at these buffer
4 areas --

5 CHAIRMAN LABONTE: So are daycares --

6 MR. JAGGI: -- it was being a little too
7 extensive.

8 CHAIRMAN LABONTE: Are daycares 1,000 feet then?

9 MR. JAGGI: No, they are not.

10 So this, it does not apply to daycares.

11 MR. POTASHNICK: Unless we amend it.

12 MR. JAGGI: Unless we amend it, correct. That's
13 right. That's right.

14 CHAIRMAN LABONTE: Yeah.

15 MR. JAGGI: And, you know, you're the Planning
16 and Zoning Commission, you can look at this the way you
17 want to look at it, and then that recommendation can be
18 sent to the City Council and they will --

19 CHAIRMAN LABONTE: Was there a reason why
20 daycares weren't included?

21 MR. LUMLEY: There's quite a few of them in
22 commercial areas.

23 MR. JAGGI: Yeah.

24 MR. LUMLEY: And, again, the map studies show
25 that there weren't hardly any eligible locations left.

1 MR. BUELTER: Is what 300 feet is football
2 field.

3 MR. JAGGI: So, 300 feet I think is the same --

4 MR. BUELTER: Yards.

5 MR. JAGGI: Yeah, our liquor license uses a
6 300-foot separation.

7 CHAIRMAN LABONTE: Okay.

8 MR. JAGGI: So we kind of use that, like, well,
9 we have that 300 foot for liquor licenses.

10 CHAIRMAN LABONTE: But we're saying 300 feet
11 isn't daycares either.

12 MR. JAGGI: 300 feet is not --

13 CHAIRMAN LABONTE: So you could have one right
14 next door to a daycare.

15 MR. JAGGI: That's right.

16 MR. POTASHNICK: As it stands.

17 MR. JAGGI: And the reason, like Carl mentions,
18 because we have daycares that are in commercial districts,
19 so they're electing to be in a commercial district.

20 They can be in -- they can be in, you know, they
21 can even be in residential areas, but the thought at the
22 time was, you know, there -- there weren't as many
23 concerns because there's so many of them in commercial
24 districts, by the time you look at 300 feet and even 1,000
25 feet, you have very little areas left that would be able

1 to accommodate a dispensary, but that was the thought
2 process at the time.

3 I'll just continue on. We can, obviously,
4 discuss these a little bit more, but I'll just get through
5 it.

6 The state clarified how distance is measured.
7 So, there's a lot of -- a lot of questions asked when
8 medical came through; well, how do you measure the
9 300 feet; how do you measure the 1,000 feet; is it
10 door-to-door; is it property line to property line. The
11 state clarified the rules for that, and so we've updated
12 our -- our ordinance accordingly.

13 And then cultivation manufacturing facilities,
14 which are conditional uses, again, they must be completely
15 endorsed, and the applicants must demonstrate how they're
16 going to control the odors. So, that is in our ordinance
17 very specific because we know that's the major -- major
18 concern. In fact, if you follow the news, Olivette had a
19 proposal, and there's a lot of concerns with odor and
20 things like that. So, we've always had that in there.

21 And then I already mentioned the drive-through
22 dispensaries. Those are now in there specifically, and
23 they're subject to the conditional use permit process.

24 I did want to, certainly, want to include the
25 Comprehensive Plan. Any text amendment we should look at

1 the Comprehensive Plan. However, in this case, this is
2 really coming down from the state. We have to respond to
3 their changes in state law, so it's, you know, it's not
4 like we're electing to do because we think it's a good
5 idea. We really need to because it's a change in state
6 law.

7 And our plan pre-dates all of these things, so
8 there's no direct guidance, however, my thought to you all
9 would be, you know, the general guidance of the plan
10 speaks to community character, compatibility uses and
11 changes to consumer preferences.

12 And just from a general sense, I would say
13 that's probably how you should view this amendment.

14 MR. POTASHNICK: So, let me understand what you
15 just said.

16 We have to do this or this is our option to do
17 it?

18 MR. JAGGI: We need to update our ordinance in
19 response to state law.

20 So any time the state changes law --

21 MR. POTASHNICK: So if we choose not to change?

22 MR. JAGGI: Excuse me?

23 MR. POTASHNICK: We may choose not to change
24 anything?

25 MR. LUMLEY: No. We have a --

1 MR. POTASHNICK: That's what I'm trying to
2 understand.

3 MR. LUMLEY: Right. So, the way they wrote the
4 amendment that was approved, a city can have an election
5 in, I think, November of 2024, to ban the adult use slash
6 comprehensive category, not the medical category --

7 MR. POTASHNICK: Yeah.

8 MR. LUMLEY: -- just the adult use slash
9 comprehensive.

10 So, the way that happens then is until you have
11 that vote, we have to allow them within certain
12 guidelines, and they're going to become established
13 businesses, and then when they have the vote, they're
14 going to bring a constitutional action saying that you
15 can't deprive us of our investment.

16 That was intentionally the way they wrote this
17 up. Because it didn't allow the vote before the
18 licensing.

19 MR. POTASHNICK: Okay.

20 MR. LUMLEY: That's my opinion.

21 CHAIRMAN LABONTE: It sounds like --

22 MR. LUMLEY: Actually, that's the timeline, but
23 my legal opinion is that's why they did it that way.

24 MS. O'BRIEN: So, it's like a setup?

25 MR. LUMLEY: Yes.

1 MR. POTASHNICK: So -- so, back to my original
2 question.

3 Assuming we do nothing, which -- which would be
4 a de facto statement that we don't want those businesses,
5 that's still an option?

6 CHAIRMAN LABONTE: It isn't because the
7 businesses we have already have all their licenses.

8 MR. JAGGI: I don't think it's a recommended
9 option.

10 CHAIRMAN LABONTE: Yeah.

11 MR. POTASHNICK: It's an option?

12 MR. JAGGI: There's lots of options, but it's
13 not recommended.

14 MR. LUMLEY: It's a -- it's an option that would
15 invite litigation.

16 CHAIRMAN LABONTE: Right.

17 MR. LUMLEY: I'm aware that -- and don't -- I
18 believe it's the City of Des Peres, that I saw this in a
19 newspaper article, that's considering a moratorium on the
20 comprehensive licenses.

21 But, again, I think it's inviting litigation.
22 You're going to have an established medical marijuana site
23 who gets a comprehensive license issued, so now the state
24 has said they're entitled to have this business at their
25 existing location, with a city ostensibly saying you can't

1 do it, and I think it's going to be a lawsuit.

2 I'll also tell you, just so you're fully
3 informed, City Council has already had a first reading on
4 the ordinance to have the additional 3 percent sales tax
5 that's available on the adult use of marijuana, again,
6 subject to voter approval with this new tax, but that
7 gives you a sense of where the Council is coming from.

8 CHAIRMAN LABONTE: Uh-huh.

9 MR. POTASHNICK: Well, I get it.

10 Municipalities just want money as a general
11 rule.

12 MR. LUMLEY: Well, I would use the word "need"
13 instead of want, but otherwise --

14 MR. POTASHNICK: That's fine. Need and want.
15 Okay.

16 But -- but, also, and maybe you can clarify,
17 because, apparently, the Supreme Court cited in favor of
18 Creve Coeur's still to be appealed (inaudible) for 30
19 days, but because we have something written into our
20 ordinance that gave us the ability to tell somebody no,
21 and so why can't we do that in this particular -- why is
22 this situation any different than --

23 MR. LUMLEY: I will say the main difference is
24 that the state doesn't tell QuickTrip or any other gas
25 station that they have a particular right to be anywhere,

1 whereas, these businesses are going to get a license for a
2 specific location.

3 So QuickTrip gets some degree of state permits
4 to have fuel and all that sort of thing. But the state's
5 not telling them they have a right to be in business at X
6 address.

7 The state marijuana licensing, similar to the
8 substance abuse clinic that we saw, you know, is very
9 specific to a location, so that's the difference.

10 MR. POTASHNICK: Yeah. That's -- that's
11 assuming Creve Coeur opts -- opts to make it easy for
12 somebody to get a conditional use permit.

13 If we make it -- if we make it harder, somebody
14 can't force us to change our conditional use permit
15 requirements?

16 I'm just trying to understand. What's our --
17 what's our latitude of authority?

18 MR. LUMLEY: So, yeah, two different parts to
19 that question.

20 So, for the medical marijuana, the City Council,
21 with the advice of Planning and Zoning, but the City
22 Council decided that they wanted to facilitate the
23 dispensaries because there's -- there's sales tax
24 involved, as one of the motivating factors, the City
25 Council embraced the concept of a new business, and so

1 dispensaries are a permitted use, where other things which
2 have odor issues and -- and things like that were made
3 conditional uses, so that's the direction the city chose
4 to go.

5 Now, as a contrast, Des Peres made medical
6 marijuana dispensaries conditional uses, and they got the
7 public all worked up to say no to it, even though at the
8 end of the day they really can't say no.

9 So, this whole licensing and -- you know, we're
10 talking about -- I mean, you know, my -- my biases, having
11 constitutional amendment that's this long is insane,
12 that's my official opinion. But that's what we have. We
13 have a constitutional amendment that is longer than the
14 combination of the United States and the Missouri
15 Constitutions put together in this amendment, and that's
16 the direction they went.

17 So, all that detail is now constitutional law,
18 which is over everything else, and that's what the voters
19 approved and that's what we have.

20 MR. JAGGI: Carl, isn't the legislature looking
21 into making it more difficult to do constitutional
22 amendments like this (inaudible)?

23 MR. LUMLEY: Yeah, potentially, but, yeah.

24 MR. WANG: I actually -- I actually helped
25 somebody file -- apply for these licenses and in the

1 application form, you set a geographical area that you're
2 going to go into, so that's -- that's where I think it's
3 incumbent on the city that they made it such, the forms
4 are like that.

5 MR. BUELTER: So, just a -- a quick comment,
6 question, is if we can't stop because of that piece of
7 paper over there, we can't stop the recreational going
8 into the two current dispensaries, is there any way we can
9 modify current language to ensure you don't get more than
10 two? At least we can put our foot down to that?

11 MR. LUMLEY: Yes. Well, the state licensing
12 accomplishes that by limiting the number that can be
13 issued in geographic areas, so the industry can't say
14 Creve Coeur is the best place to have these things, so
15 everybody is here. It doesn't work that way.

16 MR. BUELTER: Because we could turn around,
17 because the rule was right there, was staring us in the
18 face, we turn around and crank it right back up to 1,000
19 feet, there's no way they could put anything else.

20 MR. JAGGI: That becomes more difficult. Very
21 difficult.

22 MR. LUMLEY: But that -- and that is allowed
23 under the -- under those.

24 MR. BUELTER: You know, if we can't --

25 MR. POTASHNICK: And at that point we could add

1 daycare centers?

2 MR. JAGGI: Yes.

3 MR. BUELTER: Or whatever.

4 MR. POTASHNICK: Or whatever.

5 MR. BUELTER: And then --

6 MR. JAGGI: Not whatever.

7 MR. BUELTER: -- we could narrow down to the two
8 that are --

9 MR. JAGGI: Not whatever.

10 (Talking over each other.)

11 MR. LUMLEY: And we need to talk one at a time
12 because --

13 MR. JAGGI: Oh, I'm sorry.

14 MR. LUMLEY: -- public hearing.

15 MR. JAGGI: I was just going to clarify not
16 whatever.

17 It's very specific what the law allows you to
18 regulate that -- how to apply that maximum of 1,000 feet.

19 It is not against residential. It is not
20 against other commercial. It's specific to places of
21 worship, daycares and schools.

22 MS. O'BRIEN: It would still decrease the
23 number.

24 MR. JAGGI: It would. And as Mr. Lumley -- and
25 I should have mentioned this earlier.

1 That the -- when we looked at medical, the
2 Council viewed it as being -- taking the tact of being
3 less restrictive and focusing on the actual impacts that
4 we believe would exist from these, rather than taking a
5 approach, well, we don't know a lot about, let's just
6 create a whole bunch of regulations in case something
7 happens. They did not take that approach.

8 And, so, when we visited them again, now that
9 this is in place, and we've got some new members of
10 Council, they seem to say we want to continue this same
11 approach.

12 So, that's the context in which we're operating,
13 however, I would say you're the Planning and Zoning
14 Commission, you make your recommendation based on what you
15 would like -- you feel is appropriate, and they will take
16 it and do what they want to do with it.

17 They -- they're the legislative authority. They
18 have the final say. But it doesn't mean that you have to
19 follow in their footsteps if you don't think that's the
20 right thing to do.

21 But, nonetheless, I would point out, like I said
22 earlier, we do have a -- we do have timelines, so I think
23 we do need to move forward expeditiously, but I don't want
24 to -- I wouldn't want to force any of this stuff; you have
25 to do this, you have to say yes to all that, that's not

1 appropriate.

2 But, so, if we do move it out of here tonight,
3 they will be looking at it on the 23rd of January, is the
4 first reading and the second reading would be
5 February 3rd -- 13th.

6 They've also, as Mr. Lumley mentioned, the sales
7 tax, I did include that here as well, it would be they're
8 looking to pass that ordinance on the 23rd to put that on
9 the April ballot.

10 So, they're moving ahead with other
11 marijuana-related uses, I think possession in vehicles,
12 and there's other ordinances that have to be updated that
13 they've already approved. So, they're moving ahead with a
14 lot of this.

15 Any other questions? Discussion?

16 CHAIRMAN LABONTE: Well, I mean I see where you
17 said, you know, that they reduced the requirement to 300
18 to make it in line with the liquor license.

19 MR. JAGGI: Yeah, at the time that was viewed it
20 was, well, what's, you know, that's somewhat comparable --

21 CHAIRMAN LABONTE: Right.

22 MR. JAGGI: -- use.

23 CHAIRMAN LABONTE: And that makes sense and
24 that's logical.

25 MR. JAGGI: That was the thought process at the

1 time.

2 MR. POTASHNICK: Are liquor licenses, do they
3 have rules?

4 MR. JAGGI: So if they're within 300 feet,
5 Council has to approve them. If they're not, then it's an
6 administrative permit goes to police.

7 MR. POTASHNICK: Does that include daycare?

8 MR. LUMLEY: Yes.

9 MR. JAGGI: I believe it does, yes.

10 MR. POTASHNICK: Does that include religious
11 institutions?

12 MR. JAGGI: Yes.

13 MR. LUMLEY: Yes.

14 MR. JAGGI: And schools.

15 MR. POTASHNICK: And schools. So somehow --
16 somehow --

17 CHAIRMAN LABONTE: So how do we only put
18 marijuana, though, against schools, which I find super
19 interesting?

20 MR. JAGGI: Yeah. I think, again, just trying
21 to tell you --

22 CHAIRMAN LABONTE: Yeah.

23 MR. JAGGI: -- just the thought process was that
24 they asked us and we did this with the Commission too at
25 the time, what does 300 feet look like?

1 CHAIRMAN LABONTE: Right.

2 MR. JAGGI: What does 500 feet look like? What
3 does 1,000?

4 And so we took all the religious institutions,
5 daycare, schools, and we mapped them and we drew radius --
6 we drew buffers around them. Said this is what 500. And
7 when you get up to 1,000, it's very extensive in terms of,
8 well, it doesn't leave a whole lot left, and I think the
9 Council at the time was concerned about that.

10 MR. LUMLEY: There's a lot of places of worship
11 in Creve Coeur.

12 MR. JAGGI: Right. We have a lot of religious
13 institutions; we have, you know, you have Chaminade; we
14 have a fair amount of schools, and then, you know,
15 daycares, and we have Little Sunshine now that just is
16 going to be opening up on Lindbergh too --

17 CHAIRMAN LABONTE: Right.

18 MR. JAGGI: -- and those are in commercial, you
19 know, heavy commercial districts --

20 CHAIRMAN LABONTE: Uh-huh.

21 MR. JAGGI: -- on Lindbergh.

22 MS. O'BRIEN: Well, that's --

23 MR. JAGGI: And the thought was, you know, that
24 shouldn't drive, you know, I think the thought is these
25 are business districts, primarily, and this is a type of

1 business. It -- it operates like a pharmacy, you know,
2 heavily controlled and licensed by the state, so they
3 didn't -- they weren't fearful of it.

4 And I would say that I think the experience with
5 medical at least, and that's medical, it's going to --
6 recreational is different, I'm not saying it's not, but we
7 haven't seen a whole lot of negative impacts with the
8 medical dispensaries.

9 CHAIRMAN LABONTE: Yeah.

10 MR. BUELTER: Yeah, I agree with your comment.
11 Medical is totally different than recreational.

12 MR. JAGGI: So, it doesn't seem like we took a
13 bad approach. Now we have to look at it for recreation.

14 MR. LUMLEY: But the lesson -- lesson from Des
15 Peres, you know, they have hearing after hearing after
16 hearing because they let the public believe that they
17 would be able to open up and say no, and they couldn't
18 come up with any legitimate reason to say no, cause it's
19 on Manchester Road in a commercial strip mall, you know,
20 and, but it -- so it -- the danger is creating the public
21 perception, you know, that you can do something about it.

22 CHAIRMAN LABONTE: Well, and it passed -- I mean
23 it -- the voters passed it --

24 MR. LUMLEY: Right.

25 CHAIRMAN LABONTE: -- in Missouri, broadly

1 across all parties, so I just think we need to keep that
2 in mind too.

3 MR. JAGGI: Yeah.

4 MR. POTASHNICK: Well, you have to remember on
5 stuff like this, in order to get a constitutional
6 amendment on the ballot, it's extraordinarily expensive,
7 so the motion -- the movement is backed by big money, and
8 they're -- that's -- that's how gambling and these other
9 constitutional amendments made the way. And then they
10 spend tons of money on advertising, so it's a big
11 dollar -- it's a big dollar movement.

12 So I'm not saying that -- that -- the voters
13 voted, that's fine, like I get -- I can accept that, but
14 it -- it -- it has its root in big money.

15 And -- and I will also say, because I'm not
16 speaking about this from a moral standpoint, but -- and
17 Carl could maybe comment on this, somebody gets completely
18 stoned out of their mind and pulls out of a parking lot
19 driving a car and kills a whole stack of people, okay,
20 there's not enough case law that -- that can convict that
21 person like a DWI or something, so, you get an alcohol
22 test, you've been drinking too much, you know, you get
23 handcuffs put on you, and you're -- and you're on the
24 road -- you're on the road to something.

25 It's, you know, society and our supporting laws

1 haven't caught up with all of this movement yet. It's
2 going to take -- take decades, so.

3 MR. LUMLEY: Yeah, there is -- there is no great
4 accurate test.

5 Creve Coeur's fortunate that we have, at least
6 one and maybe two, but I know we have one specifically
7 trained officer, who actually gets called to other
8 communities when somebody's been pulled over because
9 they're trained in the scientific approach to, basically,
10 a behavioral test.

11 MS. RICHTER: THC.

12 MR. LUMLEY: You know, but it's not -- it's not
13 the chemical measuring test, it's the behavioral test,
14 it's somebody under the influence of something.

15 And -- and so we're fortunate to have that
16 resource that we share with others, but that doesn't make
17 it easier. Your point, in general, is accurate.

18 MS. O'BRIEN: Well, my -- my thinking is we have
19 two of them, right --

20 MR. JAGGI: Yes.

21 MS. O'BRIEN: -- already --

22 MR. JAGGI: Right.

23 MS. O'BRIEN: -- and there's nothing we can
24 really do. We want to make it possible for them to use
25 their license when they get it.

1 But do we have enough of them right now, so
2 nobody in Creve Couer's not going to be able to get one
3 whenever they -- I mean I know there's ones in other
4 cities and all that, but I mean if we increase the
5 difficulty by imposing the 1,000 or whatever limit, and so
6 it kind of indirectly prevented maybe more than a couple
7 more show up --

8 MS. RICHTER: Then you're backing big money
9 instead of the micro.

10 MS. O'BRIEN: -- would we really -- would we
11 really be hurting anyone?

12 MR. LUMLEY: Well, in theory you'd be hurting
13 the future of microbusinesses.

14 MR. JAGGI: I -- that's -- yeah, I think that's
15 what we're -- that's what's still yet to come in the near
16 future, are microlicenses, the microfacilities.

17 MS. RICHTER: You know whether or not --

18 MR. JAGGI: The State has said they're not going
19 to add more -- more comprehensive right now.

20 CHAIRMAN LABONTE: So is it like --

21 MR. JAGGI: They could in the future, but that's
22 not what they're allowing right now.

23 MR. WANG: With the microbusiness, has
24 requirements like net worth less than quarter million
25 and --

1 MR. JAGGI: Yeah, it's in -- what packet --
2 MR. WANG: -- income less than --
3 MR. LUMLEY: So --
4 MS. O'BRIEN: It was in the packet.
5 MR. LUMLEY: So the standards --
6 MR. JAGGI: 79. Page 79.
7 MR. LUMLEY: -- it's meeting at least one of the
8 following. So, there's a bunch of different things. So
9 they only have to meet one of these.
10 One is the one you mention having a net worth
11 under a quarter million and income at certain levels over
12 a certain numbers of years; having disability card from
13 Veterans Affairs; actually, having been somebody who was
14 arrested or prosecuted for a marijuana offense in the
15 past; residing in a ZIP code or census tract where -- with
16 a population count under the poverty level or unemployment
17 levels or high incarcerations rates for marijuana
18 offenses; graduating from school districts that are
19 unaccredited.
20 You know, those are the categories. So, in
21 general, the philosophy was people whose lives were set
22 back because marijuana used to be this offense, and they
23 get incarcerated and their life be interrupted, you know,
24 and, therefore, they didn't have as high earning level,
25 and that -- that's the general philosophy is kind of

1 making up for what was done to people in the past because
2 of the over prosecution, if you will, or the over
3 incarceration at least.

4 MR. JAGGI: And that's on page 79 in your
5 packet, those qualifications.

6 MR. POTASHNICK: So, if we -- if we choose not
7 to approve drive-throughs, can we do that?

8 MR. JAGGI: That can be your recommendation to
9 the Council.

10 MR. BUELTER: Can you --

11 MR. JAGGI: It might be helpful to give them
12 some reasoning behind that. But if that -- if that's a
13 concern, that can be part of your recommendation.

14 MR. POTASHNICK: Okay.

15 MR. JAGGI: Just correct if I'm wrong, Carl,
16 there's no requirement that the state law has to allow
17 that --

18 MR. LUMLEY: But, yeah, you found it in the
19 regulations that -- that they were going to permit this,
20 but -- and we're already, I mean the staff proposal is to
21 differentiate and not make a drive-through an
22 automatically permitted.

23 So now -- so that's now sliding into the
24 QuickTrip category of, yeah, you can have your use, but
25 now this extra part you want, we're looking at all these

1 criteria, and, we're, basically, reserving the right to
2 say no for a good reason.

3 I -- I -- I don't want anybody to come away from
4 the QuikTrip opinion as, if the residents don't like it,
5 you can say no. It's still saying no for a reason.

6 CHAIRMAN LABONTE: Uh-huh.

7 MR. LUMLEY: And the reason is the Comprehensive
8 Plan, and that's what we've been trying to defend. Court
9 doesn't make that particularly clear, but I'm 100 percent
10 confident that the law is not going to become, if the
11 residents say no, that's good enough.

12 CHAIRMAN LABONTE: Right.

13 MR. BUELTER: And I'll add, ask legal counsel.

14 So we have to allow recreation into the medical.

15 Can we write the ordinance or write our
16 regulation as micro totally separate, or does that -- is
17 that preferential treatment?

18 MR. JAGGI: Well, we have it here altogether,
19 cause, I guess, why would you distinguish one from the
20 other?

21 If you're allowed one type of dispensary that
22 can sell recreational and medical, why would you not do
23 the same for a smaller operator that's trying to do the
24 same thing?

25 I think that's some of the reasoning behind it.

1 MS. O'BRIEN: Especially the disabled ones.

2 MR. JAGGI: And then going back to the whole
3 reason why you have micro is to -- is to be more inclusive
4 into the program, so it would seem -- wouldn't seem --

5 CHAIRMAN LABONTE: Yeah, there'd be an issue
6 there.

7 MR. WANG: You know, one of the toughest
8 requirements for these -- these four categories of
9 marijuana is security. They have very tight security
10 requirements, and there's a suggestion that there is crime
11 associated with, cause the security requirements for,
12 especially, in cultivation, it's very high, you know,
13 fences and all kinds of stuff.

14 MR. JAGGI: Cameras.

15 MR. WANG: So, they're implying that this
16 brings, especially recreational use, criminal something,
17 somebody wants it for, you know, somebody without money
18 wants the product, so somehow if we could tie this in to
19 limit it, is what I'm thinking.

20 MR. JAGGI: I'm not following you there.

21 CHAIRMAN LABONTE: The danger, criminal danger.

22 MR. WANG: The danger that this brings in.

23 MR. JAGGI: It's an unfounded danger or --

24 MR. WANG: No, that --

25 MR. JAGGI: -- it's a real danger?

1 MR. WANG: I think they imply that there is
2 danger because if you look at the requirements --

3 MR. JAGGI: Oh, okay. You mean the state
4 licensing and the --

5 MR. WANG: Yeah.

6 MR. JAGGI: Okay.

7 MR. WANG: A lot of discussion about what kind
8 of security you going to have, and, you know, 24-hour
9 security and all that, but that's all set.

10 MS. O'BRIEN: Well, that's why I would -- I mean
11 I wouldn't want to start out that way, use that 1,000 feet
12 thing. That's allowed to make that rule.

13 MR. JAGGI: Right.

14 MS. O'BRIEN: And it's -- and it's not saying,
15 we're going to, you know, do the downtrodden getting into
16 the business. We're not talking about that. We're just
17 using what the state has allowed us to kind of put a lid
18 on it without getting ourselves embroiled in making
19 assumptions about whether it's dangerous, even though it's
20 pretty clear from the, you know, just -- just like any
21 kind of desirable product, it could be stolen or there
22 could be some crime, we don't need to get into that
23 because we could use the 1,000 feet, and we're totally
24 within the law.

25 MR. LUMLEY: But just -- and that's accurate.

1 But just to -- to read you the provision that
2 ultimately trumps most things, not the distance that was
3 talking about is, accept as otherwise provided in the
4 subsection, no local government shall prohibit marijuana
5 facilities either expressly or through enactment of
6 ordinances or regulations that make their operation unduly
7 burdensome.

8 That's the general --

9 MR. JAGGI: That's the rule.

10 MR. LUMLEY: -- theme. But the distance is
11 expressly allowed.

12 MS. O'BRIEN: It's expressly allowed, so, I mean
13 it doesn't -- it doesn't -- looks very vanilla because
14 we're just using the statute.

15 MS. RICHTER: I think changing it from 300 to
16 1,000 is going to look very suspicious.

17 MR. BUELTER: Of course, it is, but.

18 MS. O'BRIEN: Why? It's -- now we're changing
19 it to recreational use. Before it was medical. So, only
20 people who were -- had a problem were going in there. Now
21 it's just like buying candy.

22 MR. BUELTER: Well, glaucoma, all that other
23 stuff.

24 MS. O'BRIEN: Yeah.

25 MR. BUELTER: Now rather than buying a bottle of

1 tequila, swing through the drive-through.

2 MR. LUMLEY: Do we know the distance from
3 HomeState to Chaminade?

4 MR. JAGGI: We did. We did have that
5 information, cause we produced all the maps.

6 (Talking over each other.)

7 MR. JAGGI: Okay. Bethany might be able to look
8 that up for us.

9 MR. LUMLEY: Olive isn't it?

10 MR. POTASHNICK: It's close to a religious
11 institution if you include that church. The church is
12 just across the street.

13 MS. O'BRIEN: Probably their rights.

14 MR. JAGGI: Right. The Church is closer, so
15 you'd measure from that point.

16 MR. POTASHNICK: Yeah.

17 MR. JAGGI: If you want to be -- include
18 everything, all the uses that the state allows --

19 MR. POTASHNICK: Right.

20 MR. JAGGI: -- you would go.

21 MR. POTASHNICK: But that would be a
22 pre-condition for the medical, I guess, yeah, if we
23 changed it.

24 MR. LUMLEY: But we'd have to address it, cause
25 they are -- they will be coming to us to no longer be

1 medical only.

2 So there would have to be -- I think it would be
3 advisable that there would be an exception for any
4 established location versus a new location.

5 MR. POTASHNICK: Versus a new location or how
6 about a new license, so if somebody wants --

7 MR. LUMLEY: Well, they're getting a new
8 license, but I think if you just say new -- new locations,
9 that probably address it.

10 MR. BUELTER: Another data point, if you don't
11 mind, and whether it truly impacts us or not, is what kind
12 of tax revenue do we get off of one of these places right
13 now?

14 MR. LUMLEY: Yeah, the -- Jason, correct me if
15 my memory is failing me, but I believe initially told the
16 city administrator that it was \$150,000 a year per
17 dispensary, does that sound right?

18 MR. JAGGI: I'm not sure.

19 MR. LUMLEY: That's the number I remember. It's
20 not -- it's not less than that.

21 MR. BUELTER: Okay.

22 MR. LUMLEY: It might be more, but that's what
23 I'm remembering. So, per dispensary, on average, you
24 know, it's from the -- I think they got that from other
25 states.

1 MS. RICHTER: Is that before the 3 percent?

2 MR. LUMLEY: No, that's with the 3 percent.

3 MR. POTASHNICK: When we pay our sales tax goes
4 to -- it's collected and gets remitted to some authority,
5 who then divides -- divides that money out --

6 MR. LUMLEY: Well, it's --

7 MR. POTASHNICK: -- and gives it -- and gives it
8 back to us, but they also keep the Robin Hood component of
9 it to share with other municipalities.

10 MR. LUMLEY: Well, no, it's --

11 MR. WANG: You're talking about pool or --

12 MR. LUMLEY: It's -- it's complicated, so --

13 MR. WANG: Yeah.

14 MR. LUMLEY: -- Creve Coeur is a combination of
15 point of sale and pool area, so the original city is point
16 of -- point of sale, which means the city gets all of it.

17 MR. POTASHNICK: Okay.

18 MR. LUMLEY: And then the pool areas, which are
19 the annexed areas are then subject to the pool, which are
20 then shared. So, it's not -- I mean, and so I'm -- I'm
21 pretty sure HomeState's isn't point of sale, it's original
22 city, and I think the other one is in point of sale as
23 well.

24 MR. POTASHNICK: All right. So that's -- that
25 would be (inaudible)?

1 MR. LUMLEY: Correct.

2 MR. BUELTER: Just a quick point of
3 clarification on the 150,000.

4 Was that medical only or is that medical combo?

5 MR. LUMLEY: No, that's with the -- the new
6 recreational.

7 MR. JAGGI: With -- with (inaudible) one.

8 MR. LUMLEY: So the -- this additional tax does
9 not apply to the medical sales.

10 MR. BUELTER: Oh.

11 MR. LUMLEY: So --

12 MR. BUELTER: Okay.

13 MR. LUMLEY: -- the standard sales tax does
14 apply and has applied, so that's 1 percent --

15 MR. BUELTER: So that'd be --

16 MR. LUMLEY: -- for the city.

17 MR. BUELTER: -- like a syntax.

18 MR. LUMLEY: But this -- this authorizes -- yes,
19 exactly -- additional 3 percent voter approval only on the
20 adult use. So that's why people will still be motivated
21 to use -- to get medical cards and use them, cause the
22 city that passes that tax, they're going to get a
23 3 percent break.

24 MR. JAGGI: Just a word on the measurement.

25 Bethany's trying to do a quick calculation for

1 us.

2 So the updated rules show, in the case of a
3 freestanding facility -- facility, the distance between
4 the facility and the school shall be measured from the
5 external wall of the facility closest in proximity to the
6 school to the closest point of the property line.

7 And so as -- and this refreshed my memory --
8 MICDS comes into play as well. So MICDS is right here.

9 VOICE: Much closer, yeah.

10 MR. JAGGI: And that created an issue. And then
11 you have the church, Catholic church is here, and I
12 believe those were some of the --

13 MR. LUMLEY: So that's why the city --

14 MR. JAGGI: -- some of the restrictions.

15 MR. LUMLEY: -- ultimately --

16 (Talking over each other.)

17 MR. JAGGI: Reduced it, right.

18 Cause I think -- I think the --

19 VOICE: There's so many (inaudible).

20 MR. JAGGI: There's a lot of them. And, really,
21 what is the impact -- what is the actual impact here, you
22 know? If it sits right next to it, well, that's 300 feet,
23 that's going to capture, it's right next to the use. And
24 I think that was the thought versus this.

25 It's a considerable distance away, and the

1 effects are not as great when they're that far away, but
2 the state allows you to go up to 1,000, I mean that's
3 certainly --

4 CHAIRMAN LABONTE: So, what is the distance
5 there do you think?

6 MR. JAGGI: So, Bethany's trying to measure
7 that.

8 Do you have -- come up with something?

9 MS. MOORE: So what I have, the measurement that
10 I did was property point to property point from the
11 closest distance between the two properties for the
12 dispensary and Chaminade is --

13 MR. JAGGI: And that's pretty good, because it's
14 right on the -- right on the line here.

15 MS. MOORE: So, it's over 1300 over.

16 MR. POTASHNICK: 1500?

17 MS. MOORE: Over 13.

18 MR. LUMLEY: But the church is closer, right?

19 MR. POTASHNICK: The church is closer.

20 MR. JAGGI: From this here, from that corner
21 there? MICDS?

22 MS. MOORE: Chaminade. I did it to Chaminade --

23 MR. JAGGI: Okay.

24 MS. MOORE: -- not over there. So that I can
25 measure from there as well, and that is --

1 MR. JAGGI: Maybe the -- since it's not property
2 line, may help a little bit.

3 MS. MOORE: It's 829 feet, that's property line
4 to property line again, not the wall, but it's pretty
5 close to the --

6 MR. JAGGI: To the church?

7 MS. MOORE: No, that's for MICDS.

8 MR. JAGGI: Oh, okay.

9 MS. MOORE: And then the church --

10 MR. JAGGI: So, this area, Bethany, you're
11 measuring this corner?

12 MS. MOORE: Yes, that point to the point of the
13 property line.

14 MR. JAGGI: Okay. Yeah.

15 MS. MOORE: And then from this --

16 MR. LUMLEY: There's a church between
17 Chaminade and --

18 CHAIRMAN LABONTE: Our Lady of the Pillar.

19 MR. JAGGI: It's Our Lady of the Pillar, that's
20 right.

21 MS. MOORE: (Inaudible.)

22 MR. JAGGI: That's west. But, yeah, we'd look
23 at that too.

24 MR. LUMLEY: It's immediately north of
25 Chaminade.

1 MR. JAGGI: Yeah, right here.

2 MS. MOORE: Oh, got you. Got you. Okay. That
3 is slightly different.

4 MS. RICHTER: If I'm understanding you right,
5 regardless of whether we change the fees, you -- you would
6 like some type of approvals --

7 MR. JAGGI: A recommendation.

8 MS. RICHTER: -- so that you can get it to
9 Council --

10 MR. JAGGI: If we can.

11 MS. RICHTER: -- before February 6th?

12 MR. JAGGI: If we can, yes, that would be ideal
13 if we can do that.

14 CHAIRMAN LABONTE: To get it to Council, you had
15 it January 23rd.

16 MR. JAGGI: That would be next Monday for first
17 reading.

18 MR. LUMLEY: No, that's February 3rd.

19 CHAIRMAN LABONTE: Is that a working session
20 next Monday or is that --

21 MR. JAGGI: Yes. Yes.

22 MS. RICHTER: That's our working session.

23 MR. JAGGI: Yeah.

24 CHAIRMAN LABONTE: Okay.

25 MR. JAGGI: And would be a good opportunity.

1 MR. LUMLEY: Yeah, it would be a good chance --

2 CHAIRMAN LABONTE: Yeah.

3 MR. LUMLEY: -- to discuss this thing for sure.

4 MR. JAGGI: Yeah.

5 CHAIRMAN LABONTE: Yeah. (Inaudible) told me.

6 MR. JAGGI: Sometimes it just works out good,
7 doesn't it?

8 MS. MOORE: The distance from the dispensary to
9 the -- to the church is also over 1,000 feet.

10 MR. JAGGI: Okay.

11 MS. MOORE: It's 1100.

12 MR. JAGGI: From here to here?

13 MS. MOORE: Yes.

14 MR. LUMLEY: So, MICDS (inaudible).

15 MR. JAGGI: Yeah, I think MICDS must have been
16 (inaudible).

17 MS. MOORE: (Inaudible.)

18 MR. JAGGI: And I do remember the discussion of,
19 you know, how really -- how much impact is there really
20 between MICDS to that.

21 You know, when you get to 1,000 feet -- what was
22 the -- the church again, 1100?

23 MS. MOORE: The church is 1100.

24 MR. JAGGI: So, okay, it's 100 feet more than
25 what -- you know, it's -- the point being it's far away,

1 you know, and what are the impacts here to there. That's
2 part of the consideration.

3 CHAIRMAN LABONTE: I mean it's just on a very
4 blatant corner.

5 MR. LUMLEY: Right.

6 MR. JAGGI: Yeah, that's -- that's the thing,
7 it's a very prominent corner, and that's what we have.

8 MR. LUMLEY: I think half the population
9 believes that the city owns that dispensary.

10 MS. O'BRIEN: Well, because of that big monument
11 on the bottom.

12 MR. LUMLEY: It seemed like a great idea when it
13 was (inaudible).

14 MS. O'BRIEN: Yeah, I mean it looks real crazy,
15 it really does.

16 MR. BUELTER: That goes back to your first
17 slide, is what optics do we want to have for Creve Coeur.

18 CHAIRMAN LABONTE: We're very progressive.

19 MR. POTASHNICK: Yeah.

20 MR. JAGGI: It's a choice.

21 MR. WANG: Medical marijuana, okay.

22 MR. JAGGI: I mean it's a choice. Up to the
23 1,000 feet it's a choice the city has.

24 MR. POTASHNICK: Well --

25 MR. JAGGI: I do think that we need to -- we

1 need to be mindful that we have existing medical, you
2 know --

3 CHAIRMAN LABONTE: Yeah.

4 MR. JAGGI: -- it's already there.

5 CHAIRMAN LABONTE: What about the one on
6 Olive --

7 MR. JAGGI: You can change rules about the
8 recreational. It's allowed.

9 CHAIRMAN LABONTE: Bethany, the one on Olive to
10 the day -- the daycare, do you know if it's on --

11 MS. MOORE: Where is the daycare?

12 CHAIRMAN LABONTE: It's --

13 MR. LUMLEY: Where is --

14 MR. JAGGI: Goddard School?

15 MR. LUMLEY: -- the dispensary? I don't even
16 know. Is it by Goddard?

17 CHAIRMAN LABONTE: Goddard.

18 MR. WANG: That's more than 1,000.

19 CHAIRMAN LABONTE: You think?

20 MR. WANG: Yeah.

21 MR. JAGGI: It's pretty close. It's right here
22 to here.

23 CHAIRMAN LABONTE: Where's it?

24 MR. JAGGI: Right here to here.

25 CHAIRMAN LABONTE: Yeah, it's (inaudible).

1 MR. LUMLEY: Is that -- where is it, in the Pei
2 Wei center?

3 MR. JAGGI: It's right here. Dispensary's right
4 here.

5 MR. LUMLEY: Oh, I see.

6 CHAIRMAN LABONTE: Yeah, it's like --

7 MR. LUMLEY: It's over by the video place?

8 MR. JAGGI: Yeah, right -- Goddard School right
9 here.

10 MS. O'BRIEN: By what?

11 CHAIRMAN LABONTE: Where I used to work.

12 THE COURT REPORTER: Are we still in the Public
13 Hearing?

14 MR. LUMLEY: Yes.

15 THE COURT REPORTER: Okay. I got a lot of
16 voices going on, so.

17 MR. LUMLEY: All right.

18 CHAIRMAN LABONTE: Should we close it for a
19 working -- we should have closed it maybe for a working
20 session.

21 MR. JAGGI: I think we can.

22 CHAIRMAN LABONTE: Is that all right?

23 VOICE: Yeah.

24 CHAIRMAN LABONTE: Let's close the Public
25 Hearing.

1 MR. LUMLEY: So, I'll -- I offer the following
2 exhibits into the record of this Public Hearing:
3 Documentation in possession of the City Clerk reflecting
4 the notice that's been provided of the hearing,
5 Mr. Jaggi's presentation, the City Code of Ordinances and
6 Charter, the City Comprehensive Plan, the public file
7 regarding this application.

8 (The Public Hearing was closed at 8:57 p.m.)
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1 STATE OF MISSOURI)
2) SS
3 COUNTY OF ST. LOUIS)

4 I, Deborah K. McLaughlin, Registered
5 Professional Reporter, Missouri Certified Court Reporter,
6 Illinois Certified Shorthand Reporter and Kansas Certified
7 Court Reporter, do hereby certify that I reported the
8 Planning and Zoning Public Hearing stenographically and
9 later reduced to typewriting; and that this is a true and
10 accurate transcript of the public hearing.

11
12
13 Deborah K. McLaughlin, RPR, MO-CCR, IL-CSR, KS-CCR
14 Deborah K. McLaughlin, RPR, MO-CCR, IL-CSR, KS-CCR

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APPLICATION TO PLANNING AND ZONING COMMISSION
#22-040: TEXT AMENDMENTS TO VARIOUS SECTIONS OF THE
ZONING ORDINANCE (CHAPTER 405) TO PROVIDE REGULATIONS FOR
RECREATIONAL MARIJUANA BUSINESSES

FOR THE MEETING OF: Tuesday, January 17, 2023, 6:00 P.M.

LOCATION: All Office, Commercial and Light Industrial Zoning Districts

REQUEST: Jason Jaggi, Director of Community Development, on behalf of the City of Creve Coeur, has submitted an application to amend various sections of the City's Zoning Ordinance, Chapter 405, to allow recreational marijuana uses in appropriate zoning districts. These marijuana uses include cultivation, manufacturing, and testing facilities, as well as, dispensaries. The proposed changes are in response to an amendment to Missouri's constitution approved by voters on November 8, 2022, which legalized recreational, adult-use marijuana.

ADDITIONAL INFORMATION: The Planning and Zoning Commission will conduct a Public Hearing on this request on Tuesday, January 17, 2023 for recommendation to the City Council. Meetings are held at 6:00 P.M., in the Council Chambers of the Creve Coeur Government Center located at 300 North New Ballas Road. Additional information is available at the Government Center, Planning Division offices, and on the City's website at www.crevecoeurmo.gov under the Planning Projects page.

Key Issues:

- Are the changes consistent with the purposes of the Zoning Code?
- Are the changes consistent with the purposes of the Comprehensive Plan?

Creve Coeur 2030 References

- NA

Zoning Code References

- Section 405.120 Definition of Terms
- Section 405.210: Regulation of Uses
- Section 405.470: Conditional Uses

APPLICANT: Jason W. Jaggi, AICP
Director of Community Development
City of Creve Coeur
300 N. New Ballas Road
Creve Coeur, MO 63141

REPORT PREPARED BY: Jason W. Jaggi, AICP, Director of Community Development

DATE: January 11, 2023

ATTACHMENTS: Draft Ordinance
State of Missouri Dept. of Health and Senior Services Cannabis FAQ (from website)
Adult Use Timeline (DHHS Website)
Ordinance 5637 Medical Marijuana Zoning Amendments—April 2019
Creve Coeur 2030, Chapter 3, Objectives and Strategies

BACKGROUND

This past November, the voters of Missouri approved Amendment 3 to the state's constitution to allow adult use, recreational marijuana. Prior to this election, only medical marijuana facilities were allowed in Missouri as approved by the voters at the November 2018 election. Due to the recent change in state law, local governments across the state must now review and update their ordinances in accordance with the new state law within a very condensed timeframe. This staff report and the associated draft zoning ordinance amendments will focus on the land use impacts for adult use (recreational) marijuana as allowed by state law. The proposed amendments are reflective of the direction the City took for medical marijuana which focused on minimizing the potential negative impacts that these facilities could create and to avoid being unnecessarily restrictive. A general agreement to this approach was given to staff by the City Council at the December 12, 2022 meeting when this item was discussed. The staff memo to the City Council is included for the Commission's reference.

STATE LICENSING

Comprehensive Licenses

All marijuana facilities will continue to be licensed by the State of Missouri, Department of Health and Senior Services (DHSS). The State will first begin to allow applications to convert existing medical marijuana facilities into Comprehensive adult-use marijuana facilities. Comprehensive marijuana facilities are those that sell to adults (Ages 21+) both for recreational and medicinal purposes. On December 8, 2022, the State began accepting conversion applications. The State has 60 days from receipt of the applications to approve those requests. With this in mind, the first conversions could occur as early as the beginning of February. Please see the attached Cannabis FAQ and Adult-Use Timeline documents from DHSS for more information.

According to information posted on the DHSS website, the State does not have any current plans to award new Comprehensive licenses; only the conversion of existing medical facilities will be accepted. This could change at some point in the future and the City's review should take this into consideration.

Microbusiness Licenses

In addition to Comprehensive marijuana licenses, the State will also award Microbusiness licenses. The intent for Microbusiness licenses is to establish a secondary market for medical and adult-use marijuana to provide more equity into the program by allowing applicants with less financial resources to participate. The State can award a minimum of 144 of these license types, 2/3 wholesale (cultivate and manufacture) and 1/3 retail (for-sale product at a dispensary). To qualify for a Microbusiness license, applicants must meet one of the following criteria:

- Have a net worth of less than \$250,000 and have had an income below two hundred and fifty percent of the federal poverty level, or successor level, as set forth in the applicable calendar year's federal poverty income guidelines published by the U.S. Department of Health and Human Services or its successor agency, for at least three of the ten calendar years prior to applying for a marijuana microbusiness facility license; or
- (Have a valid service-connected disability card issued by the United States Department of Veterans Affairs, or successor agency; or
- Be a person who has been, or a person whose parent, guardian or spouse has been arrested for, prosecuted for, or convicted of a non-violent marijuana offense, except for a conviction involving provision of marijuana to a minor, or a conviction of driving under the influence of marijuana. The arrest, charge, or conviction must have occurred at least one year prior to the effective date of this section; or
- Reside in a ZIP code or census tract area where:
 - Thirty percent or more of the population lives below the federal poverty level; or
 - The rate of unemployment is fifty percent higher than the state average rate of unemployment; or

- The historic rate of incarceration for marijuana-related offenses is fifty percent higher than the rate for the entire state; or
- Graduated from a school district that was unaccredited, or had a similar successor designation, at the time of graduation, or has lived in a zip code containing an unaccredited school district, or similar successor designation, for three of the past five years.

As previously stated, there are no plans at this time to award *new* Comprehensive licenses, however, Amendment 3 requires that as new Comprehensive facility licenses become available, 50% of those licenses must be awarded to operational Microbusiness facility operators.

EXISTING ZONING REGULATIONS FOR MEDICAL MARIJUANA FACILITIES

After statewide passage of medical marijuana, the City undertook a considerable review and public engagement process culminating in the Planning and Zoning Commission recommendation and City Council approval for medical marijuana zoning regulations through Ordinance No. 5637 in April 2019 (attached for reference).

The zoning standards for medical marijuana facilities, as defined by state law, are as follows:

Dispensaries: Permitted Use (by-right) in all commercial districts and LI-Light Industrial Districts, except that no dispensary can be located within 300-feet of an existing elementary or secondary school.

Cultivation Facility: Conditional Use in RO-Research Office and LI-Light Industrial District

Manufacturing Facility: Conditional Use in RO-Research Office and LI-Light Industrial District

Marijuana Testing Facility: Permitted Use (by-right) in RO-Research Office and LI-Light Industrial District

There are two medical marijuana dispensaries in the City: Terrabis, located at 11062 Olive Blvd. and Homestate Dispensary located at 105 N. Lindbergh. There are no cultivation, testing or manufacturing facilities currently operating in the Creve Coeur. It is anticipated that both existing dispensaries will seek conversion licenses to sell adult-use marijuana.

PROPOSED AMENDMENTS TO THE ZONING CODE

State law provides the general parameters for municipalities to regulate the land use aspects of adult-use marijuana uses within the framework of time, place and manner. The proposed amendments to the Zoning Code involve defining the uses as established by state law, determining the appropriate zoning districts and how these uses will be categorized, and providing any additional requirements to ameliorate the negative impacts for these uses.

Use Table

As previously discussed, Staff is proposing to update the use table (Table A within the Zoning Code) to remove medical-only designations for state-defined marijuana facilities to comprehensive and microbusiness marijuana facilities. The zoning standards for each facility type would not change.

The proposed amendments to the use table are shown in the table below.

Use Code	2012 NAICS Title	ZONING DISTRICTS													
		A	B	C	D	AR	HE	PH	PO	RO	MX	PC	GC	CB	LI
CC111419	<u>Comprehensive or Medical Marijuana Cultivation Facility and Microbusiness Marijuana Wholesale Facility, inside a building or greenhouse as defined under Section 405.120 with no drive up facilities</u>									C					C
325414	Biological Product (except Diagnostic) Manufacturing									C					C
CC325415	<u>Comprehensive or Medical Marijuana-Infused Product Manufacturing Facility, entirely within an enclosed building as defined under Section 405.120 with no drive up facilities</u>									C					C
453998	All Other Miscellaneous Store Retailers (except auction houses, pool and hot tub sales/supplies and cemetery memorial dealers)										P	P	P	P	P
CC453999	<u>Comprehensive or Medical Marijuana Dispensary Facility as defined under Section 405.120, including Microbusiness Marijuana Dispensary Facility (provided any drive-thru or drive-up portion of any such dispensary shall be a conditional use in the designated districts)</u>							P		P	P	P	P	P	P
541380	Testing Laboratories								P	P		P	P	P	P
CC541381	Medical Marijuana Testing Facility as defined under Section 405.120									P					P

With respect to the four (4) different facility types, these uses would continue to be allowed within certain districts as either allowed by-right (permitted use shown with a “P” designation) or conditionally allowed (shown with a “C” designation). The conditional use process allows for greater scrutiny of the application and is reviewed by the Planning and Zoning Commission with a public notice and hearing at P&Z and final approval by City Council in the form of an ordinance.

The four marijuana facility types as defined by the State and how they would be classified in the zoning code are described in detail below.

- Marijuana Cultivation Facility. These uses involve the growing and processing of marijuana plants. This facility type has the potential to have greater impacts to surrounding properties with respect to the size of the greenhouses, odors that may be produced when the marijuana plant is flowering prior to harvest, and traffic associated with deliveries. For these reasons, the Light Industrial and Research Office Districts (LI, RO) are the most appropriate locations for these uses; however, cultivation facilities should be allowed as conditional uses so that these potential impacts can be identified and addressed. The RO District is limited to the Danforth Plant Science Center campus and the Bayer campuses. The LI District is located in the northeast corner of Creve Coeur, north of the Danforth Center.
- Marijuana Manufacturing Facility. These facilities primarily involve the manufacturing of marijuana infused products. The potential impacts associated with this use are similar to a cultivation facility, but with emphasis on the distinct odor concerns involved with the processing of marijuana plants as a commodity used to produce an ingestible product. For these reasons, the Light Industrial and Research Office Districts are the most appropriate locations as conditional uses.
- Marijuana Dispensary Facility. These facilities involve the sale of marijuana-infused products and paraphernalia to the consumer. These dispensaries are essentially a retail operation where the products are located behind a counter in a highly controlled environment. With medical marijuana dispensaries having been in operation for a couple of years, the impacts to surrounding areas are not dissimilar to other retail-type uses. The amendment continues to have dispensaries listed as a permitted (by-right) use in all commercial and light industrial zoning districts.
- Marijuana Testing Facility. These facilities test and certify relatively small samples of marijuana. Due to their limited scope, these facilities are listed as permitted uses in the RO-Research Office and LI-Light Industrial Districts.

Additional Requirements

State law allows cities to require marijuana facilities to be up to one-thousand (1,000) feet away from places of worship, schools and day-care centers. In addition, separation between marijuana facilities is permitted. With medical marijuana, the City Council reduced this requirement to 300-feet applied only to schools which is the same distance requirement for a liquor license. This amendment keeps this requirement in place for recreational marijuana.

Since the passage of the ordinance for medical marijuana, the state has clarified how the distance requirements are to be measured. The City's ordinance has been updated accordingly.

The amendments continue the requirement that cultivation and manufacturing facilities as conditional uses must be conducted completely indoors and that odors must be controlled with information to be provided to demonstrate the methods in which this will be achieved.

Finally, the amendments include ability for drive-through marijuana dispensaries with approval of a conditional use permit. Staff has included this provision for consideration by the Commission and Council based upon an existing dispensary's request to operate a drive through window at their current location.

COMPREHENSIVE PLAN REVIEW

A review of the comprehensive plan is an important consideration for any zoning code amendment. In this case, these amendments are required as a result of changes in state law. The City's comprehensive

plan, *Creve Coeur 2030*, predates these laws and does not provide direct guidance to the City for these types of uses. However, staff would suggest the Commission should use the Plan's general guidance as it broadly applies to community character, compatibility of uses, and changes to consumer preferences. The applicable objectives and strategies within these goals that could apply to these amendments are Placemaking and Community Identity, Residential Development & Preservation, and Economic Growth & Community Services. Refer to Chapter 3, Objectives and Strategies, Pages 44-51 (attached for reference).

NEXT STEPS

The Commission should review the proposed amendments and hear any comments from the public. If the Commission agrees the proposed text amendments are in keeping with the Comprehensive Plan and sufficiently provide the necessary regulations for these uses, a motion to recommend approval to the City Council would be appropriate. If there are any other discussion items or revisions to the Ordinance, staff will be available for assistance.

MOTION

If the Planning and Zoning Commission accepts the draft ordinance as written, the following would be a suitable motion for this application:

“I move to recommend approval to the City Council of the proposed text amendments to various sections of the Zoning Ordinance as discussed with Application #22-040 to allow for recreational marijuana related uses in compliance with State Law, with certain conditions as discussed within the proposed draft ordinance for the meeting of January 17, 2023” (conditions may be added, eliminated, or modified by preceding motion).

APPENDIX 1: COMPREHENSIVE PLAN

Included and attached by reference. See body of report for specific excerpts.

APPENDIX 2: ZONING CODE

Included by reference. See body of report for specific excerpts.

BILL NO. _____

ORDINANCE NO. _____

AN ORDINANCE AMENDING VARIOUS SECTIONS OF CHAPTER 405, THE ZONING ORDINANCE, TO ALLOW FOR RECREATIONAL MARIJUANA RELATED USES

WHEREAS, an amendment to Missouri's constitution was approved by voters on November 8, 2022 which legalized recreational marijuana; and

WHEREAS, all marijuana activities are subject to regulation by the State of Missouri; and

WHEREAS, an application was submitted by the Director of Community Development for text amendments to various sections of the City's Zoning Ordinance to allow recreational marijuana uses in appropriate zoning districts; and

WHEREAS, the Planning and Zoning Commission of the City of Creve Coeur, Missouri has recognized the need for such changes as set forth herein for conformity with state law and zoning practices that are consistent with public health and welfare; and

WHEREAS, the Planning and Zoning Commission of the City of Creve Coeur, Missouri, held a public hearing thereon at the Creve Coeur Government Center on _____, beginning at 6:00 p.m., or immediately following the close of the previous public hearing; and

WHEREAS, the Planning and Zoning Commission reviewed and, by a vote of ____ recommended approval of the subject amendments at its meeting on _____; and

WHEREAS, notice of said public hearing had previously been published at least 15 days prior to the hearing in the St. Louis Countian, a newspaper of general circulation in the City of Creve Coeur and otherwise posted and published in accordance with the Zoning Ordinance; and

WHEREAS, all persons who presented themselves at said meeting and desiring to be heard were given an opportunity to be heard and a copy of the proposed ordinance has been made available for public inspection prior to its consideration by the City Council; and the Bill was read by title in open meeting two times before final passage by the City Council; and

WHEREAS, the City Council being fully informed finds that amending the City Code of Ordinances as provided herein would be in harmony with and bear a substantial relation to the public welfare, health, safety, comfort and convenience of the citizens of the City of Creve Coeur and in the public interest,

NOW, THEREFORE, be it ordained by the City Council of the City of Creve Coeur, Missouri, as follows:

BILL NO. _____

ORDINANCE NO. _____

SECTION 1. Table A, Permitted and Conditional Uses, is amended in the manner shown below

Use Code	2012 NAICS Title	ZONING DISTRICTS													
		A	B	C	D	AR	HE	PH	PO	RO	MX	PC	GC	CB	LI
CC111419	<u>Comprehensive or Medical Marijuana Cultivation Facility; and Microbusiness Marijuana Wholesale Facility, inside a building or greenhouse as defined under Section 405.120 with no drive up facilities</u>									C					C
325414	Biological Product (except Diagnostic) Manufacturing									C					C
CC325415	<u>Comprehensive or Medical Marijuana-Infused Product Manufacturing Facility, entirely within an enclosed building as defined under Section 405.120 with no drive up facilities</u>									C					C
453998	All Other Miscellaneous Store Retailers (except auction houses, pool and hot tub sales/supplies and cemetery memorial dealers)										P	P	P	P	P
CC453999	<u>Comprehensive or Medical Marijuana Dispensary Facility as defined under Section 405.120, including Microbusiness Marijuana Dispensary Facility (provided any drive-thru or drive-up portion of any such dispensary shall be a conditional use in the designated districts)</u>							P		P	P	P	P	P	P
541380	Testing Laboratories								P	P		P	P	P	P
CC541381	<u>Medical Marijuana Testing Facility as defined under Section 405.120</u>									P					P

SECTION 2. Section 405.120 Definition of Terms of the Creve Coeur Code of Ordinances is hereby amended to include new and revised definitions as follows:

BILL NO. _____

ORDINANCE NO. _____

COMPREHENSIVE MARIJUANA CULTIVATION FACILITY: a facility licensed as such by the State of Missouri.

COMPREHENSIVE MARIJUANA DISPENSARY FACILITY: a facility licensed as such by the State of Missouri.

COMPREHENSIVE MARIJUANA-INFUSED PRODUCT MANUFACTURING FACILITY: a facility licensed as such by the State of Missouri.

MARIJUANA OR MARIHUANA: *Cannabis indica*, *Cannabis sativa*, and *Cannabis ruderalis*, hybrids of such species, and any other strains commonly understood within the scientific community to constitute marijuana, as well as resin extracted from the plant and marijuana-infused products. "Marijuana" or "Marihuana" do not include industrial hemp as defined by Missouri statute, containing a crop-wide average tetrahydrocannabinol concentration that does not exceed three-tenths of one percent on a dry weight basis, or commodities or products manufactured from industrial hemp.

~~MARIJUANA-INFUSED PRODUCTS: products that are infused with marijuana or an extract thereof and are intended for use or consumption other than by smoking, including, but not limited to, edible products, ointments, tinctures and concentrates.~~

MEDICAL MARIJUANA CULTIVATION FACILITY: a facility licensed as such by the State of Missouri ~~to acquire, cultivate, process, store, transport, and sell marijuana to a Medical Marijuana Dispensary Facility, Medical Marijuana Testing Facility, or to a Medical-Infused Products Manufacturing Facility.~~

MEDICAL MARIJUANA DISPENSARY FACILITY: a facility licensed as such by the State of Missouri ~~to acquire, store, sell, transport, and deliver marijuana, marijuana-infused products and drug paraphernalia used to administer marijuana in accordance with applicable law and regulations.~~

MEDICAL MARIJUANA-INFUSED PRODUCTS MANUFACTURING FACILITY: a facility licensed as such by the State of Missouri, ~~to acquire, store, manufacture, transport, and sell marijuana-infused products to a Medical Marijuana Dispensary Facility, a Medical Marijuana Test Facility, or to another Medical Marijuana-Infused Projects Manufacturing Facility.~~

~~MEDICAL MARIJUANA TESTING FACILITY: a facility certified as such by the State of Missouri, to acquire, test, certify, and transport marijuana.~~

BILL NO. _____

ORDINANCE NO. _____

MICROBUSINESS MARIJUANA DISPENSARY FACILITY: a facility licensed as such by the State of Missouri.

MICROBUSINESS MARIJUANA WHOLESALE FACILITY: a facility licensed as such by the State of Missouri.

SECTION 3. Section 405.450 Permitted Uses, Subsection G, is amended as follows:

G Comprehensive or Medical Marijuana Dispensary Facility, and Microbusiness Marijuana Dispensary Facility (NAICS CC453999) and Medical Marijuana Testing Facility (NAICS CC541381) as defined in Section 405.120, which abide by all applicable laws and regulations, are permitted uses in the zoning districts as shown in Table A Permitted and Conditional Uses, but no Comprehensive or Medical Marijuana Dispensary Facility, or Microbusiness Marijuana Dispensary Facility shall be initially sited on a property within three hundred (300) feet of a property of any then-existing elementary or secondary school. Measurements shall be made from the closest property line of the proposed Dispensary Facility to the closest property line of any such other use listed in this section. In the case of a free-standing facility, the distance between the facility and the school shall be measured from the external wall of the facility closest in proximity to the school to the closest point of the property line of the school, unless the school is part of a larger structure such as an office building or mall, in which case the distance shall be measured to the entrance or exit of the school in closest proximity to the facility. In the case of a facility that is part of a larger structure, such as an office building or mall, the distance between the facility and the school shall be measured from the property line of the school to the facility's entrance or exit closest in proximity to the school, unless the school is part of a larger structure such as an office building or mall, in which case the distance shall be measured to the entrance or exit of the school in closest proximity to the facility. Measurements shall be made along the shortest path between the demarcation points that can be lawfully traveled by foot.

Commented [CL1]: Medical ordinance did not restrict testing locations

Commented [CL2]: Left at 300 rather than 1000, per medical ordinance

Commented [CL3]: Left out day-care and church consistent with medical ordinance as enacted

SECTION 4. Section 405.470 Conditional Uses, subsection A.8, is amended as follows:

8. All drive-through and drive-in sales of goods or services including but not limited to freestanding drive-in pharmacies, banking facilities, and marijuana dispensary facilities (not including restaurants) (CC442100) (conditional use in the "PH," "MX," "PC," "GC," "CB" and "LI" districts). [Ord. No. 5400 §1, 11-10-2014; Ord. No. 5717, 9-29-2020]

a. Shall provide space for at least three (3) cars per drive-up window or station.

b. Shall provide landscaping to screen the view of drive-up waiting spaces from surrounding properties.

c. Drive-up window access, waiting spaces and egress shall not interfere with site circulation or be hazardous to motorists entering, exiting or passing by the site.

BILL NO. _____

ORDINANCE NO. _____

d. When provided in the "PH" District, drive-through services shall be limited to uses complementary to the medical uses existing on the campus.

SECTION 5. Section 405.470 Conditional Uses, subsection A.33, is amended as follows:

33. Comprehensive or Medical Marijuana Cultivation Facility (NAICS CC111419) and Comprehensive or Medical Marijuana-Infused Products Manufacturing Facility, and Microbusiness Marijuana Wholesale Facility (NAICS CC325415) as defined in Section 405.120, which abide by all applicable laws and regulations, are conditional uses in the zoning districts as shown in Table A Permitted and Conditional Uses, subject to the following specific standards:

- a. No marijuana-related use or facility shall emit an odor or in any way cause a public nuisance per Section 405.550 or Chapter 215, as applicable. The applicant shall demonstrate that the appropriate systems will be provided to prevent any odor of marijuana or fumes from leaving the facility.
- b. Marijuana cultivation and processing activities shall occur only within an enclosed building.

SECTION 6. This ordinance shall become effective in accordance with Section 3.11 (g) of the City Charter.

ADOPTED THIS ____ DAY OF _____, 2023.

JOSEPH MARTINICH
PRESIDENT OF CITY COUNCIL

APPROVED THIS ____ DAY OF _____, 2023.

ROBERT
HOFFMAN
MAYOR

ATTEST:

KELLIE HENKE
CITY CLERK

Adult Use FAQs

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Adult Use

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Additional Patient and Consumer Protections

Adult Use

- **When will adult-use marijuana be available to consumers?**
 - Beginning December 8, 2022, consumers will be allowed to legally possess up to 3 ounces of marijuana. However, marijuana will not be available for consumers to purchase in a Missouri licensed dispensary facility until medical facility licensees convert their licenses to comprehensive facilities.
On December 8th, 2022 the department will begin accepting requests for existing medical facility licensees to convert to a comprehensive facility. Because the department has 60 days from receipt to approve those requests, adult-use product could be available as early as February 2023. Once approved, it is up to each comprehensive dispensary to decide when it will begin selling marijuana for adult use. Check with your local licensed dispensary on when it will begin selling to consumers. More information will be made available on the department's website. Please check back periodically for announcements - <http://cannabis.mo.gov> (<http://cannabis.mo.gov>)
- **When will the department be accepting new medical or comprehensive facility license applications?**
 - Because existing medical licenses can convert to comprehensive licenses, which can sell marijuana to both patients and consumers, no new medical or comprehensive license applications will be accepted at this time. When the department begins accepting any new facility applications, application periods will be publicly announced on our website at least six months in advance. Please use this link to periodically check for announcements that pertain to future application periods - <https://health.mo.gov/safety/cannabis/facilities.php> (<https://health.mo.gov/safety/cannabis/facilities.php>)
- **Consumer Personal Cultivation**
 - The department will begin accepting applications for consumer personal cultivation as soon as February 6th, 2023. Once approved, this will allow authorized persons who are at least twenty-one years of age to cultivate plants for personal, non-commercial use within an enclosed locked facility. More information will be made available on the department's website. Check back periodically for announcements - <http://cannabis.mo.gov> (<http://cannabis.mo.gov>)
- **Who is considered a consumer?**
 - A consumer is someone who is at least twenty-one years of age.
- **When can I apply to convert my medical license to a comprehensive license?**
 - Applications for conversion will be accepted beginning December 8, 2022. Information on the application process is found here: <https://health.mo.gov/safety/cannabis/facility-conversion.php> (<https://health.mo.gov/safety/cannabis/facility-conversion.php>)
- **Do medical marijuana testing or transportation licensees need to apply to convert to a comprehensive license?**
 - No. Certified medical marijuana testing and medical marijuana transportation licensees will automatically convert to marijuana testing and marijuana transportation licensees on December 8, 2022. At that point in time, testing and transportation licensees will have the ability to provide support for all marijuana license types.
- **When will the department be accepting microbusiness facility license applications?**

- The department will begin accepting microbusiness facility license applications on or before September 4, 2023. Application forms will be made available no later than June 6, 2023.
- **I am not a qualifying patient. Can I grow my own marijuana?**
 - Consumers with an approved consumer personal cultivation identification card will be authorized to cultivate plants for personal, non-commercial use within an enclosed locked facility at their residence.
- **When can I apply for my consumer personal cultivation identification card?**
 - The department will begin accepting applications for consumer personal cultivation as soon as February 6, 2023. More information will be made available on the department's website. Please check back periodically for announcements - <http://cannabis.mo.gov> (<http://cannabis.mo.gov>)
- **Differences in the medical program versus adult use program**
 - As of December 8th, 2022 – all approved patient ID card holders will be allowed a standard allotment of **6oz** (or more based on physician recommendation) within a thirty day period, with medical purchases at a 4% tax rate. Adult-use marijuana may be purchased by consumers who are at least twenty-one years of age. Up to **3 ounces may be purchased** in a single transaction, and consumers may be in **possession of up to 3 ounces of marijuana at any time**. Adult-use purchases will be taxed at 6% in addition to any local taxes.
- **General Changes to Facility Licenses**
 - On December 8th, 2022 the department will begin accepting requests from existing medical facility licensees to convert to a comprehensive facility. The department has 60 days from receipt to approve those requests. Once approved, comprehensive facilities will be allowed to sell marijuana to patient ID cardholders, primary caregiver ID cardholders, and adults over 21.
- **What will be required for a consumer to make a purchase from the dispensary for adult use?**
 - Consumers will be required to present a valid government issued photo ID when purchasing adult use products at a dispensary.
- **Change in application fees**
 - Patient/Caregiver ID application fees will remain the same. However, as of December 8th, 2022, under new law, **patient/caregiver cultivation ID** application fees will be reduced to \$50. An updated fee schedule is available on the department's website. Please check back periodically for current application fees - <https://health.mo.gov/safety/cannabis/fee-schedule-pi.php> ([fee-schedule-pi.php](https://health.mo.gov/safety/cannabis/fee-schedule-pi.php))
- **Change to Agent ID Fingerprint requirement**
 - As of December 8th, 2022, potential facility employees will still be required to apply for an agent ID, but agent ID card applicants will no longer be required to submit fingerprints for a criminal history record check as part of their applications. Owners with a financial or voting interest in at least 10% of a medical or marijuana facility will still need to submit fingerprints for a criminal history background check.
- **What is a microbusiness facility?**
 - A microbusiness facility refers to either a microbusiness dispensary or a microbusiness wholesale facility, both of which conduct operations related to marijuana for medical and adult use. A microbusiness is different from a medical or comprehensive facility because it is designed to provide a path to facility ownership for individuals who might not otherwise easily access that opportunity, such as those with a net worth of less than \$250,000 or veterans with a service-connected disability. In order to qualify for a microbusiness facility license, applicant entities shall be majority owned by individuals who each meet at least one of a number of qualifications set forth in the Constitution.
- **What is a microbusiness dispensary facility?**
 - A microbusiness dispensary facility is a licensed microbusiness facility where marijuana is dispensed for medical and adult use. Microbusiness dispensaries may only acquire product from and sell product that was produced by microbusiness wholesale facilities.
- **What is a microbusiness wholesale facility?**
 - A microbusiness wholesale facility combines the concepts of a cultivation facility and a manufacturing facility to serve both the medical and adult use communities. A microbusiness wholesale facility may engage in all or only a subset of the activities approved under its license. If cultivating, microbusiness wholesale facilities may cultivate up to two hundred and fifty flowering plants at a time. Microbusiness wholesalers may only sell product to microbusiness dispensary facilities.

Medical Program Changes

- **Who can certify a qualifying patient for medical marijuana in Missouri?**
 - Qualifying patients may be certified by an MD, DO **or a nurse practitioner** who is licensed and in good standing with the state of Missouri.
- **Do I need proof of Missouri residency to apply for a Missouri medical marijuana patient ID?**
 - No, the new law no longer requires proof of Missouri residency within the patient application process.

- **How many approved caregiver ID cards can one individual hold?**
 - The new law allows for an individual to be a licensed caregiver for up to six (6) separate patients.
- **Can I still apply for a medical marijuana ID card?**
 - Yes, pursuant to Section 1 of Article XIV, the department will continue issuing ID cards to qualifying patients. Information on how qualified patients can apply is available on the department's website - [https://health.mo.gov/safety/cannabis/ \(index.php\)](https://health.mo.gov/safety/cannabis/index.php)
- **What documentation is required to apply for a patient ID card?**
 - All applications require a physician or nurse practitioner certification, less than 30 days old, submitted on behalf of the qualifying patient; a legible copy of the qualifying patient's government-issued photo identification card; and a clear, color digital photo in which the applicant's face can be clearly seen. The digital photo must show a clear image of the applicant's full face, from the shoulders up, without filters, hats, sunglasses, or other things that distort the image. This image will appear on the approved ID card.
Additional information can be found on the department's website – <https://cannabis.mo.gov> (<https://cannabis.mo.gov>)
- **What documentation is required to apply for a caregiver ID card?**
 - All caregiver applications require a legible copy of the primary caregiver's government-issued photo identification card; a clear, color digital photo in which the applicant's face can be clearly seen; and either a completed patient authorization form or written consent of the parent or legal guardian who will serve as the qualifying patient's primary caregiver. The digital photo must show a clear image of the applicant's full face, from the shoulders up, without filters, hats, sunglasses, or other things that distort the image. This image will appear on the approved ID card. The patient authorization form is available on the department's website - <https://health.mo.gov/safety/cannabis/patient-services.php> ([patient-services.php](https://health.mo.gov/safety/cannabis/patient-services.php))

ID Card Expiration Date Changes

- **How long are medical marijuana ID cards valid?**
 - Patient, caregiver, and patient or caregiver cultivation applications processed on or after December 8, 2022 will be approved for 3 years. ID cards approved before that date will be valid for one year. Upon the next approved renewal after December 8, 2022, the ID cards will be valid for 3 years.
The fee for cultivation applications will change to \$50.00.
- **Will existing license expiration dates be extended?**
 - No. ID cards approved or renewed before December 8, 2022 will retain their existing expiration dates. ID cards approved or renewed on or after December 8, 2022 will be valid for three years.
- **How long are consumer cultivation cards valid?**
 - A consumer personal cultivation identification card is valid for 12 months from its date of issuance and is renewable.

Unchanged Rules

- **Are patients still required to obtain a new physician certification form with their renewal application?**
 - Yes, Patients will be required to obtain a new physician or nurse practitioner certification form to submit with their patient renewal application. Certification forms must be submitted by an MD, DO, or nurse practitioner who is licensed and in good standing with the state of Missouri.
- **Will patient application fees increase with the amendment changes?**
 - Regular patient and caregiver application fees are charged consistently with the previous law, but the approved ID card will be valid for 3 years instead of the previous 1 year. The price of a regular patient and caregiver card is adjusted with changes to the Consumer Price Index.
 - Patient and caregiver cultivation fees will be reduced from \$100 (currently \$110.99 after CPI adjustments) to \$50 per application, to be adjusted with changes in the Consumer Price Index.
 - A fee schedule is available on our website - <https://health.mo.gov/safety/cannabis/fee-schedule-pi.php> (<https://health.mo.gov/safety/cannabis/fee-schedule-pi.php>)
- **Do patient certification forms still need to be submitted to the department within 30 days as part of a completed patient application?**
 - Yes. Once the certifying medical professional has submitted a certification form, the qualifying patient must then register and complete a patient application through the registry portal. This patient application must be submitted to the department within 30 days of the medical professional's signature date on the form.
- **Will the department be mailing physical ID cards?**

- No. The department will not be mailing physical cards. It is the ID card holder's responsibility to download and print their approved ID from the registry portal.
- **How long does it take for a submitted patient or caregiver application to be processed?**
 - The department has 30 days to process patient and caregiver applications. Applications are processed in the order they were received.
- **Are tax rates for medical marijuana changing?**
 - The tax rate for medical marijuana purchases will remain at 4%.
 - The state tax rate for adult-use marijuana purchases will be 6%. Local governments may impose an additional sales tax of up to three percent.
- **Can an individual have a patient cultivation ID card without first having a patient ID card?**
 - No. The patient ID application must be approved before a patient cultivation ID application may be submitted.
- **Where do all the taxes from sales go?**

By law, proceeds from adult-use marijuana sales will go towards:

 - governmental entities needed to carry out expungement of certain marijuana offenses
 - the Missouri veterans commission for health care and other services for veterans
 - the Missouri public defender system to provide legal assistance to low-income Missourians
 - local governments if the local government taxes marijuana sales
 - grants recipients

Timeline

- **November 8, 2022** | Vote on amendment 3 ballot measure.
- **December 8, 2022** | Patient, caregiver, and medical cultivation **changes go into effect.**
 - All current active patients' allotment will change from 4oz to 6oz per month.
 - Patient applications processed as of this date and forward will be valid for 3 years.
 - Current ID card holders will retain their existing expiration dates, which will not change due to Amendment 3 passing.
- **January 7, 2023** | Personal Cultivation application form will be posted to the department's website.
- **February 6, 2023** | Personal Cultivation for adult use applications accepted.
- **June 6, 2023** | Department will post license application forms and instructions for marijuana microbusiness facilities.
- **September 4th, 2023** | Department will begin on or before September 4th to accept microbusiness applications.
 - Information regarding the microbusiness application process will be made available ASAP on the website.

Consumer and Patient Possession Limits

- **Patient/Caregiver Purchase and Possession Limit**
 - Under the new law, an approved Patient ID card holder, or a Caregiver ID card holder on behalf of a licensed patient, may purchase up to 6 ounces of dried, processed marijuana or its equivalent within a 30-day period, unless a physician or nurse practitioner certifies the patient for a greater amount. A patient ID card holder, or caregiver ID card holder on behalf of a licensed patient, may be in possession of up to a 60-day supply (12 ounces, unless the patient has a physician or nurse practitioner certification authorizing more than 6 ounces in 30 days).
- **Can qualifying patients be certified for more than 6 ounces?**
 - Yes. Qualifying patients may be certified for more than 6 ounces if their certifying physician or nurse practitioner determines that there is a compelling reason to do so, and certifies the higher amount on the certification form.
- **Patient Cultivation Possession Limit**
 - Under the new law, approved Patient ID card holders who are cultivating marijuana for medical use or whose primary caregivers are cultivating marijuana on their behalf, may be in possession of up to a 90-day supply of dried, unprocessed marijuana or its equivalent, as long as any amount in excess of the patient's 60-day supply remains in an approved enclosed, locked facility
- **What are possession limits of an approved caregiver ID card holder?**
 - Approved caregiver ID holders may possess a separate legal limit for each qualifying patient under their care, for up to 6 patients; and a separate legal limit for themselves if they are a qualifying patient. All marijuana in the caregiver's possession shall be stored separately for each qualifying patient and labeled with the qualifying patient's name.

The legal limit for any licensed qualifying patient is a 60-day supply, unless that patient or the primary caregiver on behalf of that patient is licensed to cultivate. Approved cultivators may be in possession of up to a 90-day supply of dried,

unprocessed marijuana or its equivalent, as long as any amount in excess of the patient's 60-day supply remains in an approved enclosed, locked facility.

- **Consumer Purchase and Possession Limit**
 - A consumer may purchase up to 3 ounces in a single transaction, and be lawfully in possession of up to 3 ounces of dried, processed marijuana or its equivalent.
- **Consumer Personal Cultivation Possession Limits**
 - Consumer personal cultivation ID card holders must keep any amount of cultivated marijuana above their allowed 3 ounce possession limit at their residence in an approved enclosed, locked facility.

Consumer and Patient Cultivation

- **Can I be authorized for both personal cultivation and patient cultivation?**
 - No. Patients/consumers will only be authorized to have one cultivation authorization.
- **Are patients still required to obtain a new physician certification form with their renewal application?**
 - Yes, Patients will be required to obtain a new physician **or nurse practitioner** certification form to submit with their patient renewal application. Certification forms must be submitted by an MD, DO **or nurse practitioner** that is licensed and in good standing with the state of Missouri. However, the new law only requires patient ID card renewal every 3 years.
- **Will application fees increase with the amendment changes?**
 - Some application fees have changed. A fee schedule is available on our website - <https://health.mo.gov/safety/cannabis/fee-schedule-pi.php> (fee-schedule-pi.php).
- **Do physician or nurse practitioner certification forms still need to be submitted to the department with a completed patient application within 30 days of the date on the form?**
 - Yes. Once the certifying medical professional has submitted a certification form, the qualifying patient must then register and complete a patient application through the registry portal. This patient application must be submitted to the department within 30 days of the medical professional's signature date on the form.
- **Will the department be mailing physical ID cards?**
 - No. The department will not be mailing physical cards. It is the ID card holder's responsibility to download and print their approved ID from the registry portal.
- **How long does it take for a submitted application to be processed?**
 - The department has 30 days to process patient and caregiver applications. Applications are processed in the order they were received.
- **Are tax rates for medical marijuana changing?**
 - No. The tax rate for medical marijuana purchases will remain at 4%.
- **Can an individual apply for a patient cultivation ID card without first having a patient ID card?**
 - No. The patient ID card is required to apply and be approved for a patient cultivation ID card.
- **How do medical professionals become approved to certify patients?**
 - Certifying Medical Professionals must register and verify with the department prior to submitting certification forms.

Additional Patient and Consumer Protections

- **Can I be a patient or consumer if I am on Probation/Parole?**
 - Sections 1 and 2 of Article XIV provide certain protections for patients and consumers on probation/parole, or other state supervision, that are outside of the department's authority and subject to the agencies with jurisdiction, and the courts, to make those decisions.
- **Can employers have policies related to employing patients and consumers who use marijuana?**
 - Sections 1 and 2 of Article XIV provide certain protections for patients and consumers for employment-related issues that are outside of the department's authority and subject to agencies with jurisdiction over employment-related issues. Please consult with an attorney on your specific circumstances.
- **Does the new law include any provisions for de-criminalization of certain marijuana related offenses?**
 - Yes. It includes a provision to allow persons with certain marijuana-related non-violent offenses to petition for release from incarceration or parole and probation and have records expunged. Please consult with your legal counsel on whether this may apply to your situation.



MISSOURI DEPARTMENT OF
**HEALTH &
SENIOR SERVICES**

Division of Cannabis Regulation

ADULT-USE TIMELINE

2022

Nov. 8, 2022

Missouri approves Amendment 3. DHSS released draft program rules two days later.

Amendment Passes

Dec. 8, 2022

DHSS begins accepting requests from facilities to convert operations for adult-use. Patient cards now valid for three years.

Law Effective

2023

Jan. 7, 2023

Personal cultivation application forms and instructions available to the public.

Cultivation Apps

Feb. 6, 2023

Program rules finalized. Marijuana may be available in dispensaries once licensed. Personal cultivation applications accepted.

Facilities Licensed

2023 (cont'd)

June 6, 2023

Microbusiness application forms and instructions available.

Microbusiness Apps

Sept. 4 - Oct. 4, 2023

Microbusiness applications accepted (1st round).

Microbusiness Apps

Dec. 3, 2023

Microbusiness applications reviewed for eligibility.

Application Reviews

2024

June 2024

Microbusiness applications accepted for 2nd round.

Microbusiness Apps

2024 (cont'd) 2025

Aug. 2024

Microbusiness applications reviewed for eligibility.

Application Reviews

March 2025

Microbusiness applications accepted for 3rd round.

Microbusiness Apps

May 2025

Microbusiness applications reviewed for eligibility.

Application Reviews

Cannabis.Mo.Gov



MEMORANDUM TO MAYOR AND CITY COUNCIL

Meeting Date: December 12, 2022

Subject: Adult-Use (Recreational) Marijuana Zoning Amendments

Memo Prepared by: Jason W. Jaggi, AICP, Director of Community Development

Attachments: Ordinance 5637—Medical Marijuana Zoning Amendments

In the November election, voters of the state approved an amendment to Missouri's constitution which legalized comprehensive, adult-use marijuana. Prior to this election, only medical marijuana facilities were allowed in Missouri as a result of the approval of such facilities in the November 2018 election. Due to the recent change in state law, local governments across the state must now review and update their ordinances in accordance with the new state law within a very condensed timeframe. Prior to moving forward with a formal code amendment, staff would like the input on the general direction of these amendments from the City Council.

All marijuana facilities will continue to be licensed by the State of Missouri, Department of Health and Senior Services. The State will first begin to allow applications to convert existing medical marijuana facilities into Comprehensive adult-use marijuana facilities. Comprehensive marijuana facilities are those that sell to adults both for recreational and medicinal purposes. On December 8, 2022, the State will begin accepting conversion applications. The State has 60 days from receipt of the applications to approve those requests. With this in mind, the first conversions could occur as early as the beginning of February next year.

The State does not have any current plans to award new Comprehensive licenses; only the conversion of existing medical facilities. However, this could change at some point in the future.

Microbusiness Licenses

In addition to Comprehensive marijuana licenses, the State will also award Microbusiness licenses. This is a secondary market for medical and adult-use marijuana. These licenses have been created to provide a more equity into the program by allowing applicants with less financial resources to participate. The state can award a minimum of 144 of these license types, 2/3 wholesale (cultivate and manufacture) and 1/3 retail (for-sale product at a dispensary). To qualify for a Microbusiness license, applicants must meet one of the following criteria:

- Have a net worth of less than \$250,000 and have had an income below two hundred and fifty percent of the federal poverty level, or successor level, as set forth in the applicable calendar year's federal poverty income guidelines published by the U.S. Department of Health and Human Services or its successor agency, for at least three of the ten calendar years prior to applying for a marijuana microbusiness facility license; or

- (Have a valid service-connected disability card issued by the United States Department of Veterans Affairs, or successor agency; or
- Be a person who has been, or a person whose parent, guardian or spouse has been arrested for, prosecuted for, or convicted of a non-violent marijuana offense, except for a conviction involving provision of marijuana to a minor, or a conviction of driving under the influence of marijuana. The arrest, charge, or conviction must have occurred at least one year prior to the effective date of this section; or
- Reside in a ZIP code or census tract area where:
 - Thirty percent or more of the population lives below the federal poverty level; or
 - The rate of unemployment is fifty percent higher than the state average rate of unemployment; or
 - The historic rate of incarceration for marijuana-related offenses is fifty percent higher than the rate for the entire state; or
- Graduated from a school district that was unaccredited, or had a similar successor designation, at the time of graduation, or has lived in a zip code containing an unaccredited school district, or similar successor designation, for three of the past five years.

As previously stated, there are no plans to award new Comprehensive licenses, however, Amendment 3 requires that as new comprehensive facility licenses become available, 50% of those licenses must be awarded to operational Microbusiness facility operators.

Current Zoning Regulations for Medical Marijuana Facilities

The City of Creve Coeur established zoning regulations for medical marijuana through Ordinance No. 5637 in April 2019. Since the passage of this ordinance, the City has two medical marijuana dispensaries: Terrabis, located at 11062 Olive Blvd. and Homestate Dispensary located at 105 N. Lindbergh. There are no cultivation, testing or manufacturing facilities currently operating in the City.

After considerable review and public engagement, the City Council approved the following zoning standards for medical marijuana facilities:

Dispensaries: Permitted Use (by-right) in all commercial districts and LI-Light Industrial Districts, except that no dispensary can be located within 300-feet of an existing elementary or secondary school.

Cultivation Facility: Conditional Use in RO-Research Office and LI-Light Industrial District

Manufacturing Facility: Conditional Use in RO-Research Office and LI-Light Industrial District

Marijuana Testing Facility: Permitted Use (by-right) in RO-Research Office and LI-Light Industrial District

Drive-through dispensaries were not specifically listed as an allowable use; however, this aspect should be a component of our current review.

Next Steps

Staff's intention would be to update the ordinance to reflect the comprehensive (recreational adult-use and medical) and microbusiness marijuana facilities that are now allowed by state law. The land use classification of these uses based on the type of marijuana facility (cultivation, dispensary, testing, etc.) would remain the same. We would also update the definitions and also address drive-through dispensaries.

After obtaining general direction from the City Council, staff will proceed with a formal zoning code text amendment for the January 17th P&Z meeting. As a zoning code text amendment, the process entails holding a public hearing at the Planning and Zoning Commission, providing notice in the City's residential newsletter and the St. Louis Countian, as well as posting the amendments on the City's website prior to the hearing. After recommendation from P&Z, the City Council will have two readings and make the final approval.

AN ORDINANCE AMENDING VARIOUS SECTIONS OF CHAPTER 405, THE ZONING ORDINANCE, TO ALLOW FOR MEDICAL MARIJUANA RELATED USES

WHEREAS, an amendment to Missouri's constitution was approved by voters on November 6, 2018 to allow patient access to medical marijuana and to allow the limited production, distribution, testing, sale, and purchase of marijuana for medicinal purposes statewide; and

WHEREAS, medical marijuana uses will be licensed and regulated by the State of Missouri; and

WHEREAS, an application was submitted by the Director of Community Development for text amendments to various sections of the City's Zoning Ordinance to allow medical marijuana uses in appropriate zoning districts; and

WHEREAS, the Planning and Zoning Commission of the City of Creve Coeur, Missouri has recognized the need for such changes as set forth herein for conformity with state law and zoning practices that are consistent with public health and welfare; and

WHEREAS, the Planning and Zoning Commission of the City of Creve Coeur, Missouri, held a public hearing thereon at the Creve Coeur Government Center on March 4, 2019, beginning at 6:30 p.m., or immediately following the close of the previous public hearing, and continuing to the April 1, 2019 Planning and Zoning Commission Meeting, beginning at 6:30 p.m., or immediately following the close of the previous public hearing; and

WHEREAS, the Planning and Zoning Commission reviewed and, by a vote of 6-0 recommended approval of the subject amendments at its meeting on April 1, 2019; and

WHEREAS, notice of said public hearing had previously been published at least 15 days prior to the hearing in the St. Louis Countian, a newspaper of general circulation in the City of Creve Coeur and otherwise posted and published in accordance with the Zoning Ordinance; and

WHEREAS, all persons who presented themselves at said meeting and desiring to be heard were given an opportunity to be heard and a copy of the proposed ordinance has been made available for public inspection prior to its consideration by the City Council; and the Bill was read by title in open meeting two times before final passage by the City Council; and

WHEREAS, the City Council being fully informed finds that amending the City Code of Ordinances would be in harmony with and bear a substantial relation to the public welfare, health, safety, comfort and convenience of the citizens of the City of Creve Coeur and in the public interest, and

WHEREAS, the City Council has determined that this ordinance should be reviewed one year after enactment to determine its effectiveness,

NOW, THEREFORE, be it ordained by the City Council of the City of Creve Coeur, Missouri, as follows:

SECTION 1. Table A, Permitted and Conditional Uses, is amended by adding the following uses in the manner shown below

Use Code	2012 NAICS Title	ZONING DISTRICTS													
		A	B	C	D	AR	HE	PH	PO	RO	MX	PC	GC	CB	LI
CC111419	Medical Marijuana Cultivation Facility, inside a building or greenhouse as defined under Section 405.120									C					C
325414	Biological Product (except Diagnostic) Manufacturing									C					C
CC325415	Medical Marijuana Manufacturing Facility, entirely within an enclosed building as defined under Section 405.120									C					C
453998	All Other Miscellaneous Store Retailers (except auction houses, pool and hot tub sales/supplies and cemetery memorial dealers)										P	P	P	P	P
CC453999	Medical Marijuana Dispensary Facility as defined under Section 405.120							P		P	P	P	P	P	P
541380	Testing Laboratories								P	P		P	P	P	P
CC541381	Medical Marijuana Testing Facility as defined under Section 405.120									P					P

SECTION 2. Section 405.120 Definition of Terms of the Creve Coeur Code of Ordinances is hereby amended to include the following new definitions as follows:

MARIJUANA OR MARIHUANA: *Cannabis indica*, *Cannabis sativa*, and *Cannabis ruderalis*, hybrids of such species, and any other strains commonly understood within the scientific community to constitute marijuana, as well as resin extracted from the plant and marijuana-infused products. "Marijuana" or "Marihuana" do not include industrial hemp containing a crop-wide average tetrahydrocannabinol concentration that does not exceed three-tenths of one percent on a dry weight basis, or commodities or products manufactured from industrial hemp.

MARIJUANA-INFUSED PRODUCTS: products that are infused with marijuana or an extract thereof and are intended for use or consumption other than by smoking, including, but not limited to, edible products, ointments, tinctures and concentrates.

MEDICAL MARIJUANA CULTIVATION FACILITY: a facility licensed by the State of Missouri to acquire, cultivate, process, store, transport, and sell marijuana to a Medical Marijuana Dispensary Facility, Medical Marijuana Testing Facility, or to a Medical-Infused Products Manufacturing Facility.

MEDICAL MARIJUANA DISPENSARY FACILITY: a facility licensed by the State of Missouri to acquire, store, sell, transport, and deliver marijuana, marijuana-infused products and drug paraphernalia used to administer marijuana in accordance with applicable law and regulations.

MEDICAL MARIJUANA-INFUSED PRODUCTS MANUFACTURING FACILITY: a facility licensed by the State of Missouri, to acquire, store, manufacture, transport, and sell marijuana-infused products to a Medical Marijuana Dispensary Facility, a Medical Marijuana Test Facility, or to another Medical Marijuana-Infused Projects Manufacturing Facility.

MEDICAL MARIJUANA TESTING FACILITY: a facility certified by the State of Missouri, to acquire, test, certify, and transport marijuana.

SECTION 3. Section 405.450 Permitted Uses is amended to include a new Subsection G as follows:

- G Medical Marijuana Dispensary Facility (NAICS CC453999) and Medical Marijuana Testing Facility (NAICS CC541381) as defined in Section 405.120, which abide by all applicable laws and regulations, are permitted uses in the zoning districts as shown in Table A Permitted and Conditional Uses, but no Medical Marijuana Dispensary Facility shall be sited on a property within three hundred (300) feet of a property of any then-existing elementary or secondary school. Measurements shall be made from the closest property line of the proposed Dispensary Facility to the closest property line of any such other use listed in this section.

SECTION 4. Section 405.470 Conditional Uses is amended to include a new entry to Subsection A as follows:

- 33. Medical Marijuana Cultivation Facility (NAICS CC111419) and Medical Marijuana-Infused Products Manufacturing Facility (NAICS CC325415) as defined in Section 405.120, which abide by all applicable laws and regulations, are conditional uses in the zoning districts as shown in Table A Permitted and Conditional Uses, subject to the following specific standards:
 - a. No marijuana-related use or facility shall emit an odor or in any way cause a public nuisance per Section 405.550 or Chapter 215, as applicable. The applicant shall demonstrate that the appropriate systems will be provided to prevent any odor of marijuana or fumes from leaving the facility.
 - b. Marijuana cultivation and processing activities shall occur only within an enclosed building.

BILL NO. 5761

ORDINANCE NO. 5637

SECTION 5. This ordinance shall become effective in accordance with Section 3.11 (g) of the City Charter. The City Administrator shall initiate a review of this ordinance one year after enactment, to facilitate Council review of its effectiveness.

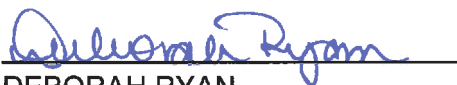
ADOPTED THIS 22nd DAY OF April, 2019.


SCOTT SAUNDERS
PRESIDENT OF CITY COUNCIL

APPROVED THIS 22nd DAY OF April, 2019.


BARRY GLANTZ
MAYOR

ATTEST:


DEBORAH RYAN
CITY CLERK



OBJECTIVES & STRATEGIES

CREVE COEUR'S COMMUNITY VISION

Creve Coeur will continue to prosper as a premiere livable and sustainable community by preserving and capitalizing on new opportunities for the City's key residential, business, environmental, and civic assets.

Utilizing comprehensive place-making, *Creve Coeur will enhance its unique and recognizable physical identity; its healthy and vibrant neighborhoods; and remain a regional leader as a green and environmentally-friendly community.*

Introduction

The Objectives and Strategies of the Creve Coeur 2030 Comprehensive Plan Update are composed of seven (7) key objectives and 67 individual Strategies. The Objectives and strategies reflect the goals, needs, and desires of the Creve Coeur community. Together, they serve to achieve the community's Vision on which the Comprehensive Plan is founded.

The Objectives and Strategies include programming and municipal service initiatives, policy and partnership recommendations, and physical development plans—as further detailed in the *Plan Recommendations* beginning on page 53—to build a more prosperous, livable, and sustainable Creve Coeur for the next 20 years. The Objectives and Strategies of this Plan were developed with the input of the citizens of Creve Coeur, facilitated by the Planning Team, to achieve the community's Vision for the future of their City.

The Objectives and Strategies are presented on the following pages.

1. *Placemaking & Community Identity*

Creve Coeur will enhance its unique regional identity and develop an 18/7 community experience to become an even better place to live, shop, work, and play!

Strategy 1.1: **Create mixed-use, walkable districts.**

Strategy 1.2: **Improve Creve Coeur’s walkability and bikeability.**

Strategy 1.3: **Improve the City’s streetscapes and continue public realm enhancements.**

Strategy 1.4: **Celebrate the community with identifiable gateways and public art.**

Strategy 1.5: **Preserve high-quality existing neighborhoods and community assets.**

Strategy 1.6: **Ensure cultural, arts, educational, and entertainment opportunities throughout the community.**

Strategy 1.7: **Update the City’s zoning code to facilitate and promote development that matches the community’s vision for Creve Coeur.**

Strategy 1.8: **Ensure that adjacent non-residential and residential developments are compatible with each other.**

Strategy 1.9: **Improve the quality of new development by revising architectural design guidelines and establishing lot development standards, including illustrations of desired development patterns.**

Strategy 1.10: **Promote the City’s historically-significant structures through educational awareness programs and encourage their preservation.**

Strategy 1.11: **Provide an increased number of community events and programs.**

Strategy 1.12: **Develop a “central gathering place” that is the heart of the community.**

* 18/7—18 hours a day, seven days a week—refers to community vibrance and activity in a less-intense, suburban context. This is different from 24/7, which suggests a higher level of activity than would be appropriate for a community like Creve Coeur.

2. *Residential Development & Preservation*

Creve Coeur will preserve and evolve its high-quality residential development and stable property values while enhancing the diversity of housing types and improving the walkability and accessibility of neighborhoods.

Strategy 2.1: Provide opportunities for a greater diversity of housing options throughout the City to attract changing market demographics—including seniors, young professionals, and families.

Strategy 2.2: Guide the rebuilding of outdated housing stock in selected areas to improve housing diversity and maintain a competitive residential market.

Strategy 2.3: Improve neighborhood walkability and connectivity.

Strategy 2.4: Incentivize stormwater and green infrastructure best management practices (BMPs) for existing homeowners; new developments and infill development; and significant additions to existing homes.

Strategy 2.5: Update Creve Coeur's building code to promote green building best practices and adopt the latest International Energy Conservation Code as part of any building code update.

Strategy 2.6: Review the Zoning Code and land development regulations to ensure new infill residential construction takes into account existing conditions such as topography and stormwater flow with the measurement of building height, grading, and stormwater mitigation to minimize the impacts of new construction.

Strategy 2.7: Establish a limit for the amount of pervious pavement that does not count toward site coverage allowance for residentially-zoned properties.

Strategy 2.8: Mitigate the impact of non-residential uses such as lighting, noise, and trash on residential uses where they are adjacent.

Strategy 2.9: Protect residential areas from negative encroachment of non-residential uses.

3. *Economic Growth & Community Services*

Creve Coeur will capitalize on new job growth and commercial development opportunities to strengthen its position as a major regional business center and provide necessary neighborhood services for the community.

Strategy 3.1: **Ensure future economic growth is responsive to the changing economy and captures the “place-making dividend”.**

Strategy 3.2: **Provide the community services, amenities, and experience necessary to leverage and capture these changing consumer preferences.**

Strategy 3.3: **Transform the Olive Boulevard corridor with a Central Business District and supporting mixed-use districts.**

Strategy 3.4: **Collaborate with regional transportation agencies, including Metro (Bi-State Development Agency) to improve regional transportation and mobility on Olive Boulevard.**

Strategy 3.5: **Embrace public/private partnerships for redevelopment.**

Strategy 3.6: **Work with the business community to develop recommendations for broadband, electrical, and other infrastructure as it impacts economic development.**

Strategy 3.7: **Guide regional retail and services (serving as a destination amenity) to the Community Center District area.**

Strategy 3.8: **Preserve the long-term economic strength of Creve Coeur by actively working with the St. Louis Economic Development Partnership and St. Louis County to establish the 39 North plant science and agricultural technology district; promote its implementation; and support the district’s long-term sustainability.**

Strategy 3.9: **Foster development of a town center, which would include the design and construction of a public gathering place or places.**

Strategy 3.10: **Become an active and integral participant with the St. Louis Regional Chamber and other organizations to promote Creve Coeur’s interests in regional and statewide economic development efforts.**

4. *Community Amenities & Facilities*

Creve Coeur will enhance existing public facilities and provide a variety of new, high-quality public amenities and community facilities that meet the needs and desires of all Creve Coeur residents.

Strategy 4.1: Improve City facilities, including the police department headquarters, Government Center, and the Dielmann Complex.

Strategy 4.2: Continue to improve the quality and responsiveness of City services, including recycling; limb, leaf, and trash pickup; and maintenance of medians and public landscaping.

Strategy 4.3: Continue to actively develop and implement the Capital Improvement Program that addresses the needs and desires of the community.

Strategy 4.4: Continue the City's strong level of police and other municipal services.

Strategy 4.5: Actively engage with utility providers, fire protection districts, neighboring governments, and other community service providers to ensure that Creve Coeur continues to be served by high-quality, efficient, and effective community services.

Strategy 4.6: Maintain existing and develop new cooperative and reciprocal agreements and partnerships to share community facilities with surrounding municipalities and public and private institutions.

5. *Parks, Open Space & Environment*

Creve Coeur will utilize its physical geography and diverse landscapes to remain a regionally-recognized green community and increase the amount of accessible public parks and open space for preservation and recreation.

Strategy 5.1: Actively pursue the integration of trails and bikeways and create a comprehensive community wide network of off-street and on-street connections for pedestrians between parks and open spaces, commercial centers, schools, and neighborhoods.

Strategy 5.2: Require new development or redevelopment to include public amenities such as pedestrian connections, bicycle facilities, public sitting/gathering areas, and open space, as appropriate.

Strategy 5.3: Engage in regular assessments of the recreation needs of Creve Coeur residents and enhance park facilities as necessary to ensure that those needs are met.

Strategy 5.4: Explore the development of a central urban park or plaza as the central gathering space of the community (perhaps as part of the Community Center district) and development of a community recreation center, youth center, library, or community center.

Strategy 5.5: Identify and designate parcels for possible future purchase by the City and redevelopment as public park space.

Strategy 5.6: Expand the use of cooperative agreements with local schools and private recreational amenities to provide access to recreational facilities for City residents.

Strategy 5.7: Enhance Creve Coeur's existing parks and open spaces to establish greater plant and wildlife diversity.

Strategy 5.8: Mitigate flooding and waterway impacts from adjacent development and improve water quality.

6. *Transportation, Connectivity & Mobility*

Creve Coeur will utilize development and partnerships with other jurisdictions to better manage automobile traffic; reduce traffic congestion; and improve transit, walkability, and bikeability.

Strategy 6.1: Encourage creation of a comprehensive network of pedestrian and bicycle infrastructure and facilities to become a premier walkable and bikeable community

Strategy 6.2: Enhance the safety of existing bicycle and pedestrian facilities, including safe pedestrian crossings of major roads.

Strategy 6.3: Improve access to public transit opportunities to ensure an equity of mobility for all residents and visitors—regardless of age, income, or ability.

Strategy 6.4: Use environmental design, operations, and management to reduce vehicular congestion on Olive Boulevard.

Strategy 6.5: Manage traffic impacts in residential neighborhoods.

Strategy 6.6: Improve connectivity in the western half of the City by developing bicycle and pedestrian facilities to bridge gaps in the existing street network.

Strategy 6.7: Promote vehicular cross-access between commercial parking lots to facilitate shared parking, reduce access points along commercial thoroughfares, improve traffic flow, and provide access to secondary streets.

Strategy 6.8: Improve coordination with East-West Gateway Council of Governments (EWGCOG) to increase the City's role in regional transportation planning and transportation initiatives.

Strategy 6.9: Utilize Complete Streets principles when conducting major improvements to existing roadways to enhance bicycle and pedestrian accommodations; consider the adoption of a City-wide Complete Streets policy.

Strategy 6.10: Increase local connectivity to the Great Rivers Greenway District's (GRG) regional "River Ring" greenway network; endorse, enhance, and facilitate implementation of GRG projects in Creve Coeur.

7. *Community Sustainability & Resilience*

Creve Coeur will lead the region in integrating community sustainability with on-going revitalization.

Strategy 7.1: Facilitate the development of community-supportive retail and services to ensure long-term community vibrancy and resilience.

Strategy 7.2: Achieve a sustainable jobs/housing balance within Creve Coeur.

Strategy 7.3: Establish a regular schedule for future updates to the Climate Action Plan with new benchmarks, a new planning horizon with updated strategies, and updated targets.

Strategy 7.4: Develop a Community Resilience Plan to provide for enhanced emergency service access, alternative transportation options, and energy security in the event of natural disasters and social unrest.

Strategy 7.5: Expand the use of renewable energy in City-owned public facilities and promote energy efficiency, renewable energy use, and recycling by all Creve Coeur residents, businesses, and organizations.

Strategy 7.6: Establish city-wide targets for the ratio of both public-accessible and private open space, taking into account nearby recreation areas outside of the City limits.

Strategy 7.7: Address high-priority storm water and erosion problems related to public infrastructure, proactively mitigate stormwater runoff, and improve water quality using stormwater and green infrastructure best management practices (BMPs) including bioswales, rain gardens, and native landscape restoration.

Strategy 7.8: Establish a storm water level-of-service and prioritize the problems identified in the City's storm water study based on those criteria and accelerate the implementation of the City's Storm Water Master Plan to deal with the prioritized storm water problems.

Strategy 7.9: Update the City's landscape guidelines to encourage the use of Missouri native plantings and discourage planting of known invasive species.

Strategy 7.10: Review regional sustainability initiatives and work with regional groups to enhance Creve Coeur's sustainability efforts.





**APPLICATION TO PLANNING AND ZONING COMMISSION
#23-002: APPROVAL OF A SITE DEVELOPMENT PLAN FOR REVISED
EXTERIOR MATERIALS FOR A 20 UNIT APARTMENT BUILDING AT
10809-10819 OLIVE BOULEVARD**

FOR THE MEETING OF: Monday, February 6, 2023

LOCATION: 10809-10819 Olive Boulevard, Zoned Core Business District

REQUEST: Adam Bulla, of D&R Building Group, on behalf of JLA Group, LLC, has submitted an application for revised Site Development Plan approval for a 20 Unit, 2-bedroom apartment building at 10809-10819 Olive Boulevard in order to alter the exterior materials. Medium Density Multifamily Residential (up to 20 units per acre) (NAICS-CC814120) Developments are a permitted use in the CB-Core Business District. The development is 1.05 acres.

ADDITIONAL INFORMATION: The proposal received initial approval from the Planning and Zoning Commission on February 3, 2020 and re-approval on June 21, 2021. Construction of the building is well underway and the exterior material was being installed when staff noticed that the materials did not match what was approved. A Stop Work Order was placed on the property on January 13, 2023 and the applicant was required to come before the Planning and Zoning Commission to present the new materials already partially installed for review and approval. The changes in material and color significantly alter the appearance of the building.

Key Issues:

- Does the request integrate with the existing surrounding uses?
- Does the request further or implement the goals of the Comprehensive Plan?

Creve Coeur 2030
**Comprehensive Plan
References**

- East Olive Corridor Neighborhood Commercial District

Zoning Code References

- Table A: Permitted and Conditional Uses
- Section 405.370: CB-Core Business District
- Section 1080: Site Concept, Site Development and Minor Site Plan Approval.

APPLICANT: AJ Adewunmi
JLA Group, LLC
1917 Rutger Street
St. Louis, MO 63104

**APPLICANT'S
REPRESENTATIVE:** Adam Bulla
D&R Building Group
1917 Rutger St.
St. Louis, MO 63104



REPORT PREPARED BY: Bethany L. Moore, City Planner

DATE: 1/30/2023

ATTACHMENTS: Applicant's materials received 1/17/23 and 1/26/23.

Prior Staff Reports and applicant's materials received 1/29/20 and 6/7/21.

PROPOSAL AND REVISIONS SINCE THE APPROVAL OF JUNE 21, 2021

The Applicant is seeking approval of the site development plan for revised exterior materials, that have been partially completed. When the project received it's reapproval for the construction of the 20-unit apartment building in 2021, the proposal utilized four different materials on the building, with a reddish tone brick on the lower portion, Nichia siding in a wood-cedar color, plain cement building siding w/4" battens in a light grey with white trim, and cement building lap siding in a grey color with white trim. On January 13, 2023, a Stop Work order was placed on the building because the exterior materials being installed did not match what was approved. Upon discussion with the applicant, staff has been provided with information stating that the materials being installed are Brampton Brick in "Whitestone" and James Hardie Lap siding and panel siding both in the shade "Cobblestone."

Also included in the packet for this item are e-mailed comments from the property owner's representative at 10829 Olive expressing opposition for these requested changes.



Figure 1: Front/South Elevation approved at the February 3, 2020 meeting.



Figure 2: Front/South Elevation proposed showing Juliette balconies removed.

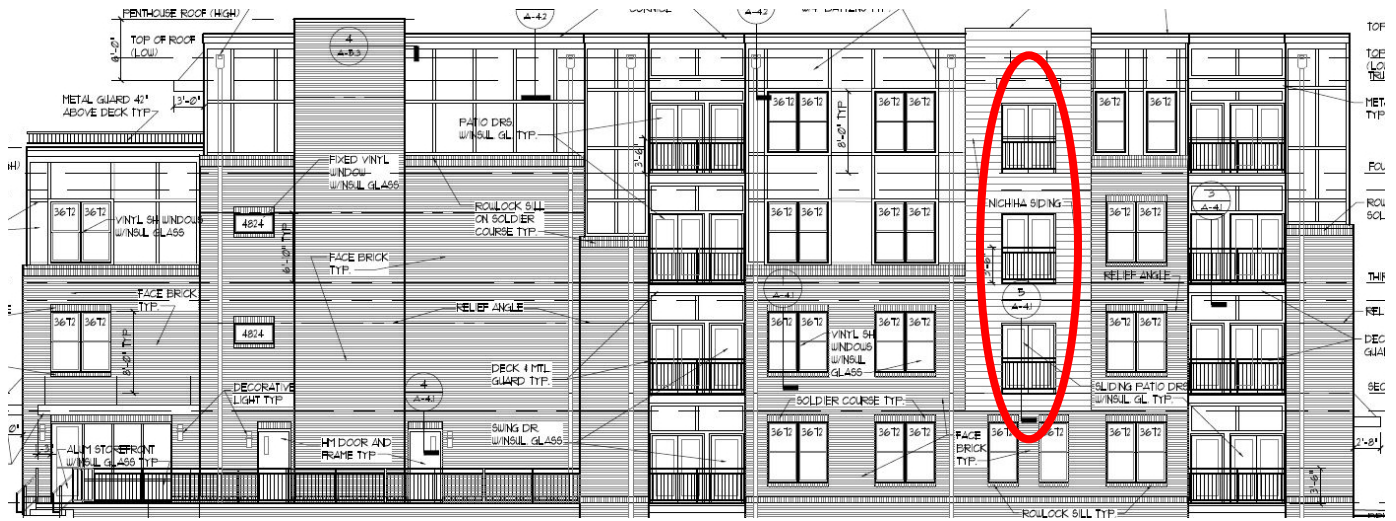


Figure 3: Rear/North Elevation previously approved.



Figure 4: Rear/North Elevation proposed showing Juliette balconies removed.

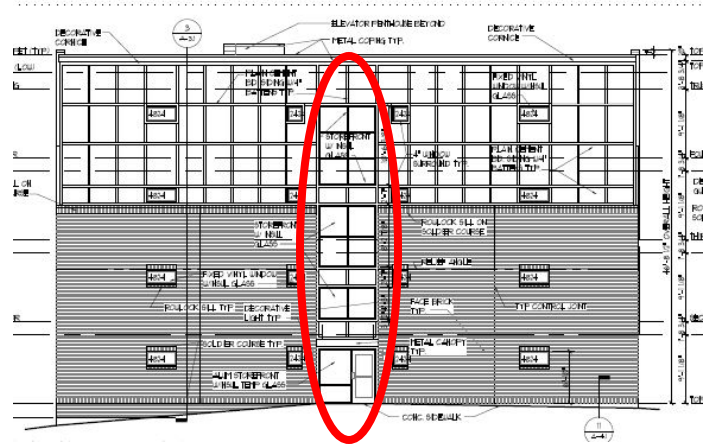


Figure 5: East and West elevations previously approved.

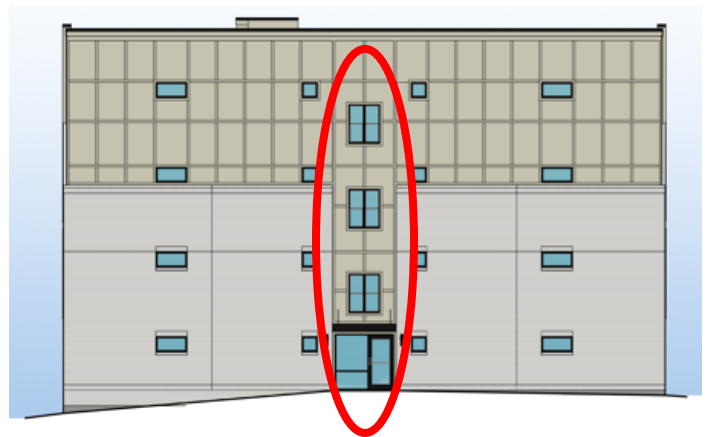


Figure 6: East and West elevations previously approved. Note the replacement of storefront windows with smaller double-hungs.



Figure 7: Close-up of the Streetscape Study of the adjacent buildings previously approved.



Figure 8: Proposed Streetscape Study.

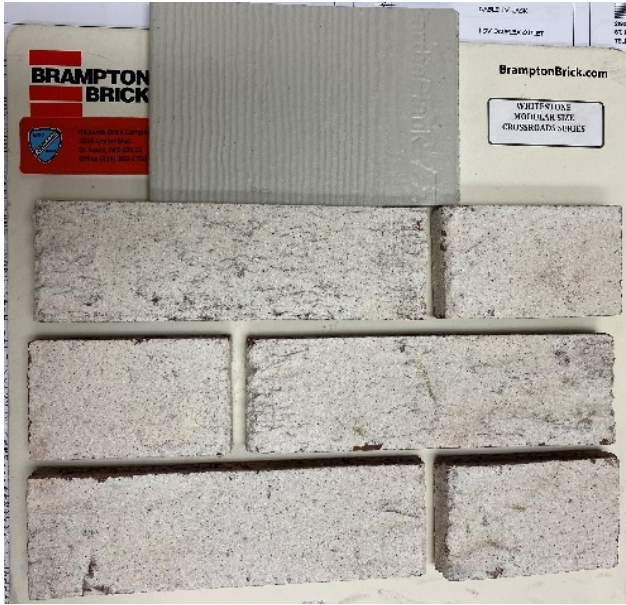


Figure 9: Proposed Materials (left) and proposed brick compared to 10803 Olive Boulevard (right)



Figure 10: Existing conditions at 10809-10819 Olive Blvd Apartments

The Design Guidelines outline how new buildings in a developed area should be designed. The architectural design should be compatible with the developing character of the neighborhood area. Design compatibility includes complementary building style, form, size, color and materials (p.9).

The building color should be compatible with the neighborhood and should reinforce the visual character of the environment of the proposed buildings. The color should not be such that the building is competing for attention. Building colors should be subdued and not garish (p. 9).

Staff is of the opinion that the proposed color scheme consisting of a whitewash brick with putty colored siding and panels is not compatible with the surrounding buildings. The surrounding buildings are darker brick colors such as the building to the rear at 10829 Olive Boulevard which is a deep dark red brick. The building directly next to the subject property at 10803 Olive Boulevard is a brown/tan colored brick. This building material is the closest in color to what was applied to the building but it is still quite a bit darker than the proposed brick color. The light-colored brick with the light siding gives the building a bland, unfinished look that does not appear to be compatible with the surrounding character of the area. The approved color scheme of reddish toned brick at the base and wood colored Nichia siding with gray cement board panels on the top half of the building was more in line with the surrounding tones of the brick materials than what is proposed. Furthermore, Staff feels that the chosen colors are incompatible with one another. The white brick is very out of place and clashes with the proposed siding color.

In addition to the changes to the exterior materials, other design changes are proposed. The storefront windows on the West elevation have been eliminated with much smaller standard double-hung windows proposed. The proposed windows appear undersized for the proposed location and the approved windows would fill the space more appropriately. The submitted plans also show the removal of some decorative Juliette balcony railings (Fig. 1-4.) While individually, these changes are relatively minor the question before the Commission is collectively, do they reduce the design quality of the project. In Staff's view, collectively these changes represent a downgrade in the design quality compared to the original approved design.

In summary, Staff recommends that the brick color, siding color, and texture to remain as previously approved which will blend in better with the surrounding tones. Staff suggests that the Planning and Zoning Commission consider the colors of the surrounding area and their compatibility with the proposed materials when considering the revised materials as well as the reduction in design quality shown through the removal of design elements such as the storefront windows on the West facade and the Juliet balconies on the North and South elevations.

SUMMARY AND RECOMMENDATION ON THE PROPOSED DEVELOPMENT

Staff concludes that the proposed changes in materials, colors and design do not meet with the City's Design Guidelines to the same extent as the originally approved design. Staff would recommend that the Commission consider the proposed revisions in light of these considerations.

The Applicant will be present to answer any questions from the Commission. If the Commission has any concerns, they should discuss those with the Applicant. After its deliberation, the Commission should vote on whether to approve the submitted revisions.

ACTION AND MOTION

The following is an example of an affirmative motion to approve this application. An affirmative vote of at least 4 Commissioners is required to approve a Site Development Plan:

"I move to approve Application #23-002 for revised exterior design and materials as shown in the submitted building elevations dated 1-13-23 as submitted by Levine Associates architects and supporting documents submitted with this request and subject to all other conditions from the

prior Planning and Zoning Commission approval of June 21, 2021” (conditions may be added, eliminated, or modified by preceding motion).

APPENDIX 1: COMPREHENSIVE PLAN, INCLUDING DESIGN GUIDELINES

Included and attached by reference. See body of report for specific excerpts.

APPENDIX 2: ZONING CODE

Included and attached by reference. See body of report for specific excerpts.

RECEIVED
JAN 26 2023
PLANNING DEPT.

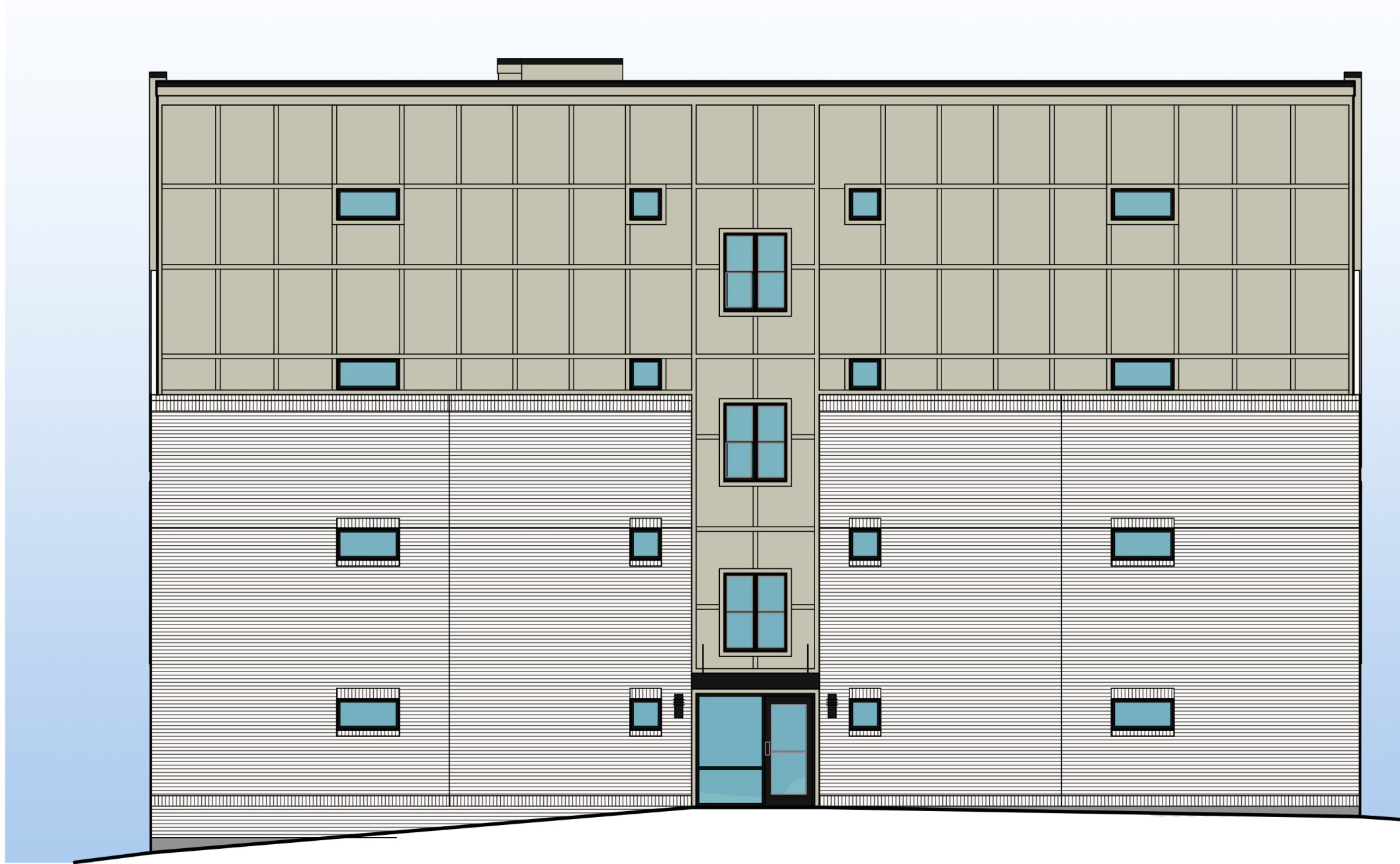


D & R Building Group, LLC

1/26/23

The following are changes that have been made to the exterior at 10809 Olive:

- The brick color was changed to Brampton Brick Whitestone
- The Nichiha siding at the bumpouts was changed to James Hardie lap siding in Cobblestone
- The first floor window at the far east side of the south elevation was eliminated to give the office inside additional usable space
- The second, third, and fourth floor stairwell windows on the west elevation were shrunk down to improve energy efficiency, and those windows better match the majority of the other windows



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



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

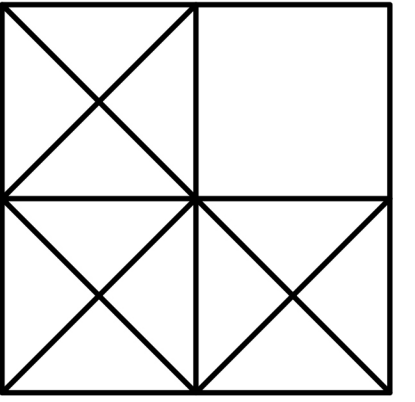


EAST SIDE ELEVATION
SCALE: 1/8" = 1'-0"

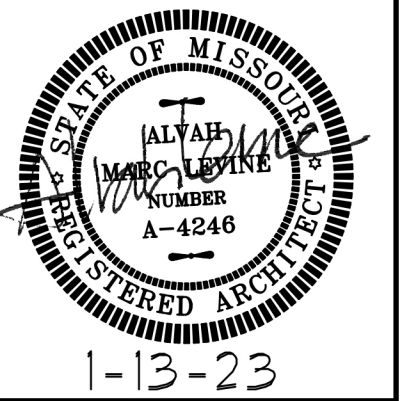


NORTH REAR ELEVATION
SCALE: 1/8" = 1'-0"

COLOR AND MATERIAL SELECTION
BRICK: BRAMPTON BRICK WHITESTONE MODULAR
HORIZONTAL SIDING: JAMES HARDIE 1" COBBLESTONE
PANEL SIDING: JAMES HARDIE COBBLESTONE
TRIM: JAMES HARDIE COBBLESTONE
WINDOWS: BLACK
STOREFRONT: BRONZE
TPO ROOFING: WHITE
GUTTERS, DOWNSPOUTS: BLACK
ROOF COPING: BLACK
RAILINGS: BLACK
CMU RETAINING WALL: VERSALOK STANDARD "SIERRA BLEND"



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Phone: 314-991-5000 Fax: 314-991-4420



ARCHITECT: ALVAN M. LEVINE
MO LICENSE A-4246
ALVAN M. LEVINE, INC.
DRA: LEVINE ASSOCIATES
CERTIFICATE OF AUTHORITY
LICENSE NUMBER A-2018040325

elevations
20 APARTMENTS
10809-10819 OLIVE BOULEVARD
CREVE COEUR, MISSOURI 63141
JLA GROUP, DEVELOPER

REVISIONS		
NO.	DATE	ITEM
1	10-26-20	CREVE COVER
2	2-5-2021	re-review
3	1-13-2023	updated materials

SHEET NO.
A-2.1

ISSUE DATE: 8-4-20
PROJECT #: 1939.01
DRN. CMC CHK. AML



STREETSCAPE STUDY
SCALE: 1"= 40'-0"

APARTMENTS FOR 10809-19 OLIVE BOULEVARD
CREVE COEUR, MISSOURI 63141

JLA GROUP, DEVELOPER

PROJECT 1939.01
1-24-23

LEVINE
associates
architecture · interiors · planning
2025 South Brentwood Boulevard, Suite 101
Saint Louis, Missouri 63144
Phone 314-991-5600



Bethany Moore <blmoore@crevecoeurmo.gov>

Fwd: 10809-10819 Olive Boulevard Apartment Development

1 message

Jason Jaggi <jjaggi@crevecoeurmo.gov>
 To: Bethany Moore <blmoore@crevecoeurmo.gov>

Wed, Feb 1, 2023 at 9:23 AM

Bethany,
 Please see the comments below from Hutkin Properties. They are opposed to the changes in brick color.

Please include this email and attachments in the packet.

Thanks,
 --Jason

----- Forwarded message -----

From: **Steve Hutkin** <shutkin@hutkin.com>
 Date: Wed, Feb 1, 2023 at 9:07 AM
 Subject: 10809-10819 Olive Boulevard Apartment Development
 To: Jason Jaggi <jjaggi@crevecoeurmo.gov>
 Cc: John Hutkin <jhutkin@hutkin.com>, David Hutkin <dhutkin@hutkin.com>, Megan Waller <mwaller@crevecoeurmo.gov>, Mark Perkins <mperkins@crevecoeurmo.gov>

Jason,

Happy New Year, and I hope you are well.

We are aware of the stop work order imposed on the above referenced development as a result of the blatant violation of the architectural plan requirements (the white brick color). This is not a small issue to the ownership group of 10829 Olive Boulevard, and therefore we would like it to be known for the record we strenuously object to any deviation of brick color or other architecturally significant modifications than what was previously approved as a condition to the applicants conditional use permit.

As you know, we asked that this project not be approved due to the size, site configuration and density. I'm sure you have driven by the project and have witnessed first-hand that the extreme close proximity to our building effectively "covers us up". To that end, and because we knew from the original plans this would be the case, several meetings were held (between representatives of the applicant and myself) and confirming correspondence was received addressing this very issue (see attached). The close proximity of the development makes the aesthetic nature of the structure extremely important. The City knew our concerns and confirmed this to the developer by granting final approvals to the project with the reddish brick color.

As a property owner and developer of past projects in the City, Hutkin and its affiliates were expected and required to follow approved development and construction plans. It would be an unfortunate precedent being set to allow a developer to arbitrarily and materially change important architectural features or aspects of a development that are far outside the approved plans, and negatively impact adjoining properties.

We have owned, developed and managed properties in the City of Creve Coeur for close to 50 years. Our offices have been located in the City for almost as long. It would be incredibly unfair, at the very least, for the City to approve such an impactful change from the original project parameters.

It is my hope that this email will be sufficient for the record, but ask you to please let us know if there is anything else we can, or need, to help the City understand the unnecessary negative impact this material change would create if approved.

As always, we greatly appreciate all that work so hard in the City Staff departments and invite you to call me with any questions or comments.

Best Regards,

Steve

Steven F. Hutkin

President/Principal

Hutkin Development Company

[10829 Olive Boulevard, Suite 200](#)

[St. Louis, Missouri 63141](#)

314.872.9140 (office)

314.708.1227 (direct)

314.872.9001 (fax)

--

Jason W. Jaggi, AICP

Director of Community Development

City of Creve Coeur, Missouri

[300 North New Ballas Rd](#)

[Creve Coeur, MO 63141](#)

314-872-2504

www.crevecoeurmo.gov

2 attachments



Streetscape.pdf

759K



Hutkin-Kennedy Levine Assoc 1-30-20.pdf

1136K

HUTKIN DEVELOPMENT COMPANY

January 30, 2020

Mr. Jason Jaggi
Director of Community Development
City of Creve Coeur
300 North New Ballas Road
Creve Coeur, Missouri 63141

VIA ELECTRONIC MAIL

Dear Jason,

As you are likely aware, I (as a representative of Hutkin-Kennedy, LLC) met with JLA Group and its architect, Alvah Levine, from Levine Associates, on Tuesday, January 28, 2020. The meeting was constructive and we appreciated the participants collaborative spirit.

For the record, with this letter, I am providing you the letter I received from Mr. Levine (on January 29, 2020) on behalf of JLA Group together with the updated elevation renderings that JLA Group will be submitting to the City's Planning and Zoning Commission.

In addition to any other upgrades and/or modifications, deemed appropriate by the Planning and Zoning Commission, Hutkin-Kennedy respectfully requests that the Planning and Zoning Commission require the architectural and other changes discussed in Mr. Levine's letter which JLA Group agreed to incorporate, and shown on the renderings, be a condition for approval of the JLA Group plan, including, but not limited to the inclusion of significant spandrel (or like kind) glass on the west facing elevation.

Thank you for your assistance, and it would be greatly appreciated if you would provide this letter and its attachments to the chair and members of the City's Planning and Zoning Commission.

Sincerely,

HUTKIN DEVELOPMENT COMPANY, Managing Agent



Steven F. Hutkin
President

10829 Olive Boulevard, Suite 200, St. Louis, MO 63141
TEL: (314) 872-9140 FAX: (314) 872-9001



LEVINE
associates

8630 Delmar Boulevard, Suite 220
Saint Louis, Missouri 63124
Phone 314-991-5600 Fax 314-991-4420

January 29, 2020

Steven F. Hutkin
President/Principal
Hutkin Development Company
10829 Olive Boulevard, Suite 200
St. Louis, Missouri 63141

RE: JLA Group Olive Apartments
Project 1939.01

Dear Steve,

Thank you for taking the time to meet with A.J. Adewunmi and me yesterday. I know you have been very upfront with your concerns about the project. I think we are now addressing your concerns fully. We discussed the following issues and solutions:

Building Massing

The north face of the building cuts back 23 feet after the two first apartments. Thus the plainer brick wall of the stair and elevator enclosure is masked by the building itself. Additionally, we have reduced the height of the building by two feet by eliminating unnecessary parapets. (Rooftop condensing units for the apartments will be placed in the center of the building, so they will not be seen from grade or your second floor windows.)

West Façade

We have replaced the recessed brick panel at the west stairwell with storefront glazing. Some will be windows, and the rest spandrel panels to match. The west entrance has a metal canopy to match other canopies on the building. Additionally, the amount of brick has been increased to run vertically to the underside of the third floor transom windows. As part of the overall elevation redesign, all siding is cement board "board and batten" panel style. All horizontal siding has been removed from the project

Carports

The concrete piers of the original design have been eliminated. The intention of the carport design is to reduce the mass of this structure as much as possible so that it does not become a focal point of viewing. The tube steel posts and beams will be painted to match the bronze storefront and windows. Trim around the perimeter will be white to match other trim on the building. To eliminate reflective glare from the roof, we will use grey TPO roofing.

Steve Hutkin
Page 2

Landscape Screening

While the city has requested high evergreen screening on the north side of the carports, the landscaping drawing submitted shows only low shrubbery on the west side. The developer has agreed to increase screening planting on the west side, and include a suitable built screen, such as a trellis to further block the view of cars. This work will be completed once the project is constructed and we can better see what would be the most effective solution.

I am attaching colored elevation drawings of the elevations for your use. Thank you again for your helpful suggestions and consideration.

Sincerely,

A handwritten signature in dark ink that reads "Alvah Levine". The signature is written in a cursive, flowing style.

Alvah Levine

Cc: AJ Adewunmi



WEST SIDE ELEVATION



SOUTH FRONT ELEVATION



EAST SIDE ELEVATION



NORTH REAR ELEVATION

20 APARTMENTS
10809-10819 OLIVE BOULEVARD
CREVE COEUR, MISSOURI 63141
JLA GROUP, DEVELOPER

PROJECT: 1939.01
1-28-20

LEVINE
associates

architecture · interiors · planning

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Saint Louis, Missouri 63124
Phone 314-991-5600 Fax 314-991-4420





STREETSCAPE STUDY
SCALE: 1"= 40'-0"

APARTMENTS FOR 10809-19 OLIVE BOULEVARD
CREVE COEUR, MISSOURI 63141

JLA GROUP, DEVELOPER

PROJECT 1939.01
1-24-23

LEVINE
associates
architecture · interiors · planning
2025 South Brentwood Boulevard, Suite 101
Saint Louis, Missouri 63144
Phone 314-991-5600



**APPLICATION TO PLANNING AND ZONING COMMISSION
#21-021: RE-APPROVAL OF A SITE DEVELOPMENT PLAN FOR A 20
UNIT APARTMENT BUILDING AT 10809-10819 OLIVE BOULEVARD**

FOR THE MEETING OF: Monday, June 21, 2021

LOCATION: 10809-10819 Olive Boulevard, Zoned Core Business District

REQUEST: Adam Bulla, of D&R Building Group, on behalf of JLA Group, LLC, has re-submitted an application for Site Development Plan approval for a 20 Unit, 2-bedroom apartment building at 10809-10819 Olive Boulevard. Medium Density Multifamily Residential (up to 20 units per acre) (NAICS-CC814120) Developments are a permitted use in the CB-Core Business District. The development 1.05 acres. Building permits were issued, and construction began but not enough work was done for it to be considered substantial construction within the one-year time frame. According to the applicant, construction delays were due to COVID-19 and material shortages.

ADDITIONAL INFORMATION: The proposal received approval from the Planning and Zoning Commission on February 3, 2020. However due to construction delays, the approval has lapsed. Section 405.1080(K)(4) requires that substantial construction is to commence within 1 year, unless extended by the Planning and Zoning Commission prior to the expiration. Substantial construction consists of clearing the site, completion of footings, basement or building slab and inspection of such work. The extension had not been requested prior to the expiration; therefore, the approval has lapsed. They are seeking re-approval of the same project.

Key Issues:

- Does the request integrate with the existing surrounding uses?
- Does the request further or implement the goals of the Comprehensive Plan?

**Creve Coeur 2030
Comprehensive Plan
References**

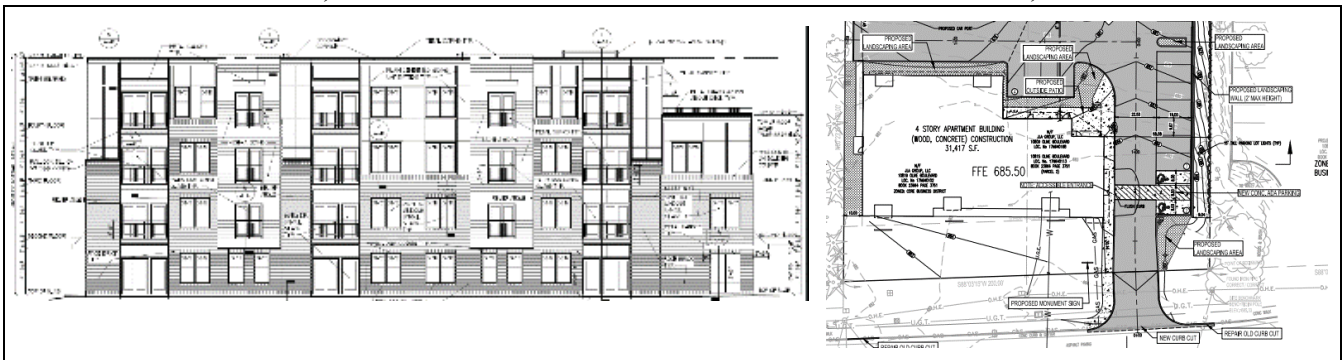
- East Olive Corridor
Neighborhood Commercial
District

Zoning Code References

- Table A: Permitted and Conditional Uses
- Section 405.370: CB-Core Business District
- Section 1080: Site Concept, Site Development and Minor Site Plan Approval.

APPLICANT: AJ Adewunmi
JLA Group, LLC
1917 Rutger Street
St. Louis, MO 63104

**APPLICANT'S
REPRESENTATIVE:** Adam Bulla
D&R Building Group
1917 Rutger St.
St. Louis, MO 63104



REPORT PREPARED BY: Whitney Kelly, AICP, City Planner

DATE: 6/15/2021

ATTACHMENTS: Applicant's materials received June 4, 2021
Prior Staff Reports

PROPOSAL AND REVISIONS SINCE THE APPROVAL OF FEBRUARY 3, 2020

The Applicant is seeking re-approval of the site development plan due to a lapse in approval. The applicant has submitted the attached letter providing the reasons for the delays. A request for an extension was not submitted prior to the expiration date, therefore the Applicant must submit a new application for review and approval by the Planning and Zoning Commission. The Applicant submitted for building permits, but the final building permit was issued in error just after the February 3, 2021 deadline, and construction has started. However, substantial construction and the footing inspection of that permit has not occurred at this time.

The proposal is substantially the same as the prior approved project. The February 3rd approval included a condition for additional brick to the bottom of the third floor. Staff approved the revised elevation as part of this condition and these elevations are shown below, along with the Site Plan. The Landscape Plan was approved on February 3, 2021 as part of the Site Improvement Permit and was consistent with the Landscape Plan shown at the prior Planning and Zoning Commission Meetings for the original approval. There have been no ordinance changes that would affect this project since it was originally approved and; therefore, staff's analysis of the project remains the same. Please refer to the prior staff reports for reference.



Figure 1: Front Elevation

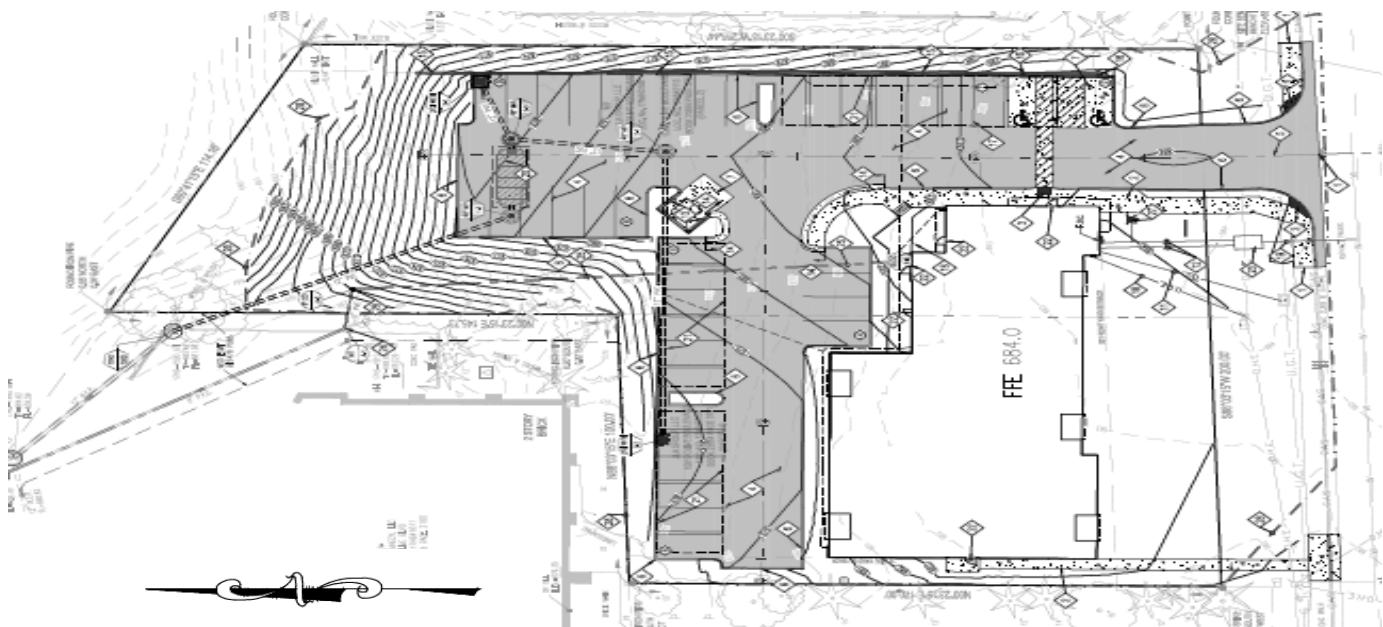


Figure 2: Site Plan

MODOT APPROVAL

The project has also received MoDOT initial approval in September 2020, and final approval on February 16, 2021. MoDOT agreed that as part of their current work in the area near the Spode intersection that they would widen the center lane to 11 feet where it currently starts to narrow to at 10 feet, to allow for left turns into the site in this area.

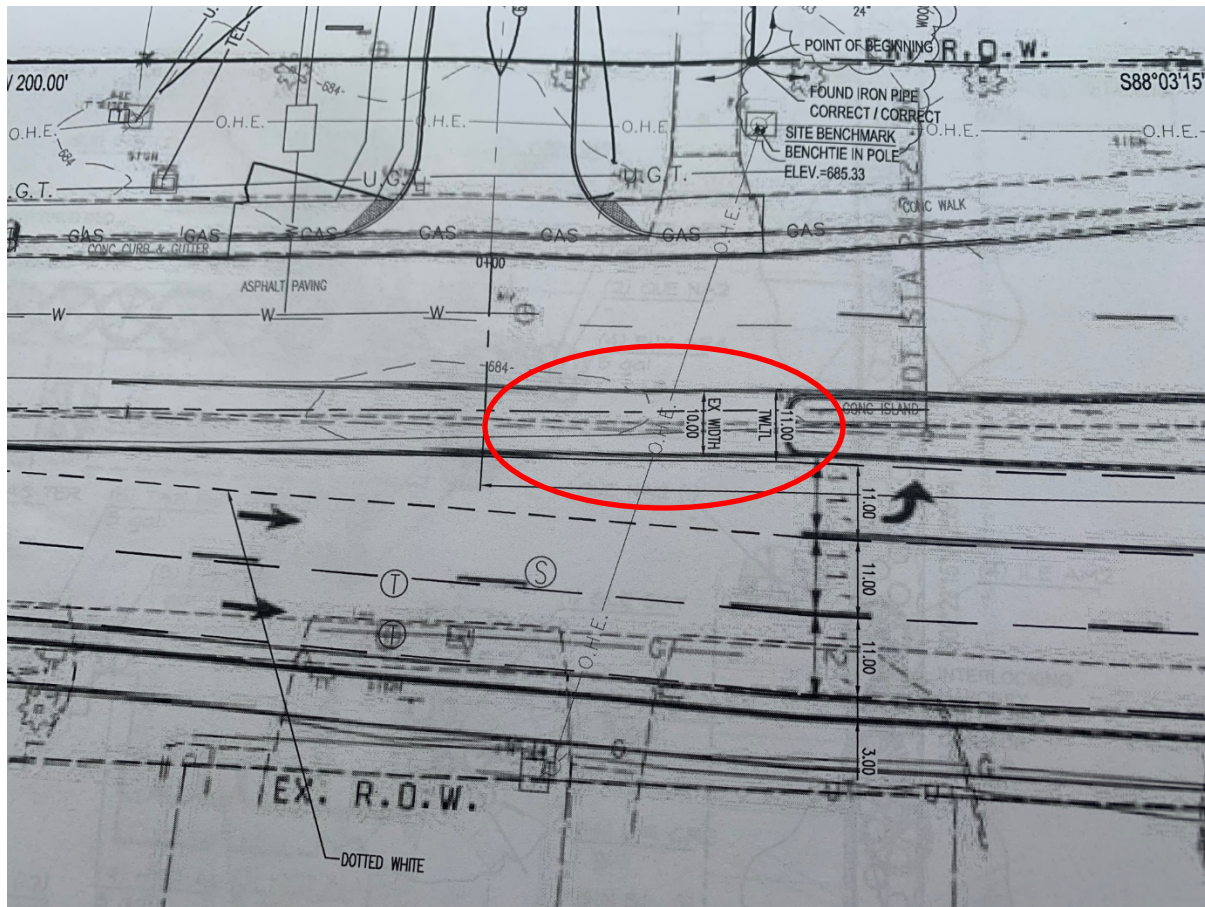


Figure 3: Close-up of the MoDOT site plan

SUMMARY AND RECOMMENDATION ON THE PROPOSED DEVELOPMENT

The Applicant will be present to answer any questions from the Commission. If the Commission has any concerns, they should discuss those with the Applicant. Below are the conditions for approval that are similar to those of the prior approval, but updated for the resubmitted dates.

1. The Applicant is required to submit a Building Permit application, as required by Article II of the Building Code. Building Elevations shall be in substantial compliance with the Elevations presented to the Planning and Zoning Commission received on June 4, 2021, as bound together and submitted in conjunction with Application #21-021, by Levine Associates.
2. The Applicant is required to submit Grading and Site Improvement Plans, showing all exterior improvements, as required by Section 410.380 of the Subdivision and Land Development Regulations (Subdivision Code). The Grading and Site Improvement Plans shall be in substantial conformance with the Site Plan information received on January 29, 2020 as bound together and submitted in conjunction with Application #21-021, by Levine Associates.
3. The carports are to use a dark bronze color similar in color to the window casings and the awnings on the building with square columns to better blend in with the site.
4. The retaining wall shall be of a color consistent with the red brick color of the building.
5. All lighting shall be in conformance with Section 405.680, Lighting, of the Zoning Code, and Section 405.810 of the Parking Ordinance, and shall be a maximum of 24 feet in height, as discussed in the Staff Report.

6. The Applicant shall submit a final Landscape Plan to be in substantial compliance with the drawings received on January 29, 2020 as bound together and submitted in conjunction with Application #19-046, by Levine Associates, in compliance with Section 405.540 Landscaping.
7. All landscaping shall be permanently maintained in good condition with at least the same quality and quantity of landscaping as initially approved. Vegetation that is totally or predominantly dead and/or disfigured due to disease or injury shall be replaced as needed and in a prompt manner.
8. All internal sidewalks shall have a minimum width of 6 feet, and comply with Section 405.730
9. Any mechanical equipment installed for the site shall be properly screened with approved materials.
10. All signs shall submit for a permit and all signs and banners shall be in conformance with Article VII, Sign Regulations, of the Zoning Code.
11. No site development plan or minor site plan approval shall be valid for a period longer than twelve (12) months from the date it is approved, unless within such period a building permit is obtained, and substantial construction is commenced. Substantial construction shall be deemed to consist of clearing the site, completion of footings, basement or building slab and inspection of such work. The Planning and Zoning Commission and the City Council, when required, may grant extensions not exceeding twelve (12) months each upon written request of the original applicant prior to the expiration of such period and resubmission of the application if the application as resubmitted is substantially the same as the initially approved application. However, the Commission and the Council, as applicable, have the power in such cases to attach new conditions to their re-approval or to disapprove the reapplication. Where the application for re-approval contains changes which the Zoning Administrator concludes materially alter the initial application, the Zoning Administrator shall initiate a new site development plan review procedure as stated in Section 405.1080 or a new minor site plan review procedure as stated in Section 405.1080.

ACTION AND MOTION

The following is an example of an appropriate motion for this application, should the Commission wish to move forward with a vote:

“I move to reapprove Application #21-021 for a 20-Unit apartment building located at 10809-10819 Olive Boulevard as shown in the site development plans and subject to the conditions discussed in the Staff Report for the meeting of June 21, 2021” (conditions may be added, eliminated, or modified by preceding motion).

APPENDIX 1: COMPREHENSIVE PLAN, INCLUDING DESIGN GUIDELINES

Included and attached by reference. See body of report for specific excerpts.

APPENDIX 2: ZONING CODE

Included and attached by reference. See body of report for specific excerpts.

OLIVE APARTMENTS

JLA GROUP, DEVELOPER

20 NEW APARTMENTS
10809-10819 OLIVE BLVD
CREVE COEUR, MISSOURI 63141

GENERAL NOTES

GENERAL NOTES

GENERAL REQUIREMENTS:

- Do not scale drawings. Use written dimensions.
- Unless otherwise provided, the Subcontractor shall secure and pay for permit fees, HVAC, electric, plumbing, and for all other permits and governmental fees, licenses and inspections necessary for the proper execution and completion of the work which are customarily secured after execution of the Contract and which are legally required at the time the bids are received. The Subcontractor must include any and all special or unusual fees required and must include cost of same in the Contract Price. Check with local authorities to verify their requirements on this project.
- The following words shall be construed to having the meaning here given them:
 - The word "Architect" means Levine Associates Architects.
 - The word "Contractor" means the General Contractor having the direct contract with the Owner.
 - The word "Subcontractor" means those having a direct contract with the General Contractor for the furnishing of labor and materials to complete the work described in the Contract Documents.
 - The word "Furnish" shall mean furnishing of all labor, materials, equipment, transportation and service required.
- Prior to commencing work, the General Contractor shall review all plans and details, verify all dimensions and existing conditions and notify the Architect of any discrepancies.
- Dimensions are shown from face of stud on interior, nominal face of brick or sheathing on exterior and face of concrete.
- These architectural drawings convey design concept. The General Contractor remains responsible for details and accuracy for confirming and correlating all quantities and dimensions, for selecting fabrication processes, for techniques of assembly, and for performing the work in a safe manner in accordance with all applicable local, state, and federal codes, ordinances, and in accordance with industry standards.
- The General Contractor and Subcontractors shall carry necessary insurances including liability insurance and worker's compensation insurance.
- Pre-fabricated items shall be installed according to manufacturer's instructions.
- Unless otherwise provided, each Subcontractor shall remove their debris, trash, and spillage from the site and leave the site in clean condition ready for subsequent work.
- Subcontractors shall clean up any wind-blown debris from adjacent public and private land.

SITEWORK:

- Apply termite/tilde solution on earth prior to placing concrete fill across entire building area including under footings.

WOOD, PLASTICS, AND COMPOSITES:

- Firestop stud walls, furred spaces, finished basement stud walls (including furred walls), and staggered stud frame walls at the ceiling and floor levels and horizontally at intervals not exceeding 10'-0". All soffits and dropped ceilings shall be firestopped. Fireblock between stair stringers at the top and bottom of the run. Fireblock around vent, pipe, and duct penetrations of ceiling and floors.
- Stairs with 4 or more risers require handrails and guards. Handrails and other projections below the handrail shall not project more than 4-1/2" into the required stairway width. Handrails shall be 34" to 38" above the leading edge of the tread. Handrail ends shall return to the wall. Guardrails shall be a min. of 34" above the leading edge of the tread and a min height of 42" at stair landings. Guardrails shall be a min. of 42" at balconies, areaways and open-sided walking areas where the difference in floor levels is more than 30". Open guards shall have intermediate vertical balusters spaced 4' apart max. Openings on the sides of a stair shall have balusters spaced less than 4" apart.
- Handrails shall meet either:
 - Circular cross section with min. diameter of 1-1/4" but not more than 2" or
 - Other approved shapes having a max. allowable horizontal width of 2-1/4", max. graspable perimeter dimensions of 6-1/4", and a min. 4" graspable perimeter dimension.

THERMAL AND MOISTURE PROTECTION:

- Caulking and Sealants: Exterior joints around windows and door frames, between wall and foundation, between wall and roof, between wall panels, at penetrations or utility services through walls, floor, and roofs, and all other openings in the exterior envelope shall be sealed in an approved manner.
- Minimum design insulation values:
 - Roof/ceiling: (R-49 specified)
 - Frame wall and band joists: (R-20 in walls, R-20 in band boards)
 - Floors at cantilevers and unheated crawl spaces: R-19 min.
 - Slab-on-grade floors: R-10 min. Insulation shall be along the perimeter of the foundation wall downward from the slab 24" min. or horizontally under the slab 24" min.
- Windows (other than unheated basement windows), and doors (other than overhead garage doors): U-40 max. Skylights: U-60 max. Window and door U-values shall be labeled and certified by the manufacturer.
- Insulation material and installation shall conform to code requirements.
- Where blown-in or sprayed insulation is applied in the roof/ceiling assembly, the installer shall provide a certification of the initial installed thickness, settled thickness, coverage area, and the number of bags of insulation material installed. Provide markers for every 300 sq. ft. of area attached to trusses, rafters or joists, and include one inch high numbers of the installed thickness of the insulation.
- Attic ventilation (net free) area shall not be less than 1/50 of the areas served.
- Incorporate air sealing package to reduce infiltration:
 - Sill sealer between concrete and wood plate.
 - Caulk bottom plate of exterior walls.
 - Air seal band joist cavities between floors.
 - Ensure air barrier continuity at all framed cavities such as air chases, soffits, coffered or dropped ceilings, and behind tub/shower units on exterior walls. Utilize either an interior or exterior air barrier as per local practice.
 - Caulk/foam all electrical, plumbing, heating penetrations between floors (including attic, basement, crawl space, and garage) and to exterior.
 - Block and seal cantilevered floors and kneewalls.
 - Weatherstrip attic hatches, kneewall doors.
 - Insulate, caulk, or foam between window/door jams and framing.
 - If installing recessed lights in ceilings adjacent to unconditioned space, use rated, air-tight, Type IC housings.
- Caulk/foam HVAC register boots that penetrate the building envelope to subfloor or drywall that penetrates the building envelope.

DOORS AND WINDOWS:

- General Contractor and Window Manufacturer shall verify the size and fit of all windows prior to the manufacture and notify the Architect of any errors or inconsistencies.

- Safety glazing shall be tested and labeled in accordance with CPSC 16 CFR Part 1201 as a Type I or Type II.
 - Glazing in storm or combination doors shall be Type I if 9 sq. ft. or less, Type II if more than 9 sq. ft.
 - Glazing in doors shall be Type I if 9 sq. ft. or less, Type II if more than 9 sq. ft.
 - Glazed openings in all panels having a glazed area in excess of 9 sq. ft. with the lowest edge less than 18" above the floor and top edge more than 36" above the floor and with a walking surface within 36" horizontally of such glazing shall be Type II.
- Glazed openings adjacent to doorways if the nearest vertical edge of the glazing material is within a 24" arc of either vertical edge of the door in a closed position and if the bottom edge of the glazing material is less than 60" above the floor shall be Type I if 9 sq. ft. or less, Type II if more than 9 sq. ft. Exceptions: a) Where there is an intervening wall or barrier to prevent a person from striking the glazing while approaching the door. b) Glazing adjacent to a door serving a closet or storage area 3 ft. or less in depth. c) Decorative glass. d) Glazing in walls on the latch side of and perpendicular to the plane of the door in a closed position. e) Glazing that is adjacent to the fixed panel of patio doors.
- Glazing in enclosures for hot tubs, whirlpools, saunas, steam rooms, bathtubs, showers, and pools which is located 60" or less horizontally from the water's edge and less than 60" vertically above the standing surface shall be Type II.
- Glazing in fixed or sliding panels in a sliding glass door shall be Type II.
- Glazing in hand or guard rails shall be Type I if 9 sq. ft. or less, Type II if more than 9 sq. ft.
- Glazing adjacent to stairways, landings, and ramps within 36" horizontally of the walking surface and less than 60" vertically above the plane of the walking surface. Glazing adjacent to stairways within 60" horizontally of the bottom tread in any direction when exposed surface of the glass is less than 60" above the tread nosing Type I if 9 sq. ft. or less, Type II if more than 9 sq. ft. Exception: The glazing is protected by a guardrail or a handrail including balusters or in-fill panels and the glazing is located more than 18" horizontally from this guard or handrail.
- Maximum U' value for windows: .45; Maximum U' value for glazed doors: .71. Maximum U' value for fixed glazing: .38.
- Minimum Solar Heat Gain Coefficient (SHGC): .36.

FINISHES:

- Maximum flame-spread on all interior finish materials shall not exceed 200 or a smoke development rating exceeding 450.
- Drywall installation shall comply with the Gypsum Association recommended practice for thickness, nailing, and taping on correct stud spacing.
- Water resistant gypsum backer board conforming to ASTM C630 or C1178 shall be used in bathtub and shower compartments and at all drywall plumbing penetrations. 1/2" USG Durock or Hardibacker shall be used when ceramic tile is used. Do not install water resistant gypsum backer board over vapor barrier in shower and tub compartments. If backer board is used on a ceiling, framing shall be 12" o.c.
- Exposed batt or blanket insulation including the vapor retarder, breather paper or other covering in attics, crawl spaces and basements shall have a max. flame spread rating of 25 (1/6 for foam plastics) and a max. smoke developed rating of 450.
- Dropped ceilings below wood joists or attached directly to wood floor trusses shall be draftstopped by dividing the space into approximately equal areas not greater than 100sq.ft. Draftstopping shall be parallel to framing members. (Finished basement ceiling.
- Cabinet supplier shall measure area of work after rough framing to assure exact fit of cabinets.
- All paint shall be in compliance with the Lead based Paint Poisoning Prevention Act.
- Prepare all surfaces for finishing as recommended by manufacturer.

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CIVIL/STRUCTURAL ENGINEER

FRONTENAC ENGINEERS
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MAPLEWOOD, MISSOURI 63143
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MEE ENGINEER

DP DESIGN AND CONSTRUCTION
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SAINT LOUIS, MISSOURI 63021
314-965-8032

LANDSCAPE DESIGN

ACORN LANDSCAPES
13 FORRESTER DRIVE
MANCHESTER, MISSOURI 63011
636-394-0255

PROJECT TEAM

CODE AND BUILDING DATA

ZONING DATA: 'CB' - CORE BUSINESS DISTRICT
SITE AREA: 1 ACRE ±
FRONT SETBACK 35'
SIDE YARD SETBACK 10'
REAR SETBACK 10'
PARKING: 2 PER DWELLING UNIT: 40 SPACES PROVIDED
2 HANDICAP SPACES PROVIDED
20 COVERED PARKING SPACES PROVIDED

BUILDING CODE: 2015 IBC, 2015 IMC, 2015 IPC, 2015 IFPC
2014 NEC, 2015 IECC, 2009 ICC/ANSI A117.1

USE GROUP: R2
U PRIVATE GARAGE (MAXIMUM 1000 SF EACH)
- COMMON AREAS-B (BUSINESS) AND A (ASSEMBLY)
MAKE UP LESS THAN 10% OF FLOOR AREAS,
- INCIDENTAL USES (SECTION 509) NONE

CONSTRUCTION TYPE: V-A
(carports construction type 5B)

FIRE PROTECTION SYSTEM: BUILDING SHALL BE SPRINKLED THROUGHOUT.

HEIGHT TO HIGHEST OCCUPIED FLOOR: 33 FT

UNIT MIX 20 2-BR 2-BATH APARTMENTS 138 SF
(19) TYPE 'b' ACCESSIBLE
(1) TYPE 'a' ACCESSIBLE

ALLOWABLE BUILDING HEIGHT (TABLES 504.3/504.4) = 50 FEET/FOUR STORIES
BUILDING HEIGHT: 4 STORIES 41 FEET

ALLOWABLE BUILDING AREA (TABLE 506.2) 36,000 PER FLOOR
BUILDING AREA:

FIRST FLOOR	8042 SF
SECOND FLOOR	8042 SF
THIRD FLOOR	8042 SF
FOURTH FLOOR	1141 SF
TOTAL	31267 SF

NO AREA INCREASES REQUIRED.

BUILDINGS ON THE SAME LOT (SECTION 105.3)
30' BETWEEN CARPORTS AND MAIN BUILDING = 15' SEPARATION TO IMAGINARY LINE

OCCUPANT LOAD: RESIDENTIAL - 5 PARTMENTS/FLOOR 138 SF EACH
FLOOR AREA PER FLOOR - 5690 SF /200 PER PERSON + 29 PER FLOOR
ROOFTOP DECK - 1000 SF /15 SF PER PERSON = 41 OCCUPANTS

EGRESS	COMMENTS	CODE REF.
DEAD END CORRIDOR	50' W/ SPRINKLER	IBC 1010.4
CORRIDOR WIDTH	44" MIN	IBC 1010.2.2
STAIR WIDTH (2 REQUIRED)	36" MIN	IBC 1012
EXITS REQUIRED	2 MIN.FL	IBC 1006.3.1
	1 WITHIN APT	IBC 1006.2.1
	15'	IBC 1006.3.2
COMMON PATH OF TRAVEL		
(ROOFTOP A-3 OCCUPANCY)		
EXIT ACCESS DISTANCE	250' - SPRINKLERS	IBC TAB 1016.1

ACCESSIBILITY (TOTAL APARTMENTS IN BUILDING: 20 DWELLING UNITS)
UNITS REQUIRED: 1 TYPE A, ALL TYPE B
2% TYPE A
(NO ROLL-IN SHOWER)
PARKING - 2% OF 2 ACCESSIBLE PROVIDED IBC TAB 1106.1, 1106.2
SPACES FOR R-2 OCC

FIRE PROTECTION	HOUR	CODE REF.
ITEM		
CORRIDOR WALLS	5 HR	IBC TAB 1018.1
STAIR ENCLOSURE	2 HR	IBC 1012.1
ELEVATOR SHAFT	2 HR	IBC 1008.4
FIRE PARTITIONS (PARTY WALLS BETWEEN UNITS)	1 HR	IBC 4202, 109.11, 109.3

DOORS	HOUR	CODE REF.
ITEM		
DOORS - 2 HR WALL	15 HR	IBC TABLE 715.4
DOORS - 1 HR WALL		IBC TABLE 715.4
-EXIT ENCLOSURE	15 HR	
-OTHER FIRE BARRIERS	45 MIN	
-CORRIDOR WALLS	20 MIN	

NFPA 15 FIRE SUPPRESSION SYSTEM (INCLUDES SIDEWAY DRY HEADS AT EXTERIOR DECKS)
OR SPRINKLER HEADS, FIRE ALARM AND FIRE DETECTION SYSTEMS

STANDPIPE IN EACH STAIRWELL
FIRE DEPARTMENT "Y" CONNECTION

MARKINGS AND ID OF PROTECTED OPENINGS TO CONCEALED FIRE RATED SPACES WILL BE LOCATED WITHIN 15'-0" OF ENDS OF WALLS AND AT INTERVALS MAX. 30'-0" HORIZONTALLY. LETTERING MIN. 3" H. WITHIN 3/8" STROKE IN CONTRASTING COLOR. SUGGESTED WORDING: FIRE AND/OR SMOKE BARRIER-PROTECT ALL OPENINGS

FIRE RESISTANCE OF BLG ELEMENTS

FIRE RESISTANCE RATING REQUIREMENTS FOR BUILDING ELEMENTS
FOR CONSTRUCTION TYPE V-A: TABLE 601

COLUMNS	1 HRS
STRUCTURAL FRAME (INCLUDING GIRDERS, TRUSSES)	1 HRS
BEARING WALLS (EXTERIOR)	1 HRS
BEARING WALLS (INTERIOR)	1 HRS
NONBEARING WALLS AND PARTITIONS (INTERIOR)	0 HRS
FLOOR CONSTRUCTION (INCL. SUPPORT BEAMS, JOISTS)	1 HRS
ROOF CONSTRUCTION (INCL. SUPPORT BEAMS, JOISTS)	1 HRS

INCIDENTAL USE AREAS (TABLE 509) NONE

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C01 SPECIFICATIONS SHEET 1
C02 SPECIFICATIONS SHEET 2
C10 PRELIMINARY LOT CONSOLIDATION PLAN
C11 DETAIL PLAN
C20 SITE PLAN
C21 WARPING DETAILS
C22 DIMENSION PLAN
C30 EXISTING DRAINAGE AREA MAP
C31 PROPOSED DRAINAGE AREA MAP
C32 DETENTION DRAINAGE AREA
C40 DETAILS AND SPECIFICATIONS
C41 SANITARY AND STORM PROFILES
C50 STORMTECH DETAILS
C51 STORMTECH DETAILS

LANDSCAPING
L-10 LANDSCAPE PLAN
L-20 LANDSCAPE DETAILS & SPECS

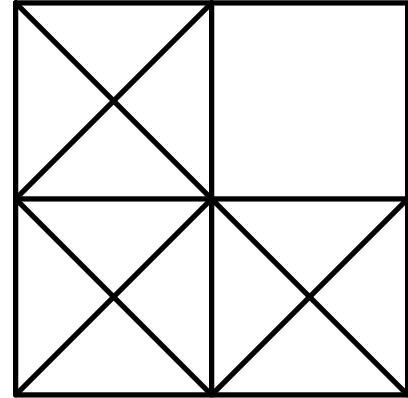
ARCHITECTURAL
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A-11 FIRST FLOOR
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LICENSE NUMBER A-2018040328

cover sheet, project information, code data

20 APARTMENTS
10809-10819 OLIVE BOULEVARD
CREVE COEUR, MISSOURI 63141
JLA GROUP, DEVELOPER

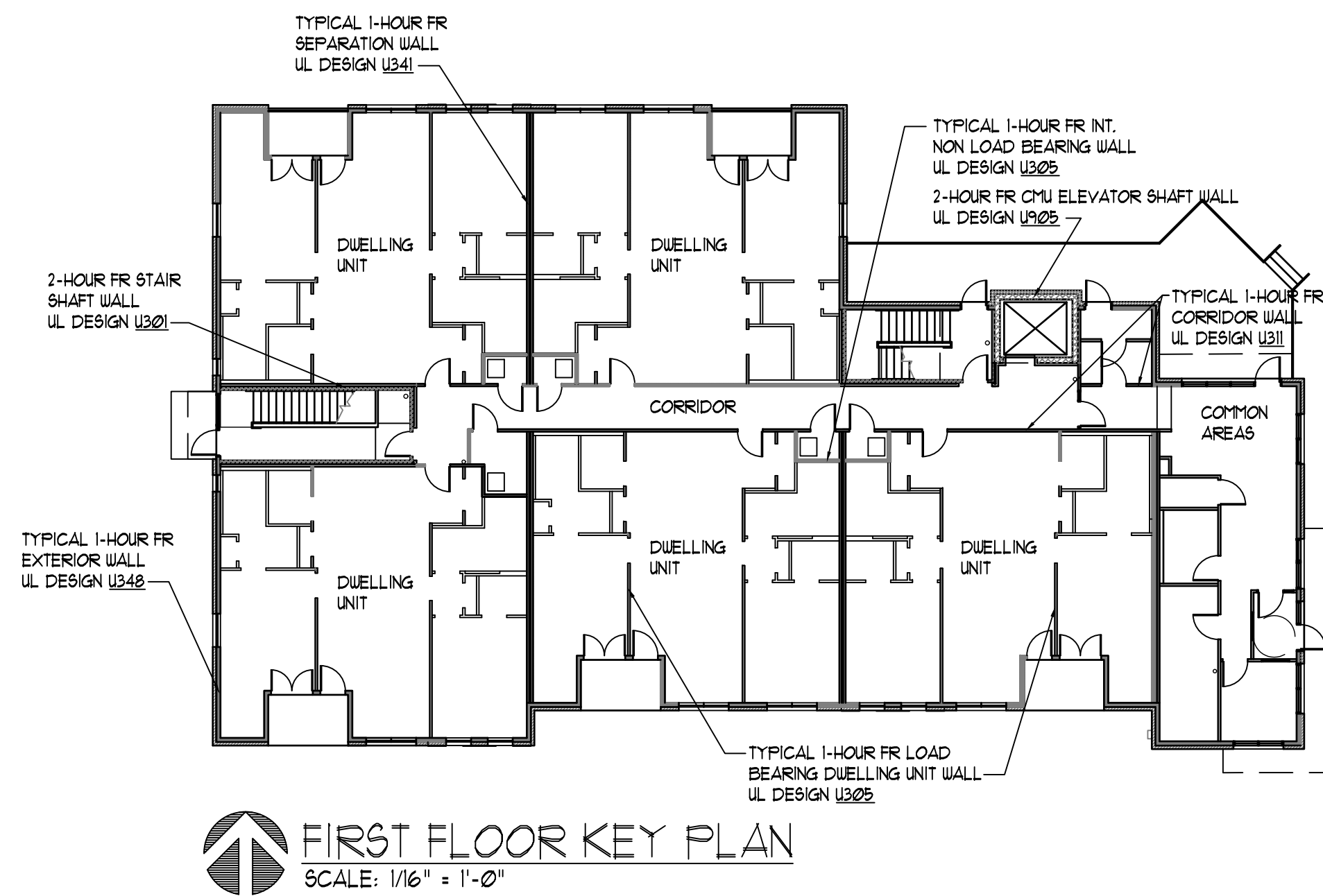
REVISIONS

NO.	DATE	ITEM

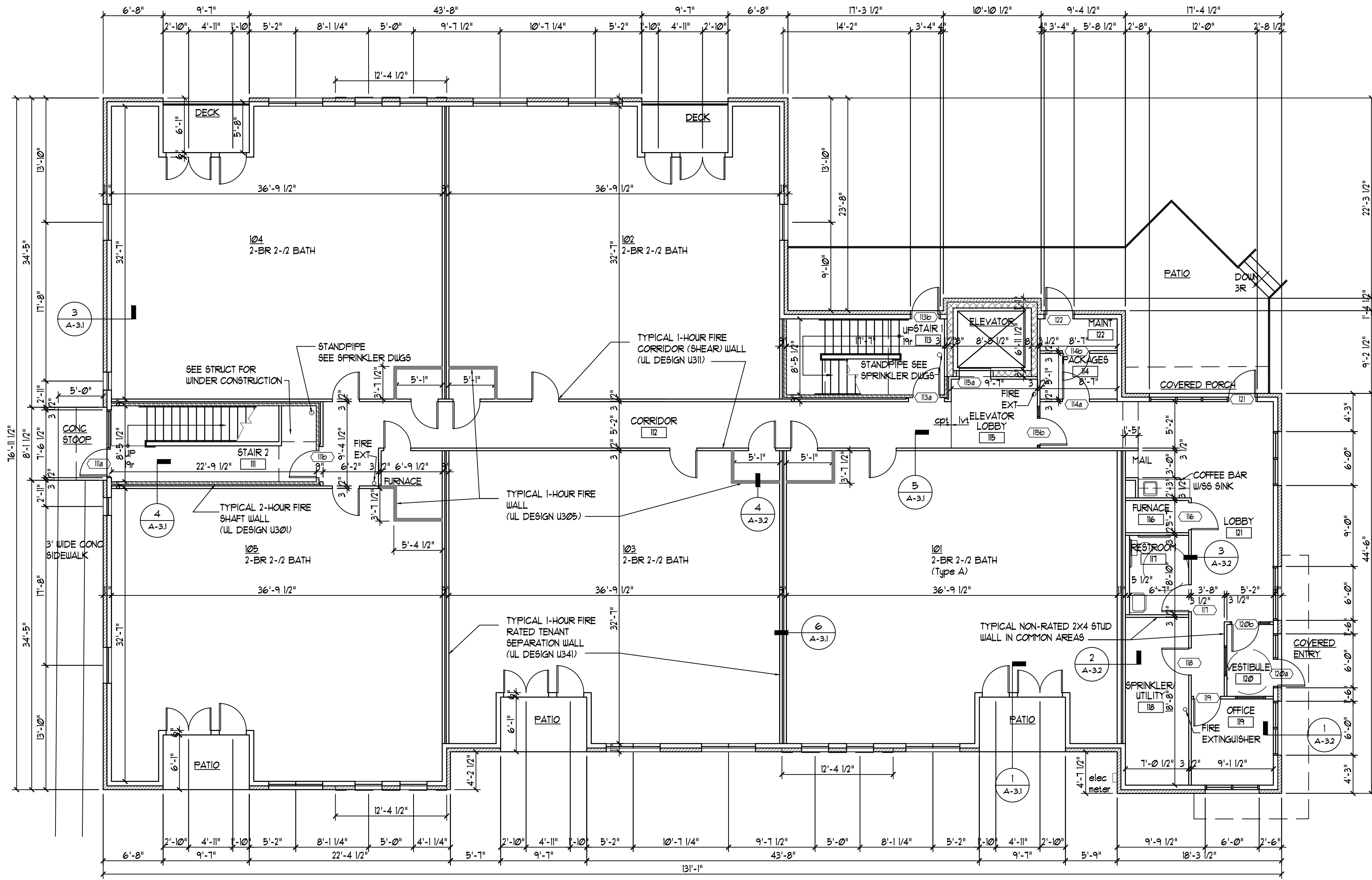
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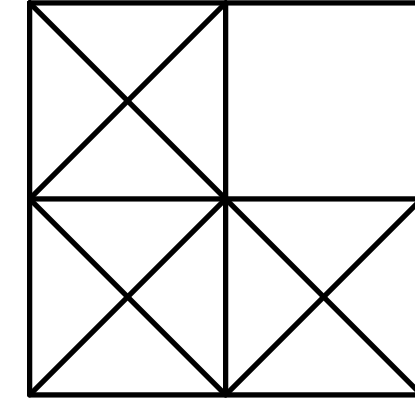
ISSUE DATE: 8-4-20
PROJECT #: 1939.01
DRN. CMC CHK. AML



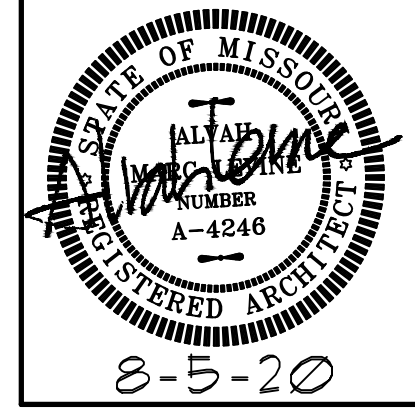
FLOOR PLAN LEGEND	
	1 HOUR FR. NON-BEARING PARTITION
	BRICK VENEER
	CONC. MASONRY UNITS
	2 HOUR SHAFT WALL AT STAIRS



FIRST FLOOR PLAN
SCALE: 1/8" = 1'-0" 0/22 OF



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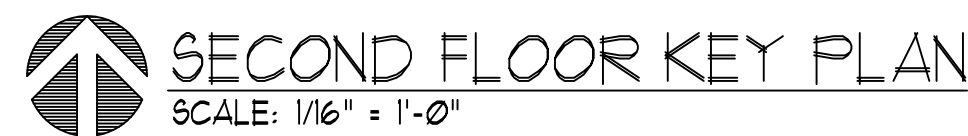


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first floor plan
20 APARTMENTS
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JLA GROUP, DEVELOPER

REVISIONS		
NO.	DATE	ITEM
1	10-26-20	creve cover
2	2-5-2021	re-revision

SHEET NO.
A-11
ISSUE DATE: 8-4-20
PROJECT #: 1939.01
DRN. CMC CHK. AML



8-5-20

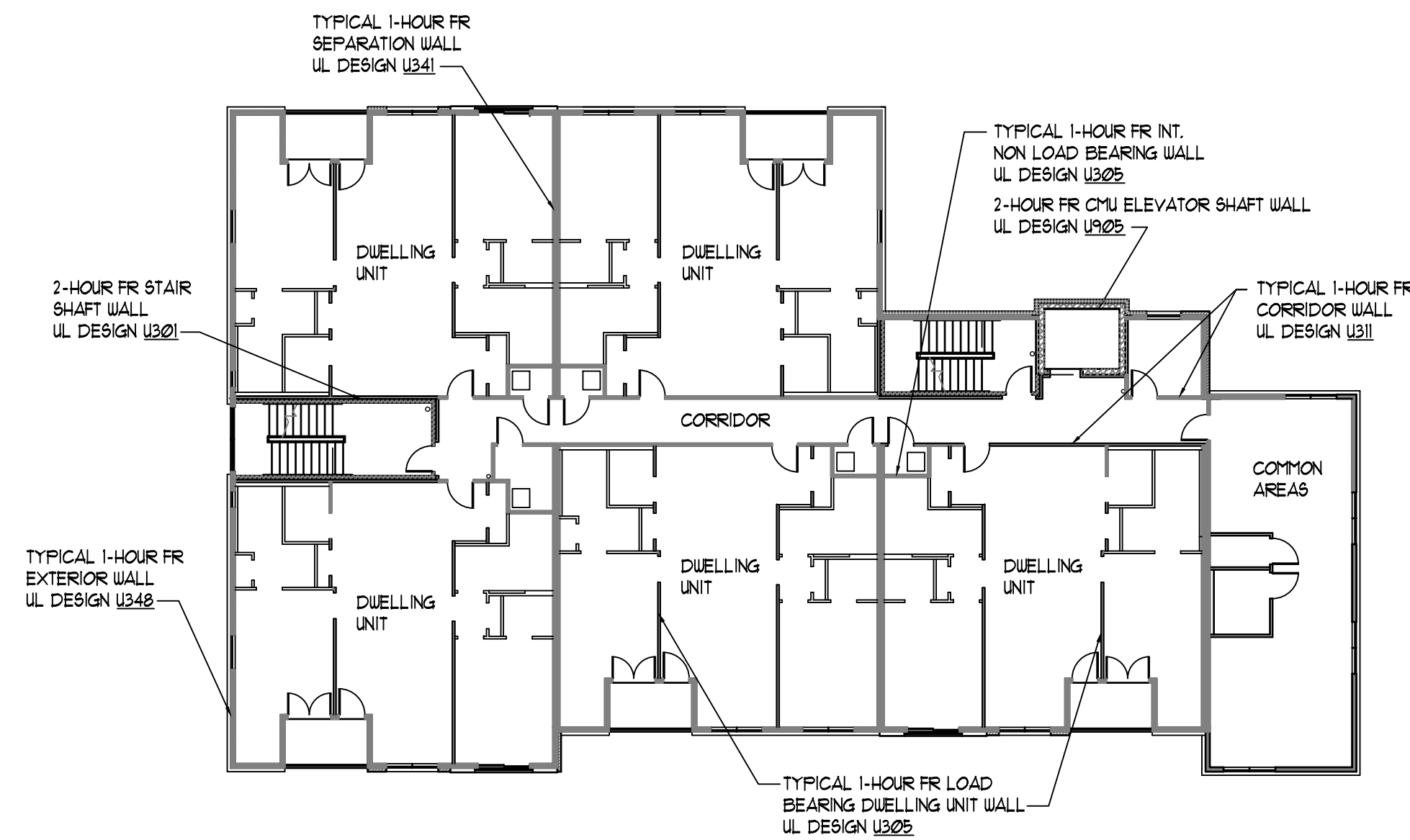
second floor plan

20 APARTMENTS
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JLA GROUP, DEVELOPER

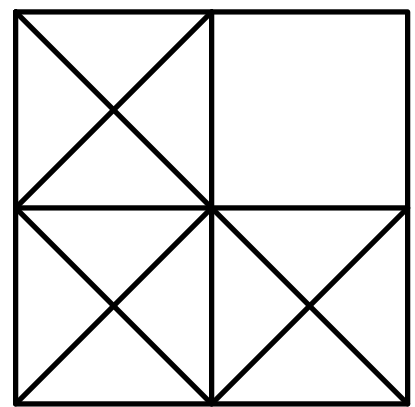
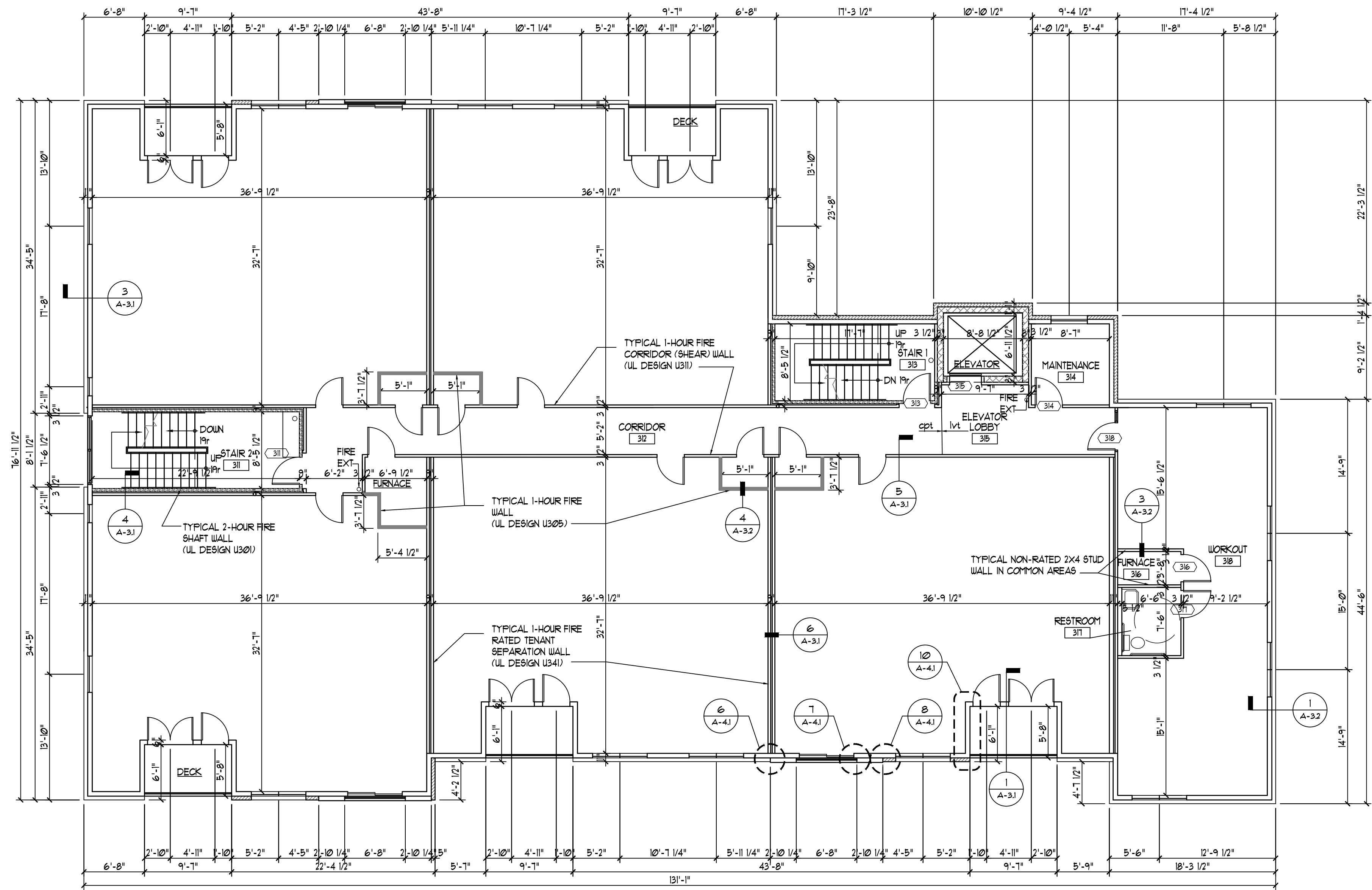
SHEET NO.
A-1.2

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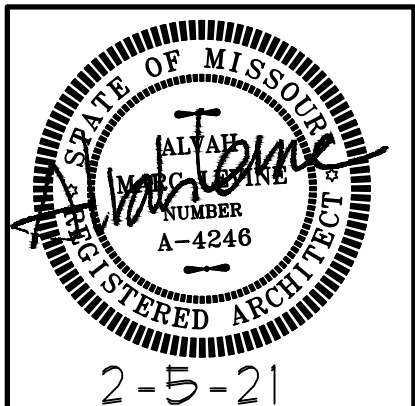




FLOOR PLAN LEGEND	
	1 HOUR F.R. NON-BEARING PARTITION
	BRICK VENEER
	CONC. MASONRY UNITS
	2 HOUR SHAFT WALL AT STAIRS



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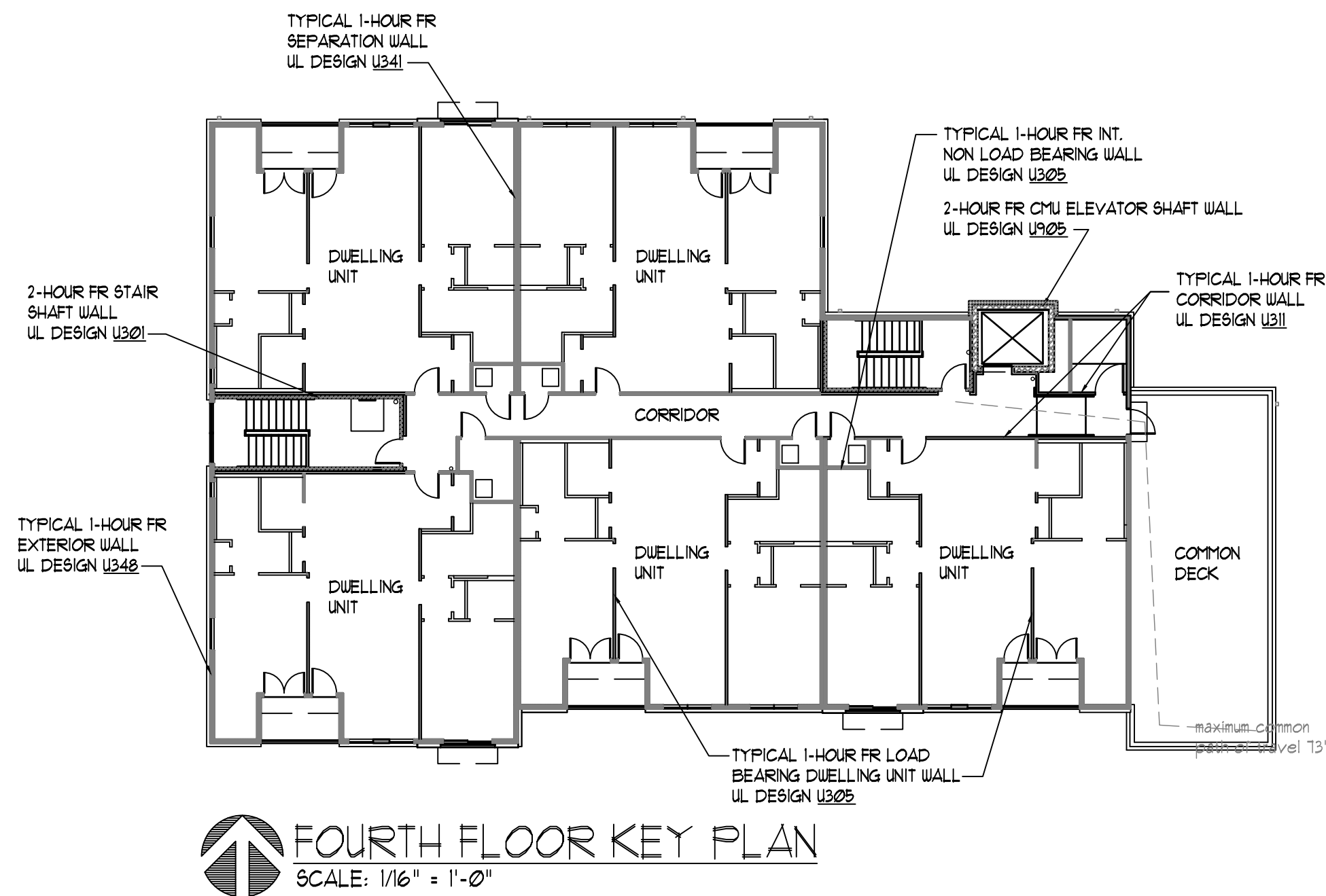


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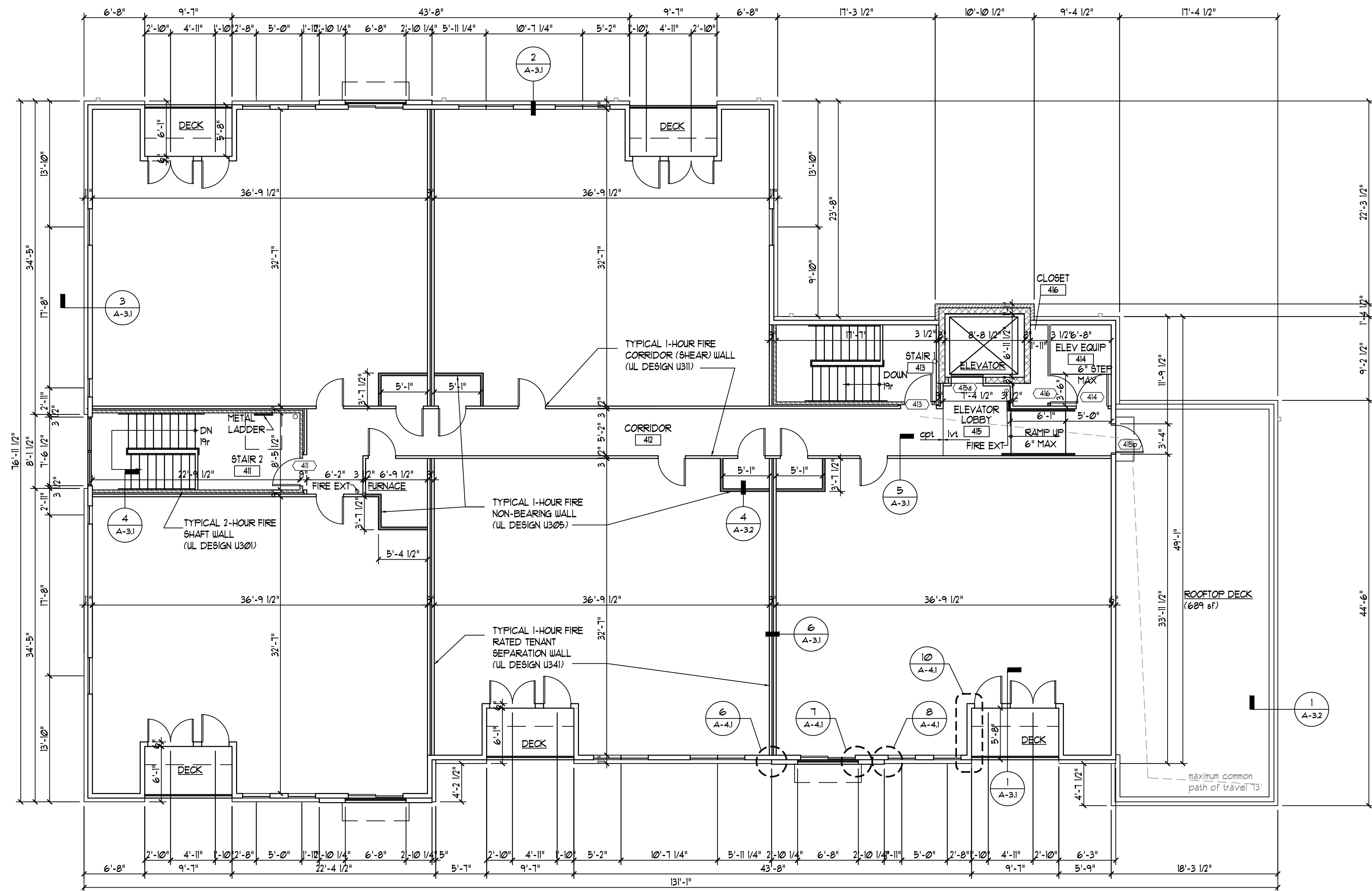
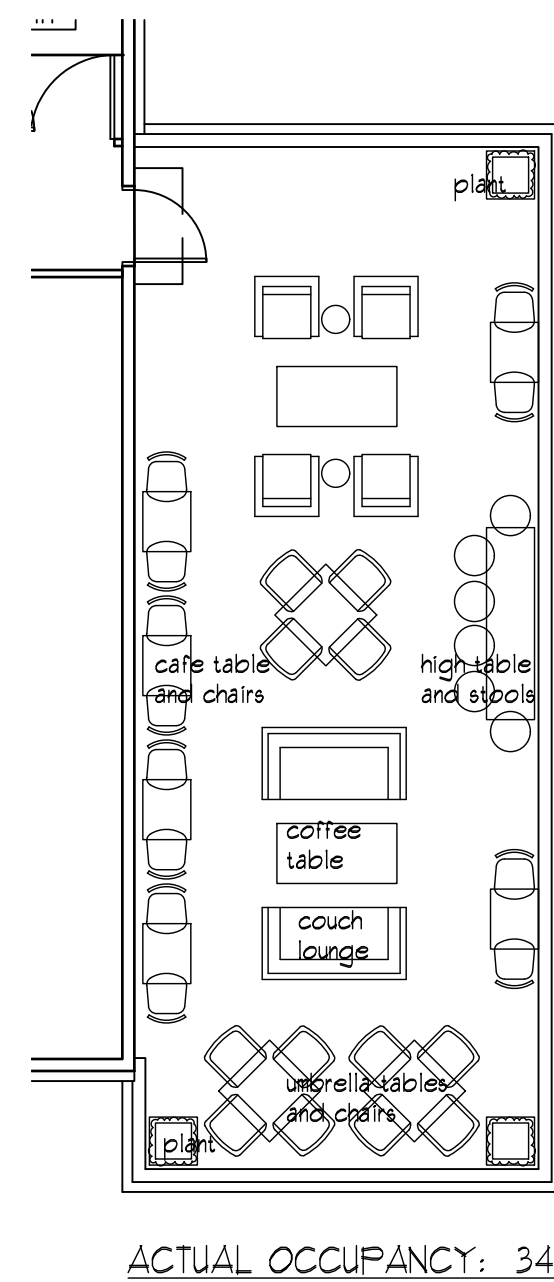
third floor plan
 20 APARTMENTS
 10809-10819 OLIVE BOULEVARD
 CREVE COEUR, MISSOURI 63141
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REVISIONS		
NO.	DATE	ITEM
1	10-26-20	creve cover
2	2-5-2011	re-rev low

SHEET NO.
A-1.3
 ISSUE DATE: 8-4-20
 PROJECT #: 1939.01
 DRN. CMC CHK. AML

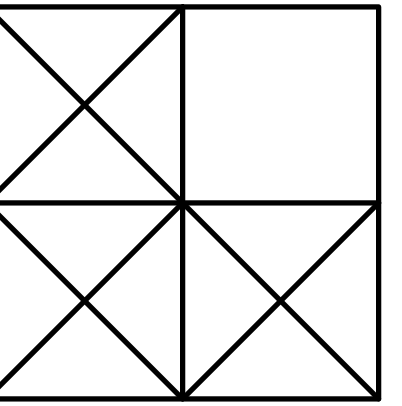


FLOOR PLAN LEGEND	
	1 HOUR FR NON-BEARING PARTITION
	BRICK VENEER
	CONC. MASONRY UNITS
	2 HOUR SHAFT WALL AT STAIRS

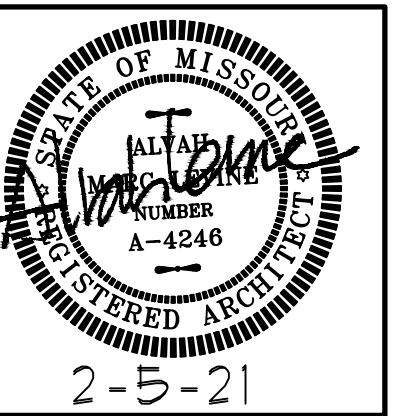


OUTDOOR FURNITURE PLAN
SCALE: 1/8" = 1'-0"

FOURTH FLOOR PLAN
SCALE: 1/8" = 1'-0"



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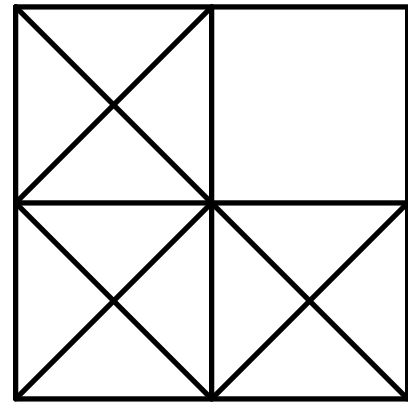


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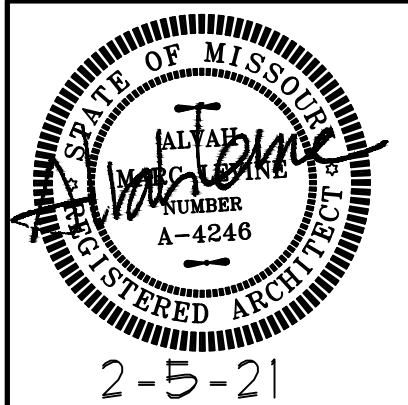
fourth floor plan
20 APARTMENTS
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REVISIONS		
NO.	DATE	ITEM
1	10-26-20	creve cover
2	2-5-2021	re-review

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ISSUE DATE: 8-4-20
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roof plan

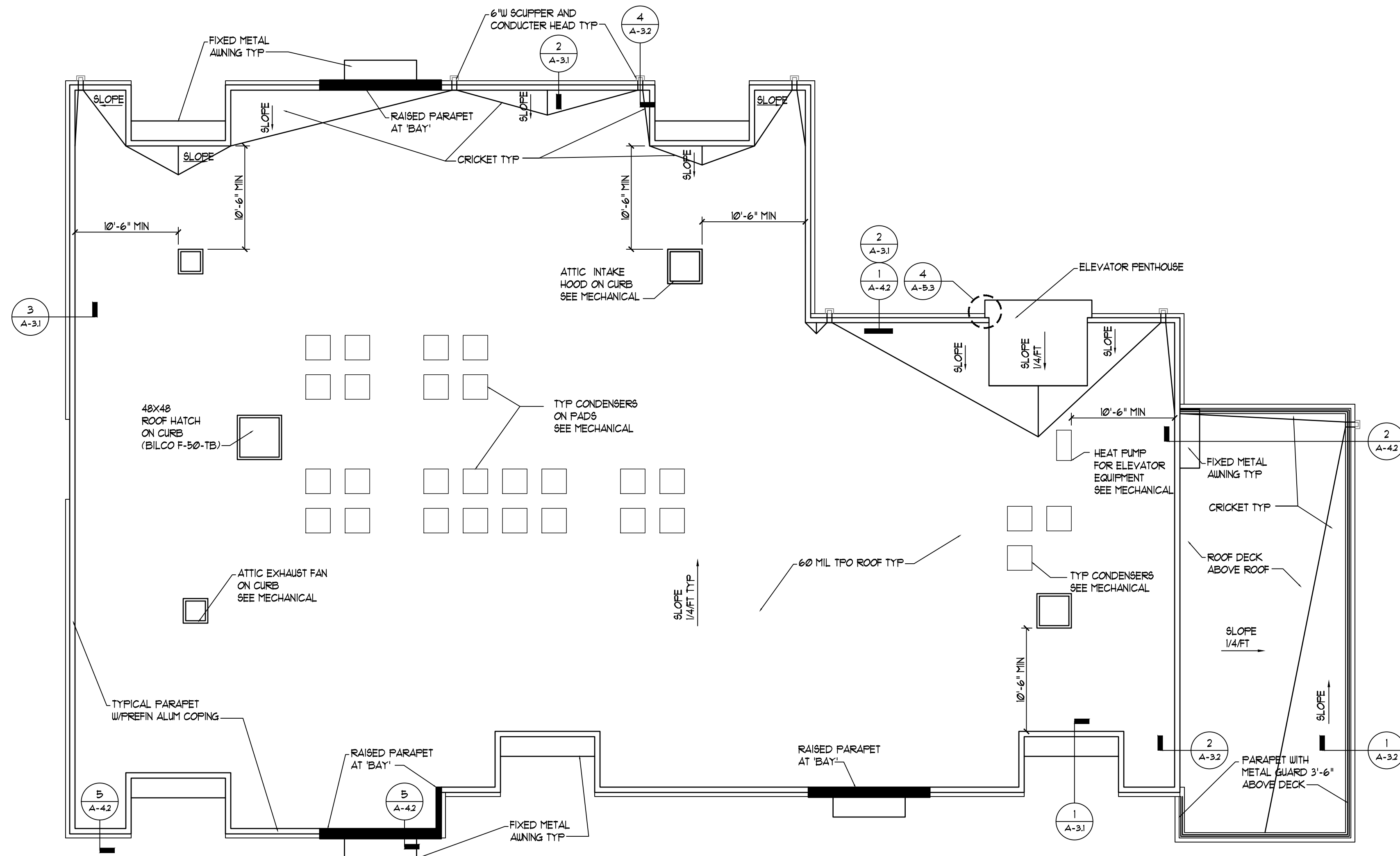
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REVISIONS		
NO.	DATE	ITEM
1	10-26-20	creve couer
2	2-5-2011	re-revision

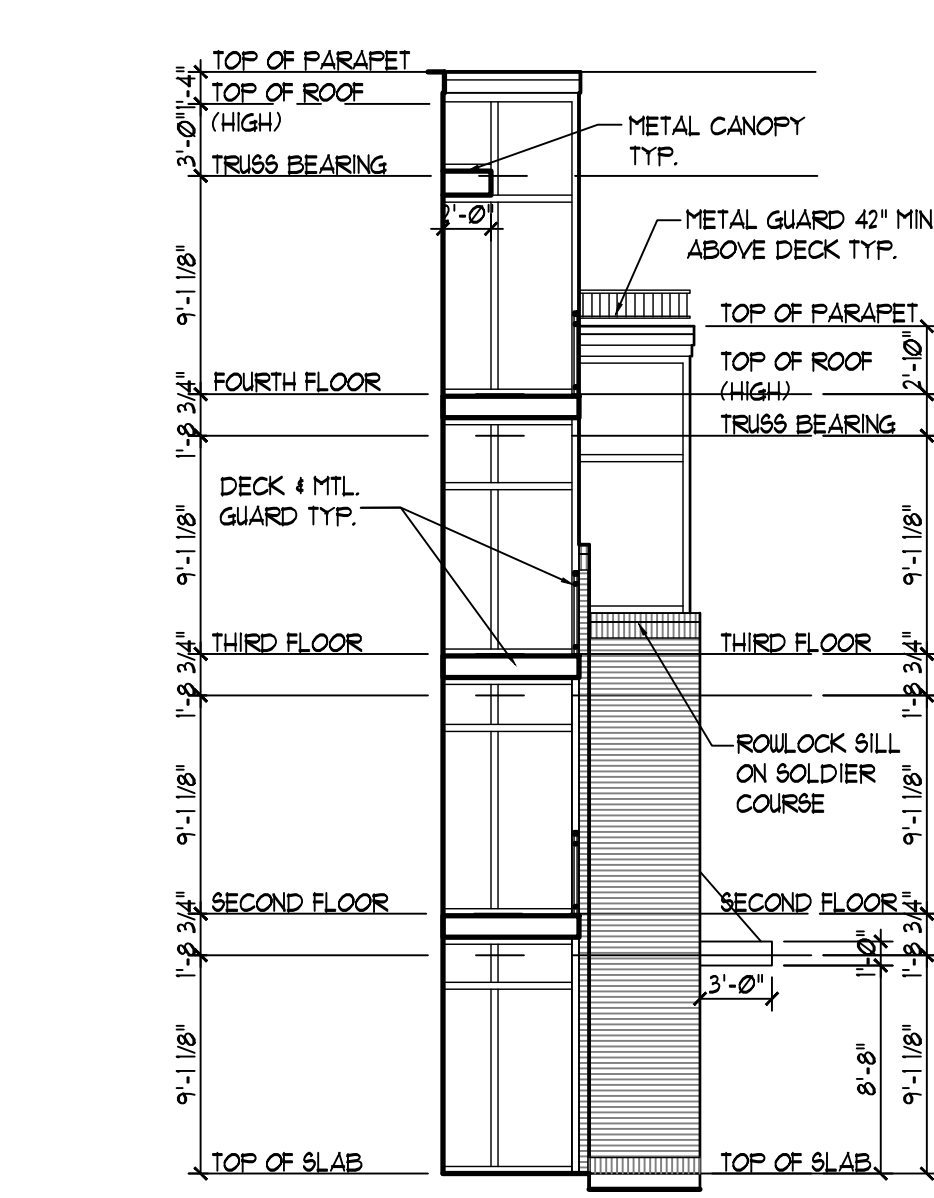
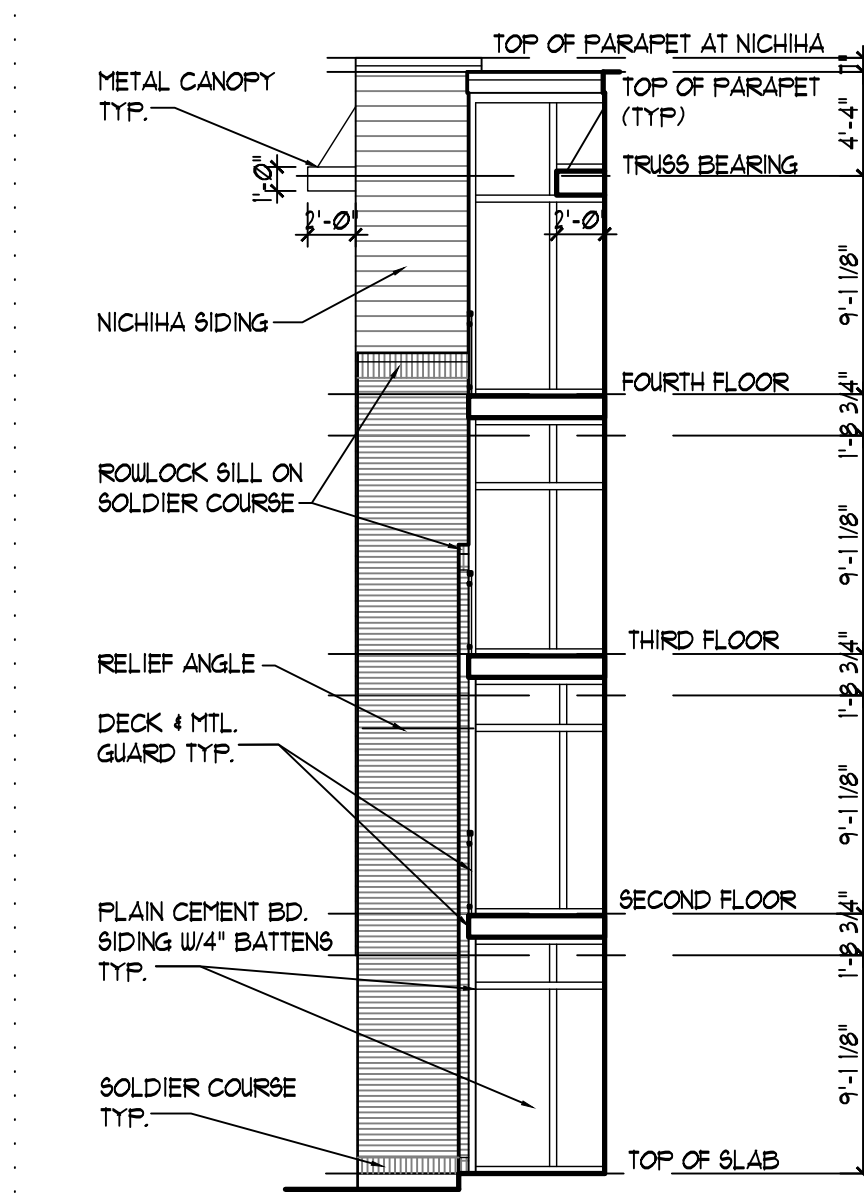
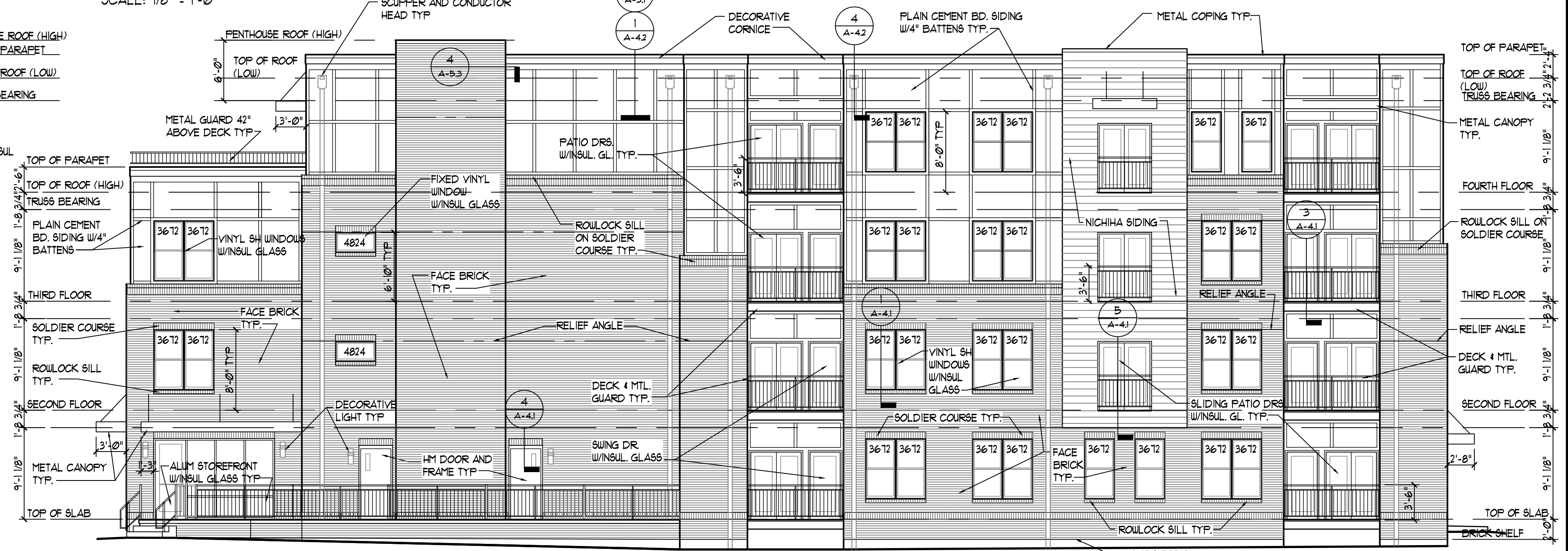
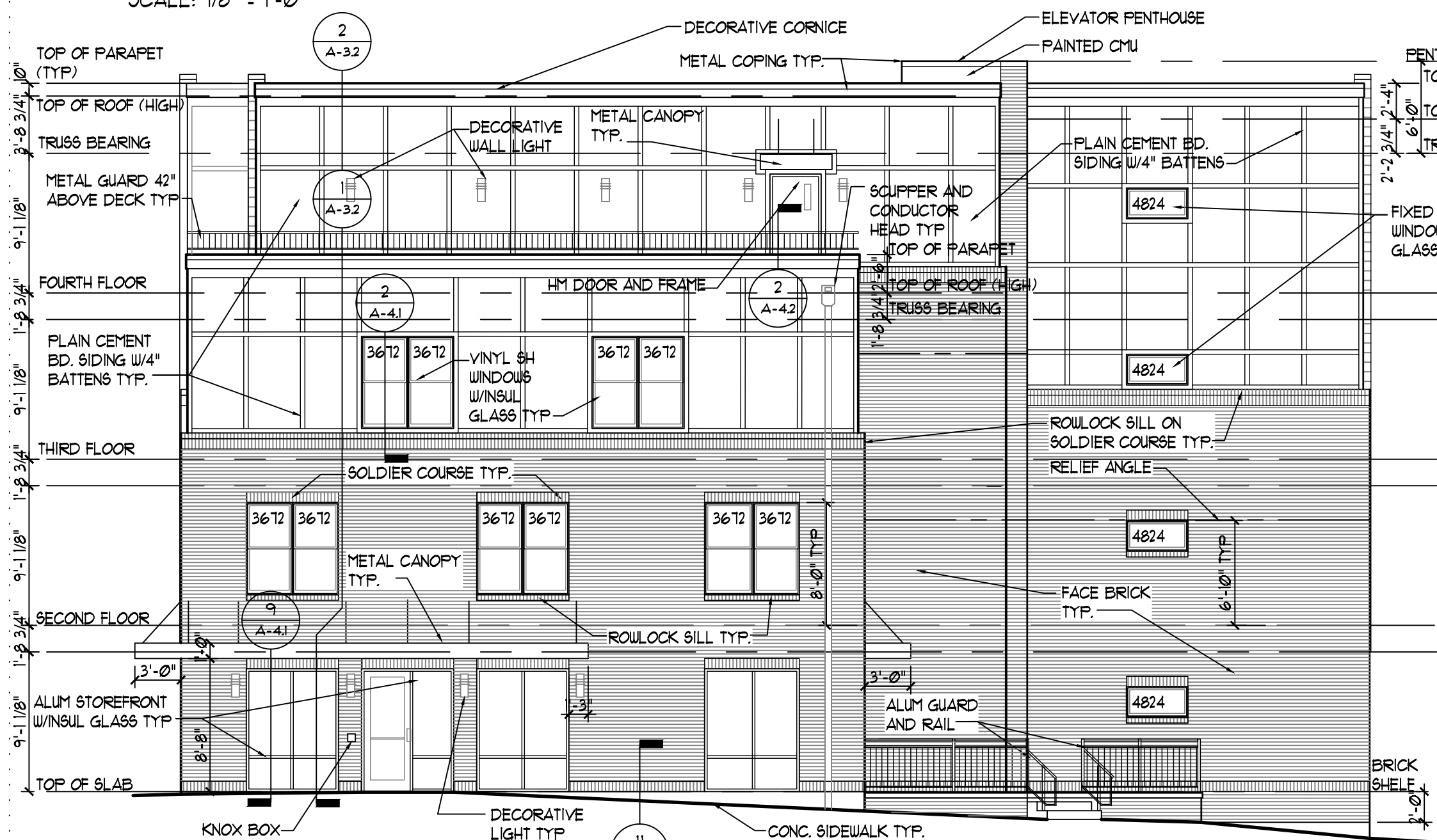
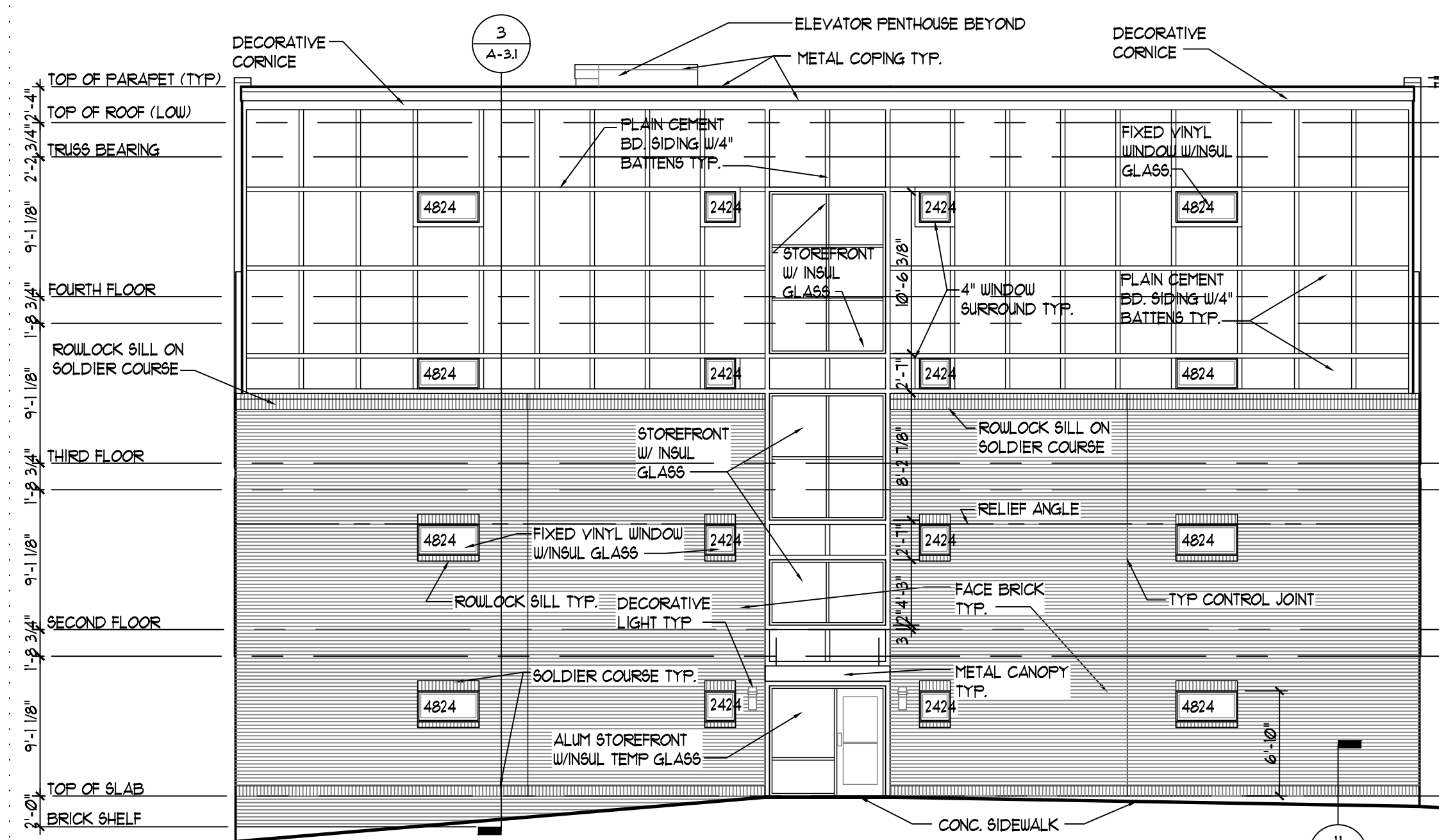
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ISSUE DATE: 8-4-20
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ROOF PLAN
SCALE: 1/8" = 1'-0"



COLOR AND MATERIAL SELECTION

BRICK:	GLEN-GERY "TERRA COTTA COLONIAL MODULAR"
NICHHA SIDING:	"VINTAGE WOOD" REDWOOD
PANEL CEMENT BD. SIDING:	WHITE
TRIM:	WHITE
WINDOWS:	BRONZE
STOREFRONT:	BRONZE
TPO ROOFING:	WHITE (EXCEPT GREY FOR CARPORTS)
GUTTERS, DOWNSPOUTS:	BRONZE
ROOF COPING:	BRONZE
RAILINGS:	BRONZE
CMU RETAINING WALL:	VERSALOK ATANDARD "SIERRA BLEND"

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2-5-21

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elevations

20 APARTMENTS
10809-10819 OLIVE BOULEVARD
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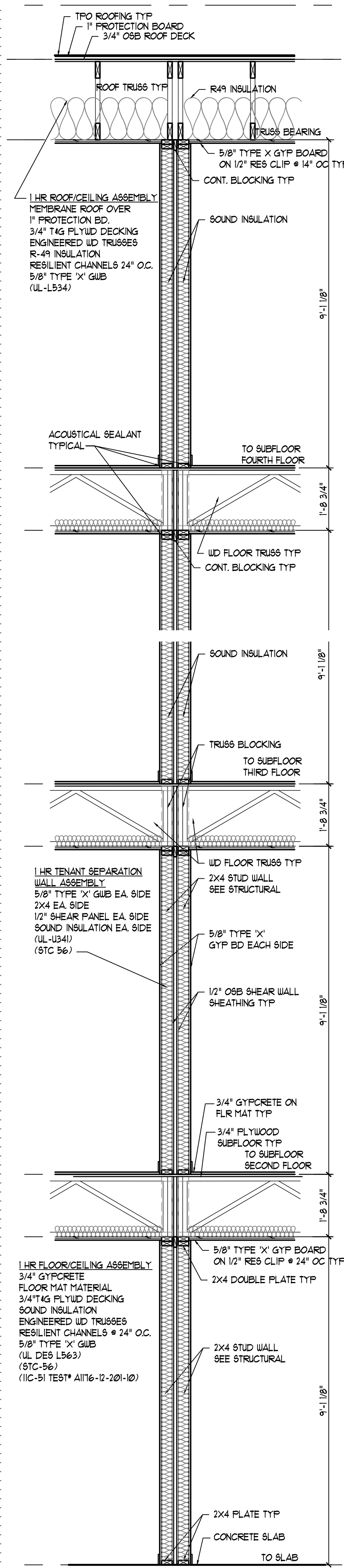
REVISIONS

NO.	DATE	ITEM
1	10-26-20	creve cover
2	2-5-2021	re-revision

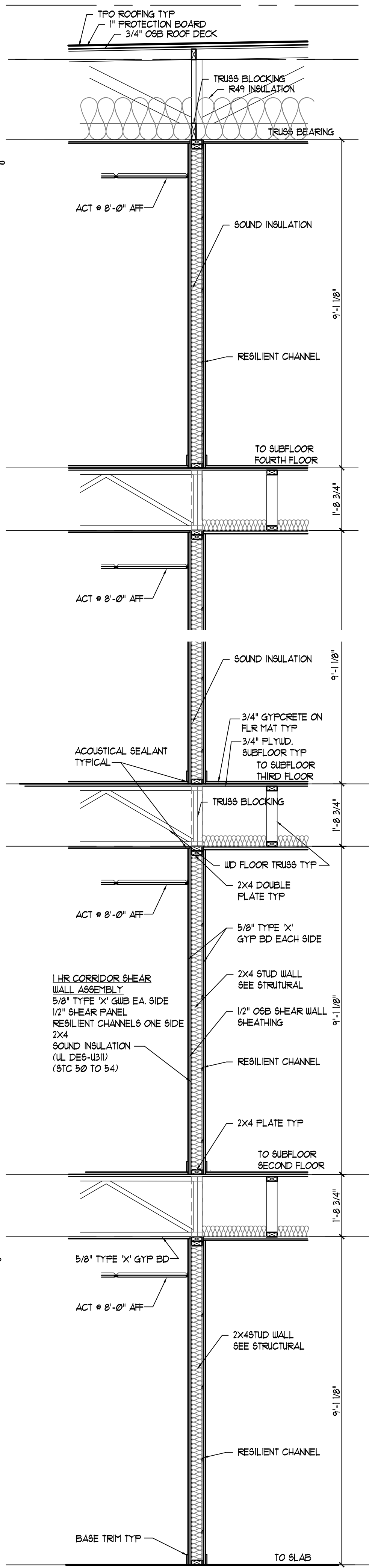
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A-2.1

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PROJECT #: 1939.01
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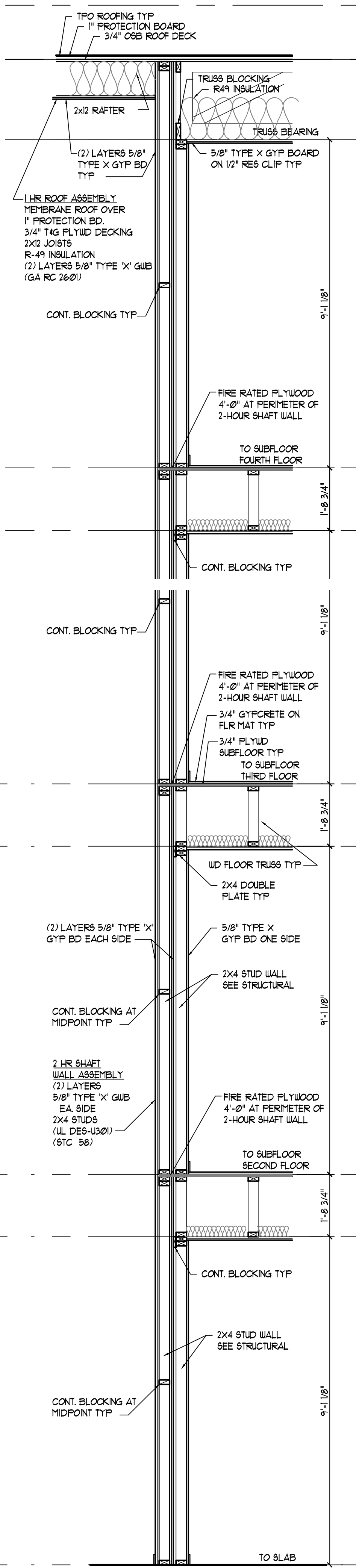
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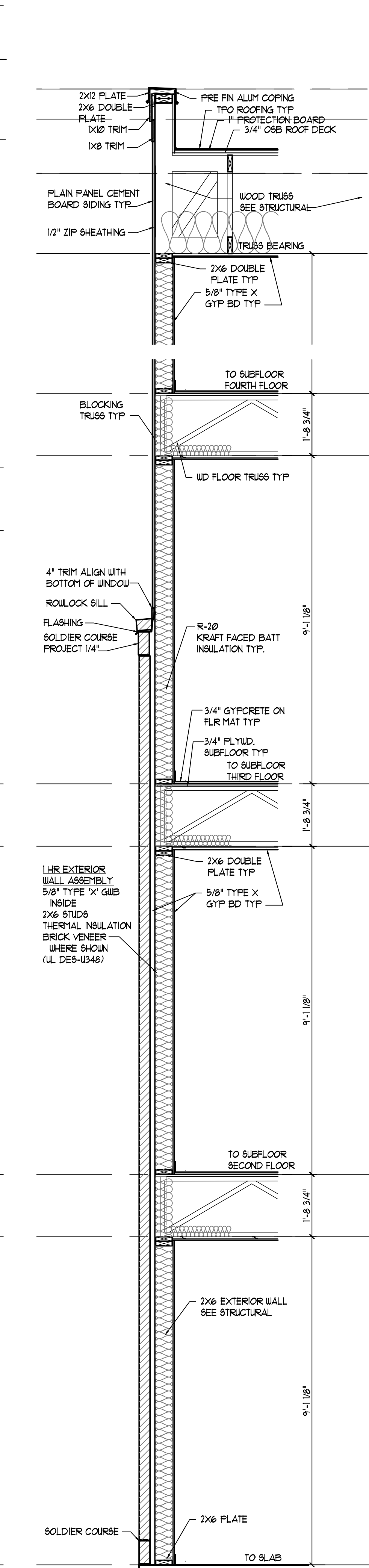
6 1-HOUR SEPARATION WALL
A-31 SCALE: 1/2" = 1'-0"



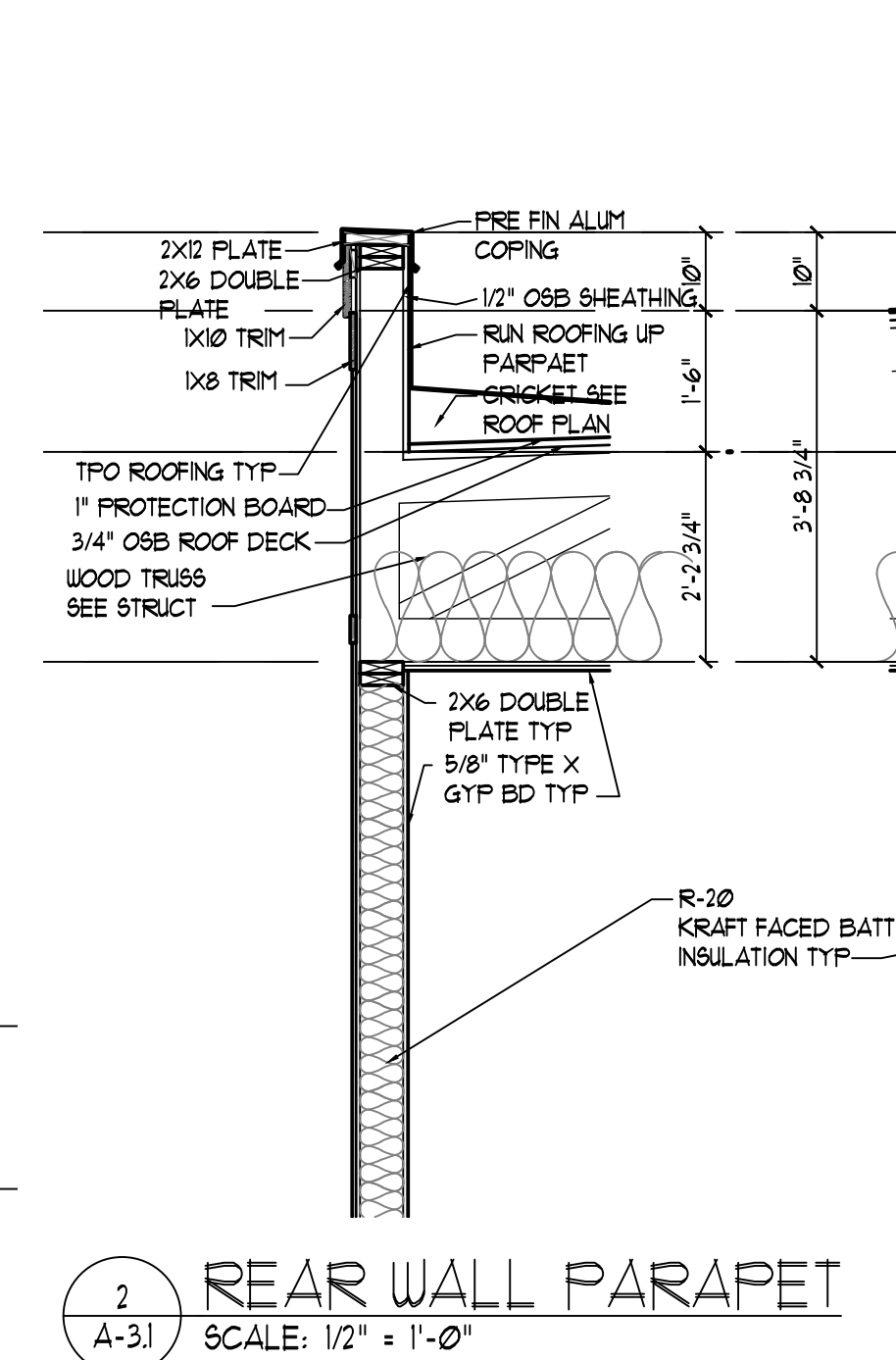
5 1-HOUR CORRIDOR WALL
A-31 SCALE: 1/2" = 1'-0"



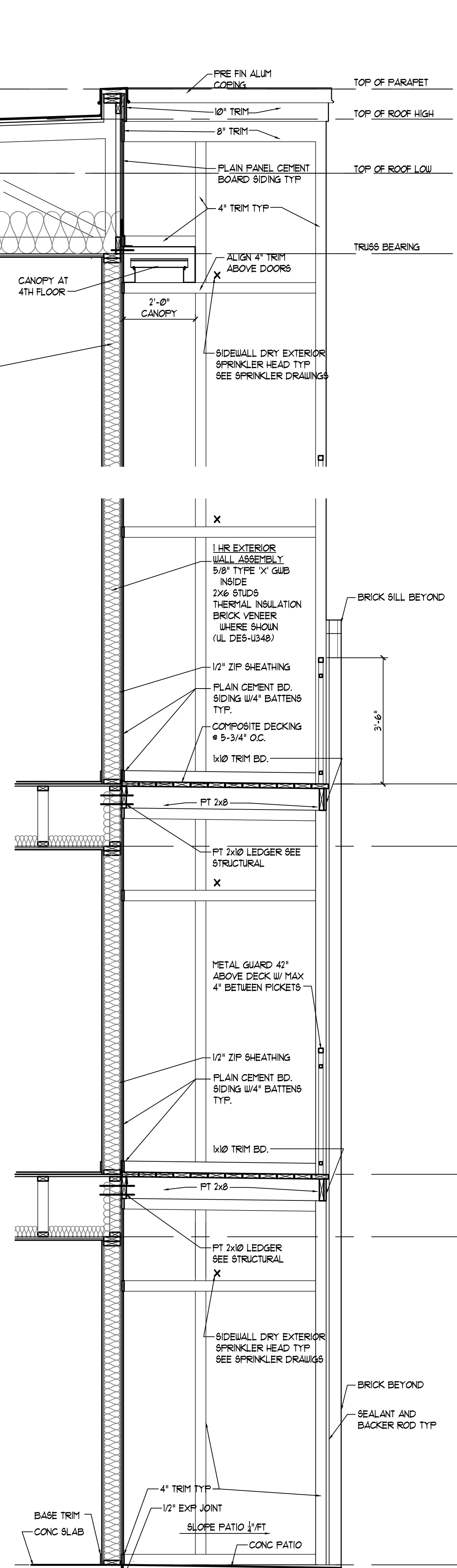
4 2-HOUR FIRE RATED WALL
A-31 SCALE: 1/2" = 1'-0"



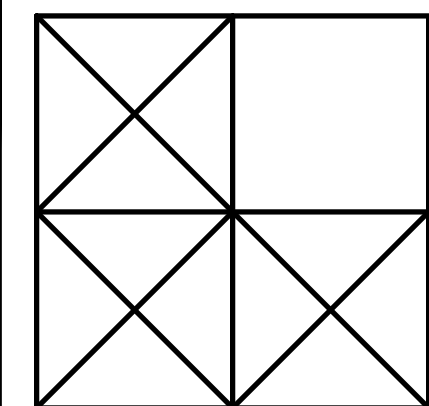
3 1-HOUR SIDE WALL
A-31 SCALE: 1/2" = 1'-0"



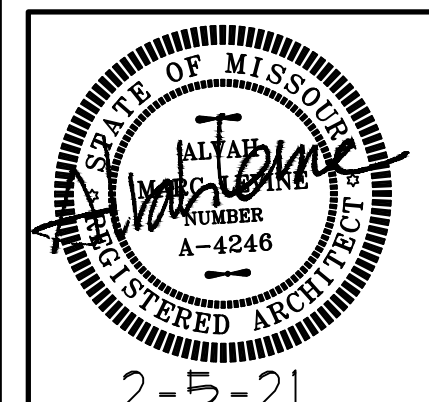
2 REAR WALL PARAPET
A-31 SCALE: 1/2" = 1'-0"



1 1-HOUR WALL & DECKS/PATIOS--HIGH PARAPET
A-31 SCALE: 1/2" = 1'-0"



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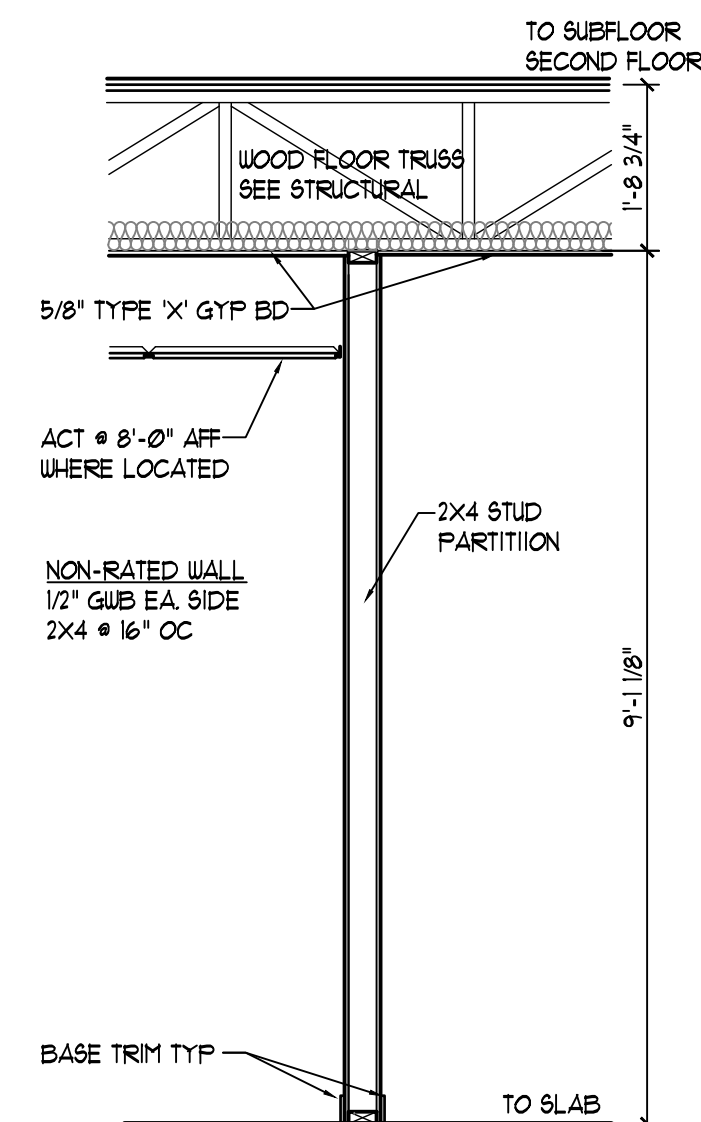
ARCHITECT: ALVA M. LEVINE
NO LICENSE A-4246
ALVA M. LEVINE, INC.
DIA LEVINE ASSOCIATES
CERTIFICATE OF AUTHORITY
LICENSE NUMBER A-2018040328

full height sections
20 APARTMENTS
10809-10819 OLIVE BOULEVARD
CREVE COEUR, MISSOURI 63141
JLA GROUP, DEVELOPER

REVISIONS		
NO.	DATE	ITEM
1	10-26-20	creve cover
2	2-5-2021	re-rev/low

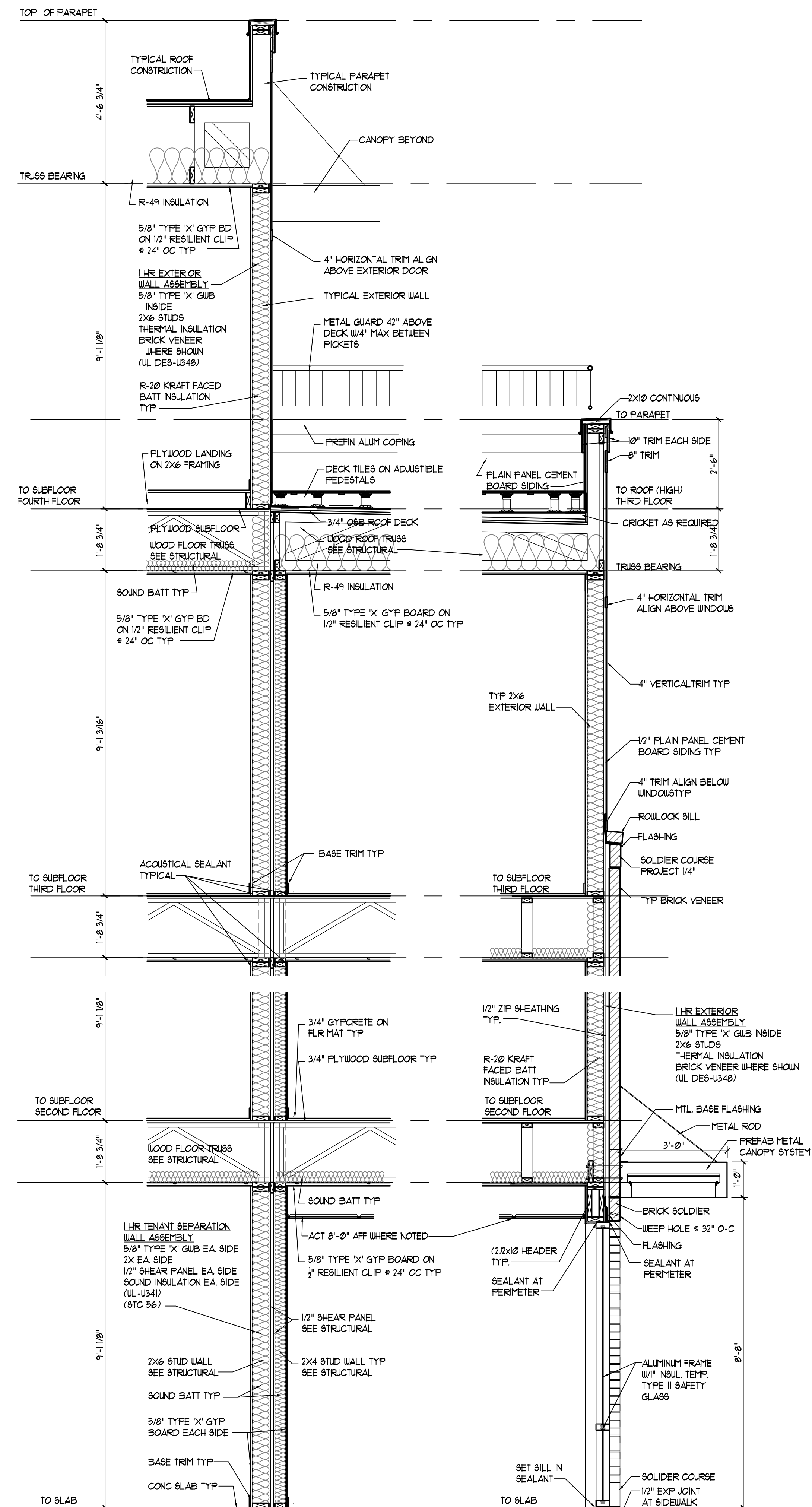
SHEET NO.
A-3.1

ISSUE DATE: 8-4-20
PROJECT #: 1939.01
DRN. CMC CHK. AML

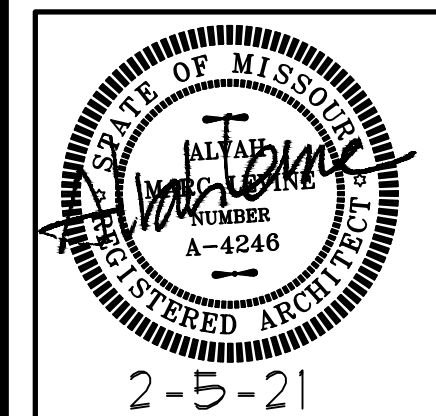


3 NON-RATED INTERIOR PARTITION
A-32 SCALE: 1/2" = 1'-0"

1
A-32 1-HOUR SIDE WALL AT COMMON AREA
SCALE: 1/2" = 1'-0"



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**ARCHITECT: ALVAH M. LEVINE
MO LICENSE A-4246**

**ALVAH M. LEVINE, INC.
DBA LEVINE ASSOCIATES**

**CERTIFICATE OF AUTHORITY
LICENSE NUMBER A-2018040325**

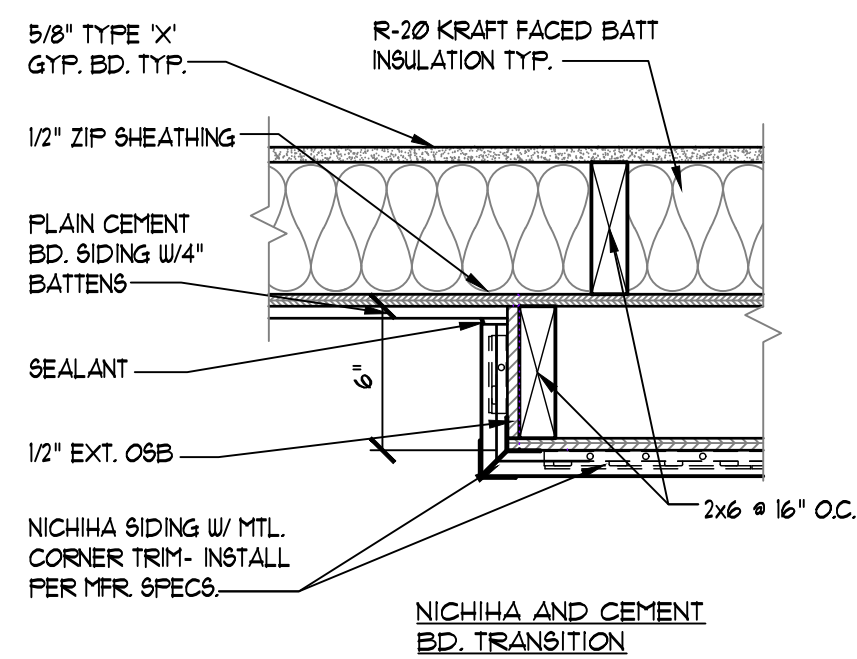
full height sections

20 APARTMENTS
10809-10819 OLIVE BOULEVARD
CREVE COEUR, MISSOURI 63141
JLA GROUP, DEVELOPER

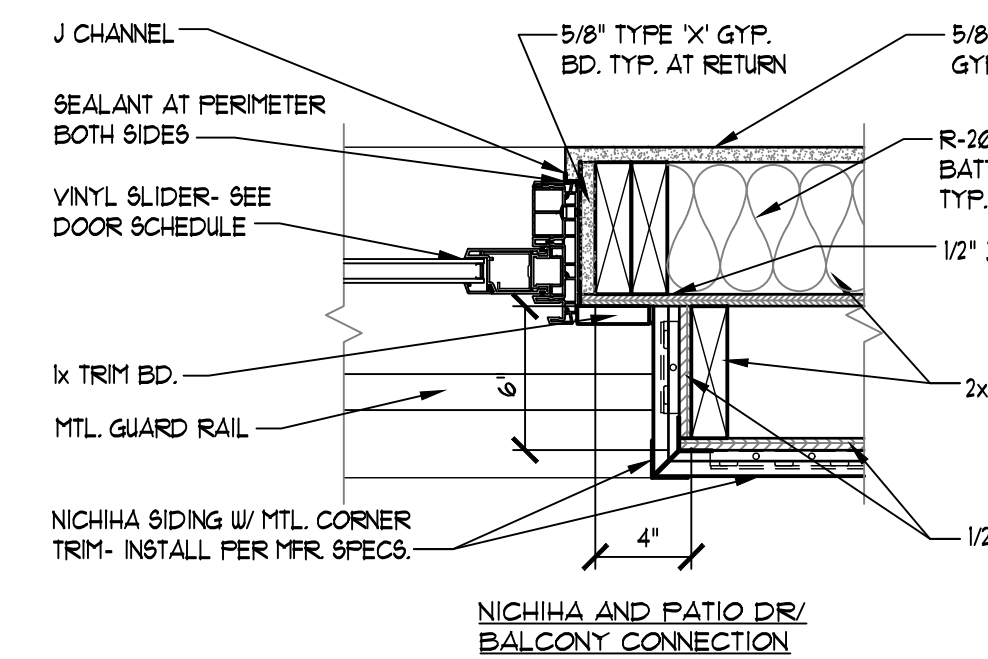
REVISIONS		
NO.	DATE	ITEM
1	10-26-20	creve cover
2	2-5-2021	re-review

SHEET NO.
A-3.2

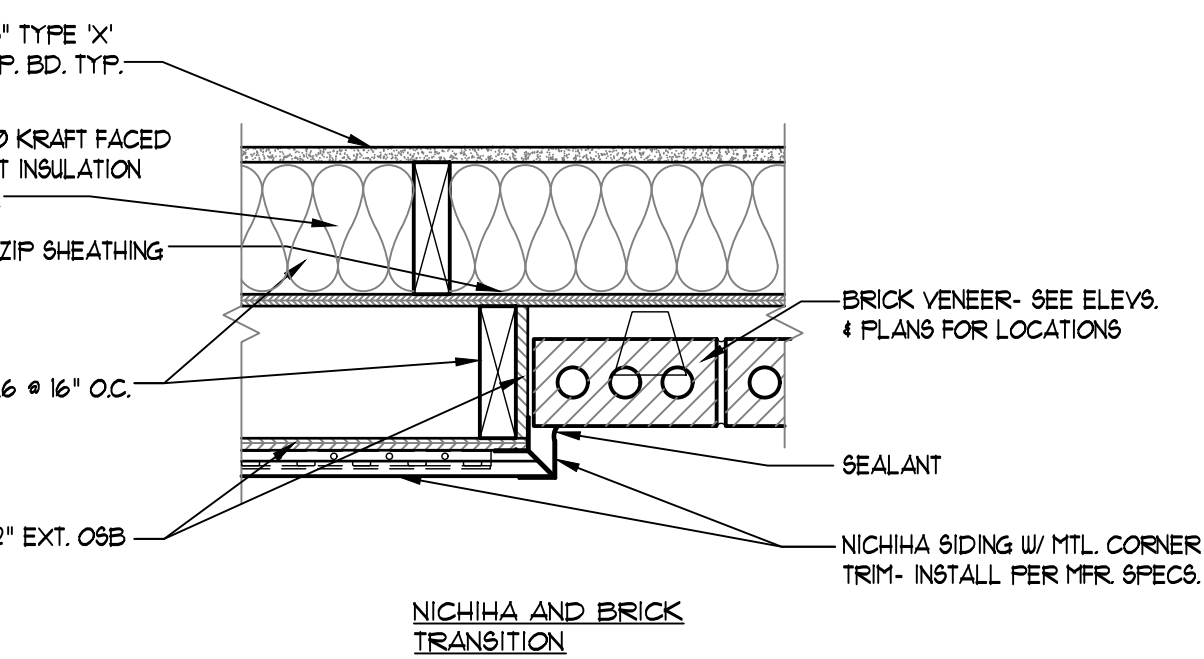
ISSUE DATE: 8-4-20
PROJECT #: 1939.01
DRN. CMC CHK. AML



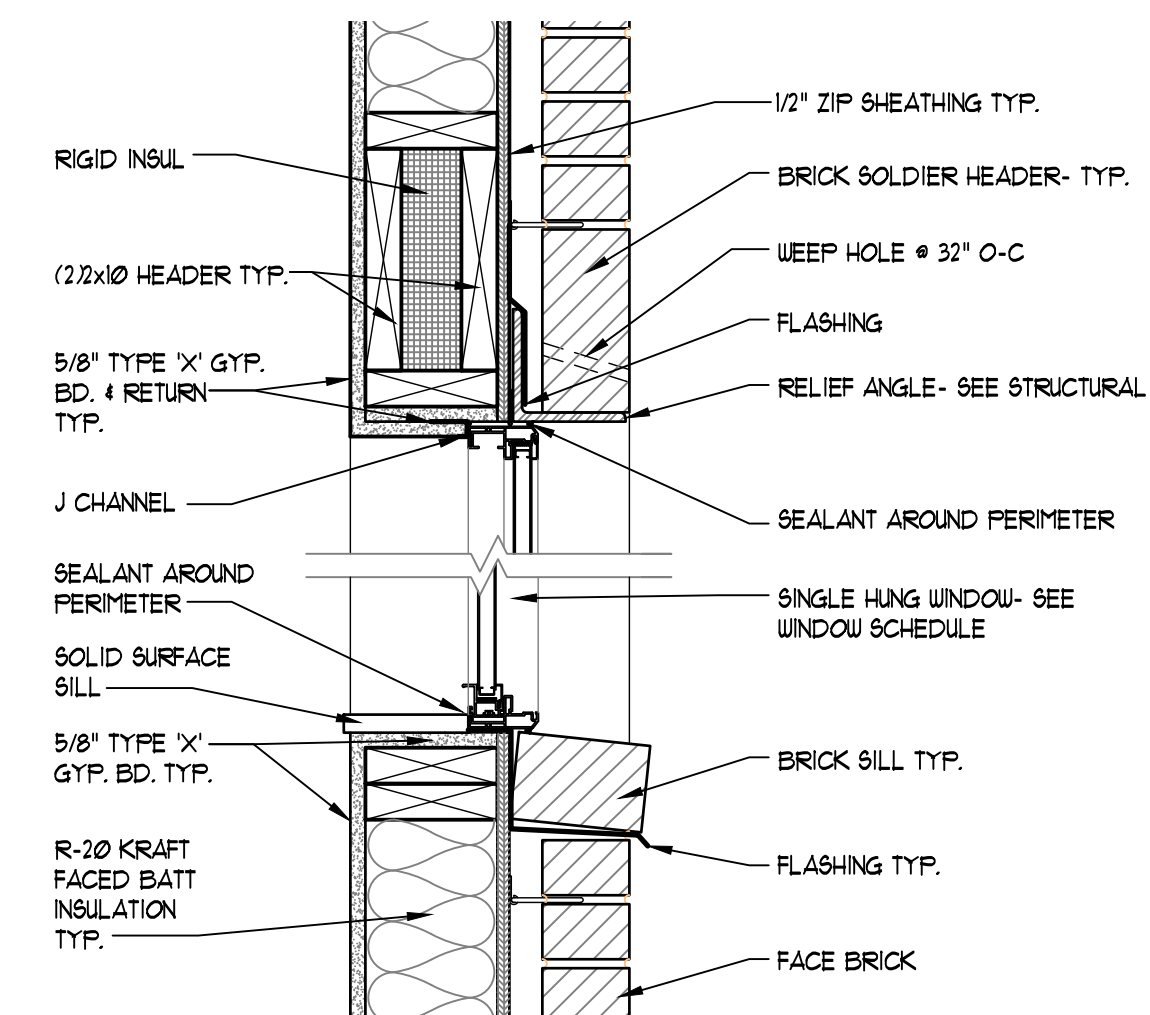
6 APPLIED BAY PLAN DTL.
A-41 SCALE: 1 1/2" = 1'-0"



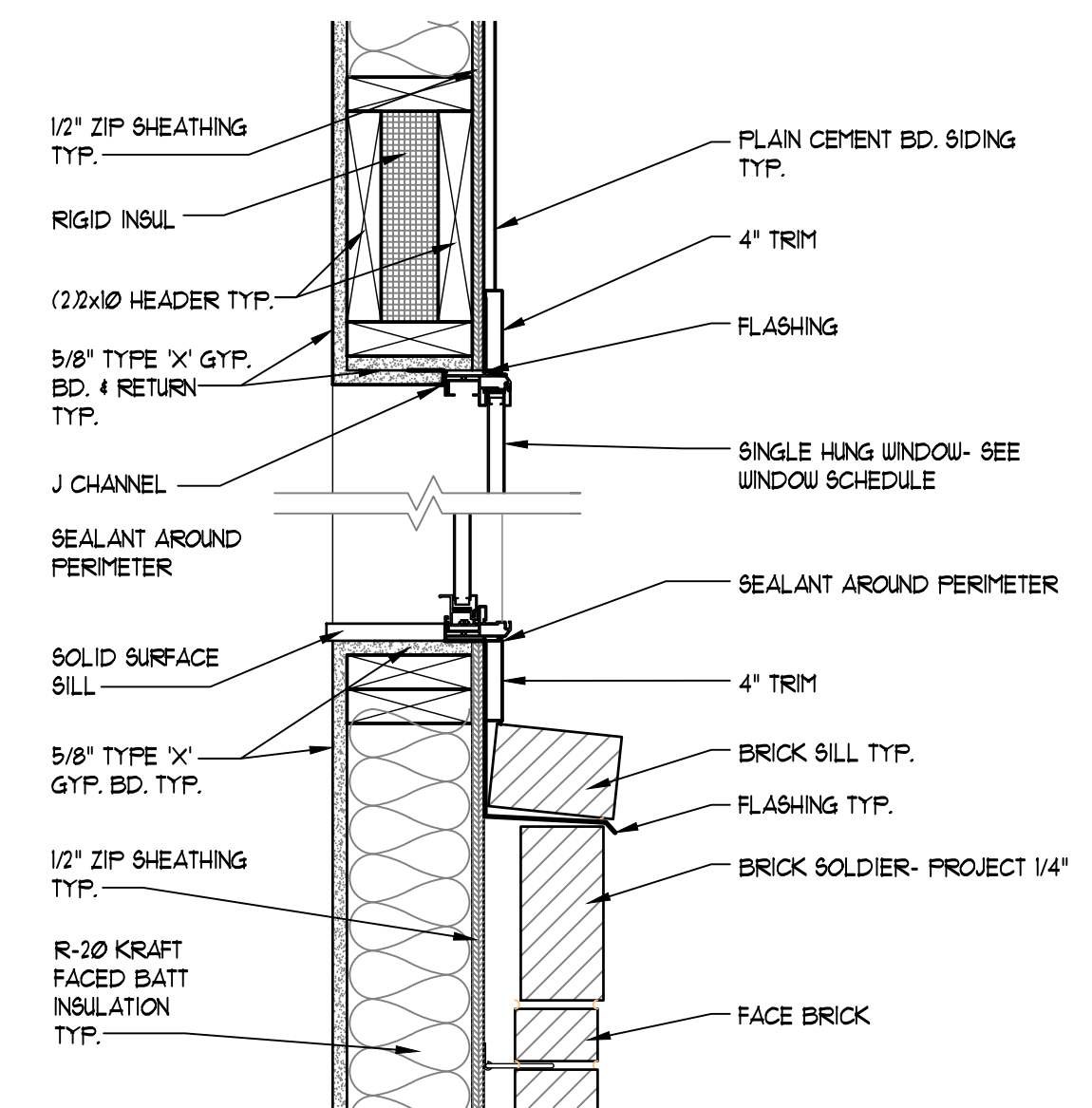
7 APPLIED BAY PLAN DTL.
A-41 SCALE: 1 1/2" = 1'-0"



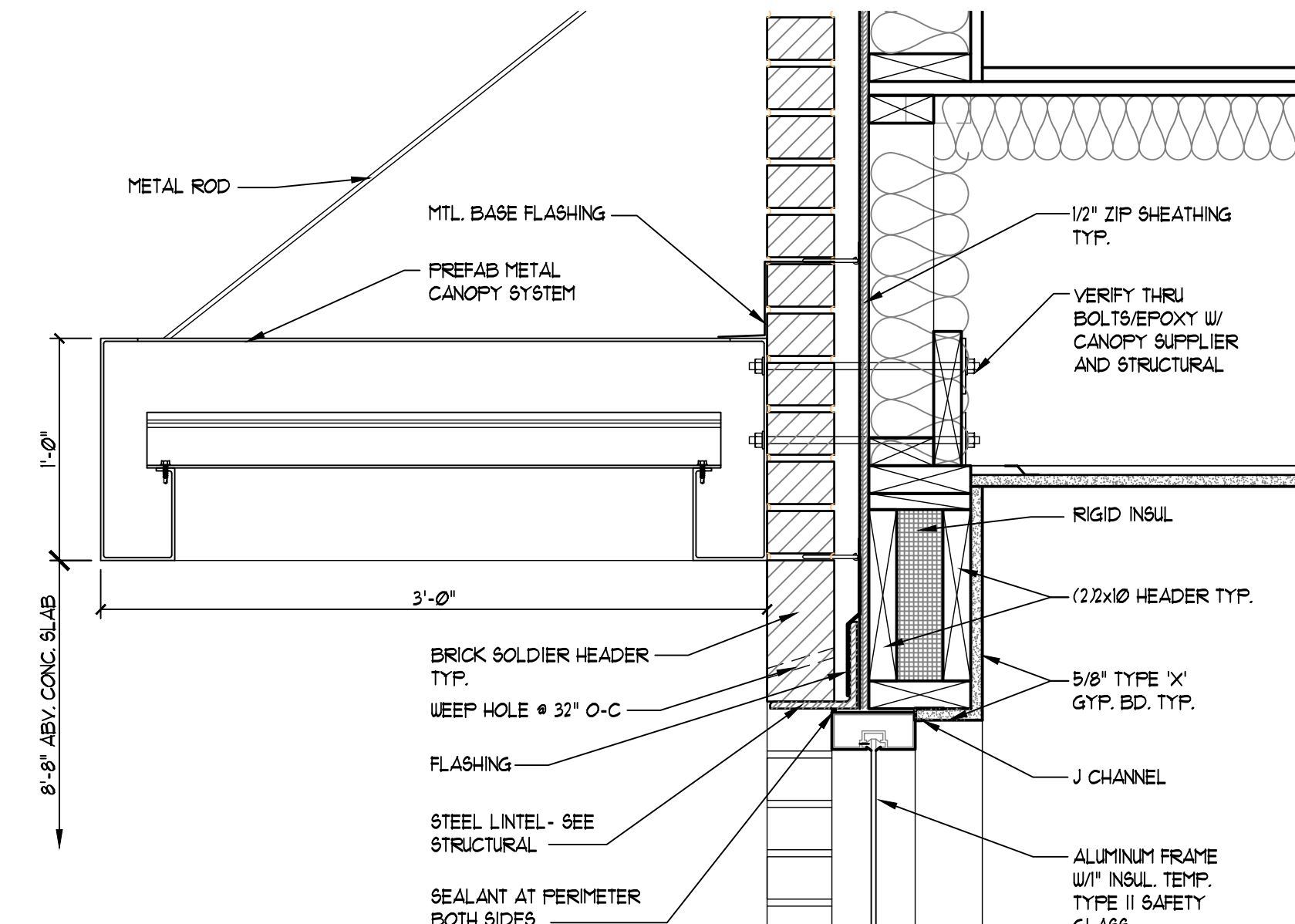
8 APPLIED BAY PLAN DTL.
A-41 SCALE: 1 1/2" = 1'-0"



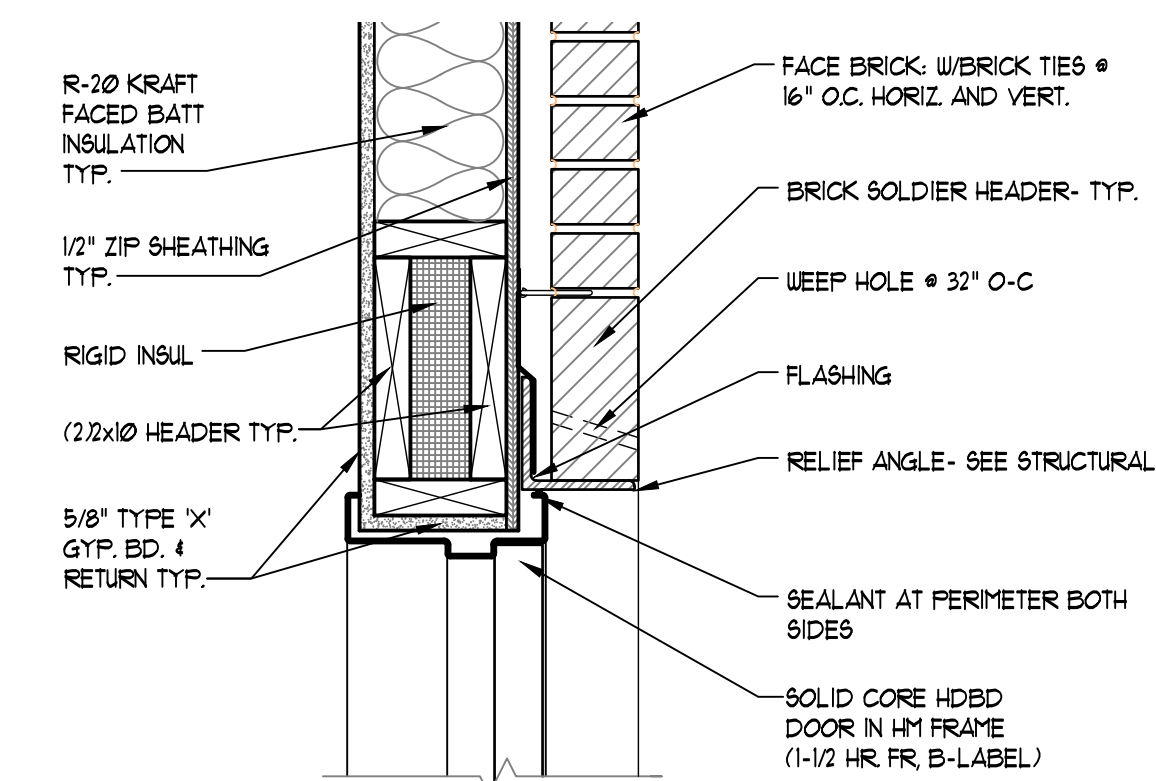
1 TYP. SECTION THRU SH WINDOW @ BRICK
A-41 SCALE: 1 1/2" = 1'-0"



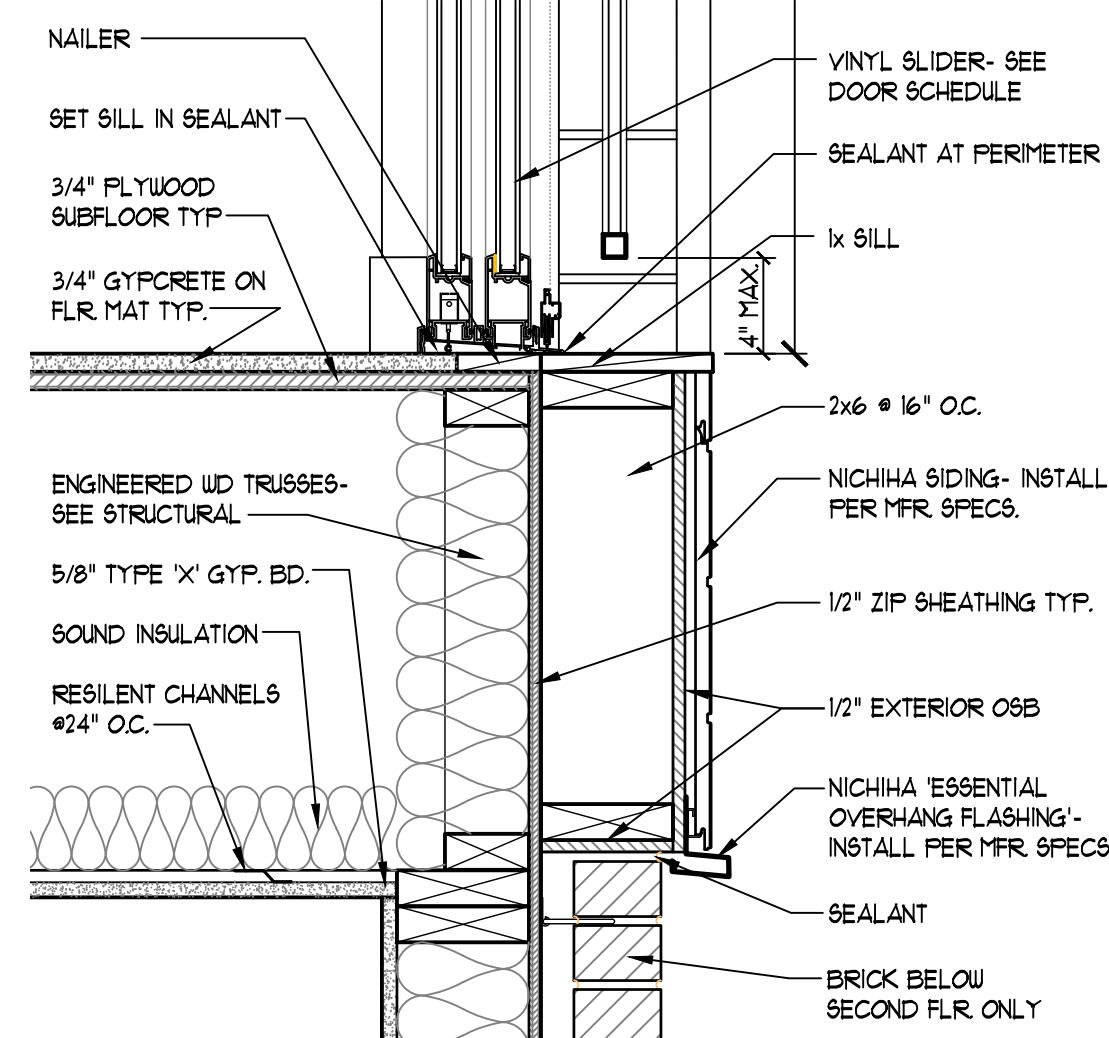
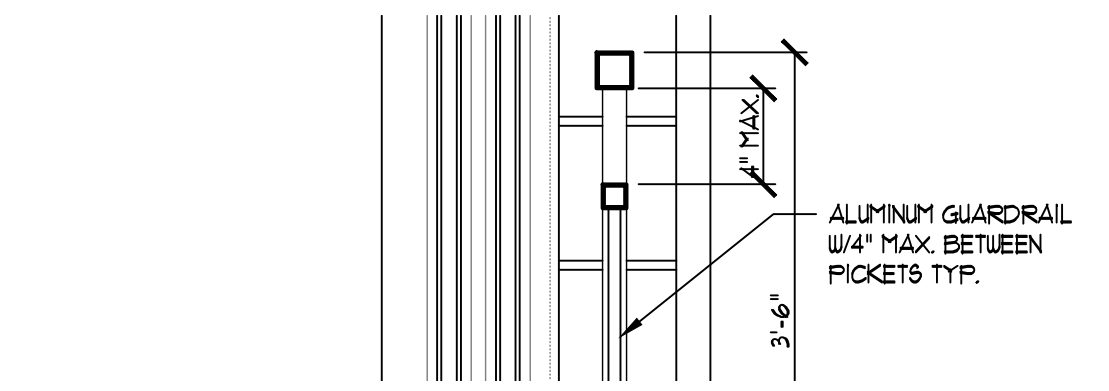
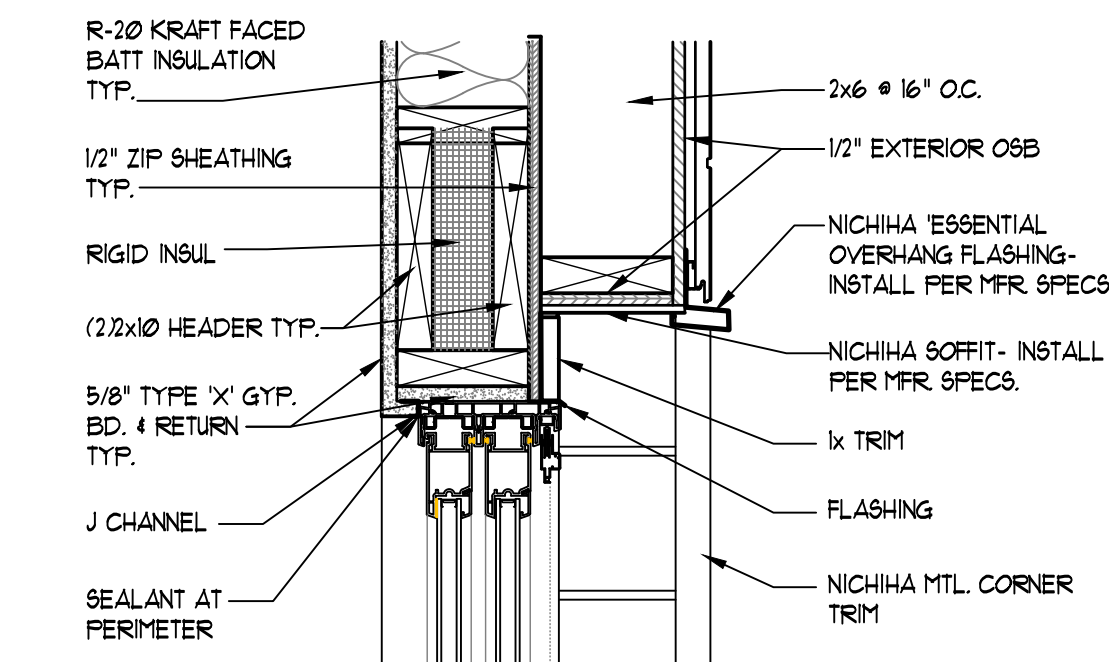
2 SILL DTL. @ SIDING/BRICK TRANSITION
A-41 SCALE: 1 1/2" = 1'-0"



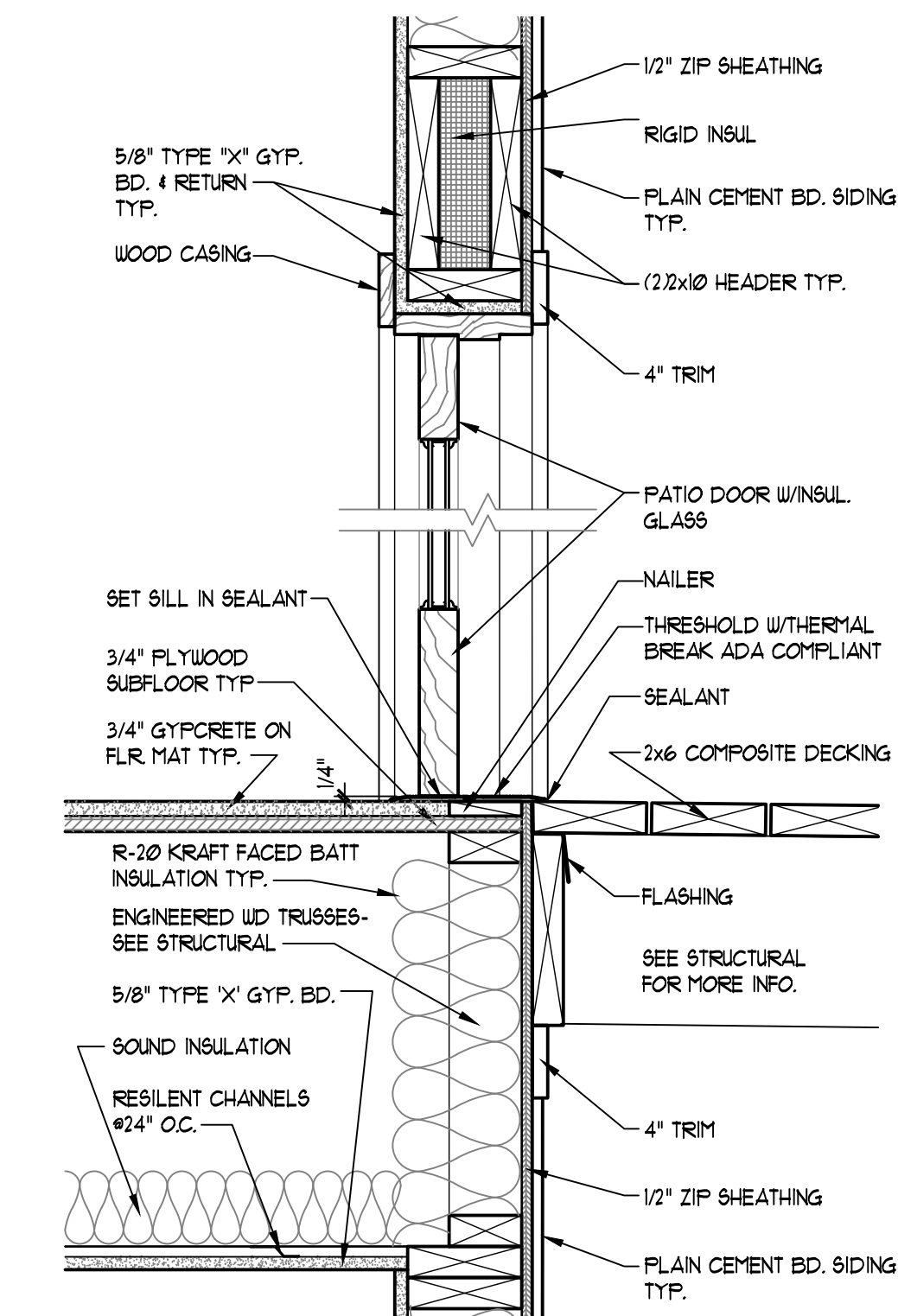
9 TYP. SECTION THRU CANOPY
A-41 SCALE: 1 1/2" = 1'-0"



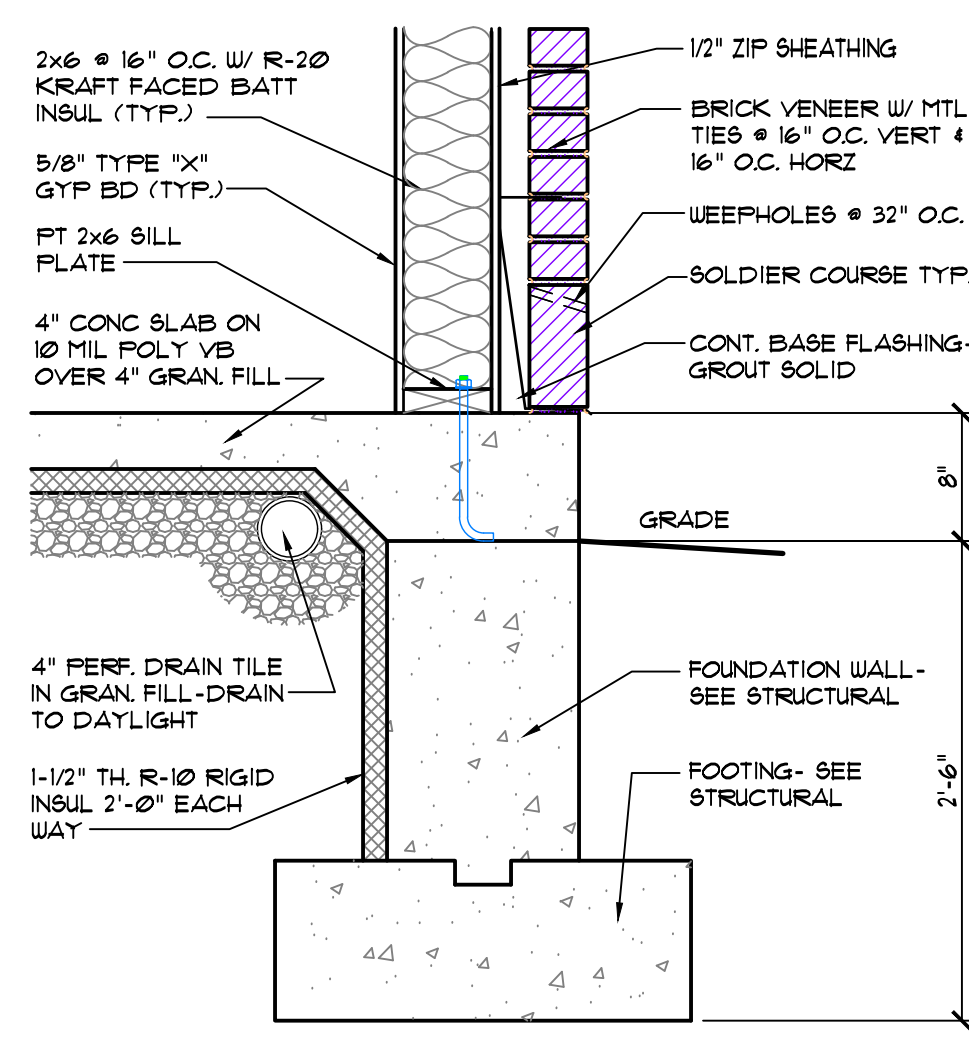
4 TYP. SECTION THRU EXT. DR. HEADER
A-41 SCALE: 1 1/2" = 1'-0"



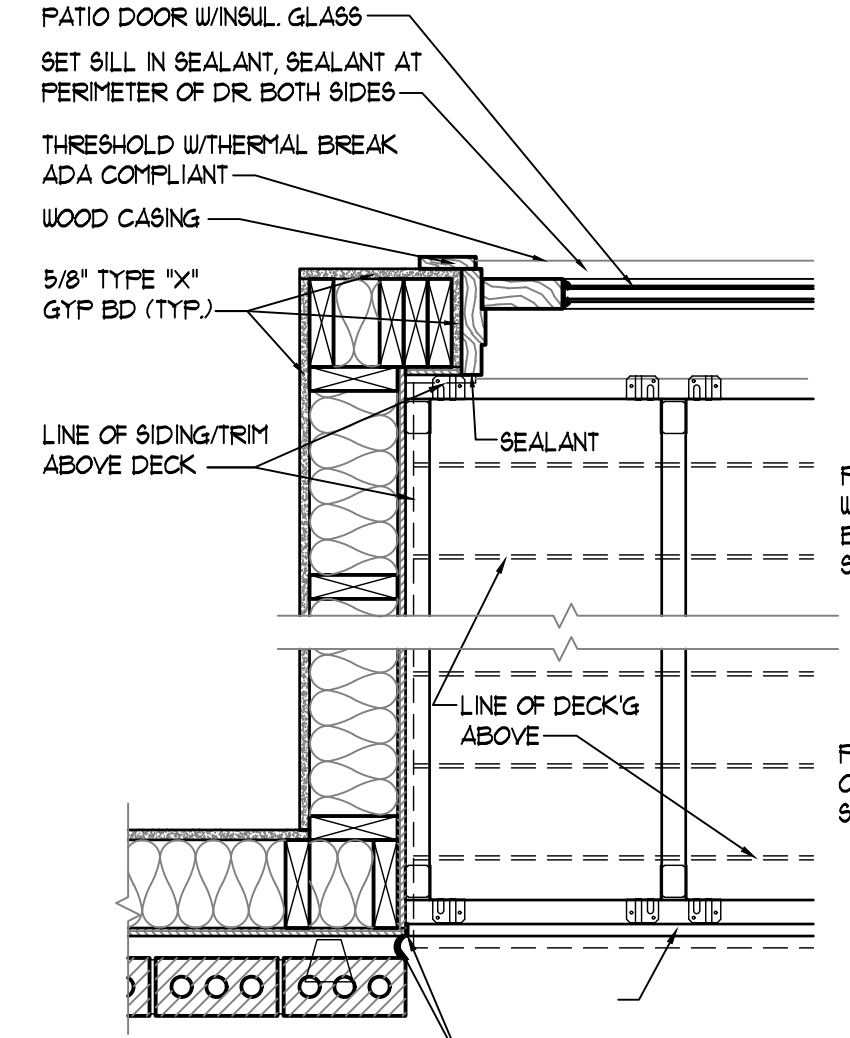
5 TYP. SECTION THRU JULIET BALCONY
A-41 SCALE: 1 1/2" = 1'-0"



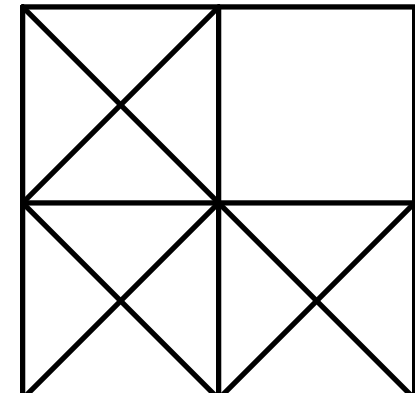
3 TYP. SECTION THRU PATIO DR. @ DECK
A-41 SCALE: 1 1/2" = 1'-0"



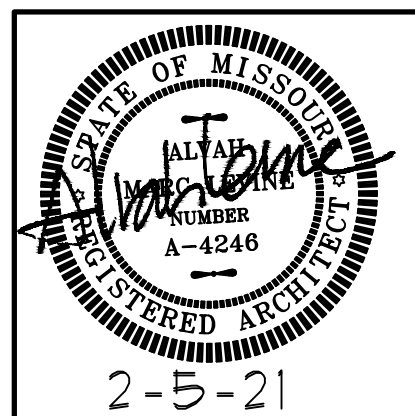
11 TYP. WALL AT SLAB
A-41 SCALE: 1" = 1'-0"



10 TYP. DECK STRUCT. LAYOUT
A-41 SCALE: 1" = 1'-0"



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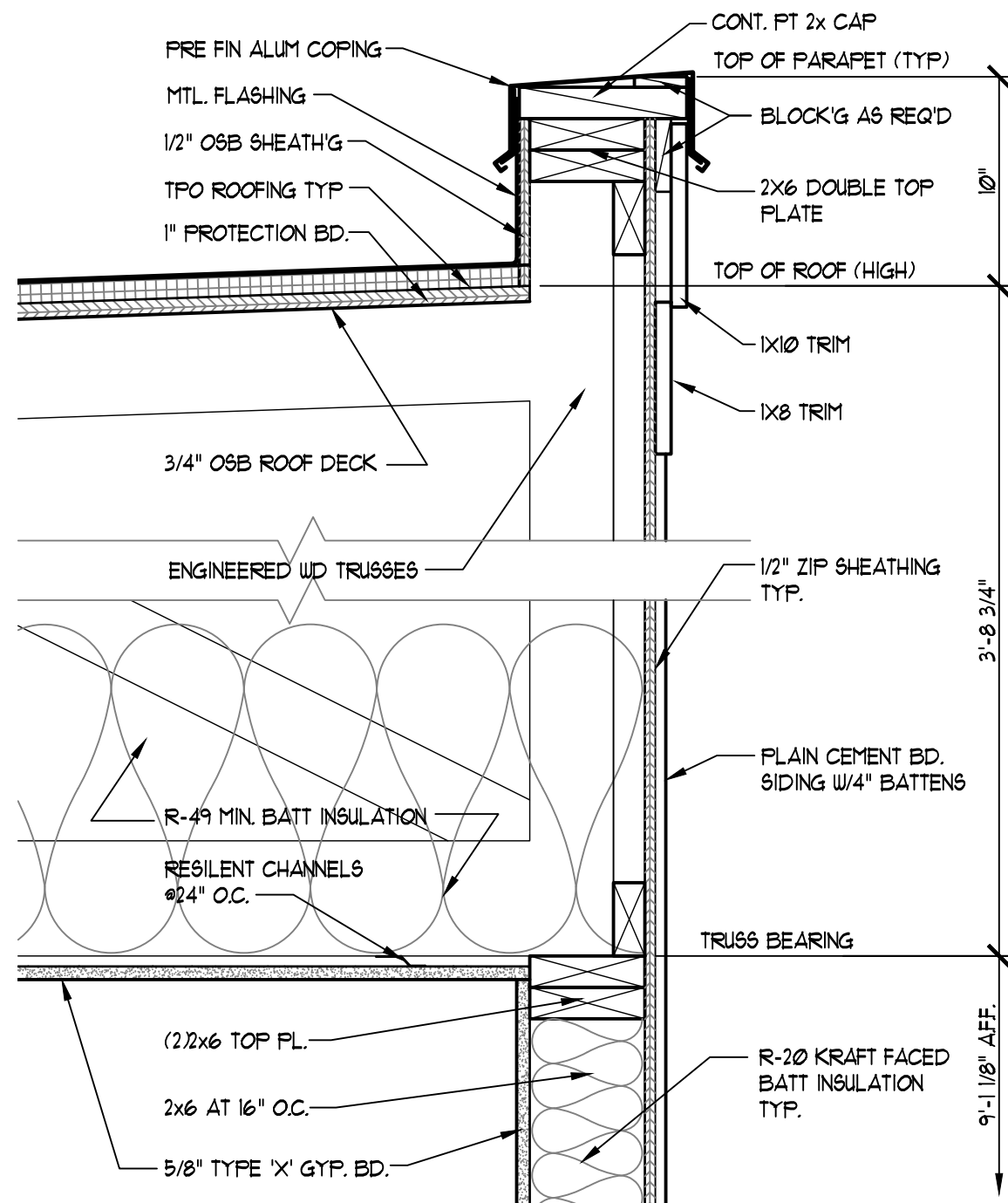
ARCHITECT: ALVAH M. LEVINE
NO LICENSE A-4246
ALVAH M. LEVINE, INC.
DIA LEVINE ASSOCIATES
CERTIFICATE OF AUTHORITY
LICENSE NUMBER A-2018040328

details
20 APARTMENTS
10809-10819 OLIVE BOULEVARD
CREVE COEUR, MISSOURI 63141
JLA GROUP, DEVELOPER

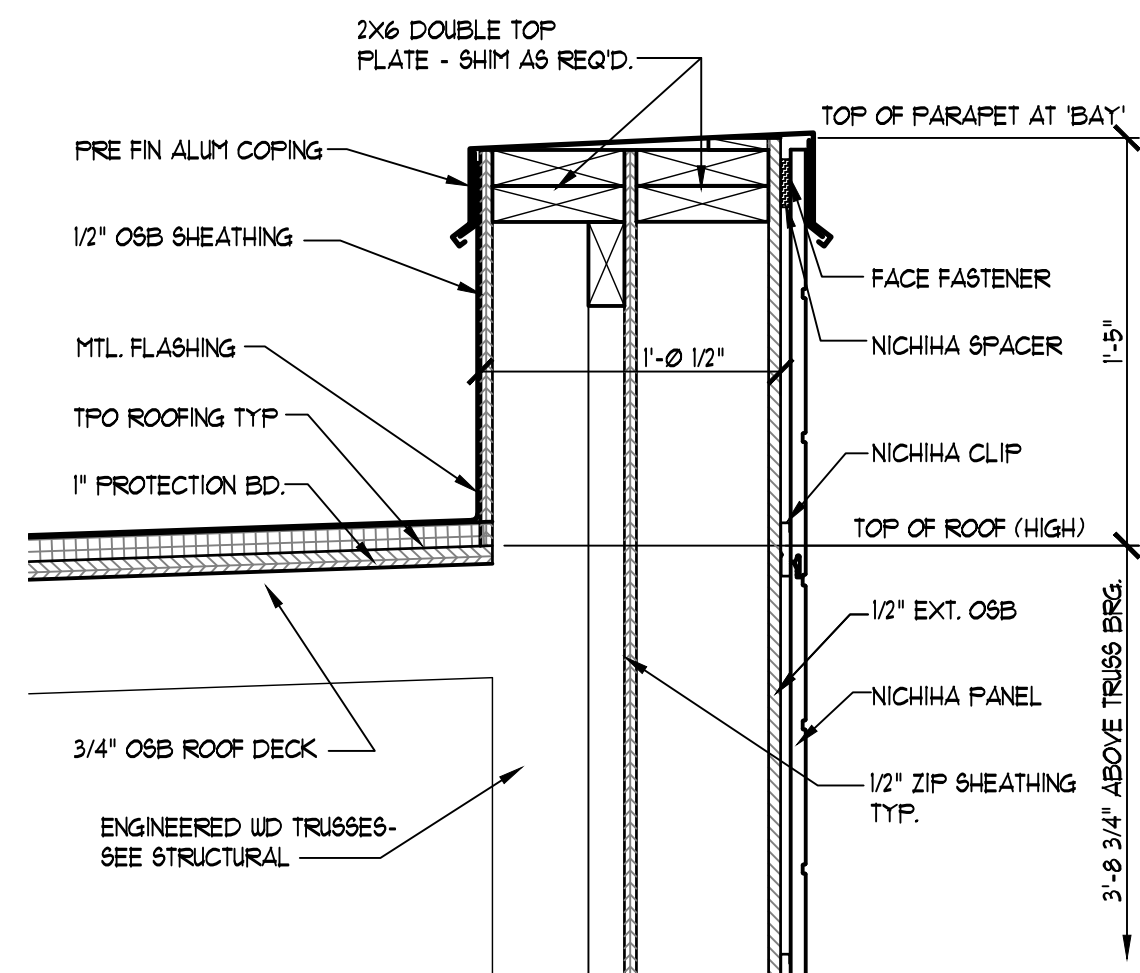
REVISIONS		
NO.	DATE	ITEM
1	10-26-20	creve couer
2	2-5-2021	re-rev/low

SHEET NO.
A-4.1

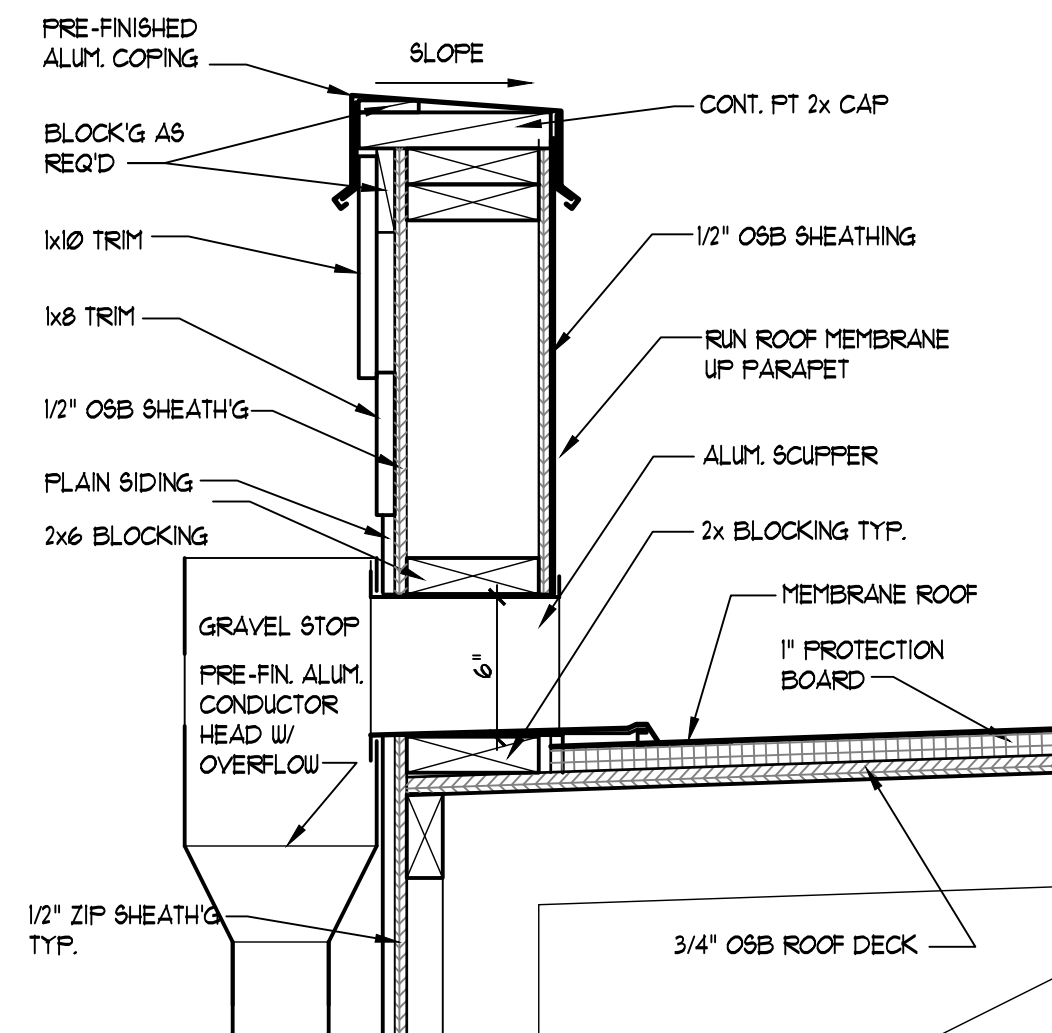
ISSUE DATE: 8-4-20
PROJECT #: 1939.01
DRN. CMC CHK. AML



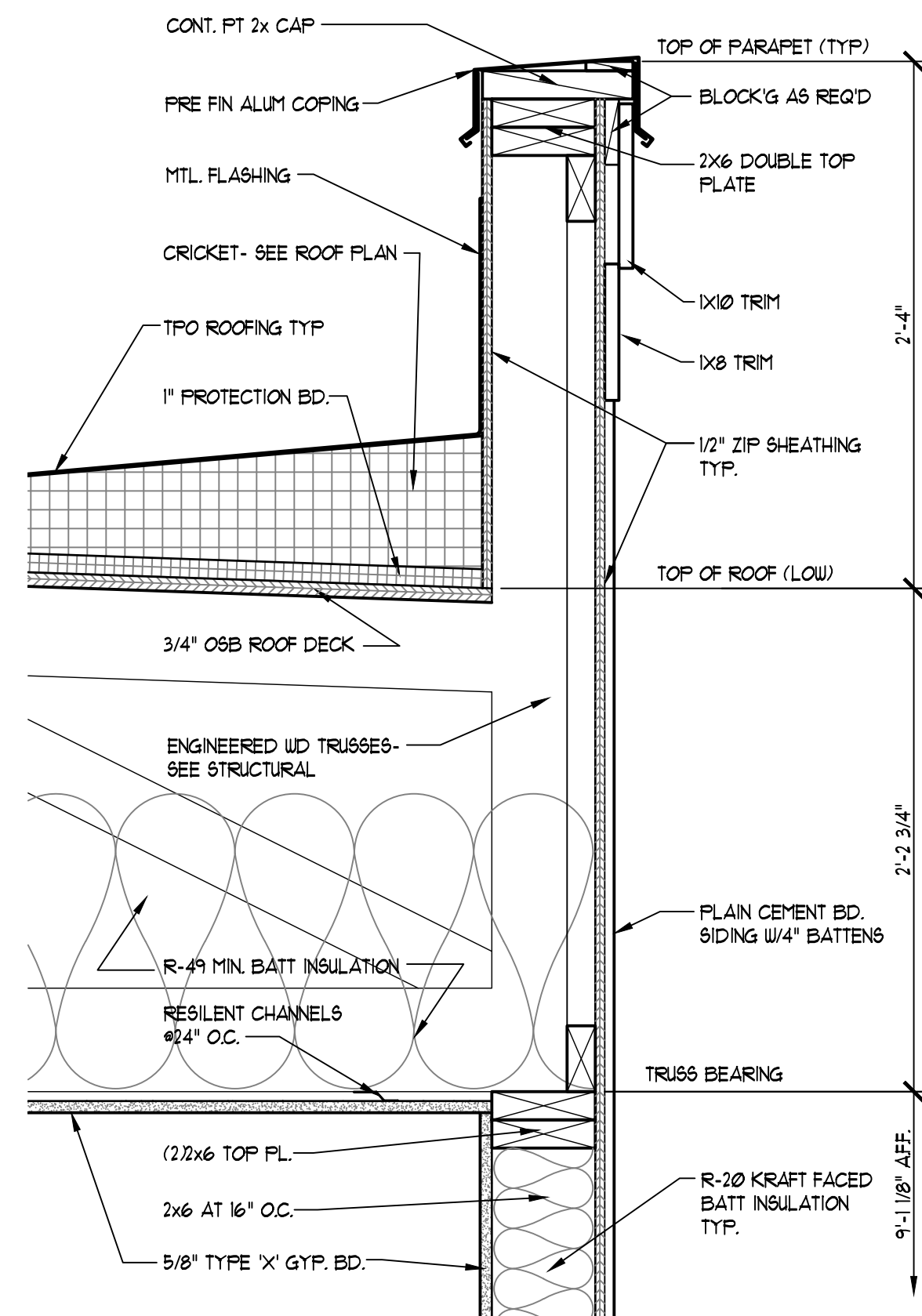
5 TYP. PARAPET DTL. @ HIGH ROOF
SCALE: 1/2" = 1'-0"



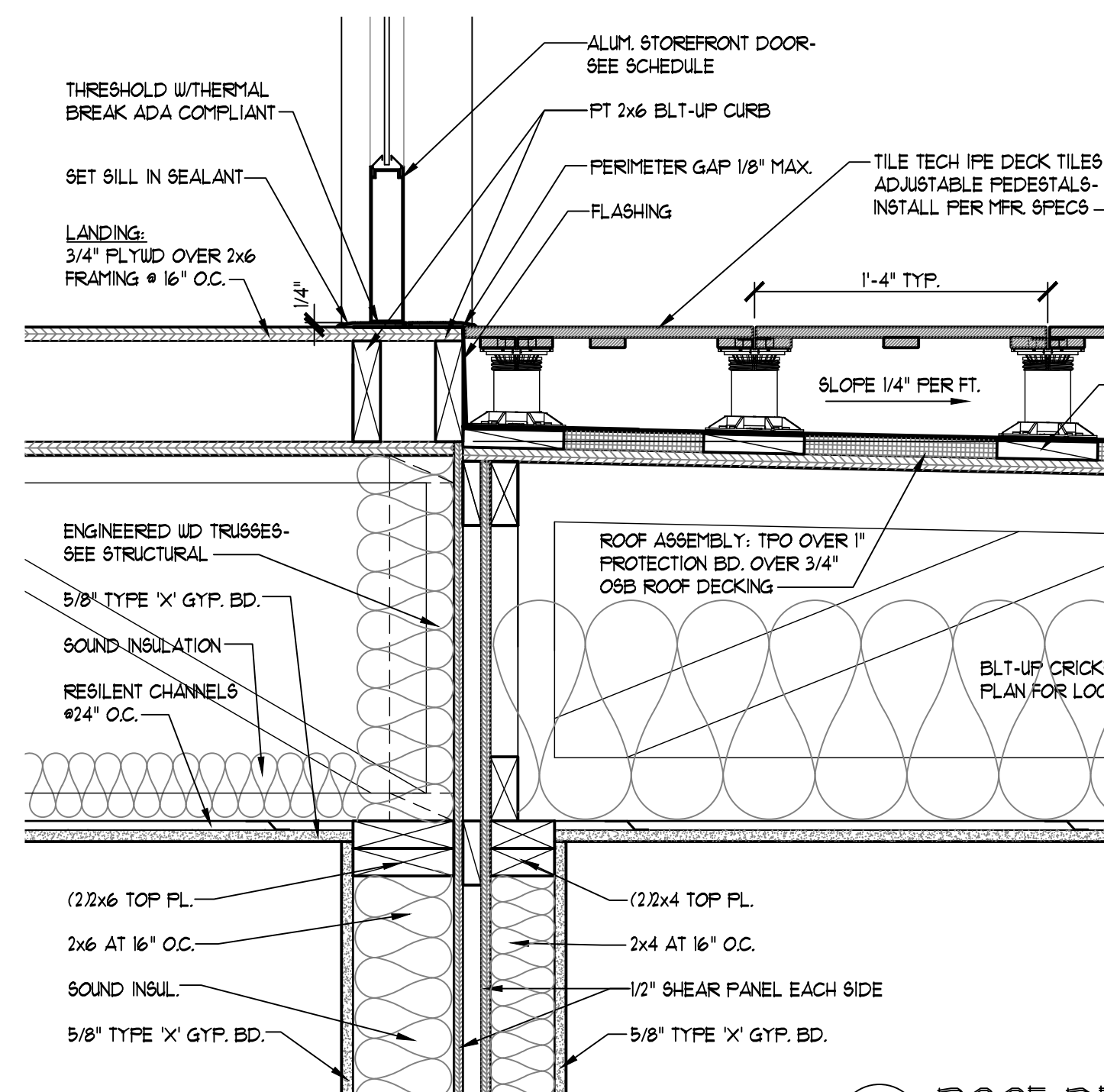
3 PARAPET DTL. @ NICHIIA/HIGH ROOF
SCALE: 1/2" = 1'-0"



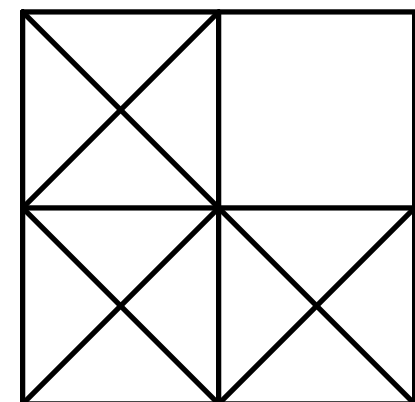
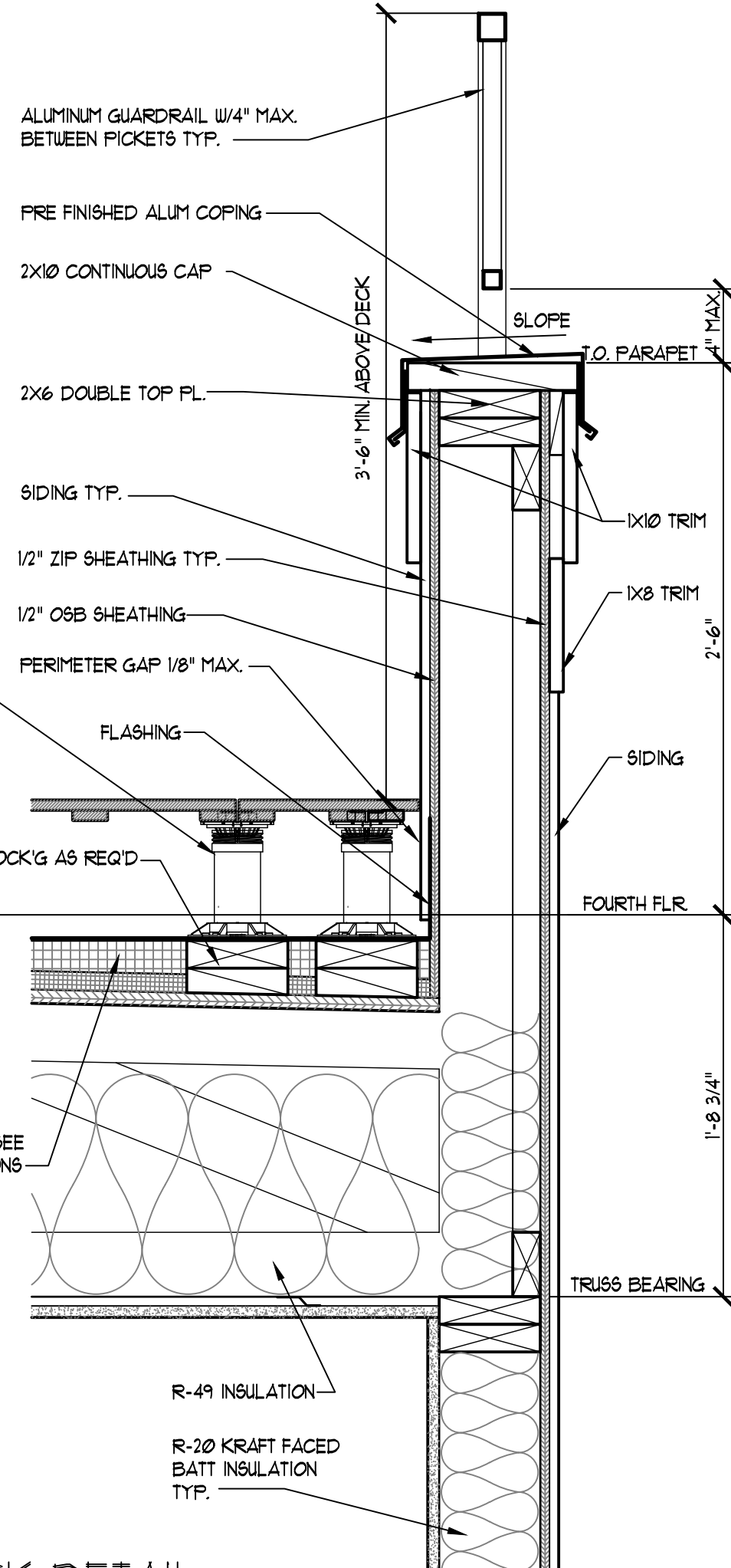
4 TYP. SCUPPER DETAIL
SCALE: 1/2" = 1'-0"



1 TYP. PARAPET DTL. @ LOW ROOF
SCALE: 1/2" = 1'-0"

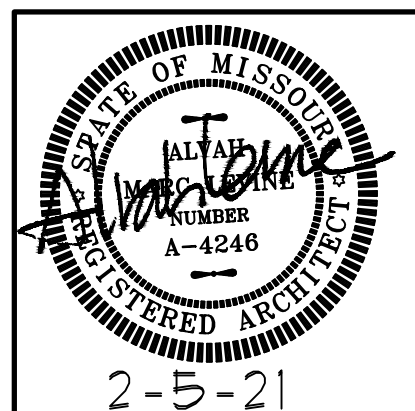


2 ROOF DECK DETAIL
SCALE: 1/2" = 1'-0"



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CERTIFICATE OF AUTHORITY
LICENSE NUMBER A-201804328

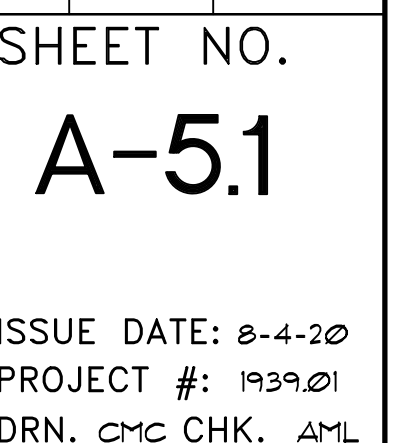
details

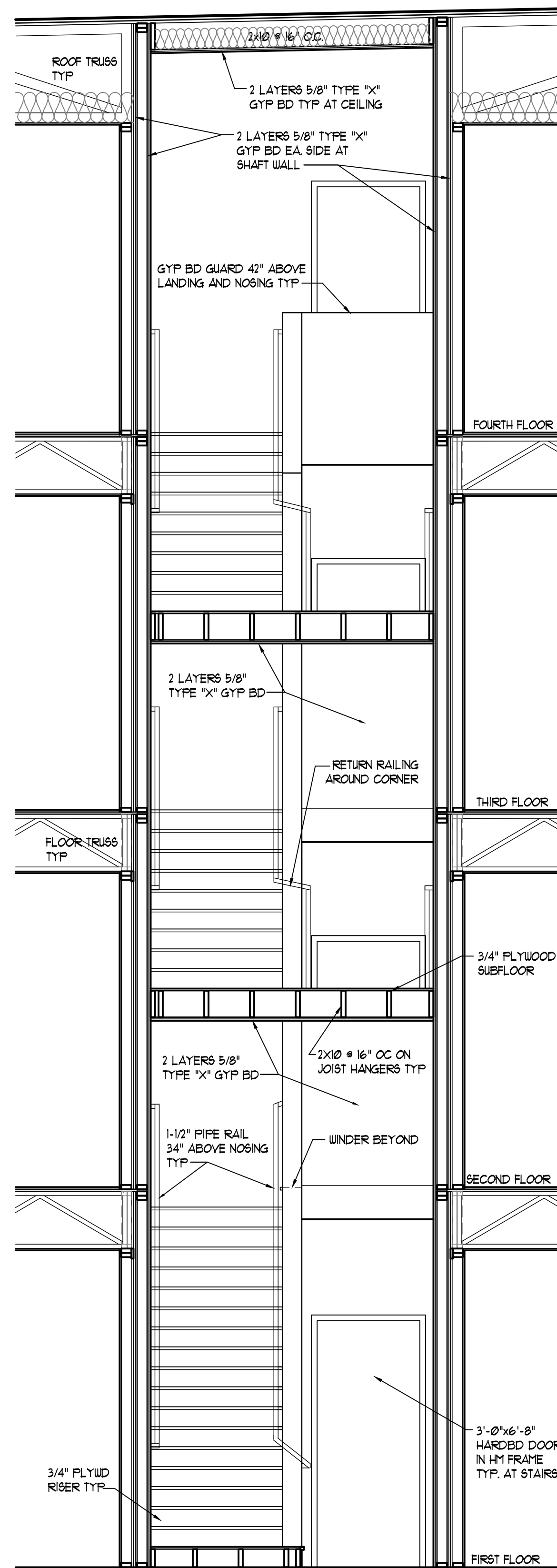
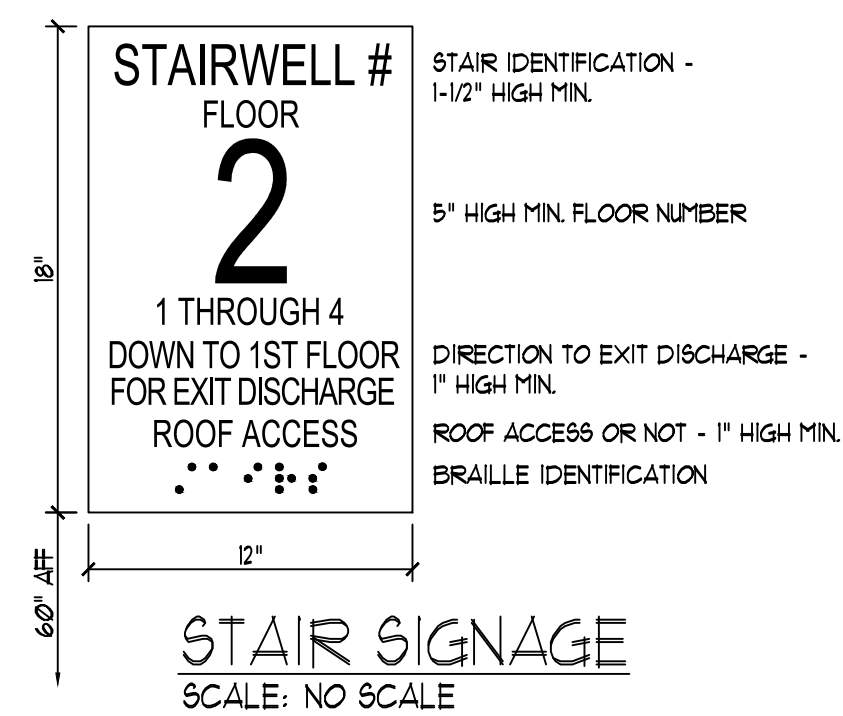
20 APARTMENTS
10809-10819 OLIVE BOULEVARD
CREVE COEUR, MISSOURI 63141
JLA GROUP, DEVELOPER

REVISIONS		
NO.	DATE	ITEM
1	10-26-20	creve cour
2	2-5-2021	re-revision

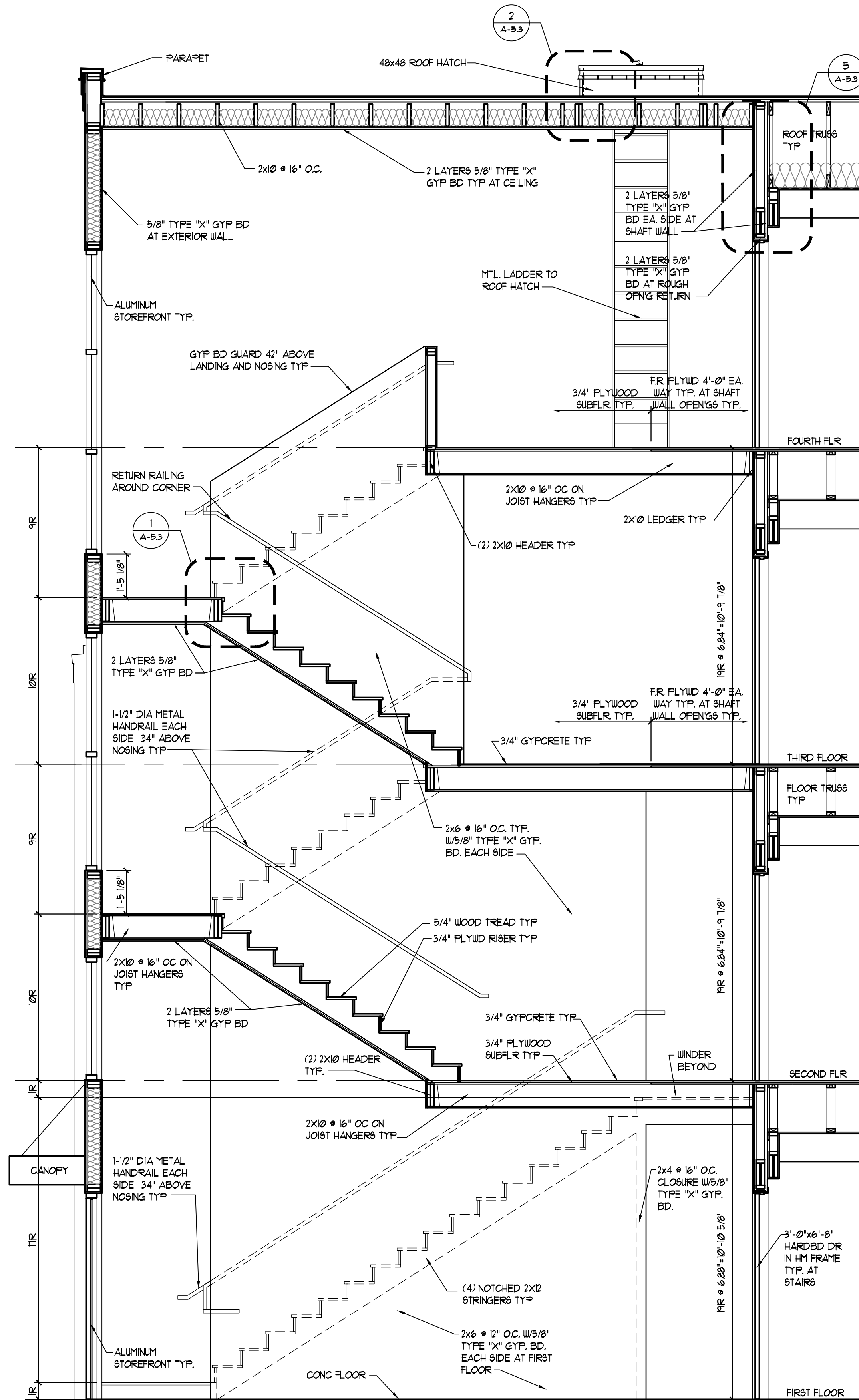
SHEET NO.
A-4.2

ISSUE DATE: 8-4-20
PROJECT #: 1939.01
DRN. CMC CHK. AML

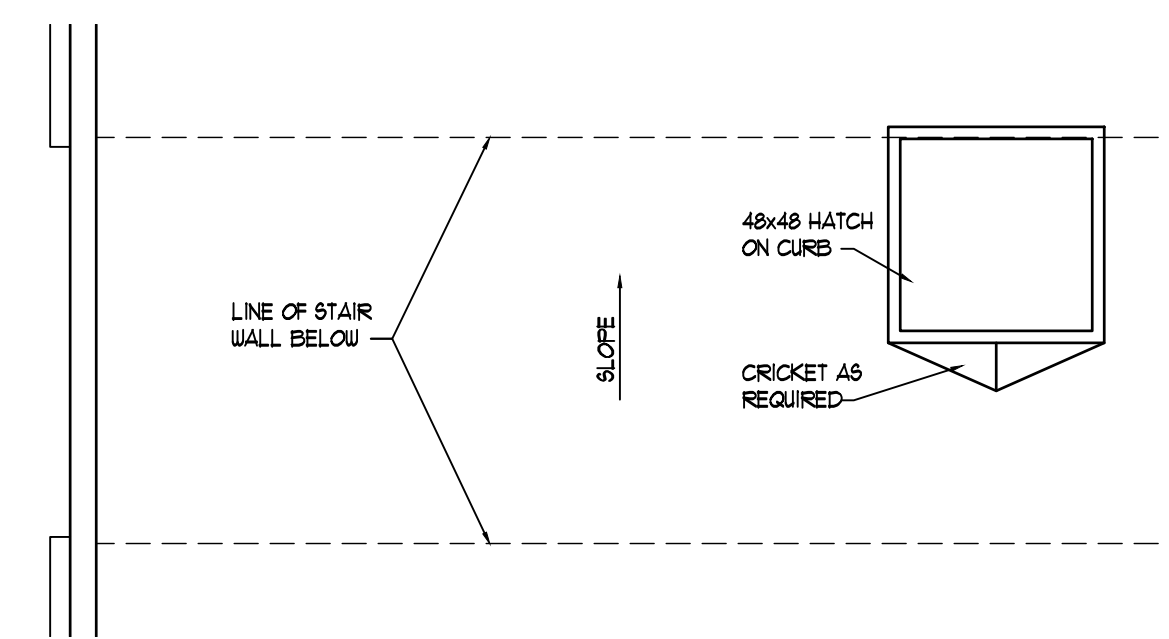




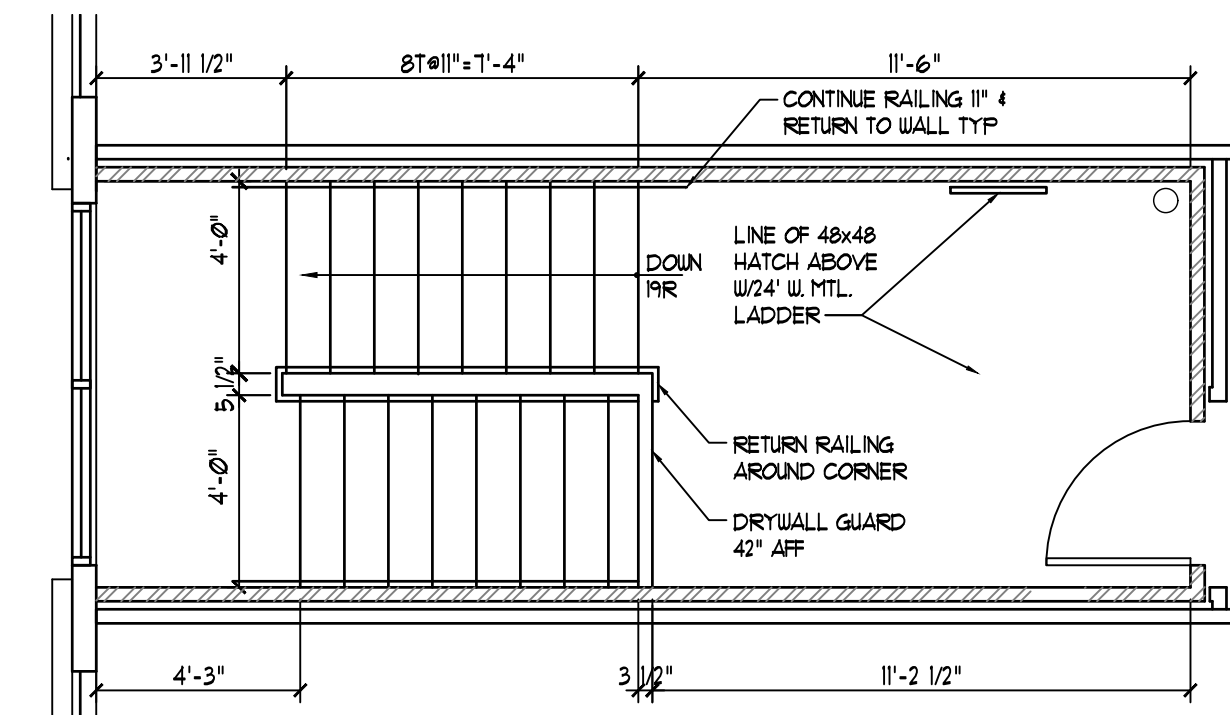
STAIR 2 LANDING SECTION
SCALE: 3/8" = 1'-0"



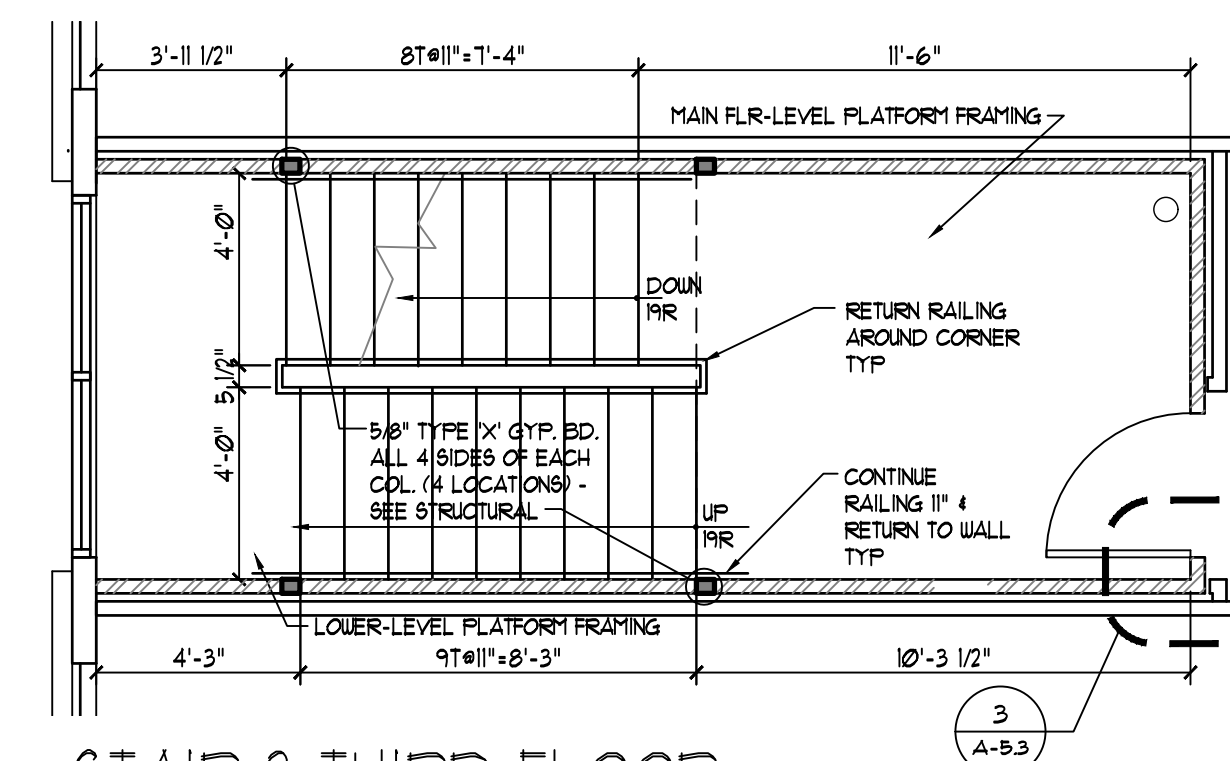
STAIR 2 AND ELEVATOR SECTION
SCALE: 3/8" = 1'-0"



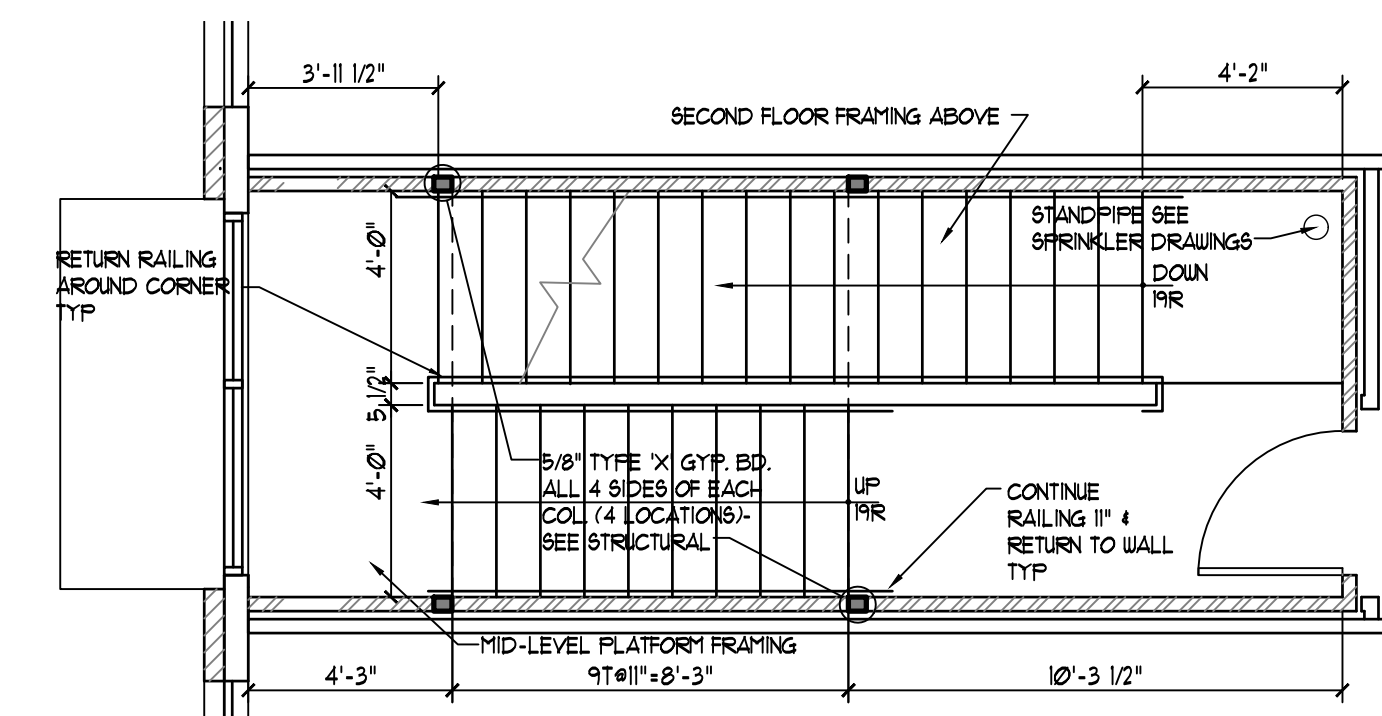
STAIR 2 ROOF
SCALE: 1/4" = 1'-0"



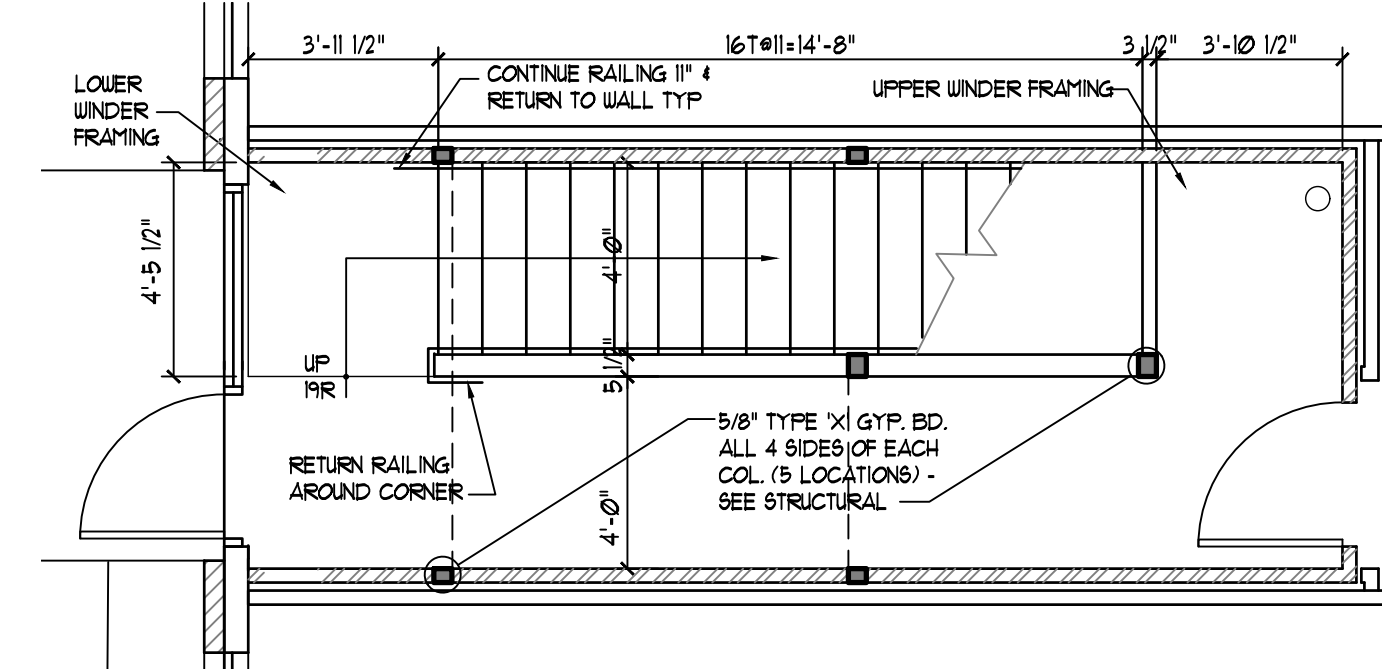
STAIR 2 FOURTH FLOOR
SCALE: 1/4" = 1'-0"



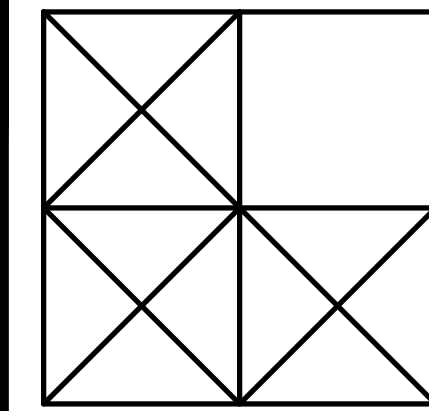
STAIR 2 THIRD FLOOR
SCALE: 1/4" = 1'-0"



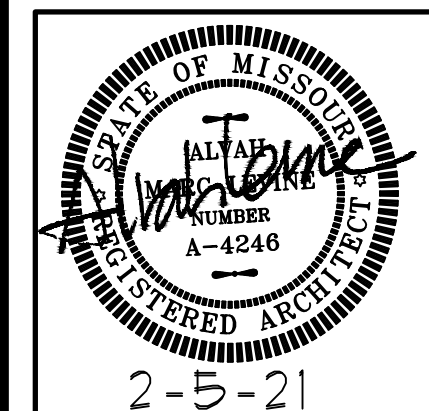
STAIR 2 SECOND FLOOR
SCALE: 1/4" = 1'-0"



STAIR 2 FIRST FLOOR
SCALE: 1/4" = 1'-0"



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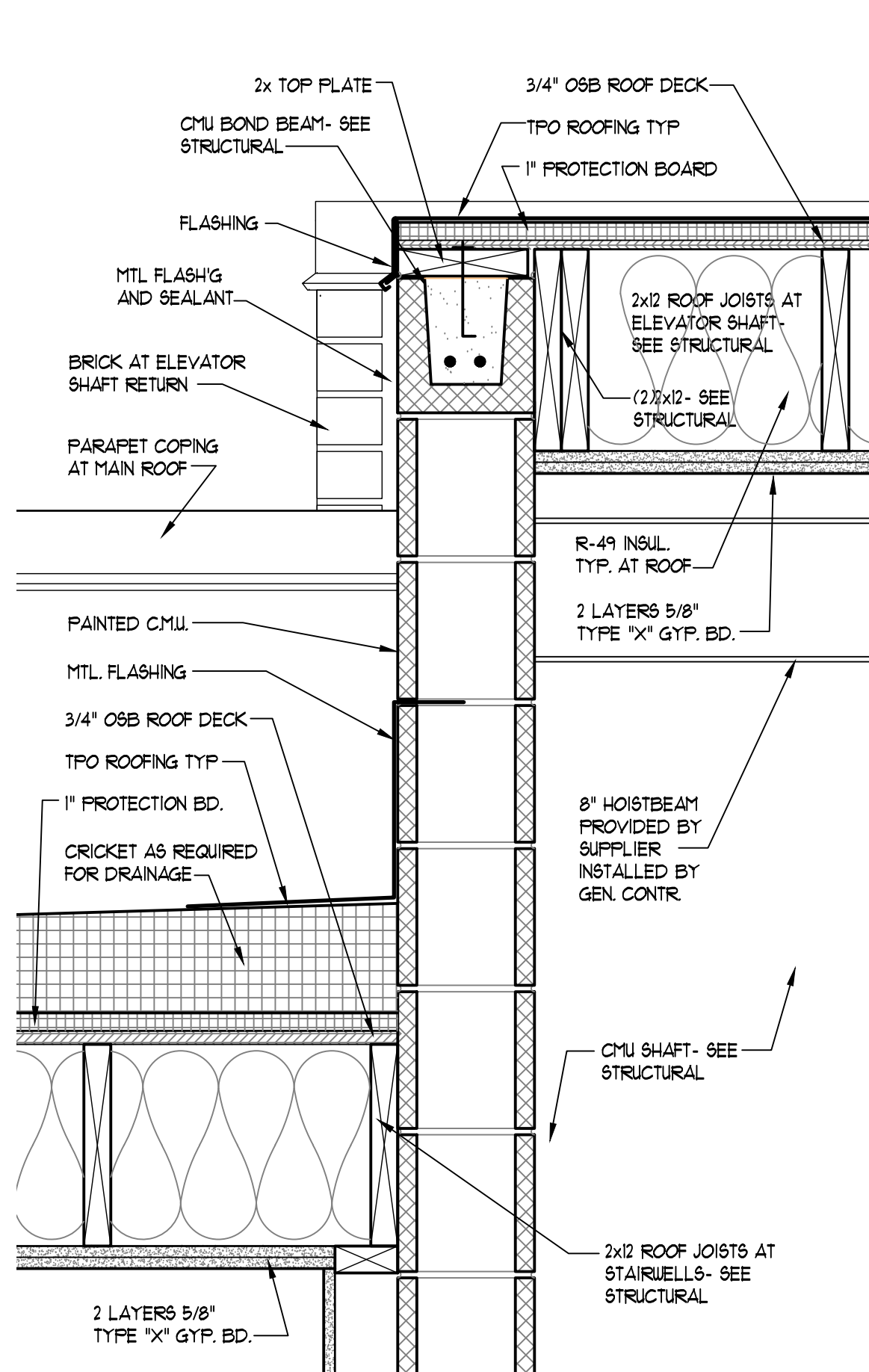
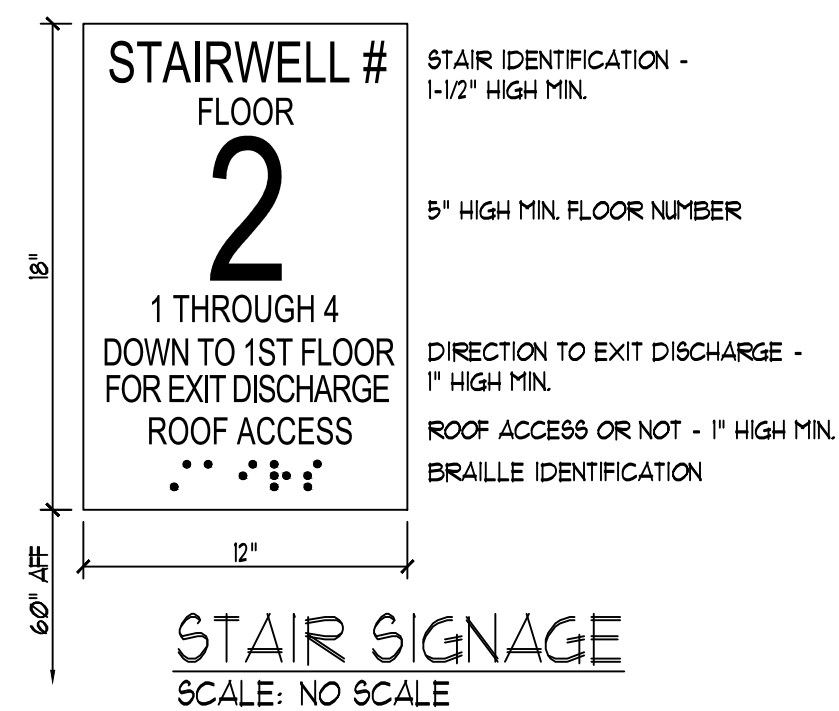
ARCHITECT: ALVAH M. LEVINE
MO LICENSE A-4246
ALVAH M. LEVINE, INC.
DIA LEVINE ASSOCIATES
CERTIFICATE OF AUTHORITY
LICENSE NUMBER A-201804328

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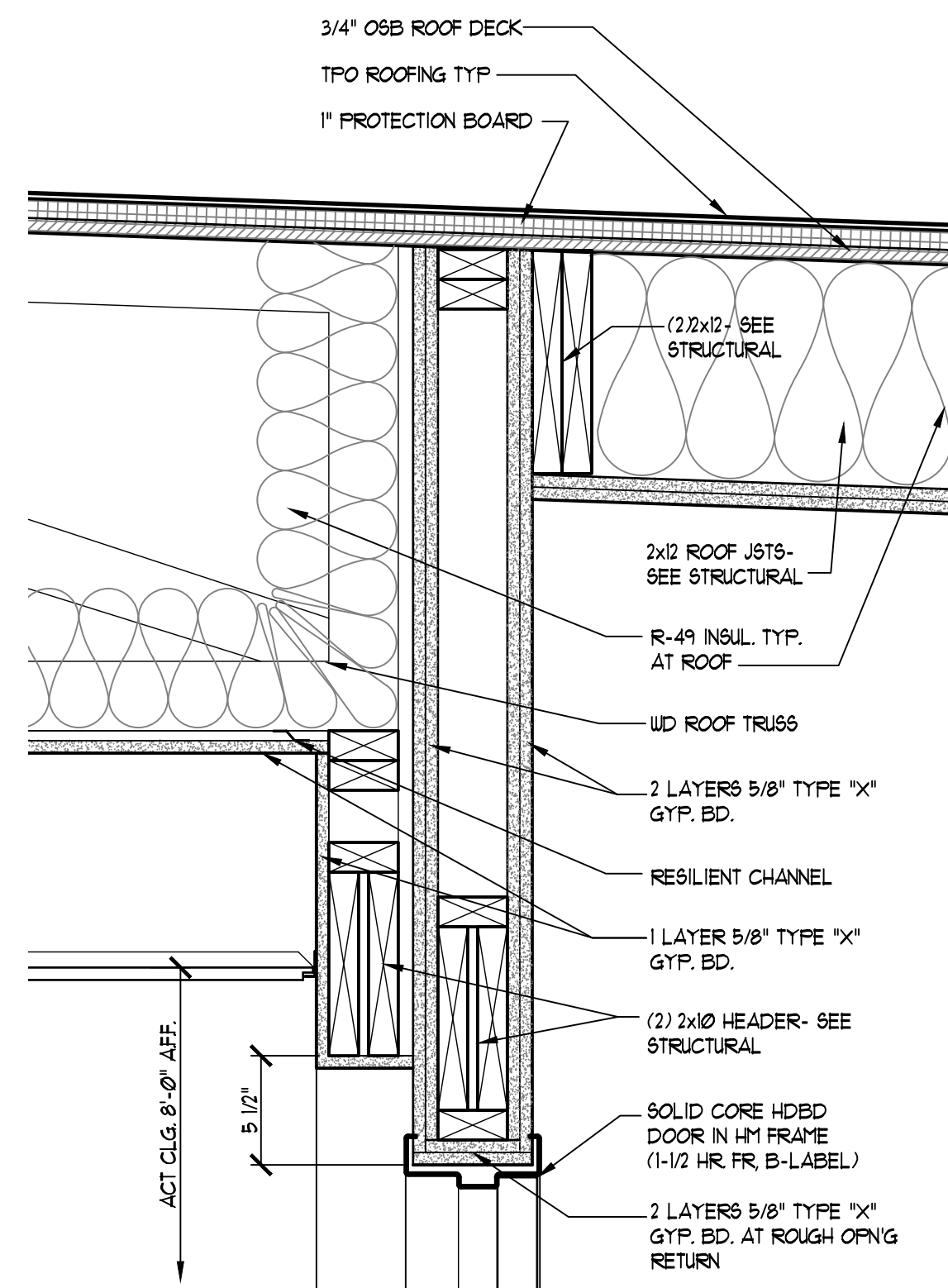
REVISIONS		
NO.	DATE	ITEM
1	10-26-20	creve cour
2	2-5-2021	re-rev/low

SHEET NO.
A-5.2

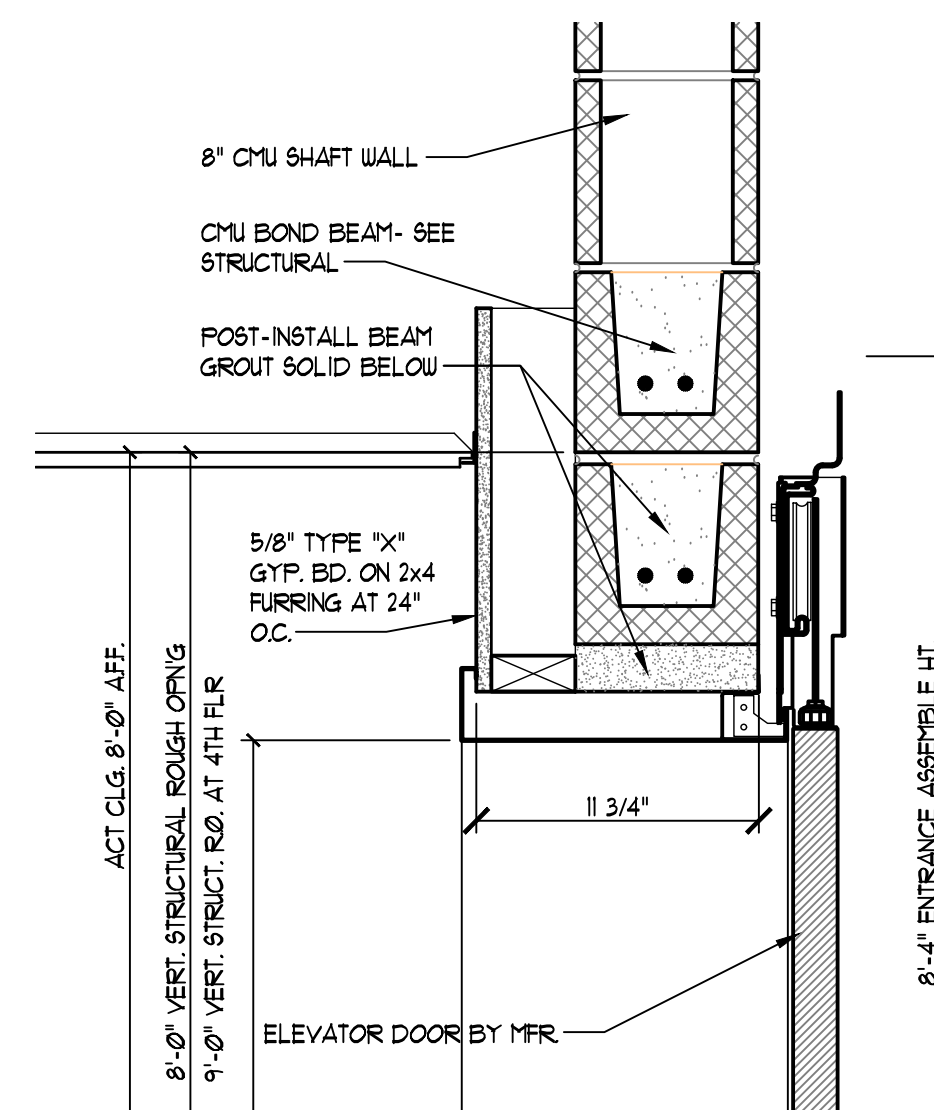
ISSUE DATE: 8-4-20
PROJECT #: 1939.01
DRN. CMC CHK. AML



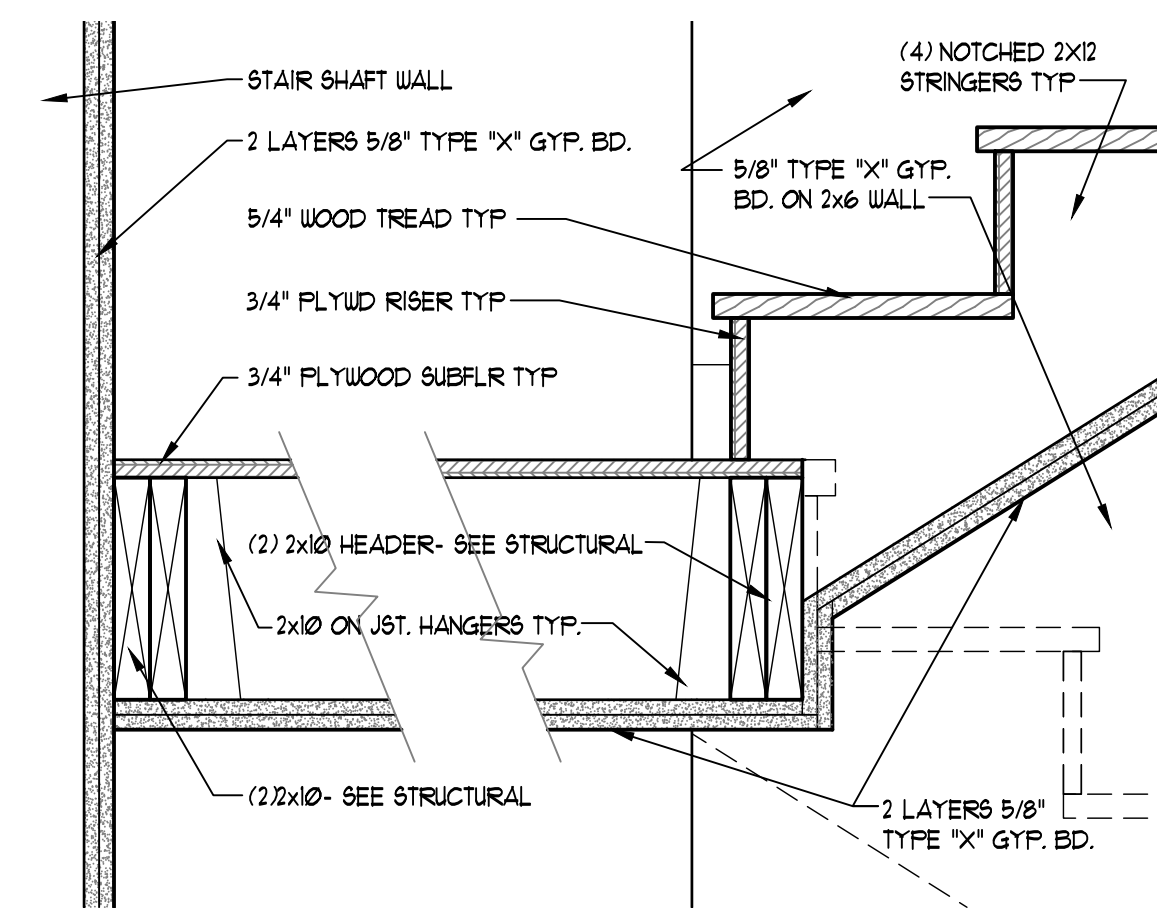
1 SECTION THRU ROOF/ELEVATOR SHAFT
SCALE: 1 1/2" = 1'-0"



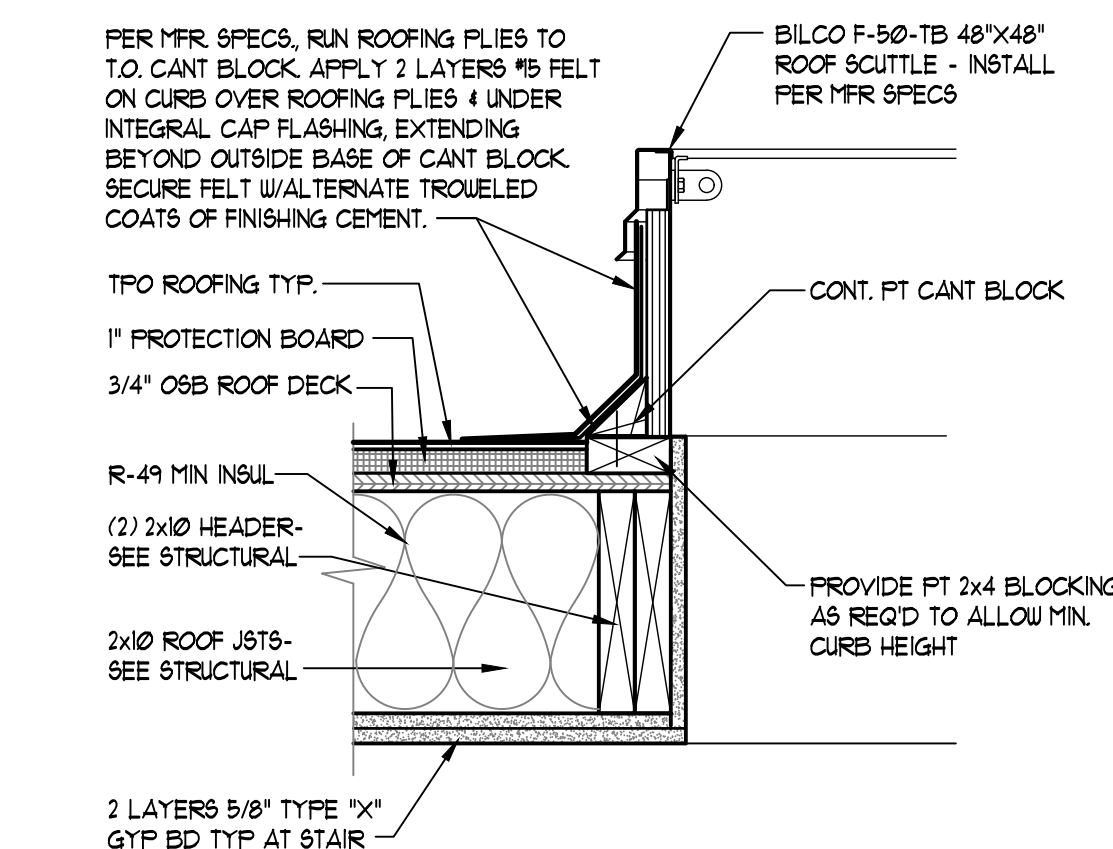
5 TYP. HEADER @ CORRIDOR/STAIR DR
SCALE: 1 1/2" = 1'-0"



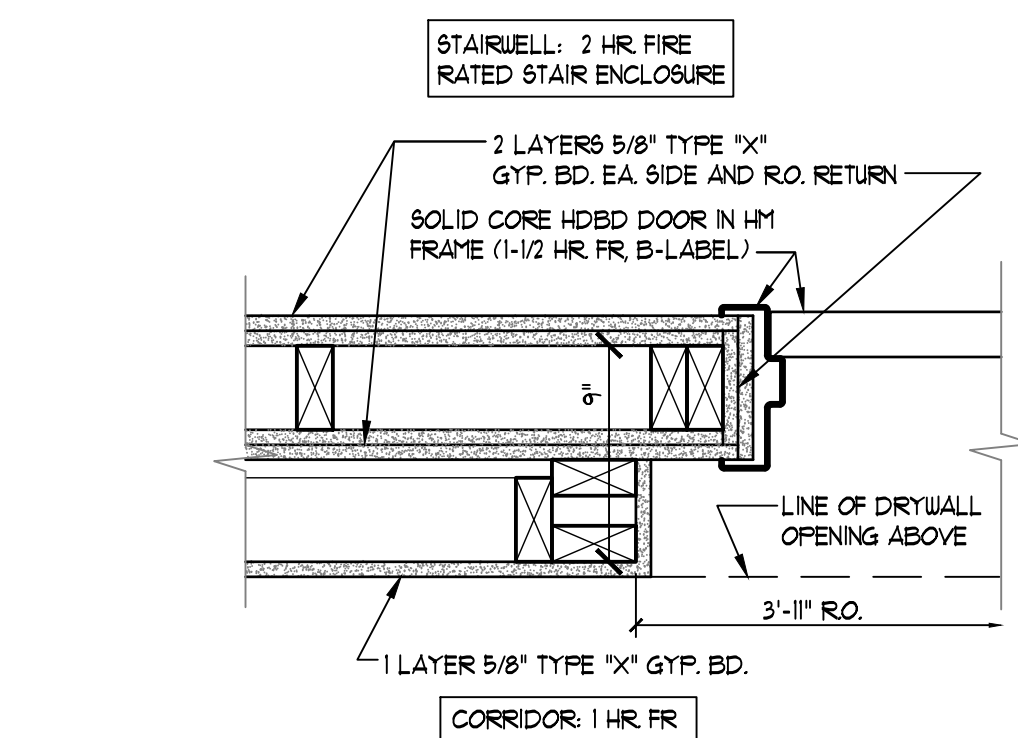
6 ELEVATOR DR DTLS. @ GROUND FLR.
SCALE: 1 1/2" = 1'-0"



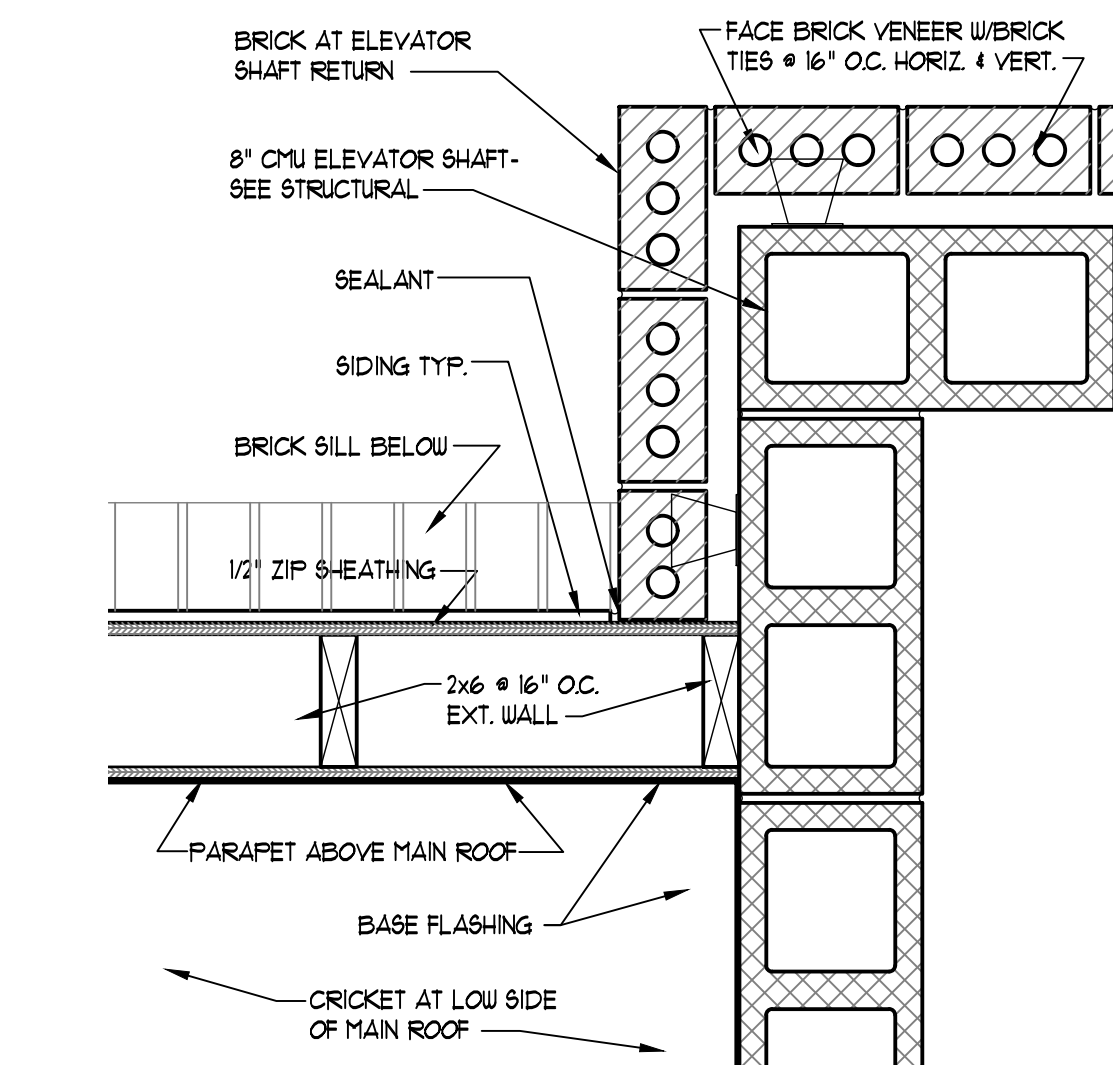
1 TYP. DETAIL AT STAIR LANDING
SCALE: 1 1/2" = 1'-0"



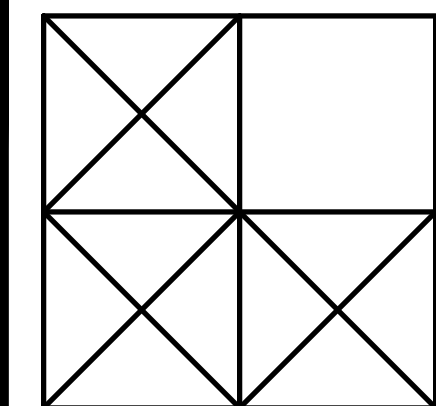
2 DETAIL AT ROOF HATCH
SCALE: 1 1/2" = 1'-0"



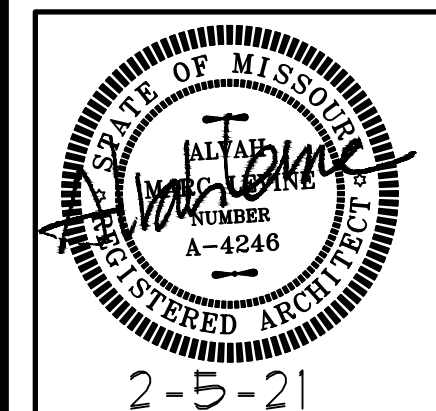
3 PLAN DTL. @ CORRIDOR/STAIR DR
SCALE: 1 1/2" = 1'-0"



4 PLAN DTL. @ ELEVATOR SHAFT/ROOF PARAPET
SCALE: 1 1/2" = 1'-0"



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ALVAN M. LEVINE, INC.
DIA LEVINE ASSOCIATES
CERTIFICATE OF AUTHORITY
LICENSE NUMBER A-2018040328

stair and elevator details
20 APARTMENTS
10809-10819 OLIVE BOULEVARD
CREVE COEUR, MISSOURI 63141
JLA GROUP, DEVELOPER

REVISIONS		
NO.	DATE	ITEM
1	10-26-20	creve cover
2	2-5-2021	re-revision

SHEET NO.
A-5.3

ISSUE DATE: 8-4-20
PROJECT #: 1939.01
DRN. CMC CHK. AML

TOILET ACCESSORY SCHEDULE

ALL TOILET ACCESSORIES TO BE STAINLESS STEEL FINISH OR CLOSEST MATCHING FINISH.

GRAB BARS: (EACH HANDICAP ACCESSIBLE TOILET)
BOBRICK B-5806 X 36 (HORIZONTAL)
BOBRICK B-5806 X 42 (HORIZONTAL)
BOBRICK B-5806 X 18 (VERTICAL)
1-1/4" DIA. SMOOTH, CONCEALED MOUNTING

MULTI-ROLL TOILET TISSUE DISPENSER: (AT EACH TOILET)
BOBRICK B-2888
SURFACE MOUNTED, LOCKABLE

MIRROR: (SEE INTERIOR ELEVATIONS)
FLATE GLASS IN ALUMI FRAME
BOBRICK B-165 SIZE AS DIMENSIONED ON PLANS

PAPER TOWEL DISPENSER: BY OWNER

SOAP DISPENSER: WALLMOUNTED
BOBRICK B-155

COAT HOOK (ON DOOR)
BOBRICK B-2116
SURFACE MOUNTED, CONCEALED MOUNTING

SANITARY NAPKIN DISPENSER
BOBRICK B-254
SURFACE MOUNTED, LOCKABLE

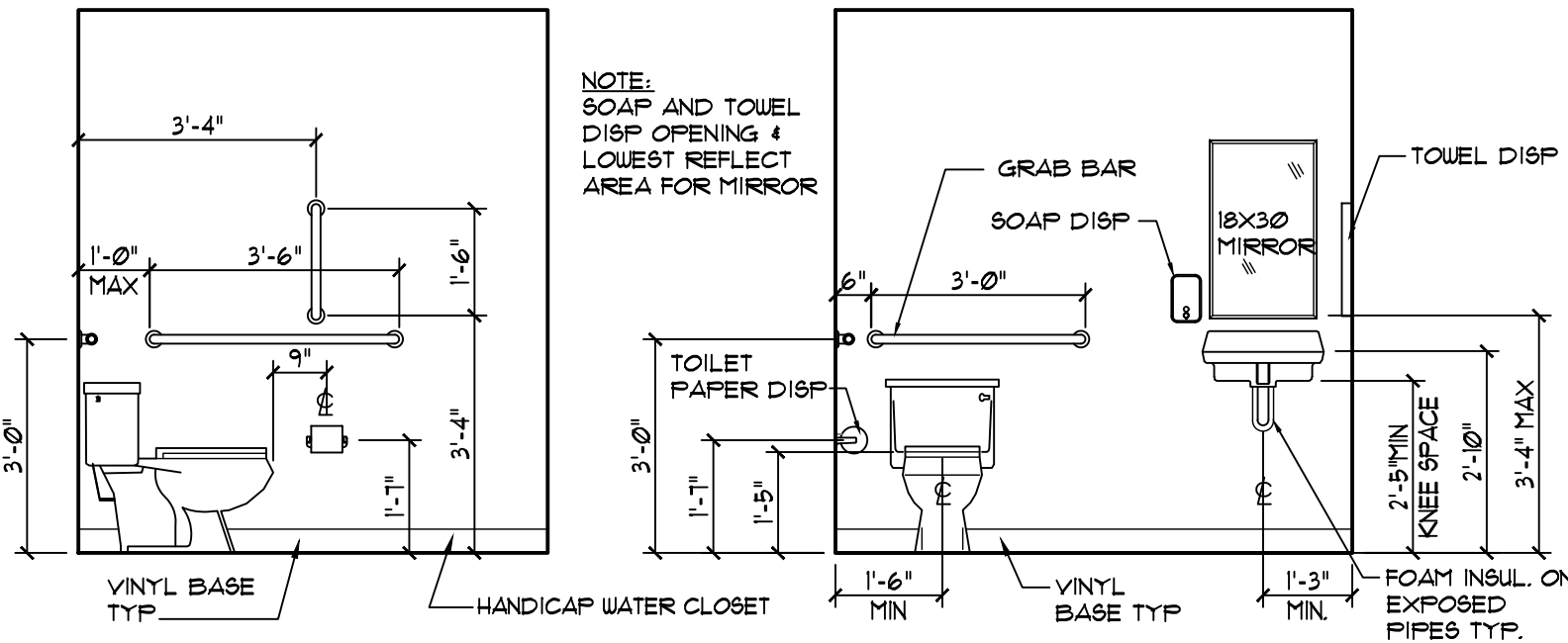
WASTE RECEPTACLE: (ONE MOUNTED NEAR EACH TOILET ENTRY)
BOBRICK B-3644 SEMI-RECESSED

SIGN:
PANEL SIGN FOR ADA TOILET
"MEN/WOMEN" WITH PICTOGRAM AND ADA WHEELCHAIR SYMBOL
"SIMILAR TO BEST SIGNS UP7288RB WITH GRADE 2 BRAILLE.

LOCATE SIGNS ADJACENT TO LATCH SIDE OF DOOR. MOUNT 60" AFF TO CENTERLINE OF SIGN AND 12" FROM FRAME TO CENTERLINE OF SIGN.

ROOM FINISH SCHEDULE

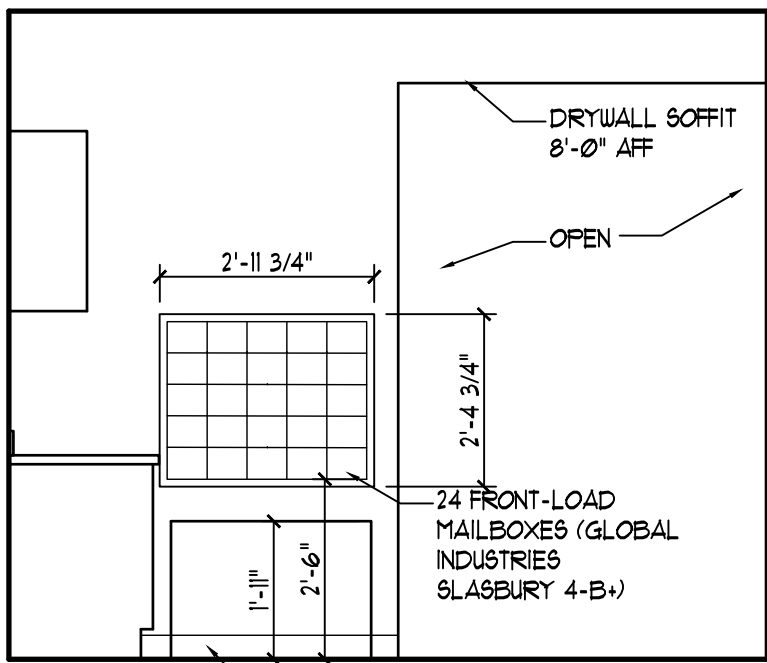
MARK	ROOM NAME	FLOOR	BASE	WALLS	CEILING	CLG HGT	REMARKS
111	STAIR 2	SEAL CONC/ CARPET	MDF	DW -PT	DW-PT	9'-0"	CARPET TREADS AND RISERS
112	CORRIDOR	LVT	MDF	DW -PT	ACT	8'-0"	
113	STAIR 1	SEAL CONC/ CARPET	MDF	DW -PT/ CHU-PT	DW-PT	9'-0"	CARPET TREADS AND RISERS
114	PACKAGES	LVT	MDF	DW -PT	ACT	8'-0"	
115	ELEVATOR LOBBY	LVT	MDF	DW -PT	ACT	8'-0"	
116	FURNACE	SEAL CONC	MDF	DW -PT	DW-PT	8'-0"	
117	RESTROOM	LVT	MDF	DW -PT	ACT	8'-0"	
118	SPRINKLER/ UTILITY	SEAL CONC	MDF	DW -PT	DW-PT	9'-0"	
119	OFFICE	LVT	MDF	DW -PT	ACT	8'-0"	
120	VESTIBULE	LVT	MDF	DW -PT	ACT	8'-0"	
121	LOBBY	LVT	MDF	DW -PT	DW-PT	9'-0"	
122	MAINTENANCE	SEAL CONC	MDF	DW -PT	DW-PT	9'-0"	
211	STAIR 2	CARPET	MDF	DW -PT	DW-PT	9'-0"	CARPET TREADS AND RISERS
212	CORRIDOR	CARPET	MDF	DW -PT	ACT	8'-0"	
213	STAIR 1	CARPET	MDF	DW -PT/ CHU-PT	DW-PT	9'-0"	CARPET TREADS AND RISERS
214	MAINTENANCE	VCT	MDF	DW -PT/ CHU-PT	DW-PT	9'-0"	
215	ELEVATOR LOBBY	LVT	MDF	DW -PT	ACT	8'-0"	
216	FURNACE	VCT	MDF	DW -PT	DW-PT	9'-0"	
217	RESTROOM	LVT	MDF	DW -PT	DW-PT	9'-0"	
218	BUSINESS	LVT	MDF	DW -PT	DW-PT	9'-0"	
219	CONFERENCE	LVT	MDF	DW -PT	DW-PT	9'-0"	
311	STAIR 2	CARPET	MDF	DW -PT	DW-PT	9'-0"	CARPET TREADS AND RISERS
312	CORRIDOR	CARPET	MDF	DW -PT	ACT	8'-0"	
313	STAIR 1	CARPET	MDF	DW -PT/ CHU-PT	DW-PT	9'-0"	CARPET TREADS AND RISERS
314	MAINTENANCE	VCT	MDF	DW -PT/ CHU-PT	DW-PT	9'-0"	
315	ELEVATOR LOBBY	LVT	MDF	DW -PT	ACT	8'-0"	
316	FURNACE	VCT	MDF	DW -PT	DW-PT	9'-0"	
317	RESTROOM	LVT	MDF	DW -PT	DW-PT	9'-0"	
318	WORKOUT	LVT	MDF	DW -PT	DW-PT	9'-0"	
411	STAIR 2	CARPET	MDF	DW -PT	DW-PT	-	CARPET TREADS AND RISERS DRYWALL ROOF JOISTS
412	CORRIDOR	CARPET	MDF	DW -PT	ACT	8'-0"	
413	STAIR 1	CARPET	MDF	DW -PT/ CHU-PT	DW-PT	-	CARPET TREADS AND RISERS DRYWALL ROOF JOISTS
414	ELEVATOR EQUIPMENT	VCT	MDF	DW -PT/ CHU-PT	DW-PT	9'-0"	
415	ELEVATOR LOBBY	LVT	MDF	DW -PT	ACT	8'-0"	LVT ON RAMP AND LANDING



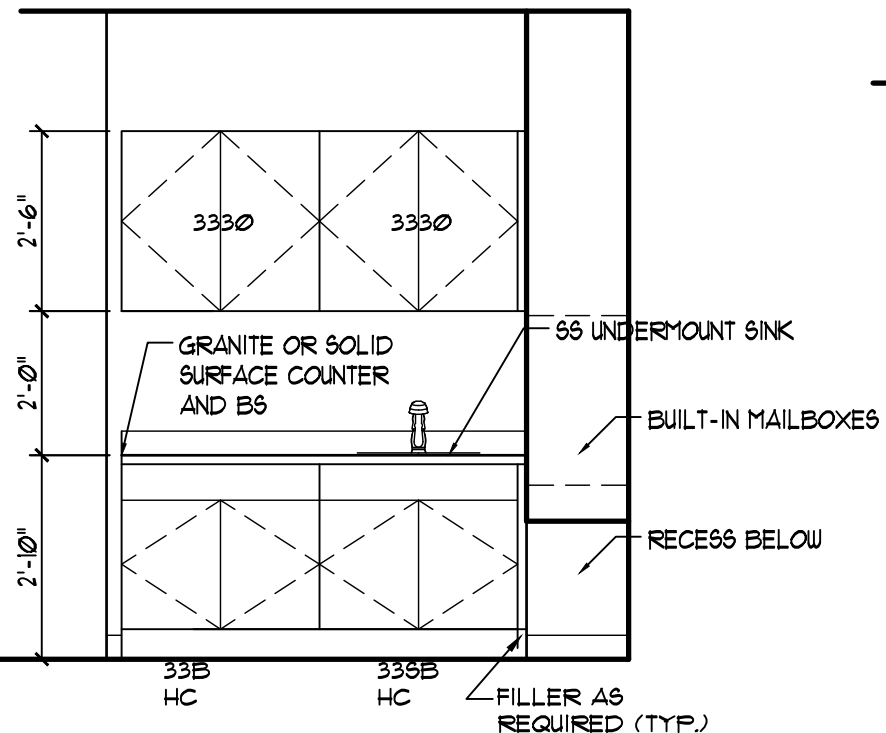
NOTES FOR HC ACCESSIBLE RESTROOMS

- TOILET FIXTURES AND ACCESSORIES SHALL BE INSTALLED IN COMPLIANCE WITH ADA ACCESSIBILITY GUIDELINES FOR BUILDINGS AND FACILITIES.
- GRAB BAR SHALL BE 1 1/2" CLEARANCE BETWEEN ADJACENT WALL OR PARTITION.
- GRAB BARS FASTENERS AND MOUNTING SUPPORTS SHALL WITHSTAND MINIMUM 250 LB POINT LOAD IN BENDING, SHEAR, AND TORSION.
- GRAB BARS SHALL NOT ROTATE WITHIN THEIR FITTINGS.
- ALL DIMENSIONS SHOWN ARE TO FINISH SURFACES.
- PROVIDE HANDICAP SIGNAGE AT TOILET ROOM DOOR

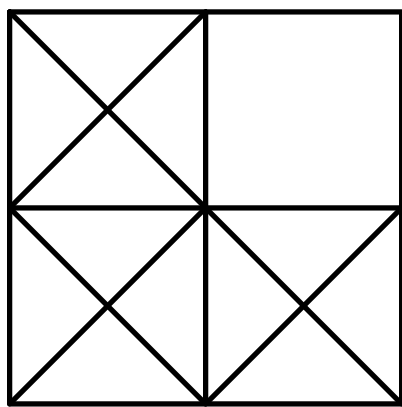
SINGLE OCCUPANCY TOILET
SCALE: 3/8" = 1'-0"



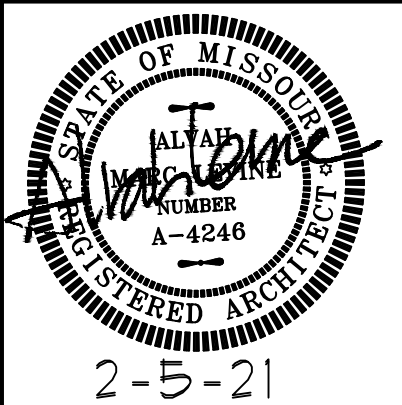
COFFEE BAR AND MAIL
SCALE: 3/8" = 1'-0"



RAMP TO ROOFTOP DECK
SCALE: 3/8" = 1'-0"



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LICENSE NUMBER A-2018040328

room finish schedule, interior elevations and partition types

20 APARTMENTS
10809-10819 OLIVE BOULEVARD
CREVE COEUR, MISSOURI 63141
JLA GROUP, DEVELOPER

REVISIONS		
NO.	DATE	ITEM
1	10-26-20	creve cover
2	2-5-2021	re-revision

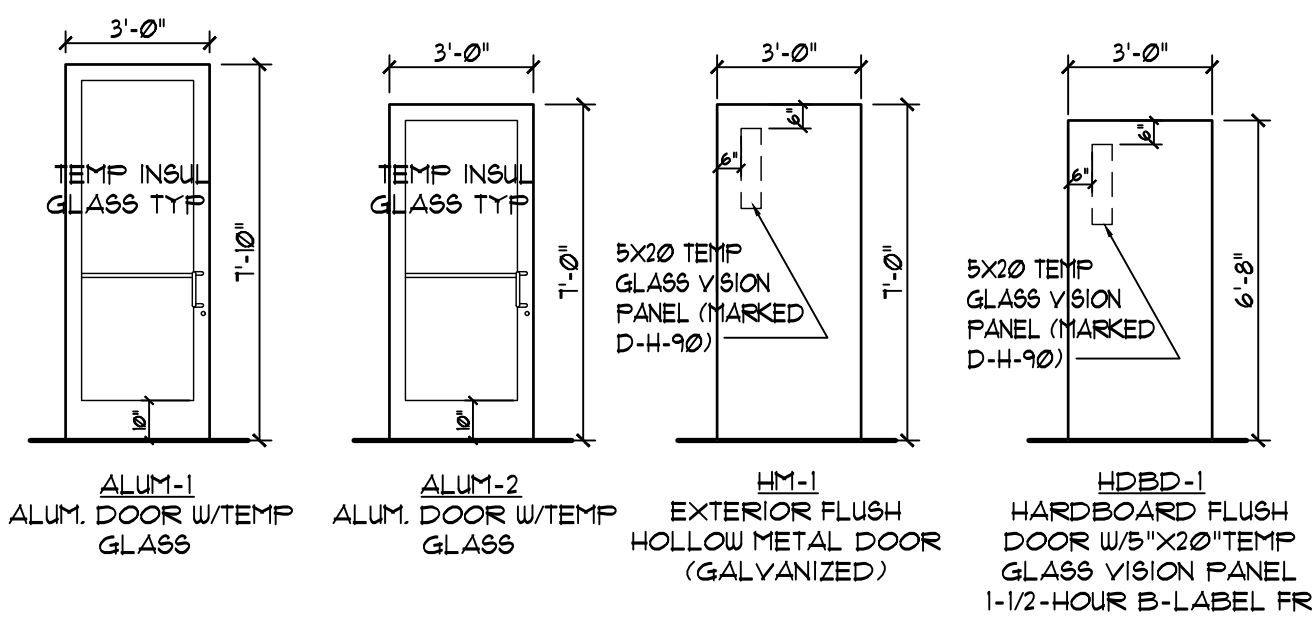
SHEET NO.
A-6.1

ISSUE DATE: 8-4-20
PROJECT #: 1939.01
DRN. CMC CHK. AML

DOOR SCHEDULE						
	DOOR		FRAME			REMARKS
MARK	SIZE	TYPE	TYPE	LABEL	H/W/L GROUP	
111a	3'-0"X 7'-0"	ALUM-2	AL-4		2	SEE STOREFRONT ELEV AL-6.1,2 FOR WINDOWS ABOVE
111b	3'-0"X 6'-8"	HDBD-1	HM-2	1/2 HR B-LABEL	8	
113a	3'-0"X 6'-8"	HDBD-1	HM-2	1/2 HR B-LABEL	8	
113b	3'-0"X 7'-0"	HM-1	HM-1		3	
114a	3'-0"X 6'-8"	HDBD-2	HM-2		20 MIN	
114a	3'-0"X 6'-8"	HDBD-2	HM-2		4	
115a	ELEVATOR DOOR 3'-6"X 7'-0"	-	-	1/2 HR B-LABEL	-	ELEVATOR DOOR BY SUPPLIER
115b	3'-0"X 6'-8"	HDBD-2	HM-3		20 MIN	20 MIN FIRE-RATED GLASS SIDELIGHT
116	3'-0"X 6'-8"	HDBD-2	HM-2		4	
117	3'-0"X 6'-8"	HDBD-2	HM-2		7	
118	3'-0"X 6'-8"	HDBD-2	HM-2		4	
119	3'-0"X 6'-8"	HDBD-2	HM-2		5	SEE STOREFRONT ELEV AL-3
120a	3'-0"X 7'-10"	ALUM-1	AL-1		1	
120b	3'-0"X 6'-8"	HDBD-2	HM-3		6	SEE BORROUOLIGHT ELEV HM-4
121	3'-0"X 7'-10"	ALUM-1	AL-2		1	SEE STOREFRONT ELEV AL-3
122	3'-0"X 7'-0"	HM-1	HM-1		3	
211	3'-0"X 6'-8"	HDBD-1	HM-2	1/2 HR B-LABEL	8	
213	3'-0"X 6'-8"	HDBD-1	HM-2	1/2 HR B-LABEL	8	
214	3'-0"X 6'-8"	HDBD-1	HM-2		20 MIN	4
215	ELEVATOR DOOR 3'-6"X 7'-0"	-	-	1/2 HR B-LABEL	-	ELEVATOR DOOR BY SUPPLIER
216	3'-0"X 6'-8"	HDBD-2	HM-2		4	
217	3'-0"X 6'-8"	HDBD-2	HM-2		7	
218	3'-0"X 6'-8"	HDBD-2	HM-3		20 MIN	20 MIN FIRE-RATED GLASS SIDELIGHT
219	3'-0"X 6'-8"	HDBD-2	HM-2		8	
311	3'-0"X 6'-8"	HDBD-1	HM-2	1/2 HR B-LABEL	8	
313	3'-0"X 6'-8"	HDBD-1	HM-2	1/2 HR B-LABEL	8	
314	3'-0"X 6'-8"	HDBD-2	HM-2		20 MIN	4
315	ELEVATOR DOOR 3'-6"X 7'-0"	-	-	1/2 HR B-LABEL	-	ELEVATOR DOOR BY SUPPLIER
316	3'-0"X 6'-8"	HDBD-2	HM-2		4	
317	3'-0"X 6'-8"	HDBD-2	HM-2		7	
318	3'-0"X 6'-8"	HDBD-2	HM-3		20 MIN	20 MIN FIRE-RATED GLASS SIDELIGHT
411	3'-0"X 6'-8"	HDBD-1	HM-2	1/2 HR B-LABEL	8	
413	3'-0"X 6'-8"	HDBD-1	HM-2	1/2 HR B-LABEL	8	
414	3'-6"X 6'-8"	HDB-2	HM-2		45 MIN	4
415a	ELEVATOR DOOR 3'-6"X 7'-0"	-	-	1/2 HR B-LABEL	-	ELEVATOR DOOR BY SUPPLIER
415b	3'-0"X 7'-0"	HM-1	HM-1		20 MIN	10 ALWAYS OPERABLE FROM EXTERIOR
416	3'-0"X 6'-8"	HM-1	HM-2		45 MIN	8

DOOR AND HARDWARE NOTES

- ALL ALUMINUM DOORS TO BE MEDIUM STYLE ALUMINUM WITH INSUL TEMP GLASS. PROVIDE 10" HIGH BOTTOM RAIL.
- EXTERIOR HUNG DOORS TO BE 18 GA HOLLOW METAL DOORS (GALVANIZED) IN 1/4 GAGE WELDED HOLLOW METAL FRAMES (GALVANIZED).
- INTERIOR HOLLOW METAL FRAMES TO BE 18 GA KNOCK-DOWN HOLLOW METAL FRAMES.
- INTERIOR FLUSH HARDBOARD DOORS TO BE PRE-PRIMED FOR PAINT FINISH.
- ALL LOCKSETS TO BE 1-IN BY BEST HARDWARE.
- ALL NEW DOOR HARDWARE TO HAVE LEVER HANDLES. NO HARDWARE REQUIRING TIGHT GRIPPING OR TWISTING PERMITTED.
- COORDINATE WITH OWNER'S SECURITY SYSTEM. PROVIDE ELECTRONIC STRIKES AND KEY FOB READERS WHERE INDICATED.
- MASTER KEY SYSTEM PER OWNER'S REQUIREMENTS.
- GLAZING IN 20 MINUTE RATED OPENINGS TO BE MARKED D-H-04-20. GLAZING IN 90 MINUTE FIRE RATED DOORS TO BE MARKED D-H-90.

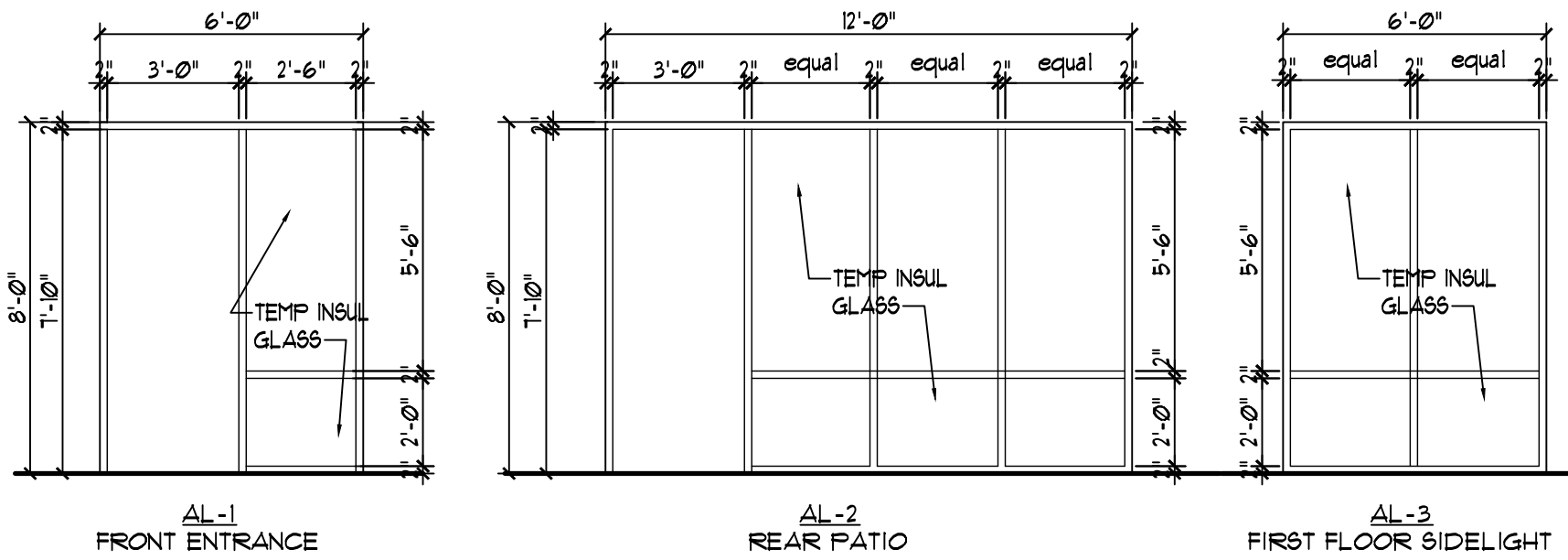


DOOR TYPES
SCALE: 1/4" = 1'-0"

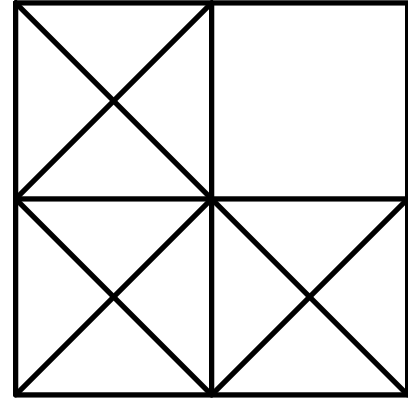
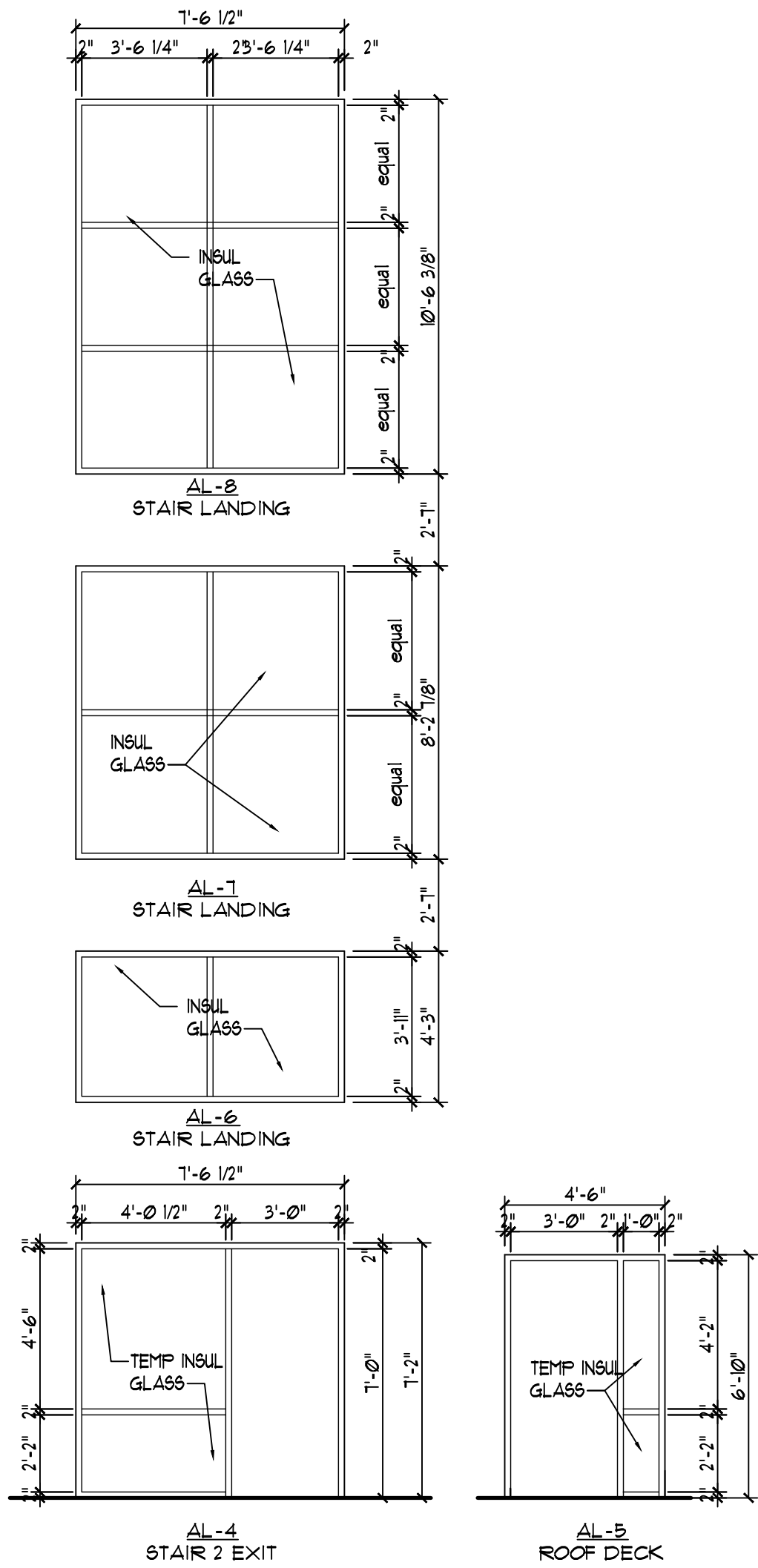
HARDWARE SCHEDULE

- Group 1--7'-10" aluminum entrance door
lock cylinder
paddle release
exterior pull
all other hardware by door supplier including: hinges, closers, weatherstripping, flat threshold, sweep.
- Group 2--7' aluminum entrance door
lock cylinder
paddle release
exterior pull
all other hardware by door supplier including: hinges, closer, weatherstripping, flat threshold, sweep.
(Reverse hardware for rooftop door)
- Group 3--Single exterior hollow metal door
hinges NRP
storeroom lockset
lockguard
closer
flat threshold
weatherstripping
sweep
- Group 4--Storage closet door
hinges
storeroom lockset
34x10 kickplate
wall bumper
- Group 5--Office entry door
1-1/2 pr Butts
office entry lockset
wall bumper
- Group 6--Vestibule Door
hinges
keyed cylindrical lockset
electric strike
34x10 kickplate
wall bumper
- Group 7--single occupancy toilet
hinges
privacy lockset
wall bumper
- Group 8--Single passage door
hinges
passage lockset
wall bumper
(including 1-1/2 hour 'B'-label stair doors)
- Group 9--Single locked interior door
hinges
keyed cylindrical lock
closer
wall bumper
34x10 kickplate
- Group 10--Rooftop deck
hinges
keyed cylindrical lockset (always operable from exterior)
closer
weatherstripping
flat threshold
sweep

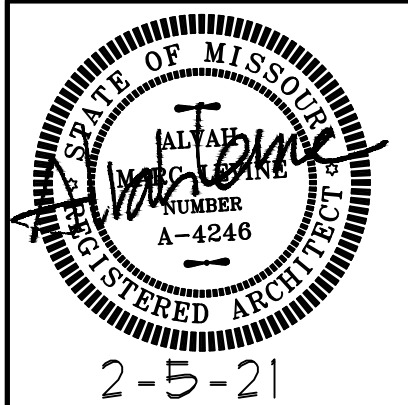
HOLLOW METAL FRAME TYPES
SCALE: 1/4" = 1'-0"



ALUMINUM FRAME TYPES
SCALE: 1/4" = 1'-0"



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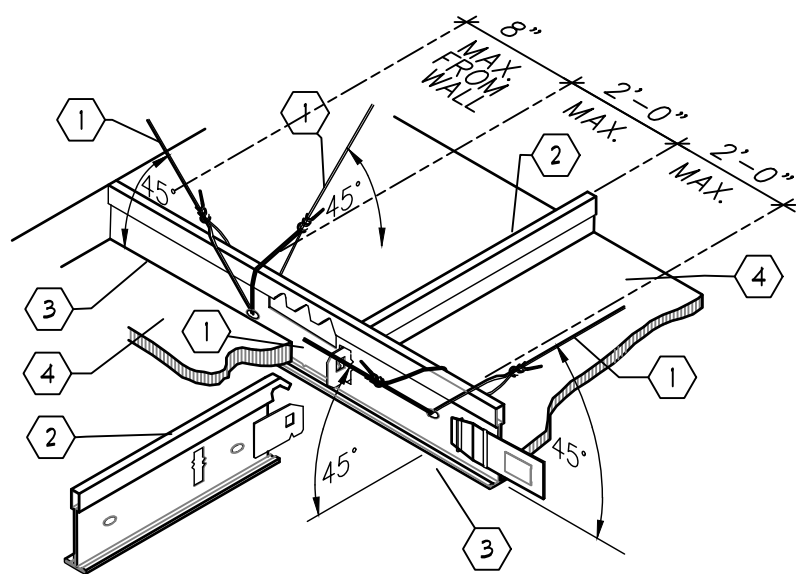


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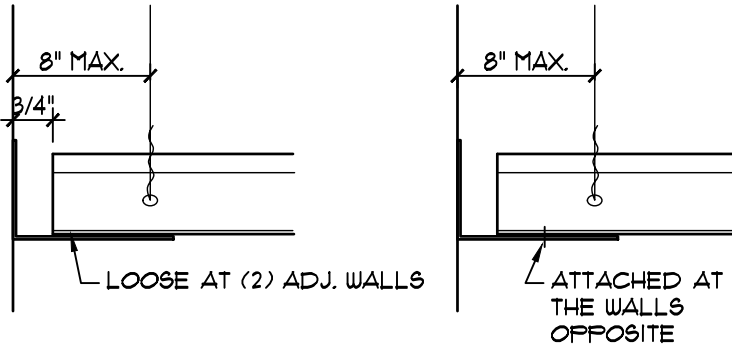
doors and hardware
20 APARTMENTS
10809-10819 OLIVE BOULEVARD
CREVE COEUR, MISSOURI 63141
JLA GROUP, DEVELOPER

REVISIONS		
NO.	DATE	ITEM
1	10-26-20	creve couer
2	2-5-2021	re-revlow

SHEET NO.
A-6.2
ISSUE DATE: 8-4-20
PROJECT #: 1939.01
DRN. CMC CHK. AML



- 1 12 GAUGE HANGER WIRE. SPLAY WIRE IN PLANE OF EACH RUNNER - VERTICAL ANGLE 45°
- 2 CROSS RUNNER TEE
- 3 MAIN RUNNER TEE
- 4 ACOUSTICAL CEILING TILE



THE WIDTH OF THE PERIMETER SUPPORTING CLOSURE ANGLE SHALL BE NOT LESS THAN 2". IN EACH ORTHOGONAL HORIZONTAL DIRECTION ONE END OF THE CEILING GRID SHALL BE ATTACHED TO THE CLOSURE ANGLE. THE OTHER END IN EACH HORIZONTAL DIRECTION SHALL HAVE A 3/4" CLEARANCE FROM THE WALL AND SHALL REST UPON AND BE FREE TO SLIDE ON THE 2" CLOSURE ANGLE. THE MAIN AND CROSS RUNNERS SHALL BE TIED TOGETHER TO PREVENT TWISTING.

HORIZONTAL RESTRAINT (4 SPLAYED WIRES SHOWN) SHALL BE PROVIDED 12'-0" OC EACH DIRECTION AND A MAXIMUM OF 4'-0" FROM WALLS. PROVIDE ADDITIONAL VERTICAL SUSPENSION WIRES AT EACH CORNER OF ALL DEVICES (LIGHT FIXTURES, HVAC DIFFUSERS, ETC). SUSPENSION WIRE SHALL NOT BEND AROUND OBSTRUCTIONS REFER TO SPECIFICATIONS FOR FURTHER REQUIREMENTS.

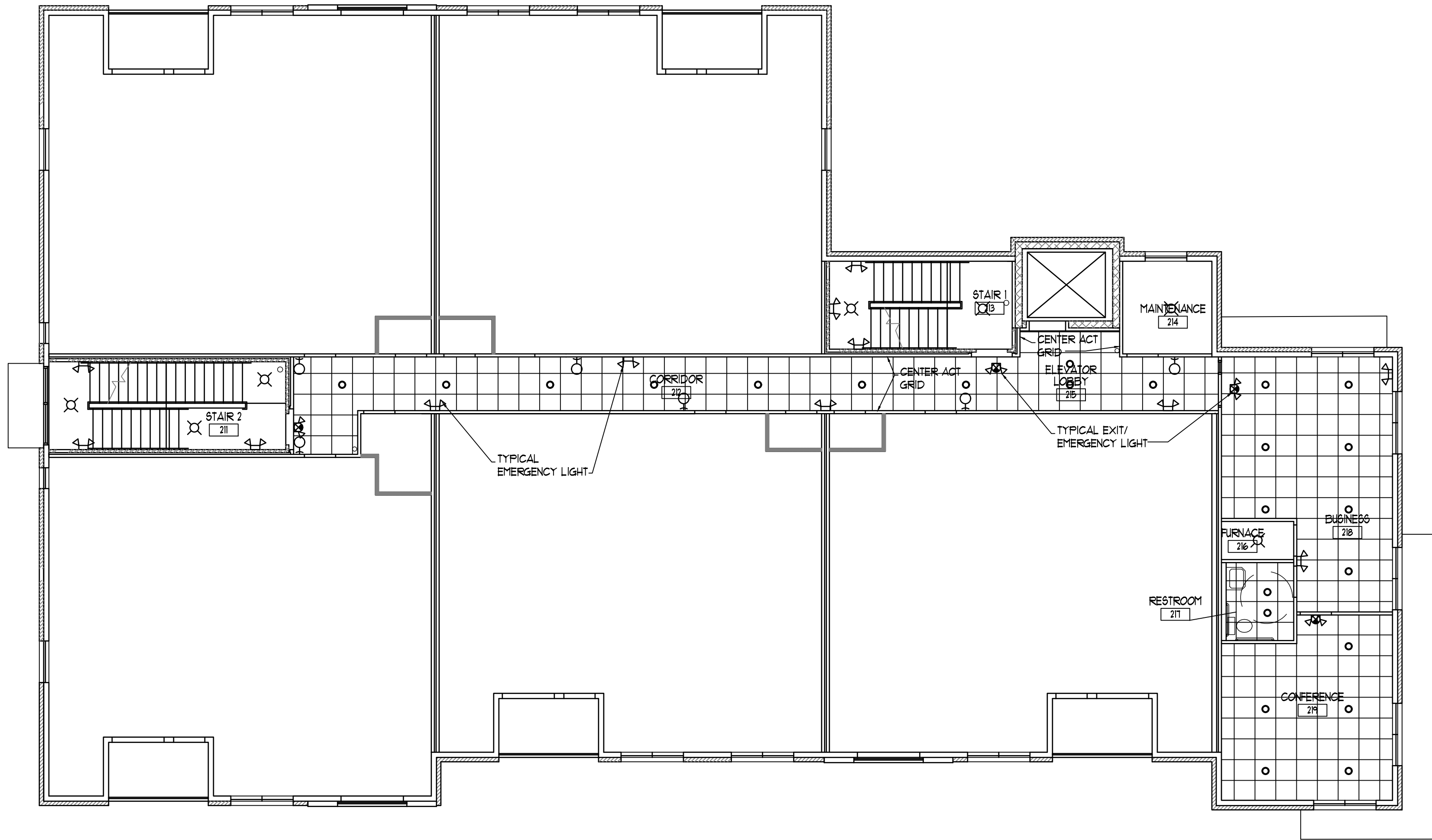
ADDITIONAL VERTICAL SUPPORT WIRES ARE NEEDED IN THE FOLLOWING LOCATIONS:

1. 4' ON CENTER SPACING ALONG THE MAIN RUNNER.
2. LIGHT FIXTURES MUST BE POSITIVELY ATTACHED TO THE CEILING GRID WITH AN ATTACHMENT CAPABLE OF CARRYING 100% OF THE WEIGHT OF THE LIGHT FIXTURE. LIGHT FIXTURES WEIGHING UP TO 56 POUNDS REQUIRE TWO VERTICAL SUPPORT WIRES. THESE WIRES MAY BE SLACK. LIGHT FIXTURES WEIGHING MORE THAN 56 POUNDS SHALL REQUIRE INDEPENDENT SUPPORT FROM THE SHELL BUILDING STRUCTURE ABOVE THE CEILING.
3. MECHANICAL AIR TERMINALS WEIGHING LESS THAN 20 POUNDS SHALL BE POSITIVELY ATTACHED TO THE CEILING GRID. AIR TERMINALS WEIGHING 20 POUNDS BUT NOT MORE THAN 56 POUNDS SHALL BE SECURED TO THE SHELL BUILDING STRUCTURE ABOVE THE CEILING IN ADDITION TO ATTACHING THE AIR TERMINAL TO THE CEILING GRID. THESE TWO NO. 12 GAUGE WIRES MAY BE SLACK. AIR TERMINAL WEIGHING MORE THAN 56 POUNDS SHALL REQUIRE INDEPENDENT SUPPORT FROM THE SHELL BUILDING STRUCTURE ABOVE THE CEILING.

SPRINKLER HEADS AND OTHER PENETRATIONS OF THE SUSPENDED CEILING SHALL HAVE A 2" OVERSIZE RING, SLEEVE, OR ADAPTER TO ALLOW 1" HORIZONTAL MOVEMENT IN ALL DIRECTIONS.

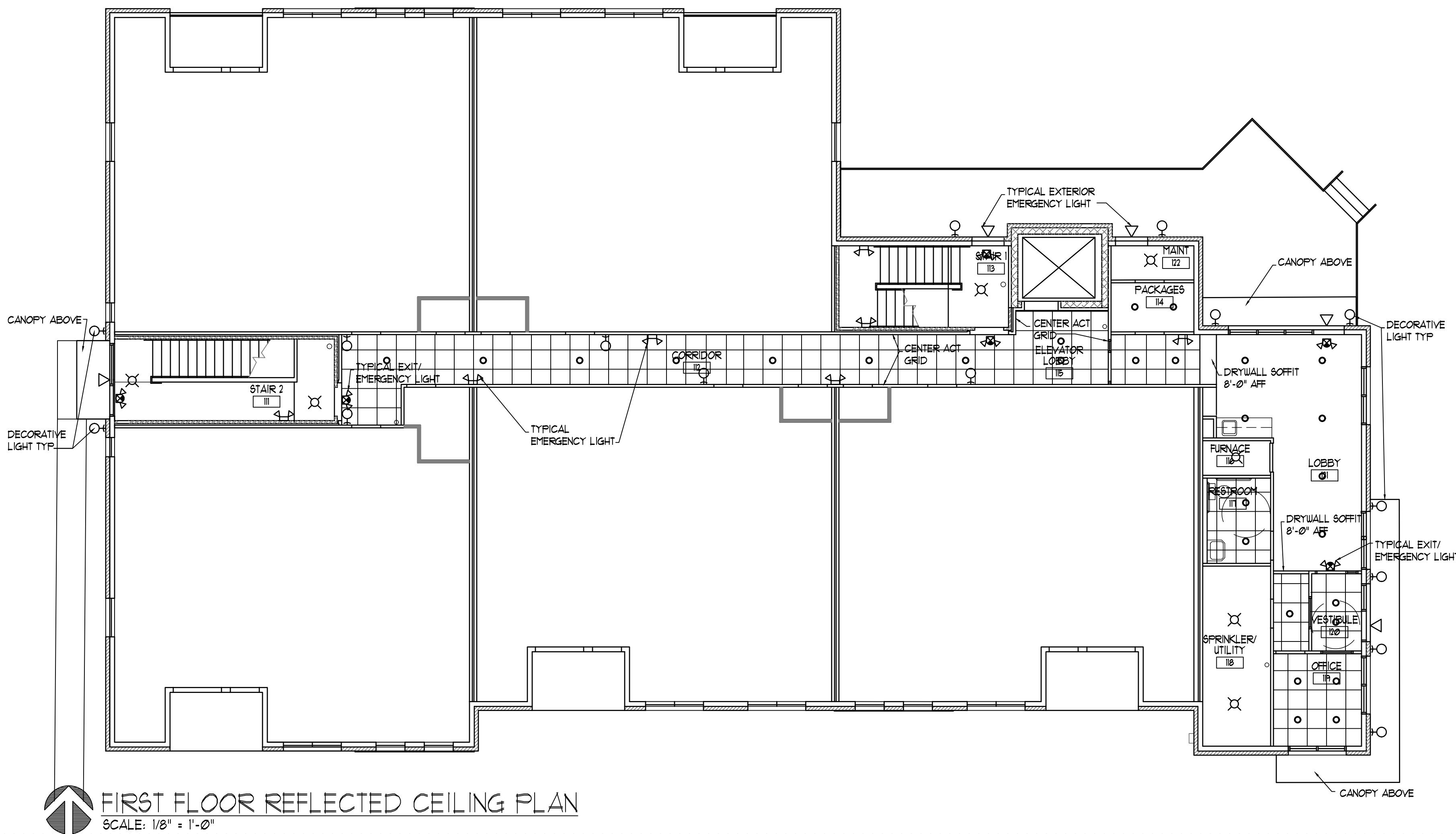
SEISMIC ACT DETAIL

SCALE: N.T.S.



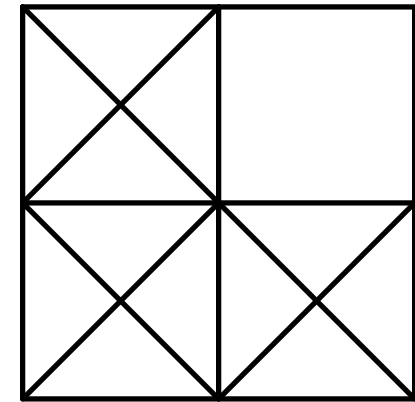
SECOND FLOOR REFLECTED CEILING PLAN

SCALE: 1/8" = 1'-0" 8/22 SF



FIRST FLOOR REFLECTED CEILING PLAN

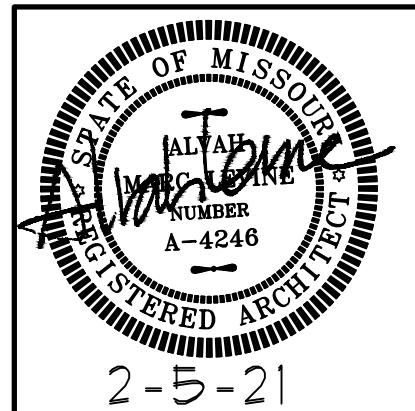
SCALE: 1/8" = 1'-0"



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first and second floor reflected ceiling plan

20 APARTMENTS
10809-10819 OLIVE BOULEVARD
CREVE COEUR, MISSOURI 63141
JLA GROUP, DEVELOPER

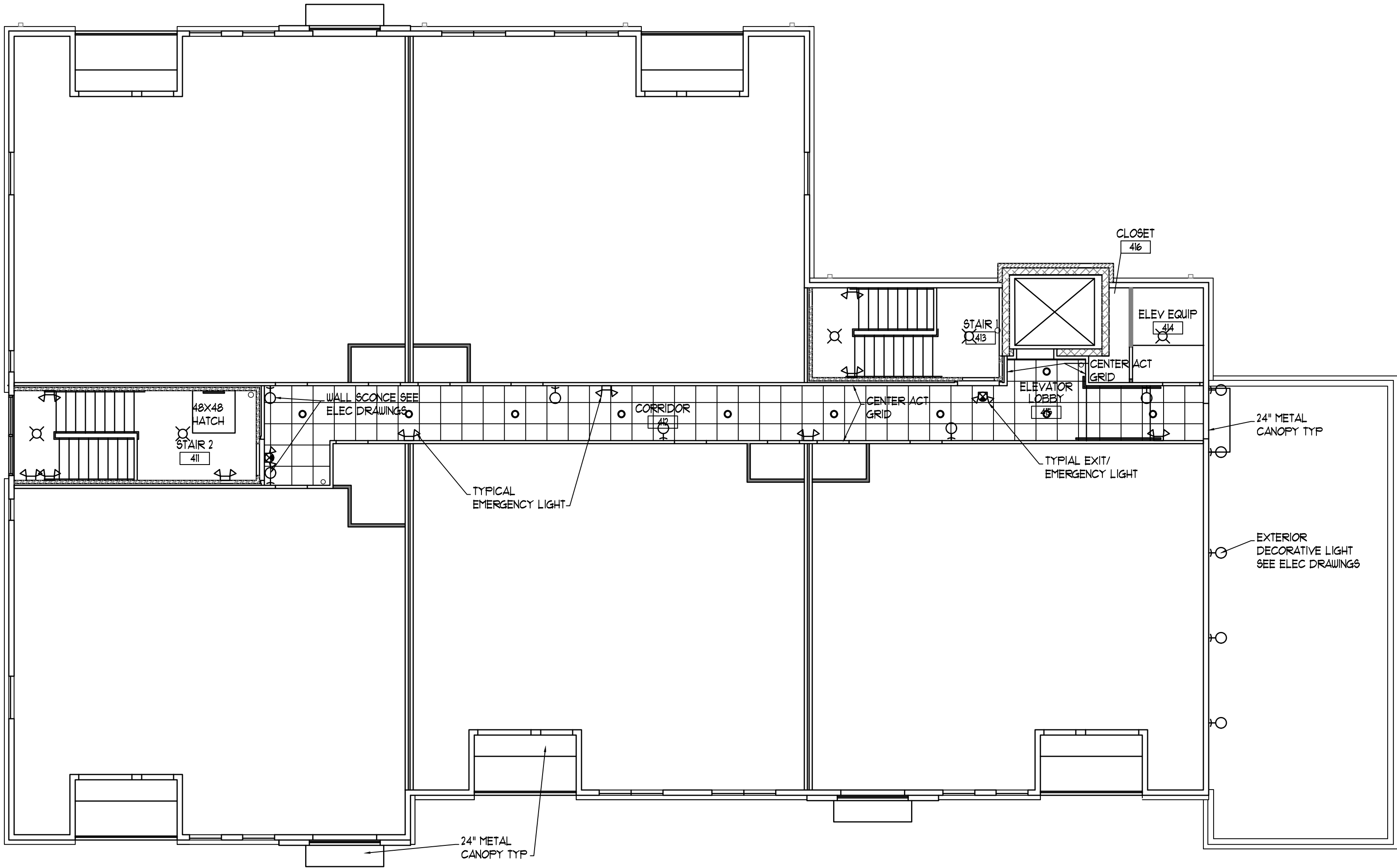
REVISIONS

NO.	DATE	ITEM
1	10-26-20	creve coeur
2	2-5-2021	re-revision

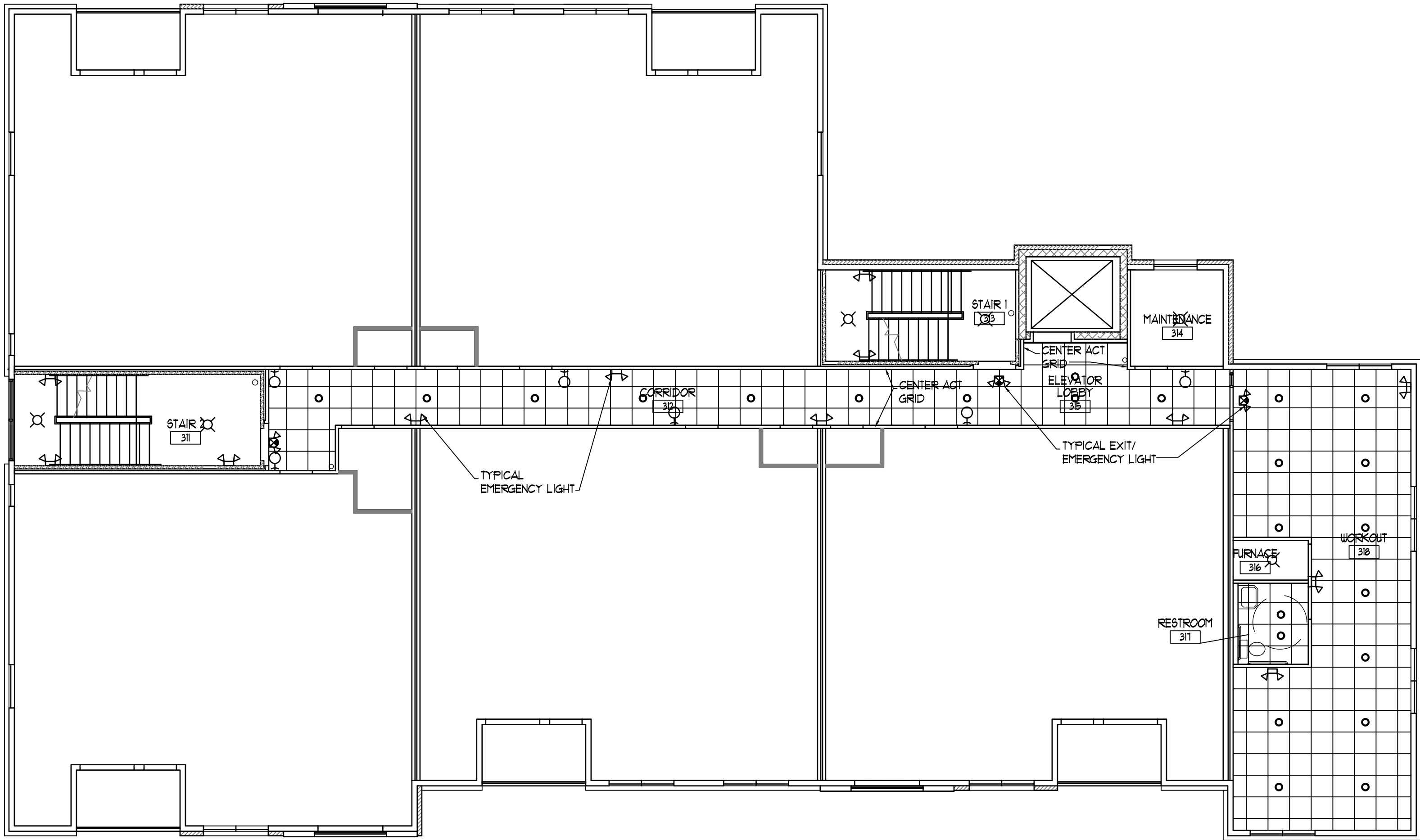
SHEET NO.

A-7.1

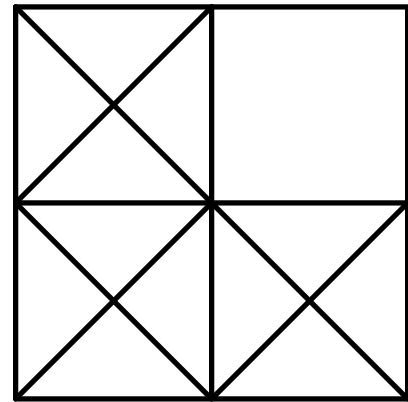
ISSUE DATE: 8-4-20
PROJECT #: 1939.01
DRN. CMC CHK. AML



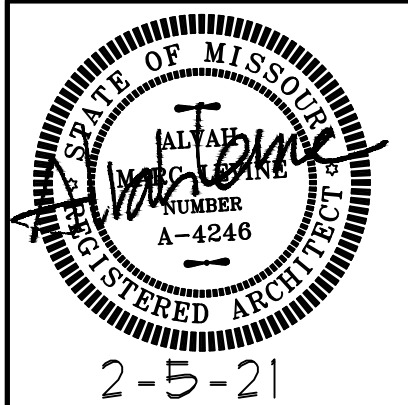
FOURTH FLOOR REFLECTED CEILING PLAN
SCALE: 1/8" = 1'-0"



THIRD FLOOR REFLECTED CEILING PLAN
SCALE: 1/8" = 1'-0"



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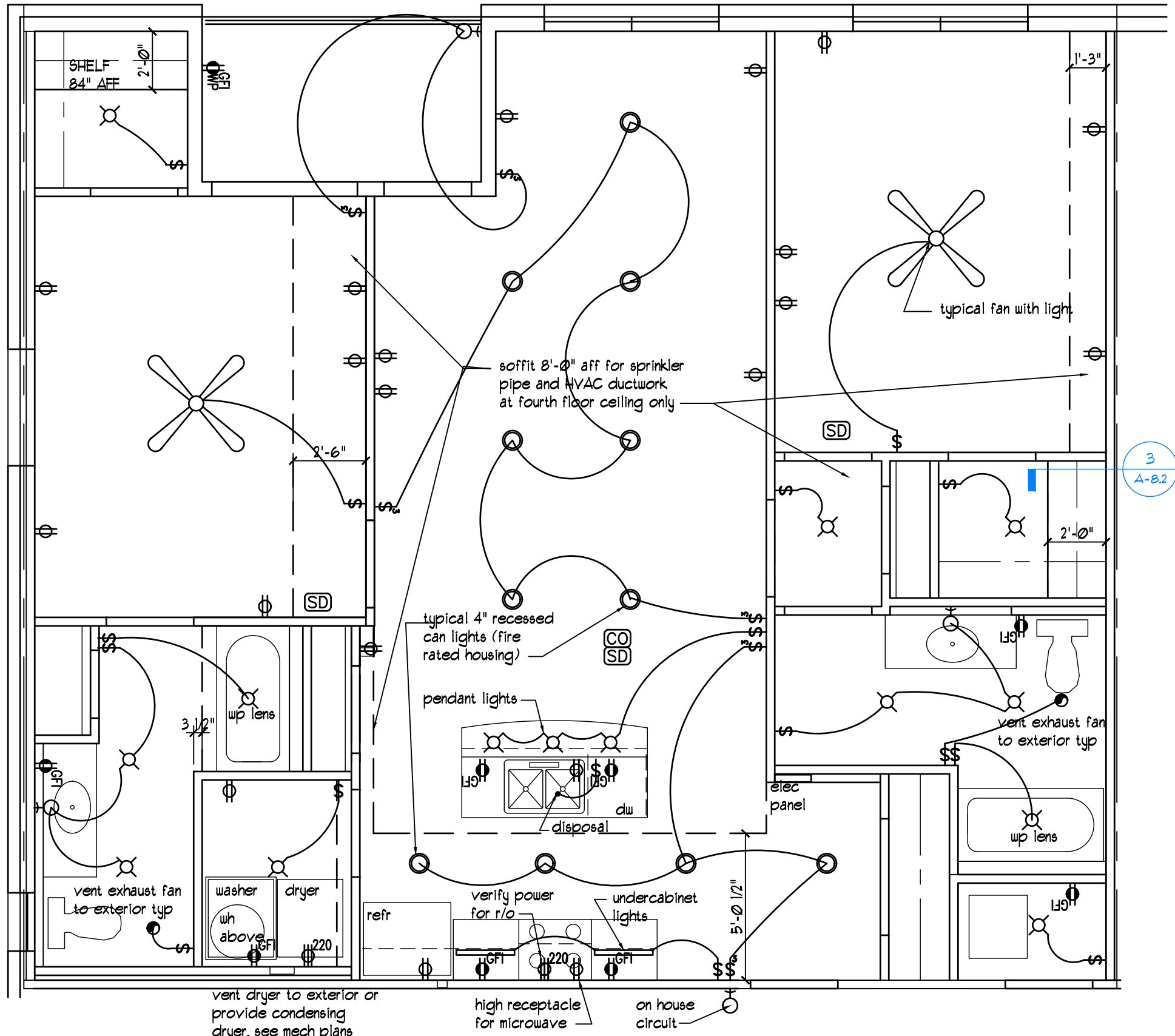
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third and fourth floor reflected ceiling plans
20 APARTMENTS
10809-10819 OLIVE BOULEVARD
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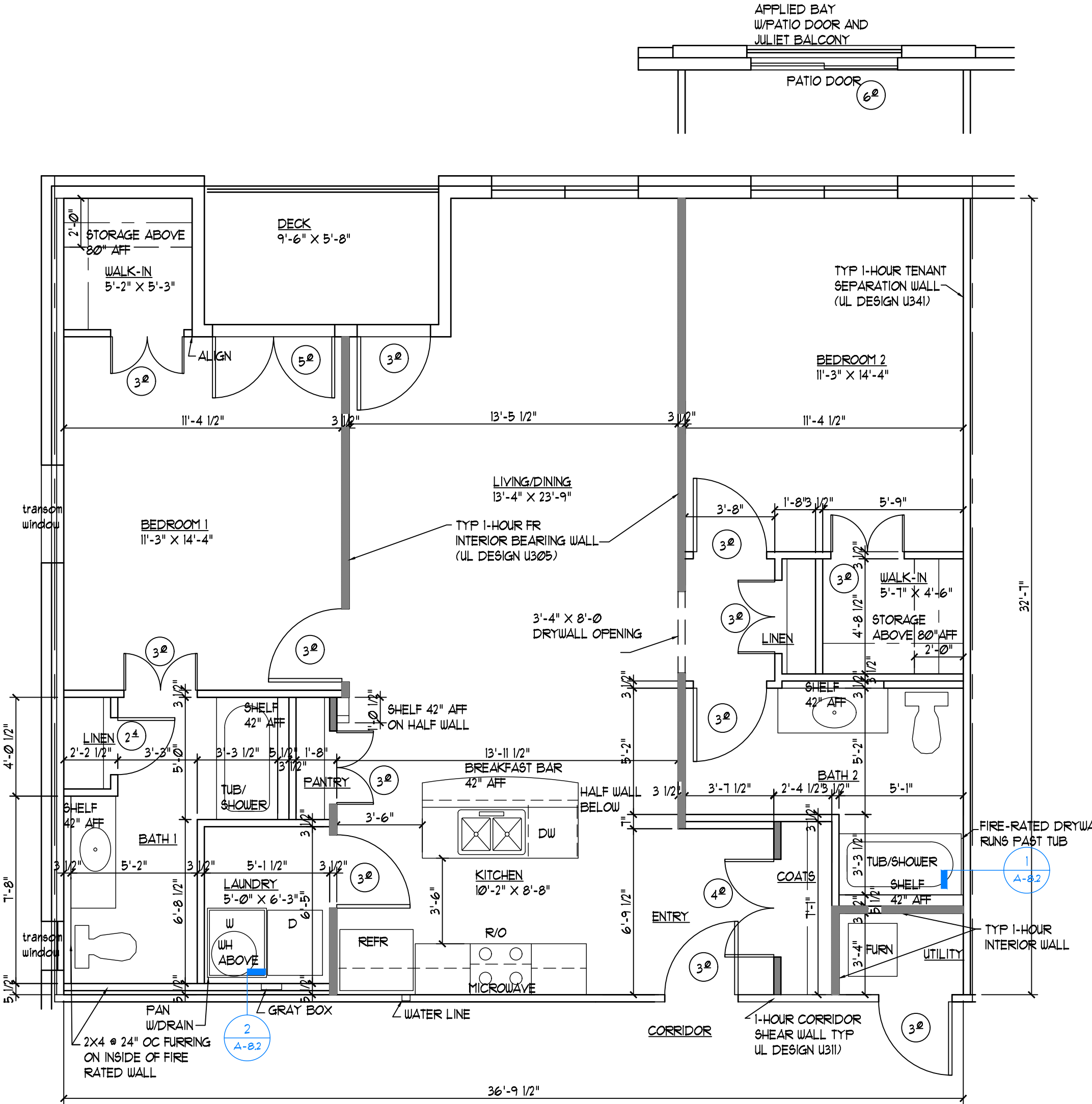
REVISIONS		
NO.	DATE	ITEM
1	10-26-20	CREVE COEUR
2	2-5-2021	RE-REVISED

SHEET NO.
A-7.2

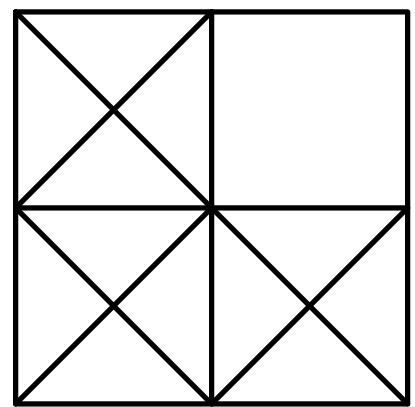
ISSUE DATE: 8-4-20
PROJECT #: 1939.01
DRN. CMC CHK. AML



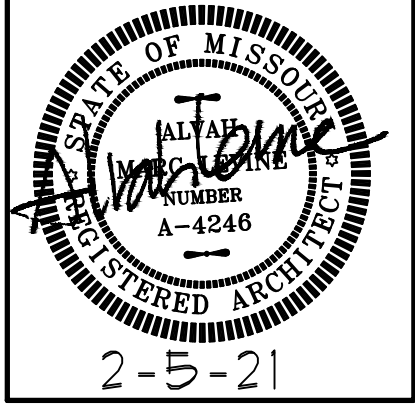
TYPICAL TYPE B REFLECTED CEILING / ELECTRIC PLAN
SCALE: 1/8" = 1'-0" 1/32" 9F



TYPICAL TYPE B UNIT PLAN
SCALE: 1/8" = 1'-0" 1/32" 9F



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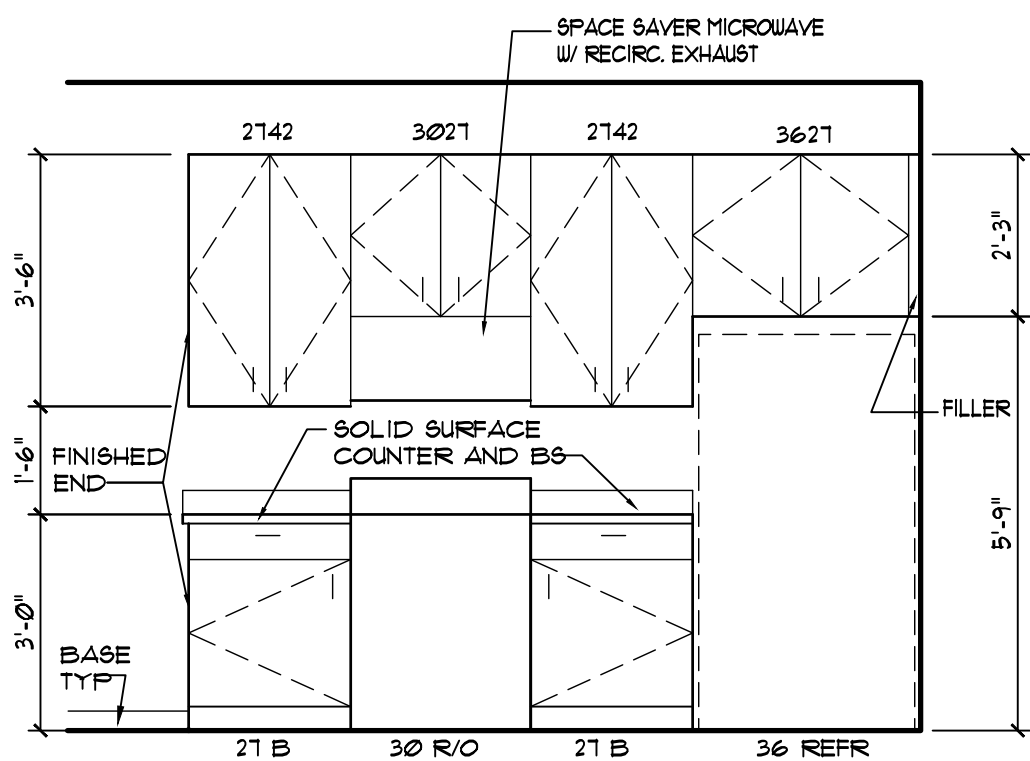


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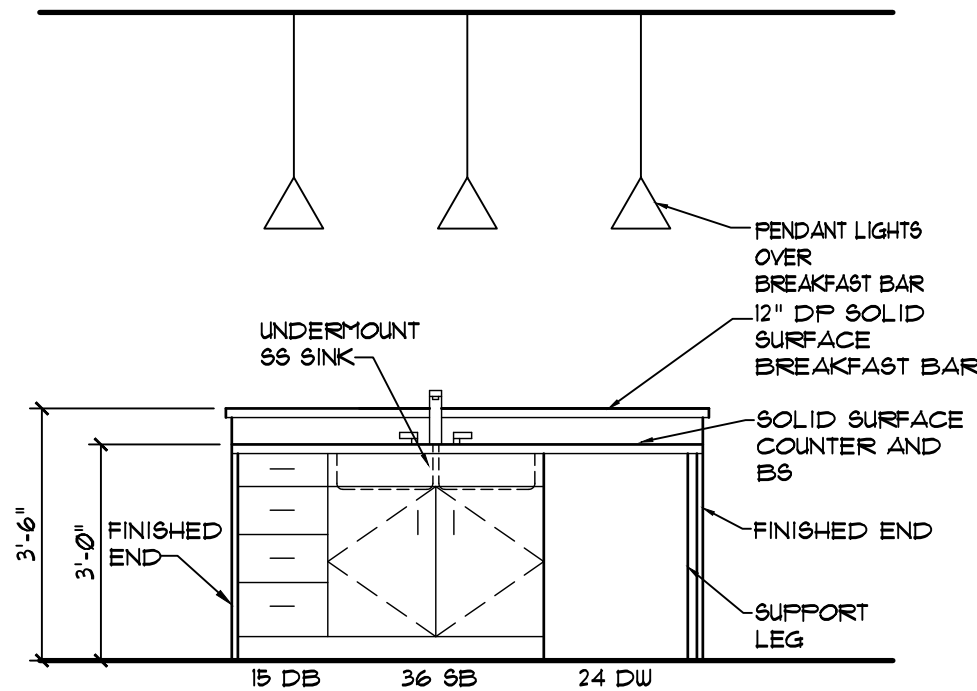
preliminary building plan, unit plan and front elevation
20 APARTMENTS
10809-10819 OLIVE BOULEVARD
CREVE COEUR, MISSOURI 63141
JLA GROUP, DEVELOPER

REVISIONS		
NO.	DATE	ITEM
1	10-26-20	creve couer
2	2-5-2021	re-revise

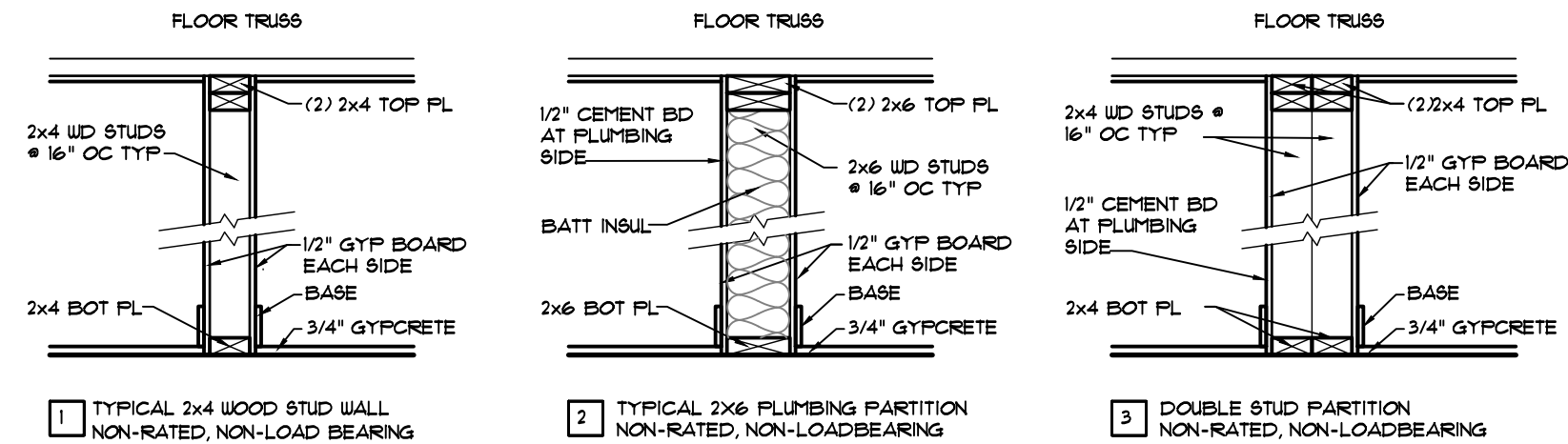
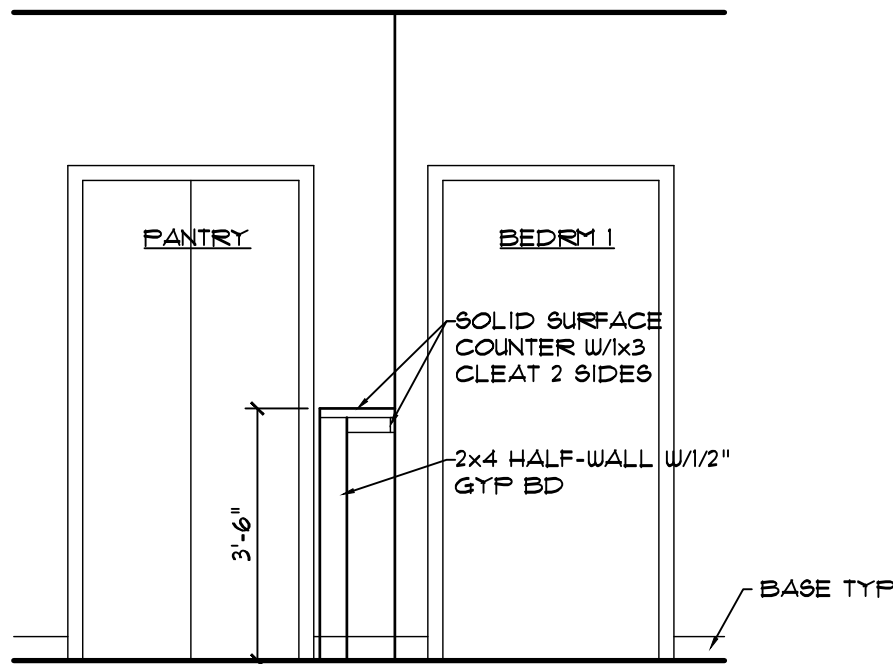
SHEET NO.
A-8.1
ISSUE DATE: 8-4-20
PROJECT #: 1939.01
DRN. CMC CHK. AML



TYPICAL KITCHEN ELEVATIONS
SCALE: 3/8" = 1'-0"



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

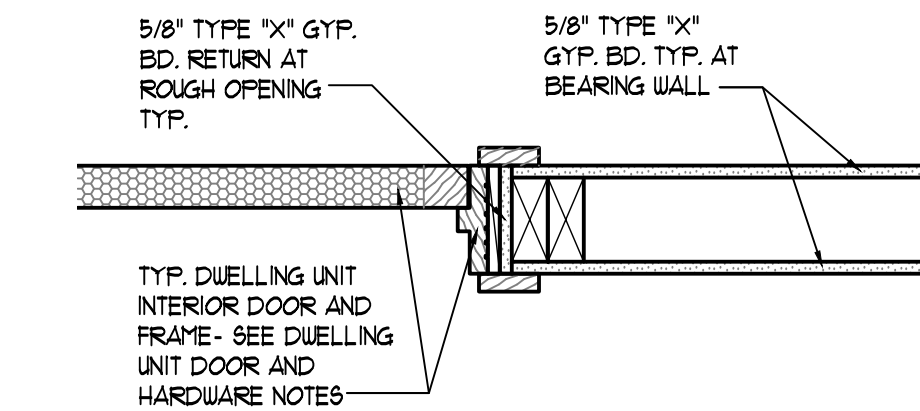


DWELLING UNIT PARTITION TYPES
SCALE: NO SCALE SEE FULL HEIGHT WALL SECTIONS ON SHEETS A-3.1 AND A-3.2 FOR BEARING WALL AND OTHER FIRE RATED PARTITIONS

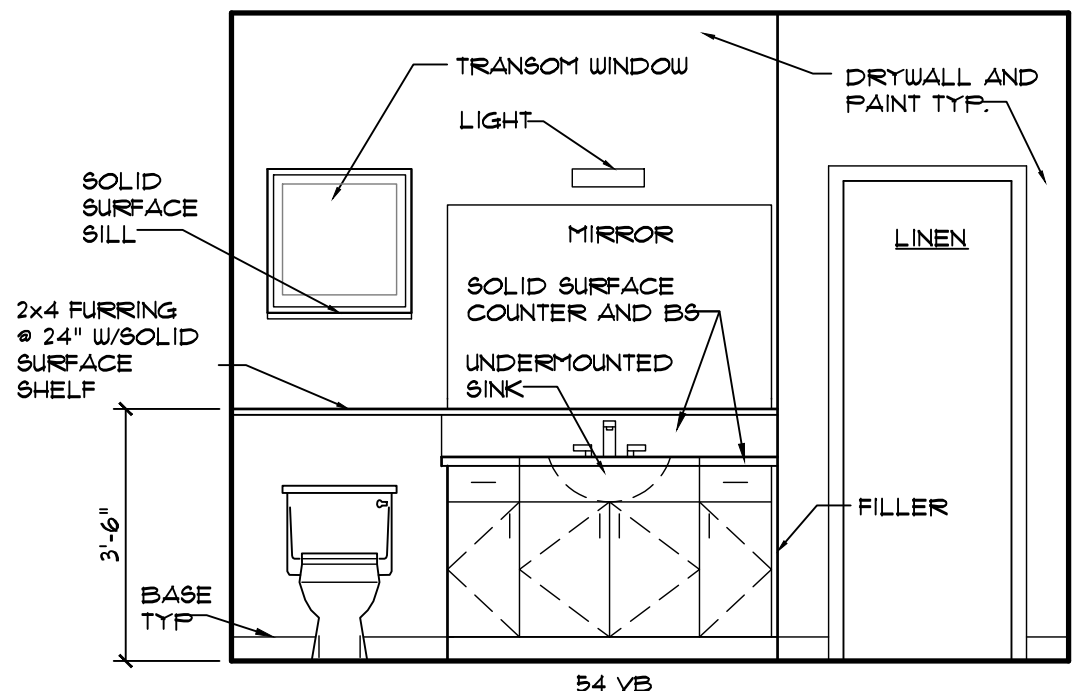
TYPICAL DWELLING UNIT ROOM FINISH SCHEDULE						
ROOM NAME	FLOOR	BASE	WALLS	CEILING	CEILING HEIGHT	REMARKS
ENTRY / HALL & CLOSET	VINYL FLANK	MDF	DW PAINT-EGGSHELL FLAT	DW PAINT-EGGSHELL FLAT	9'-0"	-
LIVING / DINING	VINYL FLANK	MDF	DW PAINT-EGGSHELL FLAT	DW PAINT-EGGSHELL FLAT	9'-0"	-
KITCHEN	VINYL FLANK	MDF	DW PAINT-EGGSHELL FLAT	DW PAINT-EGGSHELL FLAT	9'-0"	-
BEDROOM & ADJACENT CLOSET	VINYL FLANK	MDF	DW PAINT-EGGSHELL FLAT	DW PAINT-EGGSHELL FLAT	9'-0"	-
BATHROOM & ADJACENT CLOSET	CERAMIC TILE	MDF	DW PAINT-EGGSHELL FLAT	DW PAINT-EGGSHELL FLAT	9'-0"	CER TILE OR SOLID SURFACE TUB SURROUND
LAUNDRY	VINYL FLANK	MDF	DW PAINT-EGGSHELL	EXP	9'-0"	FAN WITH DRAIN

- DWELLING UNIT FINISH NOTES:
1. PAINT ALL WALLS WITH LATEX EGGSHELL FINISH.
 2. PAINT ALL CEILING WITH FLAT LATEX PAINT.
 3. PAINT WOOD DOORS AND TRIM WITH SEMI-GLOSS LATEX PAINT.
 4. ALL COUNTERS, BACKSPASHES, BARS, WALL CAPS, ETC TO BE GRANITE OR SOLID SURFACE MATERIAL.

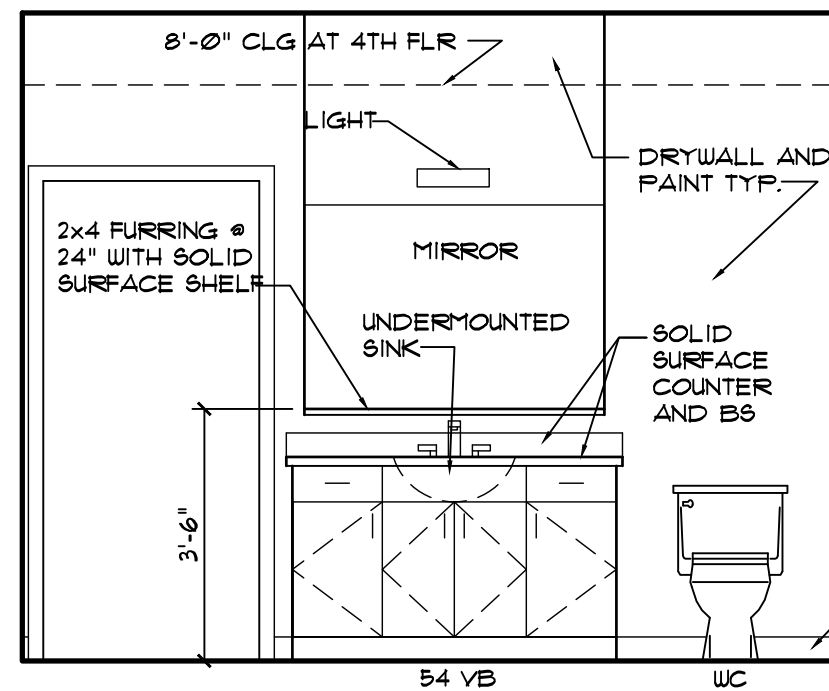
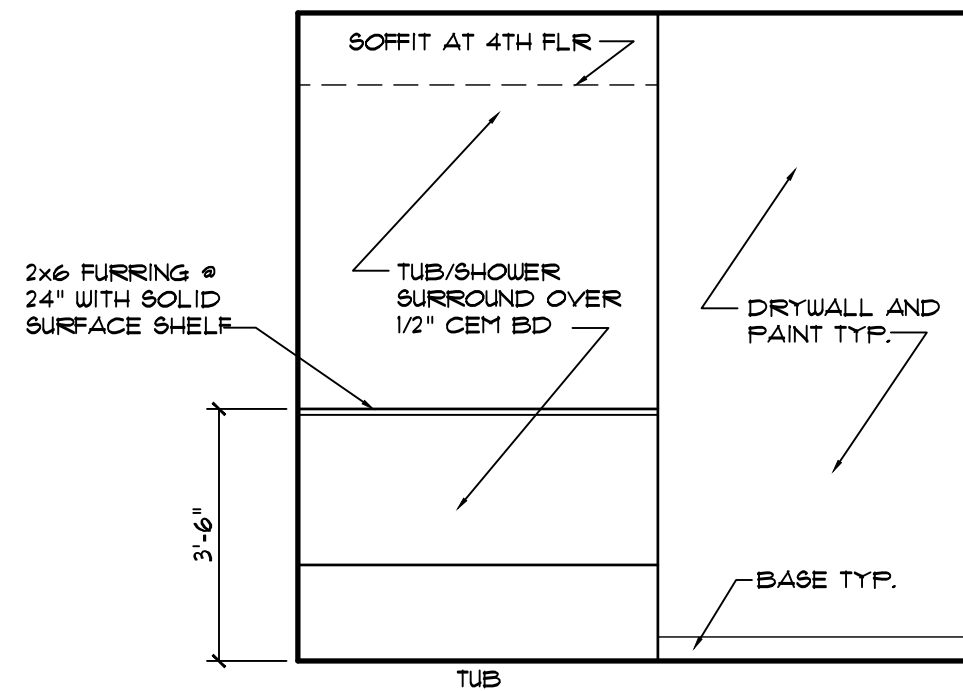
- DWELLING UNIT DOOR AND HARDWARE NOTES:
1. DWELLING UNIT ENTRY AND CORRIDOR HVAC CLOSET DOOR TO BE 3'-0" X 6'-8" FLUSH HARDBOARD DOOR IN HOLLOW METAL FRAME. PROVIDE 20 MINUTE FIRE RATING. PROVIDE FLAT THRESHOLDS.
 2. DWELLING ENTRY AND CORRIDOR HVAC DOOR HARDWARE TO INCLUDE ENTRANCE LOCKSET WITH LEVER HANDLE, CLOSER AND SOUND STRIPPING. KEY EACH DWELLING AND CORRESPONDING HVAC CLOSET ALIKE, TO BUILDING MASTER KEY SYSTEM.
 3. ALL INTERIOR SWING DOORS TO BE PREHUNG FLUSH HARDBOARD DOOR IN WOOD FRAME, PRIME FOR PAINT FINISH.
 4. PROVIDE PRIVACY LOOK FOR BATHROOMS, PASSAGE LATCHSET FOR ALL OTHER SINGLE DOORS. PROVIDE DUMMY TRIM AND ROLLER CATCHES FOR PAIRS OF SWING CLOSET DOORS.
 5. ALL HARDWARE TO BE BRUSHED CHROME FINISH.
 6. PROVIDE LEVER HARDWARE FOR ALL SWING DOORS.
 7. DOORS IN BEARING WALLS WITHIN DWELLING UNITS MUST HAVE DRYWALL RETURNS IN ROUGH OPENINGS. SEE DETAIL 4/A-8.2
 8. PROVIDE PEEP HOLE IN DWELLING UNIT ENTRY DOORS. SET AT 58" AFF.



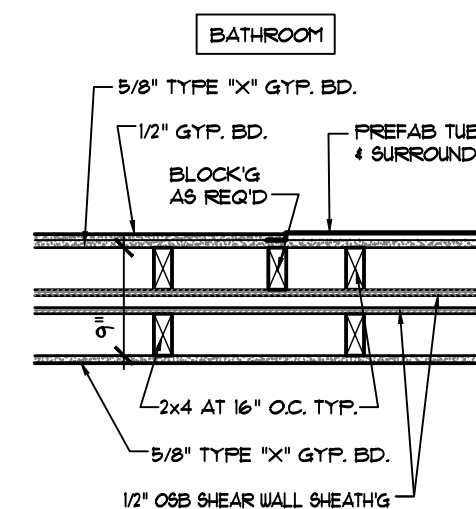
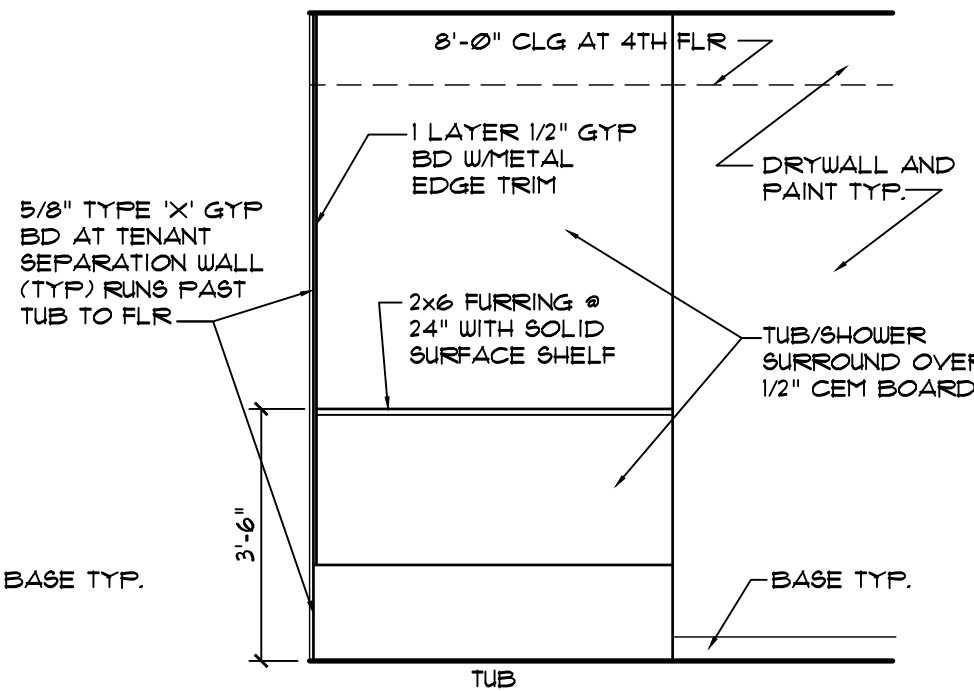
4 DWELLING UNIT DOOR IN 1 HOUR BEARING WALL
SCALE: 1 1/2" = 1'-0"



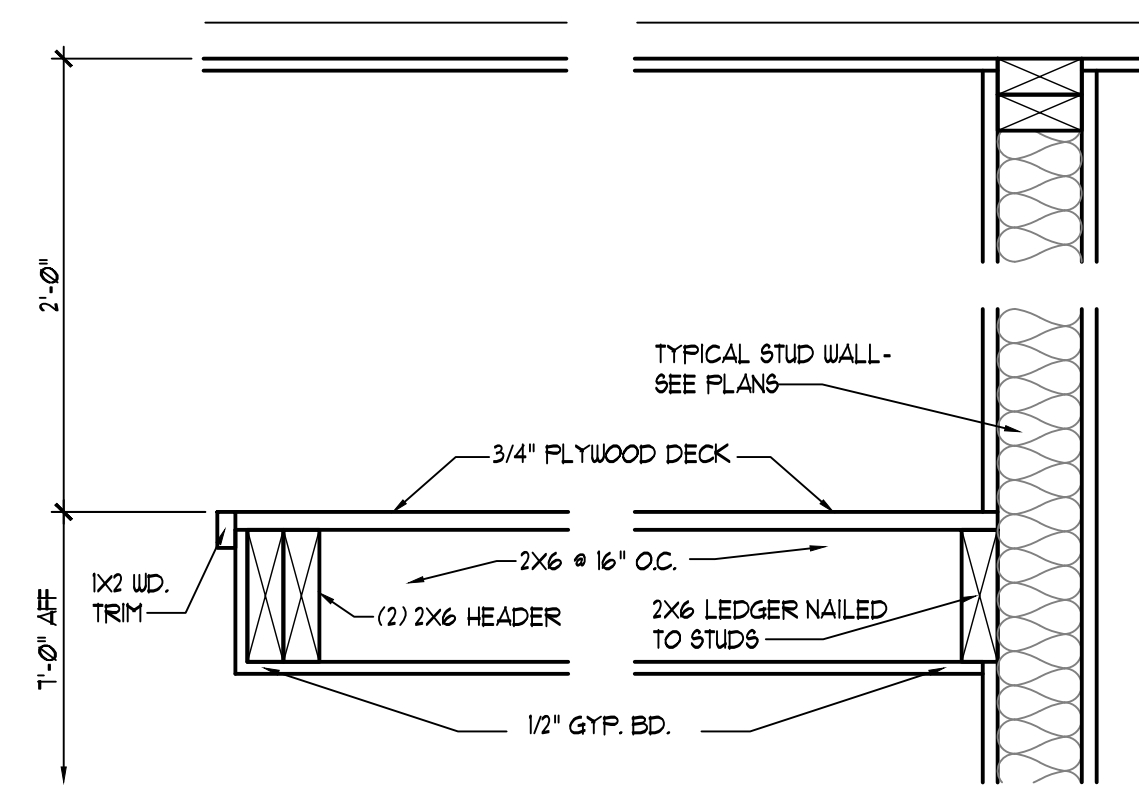
TYPICAL BATHROOM 1
SCALE: 3/8" = 1'-0"



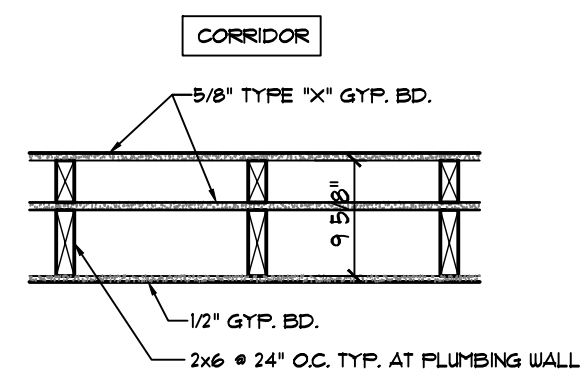
TYPICAL BATHROOM 2
SCALE: 3/8" = 1'-0"



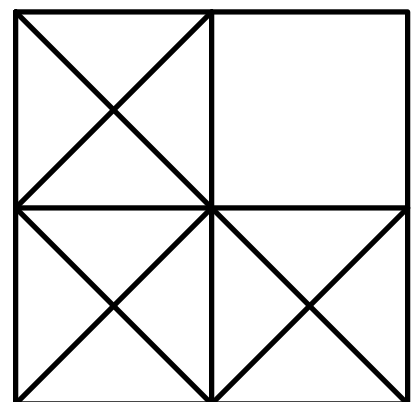
1 PLAN DTL BATHTUB AT DEMISING WALL
SCALE: 3/4" = 1'-0"



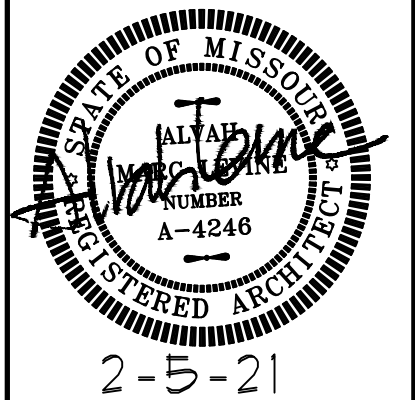
3 STORAGE LOFT DETAIL
SCALE: 1 1/2" = 1'-0"



2 PLAN DTL. AT FURRED PLUMBING WALL
SCALE: 3/4" = 1'-0"



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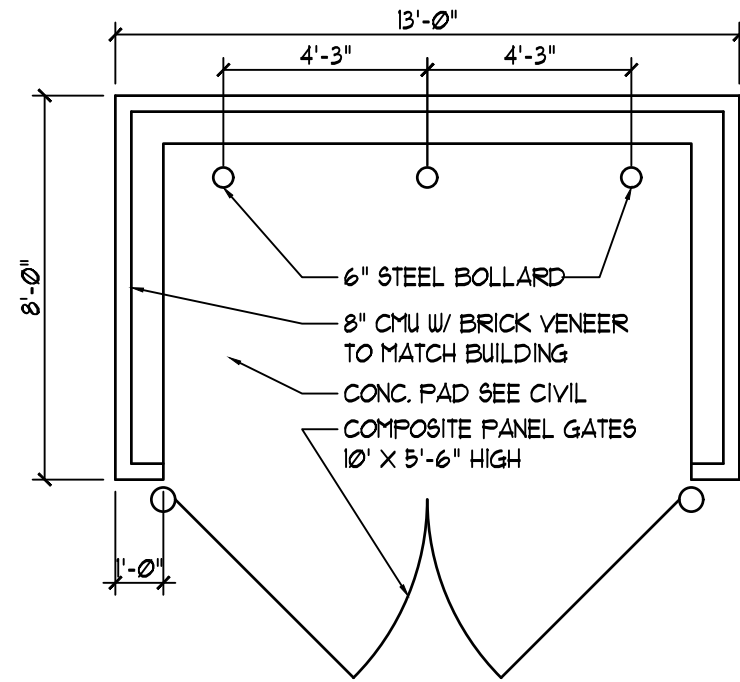
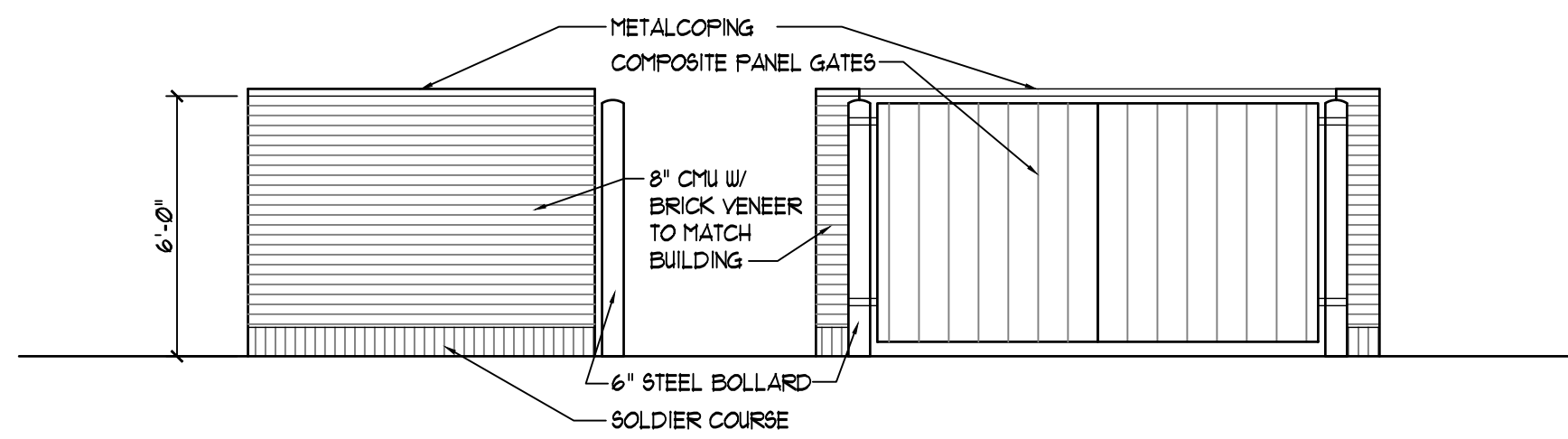
ARCHITECT: ALVAH M. LEVINE
NO LICENSE A-4246
ALVAH M. LEVINE, INC.
DIA LEVINE ASSOCIATES
CERTIFICATE OF AUTHORITY
LICENSE NUMBER A-201804328

dwelling unit interior elevations
20 APARTMENTS
10809-10819 OLIVE BOULEVARD
CREVE COEUR, MISSOURI 63141
JLA GROUP, DEVELOPER

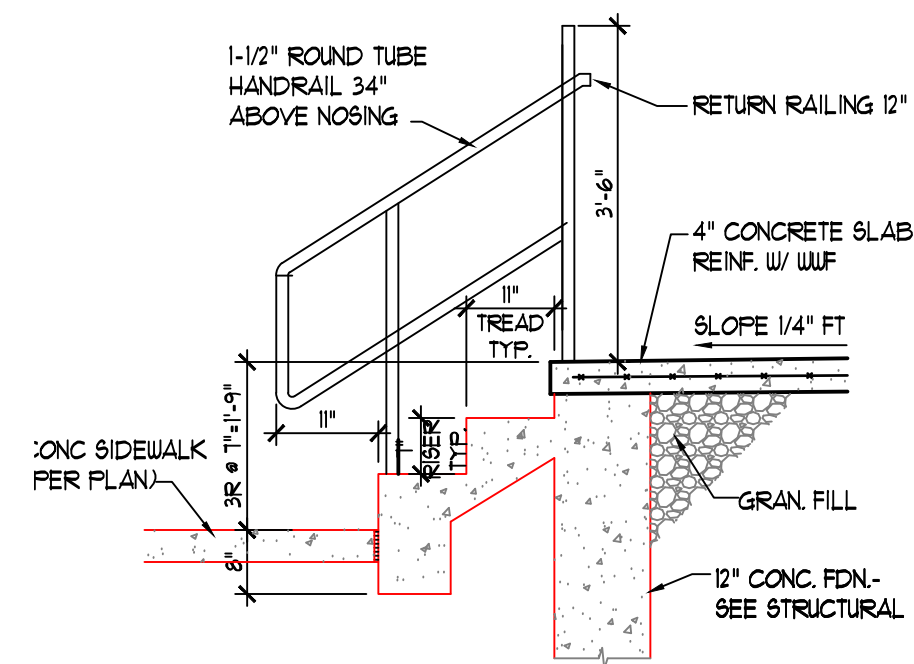
REVISIONS		
NO.	DATE	ITEM
1	10-26-20	creve cover
2	2-5-2021	re-revision

SHEET NO.
A-8.2

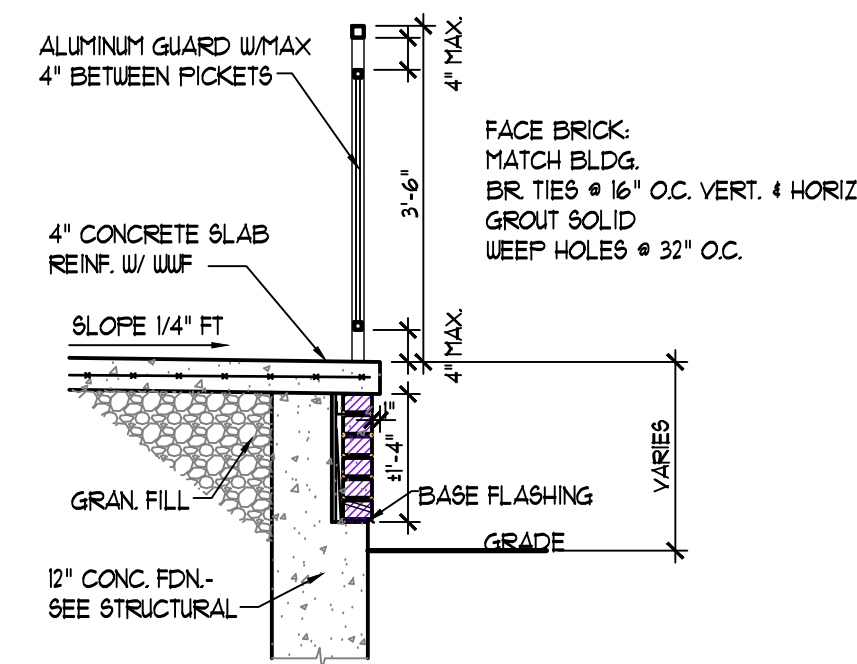
ISSUE DATE: 8-4-20
PROJECT #: 1939.01
DRN. CMC CHK. AML



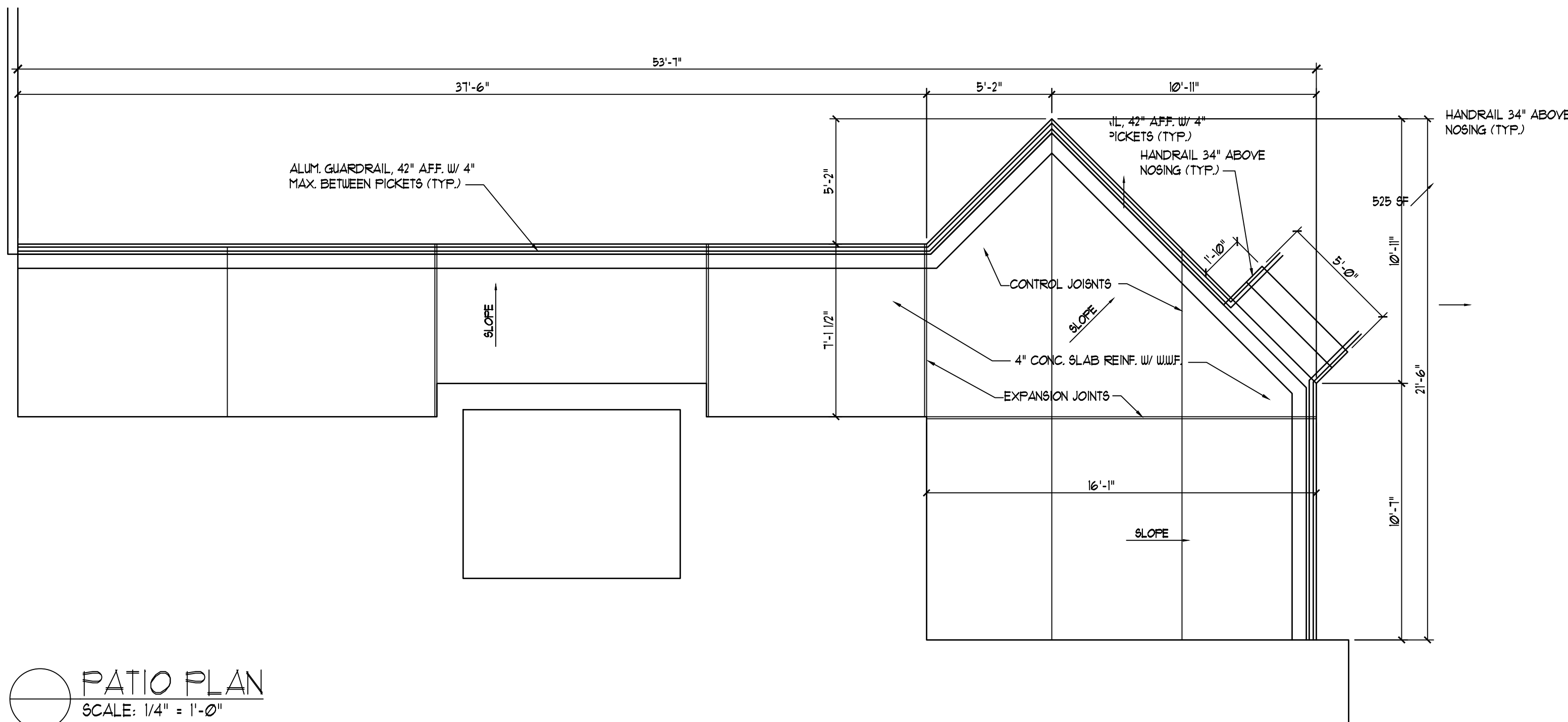
TRASH ENCLOSURE PLAN AND ELEVATION
SCALE: 1/4" = 1'-0"



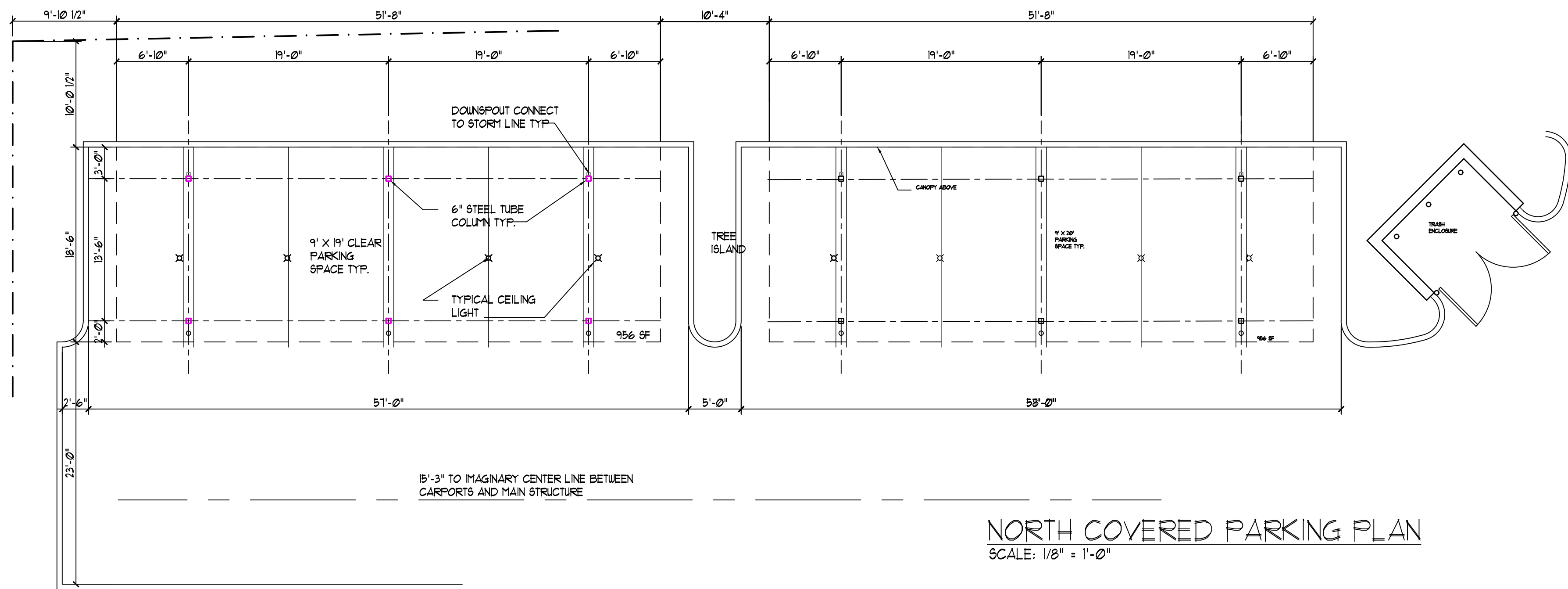
PATIO STAIR
SCALE: 1/2" = 1'-0"



PATIO WALL AND RAIL
SCALE: 1/2" = 1'-0"

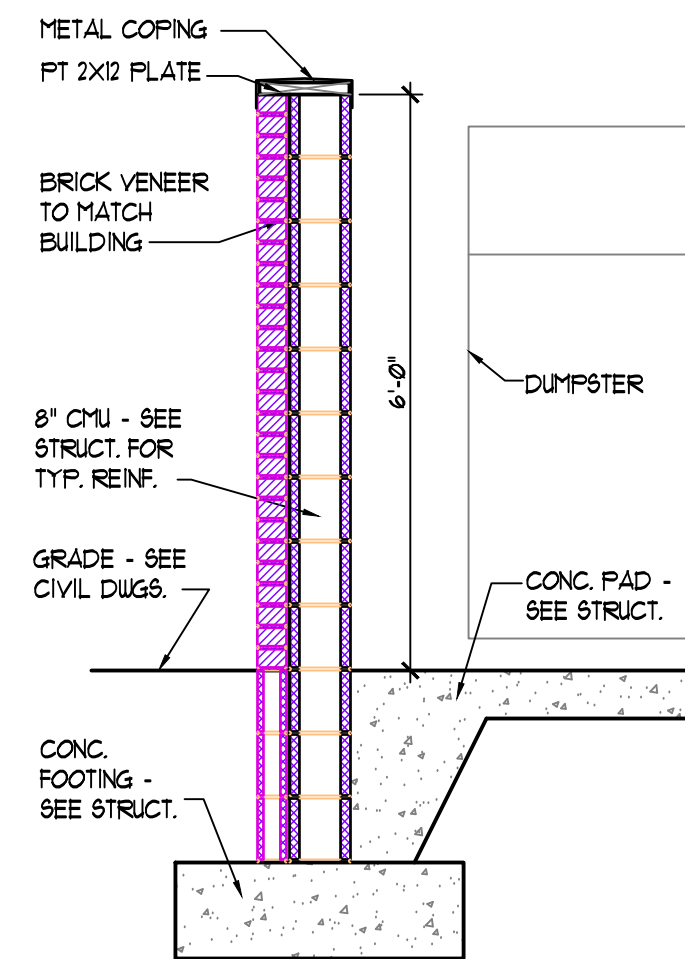


PATIO PLAN
SCALE: 1/4" = 1'-0"

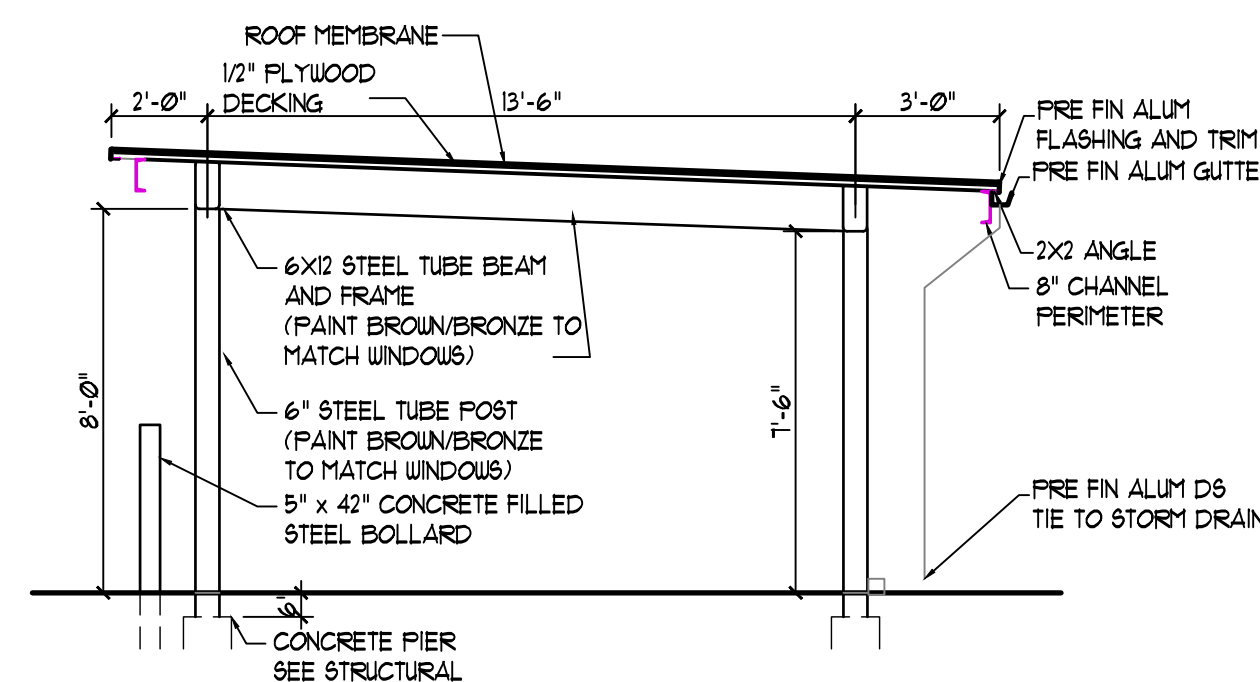


NORTH COVERED PARKING PLAN
SCALE: 1/8" = 1'-0"

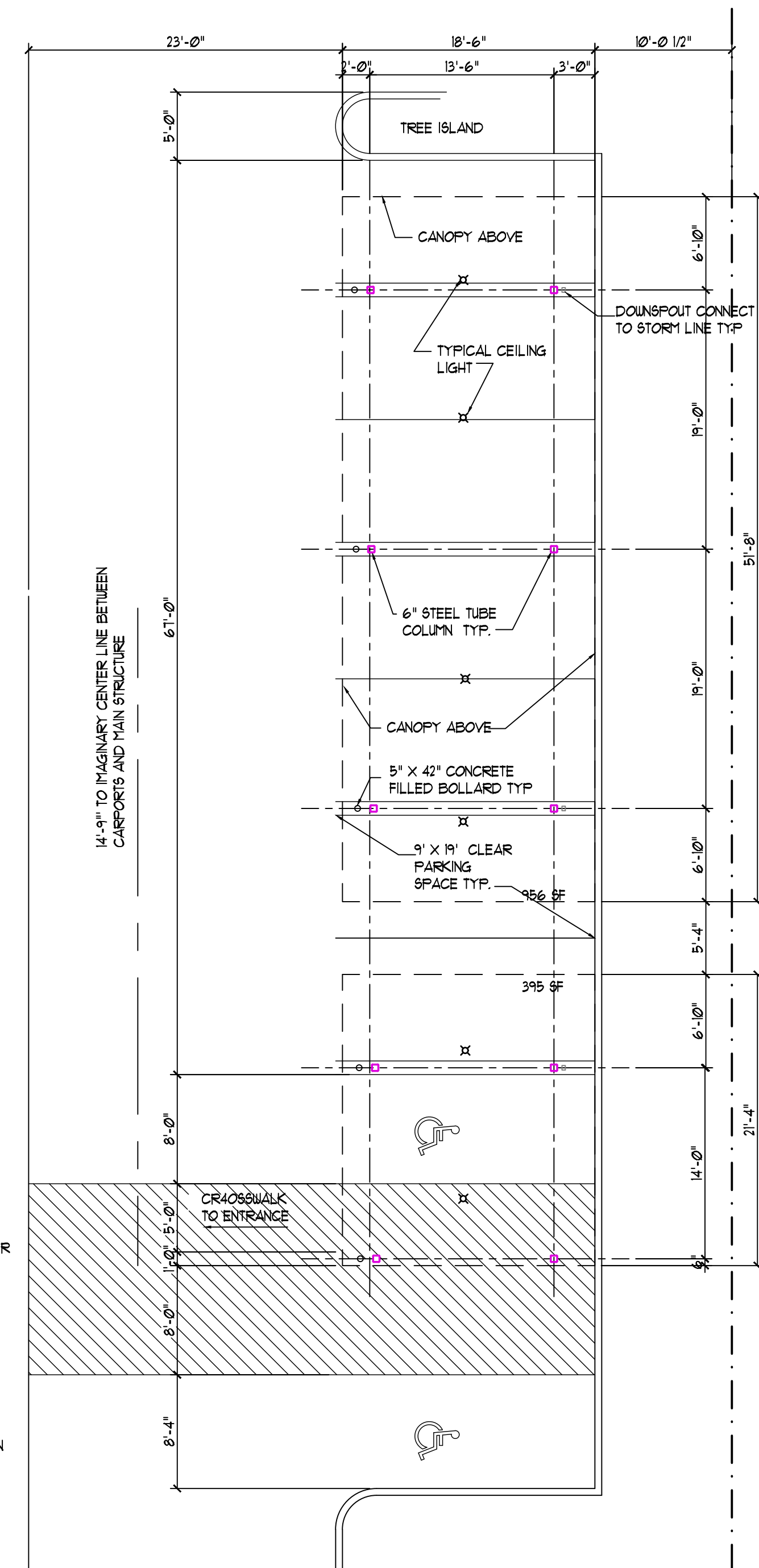
BOLLARD DETAIL
SCALE: 1/2" = 1'-0"



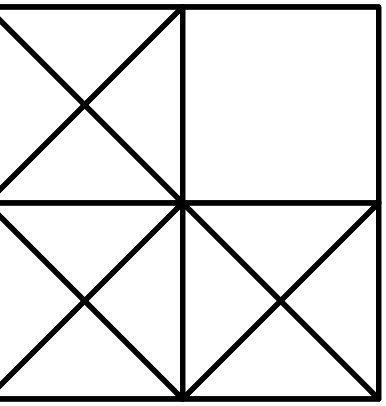
TRASH ENCLOSURE
SCALE: 1/2" = 1'-0"



CARPOT SECTION
SCALE: 1/4" = 1'-0"



EAST COVERED PARKING PLAN
SCALE: 1/8" = 1'-0"



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MO LICENSE A-4246
ALVAN M. LEVINE, INC.
DIA LEVINE ASSOCIATES
CERTIFICATE OF AUTHORITY
LICENSE NUMBER A-2018040328

covered parking, patio and trash enclosure
20 APARTMENTS
10809-10819 OLIVE BOULEVARD
CREVE COEUR, MISSOURI 63141
JLA GROUP, DEVELOPER

REVISIONS		
NO.	DATE	ITEM
1	10-26-20	creve cour
2	2-5-2021	re-revision

SHEET NO.
A-9.1
ISSUE DATE: 8-4-20
PROJECT #: 1939.01
DRN. CMC CHK. AML

1 HOUR INTERIOR WALL STC-56
(APPLIES TO BEARING AND NON-BEARING)

BXUV.U305

Design/System/Construction/Assembly Usage Disclaimer

- Authorities Having Jurisdiction should be consulted in all cases as to the particular requirements covering the installation and use of UL Certified products, equipment, system, devices, and materials.
- Authorities Having Jurisdiction should be consulted before construction.
- Fire resistance assemblies and products are developed by the design submitter and have been investigated by UL for compliance with applicable requirements. The published information cannot always address every construction nuance encountered in the field.
- When field issues arise, it is recommended the first contact for assistance be the technical service staff provided by the product manufacturer noted for the design. Users of fire resistance assemblies are advised to consult the general Guide Information for each product category and each group of assemblies. The Guide Information includes specifics concerning alternate materials and alternate methods of construction.
- Only products which bear UL's Mark are considered Certified.

BXUV - Fire Resistance Ratings - ANSI/UL 263 Certified for United States

BXUV7 - Fire Resistance Ratings - CAN/ULC-S101 Certified for Canada

See General Information for Fire-resistance Ratings - ANSI/UL 263 Certified for United States Design Criteria and Allowable Variances

See General Information for Fire Resistance Ratings - CAN/ULC-S101 Certified for Canada Design Criteria and Allowable Variances

Design No. U305

July 15, 2020

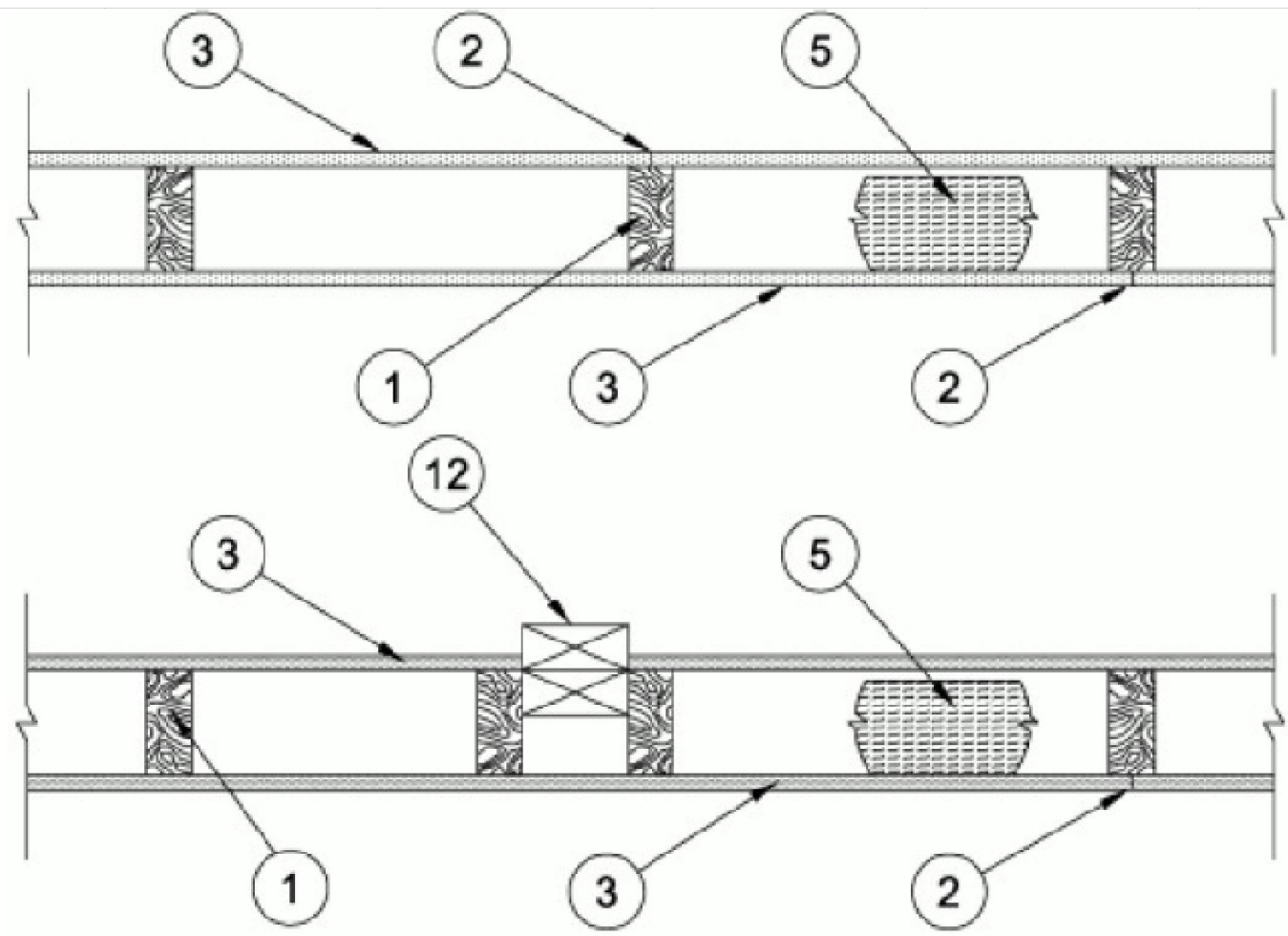
Bearing Wall Rating — 1 Hr

Finish Rating — See Items 3, 3A, 3D, 3E, 3F, 3G, 3H, 3J and 3L.

STC Rating - 56 (See Item 9)

This design was evaluated using a load design method other than the Limit States Design Method (e.g., Working Stress Design Method). For jurisdictions employing the Limit States Design Method, such as Canada, a load restriction factor shall be used — See Guide BXUV or BXUV7

* Indicates such products shall bear the UL or cUL Certification Mark for jurisdictions employing the UL or cUL Certification (such as Canada), respectively.



1. Wood Studs — Nom 2 by 4 in. spaced 16 in. OC max, effectively firestopped.

2. Joints and Nail-Heads — Joints covered with joint compound and paper tape. Joint compound and paper tape may be omitted when square edge boards are used. As an alternate, nom 3/32 in. thick gypsum veneer plaster may be applied to the entire surface of Classified veneer baseboard with the joints reinforced with paper tape. Nailheads exposed or covered with joint compound.

3. Gypsum Board* — 5/8 in. thick paper or vinyl surfaced, with beveled, square, or tapered edges, applied either horizontally or vertically. Gypsum panels nailed 7 in. OC with 6d cement coated nails 1-7/8 in. long, 0.0915 in. shank diam and 15/64 in. diam heads. When used in widths other than 48 in., gypsum panels are to be installed horizontally. For an alternate method of attachment of gypsum panels, refer to Items 6 through 6F. Steel Framing Members*.

When Items 6, 6B, 6C, 6D, 6E or 6F, Steel Framing Members*, are used, gypsum panels attached to furring channels with 1 in. long Type S bugle-head steel screws spaced 12 in. OC.

When Item 6A, Steel Framing Members*, is used, two layers of gypsum panels attached to furring channels. Base layer attached to furring channels with 1 in. long Type S bugle-head steel screws spaced 12 in. OC. Face layer attached to furring channels with 1-5/8 in. long Type S bugle-head steel screws spaced 12 in. OC. All joints in face layers staggered with joints in base layers. One layer of gypsum board attached to opposite side of wood stud without furring channels as described in Item 3.

When Item 7, resilient channels are used, 5/8 in. thick, 4 ft wide gypsum panels applied vertically. Screw attached furring channels with 1 in. long, self-drilling, self-tapping Type S or S-12 steel screws spaced 8 in. OC, vertical joints located midway between studs.

When Item 5K, Foamed Plastic (CCVW) is used, 5/8 in. thick, 4 ft. wide, applied vertically with vertical joints centered over studs and staggered one stud cavity on opposite sides of studs. Gypsum panels secured to studs with 1-5/8 in. long Type W coarse thread gypsum panel steel screws spaced 8 in. OC at perimeter and in the field.

AMERICAN GYPSUM CO — Types AGX-1(finish rating 23 min.), M-Glass (finish rating 23 min.), Type AGX-11 (finish rating 26 min), Type AGX-12 (finish rating 22 min), Type LightRoc (finish rating 23 min.) or Type AG-C

BEIJING NEW BUILDING MATERIALS PUBLIC LTD CO — Type DBX-1 (finish rating 24 min)

CABOT MANUFACTURING ULC — Type X (finish rating 22 min), 5/8 Type X, Moisture Resistant Type X, Gypsum Sheathing Type X, Mold & Mildew Resistant Type X and Mold & Mildew Resistant AR Type X, Type Blueglass Exterior Sheathing

CERTAINTED GYPSUM INC — Type C, Type X or Type X-1 (finish rating 26 min); Type EGRG or GlasRoc (finish rating 23 min), GlasRoc-2, Type Habito (finish rating 26 min).

CGC INC — Type AR (finish rating 24 min), Type C (finish rating 24 min), Type IP-AR (finish rating 24 min), Type IPC-AR (finish rating 24 min), Type IP-X1 (finish rating 24 min), Type IP-X2 (finish rating 24 min), Type SCX (finish rating 24 min), Type SHX (finish rating 24 min), Type ULX (finish rating 22 min), Type WRC (finish rating 24 min), Type WRX (finish rating 24 min), Type ULUX (finish rating 20 min)

CONTINENTAL BUILDING PRODUCTS OPERATING CO, L L C — Type LGFC6A (finish rating 34 min), Type LGFC2A, Type LGFC-C/A, Type LGFC-WD, Type LGLX (finish rating 21 min), Type CLLX (finish rating 24 min)

GEORGIA-PACIFIC GYPSUM L L C — Type 5 (finish rating 26 min), Type 6 (finish rating 23 min), Type 9 (finish rating 26 min), Type C (finish rating 26 min), Type DGG (finish rating 20 min), Type GPF51 (finish rating 20 min), Type GPF52 (finish rating 20 min), Type GPF56 (finish rating 26 min), Type DS, Type DAP, Type DD (finish rating 20 min), Type DA, Type DAPC, Type LS (finish rating 23 min), Type X, Veneer Plaster Base - Type X, Water Rated - Type X, Sheathing - Type X, Soffit - Type X, Type LWX (finish rating 22 min), Veneer Plaster Base-Type LWX (finish rating 22 min), Water Rated-Type LWX (finish rating 22 min), Sheathing Type-LWX (finish rating 22 min), Soffit-Type LWX (finish rating 22 min), Type DGLW (finish rating 22 min), Water Rated-Type DGLW (finish rating 22 min), Sheathing Type-DGLW (finish rating 22 min), Soffit-Type DGLW (finish rating 22 min), Type LWX (finish rating 22 min), Type LW2X (finish rating 22 min), Veneer Plaster Base - Type LW2X (finish rating 22 min), Water Rated - Type LW2X (finish rating 22 min), Sheathing - Type LW2X (finish rating 22 min), Soffit - Type LW2X (finish rating 22 min), Type DGL2W (finish rating 22 min), Water Rated - Type DGL2W (finish rating 22 min), Sheathing - Type DGL2W (finish rating 22 min)

NATIONAL GYPSUM CO — Type FSK (finish rating 20 min), Type FSK-G (finish rating 20 min), Type FSW (finish rating 20 min), Type FSW-2 (finish rating 24 min), Type FSW-3 (finish rating 20 min), Type FSW-5 (finish rating 22 min), Type FSW-G (finish rating 20 min), Type FSK-C (finish rating 20 min), Type FSW-C (finish rating 20 min), Type FSWR-C, Type FSW-6 (finish rating 20 min), Type FSL (finish rating 24 min), Type FSW-8, Type FSLX (finish rating 21 min), Type RSX (finish rating 26 min).

NATIONAL GYPSUM CO — Riyadh, Saudi Arabia — Type FR, or WR.

PABCO BUILDING PRODUCTS L L C, DBA PABCO GYPSUM — Types C, PG-2 (finish rating 20 min), PG-3 (finish rating 20 min), Types PG-3W, PG-5W (finish rating 20 min), Type PG-4 (finish rating 20 min), Type PG-6 (finish rating 23 min), Types PG-3WS, PG-5WS, PGS-WRS (finish rating 20 min), Types PG-5, PG-9 (finish rating 26 min), PG-11 PG-13 (Nails increased to 2 in.), or Type PG-C

PANEL REY S A — Type GREX, GRIX, PRX, PRC2; Types RHX, Guard Rey, MDX, ETX (finish rating 22 min), PRX2 (finish rating 21 min)

SIAM GYPSUM INDUSTRY (SARABURI) CO LTD — Type EX-1 (finish rating 26 min)

THAI GYPSUM PRODUCTS PCL — Type C, Type X (finish rating 26 min)

UNITED STATES GYPSUM CO — Type AR (finish rating 24 min), Type C (finish rating 24 min), Type FRX-G (finish rating 29 min), Type IP-AR (finish rating 24 min), Type IPC-AR (finish rating 24 min), Type IP-X1 (finish rating 24 min), Type IP-X2 (finish rating 24 min), Type SHX (finish rating 24 min), Type SCX (finish rating 24 min), Type SGX (finish rating 24 min), Type ULX (finish rating 22 min), Type WRX (finish rating 24 min), Type WRC (finish rating 24 min), Type ULUX (finish rating 20 min)

USG BORAL DRYWALL SFZ LLC — Type SGX (finish rating 24 min).

USG MEXICO S A DE C V — Type AR (finish rating 24 min), Type C (finish rating 24 min), Type WRX (finish rating 24 min), Type WRC (finish rating 24 min), Type IP-X1 (finish rating 24 min), Type IP-X2 (finish rating 24 min), Type SHX (finish rating 24 min), SCX (finish rating 24 min), Type IP-AR (finish rating 24 min), Type IPC-AR (finish rating 24 min), Type ULX (finish rating 22 min)

4. Steel Corner Fasteners — (Optional) — For use at wall corners. Channel shaped, 2 in. long by 1 in. high on the back side with two 1/8 in. wide cleats protruding into the 5/8 in. wide channel, fabricated from 24 gauge galv steel. Fasteners applied only to the end or cut edge (not along tapered edges) of the gypsum board, no greater than 2 in. from corner of gypsum board, max spacing 16 in. OC. Nailed to adjacent stud through tab using one No. 6d cement coated nail per fastener. Corners of wall board shall be nailed to top and bottom plate using No. 6d cement coated nails.

5. Batts and Blankets* — (Optional — Required when Item 6A is used (RC-1)) — Glass fiber or mineral wool insulation. Placed to completely or partially fill the stud cavities. When Item 6A is used, glass fiber or mineral wool insulation shall be friction-fitted to completely fill the stud cavities.

CERTAINTED CORP

JOHNS MANVILLE

KNAUF INSULATION LLC

MANSION INSULATION INC

ROCKWOOL — Types Acoustical Fire Batts and Type AFB, min. density 1.69 pcf / 27.0 kg/m³

ROCKWOOL MALAYSIA SDN BHD — Type Acoustical Fire Batts

ROCK WOOL MANUFACTURING CO — Delta Board

THERMAFIBER INC — Type SAFB, SAFB FF

5A. Fiber, Sprayed* — (Not Shown — Not for use with Item 6) — As an alternate to Batts and Blankets (Item 5) — Spray applied cellulose material. The fiber is applied with water to completely fill the enclosed cavity in accordance with the application instructions supplied with the product with a nominal dry density of 2.7 lb/ft³. Alternate Application Method: The fiber is applied without water or adhesive at a nominal dry density of 3.5 lb/ft³, in accordance with the application instructions supplied with the product. When Item 6B is used, Fiber, Sprayed shall be INS735, INS745, INS750LD, INS765LD or INS773LD. U S GREENFIBER L L C — INS735, INS745 and INS750LD for use with wet or dry application. INS515LD, INS541LD, INS735, INS765LD, and INS773LD are to be used for dry application only

5B. Fiber, Sprayed* — (Not Shown - Not for use with Item 6) — As an alternate to Batts and Blankets (Item 5) - Spray applied cellulose insulation material. The fiber is applied with water to interior surfaces in accordance with the application instructions supplied with the product. Applied to completely fill the enclosed cavity. Minimum dry density of 4.3 pounds per cubic ft. NU-WOOL CO INC — Cellulose Insulation

5C. Batts and Blankets* — Required for use with resilient channels, Item 7, 3 in. thick mineral wool batts, friction-fitted to fill interior of wall. THERMAFIBER INC — Type SAFB, SAFB FF

5D. Glass Fiber Insulation — (As an alternate to Item 5C) — 3 in. thick glass fiber batts bearing the UL Classification Marking as to Surface Burning and/or Fire Resistance, friction-fitted to fill the interior of the wall. See Batts and Blankets (BKNV or BZJZ) Categories for names of Classified companies.

7. Furring Channel — Optional — Not Shown — For use on one side of the wall - Resilient channels, 25 MSG galv steel, spaced vertically 24 in. OC, flange portion screw attached to one side of studs with 1-1/4 in. long diamond shaped point, double lead Phillips head steel screws. When resilient channels are used, insulation, Items 5C or 5D is required.

8. Caulking and Sealants — (Not Shown, Optional) — A bead of acoustical sealant applied around the partition perimeter for sound control.

9. STC Rating — The STC Rating of the wall assembly is 56 when it is constructed as described by Items 1 through 6, except:

A. Item 2, above — Nailheads Shall be covered with joint compound.

B. Item 2, above — Joints As described, shall be covered with fiber tape and joint compound.

C. Item 5, above — Batts and Blankets* The cavities formed by the studs shall be friction fit with R-19 unfaced fiberglass insulation batts measuring 6-1/4 in. thick and 15-1/4 in. wide.

D. Item 6, above — Steel Framing Members* Type RSIC-1 clips shall be used to attach gypsum board to studs on either side of the wall assembly.

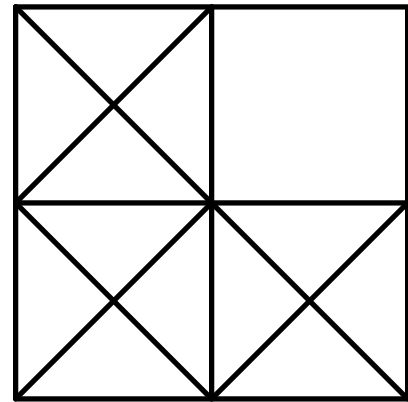
E. Item 8, above — Caulking and Sealants (Not Shown) A bead of acoustical sealant shall be applied around the partition perimeter for sound control.

F. Steel Corner Fasteners (Item 4), Fiber, Sprayed (Items 5A and 5B) and Steel Framing Members (Item 6A), not evaluated as alternatives for obtaining STC rating.

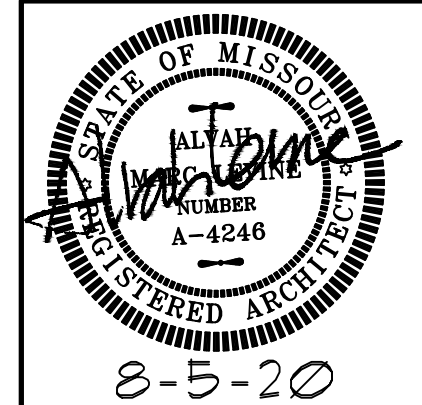
12. Non-Bearing Wall Partition Intersection — (Optional) — Two nominal 2 by 4 in. studs or nominal 2 by 6 in. studs nailed together with two 3 in. long 10d nails spaced a max. 16 in. OC, vertically and fastened to one side of the minimum 2 by 4 in. stud with 3 in. long 10d nails spaced a max. 16 in. OC, vertically. Intersection between partition wood studs to be flush with the 2 by 4 in. studs. The wall partition wood studs are to be framed by a second 2 by 4 in. wood stud fastened with 3 in. long 10d nails spaced a max. 16 in. OC, vertically. Maximum one non-bearing wall partition intersection per stud cavity. Non-bearing wall partition stud depth shall be at a minimum equal to the depth of the bearing wall.

13. Mesh Netting — (Not Shown) — Any thin, woven or non-woven fibrous netting material attached with staples to the outer face of one row of studs to facilitate the installation of the sprayed fiber from the opposite row.

* Indicates such products shall bear the UL or cUL Certification Mark for jurisdictions employing the UL or cUL Certification (such as Canada), respectively.



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MO LICENSE A-4246
ALVAH M. LEVINE, INC.
DBA LEVINE ASSOCIATES
CERTIFICATE OF AUTHORITY
LICENSE NUMBER A-2018040328

1 hour interior wall

20 APARTMENTS
10809-10819 OLIVE BOULEVARD
CREVE COEUR, MISSOURI 63141
JLA GROUP, DEVELOPER

REVISIONS

NO.	DATE	ITEM

SHEET NO.

A-10.1

ISSUE DATE: 8-4-20
PROJECT #: 1939.01
DRN. CMC CHK. AML

1 HOUR INTERIOR SHEAR WALL STC 50-54
(SEE GYPSUM ASSOC. NOTE 26)

BXUV.U311

Design/System/Construction/Assembly Usage Disclaimer

- Authorities Having Jurisdiction should be consulted in all cases as to the particular requirements covering the installation and use of UL Certified products, equipment, system, devices, and materials.
- Authorities Having Jurisdiction should be consulted before construction.
- Fire resistance assemblies and products are developed by the design submitter and have been investigated by UL for compliance with applicable requirements. The published information cannot always address every construction nuance encountered in the field.
- When field issues arise, it is recommended the first contact for assistance be the technical service staff provided by the product manufacturer noted for the design. Users of fire resistance assemblies are advised to consult the general Guide Information for each product category and each group of assemblies. The Guide Information includes specifics concerning alternate materials and alternate methods of construction.
- Only products which bear UL's Mark are considered Certified.

BXUV - Fire Resistance Ratings - ANSI/UL 263 Certified for United States

BXUV7 - Fire Resistance Ratings - CAN/ULC-S101 Certified for Canada

See General Information for Fire-resistance Ratings - ANSI/UL 263 Certified for United States
Design Criteria and Allowable Variances

See General Information for Fire Resistance Ratings - CAN/ULC-S101 Certified for Canada
Design Criteria and Allowable Variances

Design No. U311

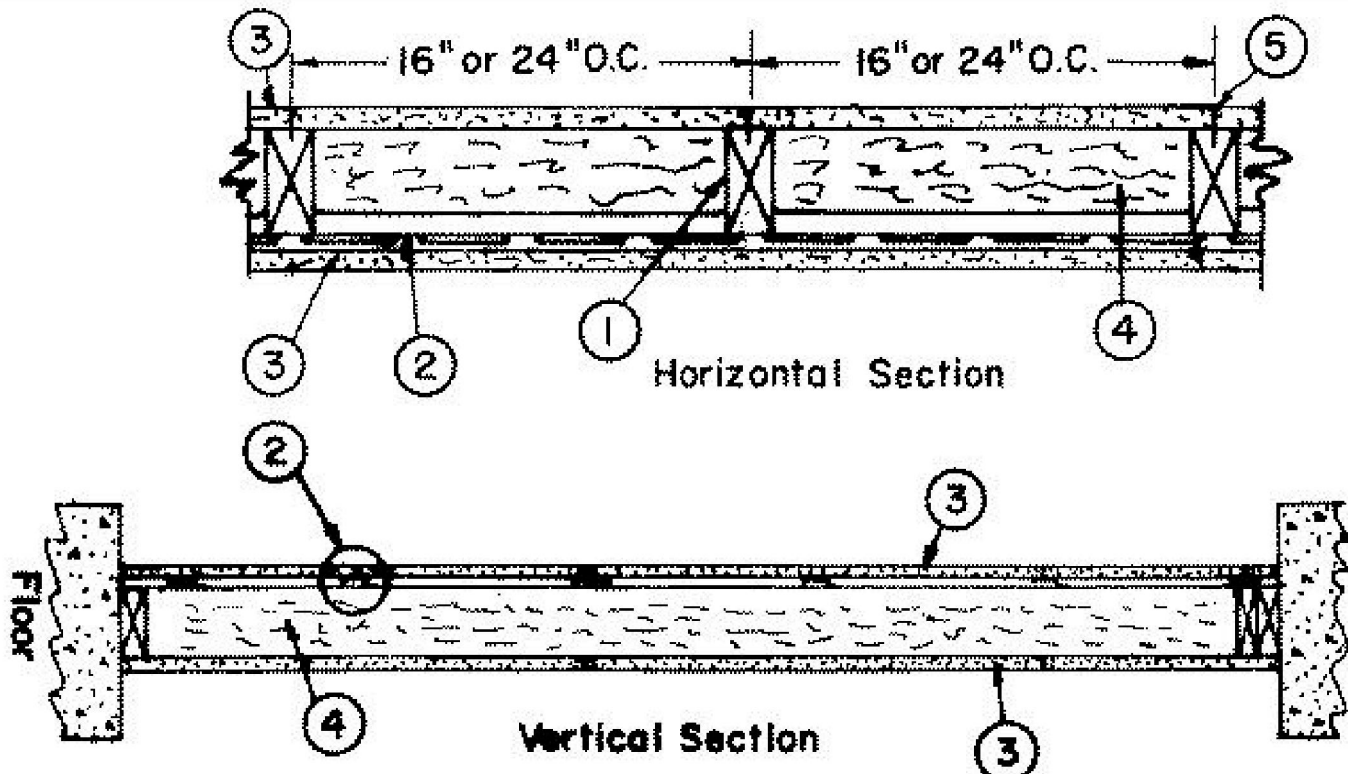
March 11, 2020

Bearing Wall Rating — 1 HR.

Finish Rating — 23 Min.

This design was evaluated using a load design method other than the Limit States Design Method (e.g., Working Stress Design Method). For jurisdictions employing the Limit States Design Method, such as Canada, a load restriction factor shall be used — See Guide BXUV or BXUV7

* Indicates such products shall bear the UL or cUL Certification Mark for jurisdictions employing the UL or cUL Certification (such as Canada), respectively.



1. **Wood Studs** — Nom 2 by 4 in., spaced 16 or 24. OC. Effectively cross braced.

2. **Resilient Channel** — 25 MSG galv steel. Resilient channels spaced vertically 24 in. OC, flange portion screw attached to one side of studs with 1-1/4 in. long Type W coarse thread gypsum panel steel screws.

- 2A. **Steel Framing Members*** — (Optional, Not Shown) — As an alternate to Item 2, furring channels and Steel Framing Members as described below:
- a. **Furring Channels** — Formed of No. 25 MSG galv steel, 2-9/16 in. or 2-23/32 in. wide by 7/8 in. deep, spaced 24 in. OC perpendicular to studs. Channels secured to studs as described in Item b. Ends of adjoining channels are overlapped 6 in. and tied together with double strand of No. 18 SWG galv steel wire near each end of overlap. As an alternate, ends of adjoining channels may be overlapped 6 in. and secured together with two self-tapping #6 framing screws, min. 7/16 in. long at the midpoint of the overlap, with one screw on each flange of the channel.
- b. **Steel Framing Members*** — Used to attach furring channels (Item a) to studs (Item 1). Clips spaced 48 in. OC, and secured to studs with No. 8 x 2-1/2 in. coarse drywall screw through the center grommet. Furring channels are friction fitted into clips.
- PAC INTERNATIONAL L L C** — Types RSIC-1, RSIC-1 (2.75).

- 2B. **Steel Framing Members*** — Furring channels and Steel Framing Members as described below:
- a. **Furring Channels** — Formed of No. 25 MSG galv steel, 2-3/8 in. wide by 7/8 in. deep, spaced 24 in. OC perpendicular to studs. Channels secured to studs as described in Item b. Ends of adjoining channels are overlapped 6 in. and tied together with double strand of No. 18 SWG galv steel wire near each end of overlap. As an alternate, ends of adjoining channels may be overlapped 6 in. and secured together with two self-tapping #6 framing screws, min. 7/16 in. long at the midpoint of the overlap, with one screw on each flange of the channel. Gypsum board attached to furring channels as described in Item 3.

- b. **Steel Framing Members*** — Used to attach furring channels (Item a) to studs. Clips spaced 48 in. OC. Genie clips secured to studs with No. 8 x 1-1/2 in. coarse drywall screw through the center hole. Furring channels are friction fitted into clips.
- PLITEQ INC** — Type Genie Clip

- 2C. **Steel Framing Members*** — (Optional, Not Shown) — Furring channels and Steel Framing Members as described below:
- a. **Furring Channels** — Formed of No. 25 MSG galv steel, Spaced 24 in. OC perpendicular to studs. Channels secured to studs as described in Item b. Ends of adjoining channels overlapped 6 in. and tied together with double strand of No. 18 AWG galvanized steel wire. Gypsum board attached to furring channels as described in Item 3.

- b. **Steel Framing Members*** — Used to attach furring channels (Item 2Ca) to studs. Clips spaced 48 in. OC,, and secured to studs with 2 in. coarse drywall screw with 1 in. diam washer through the center hole. Furring channels are friction fitted into clips.
- STUDCO BUILDING SYSTEMS** — RESILMOUNT Sound Isolation Clips — Type A237R

- 2D. **Steel Framing Members*** — (Optional, Not Shown) — Furring channels and Steel Framing Members as described below:
- a. **Furring Channels** — Formed of No. 25 MSG galv steel, spaced 24 in. OC, and perpendicular to studs. Channels secured to studs as described in Item 2Db. Ends of adjoining channels overlapped 6 in. and tied together with double strand of No. 18 AWG galvanized steel wire. Gypsum board attached to furring channels as described in Item 3.

- b. **Steel Framing Members*** — Used to attach furring channels (Item 2Da) to studs. Clips spaced 48 in. OC,, and secured to studs with No. 8 x 2-1/2 in. coarse drywall screw through the center hole. Furring channels are friction fitted into clips.
- REGUPOL AMERICA** — Type SonusClip

- 2E. **Steel Framing Members*** — (Optional, Not Shown) — Resilient channels and Steel Framing Members as described below:
- a. **Resilient Channels** — Formed of No. 25 MSG galv steel, spaced 24 in. OC, and perpendicular to studs. Channels secured to studs as described in Item b. Ends of adjoining channels overlapped 6 in. and secured in place with two No. 8 15 x 1/2 in. Philips Modified Truss screws spaced 2-1/2 in. from the center of the overlap. Gypsum board attached to resilient channels as described in Item 2.

- b. **Steel Framing Members*** — Used to attach resilient channels (Item 2Ea) to studs. Clips spaced 48 in. OC,, and secured to studs with No. 8 x 2-1/2 in. coarse drywall screw through the center hole. Resilient channels are secured to clips with one No. 10 x 1/2 in. pan-head self-drilling screw.
- KEENE BUILDING PRODUCTS CO INC** — Type RC+ Assurance Clip

- 2F. **Steel Framing Members*** — (Optional, Not Shown) — Furring channels and Framing Members as described below:
- a. **Furring Channels** — Formed of No. 25 MSG galv steel. Spaced 24 in. OC perpendicular to studs. Channels secured to studs as described in Item 2Fb. Ends of adjoining channels overlapped 6 in. and tied together with double strand of No. 18 AWG galvanized steel wire. As an alternate, ends of adjoining channels may be overlapped 6 in. and secured together with two self-tapping No. 6 framing screws, min. 7/16 in. long at the midpoint of the overlap, with one screw on each flange of the channel. Two layers of gypsum board attached to furring channels as described in Item 3A.

- b. **Framing Members*** — Used to attach furring channels (Item 2Fa) to studs (Item 1). Rafts secured to stud, spaced a maximum of 24 in. OC, horizontally, vertically spaced 3 in. from the top and bottom and 24 inch on center along each stud and secured with two 1-1/4 inch (No. 6) Type W drywall screws. One on each side of the core. Fasteners should not be placed closer than 1/4 inch to the edges of the mounts.
- BCD LLC** — Type HushFrame Raft Connector

3. **Gypsum Board*** — 5/8 in. thick, 4 ft wide. Screw attached on one side of wall to furring channels with 1 in. long, self-drilling, self-tapping steel screws spaced 12 in. OC, vertical joints located midway between studs and back blocked with furring channels, attached with 1 in. long, self-drilling, self-tapping screws, spaced 12 in. OC, along each edge. Gypsum board on opposite side of wall attached directly to studs with 1-1/4 in. long Type W coarse thread gypsum panel steel screws spaced 12 in. OC. Vertical joints shall be located over studs on this side of the wall.
- AMERICAN GYPSUM CO** — Types AG-C

CERTAINTED GYPSUM INC — Type C

CGC INC — Types C, IP-X2, IPC-AR, ULIX

CONTINENTAL BUILDING PRODUCTS OPERATING CO, L L C — Type LGFC-C/A

GEORGIA-PACIFIC GYPSUM L L C — Types S, DAPC, TG-C

NATIONAL GYPSUM CO — Types -eXP-C, FSK-C, FSW-C, FSW-G

PABCO BUILDING PRODUCTS L L C, DBA PABCO GYPSUM — Type C or PG-C

SAINT-GOBAIN GYPROC MIDDLE EAST FZE — Type Gyproc FireStop, Gyproc FireStop MR, Gyproc FireStop M2TECH, Gyproc FireStop ACTIV'Air, Gyproc FireStop MR ACTIV'Air, Gyproc FireStop M2TECH ACTIV'Air, Gyproc DuraLine, Gyproc DuraLine MR, Gyproc DuraLine M2TECH, Gyproc DuraLine ACTIV'Air, Gyproc DuraLine MR ACTIV'Air, Gyproc DuraLine M2TECH ACTIV'Air

THAI GYPSUM PRODUCTS PCL — Type C

UNITED STATES GYPSUM CO — Types C, IP-X2, IPC-AR, ULIX

USG BORAL DRYWALL SFZ LLC — Type C

USG MEXICO S A DE C V — Types C, IP-X2, IPC-AR

- 3A. **Gypsum Board*** — (For use with Item 2F) - Any 5/8 in. thick, 4 ft. wide, Gypsum Board UL Classified for Fire Resistance (CKN) eligible for use in Design No. G512. Two layers, applied vertically, and attached to furring channels (Item 2Fa). Vertical gypsum board side joints offset 24 inches between layers. Horizontal butt joints offset 48 inches from adjacent board horizontal joints and 24 inches from base layer butt joint. Vertical joints staggered one stud cavity on opposite sides of studs. Type S steel screws used to attach gypsum board to furring channels. First layer - 1 in. long, 3 inches from the edge and 24 in. OC. Second layer- 1-5/8 in. long, spaced 1 inch from the edge and 12 in. OC.

4. **Batts and Blankets*** — 3-1/2 in. thick mineral wool batts, placed to fill interior of wall, attached to the 4-in. face of the studs with staples placed 24 in. OC.
- JOHNS MANVILLE**

ROCKWOOL — Types Acoustical Fire Batts and AFB, min. density 1.69 pcf / 27.0 kg/m³

ROCKWOOL MALAYSIA SDN BHD — Type Acoustical Fire Batts.

ROCK WOOL MANUFACTURING CO — Type Delta Board

THERMAFIBER INC — Type SAFB, SAFB FF.

- 4A. **Glass Fiber Insulation** — (As an alternate to Item 4) — 3 in. thick glass fiber batts bearing the UL Classification Marking as to Surface Burning and/or Fire Resistance, friction-fitted to fill the interior of the wall. See **Batts and Blankets** (BKNV or BZJZ) Categories for names of Classified companies.

- 4B. **Fiber, Sprayed*** — As an alternate to Batts and Blankets (Item 4) — Spray applied cellulose material. The fiber is applied with water to completely fill the enclosed cavity in accordance with the application instructions supplied with the product with a nominal dry density of 2.7 lb/ft³. Alternate Application Method: The fiber is applied without water or adhesive at a nominal dry density of 3.5 lb/ft³, in accordance with the application instructions supplied with the product.
- U S GREENFIBER L L C** — INS735, INS745 and INS750LD for use with wet or dry application. INS515LD, INS541LD, INS735, INS765LD and INS773LD are to be used for dry application only

- 4C. **Fiber, Sprayed*** — As an alternate to Items 4, 4A, and 4B — Spray applied cellulose material. The fiber is applied with water to completely fill the enclosed cavity in accordance with the application instructions supplied with the product. Nominal dry density of 4.58 lb/ft³.
- NU-WOOL CO INC** — Cellulose Insulation

- 4D. **Fiber, Sprayed*** — As an alternate to Batts and Blankets (Item 4) — Spray applied cellulose fiber. The fiber is applied with water to completely fill the enclosed cavity in accordance with the application instructions supplied with the product. The minimum dry density shall be 4.30 lbs/ft³.
- INTERNATIONAL CELLULOSE CORP** — Celbar-RL

5. **Joints and Screw Heads** — Wallboard joints covered with paper tape and joint compound. Screw heads covered with joint compound. As an alternate, nom 3/32 in. thick gypsum veneer plaster may be applied to the entire surface of Classified veneer baseboard with joints reinforced with paper tape.

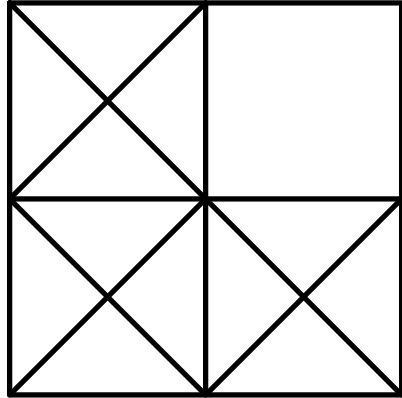
6. **Wall and Partition Facings and Accessories*** — (Optional, Not Shown) — Nominal 1/2 in. thick, 4 ft wide panels, for optional use as an additional layer on one or both sides of the assembly. Panels attached in accordance with manufacturer's recommendations. When the QR-500 or QR-510 panel is installed between the wood framing and the UL Classified gypsum board, the required UL Classified gypsum board layer(s) is/are to be installed as indicated as to fastener type and spacing, except that the required fastener length shall be increased by a minimum of 1/2 in. Not evaluated or intended as a substitute for the required layer(s) of UL Classified Gypsum Board.
- PABCO BUILDING PRODUCTS L L C, DBA PABCO GYPSUM** — Type QuietRock QR-500 and QR-510

7. **Mineral and Fiber Board** — (Optional, Not Shown) — 1/2 in. thick, 4 ft wide, square edge fiber boards applied vertically to studs on the side of the wood framing without the resilient channels, in between the wood framing and the UL Classified gypsum board (Item 3). Fiber boards installed with 1-1/4 in. long, Type W, bugle head, coarse thread gypsum board screws spaced 12 in. OC max, with the last screws spaced 2 in. and 6 in. from edge of board. Gypsum board (Item 3) installed horizontally or vertically and fastened through the fiber boards to wood framing with 2 in. long Type W coarse thread gypsum panel steel screws spaced a max 8 in. OC, with last screw 1 in. from edge of board. Gypsum board joints staggered from fiber board joints. Fiber boards not evaluated or intended as a substitute for the required layer of UL Classified Gypsum Board.
- BLUE RIDGE FIBERBOARD INC** — SoundStop

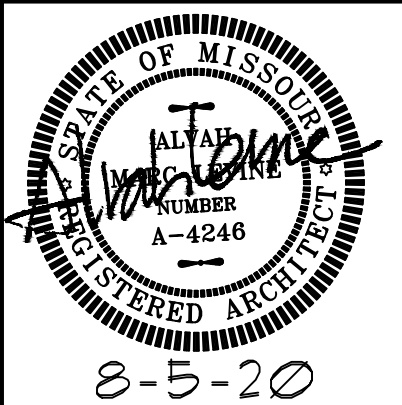
* Indicates such products shall bear the UL or cUL Certification Mark for jurisdictions employing the UL or cUL Certification (such as Canada), respectively.

STAIR LANDING

GA FILE NO. FC 5406	GENERIC	1 HOUR FIRE	35 to 39 STC SOUND
WOOD JOISTS, GYPSUM WALLBOARD			
Base layer 5/8" type X gypsum wallboard applied at right angles to 2 x 10 wood joists 24" o.c. with 1 1/4" Type W or S drywall screws 24" o.c. Face layer 5/8" type X gypsum wallboard or gypsum veneer base applied at right angles to joists with 1 7/8" Type W or S drywall screws 12" o.c. at joints and intermediate joists and 1 1/2" Type G drywall screws 12" o.c. placed 2" back on either side of end joints. Joints offset 24" from base layer joints. Wood joists supporting 1/2" plywood with exterior glue applied at right angles to joists with 8d nails. Ceiling provides one hour fire resistance protection for framing, including trusses.			
Approx. Ceiling Weight: 5 psf		Fire Test: FM FC 172, 2-25-T2; ITS, 6-6-98	
Fire Test:		Sound Test: Estimated	



LEVINE
associates
architecture • interiors • planning
8630 Delmar Boulevard, Suite 220
Delmar, Delaware 19740
Phone 314-991-5600 Fax 314-991-4420



ARCHITECT: ALVAH M. LEVINE
MO LICENSE A-4246
ALVAH M. LEVINE, INC.
DBA LEVINE ASSOCIATES
CERTIFICATE OF AUTHORITY
LICENSE NUMBER A-2018040328

1 hour shear wall and stair landing assemblies

20 APARTMENTS
10809-10819 OLIVE BOULEVARD
CREVE COEUR, MISSOURI 63141
JLA GROUP, DEVELOPER

REVISIONS

NO.	DATE	ITEM

SHEET NO.

A-10.2

ISSUE DATE: 8-4-20
PROJECT #: 1939.01
DRN. CMC CHK. AML

1 HOUR FLOOR/CEILING STC- 56

BXUV.L563

Design/System/Construction/Assembly Usage Disclaimer

- Authorities Having Jurisdiction should be consulted in all cases as to the particular requirements covering the installation and use of UL Certified products, equipment, system, devices, and materials.
- Authorities Having Jurisdiction should be consulted before construction.
- Fire resistance assemblies and products are developed by the design submitter and have been investigated by UL for compliance with applicable requirements. The published information cannot always address every construction nuance encountered in the field.
- When field issues arise, it is recommended the first contact for assistance be the technical service staff provided by the product manufacturer noted for the design. Users of fire resistance assemblies are advised to consult the general Guide Information for each product category and each group of assemblies. The Guide Information includes specifics concerning alternate materials and alternate methods of construction.
- Only products which bear UL's Mark are considered Certified.

BXUV - Fire Resistance Ratings - ANSI/UL 263 Certified for United States

BXUV7 - Fire Resistance Ratings - CAN/ULC-S101 Certified for Canada

See General Information for Fire-resistance Ratings - ANSI/UL 263 Certified for United States Design Criteria and Allowable Variances

See General Information for Fire Resistance Ratings - CAN/ULC-S101 Certified for Canada Design Criteria and Allowable Variances

Design No. L563

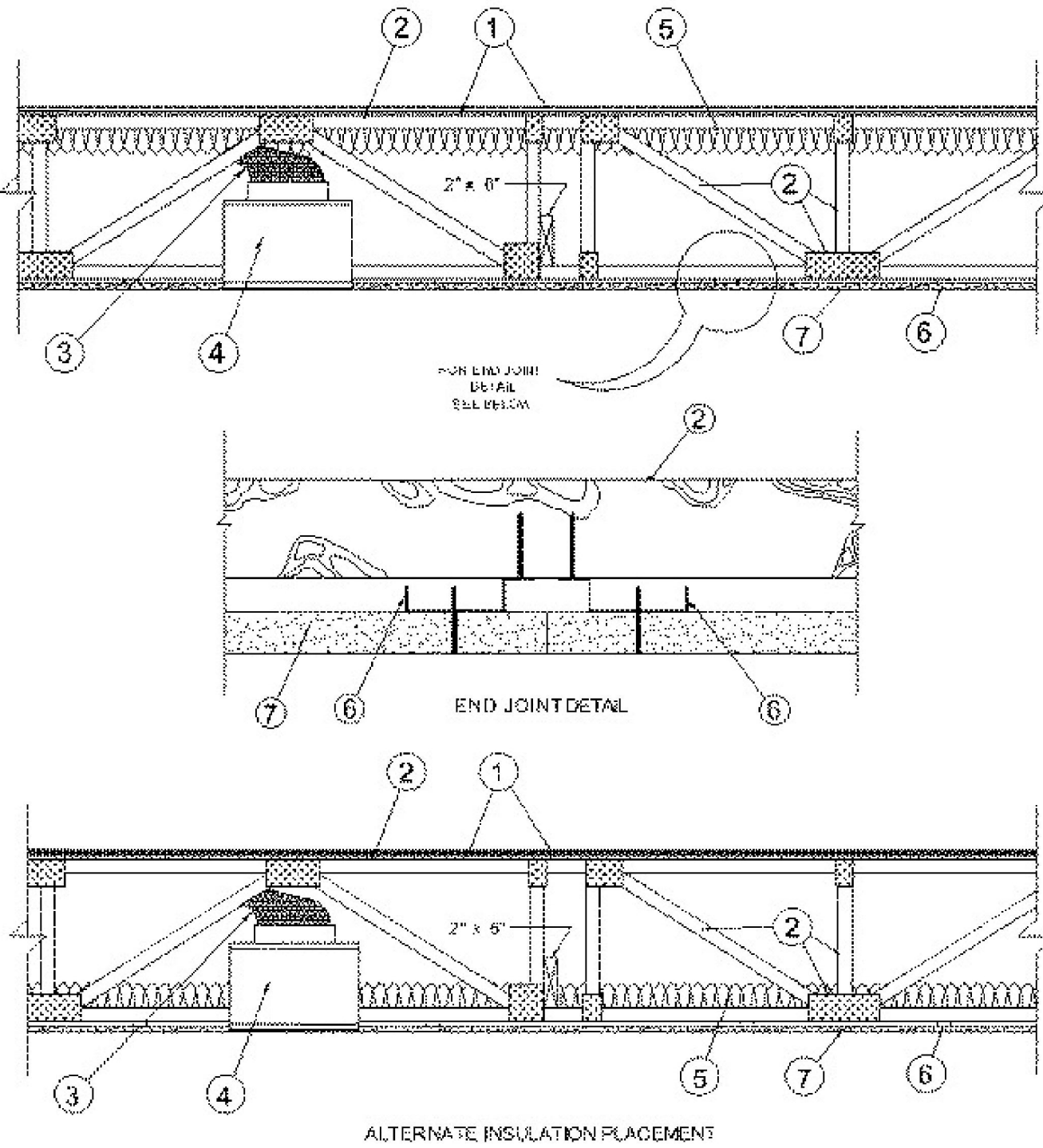
July 01, 2020

Unrestrained Assembly Rating - 1 Hr

Finish Rating - 25 Min (See Items 5 or 5A and 7), 20 Min. (See Items 6E and 7A)

This design was evaluated using a load design method other than the Limit States Design Method (e.g., Working Stress Design Method). For jurisdictions employing the Limit States Design Method, such as Canada, a load restriction factor shall be used — See Guide BXUV or BXUV7

*** Indicates such products shall bear the UL or cUL Certification Mark for jurisdictions employing the UL or cUL Certification (such as Canada), respectively.**



1. **Flooring System** — The flooring system shall consist of one of the following:

System No. 2

Subflooring — Min 23/32 in. thick T & G wood structural panels installed perpendicular to trusses with end joints staggered 4 ft. Plywood or nonveneer APA rated panels secured to trusses with construction adhesive and No. 6d ringed shank nails spaced 12 in. OC along each truss. TetraGRIP™ nails measuring 2-3/8 in. long, 0.113 in. diameter, 0.272 in. round head, and helically threaded shank with barbed features on the helix meeting ASTM F1667 and having equal or greater withdrawal and lateral resistance strength may be substituted for the 6d nails. Staples having equal or greater withdrawal and lateral resistance strength may be substituted for the 6d nails.

Floor Mat Materials* - (Optional) — Floor mat material nom 5/64 in. (2 mm) thick adhered to subfloor with Hacker Floor Primer. Primer to be applied to the surface of the mat prior to the placement of a min 1 in. of floor-topping mixture.

HACKER INDUSTRIES INC — Type Hacker Sound-Mat

Alternate Floor Mat Materials - (Optional) — Floor mat material nom 1/4 in. (6 mm) thick adhered to subfloor with Hacker Floor Primer. Primer to be applied to the surface of the mat prior to the placement of a min 1-1/4 in. (32 mm) of floor-topping mixture.

HACKER INDUSTRIES INC — Type Hacker Sound-Mat II.

Alternate Floor Mat Materials - (Optional) — Floor mat material nom 1/8 in. (3 mm) thick loose laid over the subfloor. Floor topping thickness shall be a min of 3/4 in. (19 mm)

HACKER INDUSTRIES INC — FIRM-FILL SCM 125

Alternate Floor Mat Materials - (Optional) — Floor mat material nom 1/4 in. (6 mm) thick loose laid over the subfloor. Floor topping thickness shall be a min of 1 in. (25 mm)

HACKER INDUSTRIES INC — Type FIRM-FILL SCM 250, Quiet Qurl 55/025

Alternate Floor Mat Materials - (Optional) — Floor mat material nom 3/8 in. (10 mm) thick loose laid over the subfloor. Floor topping thickness shall be a min of 1-1/4 in. (32 mm)

HACKER INDUSTRIES INC — FIRM-FILL SCM 400, Quiet Qurl 60/040

Metal Lath (Optional) — For use with 3/8 in. (10 mm) floor mat materials, 3/8 in. expanded steel diamond mesh, 3.4 lbs/sq yd placed over the floor mat material, Hacker Floor Primer to be applied prior to the placement of the metal lath. When metal lath is used, floor topping thickness a nom 1-1/4 in. over the floor mat.

Finish Flooring - Floor Topping Mixture* — Min 3/4 in. thickness of floor topping mixture having a min compressive strength of 1100 psi. Mixture shall consist of 6.8 gal of water to 80 lbs of floor topping mixture to 1.9 cu ft of sand.

HACKER INDUSTRIES INC — Firm-Fill Gypsum Concrete, Firm-Fill 2010, Firm-Fill 3310, Firm-Fill 4010, Firm-Fill High Strength, Gyp-Span Radiant

System No. 8

Subflooring — Min 23/32 in. thick T & G wood structural panels installed perpendicular to trusses with end joints staggered 4 ft. Plywood or nonveneer APA rated panels secured to trusses with construction adhesive and No. 6d ringed shank nails spaced 12 in. OC along each truss. TetraGRIP™ nails measuring 2-3/8 in. long, 0.113 in. diameter, 0.272 in. round head, and helically threaded shank with barbed features on the helix meeting ASTM F1667 and having equal or greater withdrawal and lateral resistance strength may be substituted for the 6d nails. Staples having equal or greater withdrawal and lateral resistance strength may be substituted for the 6d nails.

Finish Flooring - Floor Topping Mixture* — Min 3/4 in. thickness of floor topping mixture having a min compressive strength of 1000 psi. Mixture shall consist of 5 to 8 gal of water to 80 lbs of floor topping mixture to 2.1 cu ft of sand.

ULTRA QUIET FLOORS — Types UQF-A, UQF-Super Blend, UQF-Plus 200

System No. 9

Subflooring — Min 23/32 in. thick T & G wood structural panels installed perpendicular to trusses with joints staggered 4 ft. Plywood or nonveneer APA rated panels secured to trusses with construction adhesive and No. 6d ring shank nails spaced 12 in. OC along each truss. TetraGRIP™ nails measuring 2-3/8 in. long, 0.113 in. diameter, 0.272 in. round head, and helically threaded shank with barbed features on the helix meeting ASTM F1667 and having equal or greater withdrawal and lateral resistance strength may be substituted for the 6d nails. Staples having equal or greater withdrawal and lateral resistance strength may be substituted for the 6d nails.

Vapor Barrier - (Optional) — Nom 0.030 in. thick commercial asphalt saturated felt.

Finish Flooring - Floor Topping Mixture* — Min 3/4 in. thickness of floor topping mixture having a minimum compressive strength of 1500 psi. Refer to manufacturer's instructions accompanying the material for specific mix design.

MAXXON CORP — Type Maxxon Standard and Maxxon High Strength

Floor Mat Materials* - (Optional) — Floor mat material loose laid over the subfloor. Refer to manufacturer's instructions regarding the minimum thickness of floor topping over each floor mat material.

MAXXON CORP — Type Encapsulated Sound Mat.

System No. 10

Subflooring — Min 23/32 in. thick plywood with T & G edges along the 8 ft sides and exterior glue, or non-veneer APA Rated "Sturd-I-Floor" T & G panels per APA specifications PRP-108. Plywood or non-veneer APA rated panels secured to trusses with construction adhesive and No. 6d ringed shank nails spaced 12 in. OC along each truss. TetraGRIP™ nails measuring 2-3/8 in. long, 0.113 in. diameter, 0.272 in. round head, and helically threaded shank with barbed features on the helix meeting ASTM F1667 and having equal or greater withdrawal and lateral resistance strength may be substituted for the 6d nails. Staples having equal or greater withdrawal and lateral resistance strength may be substituted for the 6d nails.

Vapor Barrier — (Optional) Nom 0.030 in. thick commercial asphalt saturated felt.

Finish Flooring - Floor Topping Mixture* — Min 3/4 in. thickness of floor topping mixture having a min compressive strength of 1000 psi. Refer to manufacturer's instructions accompanying the material for specific mix design.

FORMULATED MATERIALS LLC — Types FR-25, FR-30, and SiteMix

Floor Mat Material* — (Optional) Floor mat material nominal 2 - 9.5 mm thick loose laid over the subfloor. Floor topping shall be a min of 3/4 in.

FORMULATED MATERIALS LLC — Types M1, M2, M3, Elite, Duo, R1, and R2

System No. 11

Subflooring — Min 23/32 in. thick wood structural panels, min grade "C-D" or "Sheathing". Face grain of plywood or strength axis of panels to be perpendicular to the joists with joints staggered.

Vapor Barrier — (Optional) - Commercial asphalt saturated felt, 0.030 in. thick.

Vapor Barrier — (Optional) - Nom 0.010 in. thick commercial rosin-sized building paper.

Finish Flooring* — Min 3/4 in. thickness of any Floor Topping Mixture bearing the UL Classification Marking as to Fire Resistance. See Floor- and Roof-Topping Mixtures (CCOX) category for names of Classified Companies.

Floor Mat Materials* — (Optional) - Nom. 1/4 in. thick loose laid over the subfloor. Floor topping thickness shall be a minimum of 3/4 in.

KEENE BUILDING PRODUCTS CO INC — Type Quiet Qurl 55/025 and Quiet Qurl 55/025 N

Alternate Floor Mat Materials* — (Optional) - Floor mat material Nom. 3/8 in. thick loose laid over the subfloor. Floor topping thickness shall be a minimum of 1 in.

KEENE BUILDING PRODUCTS CO INC — Type Quiet Qurl 60/040 and Quiet Qurl 60/040 N

Alternate Floor Mat Materials* — (Optional) - Floor mat material Nom. 3/4 in. thick loose laid over the subfloor. Floor topping thickness shall be a minimum of 1-1/2 in.

KEENE BUILDING PRODUCTS CO INC — Type Quiet Qurl 65/075, Quiet Qurl 65/075 N

Alternate Floor Mat Materials* — (Optional) - Floor mat material Nom. 1/8 in. thick loose laid over the subfloor. Floor topping thickness shall be a minimum of 3/4 in.

KEENE BUILDING PRODUCTS CO INC — Type Quiet Qurl 52/013 and Quiet Qurl 52/013 N

Alternate Floor Mat Materials* — (Optional) - Floor mat material Nom. 1/4 in. entangled net core with a compressible fabric attached to the bottom loose laid over the subfloor. Floor topping thickness shall be a minimum of 1 in.

KEENE BUILDING PRODUCTS CO INC — Quiet Qurl 55/025 MT and Quiet Qurl 55/025 N MT

System No. 13

Subflooring — Min 23/32 in. thick plywood with T & G edges along the 8 ft sides and exterior glue, or nonveneer APA Rated "Sturd-I-Floor" T & G panels per APA specifications PRP-108. Plywood or nonveneer APA rated panels secured to trusses with construction adhesive and No. 6d ringed shank nails spaced 12 in. OC along each truss. TetraGRIP™ nails measuring 2-3/8 in. long, 0.113 in. diameter, 0.272 in. round head, and helically threaded shank with barbed features on the helix meeting ASTM F1667 and having equal or greater withdrawal and lateral resistance strength may be substituted for the 6d nails. Staples having equal or greater withdrawal and lateral resistance strength may be substituted for the 6d nails.

Vapor Barrier — (Optional) — Nom 0.030 in. thick commercial asphalt saturated felt.

Finish Flooring - Floor Topping Mixture* — Min 3/4 in. thickness of floor topping mixture having a min compressive strength of 1000 psi. Refer to manufacturer's instructions accompanying the material for specific mix design.

ACG MATERIALS — AccuCrete types NexGen, Green, Prime, B, M, and PrePour, AccuRadiant, AccuLevel types G40, G50 and SD30.

Floor Mat Material* — (Optional) — Floor mat material nominal 2 - 9.5 mm thick loose laid over the subfloor. Floor topping shall be a min of 3/4 in.

ACG MATERIALS — AccuQuiet types P80, C40, D13, D-18, D25, DX38, EM.125, EM.125S, EM.250, EM.250S, EM.375, EM.375S, EM.750, and EM.750S.

System No. 14

Subflooring — Min 23/32 in. thick plywood with T & G edges along the 8 ft sides and exterior glue, or nonveneer APA Rated "Sturd-I-Floor" T & G panels per APA specifications PRP-108. Plywood or nonveneer APA rated panels secured to trusses with construction adhesive and No. 6d ringed shank nails spaced 12 in. OC along each truss. TetraGRIP™ nails measuring 2-3/8 in. long, 0.113 in. diameter, 0.272 in. round head, and helically threaded shank with barbed features on the helix meeting ASTM F1667 and having equal or greater withdrawal and lateral resistance strength may be substituted for the 6d nails. Staples having equal or greater withdrawal and lateral resistance strength may be substituted for the 6d nails.

Vapor Barrier — (Optional) — Nom 0.030 in. thick commercial asphalt saturated felt.

Finish Flooring - Floor Topping Mixture* — Min 3/4 in. thickness of floor topping mixture having a min compressive strength of 1000 psi. Refer to manufacturer's instructions accompanying the material for specific mix design.

DEPENDABLE LLC — GSL M3.4, GSL K2.6, GSL-CSD and GSL RH.

Floor Mat Materials* — (Optional) - Nom. 1/4 in. thick loose laid over the subfloor. Floor topping thickness shall be a minimum of 3/4 in.

KEENE BUILDING PRODUCTS CO INC — Type Quiet Qurl 55/025 and Quiet Qurl 55/025 N

Alternate Floor Mat Materials* — (Optional) - Floor mat material Nom. 3/8 in. thick loose laid over the subfloor. Floor topping thickness shall be a minimum of 1 in.

KEENE BUILDING PRODUCTS CO INC — Type Quiet Qurl 60/040 and Quiet Qurl 60/040 N

Alternate Floor Mat Materials* — (Optional) - Floor mat material Nom. 3/4 in. thick loose laid over the subfloor. Floor topping thickness shall be a minimum of 1-1/2 in.

KEENE BUILDING PRODUCTS CO INC — Type Quiet Qurl 65/075, Quiet Qurl 65/075 N

Alternate Floor Mat Materials* — (Optional) - Floor mat material Nom. 1/8 in. thick loose laid over the subfloor. Floor topping thickness shall be a minimum of 3/4 in.

KEENE BUILDING PRODUCTS CO INC — Type Quiet Qurl 52/013 and Quiet Qurl 52/013 N

Alternate Floor Mat Materials* — (Optional) - Floor mat material Nom. 1/4 in. entangled net core with a compressible fabric attached to the bottom loose laid over the subfloor. Floor topping thickness shall be a minimum of 1 in.

KEENE BUILDING PRODUCTS CO INC — Quiet Qurl 55/025 MT and Quiet Qurl 55/025 N MT

System No. 19

Subflooring — Nom 23/32 in. thick wood structural panels installed perpendicular to trusses with end joints staggered. Plywood panels secured to trusses with construction adhesive and No. 6d ringed shank nails spaced 12 in. OC along each truss. TetraGRIP™ nails measuring 2-3/8 in. long, 0.113 in. diameter, 0.272 in. round head, and helically threaded shank with barbed features on the helix meeting ASTM F1667 and having equal or greater withdrawal and lateral resistance strength may be substituted for the 6d nails. Staples having equal or greater withdrawal and lateral resistance strength may be substituted for the 6d nails.

Vapor Barrier — (Optional) - Commercial asphalt saturated felt, 0.030 in. thick.

Finish Flooring - Floor Topping Mixture* — Min 3/4 in. thickness of any Floor Topping Mixture bearing the UL Classification Marking as to Fire Resistance. See Floor- and Roof-Topping Mixtures (CCOX) category for names of Classified Companies.

Floor Mat Materials* — (Optional, Not Shown) - Floor mat material loose laid over the subfloor. Refer to manufacturer's instructions regarding the minimum thickness of floor topping over each floor mat material.

LOW & BONAR INC — EnkaSonic® by Colbond a member of the Low & Bonar group Types 125, 250, 250 Plus, 400, 400 Plus, 750 and 750 Plus.

Floor Mat Reinforcement — (Optional) - Refer to manufacturer's instructions regarding minimum thickness of floor topping for use with floor mat reinforcement.

Metal Lath — (Optional) — Expanded steel diamond mesh, 2.5 lb / sq yd loose laid over floor mat material.

Fiberglass Mesh Reinforcement — (Optional) — Coated non-woven glass fiber mesh grid loose laid over floor mat material.

2. **Trusses** — Parallel chord trusses, spaced a max of 24 in. OC, fabricated from nom 2 by 4 lumber, with lumber oriented vertically or horizontally. Min truss depth is 12 in. when Ceiling Dampers* are not used. Min truss depth is 18 in. when Ceiling Damper* is used. Truss members secured together with min 0.036 0356 in. thick galvanized steel plates. Plates have 5/16 in. long teeth projecting perpendicular to the plane of the plate. The teeth are in pairs facing each other (made by the same punch), forming a split tooth type plate. Each tool has a chisel point on its outside edge. These points are diagonally opposite each other for each pair. The top half of each tooth has a twist for stiffness. The pairs are repeated on approx. 7/8 in. centers with four rows of teeth per inch of plate width.

3. **Air Duct* (Optional)** — Any UL Class 0 or Class 1 flexible air duct installed in accordance with the instructions provided by the damper manufacturer.

4. **Ceiling Damper* (Optional). To be used with Air Duct Item 3.** — For use with min 18 in. deep trusses Max plenum box size nom 19 in. long by 19 in. wide and 11-7/8 in. high fabricated from galv steel. Aggregate damper openings shall not exceed 128 sq in. per 100 sq ft of ceiling area. Damper installed in accordance with the manufacturer's installation instructions provided with the damper.

AIRE TECHNOLOGIES INC — Models: CRD model 50 w/Boot, CRD model 50EA w/Boot, CRD model 55 w/Boot, CRD model 55 EA w/Boot.

LLOYD INDUSTRIES INC — Model CRD 50-BT, CRD 50-EA-BT, CRD 55-BT, CRD 55 EA-BT

UNITED ENERTECH CORP — Model C-S/R-WT-L, C-S/R-EA-L, C-S/R-BT, C-S/R-EA-BL

4A. **Alternate Ceiling Damper*** — For use with min 18 in. deep trusses Max plenum box size nom 13 in. long by 13 in. wide and 11-7/8 in. high fabricated from galv steel. Aggregate damper openings shall not exceed 50 sq in. per 100 sq ft of ceiling area. Damper installed in accordance with the manufacturer's installation instructions provided with the damper.

LLOYD INDUSTRIES INC — Model CRD 50-BT-6, CRD 50-EA-BT-6, CRD 55-BT-6, CRD 55 EA-BT-6, CRD50-[®] X-BT-6

4B. **Alternate Ceiling Damper*** — For use with min 18 in. deep trusses Max size ceiling outlet in plenum box nom 12 in. long by 16 in. wide. Plenum box fabricated from galv steel. Aggregate damper openings shall not exceed 72 sq in. per 100 sq ft of ceiling area. Installed in accordance with the manufacturer's installation instructions provided with the damper.

AIRE TECHNOLOGIES INC — Models: CRD model 50 w/Boot, CRD model 50EA w/Boot, CRD model 55 w/Boot, CRD model 55 EA w/Boot.

LLOYD INDUSTRIES INC — Model CRD 50-95BT, CRD 50-EA-95BT, CRD 55-95BT, CRD 55 EA-95BT

4C. **Alternate Ceiling Damper*** — For use with min 18 in. deep trusses. Max size ceiling outlet in plenum box nom 16 in. long by 16 in. wide. Aggregate damper openings shall not exceed 128 sq in. per 100 sq ft of ceiling area. Damper installed in accordance with the manufacturer's installation instructions provided with the damper.

CROWN PRODUCTS CO INC — Models CRD50-FGPB-4.2-CP, -6.0-CP; CRD50-FGPB-4.2-EA-CP, -6.0-EA-CP.

LLOYD INDUSTRIES INC — Models CRD 50-FGPB-4.2, -4.2 NI, -6.0, -6.0 NI; CRD50-EA-FGPB-4.2, -4.2 NI, -6.0, -6.0 NI.

4D. **Alternate Ceiling Damper*** — For use with min 18 in. deep trusses Max plenum box size nom 15 in. long by 15 in. wide and 11-7/8 in. high fabricated from galv steel. Aggregate damper openings shall not exceed 72 sq in. per 100 sq ft of ceiling area. Damper installed in accordance with the manufacturer's installation instructions provided with the damper.

LLOYD INDUSTRIES INC — Models 45-CRD-LT-BT and 45-CRD-LTD-BT

4E. **Alternate Ceiling Damper*** — For use with min 18 in. deep trusses Max size ceiling outlet in plenum box nom 10 in. long by 10 in. wide. Plenum box fabricated from galv steel. Aggregate damper openings shall not exceed 50 sq in. per 100 sq ft of ceiling area. Installed in accordance with the manufacturer's installation instructions provided with the damper.

LLOYD INDUSTRIES INC — Model 45-LTD-95-BT-4

4F. **Alternate Ceiling Damper*** — For use with min 18 in. deep trusses Max plenum box size nom 19 in. long by 15 in. wide and 11-7/8 in. high fabricated from galv steel. Aggregate damper openings shall not exceed 96 sq in. per 100 sq ft of ceiling area. Damper installed in accordance with the manufacturer's installation instructions provided with the damper.

LLOYD INDUSTRIES INC — Model CRD50-[®] X-BT

4G. **Alternate Ceiling Damper*** — For use with min. 18 in. deep trusses. Max. nom area shall be 349 sq in. Max. overall length and width shall not exceed 18-11/16 in. by 18-11/16 in. with max. 16 in. by 16 in. register opening. Aggregate damper openings shall not exceed 175 sq in. per 100 sq ft of ceiling area. Damper installed in accordance with the manufacturer's installation instructions provided with the damper. An aluminum or steel grille (Item 9) shall be installed in accordance with installation instructions.

MIAMI TECH INC — Model Series RxCRD, RxCRDS or RxCRPD

4H. **Alternate Ceiling Damper*** — For use with min 18 in. deep trusses Max plenum box size nom 19 in. long by 19 in. wide and 11-7/8 in. high fabricated from galv steel. Aggregate damper openings shall not exceed 128 sq in. per 100 sq ft of ceiling area. Damper installed in accordance with the manufacturer's installation instructions provided with the damper.

METAL-FAB INC — Models MSCD-HC and MRCD-HC

4I. **Alternate Ceiling Damper*** — For use with min 18 in. deep trusses Max plenum box size nom 14 in. long by 16 in. wide and 15 in. high fabricated from galv steel. Aggregate damper openings shall not exceed 112 sq in. per 100 sq ft of ceiling area. Damper installed in accordance with the manufacturer's installation instructions provided with the damper.

METAL-FAB INC — Model MCCD

5. **Batts and Blankets*** — (Optional) - Glass fiber or mineral wool insulation bearing the UL Classification Marking as to Surface Burning Characteristics and/or Fire Resistance. When no insulation is installed in the concealed space resilient channels (Item 6) are spaced 24 in. OC. When the resilient channels (Item 6) are spaced 16 in. OC, the insulation shall be a max of 3-1/2 in. thick, and shall be secured against the subflooring with staples at 12 in. OC or held suspended in the concealed space by 0.090 in. diam galv steel wires attached to the wood trusses at 12 in. OC. When the resilient channels are spaced a max of 12 in. OC or when the Steel Framing Members (Item 6A) are used, there is no limit in the overall thickness of insulation, and the insulation can be secured against the subflooring, held suspended in the concealed space or draped over the resilient channels (or Steel Framing Members) and gypsum panel membrane. The finished rating has only been determined when the insulation is secured to the subflooring.

5A. **Loose Fill Material*** — (Optional) - As an alternate to Item 5, when the resilient channels (Item 6) are spaced a max of 12 in. OC, or when the Steel Framing Members (Item 6A) are used - Any loose fill material bearing the UL Classification Marking for Surface Burning Characteristics. There is no limit in the overall thickness of insulation. The finished rating when loose fill material is used has not been determined.

5B. **Cavity Insulation - Batts and Blankets* or Loose Fill Material* - (Not Shown)** — (As described above in Items 5 and 5A) — For Use with Item 7A — Min. 3-1/2 in thick with no limit on maximum thickness fitted in the concealed space, draped over the resilient channel (Item 6E)/gypsum board (Item 7A) ceiling membrane.

6. **Resilient Channels** — Formed from min 25 MSG galv steel installed perpendicular to the trusses. When insulation (Item 5) is secured to the underside of the subfloor, the resilient channels are spaced 16 in. OC. When insulation (Items 5 or 5A) is applied over the resilient channel/gypsum panel ceiling membrane, the resilient channels are spaced 12 in. OC. Channels secured to each truss with 1-1/4 in. long Type S bugle head steel screws. Channels overlapped 4 in. at splices. Two channels, spaced 6 in. OC, oriented opposite each gypsum panel end joint as shown in the above illustration. Additional channels shall extend min 6 in. beyond each side edge of panel.

7. **Gypsum Board*** — Nom 5/8 in. thick, 48 in. wide gypsum panels. When resilient channels (Item 6) are used, gypsum panels installed with long dimension perpendicular to resilient channels. Gypsum panels secured with 1 in. long Type S bugle head steel screws spaced 12 in. OC and located a min of 1/2 in. from side joints and 3 in. from end joints. When insulation (Items 5 or 5A) is applied over the resilient channel/gypsum panel ceiling membrane the screw spacing shall be reduced to 8 in. OC. End joints secured to both resilient channels as shown in end joint detail. When Steel Framing Members (Item 6A) are used, gypsum panels installed with long dimension perpendicular to cross tees with side joints centered along main runners and end joints centered along cross tees. Panels fastened to cross tees with 1 in. long Type S bugle-head screws spaced 8 in. OC in the field and along end joints. Panels fastened to main runners with 1 in. long Type S bugle-head screws spaced midway between cross tees. Screws along sides and ends of panels spaced 3/8 to 1/2 in. from board edge. End joints of panels shall be staggered with spacing between joints on adjacent panels not less than 2 ft OC. When **Steel Framing Members** (Item 6B) are used, one layer of nom 5/8 in. thick, 4 ft wide gypsum board is installed with long dimensions perpendicular to furring channels. Gypsum board secured to furring channels with nom 1 in. long No. 6 Type S bugle-head steel screws spaced 12 in. OC in the field of the board. Screw spacing is reduced to 8 in. OC when insulation is applied over the furring channel/gypsum panel ceiling membrane. Gypsum board butted end joints shall be staggered minimum 16 in. within the assembly. At the gypsum board butt joints, each end of each gypsum board shall be supported by a single length of furring channel equal to the width of the gypsum board plus 6 in. on each end. These additional furring channels shall be attached to underside of the truss with Genie clips as described in Item 6B. Screw spacing along the gypsum board butt joint shall be 6 in. OC. When **Steel Framing Members** (Item 6C) are used, gypsum panels installed with long dimensions perpendicular to furring channels.

Panels attached to the furring channels using 1 in. long Type S bugle-head steel screws spaced 8 in. OC along butted end joints and in the field of the panel. Butted end joints shall be staggered min. 2 ft within the assembly, and occur midway between the continuous furring channels. Each end of each gypsum panel shall be supported by a single length of furring channel equal to the width of the gypsum panel plus 6 in. on each end. The two support furring channels shall be spaced approximately 3-1/2 in. OC, and be attached to underside of the truss with one clip at each end of the channel. When **Steel Framing Members** (Item 6D) are used, one layer of nom 5/8 in. thick, 4 ft wide gypsum board is installed with long dimensions perpendicular to furring channels. Gypsum board secured to furring channels with nom 1 in. long Type S bugle-head steel screws spaced 8 in. OC in the field of the board. Gypsum board butted end joints shall be staggered minimum 48 in. and centered over main furring channels. At the gypsum board butt joints, each end of each gypsum board shall be supported by a single length of furring channel equal to the width of the gypsum board plus 3 in. on each end joint. The two support furring channels shall be spaced approximately 3 in. in from joint. Screw spacing along the gypsum board butt joint and along both additional channels shall be 8 in. OC. Additional screws shall be placed in the adjacent section of gypsum board into the aforementioned 3 in. extension of the extra butt joint channels as well as into the main channel that runs between. Butt joint furring channels shall be attached with one RESILMOUNT Sound Isolation Clip at each end of the channel. When **Steel Framing Members** (Item 6F) are used, one layer of nom 5/8 in. thick, 4 ft wide gypsum board is installed with long dimensions perpendicular to furring channels. Gypsum board secured to furring channels with nom 1 in. long Type S bugle-head steel screws spaced 8 in. OC in the field of the board. Gypsum board butted end joints shall be staggered minimum 48 in. and centered over main furring channels. At the gypsum board butt joints, an additional single length of furring channel shall be installed and be spaced approximately 3 in. from the butt joint (6 in. from the continuous furring channels

1 HOUR TENANT SEPARATION WALL STC-56

BXUV.U341

Design/System/Construction/Assembly Usage Disclaimer

- Authorities Having Jurisdiction should be consulted in all cases as to the particular requirements covering the installation and use of UL Certified products, equipment, system, devices, and materials.
- Authorities Having Jurisdiction should be consulted before construction.
- Fire resistance assemblies and products are developed by the design submitter and have been investigated by UL for compliance with applicable requirements. The published information cannot always address every construction nuance encountered in the field.
- When field issues arise, it is recommended the first contact for assistance be the technical service staff provided by the product manufacturer noted for the design. Users of fire resistance assemblies are advised to consult the general Guide Information for each product category and each group of assemblies. The Guide Information includes specifics concerning alternate materials and alternate methods of construction.
- Only products which bear UL's Mark are considered Certified.

BXUV - Fire Resistance Ratings - ANSI/UL 263 Certified for United States

BXUV7 - Fire Resistance Ratings - CAN/ULC-S101 Certified for Canada

See General Information for Fire-resistance Ratings - ANSI/UL 263 Certified for United States Design Criteria and Allowable Variances

See General Information for Fire Resistance Ratings - CAN/ULC-S101 Certified for Canada Design Criteria and Allowable Variances

Design No. U341

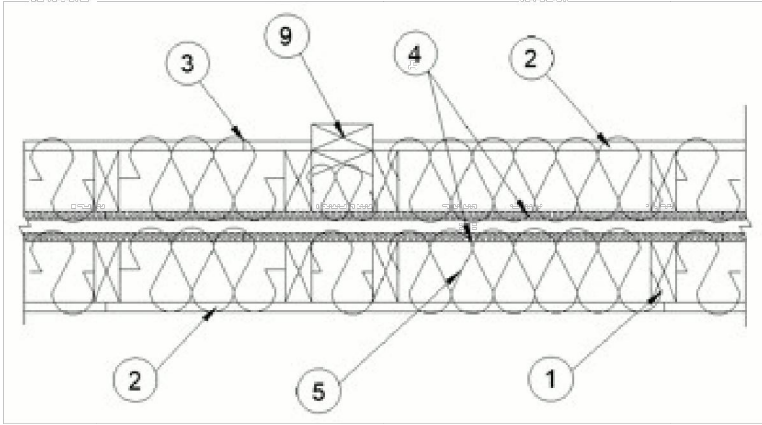
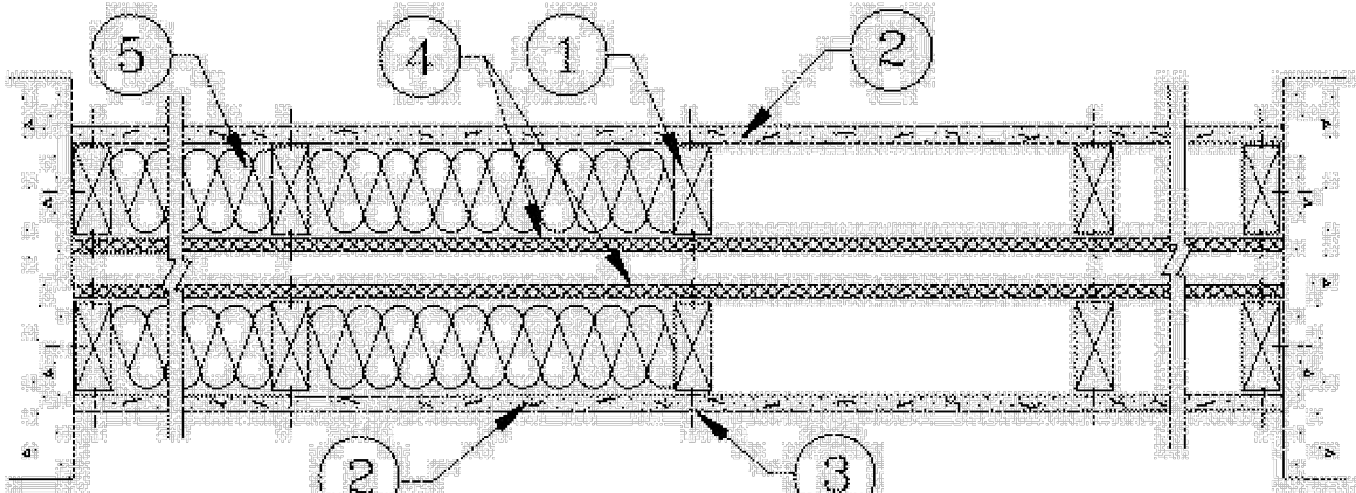
March 11, 2020

Bearing Wall Rating — 1 Hr.

Finish Rating — Min 20 min.

This design was evaluated using a load design method other than the Limit States Design Method (e.g., Working Stress Design Method). For jurisdictions employing the Limit States Design Method, such as Canada, a load restriction factor shall be used — See Guide BXUV or BXUV7

* Indicates such products shall bear the UL or cUL Certification Mark for jurisdictions employing the UL or cUL Certification (such as Canada), respectively.



HORIZONTAL SECTION

1. **Wood Studs** — Nom 2 by 4 in., spaced 24 in. OC max. Cross braced at mid-height and effectively firestopped at top and bottom of wall. No min. air space between stud rows except to accommodate attachment of sheathing, where required. See items 4 and 5.

2. **Gypsum Board*** — Any 5/8 in. thick UL Classified Gypsum Board that is eligible for use in Design Nos. L501, G512 or U305. Nom 5/8 in. thick 4 ft wide. Gypsum board applied horizontally or vertically, unless specified below, and nailed to studs and bearing plates 7 in. OC with 6d cement coated nails, 1-7/8 in. long, 0.0915 in. shank diam and 1/4 in. diam head. As an alternate, No. 6 bugle head drywall screws, 1-7/8 in. long, may be substituted for the 6d cement coated nails. When **Steel Framing Members*** (Item 6-6C) are used, wallboard attached to furring channels with 1 in. long Type 5 bugle-head steel screws spaced 12 in. OC.

When used in widths other than 48 in., gypsum board to be installed horizontally.

AMERICAN GYPSUM CO (View Classification) — CKNXR14196

BEIJING NEW BUILDING MATERIALS PUBLIC LTD CO (View Classification) — CKNXR19374

CABOT MANUFACTURING ULC (View Classification) — CKNXR25370

CERTAINTED GYPSUM INC (View Classification) — CKNXR3660

CGC INC (View Classification) — CKNXR19751

CONTINENTAL BUILDING PRODUCTS OPERATING CO, L L C (View Classification) — CKNXR18482

GEORGIA-PACIFIC GYPSUM L L C (View Classification) — CKNXR2717

LOADMASTER SYSTEMS INC (View Classification) — CKNXR11809

NATIONAL GYPSUM CO (View Classification) — CKNXR3501

PABCO BUILDING PRODUCTS L L C, DBA PABCO GYPSUM (View Classification) — CKNXR7094

PANEL REY S A (View Classification) — CKNXR21796

SIAM GYPSUM INDUSTRY (SARABURI) CO LTD (View Classification) — CKNXR19262

THAI GYPSUM PRODUCTS PCL (View Classification) — CKNXR27517

UNITED STATES GYPSUM CO (View Classification) — CKNXR1319

USG BORAL DRYWALL SFZ LLC (View Classification) — CKNXR38438

USG BORAL DRYWALL SFZ LLC (View Classification) — CKNXR38438

USG MEXICO S A DE C V (View Classification) — CKNXR16089

28. **Gypsum Board*** — (As an alternate to Item 2, not shown) — Any 5/8 in. thick gypsum panels that are eligible for use in Design Nos. L501, G512 or U305, supplied by the Classified companies listed below shown in the **Gypsum Board*** (CKNX) category. Applied horizontally or vertically and attached to studs and bearing plates with 1-1/4 in. long Type W coarse thread gypsum panel steel screws spaced a max 8 in. OC, with last screw 1 in. from edge of board. When used in widths other than 48 in., gypsum board to be installed horizontally.

UNITED STATES GYPSUM CO

USG BORAL DRYWALL SFZ LLC

USG MEXICO S A DE C V

3. **Joints and Nailheads** — Gypsum board joints of outer layer covered with tape and joint compound. Nail heads of outer layer covered with joint compound. As an alternate, nom 3/32 in. thick gypsum veneer plaster may be applied to the entire surface of Classified veneer baseboard with joints reinforced with paper tape.

4. **Sheathing** — (Optional) — Septum may be sheathed with min 7/16 in. thick wood structural panels min grade "C-D" or "Sheathing" or min 1/2 in. thick **Mineral and Fiber Boards***.

See **Mineral and Fiber Boards** (CERZ) category for names of Classified companies.

5. **Batts and Blankets*** — 3-1/2 in. max thickness glass or mineral fiber batt insulation. **Optional** when sheathing (Item 4) is used on both halves of wall.

See **Batts and Blankets** (BZJZ) category for list of Classified companies.

5A. **Fiber, Sprayed*** — As an alternate to Batts and Blankets (Item 5) — Spray applied cellulose material. The fiber is applied with water to completely fill the enclosed cavity in accordance with the application instructions supplied with the product with a nominal dry density of 2.7 lb/ft³. Alternate Application Method: The fiber is applied without water or adhesive at a nominal dry density of 3.5 lb/ft³, in accordance with the application instructions supplied with the product.

U S GREENFIBER L L C — INS735, INS745 and INS750LD for use with wet or dry application. INS515LD, INS541LD, INS735, INS765LD, and INS773LD are to be used for dry application only.

5B. **Fiber, Sprayed*** — As an alternate to Batts and Blankets (Item 5) when Sheathing (Item 4) is used on both halves of wall - Spray applied cellulose insulation material. The fiber is applied with water to interior surfaces in accordance with the application instructions supplied with the product. Applied to completely fill the enclosed cavity. Minimum dry density of 4.3 pounds per cubic ft.

NU-WOOL CO INC — Cellulose Insulation

5C. **Batts and Blankets*** — (Required for use with Wall and Partition Facings and Accessories, Item 2A. Use of Sheathing, Item 4, does not nullify requirement of Item 5C for use with Item 2A) — Glass fiber insulation, nom 3-1/2 in. thick, min. density of 0.80 pcf, with a flame spread of 25 or less and a smoke developed of 50 or less, friction-fitted to completely fill the stud cavities. See Batts and Blankets Category (BKNV) for names of manufacturers.

5D. **Fiber, Sprayed*** — As an alternate to Batts and Blankets (Item 5) and Item 5A when Sheathing (Item 4) is used on both halves of wall - Spray applied cellulose fiber. The fiber is applied with water to completely fill the enclosed cavity in accordance with the application instructions supplied with the product. The minimum dry density shall be 4.30 lbs/ft³.

INTERNATIONAL CELLULOSE CORP — Celbar-RL

5E. **Fiber, Sprayed*** — As an alternate to Batts and Blankets (Item 5) - Spray-applied cellulose material. The fiber is applied with water to completely fill the enclosed cavity in accordance with the application instructions supplied with the product. To facilitate the installation of the material, any thin, woven or non-woven netting may be attached by any means possible to the outer face the studs. The material shall reach equilibrium moisture content before the installation of materials on either face of the studs. The minimum dry density shall be 5.79 lbs/ft³.

APPLEGATE HOLDINGS L L C — Applegate Advanced Stabilized Cellulose Insulation

* Indicates such products shall bear the UL or cUL Certification Mark for jurisdictions employing the UL or cUL Certification (such as Canada), respectively.

2 HOUR CMU WALL

BXUV.U905

Design/System/Construction/Assembly Usage Disclaimer

- Authorities Having Jurisdiction should be consulted in all cases as to the particular requirements covering the installation and use of UL Certified products, equipment, system, devices, and materials.
- Authorities Having Jurisdiction should be consulted before construction.
- Fire resistance assemblies and products are developed by the design submitter and have been investigated by UL for compliance with applicable requirements. The published information cannot always address every construction nuance encountered in the field.
- When field issues arise, it is recommended the first contact for assistance be the technical service staff provided by the product manufacturer noted for the design. Users of fire resistance assemblies are advised to consult the general Guide Information for each product category and each group of assemblies. The Guide Information includes specifics concerning alternate materials and alternate methods of construction.
- Only products which bear UL's Mark are considered Certified.

BXUV - Fire Resistance Ratings - ANSI/UL 263 Certified for United States

BXUV7 - Fire Resistance Ratings - CAN/ULC-S101 Certified for Canada

See General Information for Fire-resistance Ratings - ANSI/UL 263 Certified for United States Design Criteria and Allowable Variances

See General Information for Fire Resistance Ratings - CAN/ULC-S101 Certified for Canada Design Criteria and Allowable Variances

Design No. U905

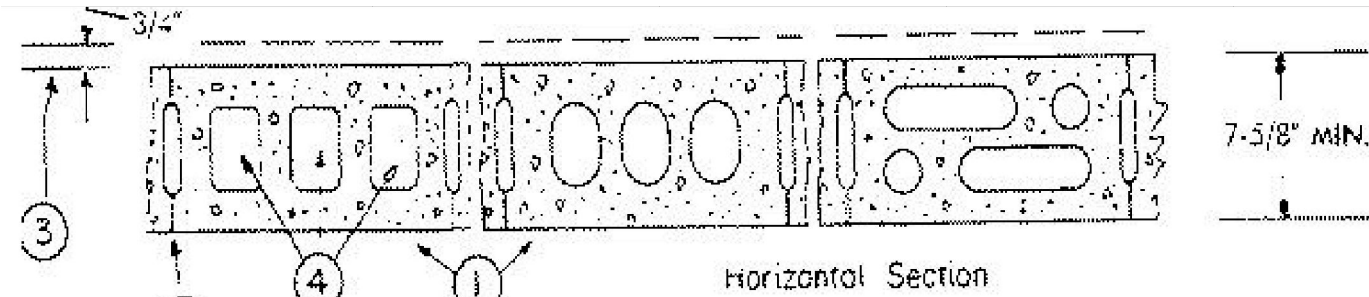
March 02, 2020

Bearing Wall Rating — 2 HR.

Nonbearing Wall Rating — 2 HR.

This design was evaluated using a load design method other than the Limit States Design Method (e.g., Working Stress Design Method). For jurisdictions employing the Limit States Design Method, such as Canada, a load restriction factor shall be used — See Guide BXUV or BXUV7

* Indicates such products shall bear the UL or cUL Certification Mark for jurisdictions employing the UL or cUL Certification (such as Canada), respectively.



1. **Concrete Blocks*** — Various designs. Classification D-2 (2 hr). See **Concrete Blocks** category for list of eligible manufacturers.

2. **Mortar** — Blocks laid in full bed of mortar, nom. 3/8 in. thick, of not less than 2-1/4 and not more than 3-1/2 parts of clean sharp sand to 1 part Portland cement (proportioned by volume) and not more than 50 percent hydrated lime (by cement volume). Vertical joints staggered.

3. **Portland Cement Stucco or Gypsum Plaster** — Add 1/2 hr to classification if used. Where combustible members are framed in wall, plaster or stucco must be applied on the face opposite framing to achieve a max. Classification of 1-1/2 hr. Attached to concrete blocks (Item 1).

4. **Loose Masonry Fill** — If all core spaces are filled with loose dry expanded slag, expanded clay or shale (Rotary Kiln Process), water repellent vermiculite masonry fill insulation, or silicone treated perlite loose fill insulation add 2 hr to classification.

5. **Foamed Plastic*** — (Optional-Not Shown) — 1-1/2 in. thick max. 4 ft wide sheathing attached to concrete blocks (Item 1). **ATLAS ROOFING CORP** — "EnergyShield Pro Wall Insulation", "EnergyShield Pro 2 Wall Insulation", "EnergyShield CGF Pro and EnergyShield Ply Pro

CARLISLE COATINGS & WATERPROOFING INC — Type R2+ SHEATHE

DUPONT DE NEMOURS, INC. — Types Thermax Sheathing, Thermax Light Duty Insulation, Thermax Heavy Duty Insulation, Thermax Metal Building Board, Thermax White Finish Insulation, Thermax ci Exterior Insulation, Thermax XARMOR ci Exterior Insulation, Thermax IH Insulation, Thermax Plus Liner Panel, Thermax Heavy Duty Plus (HDP), TUFF-R™ ci Insulation, Thermax Butler Stylwall Insulation Board and Thermax Morton Heavy Duty Insulation Board

FIRESTONE BUILDING PRODUCTS CO L L C — "Enverge™ CI Foil Exterior Wall Insulation" and "Enverge™ CI Glass Exterior Wall Insulation"

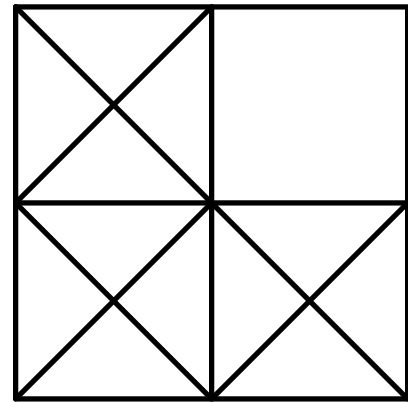
HUNTER PANELS, A DIVISION OF CARLISLE CONSTRUCTION MATERIALS, LLC — Types "Xci-Class A", "Xci Foil (Class A)", "Xci 286"

RMAX, A BUSINESS UNIT OF SIKA CORPORATION — Types "TSX-8500", "ECOMAXci FR", "TSX-8510", "ECOMAX xi FR White", "ECOMAXci", "ECOMAXci FR Air Barrier", "Thermasheath-XP", "Thermasheath", "Durasheath", "Thermasheath-3", "Durasheath-3".

5A. **Building Units** — As an alternate to Items 5, min. 1-in thick polyisocyanurate composite foamed plastic insulation boards, nom. 48 by 48 or 96 in. **HUNTER PANELS, A DIVISION OF CARLISLE CONSTRUCTION MATERIALS, LLC** — "Xci NB", "Xci Ply"

RMAX, A BUSINESS UNIT OF SIKA CORPORATION — "Thermasheath-SI", "ECOBASeci", "ThermaBase-CI", "ECOMAXci FR Ply", "ECOMAXci Ply".

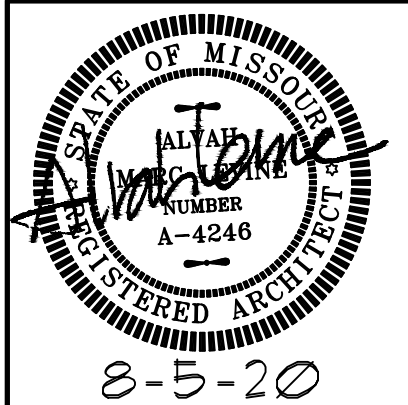
* Indicates such products shall bear the UL or cUL Certification Mark for jurisdictions employing the UL or cUL Certification (such as Canada), respectively.



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Phone 314-991-5600 Fax 314-991-4420



ARCHITECT: ALVAH M. LEVINE
NO LICENSE A-4246
ALVAH M. LEVINE, INC.
DBA LEVINE ASSOCIATES
CERTIFICATE OF AUTHORITY
LICENSE NUMBER A-2018040328

1 hr tenant separation and 2 hour cmu wall assemblies

20 APARTMENTS
10809-10819 OLIVE BOULEVARD
CREVE COEUR, MISSOURI 63141
JLA GROUP, DEVELOPER

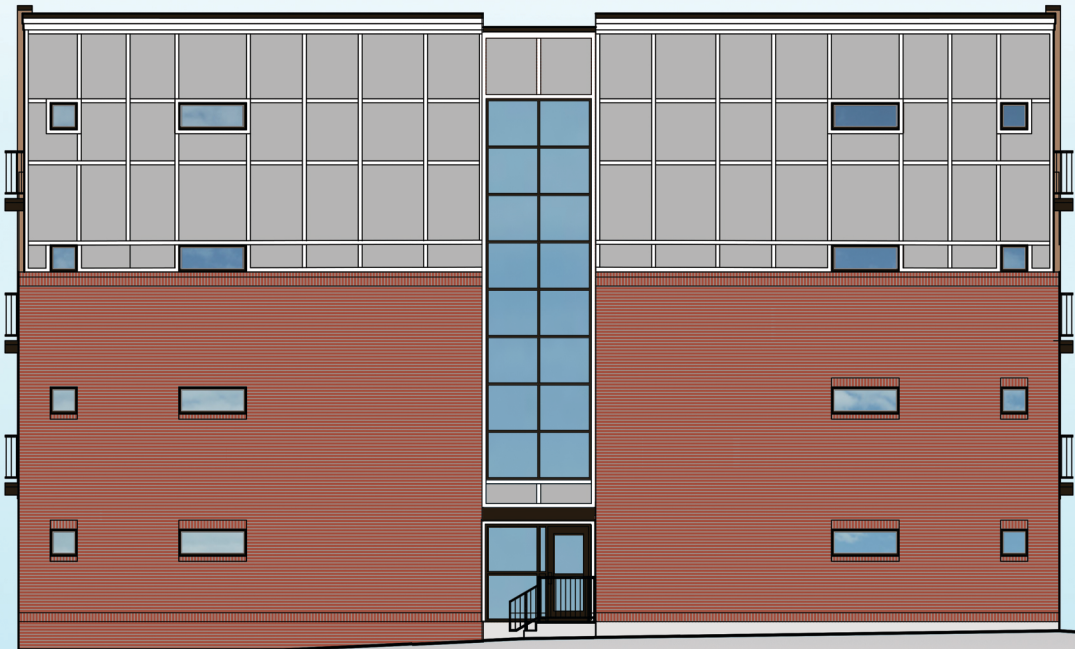
REVISIONS

NO.	DATE	ITEM

SHEET NO.

A-10.4

ISSUE DATE: 8-4-20
PROJECT #: 1939.01
DRN. CMC CHK. AML



WEST SIDE ELEVATION



SOUTH FRONT ELEVATION



EAST SIDE ELEVATION



NORTH REAR ELEVATION

20 APARTMENTS
10809-10819 OLIVE BOULEVARD
CREVE COEUR, MISSOURI 63141
JLA GROUP, DEVELOPER

PROJECT: 1939.01
1-28-20

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